Whiting Oil & Gas

Well Name: **Razor #21D-0904B**

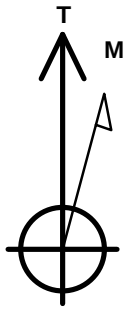
Surface Location: Razor #21D Pad Sec.21-T10N-R58W
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone
Ground Elevation: 4842.4

+N/-S	+E/-W	Northing	Easting	Latittude	Longitude	Slot
0.0	0.0	1549270.04	3448935.05	40.829853	-103.877708	

RKB - 17.3' WELL @ 4859.7ft (RKB - 17.3')

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
SHL 406'FNL, 692'FWL, SEC.21	1.0	0.0	0.0	Point
BHL 2056'FSL, 1155'FWL, SEC.9	5892.0	7905.1	391.7	Point



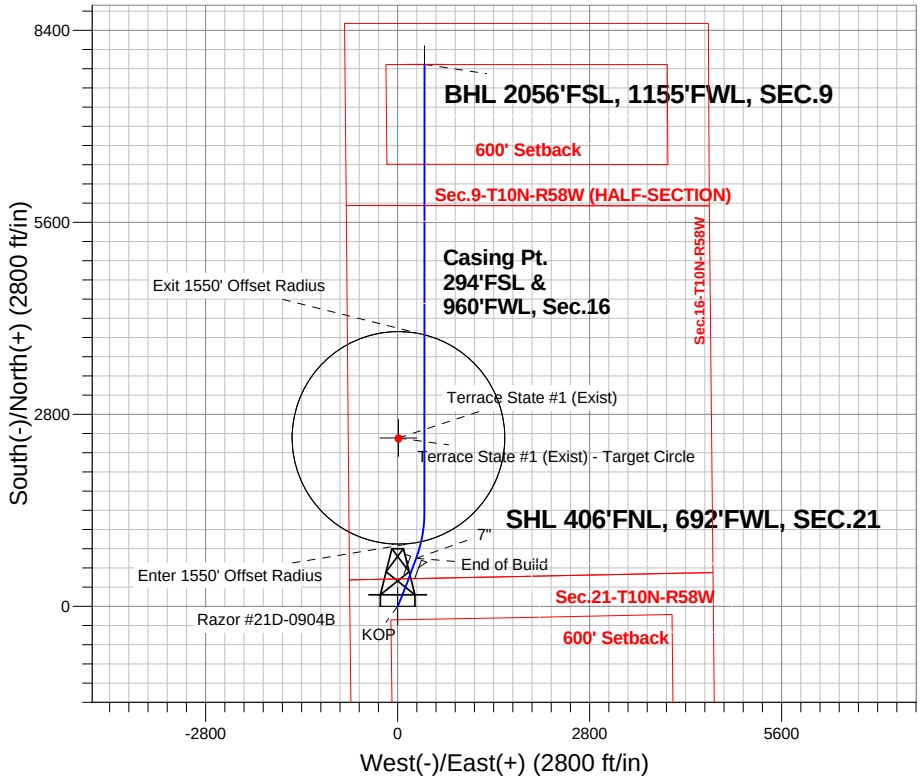
Azimuths to True North
Magnetic North: 8.07°

Magnetic Field
Strength: 53182.5snT
Dip Angle: 67.45°
Date: 12/9/2013
Model: IGRF2010

Razor #21D Pad Sec.21-T10N-R58W
Razor #21D-0904B
Plan #1 (12-09-13)
15:44, December 13 2013

ANNOTATIONS

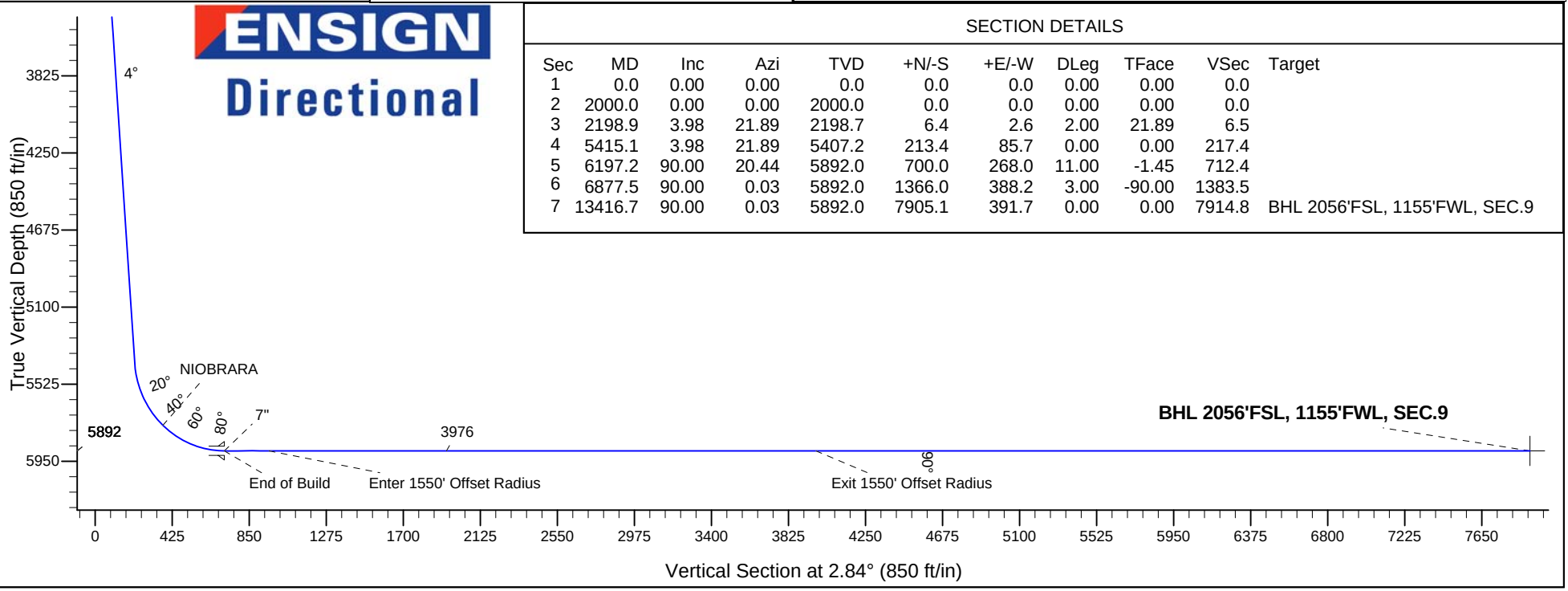
TVD	MD	Annotation
2000.0	2000.0	KOP
5892.0	6197.2	End of Build
5892.0	6451.2	Enter 1550' Offset Radius
5892.0	9473.2	Exit 1550' Offset Radius



ENSIGN Directional

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	2000.0	0.00	0.00	2000.0	0.0	0.0	0.00	0.00	0.0	
3	2198.9	3.98	21.89	2198.7	6.4	2.6	2.00	21.89	6.5	
4	5415.1	3.98	21.89	5407.2	213.4	85.7	0.00	0.00	217.4	
5	6197.2	90.00	20.44	5892.0	700.0	268.0	11.00	-1.45	712.4	
6	6877.5	90.00	0.03	5892.0	1366.0	388.2	3.00	-90.00	1383.5	
7	13416.7	90.00	0.03	5892.0	7905.1	391.7	0.00	0.00	7914.8	BHL 2056'FSL, 1155'FWL, SEC.9



Whiting Oil & Gas

SEC.21-T10N-R58W
Razor #21D Pad Sec.21-T10N-R58W
Razor #21D-0904B

Wellbore #1

Plan: Plan #1 (12-09-13)

Standard Planning Report

13 December, 2013

Database:	Landmark	**Local Co-ordinate Reference:**	Well Razor #21D-0904B
Company:	Whiting Oil & Gas	**TVD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Project:	SEC.21-T10N-R58W	**MD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Site:	Razor #21D Pad Sec.21-T10N-R58W	**North Reference:**	True
Well:	Razor #21D-0904B	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (12-09-13)		

Project SEC.21-T10N-R58W, Weld County, Colorado,

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site Razor #21D Pad Sec.21-T10N-R58W

Site Position:		**Northing:**	1,549,343.52 ft	**Latitude:**	40.830058
From:	Lat/Long	**Easting:**	3,448,867.56 ft	**Longitude:**	-103.877947
Position Uncertainty:	0.0 ft	**Slot Radius:**	"	**Grid Convergence:**	1.05 °

Well Razor #21D-0904B

Well Position	**+N/-S**	-74.7 ft	**Northing:**	1,549,270.04 ft	**Latitude:**	40.829853
	+E/-W	66.1 ft	**Easting:**	3,448,935.05 ft	**Longitude:**	-103.877708
Position Uncertainty		0.0 ft	**Wellhead Elevation:**	ft	**Ground Level:**	4,842.4 ft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	12/9/2013	8.07	67.45	53,182

Design Plan #1 (12-09-13)

Audit Notes:

Version:		**Phase:**	PROTOTYPE	**Tie On Depth:**	0.0

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	2.84

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	
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,198.9	3.98	21.89	2,198.7	6.4	2.6	2.00	2.00	0.00	21.89	
5,415.1	3.98	21.89	5,407.2	213.4	85.7	0.00	0.00	0.00	0.00	
6,197.2	90.00	20.44	5,892.0	700.0	268.0	11.00	11.00	-0.19	-1.45	
6,877.5	90.00	0.03	5,892.0	1,366.0	388.2	3.00	0.00	-3.00	-90.00	
13,416.7	90.00	0.03	5,892.0	7,905.1	391.7	0.00	0.00	0.00	0.00	BHL 2056'FSL, 115

Database:	Landmark	**Local Co-ordinate Reference:**	Well Razor #21D-0904B
Company:	Whiting Oil & Gas	**TVD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Project:	SEC.21-T10N-R58W	**MD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Site:	Razor #21D Pad Sec.21-T10N-R58W	**North Reference:**	True
Well:	Razor #21D-0904B	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (12-09-13)		

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)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
Terrace State #1 (Exist) - Target Circle									
1.0	0.00	0.00	1.0	0.0	0.0	0.0	0.00	0.00	0.00
SHL 406'FNL, 692'FWL, SEC.21									
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,504.0	0.00	0.00	1,504.0	0.0	0.0	0.0	0.00	0.00	0.00
PIERRE									
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP									
2,100.0	2.00	21.89	2,100.0	1.6	0.7	1.6	2.00	2.00	0.00
2,198.9	3.98	21.89	2,198.7	6.4	2.6	6.5	2.00	2.00	0.00
2,200.0	3.98	21.89	2,199.8	6.5	2.6	6.6	0.00	0.00	0.00
2,300.0	3.98	21.89	2,299.6	12.9	5.2	13.2	0.00	0.00	0.00
2,400.0	3.98	21.89	2,399.4	19.3	7.8	19.7	0.00	0.00	0.00
2,500.0	3.98	21.89	2,499.1	25.8	10.4	26.3	0.00	0.00	0.00
2,600.0	3.98	21.89	2,598.9	32.2	12.9	32.8	0.00	0.00	0.00
2,700.0	3.98	21.89	2,698.6	38.7	15.5	39.4	0.00	0.00	0.00
2,800.0	3.98	21.89	2,798.4	45.1	18.1	45.9	0.00	0.00	0.00
2,900.0	3.98	21.89	2,898.2	51.5	20.7	52.5	0.00	0.00	0.00
3,000.0	3.98	21.89	2,997.9	58.0	23.3	59.0	0.00	0.00	0.00
3,100.0	3.98	21.89	3,097.7	64.4	25.9	65.6	0.00	0.00	0.00
3,200.0	3.98	21.89	3,197.4	70.8	28.5	72.2	0.00	0.00	0.00
3,300.0	3.98	21.89	3,297.2	77.3	31.0	78.7	0.00	0.00	0.00
3,400.0	3.98	21.89	3,396.9	83.7	33.6	85.3	0.00	0.00	0.00
3,500.0	3.98	21.89	3,496.7	90.1	36.2	91.8	0.00	0.00	0.00
3,600.0	3.98	21.89	3,596.5	96.6	38.8	98.4	0.00	0.00	0.00
3,700.0	3.98	21.89	3,696.2	103.0	41.4	104.9	0.00	0.00	0.00
3,800.0	3.98	21.89	3,796.0	109.4	44.0	111.5	0.00	0.00	0.00
3,900.0	3.98	21.89	3,895.7	115.9	46.6	118.0	0.00	0.00	0.00
4,000.0	3.98	21.89	3,995.5	122.3	49.1	124.6	0.00	0.00	0.00
4,100.0	3.98	21.89	4,095.3	128.8	51.7	131.2	0.00	0.00	0.00
4,200.0	3.98	21.89	4,195.0	135.2	54.3	137.7	0.00	0.00	0.00
4,300.0	3.98	21.89	4,294.8	141.6	56.9	144.3	0.00	0.00	0.00
4,400.0	3.98	21.89	4,394.5	148.1	59.5	150.8	0.00	0.00	0.00
4,500.0	3.98	21.89	4,494.3	154.5	62.1	157.4	0.00	0.00	0.00
4,600.0	3.98	21.89	4,594.1	160.9	64.7	163.9	0.00	0.00	0.00

Database:	Landmark	**Local Co-ordinate Reference:**	Well Razor #21D-0904B
Company:	Whiting Oil & Gas	**TVD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Project:	SEC.21-T10N-R58W	**MD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Site:	Razor #21D Pad Sec.21-T10N-R58W	**North Reference:**	True
Well:	Razor #21D-0904B	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (12-09-13)		

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)	Turn Rate (°/100ft)
4,700.0	3.98	21.89	4,693.8	167.4	67.2	170.5	0.00	0.00	0.00
4,800.0	3.98	21.89	4,793.6	173.8	69.8	177.0	0.00	0.00	0.00
4,900.0	3.98	21.89	4,893.3	180.2	72.4	183.6	0.00	0.00	0.00
5,000.0	3.98	21.89	4,993.1	186.7	75.0	190.2	0.00	0.00	0.00
5,100.0	3.98	21.89	5,092.9	193.1	77.6	196.7	0.00	0.00	0.00
5,200.0	3.98	21.89	5,192.6	199.5	80.2	203.3	0.00	0.00	0.00
5,300.0	3.98	21.89	5,292.4	206.0	82.8	209.8	0.00	0.00	0.00
5,400.0	3.98	21.89	5,392.1	212.4	85.3	216.4	0.00	0.00	0.00
5,415.1	3.98	21.89	5,407.2	213.4	85.7	217.4	0.00	0.00	0.00
5,500.0	13.31	20.87	5,491.0	225.3	90.3	229.5	11.00	11.00	-1.21
5,600.0	24.31	20.66	5,585.6	255.4	101.7	260.1	11.00	11.00	-0.20
5,700.0	35.31	20.58	5,672.2	301.8	119.2	307.4	11.00	11.00	-0.08
5,800.0	46.31	20.54	5,747.8	362.9	142.1	369.5	11.00	11.00	-0.05
5,804.7	46.83	20.53	5,751.0	366.1	143.3	372.8	11.00	11.00	-0.04
NIOBRARA									
5,900.0	57.31	20.50	5,809.5	436.4	169.6	444.3	11.00	11.00	-0.03
6,000.0	68.31	20.48	5,855.1	519.6	200.7	528.9	11.00	11.00	-0.02
6,100.0	79.31	20.46	5,883.0	609.5	234.2	620.3	11.00	11.00	-0.02
6,197.2	90.00	20.44	5,892.0	700.0	268.0	712.4	11.00	11.00	-0.02
End of Build - 7"									
6,200.0	90.00	20.36	5,892.0	702.6	269.0	715.1	3.01	0.00	-3.01
6,300.0	90.00	17.36	5,892.0	797.3	301.3	811.2	3.00	0.00	-3.00
6,400.0	90.00	14.36	5,892.0	893.4	328.6	908.6	3.00	0.00	-3.00
6,451.2	90.00	12.82	5,892.0	943.2	340.6	958.9	3.00	0.00	-3.00
Enter 1550' Offset Radius									
6,500.0	90.00	11.36	5,892.0	990.9	350.9	1,007.1	3.00	0.00	-3.00
6,600.0	90.00	8.36	5,892.0	1,089.4	368.0	1,106.3	3.00	0.00	-3.00
6,700.0	90.00	5.36	5,892.0	1,188.7	379.9	1,206.1	3.00	0.00	-3.00
6,800.0	90.00	2.36	5,892.0	1,288.5	386.6	1,306.0	3.00	0.00	-3.00
6,877.5	90.00	0.03	5,892.0	1,366.0	388.2	1,383.5	3.00	0.00	-3.00
6,900.0	90.00	0.03	5,892.0	1,388.5	388.3	1,406.0	0.00	0.00	0.00
7,000.0	90.00	0.03	5,892.0	1,488.5	388.3	1,505.8	0.00	0.00	0.00
7,100.0	90.00	0.03	5,892.0	1,588.5	388.4	1,605.7	0.00	0.00	0.00
7,200.0	90.00	0.03	5,892.0	1,688.5	388.4	1,705.6	0.00	0.00	0.00
7,300.0	90.00	0.03	5,892.0	1,788.5	388.5	1,805.5	0.00	0.00	0.00
7,400.0	90.00	0.03	5,892.0	1,888.5	388.5	1,905.4	0.00	0.00	0.00
7,500.0	90.00	0.03	5,892.0	1,988.5	388.6	2,005.2	0.00	0.00	0.00
7,600.0	90.00	0.03	5,892.0	2,088.5	388.6	2,105.1	0.00	0.00	0.00
7,700.0	90.00	0.03	5,892.0	2,188.5	388.7	2,205.0	0.00	0.00	0.00
7,800.0	90.00	0.03	5,892.0	2,288.5	388.7	2,304.9	0.00	0.00	0.00
7,900.0	90.00	0.03	5,892.0	2,388.5	388.8	2,404.8	0.00	0.00	0.00
8,000.0	90.00	0.03	5,892.0	2,488.5	388.8	2,504.6	0.00	0.00	0.00
8,100.0	90.00	0.03	5,892.0	2,588.5	388.9	2,604.5	0.00	0.00	0.00
8,200.0	90.00	0.03	5,892.0	2,688.5	389.0	2,704.4	0.00	0.00	0.00
8,300.0	90.00	0.03	5,892.0	2,788.5	389.0	2,804.3	0.00	0.00	0.00
8,400.0	90.00	0.03	5,892.0	2,888.5	389.1	2,904.2	0.00	0.00	0.00
8,500.0	90.00	0.03	5,892.0	2,988.5	389.1	3,004.0	0.00	0.00	0.00
8,600.0	90.00	0.03	5,892.0	3,088.5	389.2	3,103.9	0.00	0.00	0.00
8,700.0	90.00	0.03	5,892.0	3,188.5	389.2	3,203.8	0.00	0.00	0.00
8,800.0	90.00	0.03	5,892.0	3,288.5	389.3	3,303.7	0.00	0.00	0.00
8,900.0	90.00	0.03	5,892.0	3,388.5	389.3	3,403.6	0.00	0.00	0.00
9,000.0	90.00	0.03	5,892.0	3,488.5	389.4	3,503.4	0.00	0.00	0.00
9,100.0	90.00	0.03	5,892.0	3,588.5	389.4	3,603.3	0.00	0.00	0.00

Database:	Landmark	**Local Co-ordinate Reference:**	Well Razor #21D-0904B
Company:	Whiting Oil & Gas	**TVD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Project:	SEC.21-T10N-R58W	**MD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Site:	Razor #21D Pad Sec.21-T10N-R58W	**North Reference:**	True
Well:	Razor #21D-0904B	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (12-09-13)		

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)	Turn Rate (°/100ft)
9,200.0	90.00	0.03	5,892.0	3,688.5	389.5	3,703.2	0.00	0.00	0.00
9,300.0	90.00	0.03	5,892.0	3,788.5	389.5	3,803.1	0.00	0.00	0.00
9,400.0	90.00	0.03	5,892.0	3,888.5	389.6	3,903.0	0.00	0.00	0.00
9,473.2	90.00	0.03	5,892.0	3,961.7	389.6	3,976.1	0.00	0.00	0.00
Exit 1550' Offset Radius									
9,500.0	90.00	0.03	5,892.0	3,988.5	389.6	4,002.8	0.00	0.00	0.00
9,600.0	90.00	0.03	5,892.0	4,088.5	389.7	4,102.7	0.00	0.00	0.00
9,700.0	90.00	0.03	5,892.0	4,188.5	389.8	4,202.6	0.00	0.00	0.00
9,800.0	90.00	0.03	5,892.0	4,288.5	389.8	4,302.5	0.00	0.00	0.00
9,900.0	90.00	0.03	5,892.0	4,388.5	389.9	4,402.4	0.00	0.00	0.00
10,000.0	90.00	0.03	5,892.0	4,488.5	389.9	4,502.2	0.00	0.00	0.00
10,100.0	90.00	0.03	5,892.0	4,588.5	390.0	4,602.1	0.00	0.00	0.00
10,200.0	90.00	0.03	5,892.0	4,688.5	390.0	4,702.0	0.00	0.00	0.00
10,300.0	90.00	0.03	5,892.0	4,788.5	390.1	4,801.9	0.00	0.00	0.00
10,400.0	90.00	0.03	5,892.0	4,888.5	390.1	4,901.8	0.00	0.00	0.00
10,500.0	90.00	0.03	5,892.0	4,988.5	390.2	5,001.6	0.00	0.00	0.00
10,600.0	90.00	0.03	5,892.0	5,088.5	390.2	5,101.5	0.00	0.00	0.00
10,700.0	90.00	0.03	5,892.0	5,188.5	390.3	5,201.4	0.00	0.00	0.00
10,800.0	90.00	0.03	5,892.0	5,288.5	390.3	5,301.3	0.00	0.00	0.00
10,900.0	90.00	0.03	5,892.0	5,388.5	390.4	5,401.2	0.00	0.00	0.00
11,000.0	90.00	0.03	5,892.0	5,488.5	390.5	5,501.0	0.00	0.00	0.00
11,100.0	90.00	0.03	5,892.0	5,588.5	390.5	5,600.9	0.00	0.00	0.00
11,200.0	90.00	0.03	5,892.0	5,688.5	390.6	5,700.8	0.00	0.00	0.00
11,300.0	90.00	0.03	5,892.0	5,788.5	390.6	5,800.7	0.00	0.00	0.00
11,400.0	90.00	0.03	5,892.0	5,888.5	390.7	5,900.6	0.00	0.00	0.00
11,500.0	90.00	0.03	5,892.0	5,988.5	390.7	6,000.4	0.00	0.00	0.00
11,600.0	90.00	0.03	5,892.0	6,088.5	390.8	6,100.3	0.00	0.00	0.00
11,700.0	90.00	0.03	5,892.0	6,188.5	390.8	6,200.2	0.00	0.00	0.00
11,800.0	90.00	0.03	5,892.0	6,288.5	390.9	6,300.1	0.00	0.00	0.00
11,900.0	90.00	0.03	5,892.0	6,388.5	390.9	6,400.0	0.00	0.00	0.00
12,000.0	90.00	0.03	5,892.0	6,488.5	391.0	6,499.8	0.00	0.00	0.00
12,100.0	90.00	0.03	5,892.0	6,588.5	391.0	6,599.7	0.00	0.00	0.00
12,200.0	90.00	0.03	5,892.0	6,688.5	391.1	6,699.6	0.00	0.00	0.00
12,300.0	90.00	0.03	5,892.0	6,788.5	391.1	6,799.5	0.00	0.00	0.00
12,400.0	90.00	0.03	5,892.0	6,888.5	391.2	6,899.4	0.00	0.00	0.00
12,500.0	90.00	0.03	5,892.0	6,988.5	391.3	6,999.3	0.00	0.00	0.00
12,600.0	90.00	0.03	5,892.0	7,088.5	391.3	7,099.1	0.00	0.00	0.00
12,700.0	90.00	0.03	5,892.0	7,188.5	391.4	7,199.0	0.00	0.00	0.00
12,800.0	90.00	0.03	5,892.0	7,288.5	391.4	7,298.9	0.00	0.00	0.00
12,900.0	90.00	0.03	5,892.0	7,388.5	391.5	7,398.8	0.00	0.00	0.00
13,000.0	90.00	0.03	5,892.0	7,488.5	391.5	7,498.7	0.00	0.00	0.00
13,100.0	90.00	0.03	5,892.0	7,588.5	391.6	7,598.5	0.00	0.00	0.00
13,200.0	90.00	0.03	5,892.0	7,688.5	391.6	7,698.4	0.00	0.00	0.00
13,300.0	90.00	0.03	5,892.0	7,788.5	391.7	7,798.3	0.00	0.00	0.00
13,400.0	90.00	0.03	5,892.0	7,888.5	391.7	7,898.2	0.00	0.00	0.00
13,416.7	90.00	0.03	5,892.0	7,905.1	391.7	7,914.8	0.00	0.00	0.00
BHL 2056'FSL, 1155'FWL, SEC.9									

