

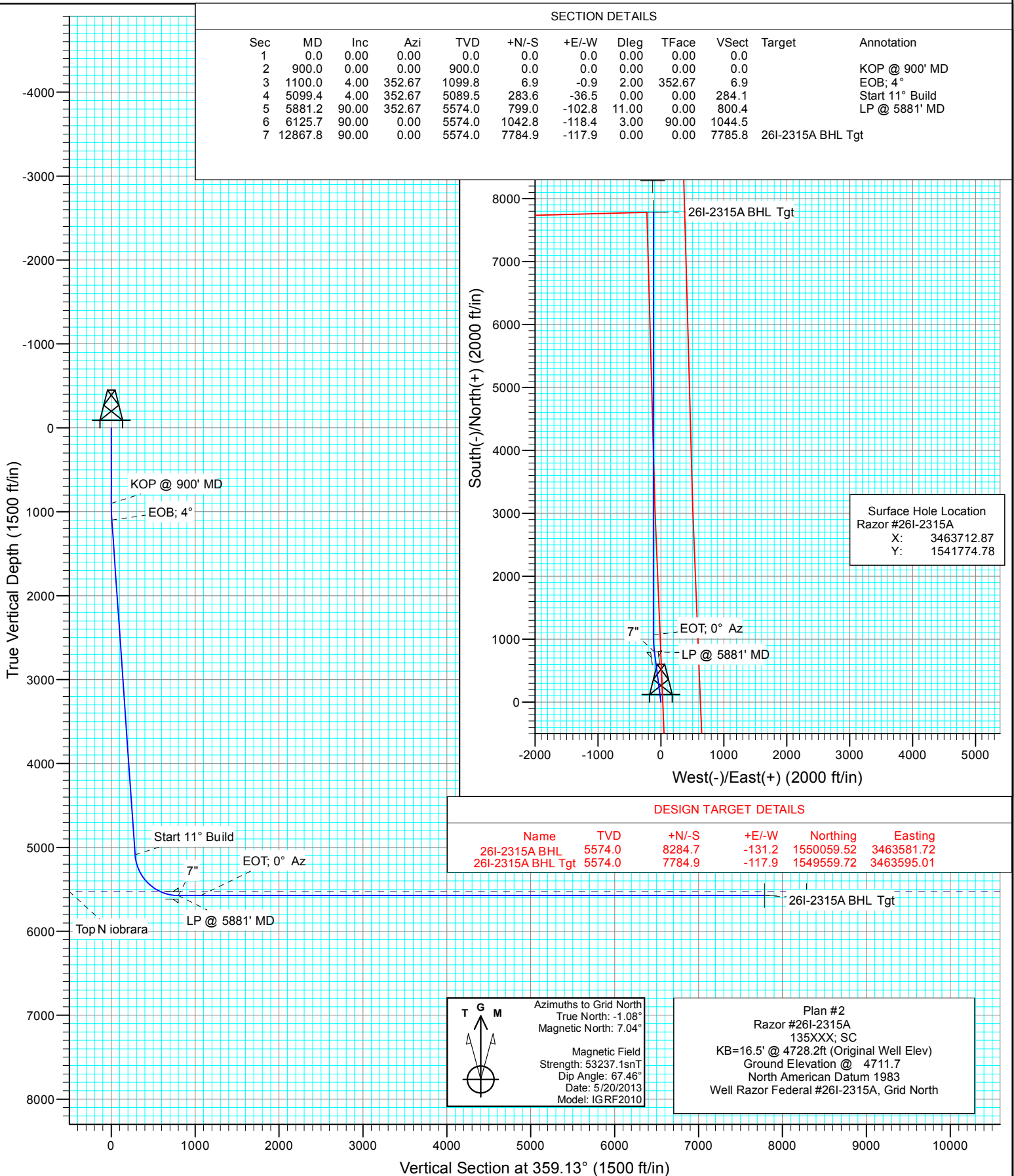


Project: Weld County, CO
Site: S26-T10N-R58W
Well: Razor #26I-2315A
Wellbore: HZ
Design: Plan #2



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target	Annotation
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0		
2	900.0	0.00	0.00	900.0	0.0	0.0	0.00	0.00	0.0		KOP @ 900' MD
3	1100.0	4.00	352.67	1099.8	6.9	-0.9	2.00	352.67	6.9		EOB; 4°
4	5099.4	4.00	352.67	5089.5	283.6	-36.5	0.00	0.00	284.1		Start 11° Build
5	5881.2	90.00	352.67	5574.0	799.0	-102.8	11.00	0.00	800.4		LP @ 5881' MD
6	6125.7	90.00	0.00	5574.0	1042.8	-118.4	3.00	90.00	1044.5		
7	12867.8	90.00	0.00	5574.0	7784.9	-117.9	0.00	0.00	7785.8	26I-2315A BHL Tgt	



Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Razor #26I-2315A
Company:	Whiting Petroleum Corporation	TVD Reference:	KB=16.5' @ 4728.2ft (Original Well Elev)
Project:	Weld County, CO	MD Reference:	KB=16.5' @ 4728.2ft (Original Well Elev)
Site:	S26-T10N-R58W	North Reference:	Grid
Well:	Razor #26I-2315A	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #2		

Project	Weld County, CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site		S26-T10N-R58W			
Site Position:		Northing:	1,541,777.36 ft	Latitude:	40° 48' 31.46 N
From:	Lat/Long	Easting:	3,459,649.47 ft	Longitude:	103° 50' 22.31 W
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	1.07 °

Well	Razor #26I-2315A					
Well Position	+N/-S	0.0 ft	Northing:	1,541,774.78 ft	Latitude:	40° 48' 30.68 N
	+E/-W	0.0 ft	Easting:	3,463,712.87 ft	Longitude:	103° 49' 29.48 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,711.7 ft

Wellbore	HZ				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	5/20/2013	8.12	67.46	53,237

Design	Plan #2			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	359.13

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
900.0	0.00	0.00	900.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,100.0	4.00	352.67	1,099.8	6.9	-0.9	2.00	2.00	0.00	352.67	
5,099.4	4.00	352.67	5,089.5	283.6	-36.5	0.00	0.00	0.00	0.00	
5,881.2	90.00	352.67	5,574.0	799.0	-102.8	11.00	11.00	0.00	0.00	
6,125.7	90.00	0.00	5,574.0	1,042.8	-118.4	3.00	0.00	3.00	90.00	
12,867.8	90.00	0.00	5,574.0	7,784.9	-117.9	0.00	0.00	0.00	0.00	26I-2315A BHL Tgt

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Company:	Whiting Petroleum Corporation	TVD Reference:	KB=16.5' @ 4728.2ft (Original Well Elev)
Project:	Weld County, CO	MD Reference:	KB=16.5' @ 4728.2ft (Original Well Elev)
Site:	S26-T10N-R58W	North Reference:	Grid
Well:	Razor #26I-2315A	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #2		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	KOP @ 900' MD
1,000.0	2.00	352.67	1,000.0	1.7	-0.2	1.7	2.00	2.00	
1,100.0	4.00	352.67	1,099.8	6.9	-0.9	6.9	2.00	2.00	EOB; 4°
1,200.0	4.00	352.67	1,199.6	13.8	-1.8	13.9	0.00	0.00	
1,300.0	4.00	352.67	1,299.4	20.8	-2.7	20.8	0.00	0.00	
1,400.0	4.00	352.67	1,399.1	27.7	-3.6	27.7	0.00	0.00	
1,500.0	4.00	352.67	1,498.9	34.6	-4.5	34.7	0.00	0.00	
1,600.0	4.00	352.67	1,598.6	41.5	-5.3	41.6	0.00	0.00	
1,700.0	4.00	352.67	1,698.4	48.4	-6.2	48.5	0.00	0.00	
1,800.0	4.00	352.67	1,798.1	55.4	-7.1	55.5	0.00	0.00	
1,900.0	4.00	352.67	1,897.9	62.3	-8.0	62.4	0.00	0.00	
2,000.0	4.00	352.67	1,997.6	69.2	-8.9	69.3	0.00	0.00	
2,100.0	4.00	352.67	2,097.4	76.1	-9.8	76.2	0.00	0.00	
2,200.0	4.00	352.67	2,197.2	83.0	-10.7	83.2	0.00	0.00	
2,300.0	4.00	352.67	2,296.9	89.9	-11.6	90.1	0.00	0.00	
2,400.0	4.00	352.67	2,396.7	96.9	-12.5	97.0	0.00	0.00	
2,500.0	4.00	352.67	2,496.4	103.8	-13.4	104.0	0.00	0.00	
2,600.0	4.00	352.67	2,596.2	110.7	-14.2	110.9	0.00	0.00	
2,700.0	4.00	352.67	2,695.9	117.6	-15.1	117.8	0.00	0.00	
2,800.0	4.00	352.67	2,795.7	124.5	-16.0	124.8	0.00	0.00	
2,900.0	4.00	352.67	2,895.5	131.5	-16.9	131.7	0.00	0.00	
3,000.0	4.00	352.67	2,995.2	138.4	-17.8	138.6	0.00	0.00	
3,100.0	4.00	352.67	3,095.0	145.3	-18.7	145.6	0.00	0.00	
3,200.0	4.00	352.67	3,194.7	152.2	-19.6	152.5	0.00	0.00	
3,300.0	4.00	352.67	3,294.5	159.1	-20.5	159.4	0.00	0.00	
3,400.0	4.00	352.67	3,394.2	166.1	-21.4	166.4	0.00	0.00	
3,500.0	4.00	352.67	3,494.0	173.0	-22.2	173.3	0.00	0.00	
3,600.0	4.00	352.67	3,593.8	179.9	-23.1	180.2	0.00	0.00	
3,700.0	4.00	352.67	3,693.5	186.8	-24.0	187.1	0.00	0.00	
3,800.0	4.00	352.67	3,793.3	193.7	-24.9	194.1	0.00	0.00	
3,900.0	4.00	352.67	3,893.0	200.6	-25.8	201.0	0.00	0.00	
4,000.0	4.00	352.67	3,992.8	207.6	-26.7	207.9	0.00	0.00	
4,100.0	4.00	352.67	4,092.5	214.5	-27.6	214.9	0.00	0.00	
4,200.0	4.00	352.67	4,192.3	221.4	-28.5	221.8	0.00	0.00	
4,300.0	4.00	352.67	4,292.1	228.3	-29.4	228.7	0.00	0.00	
4,400.0	4.00	352.67	4,391.8	235.2	-30.3	235.7	0.00	0.00	
4,500.0	4.00	352.67	4,491.6	242.2	-31.1	242.6	0.00	0.00	
4,600.0	4.00	352.67	4,591.3	249.1	-32.0	249.5	0.00	0.00	
4,700.0	4.00	352.67	4,691.1	256.0	-32.9	256.5	0.00	0.00	
4,800.0	4.00	352.67	4,790.8	262.9	-33.8	263.4	0.00	0.00	
4,900.0	4.00	352.67	4,890.6	269.8	-34.7	270.3	0.00	0.00	
5,000.0	4.00	352.67	4,990.3	276.7	-35.6	277.3	0.00	0.00	
5,099.4	4.00	352.67	5,089.5	283.6	-36.5	284.1	0.00	0.00	Start 11° Build

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Project:	Weld County, CO	MD Reference:	KB=16.5' @ 4728.2ft (Original Well Elev)
Site:	S26-T10N-R58W	North Reference:	Grid
Well:	Razor #26I-2315A	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #2		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
5,100.0	4.07	352.67	5,090.1	283.7	-36.5	284.2	11.00	11.00	
5,200.0	15.07	352.67	5,188.6	300.1	-38.6	300.7	11.00	11.00	
5,300.0	26.07	352.67	5,282.0	334.9	-43.1	335.5	11.00	11.00	
5,400.0	37.07	352.67	5,367.1	386.8	-49.8	387.5	11.00	11.00	
5,500.0	48.07	352.67	5,440.7	453.7	-58.4	454.6	11.00	11.00	
5,600.0	59.07	352.67	5,499.9	533.4	-68.6	534.4	11.00	11.00	
5,658.2	65.46	352.67	5,527.0	584.5	-75.2	585.5	11.00	11.00	Top Niobrara
5,700.0	70.07	352.67	5,542.8	622.9	-80.1	624.0	11.00	11.00	
5,800.0	81.07	352.67	5,567.7	718.8	-92.5	720.1	11.00	11.00	
5,881.2	90.00	352.67	5,574.0	799.0	-102.8	800.4	11.00	11.00	LP @ 5881' MD - 7"
5,900.0	90.00	353.23	5,574.0	817.6	-105.1	819.1	3.00	0.01	
6,000.0	90.00	356.23	5,574.0	917.2	-114.3	918.8	3.00	0.00	
6,100.0	90.00	359.23	5,574.0	1,017.1	-118.2	1,018.8	3.00	0.00	
6,125.7	90.00	0.00	5,574.0	1,042.8	-118.4	1,044.5	3.00	0.00	
6,149.7	90.00	0.00	5,574.0	1,066.8	-118.4	1,068.4	0.00	0.00	EOT; 0° Az
6,200.0	90.00	0.00	5,574.0	1,117.1	-118.4	1,118.8	0.00	0.00	
6,300.0	90.00	0.00	5,574.0	1,217.1	-118.4	1,218.8	0.00	0.00	
6,400.0	90.00	0.00	5,574.0	1,317.1	-118.4	1,318.8	0.00	0.00	
6,500.0	90.00	0.00	5,574.0	1,417.1	-118.4	1,418.7	0.00	0.00	
6,600.0	90.00	0.00	5,574.0	1,517.1	-118.3	1,518.7	0.00	0.00	
6,700.0	90.00	0.00	5,574.0	1,617.1	-118.3	1,618.7	0.00	0.00	
6,800.0	90.00	0.00	5,574.0	1,717.1	-118.3	1,718.7	0.00	0.00	
6,900.0	90.00	0.00	5,574.0	1,817.1	-118.3	1,818.7	0.00	0.00	
7,000.0	90.00	0.00	5,574.0	1,917.1	-118.3	1,918.7	0.00	0.00	
7,100.0	90.00	0.00	5,574.0	2,017.1	-118.3	2,018.7	0.00	0.00	
7,200.0	90.00	0.00	5,574.0	2,117.1	-118.3	2,118.7	0.00	0.00	
7,300.0	90.00	0.00	5,574.0	2,217.1	-118.3	2,218.6	0.00	0.00	
7,400.0	90.00	0.00	5,574.0	2,317.1	-118.3	2,318.6	0.00	0.00	
7,500.0	90.00	0.00	5,574.0	2,417.1	-118.3	2,418.6	0.00	0.00	
7,600.0	90.00	0.00	5,574.0	2,517.1	-118.3	2,518.6	0.00	0.00	
7,700.0	90.00	0.00	5,574.0	2,617.1	-118.3	2,618.6	0.00	0.00	
7,800.0	90.00	0.00	5,574.0	2,717.1	-118.3	2,718.6	0.00	0.00	
7,900.0	90.00	0.00	5,574.0	2,817.1	-118.2	2,818.6	0.00	0.00	
8,000.0	90.00	0.00	5,574.0	2,917.1	-118.2	2,918.6	0.00	0.00	
8,100.0	90.00	0.00	5,574.0	3,017.1	-118.2	3,018.6	0.00	0.00	
8,200.0	90.00	0.00	5,574.0	3,117.1	-118.2	3,118.5	0.00	0.00	
8,300.0	90.00	0.00	5,574.0	3,217.1	-118.2	3,218.5	0.00	0.00	
8,400.0	90.00	0.00	5,574.0	3,317.1	-118.2	3,318.5	0.00	0.00	
8,500.0	90.00	0.00	5,574.0	3,417.1	-118.2	3,418.5	0.00	0.00	
8,600.0	90.00	0.00	5,574.0	3,517.1	-118.2	3,518.5	0.00	0.00	
8,700.0	90.00	0.00	5,574.0	3,617.1	-118.2	3,618.5	0.00	0.00	
8,800.0	90.00	0.00	5,574.0	3,717.1	-118.2	3,718.5	0.00	0.00	
8,900.0	90.00	0.00	5,574.0	3,817.1	-118.2	3,818.5	0.00	0.00	
9,000.0	90.00	0.00	5,574.0	3,917.1	-118.2	3,918.5	0.00	0.00	
9,100.0	90.00	0.00	5,574.0	4,017.1	-118.2	4,018.4	0.00	0.00	
9,200.0	90.00	0.00	5,574.0	4,117.1	-118.1	4,118.4	0.00	0.00	
9,300.0	90.00	0.00	5,574.0	4,217.1	-118.1	4,218.4	0.00	0.00	
9,400.0	90.00	0.00	5,574.0	4,317.1	-118.1	4,318.4	0.00	0.00	
9,500.0	90.00	0.00	5,574.0	4,417.1	-118.1	4,418.4	0.00	0.00	
9,600.0	90.00	0.00	5,574.0	4,517.1	-118.1	4,518.4	0.00	0.00	
9,700.0	90.00	0.00	5,574.0	4,617.1	-118.1	4,618.4	0.00	0.00	
9,800.0	90.00	0.00	5,574.0	4,717.1	-118.1	4,718.4	0.00	0.00	

