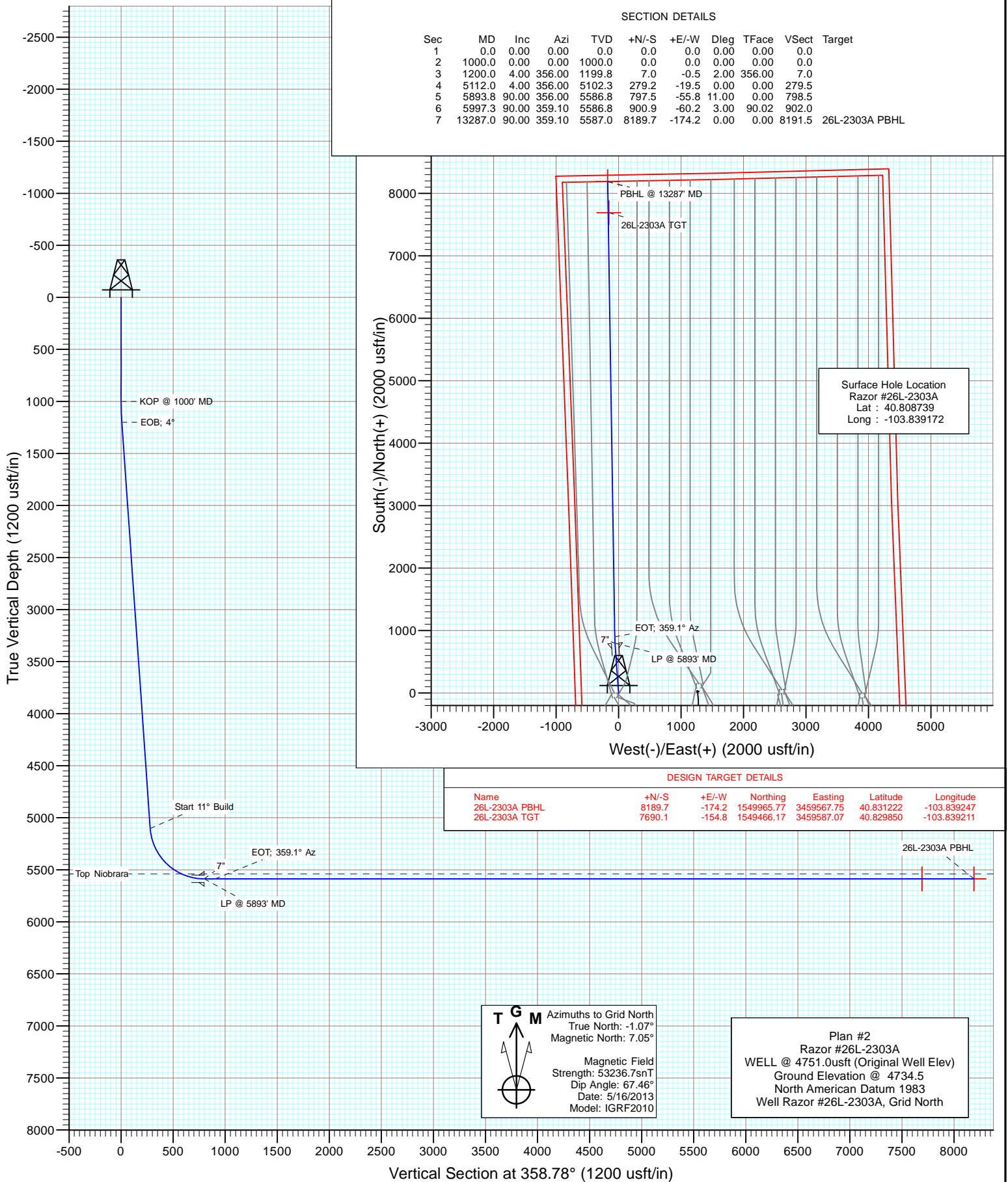




Project: Weld County, CO
Site: S26-T10N-R58W
Well: Razor #26L-2303A
Wellbore: HZ
Design: Plan #2



Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Razor #26L-2303A
Company:	Whiting Petroleum Corporation	TVD Reference:	WELL @ 4751.0usft (Original Well Elev)
Project:	Weld County, CO	MD Reference:	WELL @ 4751.0usft (Original Well Elev)
Site:	S26-T10N-R58W	North Reference:	Grid
Well:	Razor #26L-2303A	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:	1,541,774.28 usft	Latitude:	40.808739
From:	Lat/Long	Easting:	3,459,642.55 usft	Longitude:	-103.839531
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16"	Grid Convergence:	1.07 °

Well	Razor #26L-2303A					
Well Position	+N/-S	0.0 usft	Northing:	1,541,776.10 usft	Latitude:	40.808739
	+E/-W	0.0 usft	Easting:	3,459,741.92 usft	Longitude:	-103.839172
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	4,734.5 usft

Wellbore	HZ				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	5/16/2013	8.13	67.46	53,237

Design	Plan #2				
Audit Notes:					
Version:	Phase:	PLAN		Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	358.78	

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,200.0	4.00	356.00	1,199.8	7.0	-0.5	2.00	2.00	0.00	356.00	
5,112.0	4.00	356.00	5,102.3	279.2	-19.5	0.00	0.00	0.00	0.00	
5,893.8	90.00	356.00	5,586.8	797.5	-55.8	11.00	11.00	0.00	0.00	
5,997.3	90.00	359.10	5,586.8	900.9	-60.2	3.00	0.00	3.00	90.02	
13,287.0	90.00	359.10	5,587.0	8,189.7	-174.2	0.00	0.00	0.00	0.00	26L-2303A PBHL

Database: USA EDM 5000 Multi Users DB
Company: Whiting Petroleum Corporation
Project: Weld County, CO
Site: S26-T10N-R58W
Well: Razor #26L-2303A
Wellbore: HZ
Design: Plan #2

Local Co-ordinate Reference: Well Razor #26L-2303A
TVD Reference: WELL @ 4751.0usft (Original Well Elev)
MD Reference: WELL @ 4751.0usft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	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	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	KOP @ 1000' MD
1,100.0	2.00	356.00	1,100.0	1.7	-0.1	1.7	2.00	2.00	
1,200.0	4.00	356.00	1,199.8	7.0	-0.5	7.0	2.00	2.00	EOB; 4°
1,300.0	4.00	356.00	1,299.6	13.9	-1.0	13.9	0.00	0.00	
1,400.0	4.00	356.00	1,399.4	20.9	-1.5	20.9	0.00	0.00	
1,500.0	4.00	356.00	1,499.1	27.8	-1.9	27.9	0.00	0.00	
1,600.0	4.00	356.00	1,598.9	34.8	-2.4	34.8	0.00	0.00	
1,700.0	4.00	356.00	1,698.6	41.8	-2.9	41.8	0.00	0.00	
1,800.0	4.00	356.00	1,798.4	48.7	-3.4	48.8	0.00	0.00	
1,900.0	4.00	356.00	1,898.1	55.7	-3.9	55.7	0.00	0.00	
2,000.0	4.00	356.00	1,997.9	62.6	-4.4	62.7	0.00	0.00	
2,100.0	4.00	356.00	2,097.6	69.6	-4.9	69.7	0.00	0.00	
2,200.0	4.00	356.00	2,197.4	76.5	-5.4	76.6	0.00	0.00	
2,300.0	4.00	356.00	2,297.2	83.5	-5.8	83.6	0.00	0.00	
2,400.0	4.00	356.00	2,396.9	90.5	-6.3	90.6	0.00	0.00	
2,500.0	4.00	356.00	2,496.7	97.4	-6.8	97.5	0.00	0.00	
2,600.0	4.00	356.00	2,596.4	104.4	-7.3	104.5	0.00	0.00	
2,700.0	4.00	356.00	2,696.2	111.3	-7.8	111.5	0.00	0.00	
2,800.0	4.00	356.00	2,795.9	118.3	-8.3	118.4	0.00	0.00	
2,900.0	4.00	356.00	2,895.7	125.3	-8.8	125.4	0.00	0.00	
3,000.0	4.00	356.00	2,995.5	132.2	-9.2	132.4	0.00	0.00	
3,100.0	4.00	356.00	3,095.2	139.2	-9.7	139.4	0.00	0.00	
3,200.0	4.00	356.00	3,195.0	146.1	-10.2	146.3	0.00	0.00	
3,300.0	4.00	356.00	3,294.7	153.1	-10.7	153.3	0.00	0.00	
3,400.0	4.00	356.00	3,394.5	160.1	-11.2	160.3	0.00	0.00	
3,500.0	4.00	356.00	3,494.2	167.0	-11.7	167.2	0.00	0.00	
3,600.0	4.00	356.00	3,594.0	174.0	-12.2	174.2	0.00	0.00	
3,700.0	4.00	356.00	3,693.7	180.9	-12.7	181.2	0.00	0.00	
3,800.0	4.00	356.00	3,793.5	187.9	-13.1	188.1	0.00	0.00	
3,900.0	4.00	356.00	3,893.3	194.8	-13.6	195.1	0.00	0.00	
4,000.0	4.00	356.00	3,993.0	201.8	-14.1	202.1	0.00	0.00	
4,100.0	4.00	356.00	4,092.8	208.8	-14.6	209.0	0.00	0.00	
4,200.0	4.00	356.00	4,192.5	215.7	-15.1	216.0	0.00	0.00	
4,300.0	4.00	356.00	4,292.3	222.7	-15.6	223.0	0.00	0.00	
4,400.0	4.00	356.00	4,392.0	229.6	-16.1	229.9	0.00	0.00	
4,500.0	4.00	356.00	4,491.8	236.6	-16.5	236.9	0.00	0.00	
4,600.0	4.00	356.00	4,591.6	243.6	-17.0	243.9	0.00	0.00	
4,700.0	4.00	356.00	4,691.3	250.5	-17.5	250.8	0.00	0.00	
4,800.0	4.00	356.00	4,791.1	257.5	-18.0	257.8	0.00	0.00	
4,900.0	4.00	356.00	4,890.8	264.4	-18.5	264.8	0.00	0.00	
5,000.0	4.00	356.00	4,990.6	271.4	-19.0	271.7	0.00	0.00	
5,100.0	4.00	356.00	5,090.3	278.3	-19.5	278.7	0.00	0.00	

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Razor #26L-2303A
Company:	Whiting Petroleum Corporation	TVD Reference:	WELL @ 4751.0usft (Original Well Elev)
Project:	Weld County, CO	MD Reference:	WELL @ 4751.0usft (Original Well Elev)
Site:	S26-T10N-R58W	North Reference:	Grid
Well:	Razor #26L-2303A	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
5,112.0	4.00	356.00	5,102.3	279.2	-19.5	279.5	0.00	0.00	Start 11° Build
5,200.0	13.68	356.00	5,189.2	292.7	-20.5	293.0	11.00	11.00	
5,300.0	24.68	356.00	5,283.5	325.4	-22.8	325.8	11.00	11.00	
5,400.0	35.68	356.00	5,369.8	375.5	-26.3	375.9	11.00	11.00	
5,500.0	46.68	356.00	5,444.9	441.0	-30.8	441.6	11.00	11.00	
5,600.0	57.68	356.00	5,506.1	519.7	-36.3	520.4	11.00	11.00	
5,671.2	65.51	356.00	5,540.0	582.1	-40.7	582.9	11.00	11.00	Top Niobrara
5,700.0	68.68	356.00	5,551.2	608.6	-42.6	609.4	11.00	11.00	
5,800.0	79.68	356.00	5,578.4	704.4	-49.3	705.3	11.00	11.00	
5,893.2	89.93	356.00	5,586.8	796.9	-55.7	797.9	11.00	11.00	7"
5,893.8	90.00	356.00	5,586.8	797.5	-55.8	798.5	11.00	11.00	LP @ 5893' MD
5,900.0	90.00	356.19	5,586.8	803.7	-56.2	804.7	3.00	0.00	
5,997.3	90.00	359.10	5,586.8	900.9	-60.2	902.0	3.00	0.00	EOT; 359.1° Az
6,000.0	90.00	359.10	5,586.8	903.6	-60.2	904.7	0.00	0.00	
6,100.0	90.00	359.10	5,586.8	1,003.6	-61.8	1,004.7	0.00	0.00	
6,200.0	90.00	359.10	5,586.8	1,103.6	-63.4	1,104.7	0.00	0.00	
6,300.0	90.00	359.10	5,586.8	1,203.6	-64.9	1,204.7	0.00	0.00	
6,400.0	90.00	359.10	5,586.9	1,303.5	-66.5	1,304.7	0.00	0.00	
6,500.0	90.00	359.10	5,586.9	1,403.5	-68.0	1,404.7	0.00	0.00	
6,600.0	90.00	359.10	5,586.9	1,503.5	-69.6	1,504.7	0.00	0.00	
6,700.0	90.00	359.10	5,586.9	1,603.5	-71.2	1,604.7	0.00	0.00	
6,800.0	90.00	359.10	5,586.9	1,703.5	-72.7	1,704.7	0.00	0.00	
6,900.0	90.00	359.10	5,586.9	1,803.5	-74.3	1,804.7	0.00	0.00	
7,000.0	90.00	359.10	5,586.9	1,903.5	-75.9	1,904.7	0.00	0.00	
7,100.0	90.00	359.10	5,586.9	2,003.5	-77.4	2,004.7	0.00	0.00	
7,200.0	90.00	359.10	5,586.9	2,103.5	-79.0	2,104.7	0.00	0.00	
7,300.0	90.00	359.10	5,586.9	2,203.4	-80.6	2,204.7	0.00	0.00	
7,400.0	90.00	359.10	5,586.9	2,303.4	-82.1	2,304.7	0.00	0.00	
7,500.0	90.00	359.10	5,586.9	2,403.4	-83.7	2,404.7	0.00	0.00	
7,600.0	90.00	359.10	5,586.9	2,503.4	-85.2	2,504.6	0.00	0.00	
7,700.0	90.00	359.10	5,586.9	2,603.4	-86.8	2,604.6	0.00	0.00	
7,800.0	90.00	359.10	5,586.9	2,703.4	-88.4	2,704.6	0.00	0.00	
7,900.0	90.00	359.10	5,586.9	2,803.4	-89.9	2,804.6	0.00	0.00	
8,000.0	90.00	359.10	5,586.9	2,903.4	-91.5	2,904.6	0.00	0.00	
8,100.0	90.00	359.10	5,586.9	3,003.3	-93.1	3,004.6	0.00	0.00	
8,200.0	90.00	359.10	5,586.9	3,103.3	-94.6	3,104.6	0.00	0.00	
8,300.0	90.00	359.10	5,586.9	3,203.3	-96.2	3,204.6	0.00	0.00	
8,400.0	90.00	359.10	5,586.9	3,303.3	-97.8	3,304.6	0.00	0.00	
8,500.0	90.00	359.10	5,586.9	3,403.3	-99.3	3,404.6	0.00	0.00	
8,600.0	90.00	359.10	5,586.9	3,503.3	-100.9	3,504.6	0.00	0.00	
8,700.0	90.00	359.10	5,586.9	3,603.3	-102.4	3,604.6	0.00	0.00	
8,800.0	90.00	359.10	5,586.9	3,703.3	-104.0	3,704.6	0.00	0.00	
8,900.0	90.00	359.10	5,586.9	3,803.2	-105.6	3,804.6	0.00	0.00	
9,000.0	90.00	359.10	5,586.9	3,903.2	-107.1	3,904.6	0.00	0.00	
9,100.0	90.00	359.10	5,586.9	4,003.2	-108.7	4,004.6	0.00	0.00	
9,200.0	90.00	359.10	5,586.9	4,103.2	-110.3	4,104.6	0.00	0.00	
9,300.0	90.00	359.10	5,586.9	4,203.2	-111.8	4,204.6	0.00	0.00	
9,400.0	90.00	359.10	5,586.9	4,303.2	-113.4	4,304.6	0.00	0.00	
9,500.0	90.00	359.10	5,586.9	4,403.2	-115.0	4,404.6	0.00	0.00	
9,600.0	90.00	359.10	5,586.9	4,503.2	-116.5	4,504.6	0.00	0.00	
9,700.0	90.00	359.10	5,586.9	4,603.1	-118.1	4,604.6	0.00	0.00	
9,800.0	90.00	359.10	5,586.9	4,703.1	-119.6	4,704.6	0.00	0.00	