Database:	Landmark	**Local Co-ordinate Reference:**	Well Razor #21D-0904B
Company:	Whiting Oil & Gas	**TVD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Project:	SEC.21-T10N-R58W	**MD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Site:	Razor #21D Pad Sec.21-T10N-R58W	**North Reference:**	True
Well:	Razor #21D-0904B	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (12-09-13)		

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
6,197.2	5,892.0	7"	7	7-1/2

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,504.0	1,504.0	PIERRE			
5,804.7	5,751.0	NIOBRARA			

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
2,000.0	2,000.0	0.0	0.0	KOP
6,197.2	5,892.0	700.0	268.0	End of Build
6,451.2	5,892.0	943.2	340.6	Enter 1550' Offset Radius
9,473.2	5,892.0	3,961.7	389.6	Exit 1550' Offset Radius

ENSIGN Directional

Whiting Oil & Gas

SEC.21-T10N-R58W
Razor #21D Pad Sec.21-T10N-R58W
Razor #21D-0904B

Wellbore #1
Plan #1 (12-09-13)

Anticollision Report

13 December, 2013

Company:	Whiting Oil & Gas	**Local Co-ordinate Reference:**	Well Razor #21D-0904B
Project:	SEC.21-T10N-R58W	**TVD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Reference Site:	Razor #21D Pad Sec.21-T10N-R58W	**MD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Razor #21D-0904B	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (12-09-13)	**Offset TVD Reference:**	Offset Datum

Reference Plan #1 (12-09-13)

Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0ft	**Error Model:**	ISCWSA
Depth Range:	Unlimited	**Scan Method:**	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.0ft	**Error Surface:**	Elliptical Conic

Warning Levels Evaluated at: 2.00 **Sigma**

Survey Tool Program **Date** 12/13/2013

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	13,416.7	Plan #1 (12-09-13) (Wellbore #1)	MWD	MWD - Standard

Summary

Site Name / Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Existing Wells						
Terrace State #1 (Exist) - Wellbore #1 - Wellbore #1	7,969.5	5,910.3	378.9	213.7	2.294	CC, ES
Terrace State #1 (Exist) - Wellbore #1 - Wellbore #1	8,000.0	5,910.3	380.1	214.4	2.294	SF
Razor #21D Pad Sec.21-T10N-R58W						
Razor #21D-0901A - Wellbore #1 - Plan #1 (12-09-13)	800.0	800.0	81.7	78.4	24.244	CC, ES
Razor #21D-0901A - Wellbore #1 - Plan #1 (12-09-13)	13,416.7	13,280.2	993.2	694.2	3.322	SF
Razor #21D-0902B - Wellbore #1 - Plan #1 (12-09-13)	2,000.0	2,000.0	66.1	57.4	7.545	CC, ES
Razor #21D-0902B - Wellbore #1 - Plan #1 (12-09-13)	13,416.7	13,424.4	660.1	358.1	2.186	SF
Razor #21D-0903A - Wellbore #1 - Plan #1 (12-09-13)	800.0	800.0	81.6	78.3	24.211	CC
Razor #21D-0903A - Wellbore #1 - Plan #1 (12-09-13)	13,416.7	13,163.4	340.0	47.6	1.163	Level 2, ES, SF
Razor #21D-2801A - Wellbore #1 - Plan #1 (12-09-13)	800.0	800.0	99.8	96.4	29.592	CC, ES
Razor #21D-2801A - Wellbore #1 - Plan #1 (12-09-13)	2,600.0	2,598.8	146.7	135.5	13.098	SF
Razor #21D-2802B - Wellbore #1 - Plan #1 (12-09-13)	1,500.0	1,500.0	33.2	26.7	5.095	CC, ES
Razor #21D-2802B - Wellbore #1 - Plan #1 (12-09-13)	1,600.0	1,599.7	33.7	26.8	4.858	SF
Razor #21D-2803A - Wellbore #1 - Plan #1 (12-09-13)	2,641.4	2,642.2	49.2	37.8	4.323	CC, ES
Razor #21D-2803A - Wellbore #1 - Plan #1 (12-09-13)	2,700.0	2,700.2	49.8	38.2	4.287	SF
Razor #21D-2804B - Wellbore #1 - Plan #1 (12-09-13)	1,000.0	1,000.0	32.9	28.7	7.712	CC, ES
Razor #21D-2804B - Wellbore #1 - Plan #1 (12-09-13)	1,100.0	1,099.2	34.1	29.4	7.265	SF

Offset Design Existing Wells - Terrace State #1 (Exist) - Wellbore #1 - Wellbore #1

Offset Site Error: 0.0 ft

Survey Program: 6795-UNKNOWN

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	18.3	18.3	0.0	0.4	0.23	2,458.2	10.0	2,458.2	2,457.9	0.37	6,712.791	
100.0	100.0	118.3	118.3	0.1	2.4	0.23	2,458.2	10.0	2,458.2	2,455.7	2.48	991.786	
200.0	200.0	218.3	218.3	0.3	4.4	0.23	2,458.2	10.0	2,458.2	2,453.5	4.70	522.654	
300.0	300.0	318.3	318.3	0.6	6.4	0.23	2,458.2	10.0	2,458.2	2,451.3	6.93	354.819	
400.0	400.0	418.3	418.3	0.8	8.4	0.23	2,458.2	10.0	2,458.2	2,449.1	9.15	268.574	
500.0	500.0	518.3	518.3	1.0	10.4	0.23	2,458.2	10.0	2,458.2	2,446.8	11.38	216.057	
600.0	600.0	618.3	618.3	1.2	12.4	0.23	2,458.2	10.0	2,458.2	2,444.6	13.60	180.720	
700.0	700.0	718.3	718.3	1.5	14.4	0.23	2,458.2	10.0	2,458.2	2,442.4	15.83	155.317	
800.0	800.0	818.3	818.3	1.7	16.4	0.23	2,458.2	10.0	2,458.2	2,440.2	18.05	136.175	
900.0	900.0	918.3	918.3	1.9	18.4	0.23	2,458.2	10.0	2,458.2	2,437.9	20.28	121.234	

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

Company:	Whiting Oil & Gas	**Local Co-ordinate Reference:**	Well Razor #21D-0904B
Project:	SEC.21-T10N-R58W	**TVD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Reference Site:	Razor #21D Pad Sec.21-T10N-R58W	**MD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Razor #21D-0904B	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (12-09-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Existing Wells - Terrace State #1 (Exist) - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 ft

Survey Program: 6795-UNKNOWN — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
1,000.0	1,000.0	1,018.3	1,018.3	2.1	20.4	0.23	2,458.2	10.0	2,458.2	2,435.7	22.50	109.247	
1,100.0	1,100.0	1,118.3	1,118.3	2.4	22.4	0.23	2,458.2	10.0	2,458.2	2,433.5	24.73	99.418	
1,200.0	1,200.0	1,218.3	1,218.3	2.6	24.4	0.23	2,458.2	10.0	2,458.2	2,431.3	26.95	91.211	
1,300.0	1,300.0	1,318.3	1,318.3	2.8	26.4	0.23	2,458.2	10.0	2,458.2	2,429.0	29.18	84.256	
1,400.0	1,400.0	1,418.3	1,418.3	3.0	28.4	0.23	2,458.2	10.0	2,458.2	2,426.8	31.40	78.286	
1,500.0	1,500.0	1,518.3	1,518.3	3.3	30.4	0.23	2,458.2	10.0	2,458.2	2,424.6	33.63	73.106	
1,600.0	1,600.0	1,618.3	1,618.3	3.5	32.4	0.23	2,458.2	10.0	2,458.2	2,422.4	35.85	68.570	
1,700.0	1,700.0	1,718.3	1,718.3	3.7	34.4	0.23	2,458.2	10.0	2,458.2	2,420.1	38.07	64.563	
1,800.0	1,800.0	1,818.3	1,818.3	3.9	36.4	0.23	2,458.2	10.0	2,458.2	2,417.9	40.30	60.999	
1,900.0	1,900.0	1,918.3	1,918.3	4.2	38.4	0.23	2,458.2	10.0	2,458.2	2,415.7	42.52	57.807	
2,000.0	2,000.0	2,018.3	2,018.3	4.4	40.4	0.23	2,458.2	10.0	2,458.2	2,413.5	44.75	54.933	
2,100.0	2,100.0	2,118.3	2,118.3	4.6	42.4	-21.68	2,458.2	10.0	2,456.6	2,409.7	46.95	52.326	
2,200.0	2,199.8	2,218.1	2,218.1	4.8	44.4	-21.76	2,458.2	10.0	2,451.7	2,402.6	49.09	49.941	
2,300.0	2,299.6	2,317.9	2,317.9	5.1	46.4	-21.82	2,458.2	10.0	2,445.3	2,394.0	51.31	47.659	
2,400.0	2,399.4	2,417.7	2,417.7	5.3	48.4	-21.89	2,458.2	10.0	2,438.9	2,385.3	53.52	45.566	
2,500.0	2,499.1	2,517.4	2,517.4	5.5	50.3	-21.95	2,458.2	10.0	2,432.4	2,376.7	55.74	43.638	
2,600.0	2,598.9	2,617.2	2,617.2	5.7	52.3	-22.01	2,458.2	10.0	2,426.0	2,368.0	57.96	41.857	
2,700.0	2,698.6	2,716.9	2,716.9	6.0	54.3	-22.07	2,458.2	10.0	2,419.6	2,359.4	60.18	40.207	
2,800.0	2,798.4	2,816.7	2,816.7	6.2	56.3	-22.13	2,458.2	10.0	2,413.1	2,350.7	62.40	38.674	
2,900.0	2,898.2	2,916.5	2,916.5	6.4	58.3	-22.19	2,458.2	10.0	2,406.7	2,342.1	64.62	37.247	
3,000.0	2,997.9	3,016.2	3,016.2	6.7	60.3	-22.26	2,458.2	10.0	2,400.3	2,333.4	66.84	35.913	
3,100.0	3,097.7	3,116.0	3,116.0	6.9	62.3	-22.32	2,458.2	10.0	2,393.9	2,324.8	69.06	34.666	
3,200.0	3,197.4	3,215.7	3,215.7	7.2	64.3	-22.38	2,458.2	10.0	2,387.4	2,316.2	71.28	33.496	
3,300.0	3,297.2	3,315.5	3,315.5	7.4	66.3	-22.45	2,458.2	10.0	2,381.0	2,307.5	73.50	32.396	
3,400.0	3,396.9	3,415.2	3,415.2	7.6	68.3	-22.51	2,458.2	10.0	2,374.6	2,298.9	75.72	31.361	
3,500.0	3,496.7	3,515.0	3,515.0	7.9	70.3	-22.57	2,458.2	10.0	2,368.2	2,290.3	77.94	30.385	
3,600.0	3,596.5	3,614.8	3,614.8	8.1	72.3	-22.64	2,458.2	10.0	2,361.8	2,281.6	80.16	29.463	
3,700.0	3,696.2	3,714.5	3,714.5	8.4	74.3	-22.70	2,458.2	10.0	2,355.4	2,273.0	82.38	28.590	
3,800.0	3,796.0	3,814.3	3,814.3	8.6	76.3	-22.77	2,458.2	10.0	2,349.0	2,264.4	84.61	27.764	
3,900.0	3,895.7	3,914.0	3,914.0	8.9	78.3	-22.83	2,458.2	10.0	2,342.6	2,255.8	86.83	26.979	
4,000.0	3,995.5	4,013.8	4,013.8	9.1	80.3	-22.90	2,458.2	10.0	2,336.2	2,247.2	89.05	26.234	
4,100.0	4,095.3	4,113.6	4,113.6	9.4	82.3	-22.97	2,458.2	10.0	2,329.8	2,238.5	91.28	25.525	
4,200.0	4,195.0	4,213.3	4,213.3	9.6	84.3	-23.03	2,458.2	10.0	2,323.4	2,229.9	93.50	24.850	
4,300.0	4,294.8	4,313.1	4,313.1	9.9	86.3	-23.10	2,458.2	10.0	2,317.0	2,221.3	95.72	24.206	
4,400.0	4,394.5	4,412.8	4,412.8	10.1	88.3	-23.17	2,458.2	10.0	2,310.7	2,212.7	97.95	23.591	
4,500.0	4,494.3	4,512.6	4,512.6	10.4	90.3	-23.23	2,458.2	10.0	2,304.3	2,204.1	100.17	23.004	
4,600.0	4,594.1	4,612.4	4,612.4	10.6	92.2	-23.30	2,458.2	10.0	2,297.9	2,195.5	102.39	22.442	
4,700.0	4,693.8	4,712.1	4,712.1	10.9	94.2	-23.37	2,458.2	10.0	2,291.5	2,186.9	104.62	21.904	
4,800.0	4,793.6	4,811.9	4,811.9	11.1	96.2	-23.44	2,458.2	10.0	2,285.2	2,178.3	106.84	21.388	
4,900.0	4,893.3	4,911.6	4,911.6	11.4	98.2	-23.51	2,458.2	10.0	2,278.8	2,169.7	109.07	20.894	
5,000.0	4,993.1	5,011.4	5,011.4	11.6	100.2	-23.58	2,458.2	10.0	2,272.5	2,161.2	111.29	20.419	
5,100.0	5,092.9	5,111.2	5,111.2	11.9	102.2	-23.65	2,458.2	10.0	2,266.1	2,152.6	113.52	19.963	
5,200.0	5,192.6	5,210.9	5,210.9	12.1	104.2	-23.72	2,458.2	10.0	2,259.7	2,144.0	115.74	19.524	
5,300.0	5,292.4	5,310.7	5,310.7	12.4	106.2	-23.79	2,458.2	10.0	2,253.4	2,135.4	117.97	19.102	
5,400.0	5,392.1	5,410.4	5,410.4	12.6	108.2	-23.86	2,458.2	10.0	2,247.0	2,126.9	120.19	18.696	
5,500.0	5,491.0	5,509.3	5,509.3	12.9	110.2	-23.49	2,458.2	10.0	2,234.4	2,114.4	120.00	18.619	
5,600.0	5,585.6	5,603.9	5,603.9	13.3	112.1	-25.03	2,458.2	10.0	2,204.7	2,088.6	116.14	18.984	
5,700.0	5,672.2	5,690.5	5,690.5	13.9	113.8	-28.03	2,458.2	10.0	2,159.1	2,049.4	109.76	19.672	
5,800.0	5,747.8	5,766.1	5,766.1	14.6	115.3	-32.98	2,458.2	10.0	2,099.4	1,996.0	103.43	20.297	
5,900.0	5,809.5	5,827.8	5,827.8	15.5	116.6	-40.83	2,458.2	10.0	2,028.1	1,925.9	102.16	19.852	
6,000.0	5,855.1	5,873.4	5,873.4	16.5	117.5	-52.97	2,458.2	10.0	1,947.9	1,836.5	111.43	17.481	
6,100.0	5,883.0	5,901.3	5,901.3	17.8	118.0	-70.29	2,458.2	10.0	1,862.3	1,734.0	128.28	14.517	

Company:	Whiting Oil & Gas	**Local Co-ordinate Reference:**	Well Razor #21D-0904B
Project:	SEC.21-T10N-R58W	**TVD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Reference Site:	Razor #21D Pad Sec.21-T10N-R58W	**MD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Razor #21D-0904B	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (12-09-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Existing Wells - Terrace State #1 (Exist) - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 ft

Survey Program: 6795-UNKNOWN — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
6,200.0	5,892.0	5,910.3	5,910.3	19.2	118.2	-90.00	2,458.2	10.0	1,774.6	1,637.2	137.37	12.918	
6,300.0	5,892.0	5,910.3	5,910.3	20.5	118.2	-90.00	2,458.2	10.0	1,686.3	1,547.7	138.64	12.163	
6,400.0	5,892.0	5,910.3	5,910.3	21.8	118.2	-90.00	2,458.2	10.0	1,596.9	1,456.9	139.96	11.409	
6,500.0	5,892.0	5,910.3	5,910.3	23.3	118.2	-90.00	2,458.2	10.0	1,506.4	1,365.1	141.31	10.660	
6,600.0	5,892.0	5,910.3	5,910.3	24.7	118.2	-90.00	2,458.2	10.0	1,414.8	1,272.2	142.66	9.918	
6,700.0	5,892.0	5,910.3	5,910.3	26.2	118.2	-90.00	2,458.2	10.0	1,322.3	1,178.3	144.00	9.183	
6,800.0	5,892.0	5,910.3	5,910.3	27.7	118.2	-90.00	2,458.2	10.0	1,228.9	1,083.6	145.32	8.456	
6,900.0	5,892.0	5,910.3	5,910.3	29.3	118.2	-90.00	2,458.2	10.0	1,134.7	988.0	146.68	7.736	
7,000.0	5,892.0	5,910.3	5,910.3	30.8	118.2	-90.00	2,458.2	10.0	1,040.9	892.7	148.28	7.020	
7,100.0	5,892.0	5,910.3	5,910.3	32.4	118.2	-90.00	2,458.2	10.0	948.5	798.6	149.93	6.326	
7,200.0	5,892.0	5,910.3	5,910.3	34.1	118.2	-90.00	2,458.2	10.0	857.8	706.2	151.60	5.658	
7,300.0	5,892.0	5,910.3	5,910.3	35.8	118.2	-90.00	2,458.2	10.0	769.3	616.0	153.29	5.019	
7,400.0	5,892.0	5,910.3	5,910.3	37.4	118.2	-90.00	2,458.2	10.0	684.1	529.0	155.01	4.413	
7,500.0	5,892.0	5,910.3	5,910.3	39.2	118.2	-90.00	2,458.2	10.0	603.3	446.6	156.75	3.849	
7,600.0	5,892.0	5,910.3	5,910.3	40.9	118.2	-90.00	2,458.2	10.0	529.3	370.7	158.51	3.339	
7,700.0	5,892.0	5,910.3	5,910.3	42.6	118.2	-90.00	2,458.2	10.0	465.0	304.7	160.28	2.901	
7,800.0	5,892.0	5,910.3	5,910.3	44.4	118.2	-90.00	2,458.2	10.0	415.1	253.0	162.07	2.561	
7,900.0	5,892.0	5,910.3	5,910.3	46.2	118.2	-90.00	2,458.2	10.0	385.2	221.3	163.87	2.351	
7,969.5	5,892.0	5,910.3	5,910.3	47.4	118.2	-90.00	2,458.2	10.0	378.9	213.7	165.12	2.294	CC, ES
8,000.0	5,892.0	5,910.3	5,910.3	48.0	118.2	-90.00	2,458.2	10.0	380.1	214.4	165.67	2.294	SF
8,100.0	5,892.0	5,910.3	5,910.3	49.8	118.2	-90.00	2,458.2	10.0	400.7	233.2	167.49	2.392	
8,200.0	5,892.0	5,910.3	5,910.3	51.6	118.2	-90.00	2,458.2	10.0	443.5	274.1	169.31	2.619	
8,300.0	5,892.0	5,910.3	5,910.3	53.4	118.2	-90.00	2,458.2	10.0	502.7	331.6	171.14	2.937	
8,400.0	5,892.0	5,910.3	5,910.3	55.2	118.2	-90.00	2,458.2	10.0	573.4	400.5	172.98	3.315	
8,500.0	5,892.0	5,910.3	5,910.3	57.0	118.2	-90.00	2,458.2	10.0	651.9	477.0	174.83	3.729	
8,600.0	5,892.0	5,910.3	5,910.3	58.9	118.2	-90.00	2,458.2	10.0	735.5	558.9	176.68	4.163	
8,700.0	5,892.0	5,910.3	5,910.3	60.7	118.2	-90.00	2,458.2	10.0	822.9	644.3	178.53	4.609	
8,800.0	5,892.0	5,910.3	5,910.3	62.6	118.2	-90.00	2,458.2	10.0	912.8	732.4	180.39	5.060	
8,900.0	5,892.0	5,910.3	5,910.3	64.4	118.2	-90.00	2,458.2	10.0	1,004.6	822.4	182.25	5.512	
9,000.0	5,892.0	5,910.3	5,910.3	66.3	118.2	-90.00	2,458.2	10.0	1,097.9	913.8	184.12	5.963	
9,100.0	5,892.0	5,910.3	5,910.3	68.1	118.2	-90.00	2,458.2	10.0	1,192.3	1,006.3	185.99	6.410	
9,200.0	5,892.0	5,910.3	5,910.3	70.0	118.2	-90.00	2,458.2	10.0	1,287.5	1,099.6	187.86	6.853	
9,300.0	5,892.0	5,910.3	5,910.3	71.9	118.2	-90.00	2,458.2	10.0	1,383.3	1,193.6	189.74	7.291	
9,400.0	5,892.0	5,910.3	5,910.3	73.7	118.2	-90.00	2,458.2	10.0	1,479.8	1,288.2	191.62	7.723	
9,500.0	5,892.0	5,910.3	5,910.3	75.6	118.2	-90.00	2,458.2	10.0	1,576.7	1,383.2	193.50	8.148	
9,600.0	5,892.0	5,910.3	5,910.3	77.5	118.2	-90.00	2,458.2	10.0	1,673.9	1,478.5	195.38	8.567	
9,700.0	5,892.0	5,910.3	5,910.3	79.4	118.2	-90.00	2,458.2	10.0	1,771.4	1,574.2	197.27	8.980	
9,800.0	5,892.0	5,910.3	5,910.3	81.2	118.2	-90.00	2,458.2	10.0	1,869.3	1,670.1	199.16	9.386	
9,900.0	5,892.0	5,910.3	5,910.3	83.1	118.2	-90.00	2,458.2	10.0	1,967.3	1,766.2	201.05	9.785	
10,000.0	5,892.0	5,910.3	5,910.3	85.0	118.2	-90.00	2,458.2	10.0	2,065.5	1,862.6	202.94	10.178	
10,100.0	5,892.0	5,910.3	5,910.3	86.9	118.2	-90.00	2,458.2	10.0	2,163.9	1,959.0	204.83	10.564	
10,200.0	5,892.0	5,910.3	5,910.3	88.8	118.2	-90.00	2,458.2	10.0	2,262.4	2,055.7	206.73	10.944	
10,300.0	5,892.0	5,910.3	5,910.3	90.7	118.2	-90.00	2,458.2	10.0	2,361.0	2,152.4	208.62	11.317	
10,400.0	5,892.0	5,910.3	5,910.3	92.6	118.2	-90.00	2,458.2	10.0	2,459.8	2,249.3	210.52	11.685	
10,500.0	5,892.0	5,910.3	5,910.3	94.5	118.2	-90.00	2,458.2	10.0	2,558.7	2,346.2	212.42	12.045	
10,600.0	5,892.0	5,910.3	5,910.3	96.3	118.2	-90.00	2,458.2	10.0	2,657.6	2,443.3	214.32	12.400	
10,700.0	5,892.0	5,910.3	5,910.3	98.2	118.2	-90.00	2,458.2	10.0	2,756.6	2,540.4	216.22	12.749	
10,800.0	5,892.0	5,910.3	5,910.3	100.1	118.2	-90.00	2,458.2	10.0	2,855.7	2,637.6	218.12	13.092	
10,900.0	5,892.0	5,910.3	5,910.3	102.0	118.2	-90.00	2,458.2	10.0	2,954.8	2,734.8	220.02	13.430	
11,000.0	5,892.0	5,910.3	5,910.3	103.9	118.2	-90.00	2,458.2	10.0	3,054.0	2,832.1	221.93	13.762	
11,100.0	5,892.0	5,910.3	5,910.3	105.8	118.2	-90.00	2,458.2	10.0	3,153.3	2,929.5	223.83	14.088	
11,200.0	5,892.0	5,910.3	5,910.3	107.7	118.2	-90.00	2,458.2	10.0	3,252.6	3,026.9	225.74	14.409	