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Well:	Razor #26I-2315A	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #2		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
9,900.0	90.00	0.00	5,574.0	4,817.1	-118.1	4,818.4	0.00	0.00	
10,000.0	90.00	0.00	5,574.0	4,917.1	-118.1	4,918.3	0.00	0.00	
10,100.0	90.00	0.00	5,574.0	5,017.1	-118.1	5,018.3	0.00	0.00	
10,200.0	90.00	0.00	5,574.0	5,117.1	-118.1	5,118.3	0.00	0.00	
10,300.0	90.00	0.00	5,574.0	5,217.1	-118.1	5,218.3	0.00	0.00	
10,400.0	90.00	0.00	5,574.0	5,317.1	-118.1	5,318.3	0.00	0.00	
10,500.0	90.00	0.00	5,574.0	5,417.1	-118.0	5,418.3	0.00	0.00	
10,600.0	90.00	0.00	5,574.0	5,517.1	-118.0	5,518.3	0.00	0.00	
10,700.0	90.00	0.00	5,574.0	5,617.1	-118.0	5,618.3	0.00	0.00	
10,800.0	90.00	0.00	5,574.0	5,717.1	-118.0	5,718.3	0.00	0.00	
10,900.0	90.00	0.00	5,574.0	5,817.1	-118.0	5,818.2	0.00	0.00	
11,000.0	90.00	0.00	5,574.0	5,917.1	-118.0	5,918.2	0.00	0.00	
11,100.0	90.00	0.00	5,574.0	6,017.1	-118.0	6,018.2	0.00	0.00	
11,200.0	90.00	0.00	5,574.0	6,117.1	-118.0	6,118.2	0.00	0.00	
11,300.0	90.00	0.00	5,574.0	6,217.1	-118.0	6,218.2	0.00	0.00	
11,400.0	90.00	0.00	5,574.0	6,317.1	-118.0	6,318.2	0.00	0.00	
11,500.0	90.00	0.00	5,574.0	6,417.1	-118.0	6,418.2	0.00	0.00	
11,600.0	90.00	0.00	5,574.0	6,517.1	-118.0	6,518.2	0.00	0.00	
11,700.0	90.00	0.00	5,574.0	6,617.1	-118.0	6,618.1	0.00	0.00	
11,800.0	90.00	0.00	5,574.0	6,717.1	-117.9	6,718.1	0.00	0.00	
11,900.0	90.00	0.00	5,574.0	6,817.1	-117.9	6,818.1	0.00	0.00	
12,000.0	90.00	0.00	5,574.0	6,917.1	-117.9	6,918.1	0.00	0.00	
12,100.0	90.00	0.00	5,574.0	7,017.1	-117.9	7,018.1	0.00	0.00	
12,200.0	90.00	0.00	5,574.0	7,117.1	-117.9	7,118.1	0.00	0.00	
12,300.0	90.00	0.00	5,574.0	7,217.1	-117.9	7,218.1	0.00	0.00	
12,400.0	90.00	0.00	5,574.0	7,317.1	-117.9	7,318.1	0.00	0.00	
12,500.0	90.00	0.00	5,574.0	7,417.1	-117.9	7,418.1	0.00	0.00	
12,600.0	90.00	0.00	5,574.0	7,517.1	-117.9	7,518.0	0.00	0.00	
12,700.0	90.00	0.00	5,574.0	7,617.1	-117.9	7,618.0	0.00	0.00	
12,800.0	90.00	0.00	5,574.0	7,717.1	-117.9	7,718.0	0.00	0.00	
12,867.8	90.00	0.00	5,574.0	7,784.9	-117.9	7,785.8	0.00	0.00	

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
26I-2315A BHL Tgt - hit/miss target - Shape - Point	0.00	0.00	5,574.0	7,784.9	-117.9	1,549,559.72	3,463,595.01	40° 49' 47.61 N	103° 49' 29.10 W
26I-2315A BHL - plan misses target center by 500.0ft at 12867.8ft MD (5574.0 TVD, 7784.9 N, -117.9 E) - Point	0.00	0.00	5,574.0	8,284.7	-131.2	1,550,059.52	3,463,581.72	40° 49' 52.55 N	103° 49' 29.15 W

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
5,881.2	5,574.0	7"	0.000	0.000	

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Razor #26I-2315A
Company:	Whiting Petroleum Corporation	TVD Reference:	KB=16.5' @ 4728.2ft (Original Well Elev)
Project:	Weld County, CO	MD Reference:	KB=16.5' @ 4728.2ft (Original Well Elev)
Site:	S26-T10N-R58W	North Reference:	Grid
Well:	Razor #26I-2315A	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #2		

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
5,658.2	5,527.0	Top Niobrara		0.00	

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
900.0	900.0	0.0	0.0	KOP @ 900' MD	
1,100.0	1,099.8	6.9	-1.0	EOB; 4°	
5,099.4	5,089.5	283.1	-40.0	Start 11° Build	
5,881.2	5,574.0	797.6	-112.8	LP @ 5881' MD	
6,149.7	5,574.0	1,065.2	-131.6	EOT; 0° Az	
13,369.2	5,574.0	8,284.7	-131.2	PBHL @ 13369' MD	



WHITING PETROLEUM CORPORATION

Whiting Petroleum Corporation

Weld County, CO

S26-T10N-R58W

Razor #26I-2315A

HZ

Plan #2

Anticollision Report

30 July, 2013



CATHEDRAL

Company:	Whiting Petroleum Corporation	Local Co-ordinate Reference:	Well Razor #26I-2315A
Project:	Weld County, CO	TVD Reference:	KB=16.5' @ 4728.2ft (Original Well Elev)
Reference Site:	S26-T10N-R58W	MD Reference:	KB=16.5' @ 4728.2ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	Grid
Reference Well:	Razor #26I-2315A	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Reference	Plan #2		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	Systematic Ellipse
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 500.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program		Date	7/30/2013		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	12,867.8	Plan #2 (HZ)	ISCWSA MWD	MWD - ISCWSA	

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
S11-T10N-R58W						
Razor #11G-1411A - HZ - Plan #1						Out of range
Razor #11G-1412B - HZ - Plan #1						Out of range
Razor #11H-1413A - HZ - Plan #1						Out of range
Razor #11H-1415A - HZ - Plan #1						Out of range
Razor #11H-1416B - HZ - Plan #1						Out of range
S12-T10N-R58W						
Razor #12F-1302B - HZ - Plan #1						Out of range
S26-T10N-R58W						
Razor #26I-2313A - HZ - Plan #1	500.0	500.0	66.1	64.1	33.302	CC, ES
Razor #26I-2313A - HZ - Plan #1	5,150.0	5,138.5	197.6	172.6	7.904	SF
Razor #26I-2314B - HZ - Plan #1	1,012.8	1,015.2	120.4	116.1	27.978	CC
Razor #26I-2314B - HZ - Plan #1	12,867.8	13,059.3	353.9	63.7	1.219	Level 2, ES, SF
Razor #26I-2316B - HZ - Plan #1	900.0	900.0	81.9	78.1	21.639	CC
Razor #26I-2316B - HZ - Plan #1	12,867.8	13,055.1	328.1	39.6	1.137	Level 2, ES, SF
Razor Federal #26I-3513A - HZ - Plan #2	1,045.2	1,044.8	98.2	93.8	22.202	CC
Razor Federal #26I-3513A - HZ - Plan #2	1,100.0	1,099.0	98.4	93.7	21.150	ES
Razor Federal #26I-3513A - HZ - Plan #2	1,500.0	1,494.2	117.3	111.0	18.495	SF
Razor Federal #26I-3514B - HZ - Plan #2	600.0	600.0	99.9	97.5	41.027	CC, ES
Razor Federal #26I-3514B - HZ - Plan #2	1,300.0	1,291.7	149.0	143.6	27.445	SF
Razor Federal #26I-3515A - HZ - Plan #3	865.6	865.9	31.0	27.4	8.725	CC
Razor Federal #26I-3515A - HZ - Plan #3	900.0	900.2	31.1	27.4	8.400	ES
Razor Federal #26I-3515A - HZ - Plan #3	1,000.0	999.9	33.3	29.2	8.042	SF
Razor Federal #26I-3516B - HZ - Plan #3	900.0	900.0	74.9	71.1	19.793	CC, ES
Razor Federal #26I-3516B - HZ - Plan #3	1,100.0	1,099.8	81.8	77.2	17.486	SF
Razor Federal #26J-2310B - HZ - Plan #1						Out of range
Razor Federal #26J-2311A - HZ - Plan #1						Out of range
Razor Federal #26J-2312B - HZ - Plan #1						Out of range