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Razor #26L-2303A
Company:	Whiting Petroleum Corporation	TVD Reference:	WELL @ 4751.0usft (Original Well Elev)
Project:	Weld County, CO	MD Reference:	WELL @ 4751.0usft (Original Well Elev)
Site:	S26-T10N-R58W	North Reference:	Grid
Well:	Razor #26L-2303A	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
9,900.0	90.00	359.10	5,586.9	4,803.1	-121.2	4,804.6	0.00	0.00	
10,000.0	90.00	359.10	5,586.9	4,903.1	-122.8	4,904.6	0.00	0.00	
10,100.0	90.00	359.10	5,586.9	5,003.1	-124.3	5,004.6	0.00	0.00	
10,200.0	90.00	359.10	5,586.9	5,103.1	-125.9	5,104.6	0.00	0.00	
10,300.0	90.00	359.10	5,586.9	5,203.1	-127.5	5,204.6	0.00	0.00	
10,400.0	90.00	359.10	5,586.9	5,303.1	-129.0	5,304.6	0.00	0.00	
10,500.0	90.00	359.10	5,586.9	5,403.0	-130.6	5,404.6	0.00	0.00	
10,600.0	90.00	359.10	5,586.9	5,503.0	-132.2	5,504.6	0.00	0.00	
10,700.0	90.00	359.10	5,586.9	5,603.0	-133.7	5,604.6	0.00	0.00	
10,800.0	90.00	359.10	5,586.9	5,703.0	-135.3	5,704.6	0.00	0.00	
10,900.0	90.00	359.10	5,586.9	5,803.0	-136.8	5,804.6	0.00	0.00	
11,000.0	90.00	359.10	5,586.9	5,903.0	-138.4	5,904.6	0.00	0.00	
11,100.0	90.00	359.10	5,586.9	6,003.0	-140.0	6,004.6	0.00	0.00	
11,200.0	90.00	359.10	5,586.9	6,103.0	-141.5	6,104.6	0.00	0.00	
11,300.0	90.00	359.10	5,586.9	6,202.9	-143.1	6,204.6	0.00	0.00	
11,400.0	90.00	359.10	5,587.0	6,302.9	-144.7	6,304.6	0.00	0.00	
11,500.0	90.00	359.10	5,587.0	6,402.9	-146.2	6,404.6	0.00	0.00	
11,600.0	90.00	359.10	5,587.0	6,502.9	-147.8	6,504.6	0.00	0.00	
11,700.0	90.00	359.10	5,587.0	6,602.9	-149.4	6,604.6	0.00	0.00	
11,800.0	90.00	359.10	5,587.0	6,702.9	-150.9	6,704.6	0.00	0.00	
11,900.0	90.00	359.10	5,587.0	6,802.9	-152.5	6,804.6	0.00	0.00	
12,000.0	90.00	359.10	5,587.0	6,902.9	-154.0	6,904.6	0.00	0.00	
12,100.0	90.00	359.10	5,587.0	7,002.9	-155.6	7,004.6	0.00	0.00	
12,200.0	90.00	359.10	5,587.0	7,102.8	-157.2	7,104.6	0.00	0.00	
12,300.0	90.00	359.10	5,587.0	7,202.8	-158.7	7,204.6	0.00	0.00	
12,400.0	90.00	359.10	5,587.0	7,302.8	-160.3	7,304.6	0.00	0.00	
12,500.0	90.00	359.10	5,587.0	7,402.8	-161.9	7,404.6	0.00	0.00	
12,600.0	90.00	359.10	5,587.0	7,502.8	-163.4	7,504.6	0.00	0.00	
12,700.0	90.00	359.10	5,587.0	7,602.8	-165.0	7,604.6	0.00	0.00	
12,800.0	90.00	359.10	5,587.0	7,702.8	-166.6	7,704.6	0.00	0.00	
12,900.0	90.00	359.10	5,587.0	7,802.8	-168.1	7,804.6	0.00	0.00	
13,000.0	90.00	359.10	5,587.0	7,902.7	-169.7	7,904.6	0.00	0.00	
13,100.0	90.00	359.10	5,587.0	8,002.7	-171.2	8,004.6	0.00	0.00	
13,200.0	90.00	359.10	5,587.0	8,102.7	-172.8	8,104.6	0.00	0.00	
13,287.0	90.00	359.10	5,587.0	8,189.7	-174.2	8,191.5	0.00	0.00	PBHL @ 13287' MD

Targets									
Target Name									
- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- Shape									
26L-2303A PBHL	0.00	0.00	5,587.0	8,189.7	-174.2	1,549,965.77	3,459,567.75	40.831222	-103.839247
- plan hits target center									
- Point									
26L-2303A TGT	0.00	0.00	5,587.0	7,690.1	-154.8	1,549,466.17	3,459,587.07	40.829850	-103.839211
- plan misses target center by 11.5usft at 12787.1usft MD (5587.0 TVD, 7689.9 N, -166.3 E)									
- Point									

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Razor #26L-2303A
Company:	Whiting Petroleum Corporation	TVD Reference:	WELL @ 4751.0usft (Original Well Elev)
Project:	Weld County, CO	MD Reference:	WELL @ 4751.0usft (Original Well Elev)
Site:	S26-T10N-R58W	North Reference:	Grid
Well:	Razor #26L-2303A	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #2		

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
5,893.2	5,586.8	7"	0	0	

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
5,671.2	5,540.0	Top Niobrara		0.00	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
1,000.0	1,000.0	0.0	0.0	KOP @ 1000' MD	
1,200.0	1,199.8	7.0	-0.5	EOB; 4°	
5,112.0	5,102.3	279.2	-19.5	Start 11° Build	
5,893.8	5,586.8	797.5	-55.8	LP @ 5893' MD	
5,997.3	5,586.8	900.9	-60.2	EOT; 359.1° Az	
13,287.0	5,587.0	8,189.7	-174.2	PBHL @ 13287' MD	



WHITING PETROLEUM CORPORATION

Whiting Petroleum Corporation

Weld County, CO

S26-T10N-R58W

Razor #26L-2303A

HZ

Plan #2

Anticollision Report

30 May, 2013

Company:	Whiting Petroleum Corporation	Local Co-ordinate Reference:	Well Razor #26L-2303A
Project:	Weld County, CO	TVD Reference:	WELL @ 4751.0usft (Original Well Elev)
Reference Site:	S26-T10N-R58W	MD Reference:	WELL @ 4751.0usft (Original Well Elev)
Site Error:	0.0usft	North Reference:	Grid
Reference Well:	Razor #26L-2303A	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	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 500.0usft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program		Date	5/30/2013		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	13,287.0	Plan #2 (HZ)	ISCWSA MWD	MWD - ISCWSA	

Company:	Whiting Petroleum Corporation	Local Co-ordinate Reference:	Well Razor #26L-2303A
Project:	Weld County, CO	TVD Reference:	WELL @ 4751.0usft (Original Well Elev)
Reference Site:	S26-T10N-R58W	MD Reference:	WELL @ 4751.0usft (Original Well Elev)
Site Error:	0.0usft	North Reference:	Grid
Reference Well:	Razor #26L-2303A	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	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

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance		Separation Factor	Warning
			Between Centres (usft)	Between Ellipses (usft)		
S26-T10N-R58W						
Razor #26J-2633L - HZ - Plan #1						Out of range
Razor #26K-2305A - HZ - Plan #1						Out of range
Razor #26K-2306B - HZ - Plan #1						Out of range
Razor #26K-2307A - HZ - Plan #1						Out of range
Razor #26K-2308B - HZ - Plan #1						Out of range
Razor #26K-3505A - HZ - Plan #1						Out of range
Razor #26K-3507A - HZ - Plan #1						Out of range
Razor #26K-3508B - HZ - Plan #1						Out of range
Razor #26L-2301A - HZ - Plan #2	466.7	466.7	66.2	64.3	36.037	CC
Razor #26L-2301A - HZ - Plan #2	500.0	500.0	66.2	64.2	33.318	ES
Razor #26L-2301A - HZ - Plan #2	5,150.0	5,141.0	185.8	160.9	7.453	SF
Razor #26L-2302B - HZ - Plan #2	1,000.0	1,000.0	124.5	120.3	29.414	CC
Razor #26L-2302B - HZ - Plan #2	13,287.0	13,473.2	341.4	35.9	1.117	Level 2, ES, SF
Razor #26L-2304B - HZ - Plan #1	1,240.2	1,244.8	54.0	48.7	10.122	CC
Razor #26L-2304B - HZ - Plan #1	1,400.0	1,404.5	54.4	48.3	8.960	ES
Razor #26L-2304B - HZ - Plan #1	13,287.0	13,492.5	476.9	168.2	1.545	SF
Razor #26L-3501A - HZ - Plan #1	766.7	766.7	99.4	96.2	31.208	CC
Razor #26L-3501A - HZ - Plan #1	800.0	800.0	99.4	96.0	29.805	ES
Razor #26L-3501A - HZ - Plan #1	1,600.0	1,591.5	144.5	137.7	21.366	SF
Razor #26L-3502B - HZ - Plan #1	1,000.0	1,000.0	100.0	95.8	23.631	CC, ES
Razor #26L-3502B - HZ - Plan #1	1,300.0	1,296.1	113.5	108.0	20.610	SF
Razor #26L-3503A - HZ - Plan #1	958.3	959.1	21.8	17.8	5.452	CC, ES
Razor #26L-3503A - HZ - Plan #1	1,000.0	1,000.7	22.0	17.8	5.247	SF
Razor #26L-3504B - HZ - Plan #1	1,000.0	1,000.0	75.1	70.8	17.731	CC, ES
Razor #26L-3504B - HZ - Plan #1	1,100.0	1,099.0	77.4	72.8	16.608	SF
Razor 26-3524H (Existing) - Existing - SURVEYS						Out of range
Razor Federal #26I-2313A - HZ - Plan #1						Out of range
Razor Federal #26I-2314B - HZ - Plan #1						Out of range
Razor Federal #26I-2315A - HZ - Plan #1						Out of range
Razor Federal #26I-2316B - HZ - Plan #1						Out of range
Razor Federal #26I-3513A - HZ - Plan #1						Out of range
Razor Federal #26I-3514B - HZ - Plan #1						Out of range
Razor Federal #26I-3515A - HZ - Plan #1						Out of range
Razor Federal #26I-3516B - HZ - Plan #1						Out of range
Razor Federal #26J-2309A - HZ - Plan #1						Out of range
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
Razor Federal #26J-3509A - HZ - Plan #1						Out of range
Razor Federal #26J-3510B - HZ - Plan #1						Out of range
Razor Federal #26J-3511A - HZ - Plan #1						Out of range
Razor Federal #26J-3512B - HZ - Plan #1						Out of range