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

Company:	Whiting Oil & Gas	**Local Co-ordinate Reference:**	Well Razor #21D-0904B
Project:	SEC.21-T10N-R58W	**TVD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Reference Site:	Razor #21D Pad Sec.21-T10N-R58W	**MD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Razor #21D-0904B	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (12-09-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Existing Wells - Terrace State #1 (Exist) - Wellbore #1 - Wellbore #1

Offset Site Error: 0.0 ft

Survey Program: 6795-UNKNOWN

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
11,300.0	5,892.0	5,910.3	5,910.3	109.6	118.2	-90.00	2,458.2	10.0	3,351.9	3,124.3	227.64	14.725	
11,400.0	5,892.0	5,910.3	5,910.3	111.5	118.2	-90.00	2,458.2	10.0	3,451.3	3,221.8	229.55	15.035	
11,500.0	5,892.0	5,910.3	5,910.3	113.5	118.2	-90.00	2,458.2	10.0	3,550.7	3,319.3	231.46	15.341	
11,600.0	5,892.0	5,910.3	5,910.3	115.4	118.2	-90.00	2,458.2	10.0	3,650.2	3,416.8	233.36	15.641	
11,700.0	5,892.0	5,910.3	5,910.3	117.3	118.2	-90.00	2,458.2	10.0	3,749.6	3,514.4	235.27	15.937	
11,800.0	5,892.0	5,910.3	5,910.3	119.2	118.2	-90.00	2,458.2	10.0	3,849.1	3,612.0	237.18	16.229	
11,900.0	5,892.0	5,910.3	5,910.3	121.1	118.2	-90.00	2,458.2	10.0	3,948.7	3,709.6	239.09	16.515	
12,000.0	5,892.0	5,910.3	5,910.3	123.0	118.2	-90.00	2,458.2	10.0	4,048.2	3,807.2	241.00	16.797	
12,100.0	5,892.0	5,910.3	5,910.3	124.9	118.2	-90.00	2,458.2	10.0	4,147.8	3,904.9	242.91	17.075	
12,200.0	5,892.0	5,910.3	5,910.3	126.8	118.2	-90.00	2,458.2	10.0	4,247.4	4,002.6	244.83	17.349	
12,300.0	5,892.0	5,910.3	5,910.3	128.7	118.2	-90.00	2,458.2	10.0	4,347.0	4,100.3	246.74	17.618	
12,400.0	5,892.0	5,910.3	5,910.3	130.6	118.2	-90.00	2,458.2	10.0	4,446.6	4,198.0	248.65	17.883	
12,500.0	5,892.0	5,910.3	5,910.3	132.5	118.2	-90.00	2,458.2	10.0	4,546.3	4,295.7	250.56	18.144	
12,600.0	5,892.0	5,910.3	5,910.3	134.4	118.2	-90.00	2,458.2	10.0	4,645.9	4,393.4	252.48	18.401	
12,700.0	5,892.0	5,910.3	5,910.3	136.4	118.2	-90.00	2,458.2	10.0	4,745.6	4,491.2	254.39	18.655	
12,800.0	5,892.0	5,910.3	5,910.3	138.3	118.2	-90.00	2,458.2	10.0	4,845.3	4,589.0	256.31	18.904	
12,900.0	5,892.0	5,910.3	5,910.3	140.2	118.2	-90.00	2,458.2	10.0	4,945.0	4,686.8	258.22	19.150	
13,000.0	5,892.0	5,910.3	5,910.3	142.1	118.2	-90.00	2,458.2	10.0	5,044.7	4,784.6	260.14	19.393	
13,100.0	5,892.0	5,910.3	5,910.3	144.0	118.2	-90.00	2,458.2	10.0	5,144.4	4,882.4	262.05	19.631	
13,200.0	5,892.0	5,910.3	5,910.3	145.9	118.2	-90.00	2,458.2	10.0	5,244.2	4,980.2	263.97	19.867	
13,300.0	5,892.0	5,910.3	5,910.3	147.8	118.2	-90.00	2,458.2	10.0	5,343.9	5,078.0	265.88	20.099	
13,400.0	5,892.0	5,910.3	5,910.3	149.7	118.2	-90.00	2,458.2	10.0	5,443.7	5,175.9	267.80	20.327	
13,416.7	5,892.0	5,910.3	5,910.3	150.1	118.2	-90.00	2,458.2	10.0	5,460.3	5,192.2	268.12	20.365	

Company:	Whiting Oil & Gas	**Local Co-ordinate Reference:**	Well Razor #21D-0904B
Project:	SEC.21-T10N-R58W	**TVD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Reference Site:	Razor #21D Pad Sec.21-T10N-R58W	**MD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Razor #21D-0904B	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (12-09-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Razor #21D Pad Sec.21-T10N-R58W - Razor #21D-0901A - Wellbore #1 - Plan #1 (12-09-13) — **Offset Site Error:** 0.0 ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-23.97	74.7	-33.2	81.7				
100.0	100.0	100.0	100.0	0.1	0.1	-23.97	74.7	-33.2	81.7	81.5	0.22	363.666	
200.0	200.0	200.0	200.0	0.3	0.3	-23.97	74.7	-33.2	81.7	81.1	0.67	121.222	
300.0	300.0	300.0	300.0	0.6	0.6	-23.97	74.7	-33.2	81.7	80.6	1.12	72.733	
400.0	400.0	400.0	400.0	0.8	0.8	-23.97	74.7	-33.2	81.7	80.2	1.57	51.952	
500.0	500.0	500.0	500.0	1.0	1.0	-23.97	74.7	-33.2	81.7	79.7	2.02	40.407	
600.0	600.0	600.0	600.0	1.2	1.2	-23.97	74.7	-33.2	81.7	79.3	2.47	33.061	
700.0	700.0	700.0	700.0	1.5	1.5	-23.97	74.7	-33.2	81.7	78.8	2.92	27.974	
800.0	800.0	800.0	800.0	1.7	1.7	-23.97	74.7	-33.2	81.7	78.4	3.37	24.244	CC, ES
900.0	900.0	897.2	897.2	1.9	1.9	-24.05	76.1	-34.0	83.4	79.6	3.81	21.878	
1,000.0	1,000.0	994.2	994.0	2.1	2.1	-24.26	80.5	-36.3	88.5	84.2	4.26	20.793	
1,100.0	1,100.0	1,093.7	1,093.4	2.4	2.4	-24.53	86.6	-39.5	95.5	90.8	4.71	20.288	
1,200.0	1,200.0	1,193.5	1,192.9	2.6	2.6	-24.76	92.8	-42.8	102.4	97.3	5.15	19.877	
1,300.0	1,300.0	1,293.3	1,292.4	2.8	2.8	-24.96	98.9	-46.0	109.4	103.8	5.60	19.527	
1,400.0	1,400.0	1,393.0	1,391.9	3.0	3.1	-25.13	105.1	-49.3	116.4	110.3	6.05	19.225	
1,500.0	1,500.0	1,492.8	1,491.4	3.3	3.3	-25.29	111.2	-52.6	123.3	116.8	6.50	18.963	
1,600.0	1,600.0	1,593.8	1,592.2	3.5	3.5	-25.42	116.8	-55.5	129.5	122.6	6.93	18.683	
1,700.0	1,700.0	1,693.6	1,691.9	3.7	3.8	-25.53	122.1	-58.3	135.5	128.1	7.38	18.357	
1,800.0	1,800.0	1,793.4	1,791.5	3.9	4.0	-25.62	127.4	-61.1	141.5	133.7	7.84	18.064	
1,900.0	1,900.0	1,893.2	1,891.1	4.2	4.3	-25.72	132.7	-63.9	147.5	139.2	8.29	17.802	
2,000.0	2,000.0	1,993.1	1,990.8	4.4	4.5	-25.80	138.0	-66.7	153.5	144.8	8.74	17.567	
2,100.0	2,100.0	2,092.9	2,090.5	4.6	4.7	-48.16	143.3	-69.5	158.4	149.2	9.18	17.243	
2,200.0	2,199.8	2,192.8	2,190.2	4.8	5.0	-49.57	148.6	-72.3	160.9	151.3	9.63	16.712	
2,300.0	2,299.6	2,292.7	2,289.8	5.1	5.2	-51.44	153.9	-75.1	162.5	152.5	10.08	16.122	
2,400.0	2,399.4	2,392.5	2,389.5	5.3	5.5	-53.26	159.2	-77.9	164.3	153.8	10.54	15.596	
2,500.0	2,499.1	2,492.4	2,489.2	5.5	5.7	-55.05	164.5	-80.7	166.2	155.2	10.99	15.125	
2,600.0	2,598.9	2,592.2	2,588.8	5.7	6.0	-56.79	169.8	-83.5	168.3	156.9	11.45	14.702	
2,700.0	2,698.6	2,692.1	2,688.5	6.0	6.2	-58.49	175.1	-86.3	170.6	158.7	11.91	14.321	
2,800.0	2,798.4	2,791.9	2,788.2	6.2	6.5	-60.15	180.4	-89.1	173.0	160.6	12.37	13.978	
2,900.0	2,898.2	2,891.7	2,887.8	6.4	6.7	-61.75	185.7	-91.9	175.5	162.6	12.84	13.668	
3,000.0	2,997.9	2,991.6	2,987.5	6.7	7.0	-63.32	191.0	-94.7	178.2	164.8	13.31	13.387	
3,100.0	3,097.7	3,091.4	3,087.2	6.9	7.2	-64.83	196.3	-97.5	180.9	167.2	13.78	13.133	
3,200.0	3,197.4	3,191.3	3,186.9	7.2	7.5	-66.30	201.6	-100.3	183.9	169.6	14.25	12.902	
3,300.0	3,297.2	3,291.1	3,286.5	7.4	7.7	-67.72	206.9	-103.2	186.9	172.2	14.72	12.693	
3,400.0	3,396.9	3,391.0	3,386.2	7.6	8.0	-69.09	212.2	-106.0	190.0	174.8	15.20	12.502	
3,500.0	3,496.7	3,490.8	3,485.9	7.9	8.2	-70.42	217.5	-108.8	193.3	177.6	15.68	12.328	
3,600.0	3,596.5	3,590.7	3,585.5	8.1	8.4	-71.71	222.8	-111.6	196.6	180.5	16.16	12.169	
3,700.0	3,696.2	3,690.5	3,685.2	8.4	8.7	-72.95	228.1	-114.4	200.1	183.4	16.64	12.024	
3,800.0	3,796.0	3,790.4	3,784.9	8.6	8.9	-74.15	233.4	-117.2	203.6	186.5	17.12	11.892	
3,900.0	3,895.7	3,890.2	3,884.5	8.9	9.2	-75.30	238.7	-120.0	207.2	189.6	17.61	11.771	
4,000.0	3,995.5	3,990.1	3,984.2	9.1	9.4	-76.42	244.0	-122.8	210.9	192.8	18.09	11.660	
4,100.0	4,095.3	4,089.9	4,083.9	9.4	9.7	-77.50	249.3	-125.6	214.7	196.1	18.58	11.558	
4,200.0	4,195.0	4,189.8	4,183.5	9.6	9.9	-78.54	254.6	-128.4	218.6	199.5	19.07	11.465	
4,300.0	4,294.8	4,289.6	4,283.2	9.9	10.2	-79.54	259.9	-131.2	222.5	202.9	19.55	11.379	
4,400.0	4,394.5	4,389.5	4,382.9	10.1	10.4	-80.51	265.2	-134.0	226.5	206.4	20.04	11.300	
4,500.0	4,494.3	4,489.3	4,482.5	10.4	10.7	-81.45	270.5	-136.8	230.5	210.0	20.53	11.228	
4,600.0	4,594.1	4,589.2	4,582.2	10.6	10.9	-82.35	275.8	-139.6	234.7	213.6	21.02	11.161	
4,700.0	4,693.8	4,689.0	4,681.9	10.9	11.2	-83.22	281.1	-142.4	238.8	217.3	21.52	11.100	
4,800.0	4,793.6	4,788.9	4,781.5	11.1	11.4	-84.06	286.4	-145.2	243.0	221.0	22.01	11.044	
4,900.0	4,893.3	4,888.7	4,881.2	11.4	11.7	-84.88	291.7	-148.0	247.3	224.8	22.50	10.992	
5,000.0	4,993.1	4,988.6	4,980.9	11.6	11.9	-85.66	297.0	-150.8	251.6	228.6	22.99	10.944	
5,100.0	5,092.9	5,088.4	5,080.5	11.9	12.2	-86.42	302.3	-153.6	256.0	232.5	23.49	10.900	

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

Company:	Whiting Oil & Gas	**Local Co-ordinate Reference:**	Well Razor #21D-0904B
Project:	SEC.21-T10N-R58W	**TVD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Reference Site:	Razor #21D Pad Sec.21-T10N-R58W	**MD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Razor #21D-0904B	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (12-09-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Razor #21D Pad Sec.21-T10N-R58W - Razor #21D-0901A - Wellbore #1 - Plan #1 (12-09-13) — **Offset Site Error:** 0.0 ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,200.0	5,192.6	5,188.3	5,180.2	12.1	12.4	-87.15	307.6	-156.4	260.4	236.4	23.98	10.859	
5,300.0	5,292.4	5,288.1	5,279.9	12.4	12.7	-87.86	312.9	-159.2	264.9	240.4	24.48	10.821	
5,400.0	5,392.1	5,370.3	5,361.7	12.6	12.9	-88.18	318.9	-162.4	271.3	246.4	24.93	10.883	
5,500.0	5,491.0	5,439.9	5,429.7	12.9	13.1	-85.72	331.7	-169.2	287.1	261.7	25.41	11.299	
5,600.0	5,585.6	5,500.0	5,486.5	13.3	13.4	-84.06	349.2	-178.4	311.6	285.6	25.99	11.989	
5,700.0	5,672.2	5,569.8	5,549.0	13.9	13.8	-83.06	376.6	-192.9	343.7	317.0	26.76	12.844	
5,800.0	5,747.8	5,628.7	5,598.1	14.6	14.2	-81.58	405.3	-208.0	383.1	355.5	27.64	13.858	
5,900.0	5,809.5	5,683.3	5,640.2	15.5	14.6	-79.58	436.1	-224.3	428.8	400.1	28.66	14.963	
6,000.0	5,855.1	5,733.7	5,675.5	16.5	15.1	-76.93	467.8	-241.1	479.7	449.9	29.75	16.122	
6,100.0	5,883.0	5,780.1	5,704.8	17.8	15.5	-73.64	499.6	-257.8	534.7	503.9	30.88	17.318	
6,200.0	5,892.0	5,822.8	5,728.9	19.2	16.0	-70.06	530.7	-274.3	592.7	560.7	32.01	18.515	
6,300.0	5,892.0	5,867.5	5,750.9	20.5	16.5	-74.17	565.1	-292.5	653.0	618.7	34.28	19.046	
6,400.0	5,892.0	5,919.2	5,772.1	21.8	17.2	-77.75	606.7	-314.5	714.2	677.6	36.60	19.514	
6,500.0	5,892.0	5,978.0	5,790.5	23.3	18.1	-80.58	656.2	-340.6	774.9	735.9	38.97	19.884	
6,600.0	5,892.0	6,043.4	5,803.3	24.7	19.1	-82.52	712.8	-370.5	833.7	792.3	41.42	20.127	
6,700.0	5,892.0	6,114.0	5,808.0	26.2	20.3	-83.54	775.1	-403.4	889.8	845.8	43.97	20.236	
6,800.0	5,892.0	6,280.8	5,808.0	27.7	23.0	-84.33	925.8	-474.8	938.4	890.5	47.90	19.591	
6,900.0	5,892.0	6,467.2	5,808.0	29.3	26.1	-84.82	1,100.8	-538.6	974.1	921.7	52.42	18.582	
7,000.0	5,892.0	6,666.9	5,808.0	30.8	29.5	-85.08	1,294.3	-587.7	998.7	941.4	57.30	17.428	
7,100.0	5,892.0	6,875.3	5,808.0	32.4	32.9	-85.22	1,500.5	-617.2	1,012.9	950.4	62.45	16.219	
7,200.0	5,892.0	7,067.8	5,808.0	34.1	36.0	-85.26	1,692.8	-624.3	1,016.2	948.9	67.35	15.090	
7,300.0	5,892.0	7,167.8	5,808.0	35.8	37.6	-85.26	1,792.8	-623.9	1,015.9	945.2	70.70	14.368	
7,400.0	5,892.0	7,267.8	5,808.0	37.4	39.2	-85.26	1,892.8	-623.5	1,015.5	941.4	74.10	13.704	
7,500.0	5,892.0	7,367.8	5,808.0	39.2	40.8	-85.25	1,992.8	-623.1	1,015.1	937.6	77.54	13.091	
7,600.0	5,892.0	7,467.8	5,808.0	40.9	42.5	-85.25	2,092.8	-622.6	1,014.7	933.7	81.02	12.525	
7,700.0	5,892.0	7,567.8	5,808.0	42.6	44.2	-85.25	2,192.8	-622.2	1,014.4	929.8	84.53	12.000	
7,800.0	5,892.0	7,667.8	5,808.0	44.4	45.9	-85.25	2,292.8	-621.8	1,014.0	925.9	88.07	11.514	
7,900.0	5,892.0	7,767.8	5,808.0	46.2	47.6	-85.25	2,392.8	-621.3	1,013.6	922.0	91.63	11.063	
8,000.0	5,892.0	7,867.8	5,808.0	48.0	49.3	-85.24	2,492.8	-620.9	1,013.3	918.1	95.21	10.642	
8,100.0	5,892.0	7,967.8	5,808.0	49.8	51.1	-85.24	2,592.8	-620.5	1,012.9	914.1	98.81	10.251	
8,200.0	5,892.0	8,067.8	5,808.0	51.6	52.9	-85.24	2,692.8	-620.1	1,012.5	910.1	102.43	9.885	
8,300.0	5,892.0	8,167.8	5,808.0	53.4	54.6	-85.24	2,792.7	-619.6	1,012.2	906.1	106.07	9.542	
8,400.0	5,892.0	8,267.8	5,808.0	55.2	56.4	-85.24	2,892.7	-619.2	1,011.8	902.1	109.72	9.222	
8,500.0	5,892.0	8,367.8	5,808.0	57.0	58.2	-85.24	2,992.7	-618.8	1,011.4	898.0	113.38	8.921	
8,600.0	5,892.0	8,467.8	5,808.0	58.9	60.0	-85.23	3,092.7	-618.4	1,011.0	894.0	117.05	8.637	
8,700.0	5,892.0	8,567.8	5,808.0	60.7	61.8	-85.23	3,192.7	-617.9	1,010.7	889.9	120.74	8.371	
8,800.0	5,892.0	8,667.8	5,808.0	62.6	63.6	-85.23	3,292.7	-617.5	1,010.3	885.9	124.43	8.119	
8,900.0	5,892.0	8,767.8	5,808.0	64.4	65.4	-85.23	3,392.7	-617.1	1,009.9	881.8	128.13	7.882	
9,000.0	5,892.0	8,867.8	5,808.0	66.3	67.3	-85.23	3,492.7	-616.7	1,009.6	877.7	131.85	7.657	
9,100.0	5,892.0	8,967.8	5,808.0	68.1	69.1	-85.23	3,592.7	-616.2	1,009.2	873.6	135.56	7.444	
9,200.0	5,892.0	9,067.8	5,808.0	70.0	70.9	-85.22	3,692.7	-615.8	1,008.8	869.5	139.29	7.243	
9,300.0	5,892.0	9,167.8	5,808.0	71.9	72.8	-85.22	3,792.7	-615.4	1,008.4	865.4	143.02	7.051	
9,400.0	5,892.0	9,267.8	5,808.0	73.7	74.6	-85.22	3,892.7	-615.0	1,008.1	861.3	146.76	6.869	
9,500.0	5,892.0	9,367.8	5,808.0	75.6	76.5	-85.22	3,992.7	-614.5	1,007.7	857.2	150.50	6.696	
9,600.0	5,892.0	9,467.8	5,808.0	77.5	78.3	-85.22	4,092.7	-614.1	1,007.3	853.1	154.24	6.531	
9,700.0	5,892.0	9,567.8	5,808.0	79.4	80.2	-85.21	4,192.7	-613.7	1,007.0	849.0	158.00	6.373	
9,800.0	5,892.0	9,667.8	5,808.0	81.2	82.0	-85.21	4,292.7	-613.3	1,006.6	844.8	161.75	6.223	
9,900.0	5,892.0	9,767.8	5,808.0	83.1	83.9	-85.21	4,392.7	-612.8	1,006.2	840.7	165.51	6.079	
10,000.0	5,892.0	9,867.8	5,808.0	85.0	85.8	-85.21	4,492.7	-612.4	1,005.8	836.6	169.27	5.942	
10,100.0	5,892.0	9,967.8	5,808.0	86.9	87.6	-85.21	4,592.7	-612.0	1,005.5	832.4	173.04	5.811	
10,200.0	5,892.0	10,067.8	5,808.0	88.8	89.5	-85.21	4,692.7	-611.5	1,005.1	828.3	176.81	5.685	
10,300.0	5,892.0	10,167.8	5,808.0	90.7	91.4	-85.20	4,792.7	-611.1	1,004.7	824.1	180.58	5.564	