Company:	Whiting Petroleum Corporation	Local Co-ordinate Reference:	Well Razor #26I-2315A
Project:	Weld County, CO	TVD Reference:	KB=16.5' @ 4728.2ft (Original Well Elev)
Reference Site:	S26-T10N-R58W	MD Reference:	KB=16.5' @ 4728.2ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	Grid
Reference Well:	Razor #26I-2315A	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset S26-T10N-R58W - Razor #26I-2313A - HZ - Plan #1													Offset Site Error:
Survey Program: 0-ISCSWA MWD													Offset Well Error: 0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	-91.08	-1.2	-66.1	66.1				
100.0	100.0	100.0	100.0	0.1	0.1	-91.08	-1.2	-66.1	66.1	65.9	0.19	352.367	
200.0	200.0	200.0	200.0	0.3	0.3	-91.08	-1.2	-66.1	66.1	65.5	0.64	103.784	
300.0	300.0	300.0	300.0	0.5	0.5	-91.08	-1.2	-66.1	66.1	65.0	1.09	60.854	
400.0	400.0	400.0	400.0	0.8	0.8	-91.08	-1.2	-66.1	66.1	64.6	1.54	43.047	
500.0	500.0	500.0	500.0	1.0	1.0	-91.08	-1.2	-66.1	66.1	64.1	1.99	33.302 CC, ES	
600.0	600.0	598.8	598.8	1.2	1.2	-89.83	0.2	-67.0	67.0	64.6	2.43	27.577	
700.0	700.0	697.4	697.2	1.4	1.4	-86.28	4.5	-69.7	69.9	67.0	2.88	24.294	
800.0	800.0	797.1	796.7	1.7	1.7	-81.89	10.4	-73.4	74.2	70.8	3.33	22.273	
900.0	900.0	896.8	896.2	1.9	1.9	-78.00	16.4	-77.0	78.8	75.0	3.78	20.840	
1,000.0	1,000.0	996.7	995.8	2.1	2.2	-68.26	22.3	-80.7	83.1	78.9	4.24	19.615	
1,100.0	1,099.8	1,096.6	1,095.5	2.3	2.4	-68.22	28.2	-84.4	86.2	81.5	4.70	18.364	
1,200.0	1,199.6	1,196.6	1,195.2	2.6	2.6	-69.28	34.1	-88.0	88.7	83.5	5.16	17.183	
1,300.0	1,299.4	1,296.5	1,294.9	2.8	2.9	-70.29	40.1	-91.7	91.2	85.6	5.63	16.185	
1,400.0	1,399.1	1,396.5	1,394.6	3.0	3.2	-71.24	46.0	-95.4	93.7	87.6	6.11	15.333	
1,500.0	1,498.9	1,496.5	1,494.4	3.3	3.4	-72.14	51.9	-99.0	96.3	89.7	6.59	14.598	
1,600.0	1,598.6	1,596.4	1,594.1	3.5	3.7	-73.00	57.9	-102.7	98.8	91.7	7.08	13.961	
1,700.0	1,698.4	1,696.4	1,693.8	3.8	3.9	-73.81	63.8	-106.4	101.4	93.8	7.57	13.402	
1,800.0	1,798.1	1,796.3	1,793.5	4.0	4.2	-74.59	69.7	-110.0	104.0	96.0	8.06	12.910	
1,900.0	1,897.9	1,896.3	1,893.2	4.3	4.4	-75.32	75.6	-113.7	106.6	98.1	8.55	12.473	
2,000.0	1,997.6	1,996.2	1,992.9	4.5	4.7	-76.02	81.6	-117.4	109.3	100.2	9.04	12.082	
2,100.0	2,097.4	2,096.2	2,092.6	4.8	4.9	-76.68	87.5	-121.0	111.9	102.4	9.54	11.732	
2,200.0	2,197.2	2,196.2	2,192.3	5.0	5.2	-77.32	93.4	-124.7	114.6	104.6	10.04	11.417	
2,300.0	2,296.9	2,296.1	2,292.1	5.3	5.4	-77.93	99.4	-128.4	117.3	106.8	10.54	11.131	
2,400.0	2,396.7	2,396.1	2,391.8	5.5	5.7	-78.50	105.3	-132.0	120.0	108.9	11.04	10.871	
2,500.0	2,496.4	2,496.0	2,491.5	5.8	6.0	-79.06	111.2	-135.7	122.7	111.2	11.54	10.633	
2,600.0	2,596.2	2,596.0	2,591.2	6.0	6.2	-79.59	117.2	-139.4	125.4	113.4	12.04	10.415	
2,700.0	2,695.9	2,695.9	2,690.9	6.3	6.5	-80.09	123.1	-143.1	128.1	115.6	12.54	10.215	
2,800.0	2,795.7	2,795.9	2,790.6	6.5	6.7	-80.58	129.0	-146.7	130.9	117.8	13.05	10.031	
2,900.0	2,895.5	2,895.8	2,890.3	6.8	7.0	-81.04	134.9	-150.4	133.6	120.1	13.55	9.861	
3,000.0	2,995.2	2,995.8	2,990.0	7.0	7.2	-81.49	140.9	-154.1	136.4	122.3	14.06	9.702	
3,100.0	3,095.0	3,095.8	3,089.8	7.3	7.5	-81.92	146.8	-157.7	139.1	124.6	14.56	9.556	
3,200.0	3,194.7	3,195.7	3,189.5	7.5	7.8	-82.33	152.7	-161.4	141.9	126.9	15.07	9.419	
3,300.0	3,294.5	3,295.7	3,289.2	7.8	8.0	-82.73	158.7	-165.1	144.7	129.1	15.57	9.291	
3,400.0	3,394.2	3,395.6	3,388.9	8.0	8.3	-83.11	164.6	-168.7	147.5	131.4	16.08	9.171	
3,500.0	3,494.0	3,495.6	3,488.6	8.3	8.5	-83.48	170.5	-172.4	150.3	133.7	16.59	9.059	
3,600.0	3,593.7	3,595.5	3,588.3	8.6	8.8	-83.83	176.4	-176.1	153.1	136.0	17.10	8.954	
3,700.0	3,693.5	3,695.5	3,688.0	8.8	9.0	-84.17	182.4	-179.7	155.9	138.3	17.60	8.855	
3,800.0	3,793.3	3,795.5	3,787.8	9.1	9.3	-84.50	188.3	-183.4	158.7	140.6	18.11	8.762	
3,900.0	3,893.0	3,895.4	3,887.5	9.3	9.5	-84.82	194.2	-187.1	161.5	142.9	18.62	8.674	
4,000.0	3,992.8	3,995.4	3,987.2	9.6	9.8	-85.13	200.2	-190.8	164.3	145.2	19.13	8.590	
4,100.0	4,092.5	4,095.3	4,086.9	9.8	10.1	-85.43	206.1	-194.4	167.1	147.5	19.64	8.512	
4,200.0	4,192.3	4,195.3	4,186.6	10.1	10.3	-85.71	212.0	-198.1	170.0	149.8	20.15	8.437	
4,300.0	4,292.0	4,295.2	4,286.3	10.3	10.6	-85.99	217.9	-201.8	172.8	152.1	20.66	8.366	
4,400.0	4,391.8	4,395.2	4,386.0	10.6	10.8	-86.26	223.9	-205.4	175.6	154.5	21.16	8.299	
4,500.0	4,491.6	4,495.1	4,485.7	10.8	11.1	-86.52	229.8	-209.1	178.5	156.8	21.67	8.235	
4,600.0	4,591.3	4,595.1	4,585.5	11.1	11.3	-86.77	235.7	-212.8	181.3	159.1	22.18	8.174	
4,700.0	4,691.1	4,695.1	4,685.2	11.4	11.6	-87.01	241.7	-216.4	184.2	161.5	22.69	8.115	
4,800.0	4,790.8	4,795.0	4,784.9	11.6	11.9	-87.25	247.6	-220.1	187.0	163.8	23.20	8.060	
4,900.0	4,890.6	4,895.0	4,884.6	11.9	12.1	-87.48	253.5	-223.8	189.9	166.2	23.71	8.007	
5,000.0	4,990.3	4,994.9	4,984.3	12.1	12.4	-87.70	259.5	-227.4	192.7	168.5	24.22	7.956	

Company:	Whiting Petroleum Corporation	Local Co-ordinate Reference:	Well Razor #26I-2315A
Project:	Weld County, CO	TVD Reference:	KB=16.5' @ 4728.2ft (Original Well Elev)
Reference Site:	S26-T10N-R58W	MD Reference:	KB=16.5' @ 4728.2ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	Grid
Reference Well:	Razor #26I-2315A	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design S26-T10N-R58W - Razor #26I-2313A - HZ - Plan #1													Offset Site Error: 0.0 ft
Survey Program: 0-ISCSWA MWD													Offset Well Error: 0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Total Uncertainty Axis	Separation Factor	Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)			
5,099.4	5,089.5	5,094.3	5,083.4	12.4	12.6	-87.92	265.3	-231.1	195.6	170.8	24.73	7.908	
5,150.0	5,139.7	5,138.5	5,127.3	12.5	12.8	-88.03	269.2	-233.4	197.6	172.6	25.00	7.904 SF	
5,200.0	5,188.6	5,181.2	5,169.3	12.7	12.9	-88.23	275.8	-237.6	201.4	176.0	25.33	7.948	
5,250.0	5,236.1	5,223.7	5,210.4	12.9	13.1	-88.48	285.3	-243.4	206.7	181.0	25.73	8.034	
5,300.0	5,282.0	5,266.2	5,250.3	13.2	13.3	-88.77	297.6	-251.0	213.7	187.5	26.18	8.160	
5,350.0	5,325.8	5,308.4	5,288.7	13.5	13.5	-89.05	312.5	-260.3	222.2	195.5	26.71	8.321	
5,400.0	5,367.1	5,350.0	5,325.0	13.8	13.8	-89.29	329.8	-271.0	232.3	205.0	27.29	8.511	
5,450.0	5,405.5	5,392.2	5,360.1	14.2	14.1	-89.50	349.7	-283.3	243.8	215.9	27.96	8.719	
5,500.0	5,440.6	5,433.9	5,392.7	14.7	14.5	-89.62	371.7	-296.9	256.8	228.1	28.71	8.944	
5,550.0	5,472.2	5,475.3	5,423.0	15.1	14.8	-89.64	395.7	-311.8	271.0	241.5	29.53	9.178	
5,600.0	5,499.9	5,516.7	5,450.9	15.7	15.2	-89.56	421.7	-327.8	286.5	256.1	30.43	9.415	
5,650.0	5,523.5	5,558.0	5,476.3	16.3	15.7	-89.38	449.4	-345.0	303.1	271.7	31.41	9.650	
5,700.0	5,542.8	5,600.0	5,499.4	16.9	16.2	-89.13	479.2	-363.4	320.6	288.1	32.46	9.875	
5,750.0	5,557.6	5,640.8	5,519.1	17.6	16.7	-88.72	509.6	-382.3	339.0	305.4	33.59	10.092	
5,800.0	5,567.7	5,682.6	5,536.2	18.3	17.3	-88.26	542.0	-402.3	358.1	323.3	34.79	10.293	
5,850.0	5,573.1	5,724.7	5,550.3	19.0	17.9	-87.72	575.7	-423.1	377.8	341.7	36.05	10.479	
5,881.2	5,574.0	5,751.2	5,557.6	19.5	18.3	-87.36	597.4	-436.6	390.3	353.4	36.86	10.587	
5,900.0	5,574.0	5,767.3	5,561.4	19.7	18.5	-87.99	610.7	-444.8	398.0	360.7	37.32	10.664	
6,000.0	5,574.0	5,854.9	5,573.2	21.1	20.0	-89.88	684.4	-490.4	442.4	402.7	39.63	11.162	
6,100.0	5,574.0	5,962.6	5,574.0	22.5	21.7	-89.99	776.9	-545.7	490.3	448.2	42.14	11.636	

Company:	Whiting Petroleum Corporation	Local Co-ordinate Reference:	Well Razor #26I-2315A
Project:	Weld County, CO	TVD Reference:	KB=16.5' @ 4728.2ft (Original Well Elev)
Reference Site:	S26-T10N-R58W	MD Reference:	KB=16.5' @ 4728.2ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	Grid
Reference Well:	Razor #26I-2315A	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error: 0.0 ft
S26-T10N-R58W - Razor #26I-2314B - HZ - Plan #1													Offset Well Error: 0.0 ft
Survey Program: 0-ISCSWA MWD													
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-128.35	-76.7	-97.0	123.7				
100.0	100.0	100.0	100.0	0.1	0.1	-128.35	-76.7	-97.0	123.7	123.5	0.19	659.017	
200.0	200.0	200.0	200.0	0.3	0.3	-128.35	-76.7	-97.0	123.7	123.0	0.64	194.102	
300.0	300.0	300.0	300.0	0.5	0.5	-128.35	-76.7	-97.0	123.7	122.6	1.09	113.812	
400.0	400.0	400.0	400.0	0.8	0.8	-128.35	-76.7	-97.0	123.7	122.1	1.54	80.509	
500.0	500.0	500.0	500.0	1.0	1.0	-128.35	-76.7	-97.0	123.7	121.7	1.99	62.284	
600.0	600.0	600.0	600.0	1.2	1.2	-128.35	-76.7	-97.0	123.7	121.2	2.44	50.787	
700.0	700.0	700.0	700.0	1.4	1.4	-128.35	-76.7	-97.0	123.7	120.8	2.88	42.873	
800.0	800.0	801.4	801.4	1.7	1.7	-127.56	-75.0	-97.6	123.1	119.8	3.34	36.895	
900.0	900.0	902.6	902.4	1.9	1.9	-125.17	-70.0	-99.3	121.5	117.7	3.79	32.060	
1,000.0	1,000.0	1,002.4	1,002.0	2.1	2.1	-115.41	-63.4	-101.5	120.4	116.2	4.24	28.368	
1,012.8	1,012.7	1,015.2	1,014.7	2.1	2.2	-115.20	-62.5	-101.8	120.4	116.1	4.30	27.978 CC	
1,100.0	1,099.8	1,102.4	1,101.8	2.3	2.4	-114.44	-56.8	-103.7	121.0	116.3	4.71	25.710	
1,200.0	1,199.6	1,202.4	1,201.5	2.6	2.6	-114.23	-50.1	-106.0	122.3	117.1	5.18	23.627	
1,300.0	1,299.4	1,302.4	1,301.3	2.8	2.9	-114.02	-43.5	-108.2	123.6	117.9	5.65	21.866	
1,400.0	1,399.1	1,402.4	1,401.0	3.0	3.1	-113.83	-36.9	-110.4	124.9	118.8	6.13	20.361	
1,500.0	1,498.9	1,502.4	1,500.7	3.3	3.3	-113.63	-30.3	-112.7	126.2	119.6	6.62	19.064	
1,600.0	1,598.6	1,602.4	1,600.5	3.5	3.6	-113.44	-23.7	-114.9	127.5	120.4	7.11	17.935	
1,700.0	1,698.4	1,702.4	1,700.2	3.8	3.8	-113.25	-17.1	-117.1	128.8	121.2	7.60	16.947	
1,800.0	1,798.1	1,802.3	1,800.0	4.0	4.1	-113.07	-10.5	-119.4	130.1	122.0	8.10	16.074	
1,900.0	1,897.9	1,902.3	1,899.7	4.3	4.3	-112.89	-3.9	-121.6	131.5	122.9	8.59	15.299	
2,000.0	1,997.6	2,002.3	1,999.5	4.5	4.6	-112.71	2.7	-123.8	132.8	123.7	9.09	14.605	
2,100.0	2,097.4	2,102.3	2,099.2	4.8	4.8	-112.54	9.3	-126.0	134.1	124.5	9.59	13.982	
2,200.0	2,197.2	2,202.3	2,199.0	5.0	5.1	-112.37	15.9	-128.3	135.4	125.3	10.09	13.419	
2,300.0	2,296.9	2,302.3	2,298.7	5.3	5.4	-112.21	22.6	-130.5	136.7	126.1	10.59	12.909	
2,400.0	2,396.7	2,402.3	2,398.5	5.5	5.6	-112.04	29.2	-132.7	138.0	126.9	11.09	12.443	
2,500.0	2,496.4	2,502.3	2,498.2	5.8	5.9	-111.88	35.8	-135.0	139.4	127.8	11.60	12.017	
2,600.0	2,596.2	2,602.3	2,598.0	6.0	6.1	-111.73	42.4	-137.2	140.7	128.6	12.10	11.626	
2,700.0	2,695.9	2,702.3	2,697.7	6.3	6.4	-111.57	49.0	-139.4	142.0	129.4	12.61	11.266	
2,800.0	2,795.7	2,802.3	2,797.5	6.5	6.6	-111.42	55.6	-141.7	143.3	130.2	13.11	10.932	
2,900.0	2,895.5	2,902.2	2,897.2	6.8	6.9	-111.27	62.2	-143.9	144.6	131.0	13.62	10.624	
3,000.0	2,995.2	3,002.2	2,996.9	7.0	7.1	-111.13	68.8	-146.1	146.0	131.9	14.12	10.337	
3,100.0	3,095.0	3,102.2	3,096.7	7.3	7.4	-110.99	75.4	-148.4	147.3	132.7	14.63	10.070	
3,200.0	3,194.7	3,202.2	3,196.4	7.5	7.6	-110.85	82.0	-150.6	148.6	133.5	15.13	9.820	
3,300.0	3,294.5	3,302.2	3,296.2	7.8	7.9	-110.71	88.6	-152.8	150.0	134.3	15.64	9.587	
3,400.0	3,394.2	3,402.2	3,395.9	8.0	8.2	-110.57	95.2	-155.0	151.3	135.1	16.15	9.368	
3,500.0	3,494.0	3,502.2	3,495.7	8.3	8.4	-110.44	101.9	-157.3	152.6	136.0	16.66	9.162	
3,600.0	3,593.7	3,602.2	3,595.4	8.6	8.7	-110.31	108.5	-159.5	153.9	136.8	17.17	8.968	
3,700.0	3,693.5	3,702.2	3,695.2	8.8	8.9	-110.18	115.1	-161.7	155.3	137.6	17.67	8.786	
3,800.0	3,793.3	3,802.2	3,794.9	9.1	9.2	-110.05	121.7	-164.0	156.6	138.4	18.18	8.613	
3,900.0	3,893.0	3,902.1	3,894.7	9.3	9.4	-109.93	128.3	-166.2	157.9	139.3	18.69	8.450	
4,000.0	3,992.8	4,002.1	3,994.4	9.6	9.7	-109.81	134.9	-168.4	159.3	140.1	19.20	8.296	
4,100.0	4,092.5	4,102.1	4,094.2	9.8	9.9	-109.69	141.5	-170.7	160.6	140.9	19.71	8.149	
4,200.0	4,192.3	4,202.1	4,193.9	10.1	10.2	-109.57	148.1	-172.9	161.9	141.7	20.22	8.010	
4,300.0	4,292.0	4,302.1	4,293.7	10.3	10.5	-109.45	154.7	-175.1	163.3	142.6	20.73	7.877	
4,400.0	4,391.8	4,402.1	4,393.4	10.6	10.7	-109.34	161.3	-177.4	164.6	143.4	21.24	7.751	
4,500.0	4,491.6	4,502.1	4,493.2	10.8	11.0	-109.23	167.9	-179.6	166.0	144.2	21.75	7.631	
4,600.0	4,591.3	4,602.1	4,592.9	11.1	11.2	-109.12	174.6	-181.8	167.3	145.0	22.26	7.516	
4,700.0	4,691.1	4,702.1	4,692.6	11.4	11.5	-109.01	181.2	-184.0	168.6	145.9	22.77	7.407	
4,800.0	4,790.8	4,802.1	4,792.4	11.6	11.7	-108.90	187.8	-186.3	170.0	146.7	23.28	7.302	
4,900.0	4,890.6	4,902.1	4,892.1	11.9	12.0	-108.79	194.4	-188.5	171.3	147.5	23.79	7.201	
5,000.0	4,990.3	5,002.0	4,991.9	12.1	12.3	-108.69	201.0	-190.7	172.7	148.4	24.30	7.105	