Company:	Whiting Petroleum Corporation	Local Co-ordinate Reference:	Well Razor #26L-2303A
Project:	Weld County, CO	TVD Reference:	WELL @ 4751.0usft (Original Well Elev)
Reference Site:	S26-T10N-R58W	MD Reference:	WELL @ 4751.0usft (Original Well Elev)
Site Error:	0.0usft	North Reference:	Grid
Reference Well:	Razor #26L-2303A	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	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 #26L-2301A - HZ - Plan #2													Offset Site Error:	0.0 usft
Survey Program: 0-ISCWSA MWD													Offset Well Error:	0.0 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)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-91.05	-1.2	-66.2	66.2					
100.0	100.0	100.0	100.0	0.1	0.1	-91.05	-1.2	-66.2	66.2	66.0	0.19	352.529		
200.0	200.0	200.0	200.0	0.3	0.3	-91.05	-1.2	-66.2	66.2	65.5	0.64	103.831		
300.0	300.0	300.0	300.0	0.5	0.5	-91.05	-1.2	-66.2	66.2	65.1	1.09	60.882		
400.0	400.0	400.0	400.0	0.8	0.8	-91.05	-1.2	-66.2	66.2	64.6	1.54	43.067		
466.7	466.7	466.7	466.7	0.9	0.9	-91.05	-1.2	-66.2	66.2	64.3	1.84	36.037	CC	
500.0	500.0	500.0	500.0	1.0	1.0	-91.05	-1.2	-66.2	66.2	64.2	1.99	33.318	ES	
600.0	600.0	599.0	599.0	1.2	1.2	-89.72	0.3	-66.9	66.9	64.5	2.43	27.519		
700.0	700.0	697.8	697.6	1.4	1.4	-85.93	4.9	-69.1	69.4	66.5	2.88	24.091		
800.0	800.0	797.5	797.1	1.7	1.7	-81.21	11.2	-72.2	73.1	69.8	3.33	21.932		
900.0	900.0	897.2	896.6	1.9	1.9	-76.96	17.4	-75.2	77.3	73.5	3.79	20.405		
1,000.0	1,000.0	997.0	996.1	2.1	2.2	-73.17	23.7	-78.3	81.9	77.6	4.24	19.293		
1,100.0	1,100.0	1,096.8	1,095.7	2.3	2.4	-66.78	29.9	-81.3	86.1	81.4	4.70	18.304		
1,200.0	1,199.8	1,196.8	1,195.4	2.6	2.7	-66.66	36.2	-84.4	89.0	83.8	5.16	17.236		
1,300.0	1,299.6	1,296.8	1,295.1	2.8	2.9	-67.60	42.5	-87.5	91.2	85.6	5.63	16.198		
1,400.0	1,399.4	1,396.7	1,394.9	3.0	3.2	-68.50	48.7	-90.5	93.4	87.3	6.10	15.309		
1,500.0	1,499.1	1,496.7	1,494.6	3.3	3.4	-69.35	55.0	-93.6	95.7	89.1	6.58	14.542		
1,600.0	1,598.9	1,596.7	1,594.3	3.5	3.7	-70.17	61.3	-96.6	98.0	90.9	7.06	13.873		
1,700.0	1,698.6	1,696.6	1,694.0	3.7	3.9	-70.95	67.5	-99.7	100.2	92.7	7.55	13.287		
1,800.0	1,798.4	1,796.6	1,793.8	4.0	4.2	-71.69	73.8	-102.7	102.6	94.5	8.03	12.769		
1,900.0	1,898.1	1,896.6	1,893.5	4.2	4.4	-72.40	80.1	-105.8	104.9	96.4	8.52	12.309		
2,000.0	1,997.9	1,996.5	1,993.2	4.5	4.7	-73.08	86.3	-108.9	107.2	98.2	9.01	11.897		
2,100.0	2,097.6	2,096.5	2,092.9	4.7	4.9	-73.73	92.6	-111.9	109.6	100.1	9.51	11.528		
2,200.0	2,197.4	2,196.4	2,192.6	5.0	5.2	-74.36	98.9	-115.0	112.0	102.0	10.00	11.194		
2,300.0	2,297.2	2,296.4	2,292.4	5.2	5.4	-74.95	105.1	-118.0	114.4	103.9	10.50	10.892		
2,400.0	2,396.9	2,396.4	2,392.1	5.5	5.7	-75.53	111.4	-121.1	116.8	105.8	11.00	10.617		
2,500.0	2,496.7	2,496.3	2,491.8	5.7	6.0	-76.08	117.7	-124.1	119.2	107.7	11.50	10.366		
2,600.0	2,596.4	2,596.3	2,591.5	6.0	6.2	-76.61	123.9	-127.2	121.6	109.6	12.00	10.135		
2,700.0	2,696.2	2,696.3	2,691.2	6.2	6.5	-77.11	130.2	-130.3	124.0	111.5	12.50	9.923		
2,800.0	2,795.9	2,796.2	2,791.0	6.5	6.7	-77.60	136.5	-133.3	126.5	113.5	13.00	9.728		
2,900.0	2,895.7	2,896.2	2,890.7	6.7	7.0	-78.07	142.8	-136.4	128.9	115.4	13.50	9.547		
3,000.0	2,995.5	2,996.2	2,990.4	7.0	7.2	-78.52	149.0	-139.4	131.4	117.4	14.01	9.379		
3,100.0	3,095.2	3,096.1	3,090.1	7.2	7.5	-78.96	155.3	-142.5	133.8	119.3	14.51	9.223		
3,200.0	3,195.0	3,196.1	3,189.8	7.5	7.7	-79.38	161.6	-145.5	136.3	121.3	15.01	9.077		
3,300.0	3,294.7	3,296.1	3,289.6	7.7	8.0	-79.78	167.8	-148.6	138.8	123.3	15.52	8.942		
3,400.0	3,394.5	3,396.0	3,389.3	8.0	8.3	-80.17	174.1	-151.7	141.3	125.2	16.03	8.815		
3,500.0	3,494.2	3,496.0	3,489.0	8.2	8.5	-80.55	180.4	-154.7	143.7	127.2	16.53	8.696		
3,600.0	3,594.0	3,595.9	3,588.7	8.5	8.8	-80.91	186.6	-157.8	146.2	129.2	17.04	8.584		
3,700.0	3,693.7	3,695.9	3,688.5	8.8	9.0	-81.26	192.9	-160.8	148.7	131.2	17.54	8.478		
3,800.0	3,793.5	3,795.9	3,788.2	9.0	9.3	-81.60	199.2	-163.9	151.3	133.2	18.05	8.379		
3,900.0	3,893.3	3,895.8	3,887.9	9.3	9.5	-81.93	205.4	-166.9	153.8	135.2	18.56	8.285		
4,000.0	3,993.0	3,995.8	3,987.6	9.5	9.8	-82.25	211.7	-170.0	156.3	137.2	19.07	8.197		
4,100.0	4,092.8	4,095.8	4,087.3	9.8	10.1	-82.56	218.0	-173.1	158.8	139.2	19.58	8.113		
4,200.0	4,192.5	4,195.7	4,187.1	10.0	10.3	-82.86	224.2	-176.1	161.3	141.3	20.08	8.034		
4,300.0	4,292.3	4,295.7	4,286.8	10.3	10.6	-83.15	230.5	-179.2	163.9	143.3	20.59	7.958		
4,400.0	4,392.0	4,395.7	4,386.5	10.5	10.8	-83.43	236.8	-182.2	166.4	145.3	21.10	7.886		
4,500.0	4,491.8	4,495.6	4,486.2	10.8	11.1	-83.70	243.0	-185.3	168.9	147.3	21.61	7.818		
4,600.0	4,591.6	4,595.6	4,585.9	11.0	11.3	-83.96	249.3	-188.3	171.5	149.4	22.12	7.753		
4,700.0	4,691.3	4,695.6	4,685.7	11.3	11.6	-84.22	255.6	-191.4	174.0	151.4	22.63	7.691		
4,800.0	4,791.1	4,795.5	4,785.4	11.6	11.9	-84.47	261.8	-194.4	176.6	153.5	23.14	7.632		
4,900.0	4,890.8	4,895.5	4,885.1	11.8	12.1	-84.71	268.1	-197.5	179.1	155.5	23.65	7.576		
5,000.0	4,990.6	4,995.5	4,984.8	12.1	12.4	-84.95	274.4	-200.6	181.7	157.5	24.16	7.522		

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 #26L-2303A
Project:	Weld County, CO	TVD Reference:	WELL @ 4751.0usft (Original Well Elev)
Reference Site:	S26-T10N-R58W	MD Reference:	WELL @ 4751.0usft (Original Well Elev)
Site Error:	0.0usft	North Reference:	Grid
Reference Well:	Razor #26L-2303A	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	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 #26L-2301A - HZ - Plan #2													Offset Site Error: 0.0 usft	
Survey Program: 0-ISCSWA MWD													Offset Well Error: 0.0 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)	Total Uncertainty Axis	Separation Factor		
5,100.0	5,090.3	5,095.4	5,084.5	12.3	12.6	-85.18	280.6	-203.6	184.3	159.6	24.67	7.470		
5,112.0	5,102.3	5,107.4	5,096.5	12.4	12.7	-85.20	281.4	-204.0	184.6	159.8	24.73	7.464		
5,150.0	5,140.1	5,141.0	5,129.9	12.5	12.7	-85.31	284.1	-205.3	185.8	160.9	24.93	7.453 SF		
5,200.0	5,189.2	5,184.0	5,172.4	12.6	12.9	-85.56	290.5	-208.4	188.7	163.5	25.25	7.475		
5,250.0	5,237.1	5,227.0	5,214.1	12.8	13.1	-85.90	299.9	-213.0	193.1	167.4	25.62	7.535		
5,300.0	5,283.5	5,269.9	5,254.6	13.1	13.3	-86.32	312.3	-219.1	198.9	172.8	26.07	7.629		
5,350.0	5,327.8	5,312.6	5,293.8	13.4	13.5	-86.76	327.7	-226.6	206.1	179.5	26.57	7.755		
5,400.0	5,369.8	5,355.2	5,331.3	13.7	13.8	-87.21	345.8	-235.4	214.7	187.6	27.15	7.907		
5,450.0	5,408.9	5,400.0	5,368.8	14.1	14.1	-87.71	367.8	-246.1	224.7	196.9	27.83	8.076		
5,500.0	5,444.9	5,440.1	5,400.5	14.5	14.4	-87.98	389.8	-256.9	236.0	207.4	28.55	8.266		
5,550.0	5,477.4	5,482.4	5,431.8	15.0	14.8	-88.26	415.4	-269.3	248.5	219.1	29.36	8.463		
5,600.0	5,506.1	5,524.6	5,460.7	15.5	15.2	-88.46	443.1	-282.9	262.1	231.9	30.26	8.664		
5,650.0	5,530.8	5,566.9	5,486.9	16.0	15.6	-88.55	472.9	-297.4	276.8	245.6	31.23	8.864		
5,700.0	5,551.2	5,609.3	5,510.5	16.7	16.1	-88.55	504.5	-312.8	292.5	260.2	32.28	9.060		
5,750.0	5,567.1	5,651.8	5,531.2	17.3	16.7	-88.45	537.9	-329.1	308.9	275.5	33.40	9.248		
5,800.0	5,578.4	5,694.7	5,548.9	18.0	17.2	-88.26	572.9	-346.2	326.1	291.5	34.60	9.423		
5,850.0	5,585.0	5,737.9	5,563.4	18.7	17.8	-88.00	609.5	-364.0	343.8	308.0	35.87	9.585		
5,893.8	5,586.8	5,776.2	5,573.5	19.3	18.4	-87.71	642.7	-380.2	359.7	322.7	37.03	9.716		
5,900.0	5,586.8	5,781.6	5,574.7	19.4	18.5	-87.93	647.5	-382.6	362.0	324.8	37.18	9.737		
5,997.3	5,586.8	5,869.0	5,586.4	20.7	19.9	-89.92	725.2	-420.4	400.8	361.3	39.47	10.154		
6,000.0	5,586.8	5,871.4	5,586.5	20.8	19.9	-89.94	727.4	-421.5	402.0	362.4	39.55	10.165		
6,100.0	5,586.8	5,982.2	5,587.0	22.3	21.6	-90.03	827.8	-468.3	442.9	400.3	42.60	10.396		
6,200.0	5,586.8	6,105.5	5,587.0	23.9	23.5	-90.02	942.5	-513.5	478.2	432.2	45.97	10.401		

Company:	Whiting Petroleum Corporation	Local Co-ordinate Reference:	Well Razor #26L-2303A
Project:	Weld County, CO	TVD Reference:	WELL @ 4751.0usft (Original Well Elev)
Reference Site:	S26-T10N-R58W	MD Reference:	WELL @ 4751.0usft (Original Well Elev)
Site Error:	0.0usft	North Reference:	Grid
Reference Well:	Razor #26L-2303A	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	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 #26L-2302B - HZ - Plan #2													Offset Site Error: 0.0 usft	
Survey Program: 0-ISCSWA MWD													Offset Well Error: 0.0 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)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-128.12	-76.9	-98.0	124.5					
100.0	100.0	100.0	100.0	0.1	0.1	-128.12	-76.9	-98.0	124.5	124.3	0.19	663.482		
200.0	200.0	200.0	200.0	0.3	0.3	-128.12	-76.9	-98.0	124.5	123.9	0.64	195.417		
300.0	300.0	300.0	300.0	0.5	0.5	-128.12	-76.9	-98.0	124.5	123.4	1.09	114.583		
400.0	400.0	400.0	400.0	0.8	0.8	-128.12	-76.9	-98.0	124.5	123.0	1.54	81.055		
500.0	500.0	500.0	500.0	1.0	1.0	-128.12	-76.9	-98.0	124.5	122.5	1.99	62.706		
600.0	600.0	600.0	600.0	1.2	1.2	-128.12	-76.9	-98.0	124.5	122.1	2.44	51.131		
700.0	700.0	700.0	700.0	1.4	1.4	-128.12	-76.9	-98.0	124.5	121.6	2.88	43.164		
800.0	800.0	800.0	800.0	1.7	1.7	-128.12	-76.9	-98.0	124.5	121.2	3.33	37.345		
900.0	900.0	900.0	900.0	1.9	1.9	-128.12	-76.9	-98.0	124.5	120.7	3.78	32.908		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-128.12	-76.9	-98.0	124.5	120.3	4.23	29.414 CC		
1,100.0	1,100.0	1,101.7	1,101.7	2.3	2.3	-124.03	-75.1	-98.4	124.8	120.1	4.68	26.643		
1,200.0	1,199.8	1,203.3	1,203.2	2.6	2.6	-123.75	-69.9	-99.9	125.7	120.6	5.14	24.476		
1,300.0	1,299.6	1,303.3	1,302.9	2.8	2.8	-123.45	-63.2	-101.8	126.9	121.4	5.59	22.696		
1,400.0	1,399.4	1,403.3	1,402.7	3.0	3.0	-123.16	-56.5	-103.6	128.2	122.1	6.06	21.160		
1,500.0	1,499.1	1,503.3	1,502.4	3.3	3.3	-122.87	-49.8	-105.5	129.4	122.9	6.53	19.825		
1,600.0	1,598.9	1,603.3	1,602.1	3.5	3.5	-122.59	-43.0	-107.3	130.7	123.7	7.00	18.658		
1,700.0	1,698.6	1,703.3	1,701.9	3.7	3.8	-122.32	-36.3	-109.2	131.9	124.4	7.48	17.630		
1,800.0	1,798.4	1,803.3	1,801.6	4.0	4.0	-122.05	-29.6	-111.1	133.2	125.2	7.97	16.720		
1,900.0	1,898.1	1,903.3	1,901.4	4.2	4.2	-121.79	-22.9	-112.9	134.4	126.0	8.45	15.908		
2,000.0	1,997.9	2,003.3	2,001.1	4.5	4.5	-121.53	-16.2	-114.8	135.7	126.7	8.94	15.181		
2,100.0	2,097.6	2,103.2	2,100.9	4.7	4.7	-121.27	-9.4	-116.7	136.9	127.5	9.43	14.527		
2,200.0	2,197.4	2,203.2	2,200.6	5.0	5.0	-121.02	-2.7	-118.5	138.2	128.3	9.92	13.934		
2,300.0	2,297.2	2,303.2	2,300.4	5.2	5.2	-120.78	4.0	-120.4	139.5	129.1	10.41	13.396		
2,400.0	2,396.9	2,403.2	2,400.1	5.5	5.5	-120.54	10.7	-122.3	140.7	129.8	10.91	12.905		
2,500.0	2,496.7	2,503.2	2,499.9	5.7	5.7	-120.30	17.5	-124.1	142.0	130.6	11.40	12.456		
2,600.0	2,596.4	2,603.2	2,599.6	6.0	6.0	-120.07	24.2	-126.0	143.3	131.4	11.90	12.043		
2,700.0	2,696.2	2,703.2	2,699.4	6.2	6.2	-119.84	30.9	-127.8	144.6	132.2	12.40	11.662		
2,800.0	2,795.9	2,803.2	2,799.1	6.5	6.5	-119.62	37.6	-129.7	145.8	132.9	12.89	11.310		
2,900.0	2,895.7	2,903.2	2,898.9	6.7	6.7	-119.40	44.3	-131.6	147.1	133.7	13.39	10.984		
3,000.0	2,995.5	3,003.2	2,998.6	7.0	7.0	-119.18	51.1	-133.4	148.4	134.5	13.89	10.681		
3,100.0	3,095.2	3,103.1	3,098.3	7.2	7.2	-118.97	57.8	-135.3	149.7	135.3	14.39	10.399		
3,200.0	3,195.0	3,203.1	3,198.1	7.5	7.5	-118.76	64.5	-137.2	151.0	136.1	14.90	10.135		
3,300.0	3,294.7	3,303.1	3,297.8	7.7	7.8	-118.55	71.2	-139.0	152.3	136.9	15.40	9.888		
3,400.0	3,394.5	3,403.1	3,397.6	8.0	8.0	-118.35	77.9	-140.9	153.5	137.6	15.90	9.657		
3,500.0	3,494.2	3,503.1	3,497.3	8.2	8.3	-118.15	84.7	-142.8	154.8	138.4	16.40	9.439		
3,600.0	3,594.0	3,603.1	3,597.1	8.5	8.5	-117.95	91.4	-144.6	156.1	139.2	16.91	9.235		
3,700.0	3,693.7	3,703.1	3,696.8	8.8	8.8	-117.76	98.1	-146.5	157.4	140.0	17.41	9.042		
3,800.0	3,793.5	3,803.1	3,796.6	9.0	9.0	-117.57	104.8	-148.4	158.7	140.8	17.91	8.860		
3,900.0	3,893.3	3,903.1	3,896.3	9.3	9.3	-117.39	111.5	-150.2	160.0	141.6	18.42	8.688		
4,000.0	3,993.0	4,003.1	3,996.1	9.5	9.5	-117.20	118.3	-152.1	161.3	142.4	18.92	8.524		
4,100.0	4,092.8	4,103.0	4,095.8	9.8	9.8	-117.02	125.0	-153.9	162.6	143.2	19.43	8.370		
4,200.0	4,192.5	4,203.0	4,195.6	10.0	10.0	-116.85	131.7	-155.8	163.9	144.0	19.93	8.223		
4,300.0	4,292.3	4,303.0	4,295.3	10.3	10.3	-116.67	138.4	-157.7	165.2	144.8	20.44	8.083		
4,400.0	4,392.0	4,403.0	4,395.1	10.5	10.6	-116.50	145.2	-159.5	166.5	145.6	20.95	7.950		
4,500.0	4,491.8	4,503.0	4,494.8	10.8	10.8	-116.33	151.9	-161.4	167.8	146.4	21.45	7.823		
4,600.0	4,591.6	4,603.0	4,594.5	11.0	11.1	-116.16	158.6	-163.3	169.1	147.2	21.96	7.702		
4,700.0	4,691.3	4,703.0	4,694.3	11.3	11.3	-116.00	165.3	-165.1	170.5	148.0	22.47	7.587		
4,800.0	4,791.1	4,803.0	4,794.0	11.6	11.6	-115.84	172.0	-167.0	171.8	148.8	22.98	7.476		
4,900.0	4,890.8	4,903.0	4,893.8	11.8	11.8	-115.68	178.8	-168.9	173.1	149.6	23.48	7.371		
5,000.0	4,990.6	5,003.0	4,993.5	12.1	12.1	-115.52	185.5	-170.7	174.4	150.4	23.99	7.269		
5,100.0	5,090.3	5,103.0	5,093.3	12.3	12.3	-115.37	192.2	-172.6	175.7	151.2	24.50	7.172		