Company:	Whiting Oil & Gas	**Local Co-ordinate Reference:**	Well Razor #21D-0904B
Project:	SEC.21-T10N-R58W	**TVD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Reference Site:	Razor #21D Pad Sec.21-T10N-R58W	**MD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Razor #21D-0904B	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (12-09-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Razor #21D Pad Sec.21-T10N-R58W - Razor #21D-0901A - Wellbore #1 - Plan #1 (12-09-13) — **Offset Site Error:** 0.0 ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,400.0	5,892.0	10,267.8	5,808.0	92.6	93.3	-85.20	4,892.7	-610.7	1,004.4	820.0	184.36	5.448	
10,500.0	5,892.0	10,367.8	5,808.0	94.5	95.1	-85.20	4,992.7	-610.3	1,004.0	815.8	188.14	5.336	
10,600.0	5,892.0	10,467.8	5,808.0	96.3	97.0	-85.20	5,092.7	-609.8	1,003.6	811.7	191.92	5.229	
10,700.0	5,892.0	10,567.8	5,808.0	98.2	98.9	-85.20	5,192.7	-609.4	1,003.2	807.5	195.70	5.126	
10,800.0	5,892.0	10,667.8	5,808.0	100.1	100.8	-85.20	5,292.7	-609.0	1,002.9	803.4	199.49	5.027	
10,900.0	5,892.0	10,767.8	5,808.0	102.0	102.7	-85.19	5,392.7	-608.6	1,002.5	799.2	203.28	4.932	
11,000.0	5,892.0	10,867.8	5,808.0	103.9	104.6	-85.19	5,492.7	-608.1	1,002.1	795.1	207.07	4.840	
11,100.0	5,892.0	10,967.8	5,808.0	105.8	106.4	-85.19	5,592.7	-607.7	1,001.8	790.9	210.86	4.751	
11,200.0	5,892.0	11,067.8	5,808.0	107.7	108.3	-85.19	5,692.7	-607.3	1,001.4	786.7	214.65	4.665	
11,300.0	5,892.0	11,167.8	5,808.0	109.6	110.2	-85.19	5,792.7	-606.9	1,001.0	782.6	218.45	4.582	
11,400.0	5,892.0	11,267.8	5,808.0	111.5	112.1	-85.18	5,892.7	-606.4	1,000.6	778.4	222.24	4.502	
11,500.0	5,892.0	11,367.8	5,808.0	113.5	114.0	-85.18	5,992.7	-606.0	1,000.3	774.2	226.04	4.425	
11,600.0	5,892.0	11,467.8	5,808.0	115.4	115.9	-85.18	6,092.7	-605.6	999.9	770.1	229.84	4.350	
11,700.0	5,892.0	11,567.8	5,808.0	117.3	117.8	-85.18	6,192.7	-605.2	999.5	765.9	233.64	4.278	
11,800.0	5,892.0	11,667.8	5,808.0	119.2	119.7	-85.18	6,292.7	-604.7	999.2	761.7	237.45	4.208	
11,900.0	5,892.0	11,767.8	5,808.0	121.1	121.6	-85.18	6,392.7	-604.3	998.8	757.5	241.25	4.140	
12,000.0	5,892.0	11,867.8	5,808.0	123.0	123.5	-85.17	6,492.7	-603.9	998.4	753.4	245.05	4.074	
12,100.0	5,892.0	11,967.8	5,808.0	124.9	125.4	-85.17	6,592.7	-603.5	998.0	749.2	248.86	4.010	
12,200.0	5,892.0	12,067.8	5,808.0	126.8	127.3	-85.17	6,692.7	-603.0	997.7	745.0	252.67	3.949	
12,300.0	5,892.0	12,167.8	5,808.0	128.7	129.2	-85.17	6,792.7	-602.6	997.3	740.8	256.47	3.888	
12,400.0	5,892.0	12,267.8	5,808.0	130.6	131.1	-85.17	6,892.7	-602.2	996.9	736.6	260.28	3.830	
12,500.0	5,892.0	12,367.8	5,808.0	132.5	133.0	-85.16	6,992.7	-601.7	996.6	732.5	264.09	3.773	
12,600.0	5,892.0	12,467.8	5,808.0	134.4	134.9	-85.16	7,092.7	-601.3	996.2	728.3	267.90	3.718	
12,700.0	5,892.0	12,567.8	5,808.0	136.4	136.8	-85.16	7,192.7	-600.9	995.8	724.1	271.72	3.665	
12,800.0	5,892.0	12,667.8	5,808.0	138.3	138.7	-85.16	7,292.7	-600.5	995.4	719.9	275.53	3.613	
12,900.0	5,892.0	12,767.8	5,808.0	140.2	140.6	-85.16	7,392.7	-600.0	995.1	715.7	279.34	3.562	
13,000.0	5,892.0	12,867.8	5,808.0	142.1	142.5	-85.16	7,492.7	-599.6	994.7	711.5	283.16	3.513	
13,100.0	5,892.0	12,967.8	5,808.0	144.0	144.4	-85.15	7,592.7	-599.2	994.3	707.4	286.97	3.465	
13,200.0	5,892.0	13,067.8	5,808.0	145.9	146.3	-85.15	7,692.7	-598.8	994.0	703.2	290.79	3.418	
13,300.0	5,892.0	13,167.8	5,808.0	147.8	148.2	-85.15	7,792.7	-598.3	993.6	699.0	294.60	3.373	
13,400.0	5,892.0	13,267.8	5,808.0	149.7	150.1	-85.15	7,892.7	-597.9	993.2	694.8	298.42	3.328	
13,416.1	5,892.0	13,280.2	5,808.0	150.1	150.4	-85.15	7,905.1	-597.9	993.2	694.2	298.96	3.322	
13,416.7	5,892.0	13,280.2	5,808.0	150.1	150.4	-85.15	7,905.1	-597.9	993.2	694.2	298.97	3.322	SF

Company:	Whiting Oil & Gas	**Local Co-ordinate Reference:**	Well Razor #21D-0904B
Project:	SEC.21-T10N-R58W	**TVD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Reference Site:	Razor #21D Pad Sec.21-T10N-R58W	**MD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Razor #21D-0904B	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (12-09-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Razor #21D Pad Sec.21-T10N-R58W - Razor #21D-0902B - Wellbore #1 - Plan #1 (12-09-13) — **Offset Site Error:** 0.0 ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-90.00	0.0	-66.1	66.1				
100.0	100.0	100.0	100.0	0.1	0.1	-90.00	0.0	-66.1	66.1	65.9	0.22	294.268	
200.0	200.0	200.0	200.0	0.3	0.3	-90.00	0.0	-66.1	66.1	65.5	0.67	98.089	
300.0	300.0	300.0	300.0	0.6	0.6	-90.00	0.0	-66.1	66.1	65.0	1.12	58.854	
400.0	400.0	400.0	400.0	0.8	0.8	-90.00	0.0	-66.1	66.1	64.6	1.57	42.038	
500.0	500.0	500.0	500.0	1.0	1.0	-90.00	0.0	-66.1	66.1	64.1	2.02	32.696	
600.0	600.0	600.0	600.0	1.2	1.2	-90.00	0.0	-66.1	66.1	63.7	2.47	26.752	
700.0	700.0	700.0	700.0	1.5	1.5	-90.00	0.0	-66.1	66.1	63.2	2.92	22.636	
800.0	800.0	800.0	800.0	1.7	1.7	-90.00	0.0	-66.1	66.1	62.8	3.37	19.618	
900.0	900.0	900.0	900.0	1.9	1.9	-90.00	0.0	-66.1	66.1	62.3	3.82	17.310	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-90.00	0.0	-66.1	66.1	61.9	4.27	15.488	
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	-90.00	0.0	-66.1	66.1	61.4	4.72	14.013	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	-90.00	0.0	-66.1	66.1	61.0	5.17	12.794	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	-90.00	0.0	-66.1	66.1	60.5	5.62	11.771	
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	-90.00	0.0	-66.1	66.1	60.1	6.07	10.899	
1,500.0	1,500.0	1,500.0	1,500.0	3.3	3.3	-90.00	0.0	-66.1	66.1	59.6	6.52	10.147	
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	-90.00	0.0	-66.1	66.1	59.2	6.97	9.493	
1,700.0	1,700.0	1,700.0	1,700.0	3.7	3.7	-90.00	0.0	-66.1	66.1	58.7	7.42	8.917	
1,800.0	1,800.0	1,800.0	1,800.0	3.9	3.9	-90.00	0.0	-66.1	66.1	58.3	7.87	8.408	
1,900.0	1,900.0	1,900.0	1,900.0	4.2	4.2	-90.00	0.0	-66.1	66.1	57.8	8.32	7.953	
2,000.0	2,000.0	2,000.0	2,000.0	4.4	4.4	-90.00	0.0	-66.1	66.1	57.4	8.77	7.545	CC, ES
2,100.0	2,100.0	2,100.0	2,100.0	4.6	4.6	-113.27	0.0	-66.1	66.8	57.6	9.21	7.252	
2,200.0	2,199.8	2,199.8	2,199.8	4.8	4.8	-117.21	0.0	-66.1	69.0	59.4	9.65	7.152	
2,300.0	2,299.6	2,299.6	2,299.6	5.1	5.1	-122.09	0.0	-66.1	72.5	62.4	10.10	7.177	
2,400.0	2,399.4	2,399.4	2,399.4	5.3	5.3	-126.49	0.0	-66.1	76.4	65.9	10.55	7.244	
2,500.0	2,499.1	2,499.1	2,499.1	5.5	5.5	-130.45	0.0	-66.1	80.7	69.7	11.00	7.342	
2,600.0	2,598.9	2,599.5	2,599.5	5.7	5.7	-132.87	1.7	-66.4	85.0	73.6	11.45	7.429	
2,700.0	2,698.6	2,699.8	2,699.7	6.0	6.0	-133.02	6.6	-67.2	88.7	76.8	11.90	7.459	
2,800.0	2,798.4	2,799.8	2,799.4	6.2	6.2	-132.74	12.2	-68.1	92.3	80.0	12.35	7.474	
2,900.0	2,898.2	2,899.7	2,899.2	6.4	6.4	-132.49	17.7	-69.0	95.9	83.1	12.81	7.487	
3,000.0	2,997.9	2,999.6	2,999.0	6.7	6.6	-132.26	23.3	-69.9	99.5	86.2	13.26	7.497	
3,100.0	3,097.7	3,099.6	3,098.8	6.9	6.9	-132.04	28.9	-70.8	103.0	89.3	13.73	7.506	
3,200.0	3,197.4	3,199.5	3,198.6	7.2	7.1	-131.83	34.4	-71.7	106.6	92.4	14.19	7.514	
3,300.0	3,297.2	3,299.4	3,298.3	7.4	7.3	-131.64	40.0	-72.6	110.2	95.5	14.65	7.520	
3,400.0	3,396.9	3,399.4	3,398.1	7.6	7.5	-131.46	45.5	-73.5	113.8	98.6	15.12	7.524	
3,500.0	3,496.7	3,499.3	3,497.9	7.9	7.8	-131.30	51.1	-74.4	117.3	101.8	15.59	7.528	
3,600.0	3,596.5	3,599.2	3,597.7	8.1	8.0	-131.14	56.6	-75.3	120.9	104.9	16.06	7.531	
3,700.0	3,696.2	3,699.2	3,697.4	8.4	8.2	-130.99	62.2	-76.2	124.5	108.0	16.53	7.534	
3,800.0	3,796.0	3,799.1	3,797.2	8.6	8.5	-130.85	67.7	-77.1	128.1	111.1	17.00	7.536	
3,900.0	3,895.7	3,899.0	3,897.0	8.9	8.7	-130.72	73.3	-78.0	131.7	114.2	17.47	7.537	
4,000.0	3,995.5	3,999.0	3,996.8	9.1	8.9	-130.59	78.9	-78.9	135.3	117.3	17.94	7.538	
4,100.0	4,095.3	4,098.9	4,096.5	9.4	9.2	-130.47	84.4	-79.8	138.8	120.4	18.42	7.538	
4,200.0	4,195.0	4,198.8	4,196.3	9.6	9.4	-130.36	90.0	-80.7	142.4	123.5	18.89	7.538	
4,300.0	4,294.8	4,298.8	4,296.1	9.9	9.7	-130.25	95.5	-81.6	146.0	126.6	19.37	7.538	
4,400.0	4,394.5	4,398.7	4,395.9	10.1	9.9	-130.15	101.1	-82.5	149.6	129.8	19.85	7.538	
4,500.0	4,494.3	4,498.7	4,495.6	10.4	10.1	-130.05	106.6	-83.4	153.2	132.9	20.32	7.537	
4,600.0	4,594.1	4,598.6	4,595.4	10.6	10.4	-129.96	112.2	-84.3	156.8	136.0	20.80	7.536	
4,700.0	4,693.8	4,698.5	4,695.2	10.9	10.6	-129.87	117.8	-85.2	160.4	139.1	21.28	7.535	
4,800.0	4,793.6	4,798.5	4,795.0	11.1	10.8	-129.78	123.3	-86.1	164.0	142.2	21.76	7.534	
4,900.0	4,893.3	4,898.4	4,894.8	11.4	11.1	-129.70	128.9	-87.0	167.5	145.3	22.24	7.533	
5,000.0	4,993.1	4,998.3	4,994.5	11.6	11.3	-129.62	134.4	-87.9	171.1	148.4	22.72	7.531	
5,100.0	5,092.9	5,098.3	5,094.3	11.9	11.6	-129.55	140.0	-88.8	174.7	151.5	23.20	7.530	

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

Company:	Whiting Oil & Gas	**Local Co-ordinate Reference:**	Well Razor #21D-0904B
Project:	SEC.21-T10N-R58W	**TVD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Reference Site:	Razor #21D Pad Sec.21-T10N-R58W	**MD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Razor #21D-0904B	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (12-09-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Razor #21D Pad Sec.21-T10N-R58W - Razor #21D-0902B - Wellbore #1 - Plan #1 (12-09-13) — **Offset Site Error:** 0.0 ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,200.0	5,192.6	5,198.2	5,194.1	12.1	11.8	-129.48	145.5	-89.8	178.3	154.6	23.68	7.528	
5,300.0	5,292.4	5,298.1	5,293.9	12.4	12.0	-129.41	151.1	-90.7	181.9	157.7	24.17	7.527	
5,400.0	5,392.1	5,398.1	5,393.6	12.6	12.3	-129.34	156.7	-91.6	185.5	160.8	24.65	7.525	
5,500.0	5,491.0	5,502.4	5,496.8	12.9	12.6	-126.73	171.4	-94.0	192.1	167.0	25.07	7.662	
5,600.0	5,585.6	5,605.0	5,593.3	13.3	12.9	-122.95	205.3	-99.6	207.6	182.1	25.52	8.135	
5,700.0	5,672.2	5,704.3	5,678.5	13.9	13.4	-118.02	255.2	-107.9	232.0	205.7	26.25	8.836	
5,800.0	5,747.8	5,799.8	5,750.0	14.6	14.0	-112.45	317.4	-118.3	264.4	236.9	27.45	9.631	
5,900.0	5,809.5	5,891.4	5,806.7	15.5	14.8	-106.61	388.3	-130.1	303.6	274.4	29.16	10.413	
6,000.0	5,855.1	5,980.0	5,848.8	16.5	15.6	-100.74	465.1	-142.9	348.0	316.8	31.25	11.137	
6,100.0	5,883.0	6,066.6	5,876.6	17.8	16.6	-95.00	545.9	-156.4	395.9	362.3	33.54	11.801	
6,200.0	5,892.0	6,152.5	5,890.4	19.2	17.7	-89.76	629.4	-170.4	445.4	409.5	35.91	12.403	
6,300.0	5,892.0	6,256.7	5,892.0	20.5	19.1	-90.00	732.2	-186.5	492.1	453.6	38.53	12.773	
6,400.0	5,892.0	6,383.6	5,892.0	21.8	20.8	-90.00	858.6	-199.1	528.8	487.2	41.61	12.711	
6,500.0	5,892.0	6,510.9	5,892.0	23.3	22.6	-90.00	985.7	-203.3	554.2	509.3	44.93	12.334	
6,600.0	5,892.0	6,609.2	5,892.0	24.7	24.2	-90.00	1,084.1	-204.2	572.2	524.2	48.02	11.918	
6,700.0	5,892.0	6,708.4	5,892.0	26.2	25.8	-90.00	1,183.2	-205.2	585.1	534.0	51.15	11.439	
6,800.0	5,892.0	6,808.1	5,892.0	27.7	27.4	-90.00	1,282.9	-206.1	592.8	538.5	54.30	10.917	
6,900.0	5,892.0	6,908.0	5,892.0	29.3	29.1	-90.00	1,382.9	-207.1	595.3	537.9	57.45	10.362	
7,000.0	5,892.0	7,008.0	5,892.0	30.8	30.8	-90.00	1,482.8	-208.0	596.3	535.6	60.78	9.812	
7,100.0	5,892.0	7,108.0	5,892.0	32.4	32.5	-90.00	1,582.8	-208.9	597.3	533.2	64.16	9.310	
7,200.0	5,892.0	7,208.0	5,892.0	34.1	34.3	-90.00	1,682.8	-209.9	598.3	530.7	67.59	8.852	
7,300.0	5,892.0	7,308.0	5,892.0	35.8	36.1	-90.00	1,782.8	-210.8	599.3	528.2	71.07	8.433	
7,400.0	5,892.0	7,408.0	5,892.0	37.4	37.9	-90.00	1,882.8	-211.8	600.3	525.7	74.58	8.049	
7,500.0	5,892.0	7,508.0	5,892.0	39.2	39.7	-90.00	1,982.8	-212.7	601.3	523.2	78.13	7.696	
7,600.0	5,892.0	7,608.0	5,892.0	40.9	41.5	-90.00	2,082.8	-213.6	602.3	520.6	81.71	7.371	
7,700.0	5,892.0	7,708.0	5,892.0	42.6	43.3	-90.00	2,182.8	-214.6	603.3	518.0	85.31	7.072	
7,800.0	5,892.0	7,808.0	5,892.0	44.4	45.2	-90.00	2,282.8	-215.5	604.3	515.4	88.93	6.795	
7,900.0	5,892.0	7,908.0	5,892.0	46.2	47.0	-90.00	2,382.8	-216.5	605.3	512.7	92.57	6.539	
8,000.0	5,892.0	8,008.0	5,892.0	48.0	48.8	-90.00	2,482.8	-217.4	606.3	510.0	96.23	6.300	
8,100.0	5,892.0	8,108.0	5,892.0	49.8	50.7	-90.00	2,582.7	-218.3	607.3	507.4	99.90	6.079	
8,200.0	5,892.0	8,208.0	5,892.0	51.6	52.6	-90.00	2,682.7	-219.3	608.3	504.7	103.59	5.872	
8,300.0	5,892.0	8,308.0	5,892.0	53.4	54.4	-90.00	2,782.7	-220.2	609.2	502.0	107.29	5.679	
8,400.0	5,892.0	8,408.0	5,892.0	55.2	56.3	-90.00	2,882.7	-221.2	610.2	499.2	111.00	5.498	
8,500.0	5,892.0	8,508.0	5,892.0	57.0	58.2	-90.00	2,982.7	-222.1	611.2	496.5	114.72	5.328	
8,600.0	5,892.0	8,608.0	5,892.0	58.9	60.0	-90.00	3,082.7	-223.0	612.2	493.8	118.45	5.169	
8,700.0	5,892.0	8,708.0	5,892.0	60.7	61.9	-90.00	3,182.7	-224.0	613.2	491.0	122.18	5.019	
8,800.0	5,892.0	8,808.0	5,892.0	62.6	63.8	-90.00	3,282.7	-224.9	614.2	488.3	125.93	4.878	
8,900.0	5,892.0	8,908.0	5,892.0	64.4	65.7	-90.00	3,382.7	-225.9	615.2	485.5	129.68	4.744	
9,000.0	5,892.0	9,007.9	5,892.0	66.3	67.6	-90.00	3,482.7	-226.8	616.2	482.8	133.43	4.618	
9,100.0	5,892.0	9,107.9	5,892.0	68.1	69.5	-90.00	3,582.6	-227.7	617.2	480.0	137.20	4.499	
9,200.0	5,892.0	9,207.9	5,892.0	70.0	71.4	-90.00	3,682.6	-228.7	618.2	477.2	140.96	4.385	
9,300.0	5,892.0	9,307.9	5,892.0	71.9	73.3	-90.00	3,782.6	-229.6	619.2	474.4	144.74	4.278	
9,400.0	5,892.0	9,407.9	5,892.0	73.7	75.2	-90.00	3,882.6	-230.6	620.2	471.7	148.51	4.176	
9,500.0	5,892.0	9,507.9	5,892.0	75.6	77.1	-90.00	3,982.6	-231.5	621.2	468.9	152.30	4.079	
9,600.0	5,892.0	9,607.9	5,892.0	77.5	79.0	-90.00	4,082.6	-232.4	622.2	466.1	156.08	3.986	
9,700.0	5,892.0	9,707.9	5,892.0	79.4	80.9	-90.00	4,182.6	-233.4	623.2	463.3	159.87	3.898	
9,800.0	5,892.0	9,807.9	5,892.0	81.2	82.8	-90.00	4,282.6	-234.3	624.2	460.5	163.66	3.814	
9,900.0	5,892.0	9,907.9	5,892.0	83.1	84.7	-90.00	4,382.6	-235.3	625.1	457.7	167.46	3.733	
10,000.0	5,892.0	10,007.9	5,892.0	85.0	86.6	-90.00	4,482.6	-236.2	626.1	454.9	171.25	3.656	
10,100.0	5,892.0	10,107.9	5,892.0	86.9	88.5	-90.00	4,582.6	-237.1	627.1	452.1	175.05	3.583	
10,200.0	5,892.0	10,207.9	5,892.0	88.8	90.4	-90.00	4,682.5	-238.1	628.1	449.3	178.86	3.512	
10,300.0	5,892.0	10,307.9	5,892.0	90.7	92.3	-90.00	4,782.5	-239.0	629.1	446.5	182.66	3.444	

Company:	Whiting Oil & Gas	**Local Co-ordinate Reference:**	Well Razor #21D-0904B
Project:	SEC.21-T10N-R58W	**TVD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Reference Site:	Razor #21D Pad Sec.21-T10N-R58W	**MD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Razor #21D-0904B	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (12-09-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Razor #21D Pad Sec.21-T10N-R58W - Razor #21D-0902B - Wellbore #1 - Plan #1 (12-09-13) — **Offset Site Error:** 0.0 ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,400.0	5,892.0	10,407.9	5,892.0	92.6	94.2	-90.00	4,882.5	-240.0	630.1	443.6	186.47	3.379	
10,500.0	5,892.0	10,507.9	5,892.0	94.5	96.1	-90.00	4,982.5	-240.9	631.1	440.8	190.28	3.317	
10,600.0	5,892.0	10,607.9	5,892.0	96.3	98.0	-90.00	5,082.5	-241.8	632.1	438.0	194.09	3.257	
10,700.0	5,892.0	10,707.9	5,892.0	98.2	99.9	-90.00	5,182.5	-242.8	633.1	435.2	197.90	3.199	
10,800.0	5,892.0	10,807.9	5,892.0	100.1	101.9	-90.00	5,282.5	-243.7	634.1	432.4	201.72	3.143	
10,900.0	5,892.0	10,907.9	5,892.0	102.0	103.8	-90.00	5,382.5	-244.7	635.1	429.5	205.54	3.090	
11,000.0	5,892.0	11,007.8	5,892.0	103.9	105.7	-90.00	5,482.5	-245.6	636.1	426.7	209.35	3.038	
11,100.0	5,892.0	11,107.8	5,892.0	105.8	107.6	-90.00	5,582.5	-246.5	637.1	423.9	213.17	2.989	
11,200.0	5,892.0	11,207.8	5,892.0	107.7	109.5	-90.00	5,682.5	-247.5	638.1	421.1	216.99	2.940	
11,300.0	5,892.0	11,307.8	5,892.0	109.6	111.4	-90.00	5,782.4	-248.4	639.1	418.2	220.82	2.894	
11,400.0	5,892.0	11,407.8	5,892.0	111.5	113.4	-90.00	5,882.4	-249.4	640.1	415.4	224.64	2.849	
11,500.0	5,892.0	11,507.8	5,892.0	113.5	115.3	-90.00	5,982.4	-250.3	641.0	412.6	228.47	2.806	
11,600.0	5,892.0	11,607.8	5,892.0	115.4	117.2	-90.00	6,082.4	-251.2	642.0	409.7	232.29	2.764	
11,700.0	5,892.0	11,707.8	5,892.0	117.3	119.1	-90.00	6,182.4	-252.2	643.0	406.9	236.12	2.723	
11,800.0	5,892.0	11,807.8	5,892.0	119.2	121.0	-90.00	6,282.4	-253.1	644.0	404.1	239.95	2.684	
11,900.0	5,892.0	11,907.8	5,892.0	121.1	122.9	-90.00	6,382.4	-254.1	645.0	401.2	243.78	2.646	
12,000.0	5,892.0	12,007.8	5,892.0	123.0	124.9	-90.00	6,482.4	-255.0	646.0	398.4	247.61	2.609	
12,100.0	5,892.0	12,107.8	5,892.0	124.9	126.8	-90.00	6,582.4	-255.9	647.0	395.6	251.44	2.573	
12,200.0	5,892.0	12,207.8	5,892.0	126.8	128.7	-90.00	6,682.4	-256.9	648.0	392.7	255.27	2.539	
12,300.0	5,892.0	12,307.8	5,892.0	128.7	130.6	-90.00	6,782.3	-257.8	649.0	389.9	259.10	2.505	
12,400.0	5,892.0	12,407.8	5,892.0	130.6	132.5	-90.00	6,882.3	-258.8	650.0	387.1	262.93	2.472	
12,500.0	5,892.0	12,507.8	5,892.0	132.5	134.5	-90.00	6,982.3	-259.7	651.0	384.2	266.77	2.440	
12,600.0	5,892.0	12,607.8	5,892.0	134.4	136.4	-90.00	7,082.3	-260.6	652.0	381.4	270.60	2.409	
12,700.0	5,892.0	12,707.8	5,892.0	136.4	138.3	-90.00	7,182.3	-261.6	653.0	378.5	274.44	2.379	
12,800.0	5,892.0	12,807.8	5,892.0	138.3	140.2	-90.00	7,282.3	-262.5	654.0	375.7	278.27	2.350	
12,900.0	5,892.0	12,907.8	5,892.0	140.2	142.1	-90.00	7,382.3	-263.5	655.0	372.8	282.11	2.322	
13,000.0	5,892.0	13,007.7	5,892.0	142.1	144.1	-90.00	7,482.3	-264.4	655.9	370.0	285.95	2.294	
13,100.0	5,892.0	13,107.7	5,892.0	144.0	146.0	-90.00	7,582.3	-265.3	656.9	367.2	289.79	2.267	
13,200.0	5,892.0	13,207.7	5,892.0	145.9	147.9	-90.00	7,682.3	-266.3	657.9	364.3	293.62	2.241	
13,300.0	5,892.0	13,307.7	5,892.0	147.8	149.8	-90.00	7,782.3	-267.2	658.9	361.5	297.46	2.215	
13,400.0	5,892.0	13,407.7	5,892.0	149.7	151.8	-90.00	7,882.2	-268.2	659.9	358.6	301.30	2.190	
13,416.7	5,892.0	13,424.4	5,892.0	150.1	152.1	-90.00	7,898.9	-268.3	660.1	358.1	301.94	2.186	SF