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

Company:	Whiting Petroleum Corporation	Local Co-ordinate Reference:	Well Razor #26I-2315A
Project:	Weld County, CO	TVD Reference:	KB=16.5' @ 4728.2ft (Original Well Elev)
Reference Site:	S26-T10N-R58W	MD Reference:	KB=16.5' @ 4728.2ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	Grid
Reference Well:	Razor #26I-2315A	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design	S26-T10N-R58W - Razor #26I-2314B - HZ - Plan #1												Offset Site Error:	0.0 ft
	Survey Program: 0-ISCWSA MWD												Offset Well Error:	0.0 ft
	Reference		Offset		Semi Major Axis			Distance					Warning	
	Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis		Separation Factor
	5,099.4	5,089.5	5,101.4	5,091.0	12.4	12.5	-108.59	207.6	-193.0	174.0	149.2	24.81	7.014	
	5,150.0	5,139.7	5,151.9	5,141.4	12.5	12.6	-109.14	210.9	-194.1	175.5	150.4	25.06	7.002	
	5,200.0	5,188.6	5,202.3	5,191.6	12.7	12.8	-110.92	214.4	-195.3	178.6	153.3	25.29	7.061	
	5,250.0	5,236.1	5,255.2	5,243.9	12.9	12.9	-112.83	221.9	-197.8	183.0	157.5	25.55	7.164	
	5,300.0	5,282.0	5,308.9	5,295.9	13.2	13.2	-114.37	234.6	-202.1	188.5	162.7	25.83	7.297	
	5,350.0	5,325.8	5,363.4	5,347.0	13.5	13.4	-115.53	252.6	-208.1	194.9	168.7	26.16	7.450	
	5,400.0	5,367.1	5,418.7	5,396.4	13.8	13.7	-116.30	275.9	-216.0	202.0	175.4	26.53	7.612	
	5,450.0	5,405.5	5,474.6	5,443.6	14.2	14.1	-116.69	304.4	-225.6	209.7	182.7	27.00	7.768	
	5,500.0	5,440.6	5,531.3	5,487.7	14.7	14.6	-116.70	338.0	-237.0	218.0	190.4	27.58	7.905	
	5,550.0	5,472.2	5,588.5	5,528.2	15.1	15.1	-116.38	376.3	-249.9	226.7	198.4	28.30	8.009	
	5,600.0	5,499.9	5,646.2	5,564.2	15.7	15.7	-115.75	419.0	-264.3	235.6	206.4	29.19	8.071	
	5,650.0	5,523.5	5,704.4	5,595.3	16.3	16.3	-114.83	465.5	-280.0	244.8	214.6	30.28	8.086	
	5,700.0	5,542.8	5,762.8	5,620.8	16.9	17.1	-113.67	515.3	-296.8	254.2	222.6	31.56	8.054	
	5,750.0	5,557.6	5,821.6	5,640.3	17.6	17.9	-112.29	567.8	-314.5	263.6	230.5	33.02	7.982	
	5,800.0	5,567.7	5,880.4	5,653.5	18.3	18.7	-110.73	622.1	-332.9	273.0	238.3	34.64	7.880	
	5,850.0	5,573.1	5,939.3	5,660.2	19.0	19.6	-109.02	677.5	-351.6	282.3	245.9	36.39	7.757	
	5,881.2	5,574.0	5,975.9	5,661.0	19.5	20.2	-107.90	712.1	-363.2	288.0	250.5	37.52	7.677	
	5,900.0	5,574.0	5,997.4	5,661.0	19.7	20.5	-107.67	732.6	-369.9	291.5	253.4	38.08	7.654	
	6,000.0	5,574.0	6,113.1	5,661.0	21.1	22.2	-106.60	843.7	-401.9	309.4	268.4	40.96	7.554	
	6,100.0	5,574.0	6,230.2	5,661.0	22.5	23.9	-105.68	958.1	-427.4	326.6	282.7	43.90	7.439	
	6,125.7	5,574.0	6,260.6	5,661.0	22.9	24.4	-105.46	987.9	-432.9	330.9	286.2	44.66	7.409	
	6,200.0	5,574.0	6,349.1	5,661.0	24.0	25.8	-104.87	1,075.4	-446.1	341.6	294.4	47.23	7.233	
	6,300.0	5,574.0	6,469.9	5,661.0	25.7	27.7	-104.39	1,195.6	-457.5	350.8	300.0	50.79	6.907	
	6,400.0	5,574.0	6,591.4	5,661.0	27.3	29.6	-104.23	1,317.1	-461.3	353.8	299.4	54.36	6.508	
	6,500.0	5,574.0	6,691.4	5,661.0	29.1	31.2	-104.23	1,417.1	-461.3	353.8	296.2	57.66	6.137	
	6,600.0	5,574.0	6,791.4	5,661.0	30.8	32.9	-104.23	1,517.1	-461.3	353.8	292.8	61.00	5.801	
	6,700.0	5,574.0	6,891.4	5,661.0	32.5	34.6	-104.23	1,617.1	-461.3	353.8	289.4	64.38	5.496	
	6,800.0	5,574.0	6,991.4	5,661.0	34.3	36.3	-104.23	1,717.1	-461.3	353.8	286.0	67.80	5.218	
	6,900.0	5,574.0	7,091.4	5,661.0	36.1	38.0	-104.23	1,817.1	-461.3	353.8	282.6	71.25	4.966	
	7,000.0	5,574.0	7,191.4	5,661.0	37.9	39.8	-104.23	1,917.1	-461.3	353.8	279.1	74.73	4.734	
	7,100.0	5,574.0	7,291.4	5,661.0	39.7	41.5	-104.23	2,017.1	-461.3	353.8	275.6	78.24	4.522	
	7,200.0	5,574.0	7,391.4	5,661.0	41.5	43.3	-104.23	2,117.1	-461.3	353.8	272.1	81.76	4.328	
	7,300.0	5,574.0	7,491.4	5,661.0	43.3	45.1	-104.23	2,217.1	-461.2	353.8	268.5	85.30	4.148	
	7,400.0	5,574.0	7,591.4	5,661.0	45.2	46.9	-104.23	2,317.1	-461.2	353.8	265.0	88.86	3.982	
	7,500.0	5,574.0	7,691.4	5,661.0	47.0	48.7	-104.23	2,417.1	-461.2	353.8	261.4	92.43	3.828	
	7,600.0	5,574.0	7,791.4	5,661.0	48.8	50.5	-104.23	2,517.1	-461.2	353.8	257.8	96.01	3.685	
	7,700.0	5,574.0	7,891.4	5,661.0	50.7	52.3	-104.23	2,617.1	-461.2	353.8	254.2	99.61	3.552	
	7,800.0	5,574.0	7,991.4	5,661.0	52.5	54.2	-104.23	2,717.1	-461.2	353.8	250.6	103.21	3.428	
	7,900.0	5,574.0	8,091.4	5,661.0	54.4	56.0	-104.23	2,817.1	-461.2	353.8	247.0	106.82	3.312	
	8,000.0	5,574.0	8,191.4	5,661.0	56.3	57.9	-104.23	2,917.1	-461.2	353.8	243.4	110.44	3.204	
	8,100.0	5,574.0	8,291.4	5,661.0	58.1	59.7	-104.23	3,017.1	-461.2	353.8	239.8	114.07	3.102	
	8,200.0	5,574.0	8,391.4	5,661.0	60.0	61.5	-104.23	3,117.1	-461.2	353.8	236.1	117.71	3.006	
	8,300.0	5,574.0	8,491.4	5,661.0	61.9	63.4	-104.23	3,217.1	-461.2	353.8	232.5	121.35	2.916	
	8,400.0	5,574.0	8,591.4	5,661.0	63.8	65.3	-104.23	3,317.1	-461.2	353.8	228.8	125.00	2.831	
	8,500.0	5,574.0	8,691.4	5,661.0	65.6	67.1	-104.23	3,417.1	-461.2	353.8	225.2	128.65	2.750	
	8,600.0	5,574.0	8,791.4	5,661.0	67.5	69.0	-104.23	3,517.1	-461.2	353.8	221.5	132.30	2.674	
	8,700.0	5,574.0	8,891.4	5,661.0	69.4	70.8	-104.23	3,617.1	-461.2	353.8	217.9	135.96	2.602	
	8,800.0	5,574.0	8,991.4	5,661.0	71.3	72.7	-104.23	3,717.1	-461.1	353.8	214.2	139.63	2.534	
	8,900.0	5,574.0	9,091.4	5,661.0	73.2	74.6	-104.23	3,817.1	-461.1	353.8	210.5	143.30	2.469	
	9,000.0	5,574.0	9,191.4	5,661.0	75.1	76.5	-104.23	3,917.1	-461.1	353.8	206.9	146.97	2.408	
	9,100.0	5,574.0	9,291.4	5,661.0	76.9	78.3	-104.23	4,017.1	-461.1	353.8	203.2	150.64	2.349	
	9,200.0	5,574.0	9,391.4	5,661.0	78.8	80.2	-104.23	4,117.1	-461.1	353.8	199.5	154.32	2.293	

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

Company:	Whiting Petroleum Corporation	Local Co-ordinate Reference:	Well Razor #26I-2315A
Project:	Weld County, CO	TVD Reference:	KB=16.5' @ 4728.2ft (Original Well Elev)
Reference Site:	S26-T10N-R58W	MD Reference:	KB=16.5' @ 4728.2ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	Grid
Reference Well:	Razor #26I-2315A	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Design S26-T10N-R58W - Razor #26I-2314B - HZ - Plan #1												Offset Site Error:	0.0 ft
Survey Program: 0-ISCSWA MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
9,300.0	5,574.0	9,491.4	5,661.0	80.7	82.1	-104.23	4,217.1	-461.1	353.8	195.8	158.00	2.239	
9,400.0	5,574.0	9,591.4	5,661.0	82.6	84.0	-104.23	4,317.1	-461.1	353.8	192.2	161.68	2.188	
9,500.0	5,574.0	9,691.4	5,661.0	84.5	85.9	-104.23	4,417.1	-461.1	353.8	188.5	165.36	2.140	
9,600.0	5,574.0	9,791.4	5,661.0	86.4	87.7	-104.23	4,517.1	-461.1	353.8	184.8	169.05	2.093	
9,700.0	5,574.0	9,891.4	5,661.0	88.3	89.6	-104.23	4,617.1	-461.1	353.8	181.1	172.74	2.048	
9,800.0	5,574.0	9,991.4	5,661.0	90.2	91.5	-104.23	4,717.1	-461.1	353.8	177.4	176.43	2.006	
9,900.0	5,574.0	10,091.4	5,661.0	92.1	93.4	-104.23	4,817.1	-461.1	353.8	173.7	180.12	1.964	
10,000.0	5,574.0	10,191.4	5,661.0	94.0	95.3	-104.23	4,917.1	-461.1	353.8	170.0	183.82	1.925	
10,100.0	5,574.0	10,291.4	5,661.0	95.9	97.2	-104.23	5,017.1	-461.1	353.8	166.3	187.51	1.887	
10,200.0	5,574.0	10,391.4	5,661.0	97.8	99.1	-104.23	5,117.1	-461.1	353.8	162.6	191.21	1.851	
10,300.0	5,574.0	10,491.4	5,661.0	99.7	101.0	-104.23	5,217.1	-461.0	353.8	158.9	194.91	1.815	
10,400.0	5,574.0	10,591.4	5,661.0	101.6	102.9	-104.23	5,317.1	-461.0	353.8	155.2	198.61	1.782	
10,500.0	5,574.0	10,691.4	5,661.0	103.5	104.7	-104.23	5,417.1	-461.0	353.8	151.5	202.31	1.749	
10,600.0	5,574.0	10,791.4	5,661.0	105.4	106.6	-104.23	5,517.1	-461.0	353.8	147.8	206.01	1.718	
10,700.0	5,574.0	10,891.4	5,661.0	107.3	108.5	-104.23	5,617.1	-461.0	353.8	144.1	209.72	1.687	
10,800.0	5,574.0	10,991.4	5,661.0	109.2	110.4	-104.23	5,717.1	-461.0	353.8	140.4	213.42	1.658	
10,900.0	5,574.0	11,091.4	5,661.0	111.1	112.3	-104.23	5,817.1	-461.0	353.8	136.7	217.13	1.630	
11,000.0	5,574.0	11,191.4	5,661.0	113.0	114.2	-104.23	5,917.1	-461.0	353.9	133.0	220.83	1.602	
11,100.0	5,574.0	11,291.4	5,661.0	114.9	116.1	-104.23	6,017.1	-461.0	353.9	129.3	224.54	1.576	
11,200.0	5,574.0	11,391.4	5,661.0	116.8	118.0	-104.23	6,117.1	-461.0	353.9	125.6	228.25	1.550	
11,300.0	5,574.0	11,491.4	5,661.0	118.7	119.9	-104.23	6,217.1	-461.0	353.9	121.9	231.96	1.526	
11,400.0	5,574.0	11,591.4	5,661.0	120.6	121.8	-104.23	6,317.1	-461.0	353.9	118.2	235.67	1.501	
11,500.0	5,574.0	11,691.4	5,661.0	122.5	123.7	-104.23	6,417.1	-461.0	353.9	114.5	239.38	1.478 Level 3	
11,600.0	5,574.0	11,791.4	5,661.0	124.4	125.6	-104.23	6,517.1	-461.0	353.9	110.8	243.09	1.456 Level 3	
11,700.0	5,574.0	11,891.4	5,661.0	126.3	127.5	-104.23	6,617.1	-460.9	353.9	107.1	246.80	1.434 Level 3	
11,800.0	5,574.0	11,991.4	5,661.0	128.3	129.4	-104.23	6,717.1	-460.9	353.9	103.3	250.51	1.413 Level 3	
11,900.0	5,574.0	12,091.4	5,661.0	130.2	131.3	-104.23	6,817.1	-460.9	353.9	99.6	254.23	1.392 Level 3	
12,000.0	5,574.0	12,191.4	5,661.0	132.1	133.2	-104.23	6,917.1	-460.9	353.9	95.9	257.94	1.372 Level 3	
12,100.0	5,574.0	12,291.4	5,661.0	134.0	135.1	-104.23	7,017.1	-460.9	353.9	92.2	261.66	1.352 Level 3	
12,200.0	5,574.0	12,391.4	5,661.0	135.9	137.0	-104.23	7,117.1	-460.9	353.9	88.5	265.37	1.333 Level 3	
12,300.0	5,574.0	12,491.4	5,661.0	137.8	138.9	-104.23	7,217.1	-460.9	353.9	84.8	269.09	1.315 Level 3	
12,400.0	5,574.0	12,591.4	5,661.0	139.7	140.8	-104.23	7,317.1	-460.9	353.9	81.1	272.80	1.297 Level 3	
12,500.0	5,574.0	12,691.4	5,661.0	141.6	142.8	-104.23	7,417.1	-460.9	353.9	77.3	276.52	1.280 Level 3	
12,600.0	5,574.0	12,791.4	5,661.0	143.5	144.7	-104.23	7,517.1	-460.9	353.9	73.6	280.24	1.263 Level 3	
12,700.0	5,574.0	12,891.4	5,661.0	145.4	146.6	-104.23	7,617.1	-460.9	353.9	69.9	283.95	1.246 Level 2	
12,800.0	5,574.0	12,991.4	5,661.0	147.3	148.5	-104.23	7,717.1	-460.9	353.9	66.2	287.67	1.230 Level 2	
12,867.8	5,574.0	13,059.3	5,661.0	148.6	149.8	-104.23	7,785.0	-460.9	353.9	63.7	290.19	1.219 Level 2, ES, SF	