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 #26L-2303A
Project:	Weld County, CO	TVD Reference:	WELL @ 4751.0usft (Original Well Elev)
Reference Site:	S26-T10N-R58W	MD Reference:	WELL @ 4751.0usft (Original Well Elev)
Site Error:	0.0usft	North Reference:	Grid
Reference Well:	Razor #26L-2303A	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	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 #26L-2302B - HZ - Plan #2													Offset Site Error: 0.0 usft	
Survey Program: 0-ISCWSA MWD													Offset Well Error: 0.0 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)	Total Uncertainty Axis	Separation Factor		
5,112.0	5,102.3	5,114.9	5,105.2	12.4	12.4	-115.35	193.0	-172.8	175.9	151.3	24.56	7.161		
5,150.0	5,140.1	5,152.9	5,143.1	12.5	12.5	-115.59	195.6	-173.5	177.0	152.2	24.74	7.154		
5,200.0	5,189.2	5,202.8	5,192.9	12.6	12.6	-116.91	198.9	-174.4	180.3	155.4	24.94	7.229		
5,250.0	5,237.1	5,257.7	5,247.3	12.8	12.8	-118.69	205.7	-176.3	185.2	160.1	25.14	7.367		
5,300.0	5,283.5	5,313.6	5,301.6	13.1	13.0	-120.02	218.2	-179.8	191.0	165.7	25.36	7.533		
5,350.0	5,327.8	5,370.3	5,355.0	13.4	13.2	-120.89	236.5	-184.9	197.5	171.9	25.60	7.716		
5,400.0	5,369.8	5,427.7	5,406.7	13.7	13.6	-121.31	260.7	-191.6	204.6	178.7	25.89	7.902		
5,450.0	5,408.9	5,485.9	5,455.8	14.1	13.9	-121.30	290.5	-199.9	212.2	185.9	26.28	8.074		
5,500.0	5,444.9	5,544.6	5,501.6	14.5	14.4	-120.89	325.9	-209.6	220.1	193.3	26.79	8.215		
5,550.0	5,477.4	5,603.7	5,543.3	15.0	14.9	-120.11	366.3	-220.9	228.3	200.9	27.48	8.310		
5,600.0	5,506.1	5,663.2	5,580.2	15.5	15.5	-119.00	411.2	-233.3	236.8	208.4	28.36	8.347		
5,650.0	5,530.8	5,722.9	5,611.6	16.0	16.2	-117.59	460.1	-246.9	245.3	215.9	29.46	8.327		
5,700.0	5,551.2	5,782.6	5,637.0	16.7	16.9	-115.93	512.1	-261.3	254.0	223.2	30.78	8.253		
5,750.0	5,567.1	5,842.3	5,656.1	17.3	17.7	-114.06	566.6	-276.4	262.7	230.5	32.29	8.137		
5,800.0	5,578.4	5,901.8	5,668.5	18.0	18.5	-112.02	622.7	-292.0	271.5	237.5	33.97	7.992		
5,850.0	5,585.0	5,961.1	5,674.2	18.7	19.4	-109.84	679.5	-307.7	280.2	244.4	35.78	7.831		
5,893.8	5,586.8	6,011.8	5,674.6	19.3	20.2	-108.05	728.4	-321.0	287.8	250.5	37.36	7.705		
5,900.0	5,586.8	6,018.9	5,674.6	19.4	20.3	-107.97	735.3	-322.8	288.9	251.4	37.54	7.697		
5,997.3	5,586.8	6,131.4	5,674.6	20.7	21.9	-106.94	845.0	-347.5	305.6	265.3	40.29	7.585		
6,000.0	5,586.8	6,134.5	5,674.6	20.8	21.9	-106.91	848.1	-348.1	306.1	265.7	40.38	7.579		
6,100.0	5,586.8	6,252.0	5,674.6	22.3	23.6	-106.03	964.0	-366.8	319.9	276.1	43.74	7.314		
6,200.0	5,586.8	6,371.1	5,674.6	23.9	25.5	-105.55	1,082.5	-378.5	327.8	280.6	47.16	6.950		
6,300.0	5,586.8	6,486.7	5,674.6	25.6	27.3	-105.44	1,198.0	-382.8	329.8	279.3	50.57	6.523		
6,400.0	5,586.9	6,586.7	5,674.6	27.3	28.9	-105.43	1,298.0	-384.5	330.0	276.2	53.82	6.132		
6,500.0	5,586.9	6,686.7	5,674.7	29.0	30.6	-105.42	1,398.0	-386.3	330.2	273.0	57.13	5.779		
6,600.0	5,586.9	6,786.7	5,674.7	30.8	32.3	-105.42	1,498.0	-388.0	330.3	269.8	60.49	5.461		
6,700.0	5,586.9	6,886.7	5,674.7	32.5	34.0	-105.41	1,598.0	-389.7	330.5	266.6	63.89	5.173		
6,800.0	5,586.9	6,986.7	5,674.7	34.3	35.8	-105.40	1,698.0	-391.5	330.6	263.3	67.32	4.912		
6,900.0	5,586.9	7,086.7	5,674.7	36.1	37.5	-105.39	1,798.0	-393.2	330.8	260.0	70.79	4.673		
7,000.0	5,586.9	7,186.7	5,674.7	37.9	39.3	-105.39	1,897.9	-394.9	331.0	256.7	74.28	4.456		
7,100.0	5,586.9	7,286.7	5,674.7	39.7	41.1	-105.38	1,997.9	-396.7	331.1	253.4	77.79	4.257		
7,200.0	5,586.9	7,386.7	5,674.7	41.5	42.9	-105.37	2,097.9	-398.4	331.3	250.0	81.32	4.074		
7,300.0	5,586.9	7,486.7	5,674.7	43.4	44.7	-105.36	2,197.9	-400.1	331.5	246.6	84.87	3.906		
7,400.0	5,586.9	7,586.7	5,674.7	45.2	46.5	-105.36	2,297.9	-401.9	331.6	243.2	88.43	3.750		
7,500.0	5,586.9	7,686.7	5,674.7	47.1	48.3	-105.35	2,397.9	-403.6	331.8	239.8	92.01	3.606		
7,600.0	5,586.9	7,786.7	5,674.7	48.9	50.2	-105.34	2,497.8	-405.3	332.0	236.4	95.59	3.473		
7,700.0	5,586.9	7,886.7	5,674.7	50.8	52.0	-105.33	2,597.8	-407.1	332.1	232.9	99.19	3.348		
7,800.0	5,586.9	7,986.7	5,674.7	52.6	53.9	-105.33	2,697.8	-408.8	332.3	229.5	102.80	3.233		
7,900.0	5,586.9	8,086.7	5,674.7	54.5	55.7	-105.32	2,797.8	-410.5	332.5	226.1	106.42	3.124		
8,000.0	5,586.9	8,186.7	5,674.7	56.4	57.6	-105.31	2,897.8	-412.3	332.6	222.6	110.04	3.023		
8,100.0	5,586.9	8,286.7	5,674.7	58.3	59.4	-105.31	2,997.8	-414.0	332.8	219.1	113.67	2.928		
8,200.0	5,586.9	8,386.7	5,674.7	60.1	61.3	-105.30	3,097.8	-415.7	333.0	215.7	117.31	2.838		
8,300.0	5,586.9	8,486.7	5,674.7	62.0	63.2	-105.29	3,197.7	-417.5	333.1	212.2	120.95	2.754		
8,400.0	5,586.9	8,586.7	5,674.7	63.9	65.0	-105.28	3,297.7	-419.2	333.3	208.7	124.60	2.675		
8,500.0	5,586.9	8,686.7	5,674.8	65.8	66.9	-105.28	3,397.7	-421.0	333.5	205.2	128.26	2.600		
8,600.0	5,586.9	8,786.7	5,674.8	67.7	68.8	-105.27	3,497.7	-422.7	333.6	201.7	131.91	2.529		
8,700.0	5,586.9	8,886.7	5,674.8	69.5	70.6	-105.26	3,597.7	-424.4	333.8	198.2	135.58	2.462		
8,800.0	5,586.9	8,986.7	5,674.8	71.4	72.5	-105.25	3,697.7	-426.2	334.0	194.7	139.24	2.398		
8,900.0	5,586.9	9,086.7	5,674.8	73.3	74.4	-105.25	3,797.6	-427.9	334.1	191.2	142.91	2.338		
9,000.0	5,586.9	9,186.7	5,674.8	75.2	76.3	-105.24	3,897.6	-429.6	334.3	187.7	146.58	2.281		
9,100.0	5,586.9	9,286.7	5,674.8	77.1	78.2	-105.23	3,997.6	-431.4	334.5	184.2	150.26	2.226		
9,200.0	5,586.9	9,386.7	5,674.8	79.0	80.1	-105.23	4,097.6	-433.1	334.6	180.7	153.94	2.174		

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 #26L-2303A
Project:	Weld County, CO	TVD Reference:	WELL @ 4751.0usft (Original Well Elev)
Reference Site:	S26-T10N-R58W	MD Reference:	WELL @ 4751.0usft (Original Well Elev)
Site Error:	0.0usft	North Reference:	Grid
Reference Well:	Razor #26L-2303A	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	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 #26L-2302B - HZ - Plan #2												Offset Site Error:	0.0 usft
Survey Program: 0-ISCWSA MWD												Offset Well Error:	0.0 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)	Total Uncertainty Axis	Separation Factor	Warning
9,300.0	5,586.9	9,486.7	5,674.8	80.9	82.0	-105.22	4,197.6	-434.8	334.8	177.2	157.62	2.124	
9,400.0	5,586.9	9,586.7	5,674.8	82.8	83.8	-105.21	4,297.6	-436.6	335.0	173.7	161.30	2.077	
9,500.0	5,586.9	9,686.7	5,674.8	84.7	85.7	-105.20	4,397.6	-438.3	335.1	170.1	164.99	2.031	
9,600.0	5,586.9	9,786.7	5,674.8	86.6	87.6	-105.20	4,497.5	-440.0	335.3	166.6	168.68	1.988	
9,700.0	5,586.9	9,886.7	5,674.8	88.5	89.5	-105.19	4,597.5	-441.8	335.5	163.1	172.37	1.946	
9,800.0	5,586.9	9,986.7	5,674.8	90.4	91.4	-105.18	4,697.5	-443.5	335.6	159.6	176.06	1.906	
9,900.0	5,586.9	10,086.7	5,674.8	92.3	93.3	-105.18	4,797.5	-445.2	335.8	156.0	179.75	1.868	
10,000.0	5,586.9	10,186.7	5,674.8	94.2	95.2	-105.17	4,897.5	-447.0	336.0	152.5	183.45	1.831	
10,100.0	5,586.9	10,286.7	5,674.8	96.1	97.1	-105.16	4,997.5	-448.7	336.1	149.0	187.15	1.796	
10,200.0	5,586.9	10,386.7	5,674.8	98.0	99.0	-105.15	5,097.4	-450.4	336.3	145.4	190.85	1.762	
10,300.0	5,586.9	10,486.7	5,674.8	99.9	100.9	-105.15	5,197.4	-452.2	336.5	141.9	194.55	1.729	
10,400.0	5,586.9	10,586.7	5,674.8	101.8	102.8	-105.14	5,297.4	-453.9	336.6	138.4	198.25	1.698	
10,500.0	5,586.9	10,686.7	5,674.9	103.7	104.7	-105.13	5,397.4	-455.6	336.8	134.8	201.95	1.668	
10,600.0	5,586.9	10,786.7	5,674.9	105.6	106.6	-105.13	5,497.4	-457.4	336.9	131.3	205.66	1.638	
10,700.0	5,586.9	10,886.7	5,674.9	107.5	108.5	-105.12	5,597.4	-459.1	337.1	127.8	209.36	1.610	
10,800.0	5,586.9	10,986.7	5,674.9	109.5	110.4	-105.11	5,697.4	-460.8	337.3	124.2	213.07	1.583	
10,900.0	5,586.9	11,086.7	5,674.9	111.4	112.3	-105.10	5,797.3	-462.6	337.4	120.7	216.78	1.557	
11,000.0	5,586.9	11,186.7	5,674.9	113.3	114.2	-105.10	5,897.3	-464.3	337.6	117.1	220.49	1.531	
11,100.0	5,586.9	11,286.7	5,674.9	115.2	116.1	-105.09	5,997.3	-466.1	337.8	113.6	224.20	1.507	
11,200.0	5,586.9	11,386.7	5,674.9	117.1	118.0	-105.08	6,097.3	-467.8	337.9	110.0	227.91	1.483 Level 3	
11,300.0	5,586.9	11,486.7	5,674.9	119.0	119.9	-105.08	6,197.3	-469.5	338.1	106.5	231.62	1.460 Level 3	
11,400.0	5,587.0	11,586.7	5,674.9	120.9	121.9	-105.07	6,297.3	-471.3	338.3	102.9	235.34	1.437 Level 3	
11,500.0	5,587.0	11,686.7	5,674.9	122.8	123.8	-105.06	6,397.3	-473.0	338.4	99.4	239.05	1.416 Level 3	
11,600.0	5,587.0	11,786.7	5,674.9	124.7	125.7	-105.05	6,497.2	-474.7	338.6	95.8	242.77	1.395 Level 3	
11,700.0	5,587.0	11,886.7	5,674.9	126.6	127.6	-105.05	6,597.2	-476.5	338.8	92.3	246.48	1.374 Level 3	
11,800.0	5,587.0	11,986.7	5,674.9	128.5	129.5	-105.04	6,697.2	-478.2	338.9	88.7	250.20	1.355 Level 3	
11,900.0	5,587.0	12,086.7	5,674.9	130.5	131.4	-105.03	6,797.2	-479.9	339.1	85.2	253.92	1.335 Level 3	
12,000.0	5,587.0	12,186.7	5,674.9	132.4	133.3	-105.03	6,897.2	-481.7	339.3	81.6	257.64	1.317 Level 3	
12,100.0	5,587.0	12,286.7	5,674.9	134.3	135.2	-105.02	6,997.2	-483.4	339.4	78.1	261.35	1.299 Level 3	
12,200.0	5,587.0	12,386.7	5,674.9	136.2	137.1	-105.01	7,097.1	-485.1	339.6	74.5	265.07	1.281 Level 3	
12,300.0	5,587.0	12,486.7	5,674.9	138.1	139.0	-105.01	7,197.1	-486.9	339.8	71.0	268.79	1.264 Level 3	
12,400.0	5,587.0	12,586.7	5,674.9	140.0	140.9	-105.00	7,297.1	-488.6	339.9	67.4	272.52	1.247 Level 2	
12,500.0	5,587.0	12,686.7	5,674.9	141.9	142.9	-104.99	7,397.1	-490.3	340.1	63.9	276.24	1.231 Level 2	
12,600.0	5,587.0	12,786.7	5,675.0	143.8	144.8	-104.98	7,497.1	-492.1	340.3	60.3	279.96	1.215 Level 2	
12,700.0	5,587.0	12,886.7	5,675.0	145.8	146.7	-104.98	7,597.1	-493.8	340.4	56.8	283.68	1.200 Level 2	
12,800.0	5,587.0	12,986.7	5,675.0	147.7	148.6	-104.97	7,697.1	-495.5	340.6	53.2	287.41	1.185 Level 2	
12,900.0	5,587.0	13,086.7	5,675.0	149.6	150.5	-104.96	7,797.0	-497.3	340.8	49.6	291.13	1.170 Level 2	
13,000.0	5,587.0	13,186.7	5,675.0	151.5	152.4	-104.96	7,897.0	-499.0	340.9	46.1	294.85	1.156 Level 2	
13,100.0	5,587.0	13,286.7	5,675.0	153.4	154.3	-104.95	7,997.0	-500.7	341.1	42.5	298.58	1.142 Level 2	
13,200.0	5,587.0	13,386.7	5,675.0	155.3	156.2	-104.94	8,097.0	-502.5	341.3	39.0	302.31	1.129 Level 2	
13,287.0	5,587.0	13,473.2	5,675.0	157.0	157.9	-104.94	8,183.5	-504.0	341.4	35.9	305.54	1.117 Level 2, ES, SF	