Company:	Whiting Oil & Gas	**Local Co-ordinate Reference:**	Well Razor #21D-0904B
Project:	SEC.21-T10N-R58W	**TVD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Reference Site:	Razor #21D Pad Sec.21-T10N-R58W	**MD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Razor #21D-0904B	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (12-09-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Razor #21D Pad Sec.21-T10N-R58W - Razor #21D-0903A - Wellbore #1 - Plan #1 (12-09-13) — **Offset Site Error:** 0.0 ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	23.79	74.7	32.9	81.6				
100.0	100.0	100.0	100.0	0.1	0.1	23.79	74.7	32.9	81.6	81.4	0.22	363.167	
200.0	200.0	200.0	200.0	0.3	0.3	23.79	74.7	32.9	81.6	81.0	0.67	121.056	
300.0	300.0	300.0	300.0	0.6	0.6	23.79	74.7	32.9	81.6	80.5	1.12	72.633	
400.0	400.0	400.0	400.0	0.8	0.8	23.79	74.7	32.9	81.6	80.1	1.57	51.881	
500.0	500.0	500.0	500.0	1.0	1.0	23.79	74.7	32.9	81.6	79.6	2.02	40.352	
600.0	600.0	600.0	600.0	1.2	1.2	23.79	74.7	32.9	81.6	79.2	2.47	33.015	
700.0	700.0	700.0	700.0	1.5	1.5	23.79	74.7	32.9	81.6	78.7	2.92	27.936	
800.0	800.0	800.0	800.0	1.7	1.7	23.79	74.7	32.9	81.6	78.3	3.37	24.211	CC
900.0	900.0	897.3	897.3	1.9	1.9	23.44	76.3	33.1	83.2	79.4	3.82	21.817	
1,000.0	1,000.0	995.2	995.0	2.1	2.1	22.48	81.2	33.6	88.0	83.7	4.27	20.632	
1,100.0	1,100.0	1,095.0	1,094.7	2.4	2.4	21.45	87.0	34.2	93.7	88.9	4.71	19.866	
1,200.0	1,200.0	1,194.8	1,194.3	2.6	2.6	20.54	92.9	34.8	99.3	94.2	5.16	19.236	
1,300.0	1,300.0	1,294.7	1,294.0	2.8	2.8	19.73	98.7	35.4	105.0	99.4	5.61	18.709	
1,400.0	1,400.0	1,394.5	1,393.7	3.0	3.1	19.00	104.6	36.0	110.8	104.7	6.07	18.263	
1,500.0	1,500.0	1,494.3	1,493.3	3.3	3.3	18.34	110.4	36.6	116.5	110.0	6.52	17.879	
1,600.0	1,600.0	1,594.1	1,593.0	3.5	3.5	17.74	116.2	37.2	122.3	115.3	6.97	17.546	
1,700.0	1,700.0	1,694.0	1,692.6	3.7	3.8	17.20	122.1	37.8	128.0	120.6	7.42	17.255	
1,800.0	1,800.0	1,793.8	1,792.3	3.9	4.0	16.70	127.9	38.4	133.8	125.9	7.87	16.997	
1,900.0	1,900.0	1,893.6	1,891.9	4.2	4.3	16.25	133.8	39.0	139.6	131.3	8.32	16.769	
2,000.0	2,000.0	1,993.4	1,991.6	4.4	4.5	15.83	139.6	39.6	145.4	136.6	8.78	16.564	
2,100.0	2,100.0	2,093.4	2,091.3	4.6	4.7	-6.51	145.5	40.2	149.4	140.2	9.23	16.200	
2,200.0	2,199.8	2,193.3	2,191.1	4.8	5.0	-7.11	151.3	40.8	150.1	140.4	9.67	15.524	
2,300.0	2,299.6	2,293.3	2,290.9	5.1	5.2	-7.79	157.2	41.4	149.0	138.9	10.12	14.727	
2,400.0	2,399.4	2,393.3	2,390.7	5.3	5.5	-8.48	163.0	42.0	148.0	137.4	10.57	13.999	
2,500.0	2,499.1	2,493.3	2,490.5	5.5	5.7	-9.18	168.9	42.6	146.9	135.9	11.02	13.332	
2,600.0	2,598.9	2,593.2	2,590.3	5.7	6.0	-9.89	174.7	43.2	146.0	134.5	11.48	12.718	
2,700.0	2,698.6	2,693.2	2,690.1	6.0	6.2	-10.61	180.6	43.8	145.0	133.1	11.93	12.153	
2,800.0	2,798.4	2,793.2	2,789.9	6.2	6.4	-11.34	186.5	44.4	144.0	131.6	12.38	11.631	
2,900.0	2,898.2	2,893.2	2,889.7	6.4	6.7	-12.08	192.3	45.0	143.1	130.3	12.84	11.146	
3,000.0	2,997.9	2,993.2	2,989.6	6.7	6.9	-12.83	198.2	45.6	142.2	128.9	13.29	10.697	
3,100.0	3,097.7	3,093.1	3,089.4	6.9	7.2	-13.59	204.0	46.2	141.3	127.6	13.75	10.278	
3,200.0	3,197.4	3,193.1	3,189.2	7.2	7.4	-14.36	209.9	46.8	140.5	126.3	14.21	9.888	
3,300.0	3,297.2	3,293.1	3,289.0	7.4	7.7	-15.13	215.7	47.4	139.7	125.0	14.66	9.523	
3,400.0	3,396.9	3,393.1	3,388.8	7.6	7.9	-15.92	221.6	48.0	138.9	123.7	15.12	9.182	
3,500.0	3,496.7	3,493.1	3,488.6	7.9	8.2	-16.71	227.4	48.6	138.1	122.5	15.58	8.862	
3,600.0	3,596.5	3,593.0	3,588.4	8.1	8.4	-17.52	233.3	49.2	137.3	121.3	16.04	8.562	
3,700.0	3,696.2	3,693.0	3,688.2	8.4	8.7	-18.33	239.1	49.8	136.6	120.1	16.50	8.280	
3,800.0	3,796.0	3,793.0	3,788.0	8.6	8.9	-19.15	245.0	50.4	135.9	119.0	16.96	8.014	
3,900.0	3,895.7	3,893.0	3,887.8	8.9	9.1	-19.98	250.8	51.0	135.3	117.8	17.42	7.763	
4,000.0	3,995.5	3,992.9	3,987.6	9.1	9.4	-20.81	256.7	51.6	134.6	116.7	17.89	7.527	
4,100.0	4,095.3	4,092.9	4,087.4	9.4	9.6	-21.66	262.6	52.2	134.0	115.7	18.35	7.304	
4,200.0	4,195.0	4,192.9	4,187.2	9.6	9.9	-22.51	268.4	52.8	133.5	114.6	18.82	7.093	
4,300.0	4,294.8	4,292.9	4,287.0	9.9	10.1	-23.37	274.3	53.4	132.9	113.6	19.28	6.893	
4,400.0	4,394.5	4,392.9	4,386.8	10.1	10.4	-24.23	280.1	54.0	132.4	112.6	19.75	6.704	
4,500.0	4,494.3	4,492.8	4,486.6	10.4	10.6	-25.11	286.0	54.6	131.9	111.7	20.22	6.525	
4,600.0	4,594.1	4,592.8	4,586.4	10.6	10.9	-25.98	291.8	55.2	131.5	110.8	20.69	6.355	
4,700.0	4,693.8	4,692.8	4,686.2	10.9	11.1	-26.87	297.7	55.8	131.0	109.9	21.16	6.194	
4,800.0	4,793.6	4,792.8	4,786.0	11.1	11.4	-27.76	303.5	56.4	130.6	109.0	21.63	6.040	
4,900.0	4,893.3	4,892.8	4,885.9	11.4	11.6	-28.65	309.4	57.0	130.3	108.2	22.10	5.895	
5,000.0	4,993.1	4,992.7	4,985.7	11.6	11.9	-29.55	315.2	57.6	130.0	107.4	22.57	5.756	
5,100.0	5,092.9	5,092.7	5,085.5	11.9	12.1	-30.46	321.1	58.2	129.7	106.6	23.05	5.625	

Company:	Whiting Oil & Gas	**Local Co-ordinate Reference:**	Well Razor #21D-0904B
Project:	SEC.21-T10N-R58W	**TVD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Reference Site:	Razor #21D Pad Sec.21-T10N-R58W	**MD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Razor #21D-0904B	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (12-09-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Razor #21D Pad Sec.21-T10N-R58W - Razor #21D-0903A - Wellbore #1 - Plan #1 (12-09-13) — **Offset Site Error:** 0.0 ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,200.0	5,192.6	5,192.7	5,185.3	12.1	12.3	-31.36	326.9	58.8	129.4	105.9	23.53	5.500	
5,300.0	5,292.4	5,292.7	5,285.1	12.4	12.6	-32.28	332.8	59.4	129.2	105.2	24.01	5.380	
5,318.4	5,310.7	5,311.0	5,303.4	12.4	12.6	-32.44	333.9	59.5	129.1	105.0	24.09	5.359	
5,400.0	5,392.1	5,379.3	5,371.3	12.6	12.8	-32.83	340.7	59.9	132.4	107.9	24.46	5.413	
5,500.0	5,491.0	5,458.1	5,447.8	12.9	13.1	-31.96	359.2	60.4	143.9	119.2	24.67	5.833	
5,600.0	5,585.6	5,535.6	5,519.5	13.3	13.5	-33.76	388.5	60.8	154.2	129.6	24.51	6.289	
5,700.0	5,672.2	5,611.9	5,585.0	13.9	13.9	-37.21	427.4	61.2	163.5	139.2	24.25	6.741	
5,800.0	5,747.8	5,687.1	5,643.4	14.6	14.5	-41.80	474.7	61.5	172.8	148.5	24.35	7.099	
5,900.0	5,809.5	5,761.6	5,693.9	15.5	15.1	-47.14	529.4	61.8	183.3	158.1	25.24	7.262	
6,000.0	5,855.1	5,835.7	5,735.9	16.5	15.8	-52.81	590.3	62.1	196.0	168.8	27.16	7.218	
6,100.0	5,883.0	5,909.9	5,768.9	17.8	16.7	-58.44	656.7	62.3	211.7	181.7	29.94	7.071	
6,200.0	5,892.0	5,984.9	5,792.3	19.2	17.6	-63.79	727.9	62.4	230.7	197.5	33.24	6.940	
6,300.0	5,892.0	6,063.8	5,805.7	20.5	18.7	-69.46	805.6	62.5	254.0	217.4	36.68	6.926	
6,400.0	5,892.0	6,151.7	5,808.0	21.8	19.9	-71.95	893.4	62.5	279.0	239.4	39.62	7.042	
6,500.0	5,892.0	6,249.2	5,808.0	23.3	21.3	-73.45	990.9	62.5	300.3	257.7	42.61	7.049	
6,600.0	5,892.0	6,347.7	5,808.0	24.7	22.9	-74.47	1,089.4	62.5	316.8	271.2	45.63	6.943	
6,700.0	5,892.0	6,447.0	5,808.0	26.2	24.5	-75.11	1,188.7	62.5	328.3	279.7	48.64	6.751	
6,800.0	5,892.0	6,546.7	5,808.0	27.7	26.1	-75.46	1,288.5	62.5	334.8	283.2	51.59	6.490	
6,900.0	5,892.0	6,646.7	5,808.0	29.3	27.8	-75.54	1,388.4	62.5	336.4	281.9	54.55	6.167	
7,000.0	5,892.0	6,746.7	5,808.0	30.8	29.5	-75.54	1,488.4	62.5	336.5	278.7	57.78	5.823	
7,100.0	5,892.0	6,846.7	5,808.0	32.4	31.3	-75.55	1,588.4	62.5	336.5	275.4	61.07	5.511	
7,200.0	5,892.0	6,946.7	5,808.0	34.1	33.0	-75.55	1,688.4	62.5	336.6	272.2	64.40	5.226	
7,300.0	5,892.0	7,046.7	5,808.0	35.8	34.8	-75.55	1,788.4	62.5	336.6	268.8	67.79	4.966	
7,400.0	5,892.0	7,146.7	5,808.0	37.4	36.6	-75.55	1,888.4	62.5	336.7	265.5	71.21	4.728	
7,500.0	5,892.0	7,246.7	5,808.0	39.2	38.4	-75.55	1,988.4	62.5	336.7	262.1	74.66	4.510	
7,600.0	5,892.0	7,346.7	5,808.0	40.9	40.2	-75.56	2,088.4	62.5	336.8	258.7	78.14	4.310	
7,700.0	5,892.0	7,446.7	5,808.0	42.6	42.0	-75.56	2,188.4	62.5	336.8	255.2	81.64	4.126	
7,800.0	5,892.0	7,546.7	5,808.0	44.4	43.9	-75.56	2,288.4	62.5	336.9	251.7	85.16	3.956	
7,900.0	5,892.0	7,646.7	5,808.0	46.2	45.7	-75.56	2,388.4	62.5	337.0	248.3	88.71	3.799	
8,000.0	5,892.0	7,746.7	5,808.0	48.0	47.6	-75.57	2,488.4	62.5	337.0	244.7	92.26	3.653	
8,100.0	5,892.0	7,846.7	5,808.0	49.8	49.4	-75.57	2,588.4	62.5	337.1	241.2	95.84	3.517	
8,200.0	5,892.0	7,946.7	5,808.0	51.6	51.3	-75.57	2,688.4	62.5	337.1	237.7	99.43	3.391	
8,300.0	5,892.0	8,046.7	5,808.0	53.4	53.2	-75.57	2,788.4	62.5	337.2	234.2	103.03	3.273	
8,400.0	5,892.0	8,146.7	5,808.0	55.2	55.0	-75.58	2,888.4	62.5	337.2	230.6	106.64	3.162	
8,500.0	5,892.0	8,246.7	5,808.0	57.0	56.9	-75.58	2,988.4	62.5	337.3	227.0	110.26	3.059	
8,600.0	5,892.0	8,346.7	5,808.0	58.9	58.8	-75.58	3,088.4	62.4	337.3	223.5	113.88	2.962	
8,700.0	5,892.0	8,446.7	5,808.0	60.7	60.7	-75.58	3,188.4	62.4	337.4	219.9	117.52	2.871	
8,800.0	5,892.0	8,546.7	5,808.0	62.6	62.6	-75.59	3,288.4	62.4	337.5	216.3	121.16	2.785	
8,900.0	5,892.0	8,646.7	5,808.0	64.4	64.4	-75.59	3,388.4	62.4	337.5	212.7	124.81	2.704	
9,000.0	5,892.0	8,746.7	5,808.0	66.3	66.3	-75.59	3,488.4	62.4	337.6	209.1	128.47	2.628	
9,100.0	5,892.0	8,846.7	5,808.0	68.1	68.2	-75.59	3,588.4	62.4	337.6	205.5	132.13	2.555	
9,200.0	5,892.0	8,946.7	5,808.0	70.0	70.1	-75.60	3,688.4	62.4	337.7	201.9	135.80	2.487	
9,300.0	5,892.0	9,046.7	5,808.0	71.9	72.0	-75.60	3,788.4	62.4	337.7	198.3	139.47	2.422	
9,400.0	5,892.0	9,146.7	5,808.0	73.7	73.9	-75.60	3,888.4	62.4	337.8	194.6	143.14	2.360	
9,500.0	5,892.0	9,246.7	5,808.0	75.6	75.8	-75.60	3,988.4	62.4	337.8	191.0	146.82	2.301	
9,600.0	5,892.0	9,346.7	5,808.0	77.5	77.7	-75.61	4,088.4	62.4	337.9	187.4	150.51	2.245	
9,700.0	5,892.0	9,446.7	5,808.0	79.4	79.6	-75.61	4,188.4	62.4	338.0	183.8	154.19	2.192	
9,800.0	5,892.0	9,546.7	5,808.0	81.2	81.5	-75.61	4,288.4	62.4	338.0	180.1	157.88	2.141	
9,900.0	5,892.0	9,646.7	5,808.0	83.1	83.4	-75.61	4,388.4	62.4	338.1	176.5	161.57	2.092	
10,000.0	5,892.0	9,746.7	5,808.0	85.0	85.3	-75.62	4,488.4	62.4	338.1	172.9	165.27	2.046	
10,100.0	5,892.0	9,846.7	5,808.0	86.9	87.2	-75.62	4,588.4	62.4	338.2	169.2	168.97	2.001	
10,200.0	5,892.0	9,946.7	5,808.0	88.8	89.1	-75.62	4,688.4	62.4	338.2	165.6	172.67	1.959	

Company:	Whiting Oil & Gas	**Local Co-ordinate Reference:**	Well Razor #21D-0904B
Project:	SEC.21-T10N-R58W	**TVD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Reference Site:	Razor #21D Pad Sec.21-T10N-R58W	**MD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Razor #21D-0904B	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (12-09-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Razor #21D Pad Sec.21-T10N-R58W - Razor #21D-0903A - Wellbore #1 - Plan #1 (12-09-13) — **Offset Site Error:** 0.0 ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,300.0	5,892.0	10,046.7	5,808.0	90.7	91.0	-75.62	4,788.4	62.4	338.3	161.9	176.37	1.918	
10,400.0	5,892.0	10,146.7	5,808.0	92.6	93.0	-75.63	4,888.4	62.4	338.3	158.3	180.08	1.879	
10,500.0	5,892.0	10,246.7	5,808.0	94.5	94.9	-75.63	4,988.4	62.4	338.4	154.6	183.78	1.841	
10,600.0	5,892.0	10,346.7	5,808.0	96.3	96.8	-75.63	5,088.4	62.4	338.5	151.0	187.49	1.805	
10,700.0	5,892.0	10,446.7	5,808.0	98.2	98.7	-75.63	5,188.4	62.4	338.5	147.3	191.20	1.770	
10,800.0	5,892.0	10,546.7	5,808.0	100.1	100.6	-75.63	5,288.4	62.4	338.6	143.7	194.92	1.737	
10,900.0	5,892.0	10,646.7	5,808.0	102.0	102.5	-75.64	5,388.4	62.4	338.6	140.0	198.63	1.705	
11,000.0	5,892.0	10,746.7	5,808.0	103.9	104.4	-75.64	5,488.4	62.4	338.7	136.3	202.35	1.674	
11,100.0	5,892.0	10,846.7	5,808.0	105.8	106.3	-75.64	5,588.4	62.3	338.7	132.7	206.07	1.644	
11,200.0	5,892.0	10,946.7	5,808.0	107.7	108.2	-75.64	5,688.4	62.3	338.8	129.0	209.78	1.615	
11,300.0	5,892.0	11,046.7	5,808.0	109.6	110.2	-75.65	5,788.4	62.3	338.8	125.3	213.50	1.587	
11,400.0	5,892.0	11,146.7	5,808.0	111.5	112.1	-75.65	5,888.4	62.3	338.9	121.7	217.23	1.560	
11,500.0	5,892.0	11,246.7	5,808.0	113.5	114.0	-75.65	5,988.4	62.3	339.0	118.0	220.95	1.534	
11,600.0	5,892.0	11,346.7	5,808.0	115.4	115.9	-75.65	6,088.4	62.3	339.0	114.3	224.67	1.509	
11,700.0	5,892.0	11,446.7	5,808.0	117.3	117.8	-75.66	6,188.4	62.3	339.1	110.7	228.40	1.485	Level 3
11,800.0	5,892.0	11,546.7	5,808.0	119.2	119.7	-75.66	6,288.4	62.3	339.1	107.0	232.12	1.461	Level 3
11,900.0	5,892.0	11,646.7	5,808.0	121.1	121.7	-75.66	6,388.4	62.3	339.2	103.3	235.85	1.438	Level 3
12,000.0	5,892.0	11,746.7	5,808.0	123.0	123.6	-75.66	6,488.4	62.3	339.2	99.7	239.58	1.416	Level 3
12,100.0	5,892.0	11,846.7	5,808.0	124.9	125.5	-75.67	6,588.4	62.3	339.3	96.0	243.30	1.395	Level 3
12,200.0	5,892.0	11,946.7	5,808.0	126.8	127.4	-75.67	6,688.4	62.3	339.3	92.3	247.03	1.374	Level 3
12,300.0	5,892.0	12,046.7	5,808.0	128.7	129.3	-75.67	6,788.4	62.3	339.4	88.6	250.76	1.353	Level 3
12,400.0	5,892.0	12,146.7	5,808.0	130.6	131.2	-75.67	6,888.4	62.3	339.5	85.0	254.50	1.334	Level 3
12,500.0	5,892.0	12,246.7	5,808.0	132.5	133.2	-75.68	6,988.4	62.3	339.5	81.3	258.23	1.315	Level 3
12,600.0	5,892.0	12,346.7	5,808.0	134.4	135.1	-75.68	7,088.4	62.3	339.6	77.6	261.96	1.296	Level 3
12,700.0	5,892.0	12,446.7	5,808.0	136.4	137.0	-75.68	7,188.4	62.3	339.6	73.9	265.69	1.278	Level 3
12,800.0	5,892.0	12,546.7	5,808.0	138.3	138.9	-75.68	7,288.4	62.3	339.7	70.3	269.43	1.261	Level 3
12,900.0	5,892.0	12,646.7	5,808.0	140.2	140.8	-75.69	7,388.4	62.3	339.7	66.6	273.16	1.244	Level 2
13,000.0	5,892.0	12,746.7	5,808.0	142.1	142.8	-75.69	7,488.4	62.3	339.8	62.9	276.90	1.227	Level 2
13,100.0	5,892.0	12,846.7	5,808.0	144.0	144.7	-75.69	7,588.4	62.3	339.8	59.2	280.63	1.211	Level 2
13,200.0	5,892.0	12,946.7	5,808.0	145.9	146.6	-75.69	7,688.4	62.3	339.9	55.5	284.37	1.195	Level 2
13,300.0	5,892.0	13,046.7	5,808.0	147.8	148.5	-75.69	7,788.4	62.3	340.0	51.9	288.11	1.180	Level 2
13,400.0	5,892.0	13,146.7	5,808.0	149.7	150.4	-75.70	7,888.4	62.3	340.0	48.2	291.84	1.165	Level 2
13,416.7	5,892.0	13,163.4	5,808.0	150.1	150.8	-75.70	7,905.1	62.3	340.0	47.6	292.47	1.163	Level 2, ES, SF