Company:	Whiting Petroleum Corporation	Local Co-ordinate Reference:	Well Razor #26I-2315A
Project:	Weld County, CO	TVD Reference:	KB=16.5' @ 4728.2ft (Original Well Elev)
Reference Site:	S26-T10N-R58W	MD Reference:	KB=16.5' @ 4728.2ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	Grid
Reference Well:	Razor #26I-2315A	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

S26-T10N-R58W - Razor #26I-2316B - HZ - Plan #1													0.0 ft
Survey Program: 0-ISCWSA MWD													Offset Well Error: 0.0 ft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-157.26	-75.5	-31.6	81.9				
100.0	100.0	100.0	100.0	0.1	0.1	-157.26	-75.5	-31.6	81.9	81.7	0.19	436.282	
200.0	200.0	200.0	200.0	0.3	0.3	-157.26	-75.5	-31.6	81.9	81.2	0.64	128.499	
300.0	300.0	300.0	300.0	0.5	0.5	-157.26	-75.5	-31.6	81.9	80.8	1.09	75.346	
400.0	400.0	400.0	400.0	0.8	0.8	-157.26	-75.5	-31.6	81.9	80.3	1.54	53.299	
500.0	500.0	500.0	500.0	1.0	1.0	-157.26	-75.5	-31.6	81.9	79.9	1.99	41.233	
600.0	600.0	600.0	600.0	1.2	1.2	-157.26	-75.5	-31.6	81.9	79.4	2.44	33.622	
700.0	700.0	700.0	700.0	1.4	1.4	-157.26	-75.5	-31.6	81.9	79.0	2.88	28.383	
800.0	800.0	800.0	800.0	1.7	1.7	-157.26	-75.5	-31.6	81.9	78.5	3.33	24.557	
900.0	900.0	900.0	900.0	1.9	1.9	-157.26	-75.5	-31.6	81.9	78.1	3.78	21.639 CC	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-150.52	-75.5	-31.6	83.4	79.2	4.23	19.701	
1,100.0	1,099.8	1,099.8	1,099.8	2.3	2.3	-152.15	-75.5	-31.6	88.0	83.3	4.68	18.798	
1,200.0	1,199.6	1,202.9	1,202.9	2.6	2.6	-154.09	-73.7	-31.2	92.4	87.3	5.14	17.996	
1,300.0	1,299.4	1,306.0	1,305.8	2.8	2.8	-155.69	-68.3	-30.0	93.4	87.8	5.59	16.692	
1,400.0	1,399.1	1,406.0	1,405.6	3.0	3.0	-157.17	-61.5	-28.4	92.8	86.8	6.05	15.346	
1,500.0	1,498.9	1,506.0	1,505.3	3.3	3.3	-158.67	-54.7	-26.8	92.3	85.8	6.50	14.195	
1,600.0	1,598.6	1,605.9	1,605.0	3.5	3.5	-160.18	-47.9	-25.2	91.9	84.9	6.96	13.202	
1,700.0	1,698.4	1,705.9	1,704.8	3.8	3.7	-161.70	-41.1	-23.7	91.5	84.1	7.41	12.339	
1,800.0	1,798.1	1,805.9	1,804.5	4.0	4.0	-163.24	-34.3	-22.1	91.2	83.3	7.87	11.584	
1,900.0	1,897.9	1,905.8	1,904.2	4.3	4.2	-164.79	-27.6	-20.5	90.9	82.6	8.33	10.919	
2,000.0	1,997.6	2,005.8	2,003.9	4.5	4.5	-166.34	-20.8	-18.9	90.7	81.9	8.78	10.330	
2,100.0	2,097.4	2,105.8	2,103.7	4.8	4.7	-167.90	-14.0	-17.4	90.6	81.4	9.24	9.806	
2,200.0	2,197.2	2,205.8	2,203.4	5.0	5.0	-169.46	-7.2	-15.8	90.6	80.9	9.70	9.338	
2,223.3	2,220.4	2,229.1	2,226.6	5.1	5.0	-169.82	-5.6	-15.4	90.6	80.8	9.80	9.236	
2,300.0	2,296.9	2,305.7	2,303.1	5.3	5.2	-171.02	-0.4	-14.2	90.6	80.4	10.16	8.919	
2,400.0	2,396.7	2,405.7	2,402.8	5.5	5.4	-172.58	6.4	-12.6	90.7	80.0	10.62	8.541	
2,500.0	2,496.4	2,505.7	2,502.6	5.8	5.7	-174.14	13.2	-11.0	90.8	79.7	11.07	8.200	
2,600.0	2,596.2	2,605.6	2,602.3	6.0	5.9	-175.69	20.0	-9.5	91.0	79.5	11.54	7.892	
2,700.0	2,695.9	2,705.6	2,702.0	6.3	6.2	-177.23	26.8	-7.9	91.3	79.3	12.00	7.611	
2,800.0	2,795.7	2,805.6	2,801.7	6.5	6.4	-178.76	33.6	-6.3	91.7	79.2	12.46	7.357	
2,900.0	2,895.5	2,905.5	2,901.5	6.8	6.7	179.72	40.4	-4.7	92.1	79.2	12.93	7.124	
3,000.0	2,995.2	3,005.5	3,001.2	7.0	6.9	178.22	47.2	-3.2	92.6	79.2	13.39	6.912	
3,100.0	3,095.0	3,105.5	3,100.9	7.3	7.2	176.73	54.0	-1.6	93.1	79.3	13.86	6.718	
3,200.0	3,194.7	3,205.4	3,200.6	7.5	7.5	175.26	60.8	0.0	93.7	79.4	14.33	6.540	
3,300.0	3,294.5	3,305.4	3,300.4	7.8	7.7	173.81	67.5	1.6	94.4	79.6	14.80	6.376	
3,400.0	3,394.2	3,405.4	3,400.1	8.0	8.0	172.38	74.3	3.1	95.1	79.8	15.28	6.226	
3,500.0	3,494.0	3,505.4	3,499.8	8.3	8.2	170.98	81.1	4.7	95.9	80.1	15.75	6.088	
3,600.0	3,593.7	3,605.3	3,599.5	8.6	8.5	169.60	87.9	6.3	96.7	80.5	16.23	5.960	
3,700.0	3,693.5	3,705.3	3,699.3	8.8	8.7	168.24	94.7	7.9	97.6	80.9	16.71	5.843	
3,800.0	3,793.3	3,805.3	3,799.0	9.1	9.0	166.91	101.5	9.5	98.6	81.4	17.19	5.734	
3,900.0	3,893.0	3,905.2	3,898.7	9.3	9.2	165.60	108.3	11.0	99.6	81.9	17.68	5.634	
4,000.0	3,992.8	4,005.2	3,998.5	9.6	9.5	164.32	115.1	12.6	100.6	82.5	18.16	5.541	
4,100.0	4,092.5	4,105.2	4,098.2	9.8	9.7	163.07	121.9	14.2	101.7	83.1	18.65	5.455	
4,200.0	4,192.3	4,205.1	4,197.9	10.1	10.0	161.85	128.7	15.8	102.9	83.7	19.14	5.375	
4,300.0	4,292.0	4,305.1	4,297.6	10.3	10.2	160.65	135.5	17.3	104.1	84.4	19.63	5.302	
4,400.0	4,391.8	4,405.1	4,397.4	10.6	10.5	159.48	142.3	18.9	105.3	85.2	20.13	5.233	
4,500.0	4,491.6	4,505.0	4,497.1	10.8	10.7	158.34	149.1	20.5	106.6	86.0	20.62	5.170	
4,600.0	4,591.3	4,605.0	4,596.8	11.1	11.0	157.23	155.9	22.1	107.9	86.8	21.12	5.111	
4,700.0	4,691.1	4,705.0	4,696.5	11.4	11.3	156.14	162.6	23.6	109.3	87.7	21.62	5.056	
4,800.0	4,790.8	4,805.0	4,796.3	11.6	11.5	155.08	169.4	25.2	110.7	88.6	22.12	5.005	
4,900.0	4,890.6	4,904.9	4,896.0	11.9	11.8	154.05	176.2	26.8	112.1	89.5	22.62	4.958	
5,000.0	4,990.3	5,004.9	4,995.7	12.1	12.0	153.04	183.0	28.4	113.6	90.5	23.12	4.914	

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

Company:	Whiting Petroleum Corporation	Local Co-ordinate Reference:	Well Razor #26I-2315A
Project:	Weld County, CO	TVD Reference:	KB=16.5' @ 4728.2ft (Original Well Elev)
Reference Site:	S26-T10N-R58W	MD Reference:	KB=16.5' @ 4728.2ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	Grid
Reference Well:	Razor #26I-2315A	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Design S26-T10N-R58W - Razor #26I-2316B - HZ - Plan #1														Offset Site Error:	0.0 ft
Survey Program: 0-ISCWSA MWD														Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning		
5,099.4	5,089.5	5,104.3	5,094.8	12.4	12.3	152.07	189.8	29.9	115.1	91.5	23.62	4.873			
5,150.0	5,139.7	5,154.8	5,145.2	12.5	12.4	152.00	193.2	30.7	118.0	94.3	23.76	4.969			
5,200.0	5,188.6	5,207.7	5,198.0	12.7	12.5	152.70	197.2	31.7	125.0	101.2	23.73	5.265			
5,250.0	5,236.1	5,267.1	5,256.5	12.9	12.7	152.77	206.9	33.9	133.1	109.4	23.62	5.634			
5,300.0	5,282.0	5,327.1	5,314.1	13.2	13.0	151.79	223.2	37.7	141.5	118.1	23.45	6.034			
5,350.0	5,325.8	5,387.6	5,369.9	13.5	13.3	149.94	246.1	43.0	150.3	127.0	23.30	6.451			
5,400.0	5,367.1	5,448.4	5,422.7	13.8	13.6	147.35	275.3	49.8	159.5	136.2	23.24	6.862			
5,450.0	5,405.5	5,509.2	5,471.7	14.2	14.1	144.18	310.2	57.9	169.1	145.7	23.38	7.232			
5,500.0	5,440.6	5,569.8	5,516.1	14.7	14.6	140.56	350.3	67.2	179.3	155.5	23.82	7.530			
5,550.0	5,472.2	5,630.0	5,555.2	15.1	15.1	136.62	394.9	77.6	190.2	165.6	24.61	7.731			
5,600.0	5,499.9	5,689.7	5,588.4	15.7	15.7	132.45	443.1	88.8	201.9	176.1	25.77	7.833			
5,650.0	5,523.5	5,748.8	5,615.6	16.3	16.4	128.16	494.2	100.6	214.3	187.0	27.29	7.852			
5,700.0	5,542.8	5,807.2	5,636.4	16.9	17.2	123.83	547.4	113.0	227.5	198.4	29.10	7.817			
5,750.0	5,557.6	5,865.0	5,650.9	17.6	17.9	119.51	601.9	125.6	241.3	210.2	31.10	7.759			
5,800.0	5,567.7	5,922.1	5,659.0	18.3	18.7	115.25	656.9	138.4	255.8	222.6	33.22	7.701			
5,850.0	5,573.1	5,978.1	5,661.0	19.0	19.5	111.14	711.4	151.0	270.8	235.5	35.35	7.660			
5,881.2	5,574.0	6,012.2	5,661.0	19.5	20.0	109.04	744.7	158.3	280.4	243.9	36.56	7.670			
5,900.0	5,574.0	6,032.9	5,661.0	19.7	20.3	108.54	765.1	162.4	286.1	248.9	37.22	7.687			
6,000.0	5,574.0	6,146.7	5,661.0	21.1	21.8	106.59	877.2	181.0	310.3	269.8	40.58	7.648			
6,100.0	5,574.0	6,264.5	5,661.0	22.5	23.5	105.62	994.4	193.1	324.1	280.1	43.96	7.373			
6,125.7	5,574.0	6,295.1	5,661.0	22.9	24.0	105.50	1,025.0	195.1	325.8	281.0	44.82	7.270			
6,200.0	5,574.0	6,384.1	5,661.0	24.0	25.3	105.37	1,113.9	198.1	328.2	281.0	47.28	6.942			
6,300.0	5,574.0	6,487.3	5,661.0	25.7	26.9	105.36	1,217.1	198.2	328.3	277.9	50.46	6.506			
6,400.0	5,574.0	6,587.3	5,661.0	27.3	28.6	105.36	1,317.1	198.2	328.3	274.6	53.68	6.116			
6,500.0	5,574.0	6,687.3	5,661.0	29.1	30.2	105.36	1,417.1	198.2	328.3	271.3	56.97	5.763			
6,600.0	5,574.0	6,787.3	5,661.0	30.8	31.9	105.36	1,517.1	198.2	328.3	268.0	60.30	5.444			
6,700.0	5,574.0	6,887.3	5,661.0	32.5	33.6	105.36	1,617.1	198.2	328.3	264.6	63.68	5.156			
6,800.0	5,574.0	6,987.3	5,661.0	34.3	35.4	105.36	1,717.1	198.2	328.3	261.2	67.09	4.894			
6,900.0	5,574.0	7,087.3	5,661.0	36.1	37.1	105.36	1,817.1	198.2	328.3	257.8	70.53	4.655			
7,000.0	5,574.0	7,187.3	5,661.0	37.9	38.9	105.36	1,917.1	198.2	328.3	254.3	74.00	4.436			
7,100.0	5,574.0	7,287.3	5,661.0	39.7	40.7	105.36	2,017.1	198.3	328.3	250.8	77.49	4.236			
7,200.0	5,574.0	7,387.3	5,661.0	41.5	42.5	105.36	2,117.1	198.3	328.3	247.3	81.01	4.053			
7,300.0	5,574.0	7,487.3	5,661.0	43.3	44.3	105.36	2,217.1	198.3	328.3	243.8	84.54	3.883			
7,400.0	5,574.0	7,587.3	5,661.0	45.2	46.1	105.36	2,317.1	198.3	328.3	240.2	88.08	3.727			
7,500.0	5,574.0	7,687.3	5,661.0	47.0	47.9	105.36	2,417.1	198.3	328.3	236.6	91.64	3.582			
7,600.0	5,574.0	7,787.3	5,661.0	48.8	49.8	105.36	2,517.1	198.3	328.3	233.1	95.21	3.448			
7,700.0	5,574.0	7,887.3	5,661.0	50.7	51.6	105.36	2,617.1	198.3	328.3	229.5	98.79	3.323			
7,800.0	5,574.0	7,987.3	5,661.0	52.5	53.4	105.37	2,717.1	198.3	328.3	225.9	102.38	3.206			
7,900.0	5,574.0	8,087.3	5,661.0	54.4	55.3	105.37	2,817.1	198.3	328.3	222.3	105.98	3.097			
8,000.0	5,574.0	8,187.3	5,661.0	56.3	57.1	105.37	2,917.1	198.3	328.3	218.7	109.59	2.995			
8,100.0	5,574.0	8,287.3	5,661.0	58.1	59.0	105.37	3,017.1	198.3	328.3	215.1	113.20	2.900			
8,200.0	5,574.0	8,387.3	5,661.0	60.0	60.8	105.37	3,117.1	198.3	328.3	211.4	116.82	2.810			
8,300.0	5,574.0	8,487.3	5,661.0	61.9	62.7	105.37	3,217.1	198.3	328.3	207.8	120.45	2.725			
8,400.0	5,574.0	8,587.3	5,661.0	63.8	64.6	105.37	3,317.1	198.3	328.3	204.2	124.08	2.645			
8,500.0	5,574.0	8,687.3	5,661.0	65.6	66.4	105.37	3,417.1	198.3	328.3	200.5	127.72	2.570			
8,600.0	5,574.0	8,787.3	5,661.0	67.5	68.3	105.37	3,517.1	198.3	328.2	196.9	131.36	2.499			
8,700.0	5,574.0	8,887.3	5,661.0	69.4	70.2	105.37	3,617.1	198.3	328.2	193.2	135.01	2.431			
8,800.0	5,574.0	8,987.3	5,661.0	71.3	72.1	105.37	3,717.1	198.3	328.2	189.6	138.65	2.367			
8,900.0	5,574.0	9,087.3	5,661.0	73.2	73.9	105.37	3,817.1	198.3	328.2	185.9	142.31	2.307			
9,000.0	5,574.0	9,187.3	5,661.0	75.1	75.8	105.37	3,917.1	198.3	328.2	182.3	145.96	2.249			
9,100.0	5,574.0	9,287.3	5,661.0	76.9	77.7	105.37	4,017.1	198.3	328.2	178.6	149.62	2.194			
9,200.0	5,574.0	9,387.3	5,661.0	78.8	79.6	105.37	4,117.1	198.3	328.2	174.9	153.28	2.141			