Company:	Whiting Petroleum Corporation	Local Co-ordinate Reference:	Well Razor #26L-2303A
Project:	Weld County, CO	TVD Reference:	WELL @ 4751.0usft (Original Well Elev)
Reference Site:	S26-T10N-R58W	MD Reference:	WELL @ 4751.0usft (Original Well Elev)
Site Error:	0.0usft	North Reference:	Grid
Reference Well:	Razor #26L-2303A	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	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 #26L-2304B - HZ - Plan #1													Offset Site Error: 0.0 usft	
Survey Program: 0-ISCSA MWD													Offset Well Error: 0.0 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)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-157.20	-75.7	-31.8	82.1					
100.0	100.0	100.0	100.0	0.1	0.1	-157.20	-75.7	-31.8	82.1	81.9	0.19	437.305		
200.0	200.0	200.0	200.0	0.3	0.3	-157.20	-75.7	-31.8	82.1	81.4	0.64	128.801		
300.0	300.0	300.0	300.0	0.5	0.5	-157.20	-75.7	-31.8	82.1	81.0	1.09	75.522		
400.0	400.0	400.0	400.0	0.8	0.8	-157.20	-75.7	-31.8	82.1	80.5	1.54	53.424		
500.0	500.0	500.0	500.0	1.0	1.0	-157.20	-75.7	-31.8	82.1	80.1	1.99	41.330		
600.0	600.0	600.0	600.0	1.2	1.2	-157.20	-75.7	-31.8	82.1	79.6	2.44	33.701		
700.0	700.0	702.9	702.9	1.4	1.4	-157.36	-74.1	-30.9	80.3	77.4	2.89	27.773		
800.0	800.0	805.4	805.2	1.7	1.7	-157.90	-69.3	-28.1	75.0	71.6	3.35	22.377		
900.0	900.0	905.1	904.7	1.9	1.9	-158.71	-63.3	-24.7	68.1	64.3	3.80	17.900		
1,000.0	1,000.0	1,004.9	1,004.2	2.1	2.1	-159.70	-57.2	-21.2	61.2	56.9	4.25	14.386		
1,100.0	1,100.0	1,104.7	1,103.8	2.3	2.4	-157.68	-51.2	-17.7	55.9	51.2	4.70	11.893		
1,200.0	1,199.8	1,204.6	1,203.5	2.6	2.6	-161.30	-45.2	-14.2	54.0	48.9	5.15	10.489		
1,240.2	1,240.0	1,244.8	1,243.6	2.7	2.7	-163.04	-42.7	-12.8	54.0	48.7	5.34	10.122 CC		
1,300.0	1,299.6	1,304.5	1,303.1	2.8	2.9	-165.62	-39.1	-10.7	54.1	48.5	5.61	9.637		
1,400.0	1,399.4	1,404.5	1,402.8	3.0	3.1	-169.91	-33.1	-7.2	54.4	48.3	6.07	8.960 ES		
1,500.0	1,499.1	1,504.4	1,502.5	3.3	3.4	-174.13	-27.1	-3.8	55.0	48.5	6.54	8.421		
1,600.0	1,598.9	1,604.3	1,602.2	3.5	3.6	-178.23	-21.0	-0.3	56.0	49.0	7.00	7.990		
1,700.0	1,698.6	1,704.2	1,701.8	3.7	3.9	177.83	-15.0	3.2	57.2	49.7	7.48	7.644		
1,800.0	1,798.4	1,804.1	1,801.5	4.0	4.1	174.06	-9.0	6.7	58.6	50.7	7.96	7.369		
1,900.0	1,898.1	1,904.0	1,901.2	4.2	4.4	170.50	-2.9	10.2	60.3	51.9	8.44	7.151		
2,000.0	1,997.9	2,004.0	2,000.9	4.5	4.6	167.14	3.1	13.7	62.3	53.3	8.92	6.978		
2,100.0	2,097.6	2,103.9	2,100.5	4.7	4.9	163.99	9.2	17.2	64.4	55.0	9.41	6.841		
2,200.0	2,197.4	2,203.8	2,200.2	5.0	5.1	161.05	15.2	20.6	66.7	56.8	9.90	6.735		
2,300.0	2,297.2	2,303.7	2,299.9	5.2	5.4	158.32	21.2	24.1	69.2	58.8	10.40	6.653		
2,400.0	2,396.9	2,403.6	2,399.6	5.5	5.7	155.77	27.3	27.6	71.8	60.9	10.89	6.590		
2,500.0	2,496.7	2,503.5	2,499.2	5.7	5.9	153.42	33.3	31.1	74.5	63.1	11.39	6.543		
2,600.0	2,596.4	2,603.5	2,598.9	6.0	6.2	151.23	39.3	34.6	77.4	65.5	11.89	6.509		
2,700.0	2,696.2	2,703.4	2,698.6	6.2	6.4	149.20	45.4	38.1	80.4	68.0	12.39	6.485		
2,800.0	2,795.9	2,803.3	2,798.2	6.5	6.7	147.32	51.4	41.6	83.4	70.5	12.90	6.470		
2,900.0	2,895.7	2,903.2	2,897.9	6.7	6.9	145.57	57.4	45.0	86.6	73.2	13.40	6.462		
3,000.0	2,995.5	3,003.1	2,997.6	7.0	7.2	143.95	63.5	48.5	89.8	75.9	13.91	6.459		
3,100.0	3,095.2	3,103.0	3,097.3	7.2	7.4	142.44	69.5	52.0	93.1	78.7	14.41	6.461		
3,200.0	3,195.0	3,203.0	3,196.9	7.5	7.7	141.03	75.5	55.5	96.5	81.5	14.92	6.466		
3,300.0	3,294.7	3,302.9	3,296.6	7.7	7.9	139.72	81.6	59.0	99.9	84.4	15.42	6.475		
3,400.0	3,394.5	3,402.8	3,396.3	8.0	8.2	138.50	87.6	62.5	103.3	87.4	15.93	6.486		
3,500.0	3,494.2	3,502.7	3,496.0	8.2	8.5	137.35	93.7	65.9	106.8	90.4	16.44	6.498		
3,600.0	3,594.0	3,602.6	3,595.6	8.5	8.7	136.28	99.7	69.4	110.4	93.4	16.94	6.513		
3,700.0	3,693.7	3,702.5	3,695.3	8.8	9.0	135.28	105.7	72.9	113.9	96.5	17.45	6.528		
3,800.0	3,793.5	3,802.5	3,795.0	9.0	9.2	134.34	111.8	76.4	117.5	99.6	17.96	6.544		
3,900.0	3,893.3	3,902.4	3,894.7	9.3	9.5	133.45	117.8	79.9	121.2	102.7	18.47	6.561		
4,000.0	3,993.0	4,002.3	3,994.3	9.5	9.7	132.61	123.8	83.4	124.8	105.9	18.98	6.579		
4,100.0	4,092.8	4,102.2	4,094.0	9.8	10.0	131.83	129.9	86.9	128.5	109.0	19.48	6.596		
4,200.0	4,192.5	4,202.1	4,193.7	10.0	10.2	131.08	135.9	90.3	132.2	112.2	19.99	6.614		
4,300.0	4,292.3	4,302.0	4,293.4	10.3	10.5	130.38	141.9	93.8	136.0	115.5	20.50	6.632		
4,400.0	4,392.0	4,402.0	4,393.0	10.5	10.8	129.72	148.0	97.3	139.7	118.7	21.01	6.651		
4,500.0	4,491.8	4,501.9	4,492.7	10.8	11.0	129.09	154.0	100.8	143.5	122.0	21.52	6.669		
4,600.0	4,591.6	4,601.8	4,592.4	11.0	11.3	128.49	160.1	104.3	147.3	125.2	22.03	6.687		
4,700.0	4,691.3	4,701.7	4,692.0	11.3	11.5	127.92	166.1	107.8	151.1	128.5	22.53	6.704		
4,800.0	4,791.1	4,801.6	4,791.7	11.6	11.8	127.38	172.1	111.3	154.9	131.8	23.04	6.722		
4,900.0	4,890.8	4,901.2	4,891.2	11.8	12.0	127.52	176.6	113.8	158.8	135.3	23.50	6.758		
5,000.0	4,990.6	5,000.6	4,990.6	12.1	12.2	128.85	178.1	114.7	163.0	139.1	23.89	6.822		

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 #26L-2303A
Project:	Weld County, CO	TVD Reference:	WELL @ 4751.0usft (Original Well Elev)
Reference Site:	S26-T10N-R58W	MD Reference:	WELL @ 4751.0usft (Original Well Elev)
Site Error:	0.0usft	North Reference:	Grid
Reference Well:	Razor #26L-2303A	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	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 #26L-2304B - HZ - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-ISCWSA MWD												Offset Well Error:	0.0 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)	Total Uncertainty Axis	Separation Factor	Warning
5,100.0	5,090.3	5,100.4	5,090.3	12.3	12.3	130.71	178.1	114.7	167.5	143.2	24.29	6.896	
5,112.0	5,102.3	5,112.4	5,102.3	12.4	12.4	130.93	178.1	114.7	168.0	143.7	24.34	6.905	
5,150.0	5,140.1	5,150.2	5,140.1	12.5	12.4	131.73	178.1	114.7	170.7	146.3	24.45	6.983	
5,200.0	5,189.2	5,205.4	5,195.3	12.6	12.6	133.34	179.7	115.1	176.6	152.0	24.53	7.198	
5,250.0	5,237.1	5,263.9	5,253.2	12.8	12.7	134.38	187.3	117.0	183.5	158.9	24.59	7.465	
5,300.0	5,283.5	5,323.1	5,310.6	13.1	13.0	134.69	201.4	120.4	191.3	166.7	24.63	7.768	
5,350.0	5,327.8	5,383.1	5,366.6	13.4	13.3	134.33	222.1	125.5	199.8	175.1	24.69	8.092	
5,400.0	5,369.8	5,443.5	5,420.3	13.7	13.6	133.35	249.1	132.1	208.8	184.0	24.82	8.413	
5,450.0	5,408.9	5,504.2	5,470.5	14.1	14.0	131.82	282.1	140.2	218.4	193.3	25.09	8.706	
5,500.0	5,444.9	5,565.0	5,516.5	14.5	14.5	129.83	320.6	149.7	228.5	203.0	25.55	8.944	
5,550.0	5,477.4	5,625.6	5,557.5	15.0	15.0	127.44	363.9	160.3	239.2	212.9	26.26	9.110	
5,600.0	5,506.1	5,686.0	5,592.9	15.5	15.6	124.74	411.4	172.0	250.3	223.1	27.22	9.196	
5,650.0	5,530.8	5,746.0	5,622.3	16.0	16.3	121.80	462.2	184.5	262.0	233.6	28.45	9.209	
5,700.0	5,551.2	5,805.5	5,645.2	16.7	17.0	118.69	515.4	197.5	274.2	244.3	29.93	9.162	
5,750.0	5,567.1	5,864.4	5,661.7	17.3	17.8	115.45	570.3	211.0	286.8	255.2	31.60	9.076	
5,800.0	5,578.4	5,922.7	5,671.6	18.0	18.6	112.16	626.1	224.7	299.8	266.4	33.41	8.974	
5,850.0	5,585.0	5,980.4	5,675.0	18.7	19.4	108.84	682.0	238.5	313.1	277.8	35.30	8.870	
5,893.8	5,586.8	6,030.3	5,675.0	19.3	20.1	106.37	730.5	249.8	325.0	288.1	36.87	8.815	
5,900.0	5,586.8	6,037.4	5,675.0	19.4	20.2	106.25	737.5	251.3	326.6	289.6	37.07	8.811	
5,997.3	5,586.8	6,151.7	5,675.0	20.7	21.7	104.90	849.9	272.0	347.4	307.2	40.27	8.628	
6,000.0	5,586.8	6,155.0	5,675.0	20.8	21.8	104.87	853.1	272.5	347.9	307.5	40.35	8.620	
6,100.0	5,586.8	6,275.8	5,675.0	22.3	23.5	104.21	973.1	286.8	360.9	317.2	43.66	8.265	
6,200.0	5,586.8	6,398.2	5,675.0	23.9	25.3	103.88	1,095.3	293.5	367.7	320.6	47.08	7.811	
6,300.0	5,586.8	6,506.4	5,675.0	25.6	27.0	103.80	1,203.5	294.1	369.6	319.3	50.37	7.338	
6,400.0	5,586.9	6,606.4	5,675.0	27.3	28.6	103.74	1,303.5	294.1	371.2	317.5	53.63	6.921	
6,500.0	5,586.9	6,706.4	5,675.0	29.0	30.2	103.68	1,403.5	294.1	372.7	315.7	56.95	6.544	
6,600.0	5,586.9	6,806.4	5,675.0	30.8	31.9	103.62	1,503.5	294.1	374.2	313.9	60.33	6.203	
6,700.0	5,586.9	6,906.4	5,675.0	32.5	33.6	103.57	1,603.5	294.1	375.7	312.0	63.75	5.894	
6,800.0	5,586.9	7,006.4	5,675.0	34.3	35.3	103.51	1,703.5	294.1	377.3	310.1	67.20	5.614	
6,900.0	5,586.9	7,106.4	5,675.0	36.1	37.1	103.46	1,803.5	294.1	378.8	308.1	70.69	5.359	
7,000.0	5,586.9	7,206.3	5,675.0	37.9	38.8	103.40	1,903.4	294.1	380.3	306.1	74.20	5.125	
7,100.0	5,586.9	7,306.3	5,675.0	39.7	40.6	103.34	2,003.4	294.1	381.9	304.1	77.74	4.912	
7,200.0	5,586.9	7,406.3	5,675.0	41.5	42.4	103.29	2,103.4	294.1	383.4	302.1	81.30	4.715	
7,300.0	5,586.9	7,506.3	5,675.0	43.4	44.2	103.24	2,203.4	294.1	384.9	300.0	84.88	4.535	
7,400.0	5,586.9	7,606.3	5,675.0	45.2	46.0	103.18	2,303.4	294.1	386.4	298.0	88.48	4.368	
7,500.0	5,586.9	7,706.3	5,675.0	47.1	47.8	103.13	2,403.4	294.1	388.0	295.9	92.09	4.213	
7,600.0	5,586.9	7,806.3	5,675.0	48.9	49.6	103.08	2,503.4	294.2	389.5	293.8	95.71	4.069	
7,700.0	5,586.9	7,906.3	5,675.0	50.8	51.4	103.02	2,603.4	294.2	391.0	291.7	99.35	3.936	
7,800.0	5,586.9	8,006.2	5,675.0	52.6	53.3	102.97	2,703.4	294.2	392.6	289.6	102.99	3.811	
7,900.0	5,586.9	8,106.2	5,675.0	54.5	55.1	102.92	2,803.3	294.2	394.1	287.4	106.65	3.695	
8,000.0	5,586.9	8,206.2	5,675.0	56.4	57.0	102.87	2,903.3	294.2	395.6	285.3	110.32	3.586	
8,100.0	5,586.9	8,306.2	5,675.0	58.3	58.8	102.82	3,003.3	294.2	397.1	283.2	113.99	3.484	
8,200.0	5,586.9	8,406.2	5,675.0	60.1	60.7	102.77	3,103.3	294.2	398.7	281.0	117.67	3.388	
8,300.0	5,586.9	8,506.2	5,675.0	62.0	62.5	102.72	3,203.3	294.2	400.2	278.9	121.36	3.298	
8,400.0	5,586.9	8,606.2	5,675.0	63.9	64.4	102.67	3,303.3	294.2	401.7	276.7	125.05	3.213	
8,500.0	5,586.9	8,706.2	5,675.0	65.8	66.3	102.62	3,403.3	294.2	403.3	274.5	128.75	3.132	
8,600.0	5,586.9	8,806.2	5,675.0	67.7	68.1	102.57	3,503.3	294.2	404.8	272.4	132.45	3.056	
8,700.0	5,586.9	8,906.1	5,675.0	69.5	70.0	102.52	3,603.2	294.2	406.3	270.2	136.16	2.984	
8,800.0	5,586.9	9,006.1	5,675.0	71.4	71.9	102.47	3,703.2	294.2	407.9	268.0	139.88	2.916	
8,900.0	5,586.9	9,106.1	5,675.0	73.3	73.7	102.43	3,803.2	294.2	409.4	265.8	143.60	2.851	
9,000.0	5,586.9	9,206.1	5,675.0	75.2	75.6	102.38	3,903.2	294.2	410.9	263.6	147.32	2.789	
9,100.0	5,586.9	9,306.1	5,675.0	77.1	77.5	102.33	4,003.2	294.3	412.5	261.4	151.05	2.731	