Company:	Whiting Oil & Gas	**Local Co-ordinate Reference:**	Well Razor #21D-0904B
Project:	SEC.21-T10N-R58W	**TVD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Reference Site:	Razor #21D Pad Sec.21-T10N-R58W	**MD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Razor #21D-0904B	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (12-09-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Razor #21D Pad Sec.21-T10N-R58W - Razor #21D-2801A - Wellbore #1 - Plan #1 (12-09-13) — **Offset Site Error:** 0.0 ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-41.52	74.7	-66.1	99.8				
100.0	100.0	100.0	100.0	0.1	0.1	-41.52	74.7	-66.1	99.8	99.5	0.22	443.878	
200.0	200.0	200.0	200.0	0.3	0.3	-41.52	74.7	-66.1	99.8	99.1	0.67	147.959	
300.0	300.0	300.0	300.0	0.6	0.6	-41.52	74.7	-66.1	99.8	98.6	1.12	88.776	
400.0	400.0	400.0	400.0	0.8	0.8	-41.52	74.7	-66.1	99.8	98.2	1.57	63.411	
500.0	500.0	500.0	500.0	1.0	1.0	-41.52	74.7	-66.1	99.8	97.7	2.02	49.320	
600.0	600.0	600.0	600.0	1.2	1.2	-41.52	74.7	-66.1	99.8	97.3	2.47	40.353	
700.0	700.0	700.0	700.0	1.5	1.5	-41.52	74.7	-66.1	99.8	96.8	2.92	34.144	
800.0	800.0	800.0	800.0	1.7	1.7	-41.52	74.7	-66.1	99.8	96.4	3.37	29.592	CC, ES
900.0	900.0	897.7	897.7	1.9	1.9	-42.23	74.7	-67.8	100.9	97.1	3.80	26.533	
1,000.0	1,000.0	995.2	995.0	2.1	2.1	-44.26	74.7	-72.8	104.4	100.2	4.23	24.691	
1,100.0	1,100.0	1,094.8	1,094.4	2.4	2.3	-46.87	74.7	-79.7	109.4	104.7	4.66	23.463	
1,200.0	1,200.0	1,194.6	1,193.9	2.6	2.5	-49.25	74.7	-86.7	114.6	109.5	5.10	22.476	
1,300.0	1,300.0	1,294.3	1,293.5	2.8	2.8	-51.43	74.7	-93.7	120.0	114.4	5.54	21.668	
1,400.0	1,400.0	1,394.1	1,393.0	3.0	3.0	-53.41	74.7	-100.6	125.5	119.5	5.98	20.997	
1,500.0	1,500.0	1,493.8	1,492.5	3.3	3.3	-55.22	74.7	-107.6	131.2	124.8	6.42	20.434	
1,600.0	1,600.0	1,598.1	1,596.6	3.5	3.5	-57.13	73.5	-113.7	135.4	128.6	6.85	19.760	
1,700.0	1,700.0	1,702.8	1,701.1	3.7	3.7	-59.36	69.5	-117.2	136.3	129.0	7.27	18.742	
1,800.0	1,800.0	1,803.3	1,801.4	3.9	3.9	-61.77	63.9	-119.1	135.1	127.4	7.69	17.569	
1,900.0	1,900.0	1,903.1	1,901.1	4.2	4.1	-64.21	58.4	-120.8	134.2	126.1	8.12	16.526	
2,000.0	2,000.0	2,003.0	2,000.8	4.4	4.3	-66.68	52.8	-122.6	133.5	125.0	8.55	15.610	
2,100.0	2,100.0	2,102.7	2,100.3	4.6	4.5	-91.82	47.3	-124.4	133.1	124.1	9.04	14.733	
2,115.1	2,115.1	2,117.7	2,115.3	4.6	4.5	-92.43	46.5	-124.6	133.1	124.0	9.10	14.627	
2,200.0	2,199.8	2,202.1	2,199.5	4.8	4.7	-96.52	41.8	-126.1	133.5	124.0	9.47	14.105	
2,300.0	2,299.6	2,301.2	2,298.5	5.1	4.9	-101.86	36.3	-127.9	135.1	125.2	9.90	13.657	
2,400.0	2,399.4	2,400.4	2,397.5	5.3	5.2	-107.03	30.8	-129.7	137.9	127.6	10.33	13.355	
2,500.0	2,499.1	2,499.6	2,496.6	5.5	5.4	-111.97	25.3	-131.4	141.8	131.1	10.76	13.175	
2,600.0	2,598.9	2,598.8	2,595.6	5.7	5.6	-116.61	19.8	-133.2	146.7	135.5	11.20	13.098	SF
2,700.0	2,698.6	2,698.0	2,694.6	6.0	5.8	-120.93	14.3	-135.0	152.5	140.9	11.64	13.103	
2,800.0	2,798.4	2,797.2	2,793.6	6.2	6.1	-124.91	8.8	-136.7	159.1	147.0	12.08	13.173	
2,900.0	2,898.2	2,896.4	2,892.6	6.4	6.3	-128.57	3.3	-138.5	166.4	153.9	12.52	13.295	
3,000.0	2,997.9	2,995.6	2,991.7	6.7	6.5	-131.91	-2.2	-140.3	174.4	161.4	12.96	13.456	
3,100.0	3,097.7	3,094.7	3,090.7	6.9	6.8	-134.95	-7.7	-142.0	182.8	169.4	13.40	13.647	
3,200.0	3,197.4	3,193.9	3,189.7	7.2	7.0	-137.71	-13.2	-143.8	191.8	178.0	13.84	13.858	
3,300.0	3,297.2	3,293.1	3,288.7	7.4	7.3	-140.23	-18.7	-145.5	201.2	186.9	14.28	14.085	
3,400.0	3,396.9	3,392.3	3,387.7	7.6	7.5	-142.52	-24.2	-147.3	210.9	196.1	14.72	14.321	
3,500.0	3,496.7	3,491.5	3,486.8	7.9	7.7	-144.61	-29.7	-149.1	220.9	205.7	15.17	14.563	
3,600.0	3,596.5	3,590.7	3,585.8	8.1	8.0	-146.51	-35.2	-150.8	231.2	215.6	15.61	14.809	
3,700.0	3,696.2	3,689.9	3,684.8	8.4	8.2	-148.26	-40.7	-152.6	241.7	225.6	16.05	15.054	
3,800.0	3,796.0	3,789.0	3,783.8	8.6	8.5	-149.85	-46.2	-154.4	252.4	235.9	16.50	15.298	
3,900.0	3,895.7	3,888.2	3,882.8	8.9	8.7	-151.32	-51.7	-156.1	263.3	246.4	16.94	15.540	
4,000.0	3,995.5	3,987.4	3,981.8	9.1	9.0	-152.67	-57.2	-157.9	274.4	257.0	17.39	15.778	
4,100.0	4,095.3	4,086.6	4,080.9	9.4	9.2	-153.91	-62.7	-159.7	285.5	267.7	17.83	16.011	
4,200.0	4,195.0	4,185.8	4,179.9	9.6	9.4	-155.06	-68.2	-161.4	296.9	278.6	18.28	16.239	
4,300.0	4,294.8	4,285.0	4,278.9	9.9	9.7	-156.12	-73.7	-163.2	308.3	289.6	18.73	16.462	
4,400.0	4,394.5	4,384.2	4,377.9	10.1	9.9	-157.11	-79.2	-164.9	319.8	300.6	19.17	16.680	
4,500.0	4,494.3	4,483.4	4,476.9	10.4	10.2	-158.03	-84.7	-166.7	331.4	311.8	19.62	16.891	
4,600.0	4,594.1	4,582.5	4,576.0	10.6	10.4	-158.89	-90.2	-168.5	343.1	323.1	20.07	17.097	
4,700.0	4,693.8	4,681.7	4,675.0	10.9	10.7	-159.69	-95.7	-170.2	354.9	334.4	20.52	17.297	
4,800.0	4,793.6	4,780.9	4,774.0	11.1	10.9	-160.44	-101.2	-172.0	366.7	345.7	20.97	17.491	
4,900.0	4,893.3	4,880.1	4,873.0	11.4	11.2	-161.15	-106.7	-173.8	378.6	357.2	21.41	17.680	
5,000.0	4,993.1	4,979.3	4,972.0	11.6	11.4	-161.81	-112.2	-175.5	390.5	368.7	21.86	17.863	

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

Company:	Whiting Oil & Gas	**Local Co-ordinate Reference:**	Well Razor #21D-0904B
Project:	SEC.21-T10N-R58W	**TVD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Reference Site:	Razor #21D Pad Sec.21-T10N-R58W	**MD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Razor #21D-0904B	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (12-09-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Razor #21D Pad Sec.21-T10N-R58W - Razor #21D-2801A - Wellbore #1 - Plan #1 (12-09-13) — **Offset Site Error:** 0.0 ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,100.0	5,092.9	5,078.5	5,071.1	11.9	11.7	-162.43	-117.7	-177.3	402.5	380.2	22.31	18.041	
5,200.0	5,192.6	5,177.7	5,170.1	12.1	11.9	-163.01	-123.2	-179.1	414.6	391.8	22.76	18.213	
5,300.0	5,292.4	5,276.9	5,269.1	12.4	12.1	-163.56	-128.7	-180.8	426.6	403.4	23.21	18.380	
5,400.0	5,392.1	5,350.0	5,342.1	12.6	12.3	-163.98	-133.3	-182.3	440.1	416.4	23.61	18.642	
5,500.0	5,491.0	5,400.0	5,391.5	12.9	12.5	-162.63	-140.5	-184.7	468.4	444.8	23.54	19.894	
5,600.0	5,585.6	5,450.0	5,439.9	13.3	12.7	-161.47	-152.3	-188.5	521.2	498.3	22.89	22.770	
5,700.0	5,672.2	5,482.1	5,470.2	13.9	12.8	-158.62	-162.1	-191.7	593.9	572.1	21.82	27.213	
5,800.0	5,747.8	5,500.0	5,486.9	14.6	12.9	-151.54	-168.4	-193.8	680.6	659.4	21.13	32.216	
5,900.0	5,809.5	5,500.0	5,486.9	15.5	12.9	-128.77	-168.4	-193.8	775.8	751.5	24.31	31.910	
6,000.0	5,855.1	5,515.9	5,501.5	16.5	13.0	-73.94	-174.4	-195.8	874.0	845.3	28.71	30.443	
6,100.0	5,883.0	5,500.0	5,486.9	17.8	12.9	-29.72	-168.4	-193.8	972.2	953.4	18.77	51.784	
6,200.0	5,892.0	5,500.0	5,486.9	19.2	12.9	-17.91	-168.4	-193.8	1,066.3	1,051.3	14.92	71.449	
6,300.0	5,892.0	5,500.0	5,486.9	20.5	12.9	-24.49	-168.4	-193.8	1,158.3	1,140.6	17.69	65.469	
6,400.0	5,892.0	5,477.7	5,466.1	21.8	12.8	-29.64	-160.7	-191.3	1,250.1	1,229.9	20.24	61.752	
6,500.0	5,892.0	5,468.1	5,457.1	23.3	12.8	-34.99	-157.6	-190.3	1,342.0	1,319.0	23.09	58.126	
6,600.0	5,892.0	5,450.0	5,439.9	24.7	12.7	-39.31	-152.3	-188.5	1,433.9	1,408.2	25.61	55.980	
6,700.0	5,892.0	5,450.0	5,439.9	26.2	12.7	-44.27	-152.3	-188.5	1,525.0	1,496.6	28.50	53.519	
6,800.0	5,892.0	5,450.0	5,439.9	27.7	12.7	-48.75	-152.3	-188.5	1,615.9	1,584.7	31.19	51.813	
6,900.0	5,892.0	5,450.0	5,439.9	29.3	12.7	-51.87	-152.3	-188.5	1,706.1	1,672.7	33.41	51.060	
7,000.0	5,892.0	5,450.0	5,439.9	30.8	12.7	-51.87	-152.3	-188.5	1,797.0	1,762.3	34.73	51.743	
7,100.0	5,892.0	5,427.2	5,417.9	32.4	12.6	-50.45	-146.4	-186.6	1,888.1	1,852.7	35.44	53.282	
7,200.0	5,892.0	5,422.2	5,413.1	34.1	12.6	-50.14	-145.2	-186.2	1,980.4	1,943.7	36.64	54.045	
7,300.0	5,892.0	5,400.0	5,391.5	35.8	12.5	-48.82	-140.5	-184.7	2,073.7	2,036.3	37.36	55.506	
7,400.0	5,892.0	5,400.0	5,391.5	37.4	12.5	-48.82	-140.5	-184.7	2,167.0	2,128.3	38.72	55.962	
7,500.0	5,892.0	5,400.0	5,391.5	39.2	12.5	-48.82	-140.5	-184.7	2,260.9	2,220.8	40.10	56.379	
7,600.0	5,892.0	5,400.0	5,391.5	40.9	12.5	-48.82	-140.5	-184.7	2,355.3	2,313.8	41.50	56.761	
7,700.0	5,892.0	5,400.0	5,391.5	42.6	12.5	-48.82	-140.5	-184.7	2,450.2	2,407.3	42.90	57.113	
7,800.0	5,892.0	5,400.0	5,391.5	44.4	12.5	-48.82	-140.5	-184.7	2,545.5	2,501.1	44.32	57.437	
7,900.0	5,892.0	5,400.0	5,391.5	46.2	12.5	-48.82	-140.5	-184.7	2,641.1	2,595.3	45.74	57.738	
8,000.0	5,892.0	5,400.0	5,391.5	48.0	12.5	-48.82	-140.5	-184.7	2,737.0	2,689.8	47.18	58.017	
8,100.0	5,892.0	5,400.0	5,391.5	49.8	12.5	-48.82	-140.5	-184.7	2,833.2	2,784.6	48.62	58.276	
8,200.0	5,892.0	5,400.0	5,391.5	51.6	12.5	-48.82	-140.5	-184.7	2,929.6	2,879.6	50.06	58.518	
8,300.0	5,892.0	5,400.0	5,391.5	53.4	12.5	-48.82	-140.5	-184.7	3,026.3	2,974.8	51.52	58.744	
8,400.0	5,892.0	5,400.0	5,391.5	55.2	12.5	-48.82	-140.5	-184.7	3,123.2	3,070.2	52.98	58.956	
8,500.0	5,892.0	5,400.0	5,391.5	57.0	12.5	-48.82	-140.5	-184.7	3,220.3	3,165.9	54.44	59.155	
8,600.0	5,892.0	5,378.1	5,369.9	58.9	12.4	-47.56	-136.8	-183.5	3,317.0	3,262.0	55.01	60.303	
8,700.0	5,892.0	5,376.1	5,367.9	60.7	12.4	-47.44	-136.5	-183.4	3,414.4	3,358.0	56.37	60.569	
8,800.0	5,892.0	5,374.1	5,366.0	62.6	12.4	-47.33	-136.2	-183.3	3,511.8	3,454.1	57.74	60.821	
8,900.0	5,892.0	5,372.3	5,364.2	64.4	12.4	-47.23	-136.0	-183.2	3,609.4	3,550.3	59.11	61.060	
9,000.0	5,892.0	5,350.0	5,342.1	66.3	12.3	-46.01	-133.3	-182.3	3,707.6	3,648.0	59.59	62.219	
9,100.0	5,892.0	5,350.0	5,342.1	68.1	12.3	-46.01	-133.3	-182.3	3,805.3	3,744.3	61.02	62.359	
9,200.0	5,892.0	5,350.0	5,342.1	70.0	12.3	-46.01	-133.3	-182.3	3,903.2	3,840.7	62.46	62.492	
9,300.0	5,892.0	5,350.0	5,342.1	71.9	12.3	-46.01	-133.3	-182.3	4,001.2	3,937.3	63.90	62.619	
9,400.0	5,892.0	5,350.0	5,342.1	73.7	12.3	-46.01	-133.3	-182.3	4,099.2	4,033.9	65.34	62.740	
9,500.0	5,892.0	5,350.0	5,342.1	75.6	12.3	-46.01	-133.3	-182.3	4,197.4	4,130.6	66.78	62.855	
9,600.0	5,892.0	5,350.0	5,342.1	77.5	12.3	-46.01	-133.3	-182.3	4,295.6	4,227.4	68.22	62.965	
9,700.0	5,892.0	5,350.0	5,342.1	79.4	12.3	-46.01	-133.3	-182.3	4,394.0	4,324.3	69.67	63.070	
9,800.0	5,892.0	5,350.0	5,342.1	81.2	12.3	-46.01	-133.3	-182.3	4,492.4	4,421.3	71.12	63.170	
9,900.0	5,892.0	5,350.0	5,342.1	83.1	12.3	-46.01	-133.3	-182.3	4,590.8	4,518.3	72.56	63.266	
10,000.0	5,892.0	5,350.0	5,342.1	85.0	12.3	-46.01	-133.3	-182.3	4,689.4	4,615.4	74.01	63.358	
10,100.0	5,892.0	5,350.0	5,342.1	86.9	12.3	-46.01	-133.3	-182.3	4,788.0	4,712.5	75.46	63.447	
10,200.0	5,892.0	5,350.0	5,342.1	88.8	12.3	-46.01	-133.3	-182.3	4,886.6	4,809.7	76.92	63.532	

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

Company:	Whiting Oil & Gas	**Local Co-ordinate Reference:**	Well Razor #21D-0904B
Project:	SEC.21-T10N-R58W	**TVD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Reference Site:	Razor #21D Pad Sec.21-T10N-R58W	**MD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Razor #21D-0904B	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (12-09-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Razor #21D Pad Sec.21-T10N-R58W - Razor #21D-2801A - Wellbore #1 - Plan #1 (12-09-13)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,300.0	5,892.0	5,350.0	5,342.1	90.7	12.3	-46.01	-133.3	-182.3	4,985.3	4,906.9	78.37	63.613	
10,400.0	5,892.0	5,350.0	5,342.1	92.6	12.3	-46.01	-133.3	-182.3	5,084.1	5,004.3	79.82	63.692	
10,500.0	5,892.0	5,350.0	5,342.1	94.5	12.3	-46.01	-133.3	-182.3	5,182.9	5,101.6	81.28	63.767	
10,600.0	5,892.0	5,350.0	5,342.1	96.3	12.3	-46.01	-133.3	-182.3	5,281.7	5,199.0	82.73	63.840	
10,700.0	5,892.0	5,350.0	5,342.1	98.2	12.3	-46.01	-133.3	-182.3	5,380.6	5,296.4	84.19	63.910	
10,800.0	5,892.0	5,350.0	5,342.1	100.1	12.3	-46.01	-133.3	-182.3	5,479.5	5,393.9	85.65	63.978	
10,900.0	5,892.0	5,350.0	5,342.1	102.0	12.3	-46.01	-133.3	-182.3	5,578.5	5,491.4	87.11	64.043	
11,000.0	5,892.0	5,350.0	5,342.1	103.9	12.3	-46.01	-133.3	-182.3	5,677.5	5,589.0	88.56	64.106	
11,100.0	5,892.0	5,350.0	5,342.1	105.8	12.3	-46.01	-133.3	-182.3	5,776.6	5,686.5	90.02	64.167	
11,200.0	5,892.0	5,350.0	5,342.1	107.7	12.3	-46.01	-133.3	-182.3	5,875.6	5,784.1	91.48	64.225	
11,300.0	5,892.0	5,350.0	5,342.1	109.6	12.3	-46.01	-133.3	-182.3	5,974.7	5,881.8	92.95	64.282	
11,400.0	5,892.0	5,350.0	5,342.1	111.5	12.3	-46.01	-133.3	-182.3	6,073.9	5,979.5	94.41	64.337	
11,500.0	5,892.0	5,350.0	5,342.1	113.5	12.3	-46.01	-133.3	-182.3	6,173.0	6,077.2	95.87	64.391	
11,600.0	5,892.0	5,350.0	5,342.1	115.4	12.3	-46.01	-133.3	-182.3	6,272.2	6,174.9	97.33	64.442	
11,700.0	5,892.0	5,350.0	5,342.1	117.3	12.3	-46.01	-133.3	-182.3	6,371.4	6,272.6	98.79	64.492	
11,800.0	5,892.0	5,350.0	5,342.1	119.2	12.3	-46.01	-133.3	-182.3	6,470.7	6,370.4	100.26	64.541	
11,900.0	5,892.0	5,350.0	5,342.1	121.1	12.3	-46.01	-133.3	-182.3	6,569.9	6,468.2	101.72	64.588	
12,000.0	5,892.0	5,350.0	5,342.1	123.0	12.3	-46.01	-133.3	-182.3	6,669.2	6,566.0	103.18	64.634	
12,100.0	5,892.0	5,350.0	5,342.1	124.9	12.3	-46.01	-133.3	-182.3	6,768.5	6,663.9	104.65	64.678	
12,200.0	5,892.0	5,350.0	5,342.1	126.8	12.3	-46.01	-133.3	-182.3	6,867.8	6,761.7	106.11	64.721	
12,300.0	5,892.0	5,338.1	5,330.3	128.7	12.3	-45.39	-132.2	-182.0	6,967.0	6,860.3	106.69	65.301	
12,400.0	5,892.0	5,337.6	5,329.7	130.6	12.3	-45.36	-132.2	-181.9	7,066.4	6,958.3	108.10	65.367	
12,500.0	5,892.0	5,337.0	5,329.2	132.5	12.3	-45.33	-132.1	-181.9	7,165.7	7,056.2	109.52	65.431	
12,600.0	5,892.0	5,325.3	5,317.5	134.4	12.3	-44.73	-131.3	-181.7	7,265.3	7,155.2	110.07	66.004	
12,700.0	5,892.0	5,325.3	5,317.5	136.4	12.3	-44.73	-131.3	-181.7	7,364.6	7,253.1	111.52	66.041	
12,800.0	5,892.0	5,325.3	5,317.5	138.3	12.3	-44.73	-131.3	-181.7	7,464.0	7,351.1	112.96	66.078	
12,900.0	5,892.0	5,325.3	5,317.5	140.2	12.3	-44.73	-131.3	-181.7	7,563.5	7,449.1	114.40	66.113	
13,000.0	5,892.0	5,325.3	5,317.5	142.1	12.3	-44.73	-131.3	-181.7	7,662.9	7,547.1	115.84	66.148	
13,100.0	5,892.0	5,325.3	5,317.5	144.0	12.3	-44.73	-131.3	-181.7	7,762.3	7,645.1	117.29	66.182	
13,200.0	5,892.0	5,325.3	5,317.5	145.9	12.3	-44.73	-131.3	-181.7	7,861.8	7,743.1	118.73	66.215	
13,300.0	5,892.0	5,325.3	5,317.5	147.8	12.3	-44.73	-131.3	-181.7	7,961.3	7,841.1	120.18	66.247	
13,400.0	5,892.0	5,325.3	5,317.5	149.7	12.3	-44.73	-131.3	-181.7	8,060.8	7,939.2	121.62	66.278	
13,416.7	5,892.0	5,325.3	5,317.5	150.1	12.3	-44.73	-131.3	-181.7	8,077.4	7,955.5	121.86	66.283	