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

Company:	Whiting Petroleum Corporation	Local Co-ordinate Reference:	Well Razor #26I-2315A
Project:	Weld County, CO	TVD Reference:	KB=16.5' @ 4728.2ft (Original Well Elev)
Reference Site:	S26-T10N-R58W	MD Reference:	KB=16.5' @ 4728.2ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	Grid
Reference Well:	Razor #26I-2315A	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Design S26-T10N-R58W - Razor #26I-2316B - HZ - Plan #1												Offset Site Error:	0.0 ft
Survey Program: 0-ISCSWA MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
9,300.0	5,574.0	9,487.3	5,661.0	80.7	81.5	105.37	4,217.1	198.4	328.2	171.3	156.95	2.091	
9,400.0	5,574.0	9,587.3	5,661.0	82.6	83.4	105.37	4,317.1	198.4	328.2	167.6	160.61	2.044	
9,500.0	5,574.0	9,687.3	5,661.0	84.5	85.2	105.37	4,417.1	198.4	328.2	163.9	164.28	1.998	
9,600.0	5,574.0	9,787.3	5,661.0	86.4	87.1	105.37	4,517.1	198.4	328.2	160.3	167.95	1.954	
9,700.0	5,574.0	9,887.3	5,661.0	88.3	89.0	105.37	4,617.1	198.4	328.2	156.6	171.63	1.912	
9,800.0	5,574.0	9,987.3	5,661.0	90.2	90.9	105.37	4,717.1	198.4	328.2	152.9	175.30	1.872	
9,900.0	5,574.0	10,087.3	5,661.0	92.1	92.8	105.37	4,817.1	198.4	328.2	149.2	178.98	1.834	
10,000.0	5,574.0	10,187.3	5,661.0	94.0	94.7	105.37	4,917.1	198.4	328.2	145.6	182.65	1.797	
10,100.0	5,574.0	10,287.3	5,661.0	95.9	96.6	105.37	5,017.1	198.4	328.2	141.9	186.33	1.761	
10,200.0	5,574.0	10,387.3	5,661.0	97.8	98.5	105.37	5,117.1	198.4	328.2	138.2	190.01	1.727	
10,300.0	5,574.0	10,487.3	5,661.0	99.7	100.4	105.37	5,217.1	198.4	328.2	134.5	193.70	1.694	
10,400.0	5,574.0	10,587.3	5,661.0	101.6	102.3	105.37	5,317.1	198.4	328.2	130.8	197.38	1.663	
10,500.0	5,574.0	10,687.3	5,661.0	103.5	104.2	105.37	5,417.1	198.4	328.2	127.1	201.06	1.632	
10,600.0	5,574.0	10,787.3	5,661.0	105.4	106.1	105.37	5,517.1	198.4	328.2	123.4	204.75	1.603	
10,700.0	5,574.0	10,887.3	5,661.0	107.3	108.0	105.37	5,617.1	198.4	328.2	119.7	208.44	1.574	
10,800.0	5,574.0	10,987.3	5,661.0	109.2	109.9	105.37	5,717.1	198.4	328.2	116.1	212.13	1.547	
10,900.0	5,574.0	11,087.3	5,661.0	111.1	111.8	105.37	5,817.1	198.4	328.2	112.4	215.81	1.521	
11,000.0	5,574.0	11,187.3	5,661.0	113.0	113.7	105.37	5,917.1	198.4	328.2	108.7	219.50	1.495 Level 3	
11,100.0	5,574.0	11,287.3	5,661.0	114.9	115.6	105.37	6,017.1	198.4	328.2	105.0	223.19	1.470 Level 3	
11,200.0	5,574.0	11,387.3	5,661.0	116.8	117.5	105.37	6,117.1	198.4	328.2	101.3	226.89	1.446 Level 3	
11,300.0	5,574.0	11,487.3	5,661.0	118.7	119.4	105.37	6,217.1	198.4	328.2	97.6	230.58	1.423 Level 3	
11,400.0	5,574.0	11,587.3	5,661.0	120.6	121.3	105.37	6,317.1	198.4	328.2	93.9	234.27	1.401 Level 3	
11,500.0	5,574.0	11,687.3	5,661.0	122.5	123.2	105.37	6,417.1	198.4	328.2	90.2	237.96	1.379 Level 3	
11,600.0	5,574.0	11,787.3	5,661.0	124.4	125.1	105.37	6,517.1	198.5	328.2	86.5	241.66	1.358 Level 3	
11,700.0	5,574.0	11,887.3	5,661.0	126.3	127.0	105.37	6,617.1	198.5	328.2	82.8	245.35	1.337 Level 3	
11,800.0	5,574.0	11,987.3	5,661.0	128.3	128.9	105.37	6,717.1	198.5	328.2	79.1	249.05	1.318 Level 3	
11,900.0	5,574.0	12,087.3	5,661.0	130.2	130.8	105.37	6,817.1	198.5	328.1	75.4	252.75	1.298 Level 3	
12,000.0	5,574.0	12,187.3	5,661.0	132.1	132.7	105.37	6,917.1	198.5	328.1	71.7	256.44	1.280 Level 3	
12,100.0	5,574.0	12,287.3	5,661.0	134.0	134.6	105.37	7,017.1	198.5	328.1	68.0	260.14	1.261 Level 3	
12,200.0	5,574.0	12,387.3	5,661.0	135.9	136.5	105.37	7,117.1	198.5	328.1	64.3	263.84	1.244 Level 2	
12,300.0	5,574.0	12,487.3	5,661.0	137.8	138.4	105.37	7,217.1	198.5	328.1	60.6	267.54	1.227 Level 2	
12,400.0	5,574.0	12,587.3	5,661.0	139.7	140.3	105.37	7,317.1	198.5	328.1	56.9	271.24	1.210 Level 2	
12,500.0	5,574.0	12,687.3	5,661.0	141.6	142.2	105.38	7,417.1	198.5	328.1	53.2	274.93	1.193 Level 2	
12,600.0	5,574.0	12,787.3	5,661.0	143.5	144.1	105.38	7,517.1	198.5	328.1	49.5	278.63	1.178 Level 2	
12,700.0	5,574.0	12,887.3	5,661.0	145.4	146.1	105.38	7,617.1	198.5	328.1	45.8	282.33	1.162 Level 2	
12,800.0	5,574.0	12,987.3	5,661.0	147.3	148.0	105.38	7,717.1	198.5	328.1	42.1	286.04	1.147 Level 2	
12,867.8	5,574.0	13,055.1	5,661.0	148.6	149.3	105.38	7,784.9	198.5	328.1	39.6	288.55	1.137 Level 2, ES, SF	

Company:	Whiting Petroleum Corporation	Local Co-ordinate Reference:	Well Razor #26I-2315A
Project:	Weld County, CO	TVD Reference:	KB=16.5' @ 4728.2ft (Original Well Elev)
Reference Site:	S26-T10N-R58W	MD Reference:	KB=16.5' @ 4728.2ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	Grid
Reference Well:	Razor #26I-2315A	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Design S26-T10N-R58W - Razor #26I-3513A - HZ - Plan #2														Offset Site Error:	0.0 ft
Survey Program: 0-ISCSWA MWD														Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning		
0.0	0.0	0.0	0.0	0.0	0.0	-91.08	-1.9	-98.4	98.4						
100.0	100.0	100.0	100.0	0.1	0.1	-91.08	-1.9	-98.4	98.4	98.2	0.19	524.453			
200.0	200.0	200.0	200.0	0.3	0.3	-91.08	-1.9	-98.4	98.4	97.8	0.64	154.469			
300.0	300.0	300.0	300.0	0.5	0.5	-91.08	-1.9	-98.4	98.4	97.3	1.09	90.573			
400.0	400.0	400.0	400.0	0.8	0.8	-91.08	-1.9	-98.4	98.4	96.9	1.54	64.070			
500.0	500.0	500.0	500.0	1.0	1.0	-91.08	-1.9	-98.4	98.4	96.4	1.99	49.566			
600.0	600.0	600.0	600.0	1.2	1.2	-91.08	-1.9	-98.4	98.4	96.0	2.44	40.417			
700.0	700.0	700.0	700.0	1.4	1.4	-91.08	-1.9	-98.4	98.4	95.5	2.88	34.119			
800.0	800.0	800.0	800.0	1.7	1.7	-91.08	-1.9	-98.4	98.4	95.1	3.33	29.519			
900.0	900.0	900.0	900.0	1.9	1.9	-91.08	-1.9	-98.4	98.4	94.6	3.78	26.012			
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-84.77	-1.9	-98.4	98.3	94.0	4.23	23.215			
1,045.2	1,045.2	1,044.8	1,044.8	2.2	2.2	-86.09	-2.2	-98.5	98.2	93.8	4.42	22.202 CC			
1,100.0	1,099.8	1,099.0	1,098.9	2.3	2.3	-88.75	-3.5	-98.7	98.4	93.7	4.65	21.150 ES			
1,200.0	1,199.6	1,197.1	1,197.0	2.6	2.5	-95.46	-8.6	-99.5	100.3	95.2	5.05	19.849			
1,300.0	1,299.4	1,296.1	1,295.7	2.8	2.7	-102.75	-15.4	-100.6	104.5	99.0	5.47	19.085			
1,400.0	1,399.1	1,395.2	1,394.6	3.0	2.9	-109.39	-22.2	-101.8	110.2	104.3	5.91	18.664			
1,500.0	1,498.9	1,494.2	1,493.4	3.3	3.1	-115.31	-29.0	-102.9	117.3	111.0	6.34	18.495 SF			
1,600.0	1,598.6	1,593.3	1,592.2	3.5	3.3	-120.52	-35.8	-104.0	125.5	118.7	6.78	18.505			
1,700.0	1,698.4	1,692.3	1,691.0	3.8	3.5	-125.06	-42.6	-105.1	134.6	127.4	7.22	18.637			
1,800.0	1,798.1	1,791.4	1,789.8	4.0	3.7	-129.02	-49.5	-106.2	144.5	136.8	7.67	18.850			
1,900.0	1,897.9	1,890.4	1,888.6	4.3	4.0	-132.45	-56.3	-107.4	155.0	146.8	8.11	19.112			
2,000.0	1,997.6	1,989.5	1,987.4	4.5	4.2	-135.45	-63.1	-108.5	165.9	157.3	8.55	19.404			
2,100.0	2,097.4	2,088.5	2,086.2	4.8	4.4	-138.07	-69.9	-109.6	177.2	168.2	8.99	19.711			
2,200.0	2,197.2	2,187.6	2,185.0	5.0	4.7	-140.38	-76.7	-110.7	188.9	179.5	9.43	20.023			
2,300.0	2,296.9	2,286.6	2,283.8	5.3	4.9	-142.41	-83.5	-111.9	200.8	190.9	9.88	20.332			
2,400.0	2,396.7	2,385.7	2,382.6	5.5	5.2	-144.22	-90.4	-113.0	213.0	202.6	10.32	20.636			
2,500.0	2,496.4	2,484.7	2,481.4	5.8	5.4	-145.83	-97.2	-114.1	225.3	214.5	10.76	20.930			
2,600.0	2,596.2	2,583.8	2,580.2	6.0	5.7	-147.27	-104.0	-115.2	237.8	226.6	11.21	21.214			
2,700.0	2,695.9	2,682.8	2,679.0	6.3	5.9	-148.57	-110.8	-116.4	250.4	238.8	11.65	21.487			
2,800.0	2,795.7	2,781.9	2,777.8	6.5	6.2	-149.74	-117.6	-117.5	263.2	251.1	12.10	21.748			
2,900.0	2,895.5	2,880.9	2,876.6	6.8	6.4	-150.81	-124.4	-118.6	276.0	263.5	12.55	21.998			
3,000.0	2,995.2	2,979.9	2,975.4	7.0	6.7	-151.78	-131.3	-119.7	288.9	275.9	12.99	22.236			
3,100.0	3,095.0	3,079.0	3,074.3	7.3	6.9	-152.66	-138.1	-120.8	301.9	288.5	13.44	22.462			
3,200.0	3,194.7	3,178.0	3,173.1	7.5	7.2	-153.48	-144.9	-122.0	315.0	301.1	13.89	22.678			
3,300.0	3,294.5	3,277.1	3,271.9	7.8	7.4	-154.23	-151.7	-123.1	328.1	313.8	14.34	22.884			
3,400.0	3,394.2	3,376.1	3,370.7	8.0	7.7	-154.92	-158.5	-124.2	341.3	326.5	14.79	23.080			
3,500.0	3,494.0	3,475.2	3,469.5	8.3	7.9	-155.56	-165.3	-125.3	354.5	339.3	15.24	23.267			
3,600.0	3,593.7	3,574.2	3,568.3	8.6	8.2	-156.15	-172.2	-126.5	367.8	352.1	15.69	23.445			
3,700.0	3,693.5	3,673.3	3,667.1	8.8	8.5	-156.70	-179.0	-127.6	381.1	364.9	16.14	23.615			
3,800.0	3,793.3	3,772.3	3,765.9	9.1	8.7	-157.22	-185.8	-128.7	394.4	377.8	16.59	23.777			
3,900.0	3,893.0	3,871.4	3,864.7	9.3	9.0	-157.70	-192.6	-129.8	407.8	390.7	17.04	23.931			
4,000.0	3,992.8	3,970.4	3,963.5	9.6	9.2	-158.15	-199.4	-130.9	421.2	403.7	17.49	24.079			
4,100.0	4,092.5	4,069.5	4,062.3	9.8	9.5	-158.58	-206.3	-132.1	434.6	416.6	17.94	24.221			
4,200.0	4,192.3	4,168.5	4,161.1	10.1	9.7	-158.97	-213.1	-133.2	448.0	429.6	18.39	24.356			
4,300.0	4,292.0	4,267.6	4,259.9	10.3	10.0	-159.35	-219.9	-134.3	461.4	442.6	18.85	24.485			
4,400.0	4,391.8	4,366.6	4,358.7	10.6	10.3	-159.70	-226.7	-135.4	474.9	455.6	19.30	24.609			
4,500.0	4,491.6	4,465.7	4,457.5	10.8	10.5	-160.04	-233.5	-136.6	488.4	468.7	19.75	24.728			