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 #26L-2303A
Project:	Weld County, CO	TVD Reference:	WELL @ 4751.0usft (Original Well Elev)
Reference Site:	S26-T10N-R58W	MD Reference:	WELL @ 4751.0usft (Original Well Elev)
Site Error:	0.0usft	North Reference:	Grid
Reference Well:	Razor #26L-2303A	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	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 #26L-2304B - HZ - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-ISCSWA MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor		
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	+N/-S (usft)	+E/-W (usft)	(usft)	(usft)			
9,200.0	5,586.9	9,406.1	5,675.0	79.0	79.4	102.29	4,103.2	294.3	414.0	259.2	154.78	2.675	
9,300.0	5,586.9	9,506.1	5,675.0	80.9	81.3	102.24	4,203.2	294.3	415.5	257.0	158.51	2.622	
9,400.0	5,586.9	9,606.1	5,675.0	82.8	83.1	102.19	4,303.2	294.3	417.1	254.8	162.25	2.571	
9,500.0	5,586.9	9,706.0	5,675.0	84.7	85.0	102.15	4,403.1	294.3	418.6	252.6	165.99	2.522	
9,600.0	5,586.9	9,806.0	5,675.0	86.6	86.9	102.10	4,503.1	294.3	420.1	250.4	169.73	2.475	
9,700.0	5,586.9	9,906.0	5,675.0	88.5	88.8	102.06	4,603.1	294.3	421.7	248.2	173.48	2.431	
9,800.0	5,586.9	10,006.0	5,675.0	90.4	90.7	102.01	4,703.1	294.3	423.2	246.0	177.23	2.388	
9,900.0	5,586.9	10,106.0	5,675.0	92.3	92.6	101.97	4,803.1	294.3	424.8	243.8	180.98	2.347	
10,000.0	5,586.9	10,206.0	5,675.0	94.2	94.5	101.92	4,903.1	294.3	426.3	241.6	184.73	2.308	
10,100.0	5,586.9	10,306.0	5,675.0	96.1	96.4	101.88	5,003.1	294.3	427.8	239.3	188.49	2.270	
10,200.0	5,586.9	10,406.0	5,675.0	98.0	98.3	101.84	5,103.1	294.3	429.4	237.1	192.24	2.233	
10,300.0	5,586.9	10,505.9	5,675.0	99.9	100.1	101.79	5,203.0	294.3	430.9	234.9	196.00	2.198	
10,400.0	5,586.9	10,605.9	5,675.0	101.8	102.0	101.75	5,303.0	294.3	432.4	232.7	199.76	2.165	
10,500.0	5,586.9	10,705.9	5,675.0	103.7	103.9	101.71	5,403.0	294.4	434.0	230.4	203.53	2.132	
10,600.0	5,586.9	10,805.9	5,675.0	105.6	105.8	101.67	5,503.0	294.4	435.5	228.2	207.29	2.101	
10,700.0	5,586.9	10,905.9	5,675.0	107.5	107.7	101.62	5,603.0	294.4	437.0	226.0	211.06	2.071	
10,800.0	5,586.9	11,005.9	5,675.0	109.5	109.6	101.58	5,703.0	294.4	438.6	223.8	214.83	2.042	
10,900.0	5,586.9	11,105.9	5,675.0	111.4	111.5	101.54	5,803.0	294.4	440.1	221.5	218.60	2.013	
11,000.0	5,586.9	11,205.9	5,675.0	113.3	113.4	101.50	5,903.0	294.4	441.7	219.3	222.37	1.986	
11,100.0	5,586.9	11,305.8	5,675.0	115.2	115.3	101.46	6,002.9	294.4	443.2	217.1	226.15	1.960	
11,200.0	5,586.9	11,405.8	5,675.0	117.1	117.2	101.42	6,102.9	294.4	444.7	214.8	229.92	1.934	
11,300.0	5,586.9	11,505.8	5,675.0	119.0	119.1	101.38	6,202.9	294.4	446.3	212.6	233.70	1.910	
11,400.0	5,587.0	11,605.8	5,675.0	120.9	121.0	101.34	6,302.9	294.4	447.8	210.3	237.48	1.886	
11,500.0	5,587.0	11,705.8	5,675.0	122.8	122.9	101.30	6,402.9	294.4	449.4	208.1	241.25	1.863	
11,600.0	5,587.0	11,805.8	5,675.0	124.7	124.8	101.26	6,502.9	294.4	450.9	205.9	245.04	1.840	
11,700.0	5,587.0	11,905.8	5,675.0	126.6	126.7	101.22	6,602.9	294.4	452.4	203.6	248.82	1.818	
11,800.0	5,587.0	12,005.8	5,675.0	128.5	128.6	101.18	6,702.9	294.4	454.0	201.4	252.60	1.797	
11,900.0	5,587.0	12,105.7	5,675.0	130.5	130.5	101.14	6,802.8	294.5	455.5	199.1	256.38	1.777	
12,000.0	5,587.0	12,205.7	5,675.0	132.4	132.4	101.11	6,902.8	294.5	457.1	196.9	260.17	1.757	
12,100.0	5,587.0	12,305.7	5,675.0	134.3	134.3	101.07	7,002.8	294.5	458.6	194.6	263.95	1.737	
12,200.0	5,587.0	12,405.7	5,675.0	136.2	136.3	101.03	7,102.8	294.5	460.1	192.4	267.74	1.719	
12,300.0	5,587.0	12,505.7	5,675.0	138.1	138.2	100.99	7,202.8	294.5	461.7	190.1	271.53	1.700	
12,400.0	5,587.0	12,605.7	5,675.0	140.0	140.1	100.95	7,302.8	294.5	463.2	187.9	275.32	1.682	
12,500.0	5,587.0	12,705.7	5,675.0	141.9	142.0	100.92	7,402.8	294.5	464.8	185.7	279.11	1.665	
12,600.0	5,587.0	12,805.7	5,675.0	143.8	143.9	100.88	7,502.8	294.5	466.3	183.4	282.90	1.648	
12,700.0	5,587.0	12,905.6	5,675.0	145.8	145.8	100.84	7,602.7	294.5	467.8	181.2	286.69	1.632	
12,800.0	5,587.0	13,005.6	5,675.0	147.7	147.7	100.81	7,702.7	294.5	469.4	178.9	290.49	1.616	
12,900.0	5,587.0	13,105.6	5,675.0	149.6	149.6	100.77	7,802.7	294.5	470.9	176.7	294.28	1.600	
13,000.0	5,587.0	13,205.6	5,675.0	151.5	151.5	100.74	7,902.7	294.5	472.5	174.4	298.07	1.585	
13,100.0	5,587.0	13,305.6	5,675.0	153.4	153.4	100.70	8,002.7	294.5	474.0	172.1	301.87	1.570	
13,200.0	5,587.0	13,405.6	5,675.0	155.3	155.3	100.67	8,102.7	294.5	475.6	169.9	305.65	1.556	
13,287.0	5,587.0	13,492.5	5,675.0	157.0	156.7	100.63	8,189.6	294.5	476.9	168.2	308.65	1.545 SF	

Company:	Whiting Petroleum Corporation	Local Co-ordinate Reference:	Well Razor #26L-2303A
Project:	Weld County, CO	TVD Reference:	WELL @ 4751.0usft (Original Well Elev)
Reference Site:	S26-T10N-R58W	MD Reference:	WELL @ 4751.0usft (Original Well Elev)
Site Error:	0.0usft	North Reference:	Grid
Reference Well:	Razor #26L-2303A	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	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 #26L-3501A - HZ - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-ISCSWA MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
0.0	0.0	0.0	0.0	0.0	0.0	-91.06	-1.8	-99.4	99.4					
100.0	100.0	100.0	100.0	0.1	0.1	-91.06	-1.8	-99.4	99.4	99.2	0.19	529.531		
200.0	200.0	200.0	200.0	0.3	0.3	-91.06	-1.8	-99.4	99.4	98.7	0.64	155.964		
300.0	300.0	300.0	300.0	0.5	0.5	-91.06	-1.8	-99.4	99.4	98.3	1.09	91.450		
400.0	400.0	400.0	400.0	0.8	0.8	-91.06	-1.8	-99.4	99.4	97.8	1.54	64.690		
500.0	500.0	500.0	500.0	1.0	1.0	-91.06	-1.8	-99.4	99.4	97.4	1.99	50.046		
600.0	600.0	600.0	600.0	1.2	1.2	-91.06	-1.8	-99.4	99.4	96.9	2.44	40.808		
700.0	700.0	700.0	700.0	1.4	1.4	-91.06	-1.8	-99.4	99.4	96.5	2.88	34.449		
766.7	766.7	766.7	766.7	1.6	1.6	-91.06	-1.8	-99.4	99.4	96.2	3.18	31.208 CC		
800.0	800.0	800.0	800.0	1.7	1.7	-91.06	-1.8	-99.4	99.4	96.0	3.33	29.805 ES		
900.0	900.0	898.2	898.2	1.9	1.9	-91.88	-3.3	-100.2	100.3	96.5	3.75	26.714		
1,000.0	1,000.0	996.2	996.0	2.1	2.0	-94.26	-7.7	-102.7	103.1	98.9	4.16	24.796		
1,100.0	1,100.0	1,095.7	1,095.3	2.3	2.2	-94.17	-13.7	-106.2	107.3	102.7	4.57	23.450		
1,200.0	1,199.8	1,195.0	1,194.4	2.6	2.4	-99.49	-19.7	-109.7	112.5	107.5	5.00	22.498		
1,300.0	1,299.6	1,294.2	1,293.3	2.8	2.7	-105.20	-25.7	-113.1	119.1	113.7	5.43	21.914		
1,400.0	1,399.4	1,393.3	1,392.1	3.0	2.9	-110.26	-31.6	-116.6	126.7	120.9	5.87	21.574		
1,500.0	1,499.1	1,492.4	1,491.0	3.3	3.1	-114.73	-37.6	-120.0	135.3	128.9	6.32	21.409		
1,600.0	1,598.9	1,591.5	1,589.9	3.5	3.4	-118.65	-43.6	-123.5	144.5	137.7	6.76	21.366 SF		
1,700.0	1,698.6	1,690.6	1,688.8	3.7	3.6	-122.10	-49.6	-126.9	154.4	147.1	7.21	21.406		
1,800.0	1,798.4	1,789.7	1,787.6	4.0	3.8	-125.12	-55.6	-130.4	164.7	157.0	7.66	21.503		
1,900.0	1,898.1	1,888.8	1,886.5	4.2	4.1	-127.78	-61.6	-133.9	175.4	167.3	8.11	21.637		
2,000.0	1,997.9	1,987.9	1,985.4	4.5	4.3	-130.13	-67.6	-137.3	186.5	177.9	8.56	21.794		
2,100.0	2,097.6	2,087.0	2,084.2	4.7	4.6	-132.21	-73.5	-140.8	197.8	188.8	9.01	21.964		
2,200.0	2,197.4	2,186.1	2,183.1	5.0	4.8	-134.07	-79.5	-144.2	209.4	200.0	9.46	22.142		
2,300.0	2,297.2	2,285.3	2,282.0	5.2	5.1	-135.74	-85.5	-147.7	221.2	211.3	9.91	22.321		
2,400.0	2,396.9	2,384.4	2,380.8	5.5	5.3	-137.23	-91.5	-151.1	233.1	222.8	10.36	22.500		
2,500.0	2,496.7	2,483.5	2,479.7	5.7	5.6	-138.58	-97.5	-154.6	245.2	234.4	10.81	22.676		
2,600.0	2,596.4	2,582.6	2,578.6	6.0	5.8	-139.80	-103.5	-158.1	257.4	246.1	11.27	22.848		
2,700.0	2,696.2	2,681.7	2,677.4	6.2	6.1	-140.91	-109.5	-161.5	269.7	258.0	11.72	23.014		
2,800.0	2,795.9	2,780.8	2,776.3	6.5	6.4	-141.93	-115.5	-165.0	282.1	269.9	12.17	23.175		
2,900.0	2,895.7	2,879.9	2,875.2	6.7	6.6	-142.85	-121.4	-168.4	294.6	282.0	12.63	23.329		
3,000.0	2,995.5	2,979.0	2,974.0	7.0	6.9	-143.71	-127.4	-171.9	307.1	294.0	13.08	23.478		
3,100.0	3,095.2	3,078.1	3,072.9	7.2	7.1	-144.49	-133.4	-175.3	319.7	306.2	13.54	23.620		
3,200.0	3,195.0	3,177.2	3,171.8	7.5	7.4	-145.22	-139.4	-178.8	332.4	318.4	13.99	23.757		
3,300.0	3,294.7	3,276.4	3,270.6	7.7	7.6	-145.89	-145.4	-182.2	345.1	330.7	14.45	23.888		
3,400.0	3,394.5	3,375.5	3,369.5	8.0	7.9	-146.52	-151.4	-185.7	357.9	343.0	14.90	24.013		
3,500.0	3,494.2	3,474.6	3,468.4	8.2	8.2	-147.10	-157.4	-189.2	370.7	355.3	15.36	24.133		
3,600.0	3,594.0	3,573.7	3,567.3	8.5	8.4	-147.64	-163.4	-192.6	383.5	367.7	15.82	24.247		
3,700.0	3,693.7	3,672.8	3,666.1	8.8	8.7	-148.15	-169.3	-196.1	396.4	380.1	16.27	24.357		
3,800.0	3,793.5	3,771.9	3,765.0	9.0	8.9	-148.63	-175.3	-199.5	409.3	392.5	16.73	24.463		
3,900.0	3,893.3	3,871.0	3,863.9	9.3	9.2	-149.07	-181.3	-203.0	422.2	405.0	17.19	24.564		
4,000.0	3,993.0	3,970.1	3,962.7	9.5	9.5	-149.49	-187.3	-206.4	435.1	417.5	17.64	24.660		
4,100.0	4,092.8	4,069.2	4,061.6	9.8	9.7	-149.89	-193.3	-209.9	448.1	430.0	18.10	24.753		
4,200.0	4,192.5	4,168.3	4,160.5	10.0	10.0	-150.26	-199.3	-213.4	461.1	442.5	18.56	24.842		
4,300.0	4,292.3	4,267.5	4,259.3	10.3	10.2	-150.62	-205.3	-216.8	474.1	455.0	19.02	24.928		
4,400.0	4,392.0	4,366.6	4,358.2	10.5	10.5	-150.95	-211.3	-220.3	487.1	467.6	19.48	25.010		