Company:	Whiting Oil & Gas	**Local Co-ordinate Reference:**	Well Razor #21D-0904B
Project:	SEC.21-T10N-R58W	**TVD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Reference Site:	Razor #21D Pad Sec.21-T10N-R58W	**MD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Razor #21D-0904B	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (12-09-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Razor #21D Pad Sec.21-T10N-R58W - Razor #21D-2802B - Wellbore #1 - Plan #1 (12-09-13) — **Offset Site Error:** 0.0 ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-90.00	0.0	-33.2	33.2				
100.0	100.0	100.0	100.0	0.1	0.1	-90.00	0.0	-33.2	33.2	33.0	0.22	147.750	
200.0	200.0	200.0	200.0	0.3	0.3	-90.00	0.0	-33.2	33.2	32.5	0.67	49.250	
300.0	300.0	300.0	300.0	0.6	0.6	-90.00	0.0	-33.2	33.2	32.1	1.12	29.550	
400.0	400.0	400.0	400.0	0.8	0.8	-90.00	0.0	-33.2	33.2	31.6	1.57	21.107	
500.0	500.0	500.0	500.0	1.0	1.0	-90.00	0.0	-33.2	33.2	31.2	2.02	16.417	
600.0	600.0	600.0	600.0	1.2	1.2	-90.00	0.0	-33.2	33.2	30.7	2.47	13.432	
700.0	700.0	700.0	700.0	1.5	1.5	-90.00	0.0	-33.2	33.2	30.3	2.92	11.365	
800.0	800.0	800.0	800.0	1.7	1.7	-90.00	0.0	-33.2	33.2	29.8	3.37	9.850	
900.0	900.0	900.0	900.0	1.9	1.9	-90.00	0.0	-33.2	33.2	29.4	3.82	8.691	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-90.00	0.0	-33.2	33.2	28.9	4.27	7.776	
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	-90.00	0.0	-33.2	33.2	28.5	4.72	7.036	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	-90.00	0.0	-33.2	33.2	28.0	5.17	6.424	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	-90.00	0.0	-33.2	33.2	27.6	5.62	5.910	
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	-90.00	0.0	-33.2	33.2	27.1	6.07	5.472	
1,500.0	1,500.0	1,500.0	1,500.0	3.3	3.3	-90.00	0.0	-33.2	33.2	26.7	6.52	5.095	CC, ES
1,600.0	1,600.0	1,599.7	1,599.6	3.5	3.5	-92.84	-1.7	-33.7	33.7	26.8	6.94	4.858	SF
1,700.0	1,700.0	1,699.1	1,698.9	3.7	3.6	-100.77	-6.7	-35.0	35.7	28.3	7.34	4.862	
1,800.0	1,800.0	1,798.9	1,798.5	3.9	3.8	-109.64	-13.1	-36.8	39.1	31.3	7.74	5.050	
1,900.0	1,900.0	1,898.7	1,898.0	4.2	4.0	-116.94	-19.6	-38.6	43.3	35.1	8.15	5.312	
2,000.0	2,000.0	1,998.4	1,997.6	4.4	4.2	-122.87	-26.1	-40.3	48.1	39.5	8.56	5.613	
2,100.0	2,100.0	2,098.1	2,097.0	4.6	4.4	-150.43	-32.5	-42.1	54.8	45.8	8.98	6.097	
2,200.0	2,199.8	2,197.4	2,196.1	4.8	4.6	-156.11	-38.9	-43.8	65.1	55.7	9.39	6.930	
2,300.0	2,299.6	2,296.4	2,294.9	5.1	4.8	-160.70	-45.3	-45.6	77.4	67.6	9.80	7.896	
2,400.0	2,399.4	2,395.5	2,393.8	5.3	5.0	-164.02	-51.8	-47.3	90.1	79.9	10.23	8.815	
2,500.0	2,499.1	2,494.6	2,492.6	5.5	5.3	-166.51	-58.2	-49.1	103.1	92.4	10.65	9.679	
2,600.0	2,598.9	2,593.6	2,591.5	5.7	5.5	-168.44	-64.6	-50.8	116.2	105.1	11.08	10.489	
2,700.0	2,698.6	2,692.7	2,690.3	6.0	5.7	-169.98	-71.0	-52.6	129.4	117.9	11.50	11.244	
2,800.0	2,798.4	2,791.8	2,789.2	6.2	5.9	-171.24	-77.4	-54.3	142.6	130.7	11.94	11.950	
2,900.0	2,898.2	2,890.9	2,888.0	6.4	6.2	-172.28	-83.8	-56.1	156.0	143.6	12.37	12.609	
3,000.0	2,997.9	2,989.9	2,986.9	6.7	6.4	-173.15	-90.3	-57.8	169.3	156.5	12.80	13.226	
3,100.0	3,097.7	3,089.0	3,085.7	6.9	6.7	-173.90	-96.7	-59.6	182.7	169.5	13.24	13.802	
3,200.0	3,197.4	3,188.1	3,184.6	7.2	6.9	-174.55	-103.1	-61.3	196.2	182.5	13.68	14.343	
3,300.0	3,297.2	3,287.1	3,283.4	7.4	7.1	-175.11	-109.5	-63.1	209.6	195.5	14.11	14.850	
3,400.0	3,396.9	3,386.2	3,382.2	7.6	7.4	-175.61	-115.9	-64.8	223.1	208.5	14.55	15.327	
3,500.0	3,496.7	3,485.3	3,481.1	7.9	7.6	-176.05	-122.3	-66.6	236.6	221.6	15.00	15.776	
3,600.0	3,596.5	3,584.4	3,579.9	8.1	7.9	-176.44	-128.8	-68.3	250.1	234.6	15.44	16.199	
3,700.0	3,696.2	3,683.4	3,678.8	8.4	8.1	-176.79	-135.2	-70.1	263.6	247.7	15.88	16.598	
3,800.0	3,796.0	3,782.5	3,777.6	8.6	8.3	-177.11	-141.6	-71.8	277.1	260.7	16.32	16.975	
3,900.0	3,895.7	3,881.6	3,876.5	8.9	8.6	-177.39	-148.0	-73.6	290.6	273.8	16.77	17.332	
4,000.0	3,995.5	3,980.6	3,975.3	9.1	8.8	-177.66	-154.4	-75.3	304.1	286.9	17.21	17.670	
4,100.0	4,095.3	4,079.7	4,074.2	9.4	9.1	-177.90	-160.8	-77.1	317.7	300.0	17.66	17.991	
4,200.0	4,195.0	4,178.8	4,173.0	9.6	9.3	-178.12	-167.3	-78.8	331.2	313.1	18.10	18.296	
4,300.0	4,294.8	4,277.9	4,271.9	9.9	9.6	-178.32	-173.7	-80.6	344.7	326.2	18.55	18.585	
4,400.0	4,394.5	4,376.9	4,370.7	10.1	9.8	-178.51	-180.1	-82.3	358.3	339.3	19.00	18.861	
4,500.0	4,494.3	4,476.0	4,469.6	10.4	10.1	-178.68	-186.5	-84.1	371.8	352.4	19.44	19.124	
4,600.0	4,594.1	4,575.1	4,568.4	10.6	10.3	-178.84	-192.9	-85.8	385.4	365.5	19.89	19.375	
4,700.0	4,693.8	4,674.1	4,667.3	10.9	10.6	-178.99	-199.3	-87.6	398.9	378.6	20.34	19.615	
4,800.0	4,793.6	4,773.2	4,766.1	11.1	10.8	-179.13	-205.8	-89.3	412.5	391.7	20.79	19.844	
4,900.0	4,893.3	4,872.3	4,865.0	11.4	11.1	-179.27	-212.2	-91.1	426.1	404.8	21.24	20.063	
5,000.0	4,993.1	4,971.4	4,963.8	11.6	11.3	-179.39	-218.6	-92.8	439.6	417.9	21.69	20.272	
5,100.0	5,092.9	5,070.4	5,062.7	11.9	11.6	-179.51	-225.0	-94.6	453.2	431.0	22.14	20.473	

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

Company:	Whiting Oil & Gas	**Local Co-ordinate Reference:**	Well Razor #21D-0904B
Project:	SEC.21-T10N-R58W	**TVD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Reference Site:	Razor #21D Pad Sec.21-T10N-R58W	**MD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Razor #21D-0904B	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (12-09-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Razor #21D Pad Sec.21-T10N-R58W - Razor #21D-2802B - Wellbore #1 - Plan #1 (12-09-13) — **Offset Site Error:** 0.0 ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,200.0	5,192.6	5,169.5	5,161.5	12.1	11.8	-179.62	-231.4	-96.3	466.7	444.2	22.59	20.666	
5,300.0	5,292.4	5,268.6	5,260.4	12.4	12.1	-179.72	-237.8	-98.1	480.3	457.3	23.04	20.851	
5,400.0	5,392.1	5,367.6	5,359.2	12.6	12.4	-179.82	-244.3	-99.8	493.9	470.4	23.49	21.029	
5,500.0	5,491.0	5,440.6	5,431.9	12.9	12.5	-178.85	-249.7	-101.1	515.5	492.1	23.41	22.018	
5,600.0	5,585.6	5,485.6	5,476.3	13.3	12.7	-178.78	-256.9	-101.9	561.9	539.4	22.57	24.893	
5,700.0	5,672.2	5,520.9	5,510.7	13.9	12.8	-178.83	-265.1	-102.5	629.9	608.8	21.09	29.862	
5,800.0	5,747.8	5,550.0	5,538.4	14.6	13.0	-178.89	-273.7	-103.0	713.6	694.5	19.09	37.384	
5,900.0	5,809.5	5,550.0	5,538.4	15.5	13.0	-177.94	-273.7	-103.0	807.5	790.8	16.73	48.254	
6,000.0	5,855.1	5,550.0	5,538.4	16.5	13.0	-160.63	-273.7	-103.0	906.6	889.9	16.72	54.220	
6,100.0	5,883.0	5,550.0	5,538.4	17.8	13.0	-2.55	-273.7	-103.0	1,006.2	993.6	12.57	80.060	
6,200.0	5,892.0	5,550.0	5,538.4	19.2	13.0	-1.48	-273.7	-103.0	1,103.0	1,091.2	11.79	93.584	
6,300.0	5,892.0	5,550.0	5,538.4	20.5	13.0	-10.64	-273.7	-103.0	1,198.1	1,184.7	13.43	89.211	
6,400.0	5,892.0	5,550.0	5,538.4	21.8	13.0	-20.01	-273.7	-103.0	1,293.7	1,276.9	16.72	77.352	
6,500.0	5,892.0	5,527.5	5,517.0	23.3	12.9	-27.71	-267.0	-102.6	1,388.7	1,368.5	20.24	68.607	
6,600.0	5,892.0	5,520.0	5,509.8	24.7	12.8	-35.10	-264.9	-102.5	1,483.8	1,459.8	24.01	61.799	
6,700.0	5,892.0	5,500.0	5,490.4	26.2	12.7	-40.64	-260.0	-102.1	1,578.7	1,551.6	27.11	58.235	
6,800.0	5,892.0	5,500.0	5,490.4	27.7	12.7	-46.60	-260.0	-102.1	1,672.7	1,642.2	30.45	54.940	
6,900.0	5,892.0	5,500.0	5,490.4	29.3	12.7	-50.64	-260.0	-102.1	1,766.1	1,733.0	33.05	53.432	
7,000.0	5,892.0	5,500.0	5,490.4	30.8	12.7	-50.64	-260.0	-102.1	1,859.8	1,825.4	34.35	54.142	
7,100.0	5,892.0	5,500.0	5,490.4	32.4	12.7	-50.64	-260.0	-102.1	1,954.1	1,918.4	35.68	54.773	
7,200.0	5,892.0	5,500.0	5,490.4	34.1	12.7	-50.64	-260.0	-102.1	2,049.0	2,011.9	37.03	55.335	
7,300.0	5,892.0	5,500.0	5,490.4	35.8	12.7	-50.64	-260.0	-102.1	2,144.3	2,105.9	38.40	55.837	
7,400.0	5,892.0	5,478.9	5,469.8	37.4	12.7	-49.20	-255.6	-101.8	2,239.5	2,200.4	39.08	57.306	
7,500.0	5,892.0	5,475.4	5,466.4	39.2	12.7	-48.97	-254.9	-101.7	2,335.4	2,295.1	40.34	57.889	
7,600.0	5,892.0	5,472.1	5,463.1	40.9	12.7	-48.75	-254.3	-101.7	2,431.6	2,390.0	41.62	58.423	
7,700.0	5,892.0	5,450.0	5,441.3	42.6	12.6	-47.31	-250.9	-101.3	2,528.5	2,486.3	42.21	59.897	
7,800.0	5,892.0	5,450.0	5,441.3	44.4	12.6	-47.31	-250.9	-101.3	2,625.1	2,581.5	43.61	60.202	
7,900.0	5,892.0	5,450.0	5,441.3	46.2	12.6	-47.31	-250.9	-101.3	2,722.0	2,677.0	45.01	60.482	
8,000.0	5,892.0	5,450.0	5,441.3	48.0	12.6	-47.31	-250.9	-101.3	2,819.1	2,772.7	46.41	60.739	
8,100.0	5,892.0	5,450.0	5,441.3	49.8	12.6	-47.31	-250.9	-101.3	2,916.4	2,868.5	47.83	60.976	
8,200.0	5,892.0	5,450.0	5,441.3	51.6	12.6	-47.31	-250.9	-101.3	3,013.8	2,964.6	49.25	61.195	
8,300.0	5,892.0	5,450.0	5,441.3	53.4	12.6	-47.31	-250.9	-101.3	3,111.4	3,060.7	50.68	61.398	
8,400.0	5,892.0	5,450.0	5,441.3	55.2	12.6	-47.31	-250.9	-101.3	3,209.2	3,157.1	52.11	61.587	
8,500.0	5,892.0	5,450.0	5,441.3	57.0	12.6	-47.31	-250.9	-101.3	3,307.1	3,253.5	53.55	61.762	
8,600.0	5,892.0	5,450.0	5,441.3	58.9	12.6	-47.31	-250.9	-101.3	3,405.1	3,350.1	54.99	61.926	
8,700.0	5,892.0	5,450.0	5,441.3	60.7	12.6	-47.31	-250.9	-101.3	3,503.2	3,446.8	56.43	62.080	
8,800.0	5,892.0	5,450.0	5,441.3	62.6	12.6	-47.31	-250.9	-101.3	3,601.5	3,543.6	57.88	62.224	
8,900.0	5,892.0	5,450.0	5,441.3	64.4	12.6	-47.31	-250.9	-101.3	3,699.8	3,640.5	59.33	62.359	
9,000.0	5,892.0	5,450.0	5,441.3	66.3	12.6	-47.31	-250.9	-101.3	3,798.2	3,737.4	60.79	62.486	
9,100.0	5,892.0	5,450.0	5,441.3	68.1	12.6	-47.31	-250.9	-101.3	3,896.7	3,834.5	62.24	62.606	
9,200.0	5,892.0	5,450.0	5,441.3	70.0	12.6	-47.31	-250.9	-101.3	3,995.3	3,931.6	63.70	62.719	
9,300.0	5,892.0	5,450.0	5,441.3	71.9	12.6	-47.31	-250.9	-101.3	4,093.9	4,028.7	65.16	62.826	
9,400.0	5,892.0	5,450.0	5,441.3	73.7	12.6	-47.31	-250.9	-101.3	4,192.6	4,126.0	66.63	62.927	
9,500.0	5,892.0	5,450.0	5,441.3	75.6	12.6	-47.31	-250.9	-101.3	4,291.4	4,223.3	68.09	63.023	
9,600.0	5,892.0	5,450.0	5,441.3	77.5	12.6	-47.31	-250.9	-101.3	4,390.2	4,320.6	69.56	63.114	
9,700.0	5,892.0	5,433.4	5,424.7	79.4	12.5	-46.27	-248.9	-101.0	4,488.8	4,418.7	70.06	64.068	
9,800.0	5,892.0	5,432.3	5,423.7	81.2	12.5	-46.20	-248.8	-101.0	4,587.7	4,516.2	71.45	64.206	
9,900.0	5,892.0	5,431.3	5,422.7	83.1	12.5	-46.14	-248.7	-100.9	4,686.6	4,613.7	72.84	64.338	
10,000.0	5,892.0	5,430.3	5,421.7	85.0	12.5	-46.08	-248.6	-100.9	4,785.6	4,711.3	74.24	64.464	
10,100.0	5,892.0	5,413.5	5,404.9	86.9	12.5	-45.06	-247.2	-100.6	4,884.8	4,810.2	74.66	65.432	
10,200.0	5,892.0	5,413.5	5,404.9	88.8	12.5	-45.06	-247.2	-100.6	4,983.9	4,907.8	76.09	65.500	
10,300.0	5,892.0	5,413.5	5,404.9	90.7	12.5	-45.06	-247.2	-100.6	5,082.9	5,005.4	77.52	65.565	

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

Company:	Whiting Oil & Gas	**Local Co-ordinate Reference:**	Well Razor #21D-0904B
Project:	SEC.21-T10N-R58W	**TVD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Reference Site:	Razor #21D Pad Sec.21-T10N-R58W	**MD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Razor #21D-0904B	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (12-09-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Razor #21D Pad Sec.21-T10N-R58W - Razor #21D-2802B - Wellbore #1 - Plan #1 (12-09-13)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,400.0	5,892.0	5,413.5	5,404.9	92.6	12.5	-45.06	-247.2	-100.6	5,182.0	5,103.0	78.96	65.628	
10,500.0	5,892.0	5,413.5	5,404.9	94.5	12.5	-45.06	-247.2	-100.6	5,281.1	5,200.7	80.40	65.688	
10,600.0	5,892.0	5,413.5	5,404.9	96.3	12.5	-45.06	-247.2	-100.6	5,380.3	5,298.5	81.84	65.745	
10,700.0	5,892.0	5,413.5	5,404.9	98.2	12.5	-45.06	-247.2	-100.6	5,479.5	5,396.2	83.27	65.800	
10,800.0	5,892.0	5,413.5	5,404.9	100.1	12.5	-45.06	-247.2	-100.6	5,578.7	5,494.0	84.71	65.853	
10,900.0	5,892.0	5,413.5	5,404.9	102.0	12.5	-45.06	-247.2	-100.6	5,678.0	5,591.8	86.15	65.904	
11,000.0	5,892.0	5,413.5	5,404.9	103.9	12.5	-45.06	-247.2	-100.6	5,777.2	5,689.6	87.60	65.953	
11,100.0	5,892.0	5,413.5	5,404.9	105.8	12.5	-45.06	-247.2	-100.6	5,876.5	5,787.5	89.04	66.001	
11,200.0	5,892.0	5,413.5	5,404.9	107.7	12.5	-45.06	-247.2	-100.6	5,975.8	5,885.4	90.48	66.046	
11,300.0	5,892.0	5,413.5	5,404.9	109.6	12.5	-45.06	-247.2	-100.6	6,075.2	5,983.3	91.92	66.090	
11,400.0	5,892.0	5,413.5	5,404.9	111.5	12.5	-45.06	-247.2	-100.6	6,174.6	6,081.2	93.37	66.133	
11,500.0	5,892.0	5,413.5	5,404.9	113.5	12.5	-45.06	-247.2	-100.6	6,273.9	6,179.1	94.81	66.174	
11,600.0	5,892.0	5,413.5	5,404.9	115.4	12.5	-45.06	-247.2	-100.6	6,373.3	6,277.1	96.25	66.214	
11,700.0	5,892.0	5,413.5	5,404.9	117.3	12.5	-45.06	-247.2	-100.6	6,472.8	6,375.1	97.70	66.252	
11,800.0	5,892.0	5,413.5	5,404.9	119.2	12.5	-45.06	-247.2	-100.6	6,572.2	6,473.1	99.14	66.289	
11,900.0	5,892.0	5,413.5	5,404.9	121.1	12.5	-45.06	-247.2	-100.6	6,671.7	6,571.1	100.59	66.325	
12,000.0	5,892.0	5,413.5	5,404.9	123.0	12.5	-45.06	-247.2	-100.6	6,771.1	6,669.1	102.04	66.360	
12,100.0	5,892.0	5,413.5	5,404.9	124.9	12.5	-45.06	-247.2	-100.6	6,870.6	6,767.1	103.48	66.394	
12,200.0	5,892.0	5,413.5	5,404.9	126.8	12.5	-45.06	-247.2	-100.6	6,970.1	6,865.2	104.93	66.427	
12,300.0	5,892.0	5,413.5	5,404.9	128.7	12.5	-45.06	-247.2	-100.6	7,069.6	6,963.3	106.38	66.458	
12,400.0	5,892.0	5,413.5	5,404.9	130.6	12.5	-45.06	-247.2	-100.6	7,169.2	7,061.3	107.82	66.489	
12,500.0	5,892.0	5,413.5	5,404.9	132.5	12.5	-45.06	-247.2	-100.6	7,268.7	7,159.4	109.27	66.519	
12,600.0	5,892.0	5,413.5	5,404.9	134.4	12.5	-45.06	-247.2	-100.6	7,368.3	7,257.5	110.72	66.548	
12,700.0	5,892.0	5,409.2	5,400.7	136.4	12.5	-44.80	-246.9	-100.6	7,467.8	7,356.0	111.78	66.805	
12,800.0	5,892.0	5,402.7	5,394.2	138.3	12.4	-44.42	-246.5	-100.4	7,567.4	7,454.8	112.64	67.179	
12,900.0	5,892.0	5,396.2	5,387.7	140.2	12.4	-44.04	-246.1	-100.3	7,667.0	7,553.5	113.50	67.553	
13,000.0	5,892.0	5,389.8	5,381.3	142.1	12.4	-43.67	-245.7	-100.2	7,766.6	7,652.2	114.34	67.927	
13,100.0	5,892.0	5,383.3	5,374.8	144.0	12.4	-43.31	-245.3	-100.1	7,866.2	7,751.0	115.17	68.300	
13,200.0	5,892.0	5,376.8	5,368.3	145.9	12.4	-42.94	-244.8	-100.0	7,965.7	7,849.8	116.00	68.673	
13,300.0	5,892.0	5,370.3	5,361.9	147.8	12.4	-42.59	-244.4	-99.9	8,065.3	7,948.5	116.81	69.046	
13,400.0	5,892.0	5,363.8	5,355.4	149.7	12.3	-42.23	-244.0	-99.8	8,164.9	8,047.3	117.62	69.419	
13,416.7	5,892.0	5,362.8	5,354.3	150.1	12.3	-42.18	-243.9	-99.7	8,181.5	8,063.8	117.75	69.481	