Company:	Whiting Petroleum Corporation	Local Co-ordinate Reference:	Well Razor #26I-2315A
Project:	Weld County, CO	TVD Reference:	KB=16.5' @ 4728.2ft (Original Well Elev)
Reference Site:	S26-T10N-R58W	MD Reference:	KB=16.5' @ 4728.2ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	Grid
Reference Well:	Razor #26I-2315A	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Design S26-T10N-R58W - Razor #26I-3514B - HZ - Plan #2														Offset Site Error:	0.0 ft
Survey Program: 0-ISCSWA MWD														Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning		
0.0	0.0	0.0	0.0	0.0	0.0	-139.64	-76.1	-64.7	99.9						
100.0	100.0	100.0	100.0	0.1	0.1	-139.64	-76.1	-64.7	99.9	99.7	0.19	532.366			
200.0	200.0	200.0	200.0	0.3	0.3	-139.64	-76.1	-64.7	99.9	99.3	0.64	156.799			
300.0	300.0	300.0	300.0	0.5	0.5	-139.64	-76.1	-64.7	99.9	98.8	1.09	91.939			
400.0	400.0	400.0	400.0	0.8	0.8	-139.64	-76.1	-64.7	99.9	98.4	1.54	65.037			
500.0	500.0	500.0	500.0	1.0	1.0	-139.64	-76.1	-64.7	99.9	97.9	1.99	50.314			
600.0	600.0	600.0	600.0	1.2	1.2	-139.64	-76.1	-64.7	99.9	97.5	2.44	41.027 CC, ES			
700.0	700.0	697.7	697.7	1.4	1.4	-140.35	-77.8	-64.5	101.0	98.2	2.85	35.418			
800.0	800.0	795.2	795.0	1.7	1.6	-142.38	-82.7	-63.7	104.5	101.3	3.26	32.084			
900.0	900.0	894.8	894.4	1.9	1.8	-144.99	-89.6	-62.7	109.5	105.8	3.68	29.744			
1,000.0	1,000.0	994.4	993.8	2.1	2.0	-140.52	-96.5	-61.7	116.0	111.9	4.11	28.203			
1,100.0	1,099.8	1,093.7	1,092.8	2.3	2.2	-143.98	-103.3	-60.7	125.6	121.1	4.55	27.610			
1,200.0	1,199.6	1,192.7	1,191.6	2.6	2.5	-147.43	-110.1	-59.7	137.1	132.1	4.99	27.487			
1,300.0	1,299.4	1,291.7	1,290.4	2.8	2.7	-150.34	-117.0	-58.7	149.0	143.6	5.43	27.445 SF			
1,400.0	1,399.1	1,390.8	1,389.2	3.0	2.9	-152.82	-123.8	-57.7	161.2	155.3	5.87	27.455			
1,500.0	1,498.9	1,489.8	1,488.0	3.3	3.2	-154.95	-130.6	-56.7	173.7	167.3	6.32	27.498			
1,600.0	1,598.6	1,588.8	1,586.7	3.5	3.4	-156.80	-137.5	-55.7	186.3	179.6	6.76	27.561			
1,700.0	1,698.4	1,687.9	1,685.5	3.8	3.7	-158.40	-144.3	-54.7	199.2	192.0	7.21	27.637			
1,800.0	1,798.1	1,786.9	1,784.3	4.0	3.9	-159.81	-151.2	-53.7	212.2	204.5	7.65	27.718			
1,900.0	1,897.9	1,885.9	1,883.1	4.3	4.2	-161.06	-158.0	-52.7	225.2	217.1	8.10	27.802			
2,000.0	1,997.6	1,984.9	1,981.9	4.5	4.4	-162.18	-164.8	-51.7	238.4	229.9	8.55	27.887			
2,100.0	2,097.4	2,084.0	2,080.7	4.8	4.7	-163.17	-171.7	-50.7	251.7	242.7	9.00	27.970			
2,200.0	2,197.2	2,183.0	2,179.5	5.0	5.0	-164.07	-178.5	-49.7	265.0	255.6	9.45	28.051			
2,300.0	2,296.9	2,282.0	2,278.2	5.3	5.2	-164.88	-185.3	-48.7	278.4	268.5	9.90	28.129			
2,400.0	2,396.7	2,381.0	2,377.0	5.5	5.5	-165.61	-192.2	-47.7	291.8	281.5	10.35	28.204			
2,500.0	2,496.4	2,480.1	2,475.8	5.8	5.7	-166.28	-199.0	-46.7	305.3	294.5	10.80	28.276			
2,600.0	2,596.2	2,579.1	2,574.6	6.0	6.0	-166.89	-205.8	-45.7	318.8	307.6	11.25	28.345			
2,700.0	2,695.9	2,678.1	2,673.4	6.3	6.2	-167.46	-212.7	-44.7	332.4	320.7	11.70	28.410			
2,800.0	2,795.7	2,777.2	2,772.2	6.5	6.5	-167.98	-219.5	-43.7	346.0	333.8	12.15	28.473			
2,900.0	2,895.5	2,876.2	2,871.0	6.8	6.8	-168.46	-226.3	-42.7	359.6	347.0	12.60	28.532			
3,000.0	2,995.2	2,975.2	2,969.7	7.0	7.0	-168.90	-233.2	-41.7	373.2	360.1	13.05	28.589			
3,100.0	3,095.0	3,074.2	3,068.5	7.3	7.3	-169.32	-240.0	-40.7	386.8	373.3	13.51	28.642			
3,200.0	3,194.7	3,173.3	3,167.3	7.5	7.5	-169.70	-246.8	-39.7	400.5	386.5	13.96	28.693			
3,300.0	3,294.5	3,272.3	3,266.1	7.8	7.8	-170.06	-253.7	-38.7	414.2	399.8	14.41	28.742			
3,400.0	3,394.2	3,371.3	3,364.9	8.0	8.1	-170.40	-260.5	-37.7	427.9	413.0	14.86	28.789			
3,500.0	3,494.0	3,470.3	3,463.7	8.3	8.3	-170.72	-267.3	-36.7	441.6	426.3	15.32	28.833			
3,600.0	3,593.7	3,569.4	3,562.5	8.6	8.6	-171.02	-274.2	-35.7	455.3	439.6	15.77	28.875			
3,700.0	3,693.5	3,668.4	3,661.2	8.8	8.8	-171.30	-281.0	-34.7	469.1	452.8	16.22	28.915			
3,800.0	3,793.3	3,767.4	3,760.0	9.1	9.1	-171.56	-287.9	-33.7	482.8	466.1	16.67	28.954			
3,900.0	3,893.0	3,866.4	3,858.8	9.3	9.4	-171.81	-294.7	-32.7	496.6	479.4	17.13	28.991			

Company:	Whiting Petroleum Corporation	Local Co-ordinate Reference:	Well Razor #26I-2315A
Project:	Weld County, CO	TVD Reference:	KB=16.5' @ 4728.2ft (Original Well Elev)
Reference Site:	S26-T10N-R58W	MD Reference:	KB=16.5' @ 4728.2ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	Grid
Reference Well:	Razor #26I-2315A	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Design S26-T10N-R58W - Razor #26I-3515A - HZ - Plan #3													Offset Site Error:	0.0 ft
Survey Program: 0-ISCWSA MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)						
0.0	0.0	0.0	0.0	0.0	0.0	-91.12	-0.6	-33.1	33.1					
100.0	100.0	100.0	100.0	0.1	0.1	-91.12	-0.6	-33.1	33.1	32.9		0.19	176.184	
200.0	200.0	200.0	200.0	0.3	0.3	-91.12	-0.6	-33.1	33.1	32.4		0.64	51.892	
300.0	300.0	300.0	300.0	0.5	0.5	-91.12	-0.6	-33.1	33.1	32.0		1.09	30.427	
400.0	400.0	400.0	400.0	0.8	0.8	-91.12	-0.6	-33.1	33.1	31.5		1.54	21.524	
500.0	500.0	500.0	500.0	1.0	1.0	-91.12	-0.6	-33.1	33.1	31.1		1.99	16.651	
600.0	600.0	600.0	600.0	1.2	1.2	-91.12	-0.6	-33.1	33.1	30.6		2.44	13.578	
700.0	700.0	700.4	700.3	1.4	1.4	-94.03	-2.3	-32.4	32.5	29.6		2.86	11.367	
800.0	800.0	800.5	800.3	1.7	1.6	-103.23	-7.2	-30.5	31.3	28.0		3.27	9.579	
865.6	865.6	865.9	865.6	1.8	1.7	-111.62	-11.4	-28.8	31.0	27.4		3.55	8.725 CC	
900.0	900.0	900.2	899.8	1.9	1.8	-116.04	-13.6	-27.9	31.1	27.4		3.70	8.400 ES	
1,000.0	1,000.0	999.9	999.2	2.1	2.0	-123.59	-20.1	-25.4	33.3	29.2		4.14	8.042 SF	
1,100.0	1,099.8	1,099.1	1,098.2	2.3	2.3	-139.27	-26.5	-22.8	40.0	35.4		4.58	8.736	
1,200.0	1,199.6	1,198.2	1,197.0	2.6	2.5	-150.97	-33.0	-20.3	50.4	45.4		5.02	10.039	
1,300.0	1,299.4	1,297.2	1,295.8	2.8	2.7	-158.50	-39.4	-17.7	62.1	56.6		5.45	11.384	
1,400.0	1,399.1	1,396.2	1,394.6	3.0	3.0	-163.59	-45.8	-15.2	74.5	68.6		5.89	12.649	
1,500.0	1,498.9	1,495.3	1,493.4	3.3	3.2	-167.21	-52.2	-12.6	87.4	81.0		6.33	13.801	
1,600.0	1,598.6	1,594.3	1,592.2	3.5	3.5	-169.90	-58.6	-10.1	100.5	93.7		6.77	14.837	
1,700.0	1,698.4	1,693.4	1,691.0	3.8	3.7	-171.96	-65.1	-7.5	113.7	106.5		7.21	15.765	
1,800.0	1,798.1	1,792.4	1,789.8	4.0	4.0	-173.59	-71.5	-5.0	127.1	119.5		7.66	16.598	
1,900.0	1,897.9	1,891.5	1,888.6	4.3	4.2	-174.91	-77.9	-2.4	140.6	132.5		8.11	17.347	
2,000.0	1,997.6	1,990.5	1,987.4	4.5	4.5	-176.00	-84.3	0.1	154.1	145.6		8.55	18.023	
2,100.0	2,097.4	2,089.5	2,086.2	4.8	4.7	-176.91	-90.8	2.7	167.7	158.7		9.00	18.634	
2,200.0	2,197.2	2,188.6	2,185.0	5.0	5.0	-177.69	-97.2	5.2	181.3	171.9		9.45	19.190	
2,300.0	2,296.9	2,287.6	2,283.8	5.3	5.2	-178.36	-103.6	7.7	195.0	185.1		9.90	19.697	
2,400.0	2,396.7	2,386.7	2,382.6	5.5	5.5	-178.94	-110.0	10.3	208.6	198.3		10.35	20.160	
2,500.0	2,496.4	2,485.7	2,481.4	5.8	5.8	-179.45	-116.5	12.8	222.3	211.5		10.80	20.586	
2,600.0	2,596.2	2,584.7	2,580.2	6.0	6.0	-179.90	-122.9	15.4	236.0	224.7		11.25	20.978	
2,700.0	2,695.9	2,683.8	2,679.0	6.3	6.3	-179.70	-129.3	17.9	249.7	238.0		11.70	21.340	
2,800.0	2,795.7	2,782.8	2,777.8	6.5	6.5	-179.34	-135.7	20.5	263.4	251.3		12.15	21.675	
2,900.0	2,895.5	2,881.9	2,876.6	6.8	6.8	-179.02	-142.1	23.0	277.1	264.5		12.61	21.986	
3,000.0	2,995.2	2,980.9	2,975.4	7.0	7.0	-178.73	-148.6	25.6	290.9	277.8		13.06	22.276	
3,100.0	3,095.0	3,080.0	3,074.2	7.3	7.3	-178.46	-155.0	28.1	304.6	291.1		13.51	22.547	
3,200.0	3,194.7	3,179.0	3,173.0	7.5	7.6	-178.22	-161.4	30.7	318.4	304.4		13.96	22.800	
3,300.0	3,294.5	3,278.0	3,271.8	7.8	7.8	-177.99	-167.8	33.2	332.1	317.7		14.42	23.037	
3,400.0	3,394.2	3,377.1	3,370.6	8.0	8.1	-177.79	-174.3	35.7	345.9	331.0		14.87	23.259	
3,500.0	3,494.0	3,476.1	3,469.4	8.3	8.3	-177.60	-180.7	38.3	359.6	344.3		15.32	23.469	
3,600.0	3,593.7	3,575.2	3,568.2	8.6	8.6	-177.42	-187.1	40.8	373.4	357.6		15.78	23.666	
3,700.0	3,693.5	3,674.2	3,667.0	8.8	8.9	-177.26	-193.5	43.4	387.2	370.9		16.23	23.852	
3,800.0	3,793.3	3,773.2	3,765.8	9.1	9.1	-177.11	-199.9	45.9	400.9	384.2		16.69	24.028	
3,900.0	3,893.0	3,872.3	3,864.6	9.3	9.4	-176.96	-206.4	48.5	414.7	397.6		17.14	24.195	
4,000.0	3,992.8	3,971.3	3,963.4	9.6	9.6	-176.83	-212.8	51.0	428.5	410.9		17.59	24.353	
4,100.0	4,092.5	4,070.4	4,062.2	9.8	9.9	-176.71	-219.2	53.6	442.3	424.2		18.05	24.503	
4,200.0	4,192.3	4,169.4	4,161.0	10.1	10.2	-176.59	-225.6	56.1	456.0	437.5		18.50	24.646	
4,300.0	4,292.0	4,268.5	4,259.8	10.3	10.4	-176.48	-232.1	58.7	469.8	450.9		18.96	24.782	
4,400.0	4,391.8	4,367.5	4,358.6	10.6	10.7	-176.38	-238.5	61.2	483.6	464.2		19.41	24.911	
4,500.0	4,491.6	4,466.5	4,457.4	10.8	10.9	-176.28	-244.9	63.7	497.4	477.5		19.87	25.034	