Company:	Whiting Petroleum Corporation	Local Co-ordinate Reference:	Well Razor #26L-2303A
Project:	Weld County, CO	TVD Reference:	WELL @ 4751.0usft (Original Well Elev)
Reference Site:	S26-T10N-R58W	MD Reference:	WELL @ 4751.0usft (Original Well Elev)
Site Error:	0.0usft	North Reference:	Grid
Reference Well:	Razor #26L-2303A	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	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 #26L-3502B - HZ - Plan #1													Offset Site Error: 0.0 usft
Survey Program: 0-ISCSWA MWD													Offset Well Error: 0.0 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)	Total Uncertainty Axis	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	-139.67	-76.3	-64.7	100.0				
100.0	100.0	100.0	100.0	0.1	0.1	-139.67	-76.3	-64.7	100.0	99.9	0.19	533.041	
200.0	200.0	200.0	200.0	0.3	0.3	-139.67	-76.3	-64.7	100.0	99.4	0.64	156.998	
300.0	300.0	300.0	300.0	0.5	0.5	-139.67	-76.3	-64.7	100.0	99.0	1.09	92.056	
400.0	400.0	400.0	400.0	0.8	0.8	-139.67	-76.3	-64.7	100.0	98.5	1.54	65.119	
500.0	500.0	500.0	500.0	1.0	1.0	-139.67	-76.3	-64.7	100.0	98.1	1.99	50.378	
600.0	600.0	600.0	600.0	1.2	1.2	-139.67	-76.3	-64.7	100.0	97.6	2.44	41.079	
700.0	700.0	700.0	700.0	1.4	1.4	-139.67	-76.3	-64.7	100.0	97.2	2.88	34.678	
800.0	800.0	800.0	800.0	1.7	1.7	-139.67	-76.3	-64.7	100.0	96.7	3.33	30.003	
900.0	900.0	900.0	900.0	1.9	1.9	-139.67	-76.3	-64.7	100.0	96.3	3.78	26.438	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-139.67	-76.3	-64.7	100.0	95.8	4.23	23.631 CC, ES	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	-136.34	-76.3	-64.7	101.3	96.6	4.68	21.634	
1,200.0	1,199.8	1,198.4	1,198.4	2.6	2.5	-139.07	-77.7	-63.9	105.8	100.7	5.10	20.742	
1,300.0	1,299.6	1,296.1	1,296.0	2.8	2.7	-143.67	-82.1	-61.4	113.5	108.0	5.51	20.610 SF	
1,400.0	1,399.4	1,395.1	1,394.7	3.0	2.9	-148.45	-88.1	-57.9	122.8	116.9	5.92	20.726	
1,500.0	1,499.1	1,494.2	1,493.6	3.3	3.1	-152.55	-94.0	-54.5	132.8	126.5	6.35	20.922	
1,600.0	1,598.9	1,593.3	1,592.4	3.5	3.3	-156.05	-100.0	-51.0	143.5	136.7	6.78	21.163	
1,700.0	1,698.6	1,692.4	1,691.2	3.7	3.5	-159.07	-106.0	-47.6	154.5	147.3	7.21	21.429	
1,800.0	1,798.4	1,791.4	1,790.1	4.0	3.7	-161.68	-112.0	-44.1	166.0	158.3	7.65	21.706	
1,900.0	1,898.1	1,890.5	1,888.9	4.2	4.0	-163.95	-118.0	-40.7	177.7	169.7	8.08	21.984	
2,000.0	1,997.9	1,989.6	1,987.7	4.5	4.2	-165.94	-124.0	-37.2	189.7	181.2	8.52	22.257	
2,100.0	2,097.6	2,088.7	2,086.6	4.7	4.4	-167.69	-130.0	-33.7	201.9	193.0	8.97	22.523	
2,200.0	2,197.4	2,187.7	2,185.4	5.0	4.7	-169.24	-135.9	-30.3	214.3	204.9	9.41	22.778	
2,300.0	2,297.2	2,286.8	2,284.2	5.2	4.9	-170.62	-141.9	-26.8	226.8	216.9	9.85	23.021	
2,400.0	2,396.9	2,385.9	2,383.1	5.5	5.2	-171.85	-147.9	-23.4	239.4	229.1	10.29	23.252	
2,500.0	2,496.7	2,485.0	2,481.9	5.7	5.4	-172.97	-153.9	-19.9	252.1	241.4	10.74	23.472	
2,600.0	2,596.4	2,584.0	2,580.7	6.0	5.7	-173.97	-159.9	-16.5	264.9	253.7	11.19	23.680	
2,700.0	2,696.2	2,683.1	2,679.6	6.2	5.9	-174.89	-165.9	-13.0	277.8	266.1	11.63	23.876	
2,800.0	2,795.9	2,782.2	2,778.4	6.5	6.1	-175.72	-171.8	-9.6	290.7	278.6	12.08	24.062	
2,900.0	2,895.7	2,881.3	2,877.2	6.7	6.4	-176.48	-177.8	-6.1	303.7	291.1	12.53	24.238	
3,000.0	2,995.5	2,980.3	2,976.1	7.0	6.6	-177.18	-183.8	-2.6	316.7	303.7	12.98	24.404	
3,100.0	3,095.2	3,079.4	3,074.9	7.2	6.9	-177.82	-189.8	0.8	329.8	316.3	13.43	24.562	
3,200.0	3,195.0	3,178.5	3,173.8	7.5	7.1	-178.41	-195.8	4.3	342.9	329.0	13.88	24.711	
3,300.0	3,294.7	3,277.6	3,272.6	7.7	7.4	-178.96	-201.8	7.7	356.0	341.7	14.33	24.852	
3,400.0	3,394.5	3,376.6	3,371.4	8.0	7.7	-179.48	-207.8	11.2	369.2	354.4	14.78	24.985	
3,500.0	3,494.2	3,475.7	3,470.3	8.2	7.9	-179.95	-213.7	14.6	382.4	367.2	15.23	25.112	
3,600.0	3,594.0	3,574.8	3,569.1	8.5	8.2	179.60	-219.7	18.1	395.6	380.0	15.68	25.233	
3,700.0	3,693.7	3,673.9	3,667.9	8.8	8.4	179.19	-225.7	21.5	408.9	392.8	16.13	25.348	
3,800.0	3,793.5	3,772.9	3,766.8	9.0	8.7	178.80	-231.7	25.0	422.2	405.6	16.58	25.457	
3,900.0	3,893.3	3,872.0	3,865.6	9.3	8.9	178.43	-237.7	28.5	435.5	418.4	17.04	25.561	
4,000.0	3,993.0	3,971.1	3,964.4	9.5	9.2	178.09	-243.7	31.9	448.8	431.3	17.49	25.660	
4,100.0	4,092.8	4,070.2	4,063.3	9.8	9.4	177.76	-249.7	35.4	462.1	444.1	17.94	25.754	
4,200.0	4,192.5	4,169.3	4,162.1	10.0	9.7	177.46	-255.6	38.8	475.4	457.0	18.39	25.845	
4,300.0	4,292.3	4,268.3	4,260.9	10.3	10.0	177.17	-261.6	42.3	488.8	469.9	18.85	25.931	

Company:	Whiting Petroleum Corporation	Local Co-ordinate Reference:	Well Razor #26L-2303A
Project:	Weld County, CO	TVD Reference:	WELL @ 4751.0usft (Original Well Elev)
Reference Site:	S26-T10N-R58W	MD Reference:	WELL @ 4751.0usft (Original Well Elev)
Site Error:	0.0usft	North Reference:	Grid
Reference Well:	Razor #26L-2303A	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	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 #26L-3503A - HZ - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-ISCSA MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Between Centres (usft)	Between Ellipses (usft)						
0.0	0.0	0.0	0.0	0.0	0.0	-91.05	-0.6	-33.2	33.2	33.0	0.19	177.002		
100.0	100.0	100.0	100.0	0.1	0.1	-91.05	-0.6	-33.2	33.2	32.6	0.64	52.133		
200.0	200.0	200.0	200.0	0.3	0.3	-91.05	-0.6	-33.2	33.2	32.1	1.09	30.568		
300.0	300.0	300.0	300.0	0.5	0.5	-91.05	-0.6	-33.2	33.2	31.7	1.54	21.624		
400.0	400.0	400.0	400.0	0.8	0.8	-91.05	-0.6	-33.2	33.2	31.2	1.99	16.729		
500.0	500.0	500.0	500.0	1.0	1.0	-91.05	-0.6	-33.2	33.2	29.5	2.42	13.213		
600.0	600.0	600.8	600.8	1.2	1.2	-93.15	-1.8	-31.9	31.9	25.5	2.84	9.972		
700.0	700.0	701.4	701.3	1.4	1.4	-100.52	-5.2	-27.8	28.3	24.5	3.27	7.466		
800.0	800.0	801.2	800.8	1.7	1.6	-113.21	-9.6	-22.5	24.5	21.2	3.73	5.949		
900.0	900.0	900.9	900.3	1.9	1.8	-129.47	-14.1	-17.1	22.2	18.5	4.00	5.452 CC, ES		
958.3	958.3	959.1	958.3	2.0	2.0	-140.00	-16.7	-14.0	21.8	17.8	4.19	5.247 SF		
1,000.0	1,000.0	1,000.7	999.8	2.1	2.1	-147.58	-18.6	-11.8	22.0	17.8	4.65	5.510		
1,100.0	1,100.0	1,100.3	1,099.2	2.3	2.3	-161.59	-23.0	-6.5	25.6	21.0	5.08	6.787		
1,200.0	1,199.8	1,199.7	1,198.3	2.6	2.6	-174.84	-27.5	-1.2	34.5	29.4	5.52	8.367		
1,300.0	1,299.6	1,298.9	1,297.3	2.8	2.8	177.63	-31.9	4.1	46.2	40.7	5.97	9.787		
1,400.0	1,399.4	1,398.1	1,396.2	3.0	3.1	173.19	-36.4	9.4	58.4	52.4	6.41	11.039		
1,500.0	1,499.1	1,497.2	1,495.1	3.3	3.3	170.29	-40.8	14.7	70.8	64.4	6.86	12.143		
1,600.0	1,598.9	1,596.4	1,594.1	3.5	3.6	168.26	-45.3	20.0	83.3	76.5	7.31	13.117		
1,700.0	1,698.6	1,695.6	1,693.0	3.7	3.8	166.75	-49.7	25.3	95.9	88.6	7.77	13.982		
1,800.0	1,798.4	1,794.8	1,791.9	4.0	4.1	165.60	-54.2	30.6	108.6	100.8	8.22	14.753		
1,900.0	1,898.1	1,893.9	1,890.9	4.2	4.3	164.69	-58.6	35.9	121.3	113.0	8.67	15.444		
2,000.0	1,997.9	1,993.1	1,989.8	4.5	4.6	163.95	-63.1	41.2	134.0	125.3	9.13	16.066		
2,100.0	2,097.6	2,092.3	2,088.7	4.7	4.8	163.34	-67.5	46.5	146.7	137.6	9.59	16.629		
2,200.0	2,197.4	2,191.5	2,187.7	5.0	5.1	162.83	-72.0	51.8	159.4	149.9	10.05	17.141		
2,300.0	2,297.2	2,290.6	2,286.6	5.2	5.4	162.39	-76.4	57.1	172.2	162.2	10.50	17.608		
2,400.0	2,396.9	2,389.8	2,385.5	5.5	5.6	162.02	-80.9	62.4	185.0	174.5	10.96	18.036		
2,500.0	2,496.7	2,489.0	2,484.5	5.7	5.9	161.69	-85.3	67.7	197.7	186.8	11.42	18.429		
2,600.0	2,596.4	2,588.2	2,583.4	6.0	6.1	161.40	-89.8	73.0	210.5	199.1	11.88	18.792		
2,700.0	2,696.2	2,687.3	2,682.3	6.2	6.4	161.15	-94.2	78.3	223.3	211.4	12.34	19.127		
2,800.0	2,795.9	2,786.5	2,781.3	6.5	6.7	160.92	-98.7	83.6	236.1	223.7	12.80	19.438		
2,900.0	2,895.7	2,885.7	2,880.2	6.7	6.9	160.71	-103.1	88.9	248.9	236.1	13.26	19.727		
3,000.0	2,995.5	2,984.9	2,979.1	7.0	7.2	160.53	-107.5	94.2	261.6	248.4	13.72	19.996		
3,100.0	3,095.2	3,084.0	3,078.1	7.2	7.4	160.36	-112.0	99.5	274.4	260.7	14.19	20.248		
3,200.0	3,195.0	3,183.2	3,177.0	7.5	7.7	160.21	-116.4	104.8	287.2	273.0	14.65	20.484		
3,300.0	3,294.7	3,282.4	3,275.9	7.7	8.0	160.07	-120.9	110.1	300.0	285.4	15.11	20.705		
3,400.0	3,394.5	3,381.6	3,374.9	8.0	8.2	159.94	-125.3	115.4	312.8	297.7	15.57	20.913		
3,500.0	3,494.2	3,480.7	3,473.8	8.2	8.5	159.83	-129.8	120.7	325.6	310.1	16.03	21.109		
3,600.0	3,594.0	3,579.9	3,572.7	8.5	8.7	159.72	-134.2	126.0	338.4	322.4	16.49	21.294		
3,700.0	3,693.7	3,679.1	3,671.7	8.8	9.0	159.62	-138.7	131.3	351.2	334.7	16.96	21.468		
3,800.0	3,793.5	3,778.3	3,770.6	9.0	9.3	159.52	-143.1	136.6	364.0	347.1	17.42	21.633		
3,900.0	3,893.3	3,877.4	3,869.5	9.3	9.5	159.43	-147.6	141.9	376.8	359.4	17.88	21.790		
4,000.0	3,993.0	3,976.6	3,968.5	9.5	9.8	159.35	-152.0	147.2	389.6	371.8	18.34	21.939		
4,100.0	4,092.8	4,075.8	4,067.4	9.8	10.0	159.28	-156.5	152.5	402.4	384.1	18.81	22.080		
4,200.0	4,192.5	4,175.0	4,166.3	10.0	10.3	159.20	-160.9	157.8	415.3	396.4	19.27	22.214		
4,300.0	4,292.3	4,274.1	4,265.3	10.3	10.6	159.14	-165.4	163.1	428.1	408.8	19.73	22.342		
4,400.0	4,392.0	4,373.3	4,364.2	10.5	10.8	159.07	-169.8	168.4	440.9	421.1	20.20	22.464		
4,500.0	4,491.8	4,472.5	4,463.1	10.8	11.1	159.01	-174.2	173.7	453.7	433.5	20.66	22.529		
4,600.0	4,591.6	4,584.0	4,574.5	11.0	11.3	159.01	-178.5	178.7	465.5	444.9	21.12	22.634		
4,700.0	4,691.3	4,700.9	4,691.3	11.3	11.6	159.25	-180.0	180.5	473.9	452.7	21.55	22.793		
4,800.0	4,791.1	4,800.6	4,791.1	11.6	11.7	159.54	-180.0	180.5	480.4	458.8	21.97	22.168		
4,900.0	4,890.8	4,900.4	4,890.8	11.8	11.9	159.83	-180.0	180.5	486.9	465.0	22.38	22.046		
5,000.0	4,990.6	5,000.2	4,990.6	12.1	12.1	160.11	-180.0	180.5	493.5	471.1				

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 #26L-2303A
Project:	Weld County, CO	TVD Reference:	WELL @ 4751.0usft (Original Well Elev)
Reference Site:	S26-T10N-R58W	MD Reference:	WELL @ 4751.0usft (Original Well Elev)
Site Error:	0.0usft	North Reference:	Grid
Reference Well:	Razor #26L-2303A	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	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

Company:	Whiting Petroleum Corporation	Local Co-ordinate Reference:	Well Razor #26L-2303A
Project:	Weld County, CO	TVD Reference:	WELL @ 4751.0usft (Original Well Elev)
Reference Site:	S26-T10N-R58W	MD Reference:	WELL @ 4751.0usft (Original Well Elev)
Site Error:	0.0usft	North Reference:	Grid
Reference Well:	Razor #26L-2303A	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	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

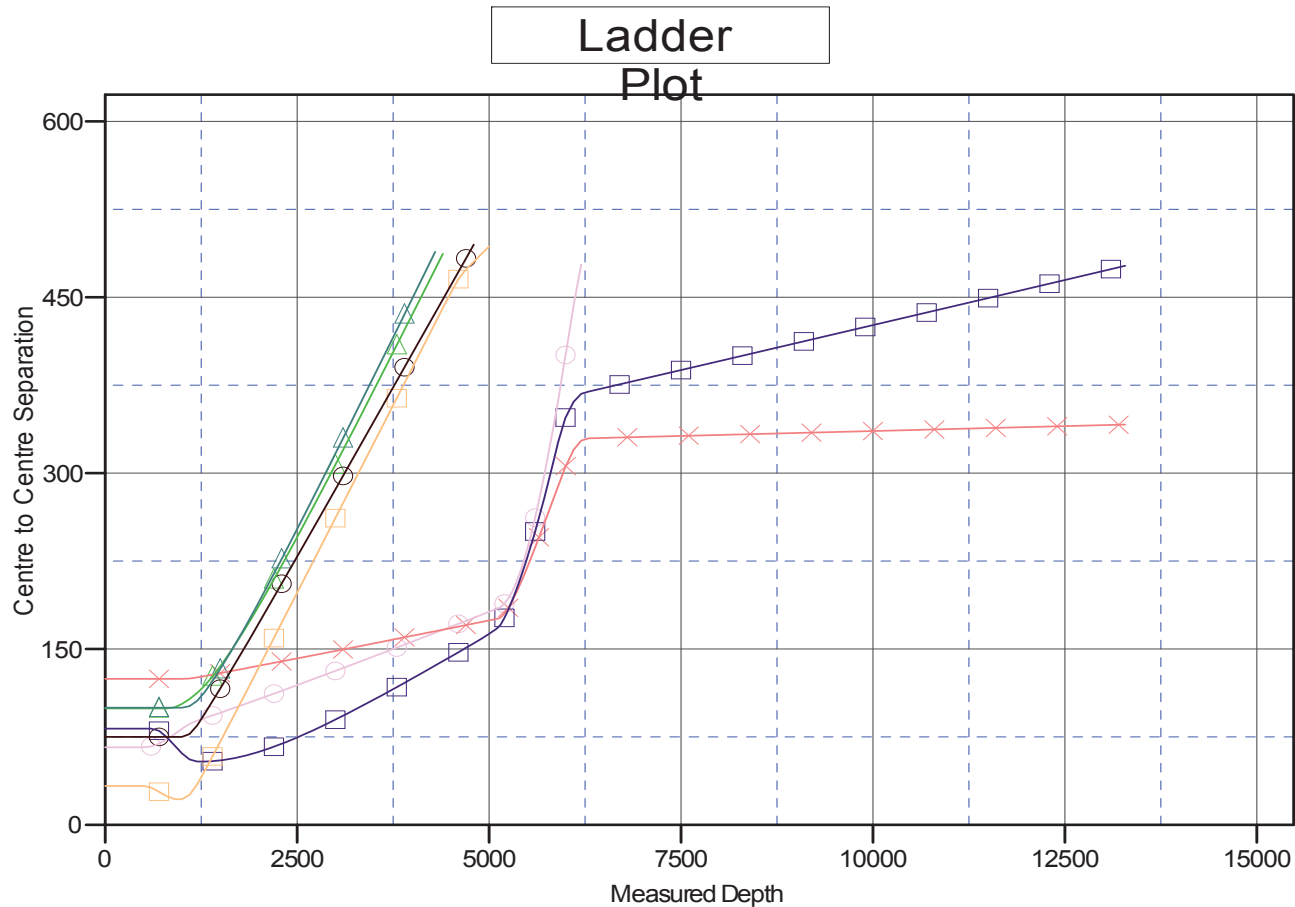
Offset Design S26-T10N-R58W - Razor #26L-3504B - HZ - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-ISCWSA MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
0.0	0.0	0.0	0.0	0.0	0.0	178.93	-75.0	1.4	75.1					
100.0	100.0	100.0	100.0	0.1	0.1	178.93	-75.0	1.4	75.1	74.9	0.19	399.945		
200.0	200.0	200.0	200.0	0.3	0.3	178.93	-75.0	1.4	75.1	74.4	0.64	117.797		
300.0	300.0	300.0	300.0	0.5	0.5	178.93	-75.0	1.4	75.1	74.0	1.09	69.070		
400.0	400.0	400.0	400.0	0.8	0.8	178.93	-75.0	1.4	75.1	73.5	1.54	48.859		
500.0	500.0	500.0	500.0	1.0	1.0	178.93	-75.0	1.4	75.1	73.1	1.99	37.799		
600.0	600.0	600.0	600.0	1.2	1.2	178.93	-75.0	1.4	75.1	72.6	2.44	30.822		
700.0	700.0	700.0	700.0	1.4	1.4	178.93	-75.0	1.4	75.1	72.2	2.88	26.019		
800.0	800.0	800.0	800.0	1.7	1.7	178.93	-75.0	1.4	75.1	71.7	3.33	22.511		
900.0	900.0	900.0	900.0	1.9	1.9	178.93	-75.0	1.4	75.1	71.3	3.78	19.837		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	178.93	-75.0	1.4	75.1	70.8	4.23	17.731 CC, ES		
1,100.0	1,100.0	1,099.0	1,099.0	2.3	2.3	-178.32	-75.6	3.0	77.4	72.8	4.66	16.608 SF		
1,200.0	1,199.8	1,197.5	1,197.3	2.6	2.5	178.38	-77.4	7.8	84.8	79.7	5.08	16.685		
1,300.0	1,299.6	1,296.7	1,296.3	2.8	2.7	174.71	-79.7	14.3	95.0	89.4	5.51	17.228		
1,400.0	1,399.4	1,396.1	1,395.4	3.0	2.9	171.75	-82.1	20.8	105.4	99.5	5.95	17.730		
1,500.0	1,499.1	1,495.4	1,494.5	3.3	3.2	169.34	-84.5	27.3	116.2	109.8	6.39	18.185		
1,600.0	1,598.9	1,594.7	1,593.6	3.5	3.4	167.33	-86.9	33.8	127.1	120.2	6.83	18.596		
1,700.0	1,698.6	1,694.0	1,692.6	3.7	3.6	165.64	-89.2	40.3	138.1	130.8	7.28	18.965		
1,800.0	1,798.4	1,793.3	1,791.7	4.0	3.9	164.21	-91.6	46.9	149.2	141.5	7.73	19.298		
1,900.0	1,898.1	1,892.6	1,890.8	4.2	4.1	162.97	-94.0	53.4	160.4	152.2	8.18	19.599		
2,000.0	1,997.9	1,992.0	1,989.9	4.5	4.3	161.89	-96.3	59.9	171.6	163.0	8.64	19.871		
2,100.0	2,097.6	2,091.3	2,088.9	4.7	4.6	160.95	-98.7	66.4	183.0	173.9	9.09	20.118		
2,200.0	2,197.4	2,190.6	2,188.0	5.0	4.8	160.11	-101.1	72.9	194.3	184.8	9.55	20.342		
2,300.0	2,297.2	2,289.9	2,287.1	5.2	5.1	159.37	-103.4	79.4	205.7	195.7	10.01	20.547		
2,400.0	2,396.9	2,389.2	2,386.2	5.5	5.3	158.71	-105.8	85.9	217.1	206.7	10.47	20.735		
2,500.0	2,496.7	2,488.5	2,485.2	5.7	5.6	158.11	-108.2	92.4	228.6	217.7	10.93	20.908		
2,600.0	2,596.4	2,587.8	2,584.3	6.0	5.8	157.57	-110.5	98.9	240.1	228.7	11.40	21.066		
2,700.0	2,696.2	2,687.2	2,683.4	6.2	6.1	157.08	-112.9	105.4	251.5	239.7	11.86	21.213		
2,800.0	2,795.9	2,786.5	2,782.5	6.5	6.3	156.63	-115.3	112.0	263.1	250.7	12.32	21.349		
2,900.0	2,895.7	2,885.8	2,881.5	6.7	6.6	156.22	-117.7	118.5	274.6	261.8	12.79	21.475		
3,000.0	2,995.5	2,985.1	2,980.6	7.0	6.8	155.84	-120.0	125.0	286.1	272.9	13.25	21.592		
3,100.0	3,095.2	3,084.4	3,079.7	7.2	7.1	155.50	-122.4	131.5	297.7	283.9	13.72	21.702		
3,200.0	3,195.0	3,183.7	3,178.7	7.5	7.3	155.17	-124.8	138.0	309.2	295.0	14.18	21.804		
3,300.0	3,294.7	3,283.1	3,277.8	7.7	7.6	154.88	-127.1	144.5	320.8	306.1	14.65	21.899		
3,400.0	3,394.5	3,382.4	3,376.9	8.0	7.8	154.60	-129.5	151.0	332.4	317.2	15.11	21.989		
3,500.0	3,494.2	3,481.7	3,476.0	8.2	8.1	154.34	-131.9	157.5	343.9	328.4	15.58	22.073		
3,600.0	3,594.0	3,581.0	3,575.0	8.5	8.4	154.10	-134.2	164.0	355.5	339.5	16.05	22.153		
3,700.0	3,693.7	3,680.3	3,674.1	8.8	8.6	153.87	-136.6	170.5	367.1	350.6	16.52	22.227		
3,800.0	3,793.5	3,779.6	3,773.2	9.0	8.9	153.66	-139.0	177.1	378.7	361.7	16.98	22.298		
3,900.0	3,893.3	3,879.0	3,872.3	9.3	9.1	153.45	-141.4	183.6	390.3	372.9	17.45	22.365		
4,000.0	3,993.0	3,978.3	3,971.3	9.5	9.4	153.27	-143.7	190.1	401.9	384.0	17.92	22.428		
4,100.0	4,092.8	4,077.6	4,070.4	9.8	9.6	153.09	-146.1	196.6	413.5	395.2	18.39	22.488		
4,200.0	4,192.5	4,176.9	4,169.5	10.0	9.9	152.92	-148.5	203.1	425.2	406.3	18.86	22.545		
4,300.0	4,292.3	4,276.2	4,268.6	10.3	10.1	152.76	-150.8	209.6	436.8	417.5	19.33	22.599		
4,400.0	4,392.0	4,375.5	4,367.6	10.5	10.4	152.61	-153.2	216.1	448.4	428.6	19.80	22.651		
4,500.0	4,491.8	4,474.8	4,466.7	10.8	10.7	152.46	-155.6	222.6	460.0	439.8	20.27	22.700		
4,600.0	4,591.6	4,574.2	4,565.8	11.0	10.9	152.33	-157.9	229.1	471.7	450.9	20.73	22.747		
4,700.0	4,691.3	4,673.5	4,664.9	11.3	11.2	152.20	-160.3	235.6	483.3	462.1	21.20	22.792		
4,800.0	4,791.1	4,772.8	4,763.9	11.6	11.4	152.07	-162.7	242.2	494.9	473.2	21.67	22.835		

Company: Whiting Petroleum Corporation
Project: Weld County, CO
Reference Site: S26-T10N-R58W
Site Error: 0.0usft
Reference Well: Razor #26L-2303A
Well Error: 0.0usft
Reference Wellbore: HZ
Reference Design: Plan #2

Local Co-ordinate Reference: Well Razor #26L-2303A
TVD Reference: WELL @ 4751.0usft (Original Well Elev)
MD Reference: WELL @ 4751.0usft (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 WELL @ 4751.0usft (Original Well Ele
 Offset Depths are relative to Offset Datum
 Central Meridian is -105.500000 °

Coordinates are relative to: Razor #26L-2303A
 Coordinate System is US State Plane 1983, Colorado Northern Zone
 Grid Convergence at Surface is: 1.07°



LEGEND

○ Razor #26L-2301A, HZ, Plan #2 V0
 ▲ Razor #26L-3501A, HZ, Plan #1 V0
 ● Razor #26L-3504B, HZ, Plan #1 V0
✕ Razor #26L-2302B, HZ, Plan #2 V0
 ▲ Razor #26L-3502B, HZ, Plan #1 V0
□ Razor #26L-2304B, HZ, Plan #1 V0
 □ Razor #26L-3503A, HZ, Plan #1 V0