Company:	Whiting Petroleum Corporation	Local Co-ordinate Reference:	Well Razor #261-2315A
Project:	Weld County, CO	TVD Reference:	KB=16.5' @ 4728.2ft (Original Well Elev)
Reference Site:	S26-T10N-R58W	MD Reference:	KB=16.5' @ 4728.2ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	Grid
Reference Well:	Razor #261-2315A	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

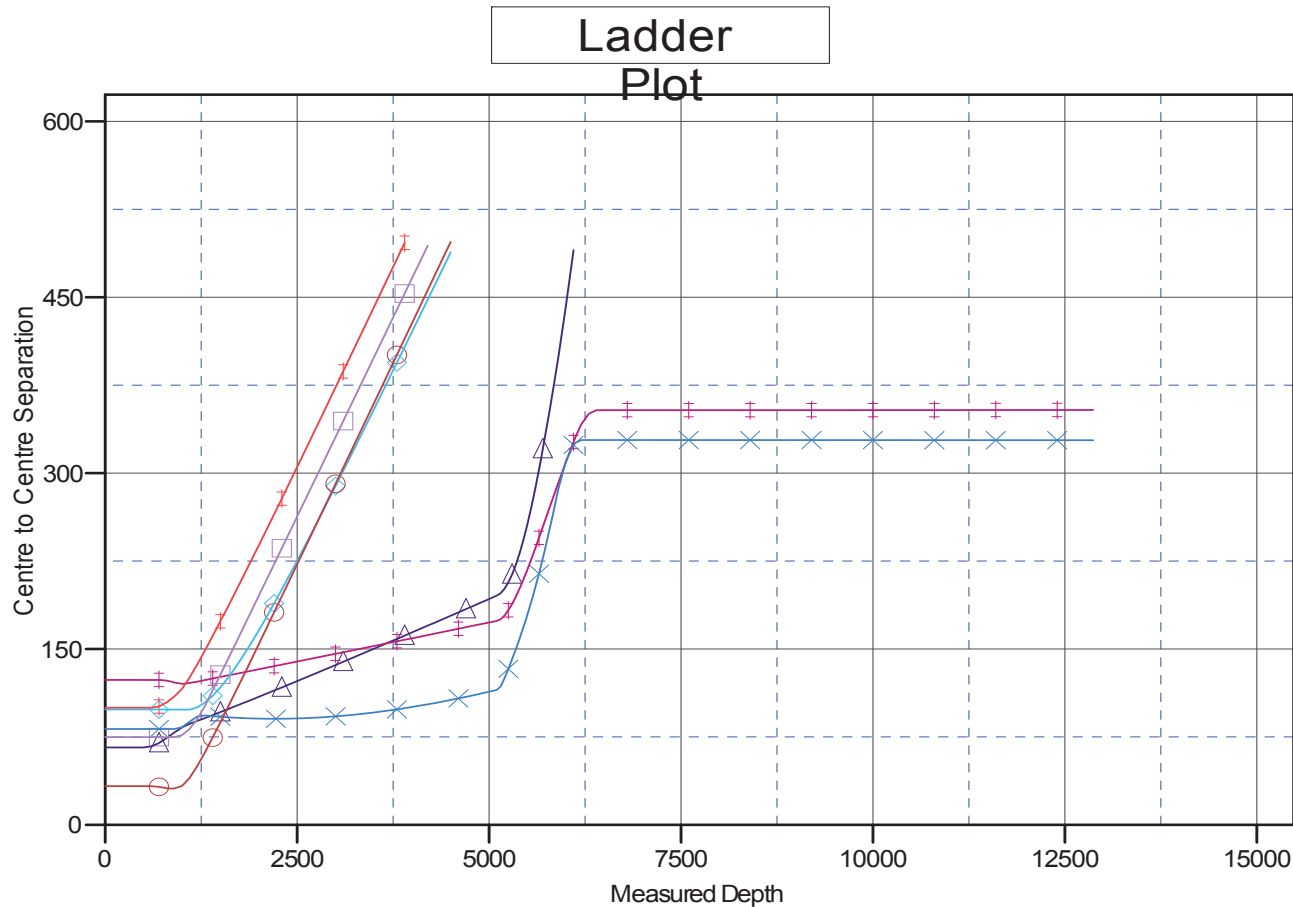
Design S26-T10N-R58W - Razor #261-3516B - HZ - Plan #3														Offset Site Error:	0.0 ft
Survey Program: 0-ISCSWA MWD														Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning		
0.0	0.0	0.0	0.0	0.0	0.0	178.92	-74.9	1.4	74.9						
100.0	100.0	100.0	100.0	0.1	0.1	178.92	-74.9	1.4	74.9	74.7	0.19	399.062			
200.0	200.0	200.0	200.0	0.3	0.3	178.92	-74.9	1.4	74.9	74.3	0.64	117.537			
300.0	300.0	300.0	300.0	0.5	0.5	178.92	-74.9	1.4	74.9	73.8	1.09	68.918			
400.0	400.0	400.0	400.0	0.8	0.8	178.92	-74.9	1.4	74.9	73.4	1.54	48.752			
500.0	500.0	500.0	500.0	1.0	1.0	178.92	-74.9	1.4	74.9	72.9	1.99	37.716			
600.0	600.0	600.0	600.0	1.2	1.2	178.92	-74.9	1.4	74.9	72.5	2.44	30.754			
700.0	700.0	700.0	700.0	1.4	1.4	178.92	-74.9	1.4	74.9	72.0	2.88	25.962			
800.0	800.0	800.0	800.0	1.7	1.7	178.92	-74.9	1.4	74.9	71.6	3.33	22.462			
900.0	900.0	900.0	900.0	1.9	1.9	178.92	-74.9	1.4	74.9	71.1	3.78	19.793 CC, ES			
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-173.89	-74.9	1.4	76.6	72.4	4.23	18.102			
1,100.0	1,099.8	1,099.8	1,099.8	2.3	2.3	-174.27	-74.9	1.4	81.8	77.2	4.68	17.486 SF			
1,200.0	1,199.6	1,196.9	1,196.9	2.6	2.5	-175.21	-76.3	2.3	90.3	85.2	5.10	17.698			
1,300.0	1,299.4	1,293.4	1,293.2	2.8	2.7	-176.86	-80.5	4.8	101.7	96.2	5.50	18.473			
1,400.0	1,399.1	1,392.2	1,391.8	3.0	2.9	-178.61	-86.4	8.3	114.9	109.0	5.92	19.416			
1,500.0	1,498.9	1,491.3	1,490.7	3.3	3.1	180.00	-92.3	11.9	128.2	121.9	6.33	20.241			
1,600.0	1,598.6	1,590.4	1,589.5	3.5	3.3	178.86	-98.2	15.4	141.6	134.8	6.76	20.957			
1,700.0	1,698.4	1,689.4	1,688.3	3.8	3.5	177.93	-104.1	19.0	155.0	147.8	7.18	21.583			
1,800.0	1,798.1	1,788.5	1,787.1	4.0	3.7	177.14	-110.1	22.6	168.4	160.8	7.61	22.132			
1,900.0	1,897.9	1,887.6	1,886.0	4.3	4.0	176.47	-116.0	26.1	181.9	173.9	8.04	22.618			
2,000.0	1,997.6	1,986.6	1,984.8	4.5	4.2	175.89	-121.9	29.7	195.4	186.9	8.48	23.048			
2,100.0	2,097.4	2,085.7	2,083.6	4.8	4.4	175.38	-127.8	33.2	208.9	200.0	8.91	23.433			
2,200.0	2,197.2	2,184.8	2,182.5	5.0	4.7	174.94	-133.8	36.8	222.4	213.1	9.35	23.778			
2,300.0	2,296.9	2,283.8	2,281.3	5.3	4.9	174.55	-139.7	40.4	236.0	226.2	9.79	24.090			
2,400.0	2,396.7	2,382.9	2,380.1	5.5	5.2	174.20	-145.6	43.9	249.5	239.3	10.24	24.372			
2,500.0	2,496.4	2,482.0	2,478.9	5.8	5.4	173.89	-151.5	47.5	263.0	252.4	10.68	24.628			
2,600.0	2,596.2	2,581.0	2,577.8	6.0	5.6	173.60	-157.5	51.0	276.6	265.5	11.13	24.862			
2,700.0	2,695.9	2,680.1	2,676.6	6.3	5.9	173.35	-163.4	54.6	290.2	278.6	11.57	25.076			
2,800.0	2,795.7	2,779.2	2,775.4	6.5	6.1	173.11	-169.3	58.2	303.7	291.7	12.02	25.273			
2,900.0	2,895.5	2,878.2	2,874.2	6.8	6.4	172.90	-175.2	61.7	317.3	304.9	12.47	25.454			
3,000.0	2,995.2	2,977.3	2,973.1	7.0	6.6	172.71	-181.2	65.3	330.9	318.0	12.91	25.622			
3,100.0	3,095.0	3,076.4	3,071.9	7.3	6.9	172.53	-187.1	68.8	344.5	331.1	13.36	25.778			
3,200.0	3,194.7	3,175.4	3,170.7	7.5	7.1	172.36	-193.0	72.4	358.1	344.2	13.81	25.922			
3,300.0	3,294.5	3,274.5	3,269.5	7.8	7.4	172.20	-198.9	75.9	371.6	357.4	14.26	26.057			
3,400.0	3,394.2	3,373.6	3,368.4	8.0	7.6	172.06	-204.9	79.5	385.2	370.5	14.71	26.182			
3,500.0	3,494.0	3,472.7	3,467.2	8.3	7.9	171.93	-210.8	83.1	398.8	383.7	15.16	26.300			
3,600.0	3,593.7	3,571.7	3,566.0	8.6	8.2	171.80	-216.7	86.6	412.4	396.8	15.62	26.410			
3,700.0	3,693.5	3,670.8	3,664.9	8.8	8.4	171.68	-222.6	90.2	426.0	410.0	16.07	26.513			
3,800.0	3,793.3	3,769.9	3,763.7	9.1	8.7	171.57	-228.5	93.7	439.6	423.1	16.52	26.611			
3,900.0	3,893.0	3,868.9	3,862.5	9.3	8.9	171.47	-234.5	97.3	453.2	436.2	16.97	26.703			
4,000.0	3,992.8	3,968.0	3,961.3	9.6	9.2	171.37	-240.4	100.9	466.8	449.4	17.43	26.789			
4,100.0	4,092.5	4,067.1	4,060.2	9.8	9.4	171.28	-246.3	104.4	480.4	462.5	17.88	26.871			
4,200.0	4,192.3	4,166.1	4,159.0	10.1	9.7	171.20	-252.2	108.0	494.0	475.7	18.33	26.949			

Company: Whiting Petroleum Corporation
Project: Weld County, CO
Reference Site: S26-T10N-R58W
Site Error: 0.0ft
Reference Well: Razor #26I-2315A
Well Error: 0.0ft
Reference Wellbore: HZ
Reference Design: Plan #2








Local Co-ordinate Reference: Well Razor #26I-2315A
TVD Reference: KB=16.5' @ 4728.2ft (Original Well Elev)
MD Reference: KB=16.5' @ 4728.2ft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: USA EDM 5000 Multi Users DB
Offset TVD Reference: Offset Datum

Reference Depths are relative to KB=16.5' @ 4728.2ft (Original Well EI)
 Offset Depths are relative to Offset Datum
 Central Meridian is 105° 30' 0.00 W °

Coordinates are relative to: Razor #26I-2315A
 Coordinate System is US State Plane 1983, Colorado Northern Zone
 Grid Convergence at Surface is: 1.08°



LEGEND

 Razor #26I-2313A, HZ, Plan #1 V0	 Razor Federal #26I-3513A, HZ, Plan #2 V0	 Razor Federal #26I-3516B, HZ, Plan #3 V0
 Razor #26I-2314B, HZ, Plan #1 V0	 Razor Federal #26I-3514B, HZ, Plan #2 V0	
 Razor #26I-2316B, HZ, Plan #1 V0	 Razor Federal #26I-3515A, HZ, Plan #3 V0	