Company:	Whiting Oil & Gas	**Local Co-ordinate Reference:**	Well Razor #21D-0904B
Project:	SEC.21-T10N-R58W	**TVD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Reference Site:	Razor #21D Pad Sec.21-T10N-R58W	**MD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Razor #21D-0904B	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (12-09-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Razor #21D Pad Sec.21-T10N-R58W - Razor #21D-2803A - Wellbore #1 - Plan #1 (12-09-13) — **Offset Site Error:** 0.0 ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	0.00	74.7	0.0	74.7				
100.0	100.0	100.0	100.0	0.1	0.1	0.00	74.7	0.0	74.7	74.5	0.22	332.264	
200.0	200.0	200.0	200.0	0.3	0.3	0.00	74.7	0.0	74.7	74.0	0.67	110.755	
300.0	300.0	300.0	300.0	0.6	0.6	0.00	74.7	0.0	74.7	73.6	1.12	66.453	
400.0	400.0	400.0	400.0	0.8	0.8	0.00	74.7	0.0	74.7	73.1	1.57	47.466	
500.0	500.0	500.0	500.0	1.0	1.0	0.00	74.7	0.0	74.7	72.7	2.02	36.918	
600.0	600.0	600.0	600.0	1.2	1.2	0.00	74.7	0.0	74.7	72.2	2.47	30.206	
700.0	700.0	700.0	700.0	1.5	1.5	0.00	74.7	0.0	74.7	71.8	2.92	25.559	
800.0	800.0	800.0	800.0	1.7	1.7	0.00	74.7	0.0	74.7	71.3	3.37	22.151	
900.0	900.0	900.0	900.0	1.9	1.9	0.00	74.7	0.0	74.7	70.9	3.82	19.545	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	0.00	74.7	0.0	74.7	70.4	4.27	17.488	
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	0.00	74.7	0.0	74.7	70.0	4.72	15.822	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	0.00	74.7	0.0	74.7	69.5	5.17	14.446	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	0.00	74.7	0.0	74.7	69.1	5.62	13.291	
1,400.0	1,400.0	1,400.9	1,400.8	3.0	3.0	1.29	74.1	1.7	74.1	68.0	6.05	12.243	
1,500.0	1,500.0	1,501.5	1,501.3	3.3	3.2	5.26	72.3	6.7	72.6	66.1	6.47	11.212	
1,600.0	1,600.0	1,601.2	1,600.8	3.5	3.4	10.69	69.9	13.2	71.1	64.2	6.90	10.305	
1,700.0	1,700.0	1,701.0	1,700.3	3.7	3.6	16.29	67.5	19.7	70.3	63.0	7.34	9.586	
1,765.3	1,765.3	1,766.1	1,765.3	3.9	3.8	20.00	65.9	24.0	70.2	62.6	7.63	9.204	
1,800.0	1,800.0	1,800.7	1,799.8	3.9	3.8	21.97	65.1	26.3	70.2	62.4	7.78	9.027	
1,900.0	1,900.0	1,900.5	1,899.3	4.2	4.1	27.61	62.7	32.8	70.8	62.6	8.23	8.606	
2,000.0	2,000.0	2,000.2	1,998.9	4.4	4.3	33.10	60.4	39.3	72.1	63.4	8.68	8.301	
2,100.0	2,100.0	2,100.0	2,098.4	4.6	4.5	16.86	58.0	45.9	72.3	63.2	9.12	7.923	
2,200.0	2,199.8	2,199.6	2,197.7	4.8	4.8	23.51	55.6	52.4	70.0	60.4	9.56	7.324	
2,300.0	2,299.6	2,301.5	2,299.4	5.1	5.0	31.50	52.0	57.7	65.5	55.5	9.98	6.559	
2,400.0	2,399.4	2,402.9	2,400.6	5.3	5.2	41.19	46.1	60.2	58.9	48.5	10.39	5.671	
2,500.0	2,499.1	2,502.0	2,499.5	5.5	5.4	53.42	39.2	61.3	52.7	41.9	10.80	4.884	
2,600.0	2,598.9	2,601.1	2,598.3	5.7	5.6	67.99	32.3	62.4	49.5	38.3	11.20	4.417	
2,641.4	2,640.2	2,642.2	2,639.3	5.8	5.7	74.40	29.5	62.9	49.2	37.8	11.37	4.323	CC, ES
2,700.0	2,698.6	2,700.2	2,697.2	6.0	5.8	83.42	25.4	63.5	49.8	38.2	11.62	4.287	SF
2,800.0	2,798.4	2,799.3	2,796.0	6.2	6.0	97.65	18.5	64.6	53.6	41.6	12.04	4.452	
2,900.0	2,898.2	2,898.4	2,894.9	6.4	6.2	109.42	11.6	65.7	60.2	47.8	12.47	4.829	
3,000.0	2,997.9	2,997.5	2,993.7	6.7	6.5	118.58	4.7	66.8	68.9	56.0	12.91	5.335	
3,100.0	3,097.7	3,096.6	3,092.6	6.9	6.7	125.58	-2.2	67.9	78.9	65.5	13.35	5.908	
3,200.0	3,197.4	3,195.7	3,191.4	7.2	6.9	130.95	-9.1	69.0	89.8	76.0	13.79	6.510	
3,300.0	3,297.2	3,294.7	3,290.3	7.4	7.2	135.14	-16.0	70.1	101.3	87.1	14.24	7.116	
3,400.0	3,396.9	3,393.8	3,389.1	7.6	7.4	138.46	-22.9	71.2	113.3	98.6	14.68	7.715	
3,500.0	3,496.7	3,492.9	3,487.9	7.9	7.6	141.14	-29.8	72.2	125.5	110.4	15.12	8.299	
3,600.0	3,596.5	3,592.0	3,586.8	8.1	7.9	143.35	-36.7	73.3	138.0	122.4	15.57	8.863	
3,700.0	3,696.2	3,691.1	3,685.6	8.4	8.1	145.18	-43.6	74.4	150.6	134.6	16.01	9.406	
3,800.0	3,796.0	3,790.2	3,784.5	8.6	8.3	146.73	-50.5	75.5	163.4	146.9	16.46	9.926	
3,900.0	3,895.7	3,889.3	3,883.3	8.9	8.6	148.06	-57.4	76.6	176.3	159.4	16.91	10.425	
4,000.0	3,995.5	3,988.4	3,982.2	9.1	8.8	149.20	-64.3	77.7	189.2	171.9	17.36	10.903	
4,100.0	4,095.3	4,087.5	4,081.0	9.4	9.1	150.20	-71.2	78.8	202.2	184.4	17.80	11.359	
4,200.0	4,195.0	4,186.6	4,179.9	9.6	9.3	151.08	-78.1	79.9	215.3	197.1	18.25	11.796	
4,300.0	4,294.8	4,285.7	4,278.7	9.9	9.6	151.86	-85.0	81.0	228.4	209.7	18.70	12.214	
4,400.0	4,394.5	4,384.8	4,377.5	10.1	9.8	152.55	-91.9	82.1	241.6	222.4	19.15	12.614	
4,500.0	4,494.3	4,483.8	4,476.4	10.4	10.1	153.17	-98.8	83.2	254.8	235.2	19.60	12.996	
4,600.0	4,594.1	4,582.9	4,575.2	10.6	10.3	153.73	-105.7	84.3	268.0	247.9	20.05	13.363	
4,700.0	4,693.8	4,682.0	4,674.1	10.9	10.6	154.24	-112.6	85.3	281.2	260.7	20.50	13.714	
4,800.0	4,793.6	4,781.1	4,772.9	11.1	10.8	154.70	-119.5	86.4	294.5	273.5	20.96	14.051	
4,900.0	4,893.3	4,880.2	4,871.8	11.4	11.1	155.12	-126.4	87.5	307.7	286.3	21.41	14.374	

Company:	Whiting Oil & Gas	**Local Co-ordinate Reference:**	Well Razor #21D-0904B
Project:	SEC.21-T10N-R58W	**TVD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Reference Site:	Razor #21D Pad Sec.21-T10N-R58W	**MD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Razor #21D-0904B	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (12-09-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Razor #21D Pad Sec.21-T10N-R58W - Razor #21D-2803A - Wellbore #1 - Plan #1 (12-09-13) — **Offset Site Error:** 0.0 ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,000.0	4,993.1	4,979.3	4,970.6	11.6	11.3	155.51	-133.3	88.6	321.0	299.1	21.86	14.684	
5,100.0	5,092.9	5,078.4	5,069.5	11.9	11.6	155.86	-140.2	89.7	334.3	312.0	22.31	14.982	
5,200.0	5,192.6	5,177.5	5,168.3	12.1	11.8	156.19	-147.1	90.8	347.6	324.8	22.77	15.268	
5,300.0	5,292.4	5,276.6	5,267.1	12.4	12.1	156.50	-154.0	91.9	360.9	337.7	23.22	15.543	
5,400.0	5,392.1	5,350.0	5,340.4	12.6	12.3	156.71	-159.3	92.7	375.4	351.8	23.62	15.894	
5,500.0	5,491.0	5,412.6	5,402.1	12.9	12.5	156.89	-169.4	93.9	404.6	381.0	23.61	17.134	
5,600.0	5,585.6	5,450.0	5,438.3	13.3	12.6	154.78	-178.9	94.9	458.6	435.6	23.02	19.923	
5,700.0	5,672.2	5,500.0	5,485.3	13.9	12.8	151.10	-195.6	96.6	531.8	509.6	22.21	23.946	
5,800.0	5,747.8	5,515.1	5,499.2	14.6	12.9	141.54	-201.5	97.2	618.4	596.2	22.14	27.930	
5,900.0	5,809.5	5,526.9	5,510.0	15.5	13.0	118.80	-206.4	97.7	712.9	687.4	25.50	27.950	
6,000.0	5,855.1	5,529.7	5,512.5	16.5	13.0	71.38	-207.6	97.8	810.5	782.3	28.15	28.790	
6,100.0	5,883.0	5,525.2	5,508.4	17.8	13.0	35.81	-205.7	97.6	907.4	886.7	20.76	43.721	
6,200.0	5,892.0	5,500.0	5,485.3	19.2	12.8	20.35	-195.6	96.6	1,000.9	985.2	15.70	63.742	
6,300.0	5,892.0	5,500.0	5,485.3	20.5	12.8	13.92	-195.6	96.6	1,092.3	1,077.9	14.32	76.262	
6,400.0	5,892.0	5,500.0	5,485.3	21.8	12.8	6.35	-195.6	96.6	1,185.4	1,172.3	13.11	90.421	
6,500.0	5,892.0	5,481.0	5,467.7	23.3	12.8	-2.39	-188.7	95.9	1,279.3	1,266.3	13.01	98.310	
6,600.0	5,892.0	5,471.6	5,458.8	24.7	12.7	-11.00	-185.5	95.6	1,373.8	1,359.0	14.81	92.777	
6,700.0	5,892.0	5,450.0	5,438.3	26.2	12.6	-18.99	-178.9	94.9	1,468.8	1,451.0	17.87	82.206	
6,800.0	5,892.0	5,450.0	5,438.3	27.7	12.6	-27.00	-178.9	94.9	1,563.4	1,541.6	21.79	71.763	
6,900.0	5,892.0	5,450.0	5,438.3	29.3	12.6	-32.81	-178.9	94.9	1,657.9	1,632.7	25.17	65.868	
7,000.0	5,892.0	5,450.0	5,438.3	30.8	12.6	-32.81	-178.9	94.9	1,752.7	1,726.5	26.18	66.956	
7,100.0	5,892.0	5,450.0	5,438.3	32.4	12.6	-32.81	-178.9	94.9	1,848.1	1,820.9	27.21	67.924	
7,200.0	5,892.0	5,429.3	5,418.3	34.1	12.5	-31.75	-173.3	94.3	1,943.5	1,915.8	27.68	70.205	
7,300.0	5,892.0	5,424.1	5,413.3	35.8	12.5	-31.49	-172.0	94.2	2,039.4	2,010.8	28.59	71.343	
7,400.0	5,892.0	5,400.0	5,389.8	37.4	12.4	-30.33	-166.8	93.6	2,136.1	2,107.2	28.97	73.729	
7,500.0	5,892.0	5,400.0	5,389.8	39.2	12.4	-30.33	-166.8	93.6	2,232.5	2,202.5	30.02	74.363	
7,600.0	5,892.0	5,400.0	5,389.8	40.9	12.4	-30.33	-166.8	93.6	2,329.2	2,298.1	31.08	74.938	
7,700.0	5,892.0	5,400.0	5,389.8	42.6	12.4	-30.33	-166.8	93.6	2,426.2	2,394.0	32.15	75.463	
7,800.0	5,892.0	5,400.0	5,389.8	44.4	12.4	-30.33	-166.8	93.6	2,523.4	2,490.1	33.23	75.943	
7,900.0	5,892.0	5,400.0	5,389.8	46.2	12.4	-30.33	-166.8	93.6	2,620.8	2,586.5	34.31	76.383	
8,000.0	5,892.0	5,400.0	5,389.8	48.0	12.4	-30.33	-166.8	93.6	2,718.4	2,683.0	35.40	76.788	
8,100.0	5,892.0	5,400.0	5,389.8	49.8	12.4	-30.33	-166.8	93.6	2,816.1	2,779.6	36.50	77.162	
8,200.0	5,892.0	5,400.0	5,389.8	51.6	12.4	-30.33	-166.8	93.6	2,914.1	2,876.5	37.60	77.508	
8,300.0	5,892.0	5,400.0	5,389.8	53.4	12.4	-30.33	-166.8	93.6	3,012.1	2,973.4	38.70	77.830	
8,400.0	5,892.0	5,400.0	5,389.8	55.2	12.4	-30.33	-166.8	93.6	3,110.3	3,070.5	39.81	78.129	
8,500.0	5,892.0	5,400.0	5,389.8	57.0	12.4	-30.33	-166.8	93.6	3,208.6	3,167.7	40.92	78.407	
8,600.0	5,892.0	5,400.0	5,389.8	58.9	12.4	-30.33	-166.8	93.6	3,307.0	3,264.9	42.04	78.668	
8,700.0	5,892.0	5,400.0	5,389.8	60.7	12.4	-30.33	-166.8	93.6	3,405.5	3,362.3	43.16	78.912	
8,800.0	5,892.0	5,376.7	5,366.8	62.6	12.3	-29.26	-162.7	93.1	3,503.4	3,460.1	43.37	80.773	
8,900.0	5,892.0	5,374.7	5,364.9	64.4	12.3	-29.18	-162.4	93.1	3,602.0	3,557.6	44.40	81.124	
9,000.0	5,892.0	5,372.9	5,363.0	66.3	12.3	-29.10	-162.1	93.1	3,700.6	3,655.2	45.43	81.456	
9,100.0	5,892.0	5,350.0	5,340.4	68.1	12.3	-28.11	-159.3	92.7	3,799.8	3,754.1	45.65	83.244	
9,200.0	5,892.0	5,350.0	5,340.4	70.0	12.3	-28.11	-159.3	92.7	3,898.4	3,851.7	46.73	83.423	
9,300.0	5,892.0	5,350.0	5,340.4	71.9	12.3	-28.11	-159.3	92.7	3,997.2	3,949.4	47.82	83.593	
9,400.0	5,892.0	5,350.0	5,340.4	73.7	12.3	-28.11	-159.3	92.7	4,096.0	4,047.1	48.90	83.754	
9,500.0	5,892.0	5,350.0	5,340.4	75.6	12.3	-28.11	-159.3	92.7	4,194.8	4,144.8	49.99	83.907	
9,600.0	5,892.0	5,350.0	5,340.4	77.5	12.3	-28.11	-159.3	92.7	4,293.7	4,242.6	51.08	84.052	
9,700.0	5,892.0	5,350.0	5,340.4	79.4	12.3	-28.11	-159.3	92.7	4,392.7	4,340.5	52.18	84.191	
9,800.0	5,892.0	5,350.0	5,340.4	81.2	12.3	-28.11	-159.3	92.7	4,491.7	4,438.4	53.27	84.322	
9,900.0	5,892.0	5,350.0	5,340.4	83.1	12.3	-28.11	-159.3	92.7	4,590.7	4,536.4	54.36	84.448	
10,000.0	5,892.0	5,350.0	5,340.4	85.0	12.3	-28.11	-159.3	92.7	4,689.8	4,634.4	55.46	84.568	
10,100.0	5,892.0	5,350.0	5,340.4	86.9	12.3	-28.11	-159.3	92.7	4,789.0	4,732.4	56.55	84.683	

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

Company:	Whiting Oil & Gas	**Local Co-ordinate Reference:**	Well Razor #21D-0904B
Project:	SEC.21-T10N-R58W	**TVD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Reference Site:	Razor #21D Pad Sec.21-T10N-R58W	**MD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Razor #21D-0904B	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (12-09-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Razor #21D Pad Sec.21-T10N-R58W - Razor #21D-2803A - Wellbore #1 - Plan #1 (12-09-13)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,200.0	5,892.0	5,350.0	5,340.4	88.8	12.3	-28.11	-159.3	92.7	4,888.1	4,830.5	57.65	84.792	
10,300.0	5,892.0	5,350.0	5,340.4	90.7	12.3	-28.11	-159.3	92.7	4,987.3	4,928.6	58.75	84.897	
10,400.0	5,892.0	5,350.0	5,340.4	92.6	12.3	-28.11	-159.3	92.7	5,086.5	5,026.7	59.84	84.998	
10,500.0	5,892.0	5,350.0	5,340.4	94.5	12.3	-28.11	-159.3	92.7	5,185.8	5,124.9	60.94	85.095	
10,600.0	5,892.0	5,350.0	5,340.4	96.3	12.3	-28.11	-159.3	92.7	5,285.1	5,223.0	62.04	85.187	
10,700.0	5,892.0	5,350.0	5,340.4	98.2	12.3	-28.11	-159.3	92.7	5,384.4	5,321.2	63.14	85.276	
10,800.0	5,892.0	5,350.0	5,340.4	100.1	12.3	-28.11	-159.3	92.7	5,483.7	5,419.5	64.24	85.362	
10,900.0	5,892.0	5,350.0	5,340.4	102.0	12.3	-28.11	-159.3	92.7	5,583.1	5,517.7	65.34	85.445	
11,000.0	5,892.0	5,350.0	5,340.4	103.9	12.3	-28.11	-159.3	92.7	5,682.5	5,616.0	66.44	85.524	
11,100.0	5,892.0	5,350.0	5,340.4	105.8	12.3	-28.11	-159.3	92.7	5,781.9	5,714.3	67.54	85.601	
11,200.0	5,892.0	5,350.0	5,340.4	107.7	12.3	-28.11	-159.3	92.7	5,881.3	5,812.6	68.65	85.674	
11,300.0	5,892.0	5,350.0	5,340.4	109.6	12.3	-28.11	-159.3	92.7	5,980.7	5,911.0	69.75	85.746	
11,400.0	5,892.0	5,350.0	5,340.4	111.5	12.3	-28.11	-159.3	92.7	6,080.2	6,009.3	70.85	85.814	
11,500.0	5,892.0	5,350.0	5,340.4	113.5	12.3	-28.11	-159.3	92.7	6,179.7	6,107.7	71.96	85.881	
11,600.0	5,892.0	5,350.0	5,340.4	115.4	12.3	-28.11	-159.3	92.7	6,279.2	6,206.1	73.06	85.945	
11,700.0	5,892.0	5,350.0	5,340.4	117.3	12.3	-28.11	-159.3	92.7	6,378.7	6,304.5	74.16	86.007	
11,800.0	5,892.0	5,350.0	5,340.4	119.2	12.3	-28.11	-159.3	92.7	6,478.2	6,402.9	75.27	86.067	
11,900.0	5,892.0	5,341.8	5,332.2	121.1	12.2	-27.77	-158.6	92.6	6,577.7	6,501.8	75.87	86.691	
12,000.0	5,892.0	5,341.2	5,331.6	123.0	12.2	-27.75	-158.5	92.6	6,677.2	6,600.3	76.94	86.790	
12,100.0	5,892.0	5,333.3	5,323.8	124.9	12.2	-27.43	-157.9	92.5	6,776.8	6,699.3	77.55	87.381	
12,200.0	5,892.0	5,333.3	5,323.8	126.8	12.2	-27.43	-157.9	92.5	6,876.4	6,797.7	78.65	87.434	
12,300.0	5,892.0	5,333.3	5,323.8	128.7	12.2	-27.43	-157.9	92.5	6,976.0	6,896.2	79.74	87.486	
12,400.0	5,892.0	5,333.3	5,323.8	130.6	12.2	-27.43	-157.9	92.5	7,075.5	6,994.7	80.83	87.535	
12,500.0	5,892.0	5,333.3	5,323.8	132.5	12.2	-27.43	-157.9	92.5	7,175.1	7,093.2	81.92	87.584	
12,600.0	5,892.0	5,333.3	5,323.8	134.4	12.2	-27.43	-157.9	92.5	7,274.7	7,191.7	83.02	87.631	
12,700.0	5,892.0	5,333.3	5,323.8	136.4	12.2	-27.43	-157.9	92.5	7,374.4	7,290.2	84.11	87.676	
12,800.0	5,892.0	5,333.3	5,323.8	138.3	12.2	-27.43	-157.9	92.5	7,474.0	7,388.8	85.20	87.721	
12,900.0	5,892.0	5,333.3	5,323.8	140.2	12.2	-27.43	-157.9	92.5	7,573.6	7,487.3	86.30	87.764	
13,000.0	5,892.0	5,333.3	5,323.8	142.1	12.2	-27.43	-157.9	92.5	7,673.3	7,585.9	87.39	87.806	
13,100.0	5,892.0	5,333.3	5,323.8	144.0	12.2	-27.43	-157.9	92.5	7,772.9	7,684.4	88.48	87.847	
13,200.0	5,892.0	5,333.3	5,323.8	145.9	12.2	-27.43	-157.9	92.5	7,872.6	7,783.0	89.58	87.887	
13,300.0	5,892.0	5,333.3	5,323.8	147.8	12.2	-27.43	-157.9	92.5	7,972.3	7,881.6	90.67	87.926	
13,400.0	5,892.0	5,333.3	5,323.8	149.7	12.2	-27.43	-157.9	92.5	8,071.9	7,980.2	91.76	87.964	
13,416.7	5,892.0	5,333.3	5,323.8	150.1	12.2	-27.43	-157.9	92.5	8,088.6	7,996.6	91.95	87.970	

Company:	Whiting Oil & Gas	**Local Co-ordinate Reference:**	Well Razor #21D-0904B
Project:	SEC.21-T10N-R58W	**TVD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Reference Site:	Razor #21D Pad Sec.21-T10N-R58W	**MD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Razor #21D-0904B	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (12-09-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Razor #21D Pad Sec.21-T10N-R58W - Razor #21D-2804B - Wellbore #1 - Plan #1 (12-09-13) — **Offset Site Error:** 0.0 ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	90.00	0.0	32.9	32.9				
100.0	100.0	100.0	100.0	0.1	0.1	90.00	0.0	32.9	32.9	32.7	0.22	146.519	
200.0	200.0	200.0	200.0	0.3	0.3	90.00	0.0	32.9	32.9	32.3	0.67	48.840	
300.0	300.0	300.0	300.0	0.6	0.6	90.00	0.0	32.9	32.9	31.8	1.12	29.304	
400.0	400.0	400.0	400.0	0.8	0.8	90.00	0.0	32.9	32.9	31.4	1.57	20.931	
500.0	500.0	500.0	500.0	1.0	1.0	90.00	0.0	32.9	32.9	30.9	2.02	16.280	
600.0	600.0	600.0	600.0	1.2	1.2	90.00	0.0	32.9	32.9	30.5	2.47	13.320	
700.0	700.0	700.0	700.0	1.5	1.5	90.00	0.0	32.9	32.9	30.0	2.92	11.271	
800.0	800.0	800.0	800.0	1.7	1.7	90.00	0.0	32.9	32.9	29.6	3.37	9.768	
900.0	900.0	900.0	900.0	1.9	1.9	90.00	0.0	32.9	32.9	29.1	3.82	8.619	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	90.00	0.0	32.9	32.9	28.7	4.27	7.712	CC, ES
1,100.0	1,100.0	1,099.2	1,099.2	2.4	2.3	92.17	-1.3	34.1	34.1	29.4	4.69	7.265	SF
1,200.0	1,200.0	1,198.2	1,198.1	2.6	2.5	97.82	-5.1	37.5	37.9	32.8	5.10	7.423	
1,300.0	1,300.0	1,298.0	1,297.6	2.8	2.7	103.68	-10.2	41.9	43.2	37.7	5.52	7.829	
1,400.0	1,400.0	1,397.8	1,397.2	3.0	2.9	108.22	-15.3	46.4	48.9	43.0	5.94	8.227	
1,500.0	1,500.0	1,497.5	1,496.7	3.3	3.1	111.80	-20.3	50.8	54.8	48.5	6.37	8.603	
1,600.0	1,600.0	1,597.3	1,596.2	3.5	3.4	114.67	-25.4	55.3	60.9	54.1	6.81	8.950	
1,700.0	1,700.0	1,697.1	1,695.8	3.7	3.6	117.01	-30.4	59.7	67.2	59.9	7.25	9.269	
1,800.0	1,800.0	1,796.9	1,795.3	3.9	3.8	118.95	-35.5	64.2	73.5	65.8	7.69	9.560	
1,900.0	1,900.0	1,896.6	1,894.9	4.2	4.1	120.59	-40.6	68.6	79.9	71.8	8.13	9.825	
2,000.0	2,000.0	1,996.4	1,994.4	4.4	4.3	121.98	-45.6	73.1	86.3	77.8	8.58	10.067	
2,100.0	2,100.0	2,096.1	2,093.9	4.6	4.5	102.20	-50.7	77.5	93.2	84.2	8.97	10.393	
2,200.0	2,199.8	2,195.6	2,193.1	4.8	4.8	105.90	-55.7	82.0	101.1	91.7	9.40	10.755	
2,300.0	2,299.6	2,294.9	2,292.2	5.1	5.0	110.03	-60.8	86.4	109.9	100.1	9.83	11.178	
2,400.0	2,399.4	2,394.2	2,391.3	5.3	5.3	113.52	-65.8	90.8	119.2	108.9	10.27	11.607	
2,500.0	2,499.1	2,493.5	2,490.4	5.5	5.5	116.50	-70.8	95.3	128.9	118.2	10.72	12.030	
2,600.0	2,598.9	2,592.8	2,589.5	5.7	5.8	119.07	-75.9	99.7	138.9	127.8	11.16	12.443	
2,700.0	2,698.6	2,692.2	2,688.6	6.0	6.0	121.28	-80.9	104.1	149.2	137.5	11.62	12.841	
2,800.0	2,798.4	2,791.5	2,787.7	6.2	6.3	123.21	-85.9	108.6	159.6	147.5	12.07	13.223	
2,900.0	2,898.2	2,890.8	2,886.8	6.4	6.5	124.90	-91.0	113.0	170.2	157.6	12.52	13.587	
3,000.0	2,997.9	2,990.1	2,985.9	6.7	6.8	126.39	-96.0	117.4	180.9	167.9	12.98	13.934	
3,100.0	3,097.7	3,089.4	3,085.0	6.9	7.0	127.71	-101.1	121.9	191.7	178.3	13.44	14.264	
3,200.0	3,197.4	3,188.8	3,184.1	7.2	7.3	128.90	-106.1	126.3	202.6	188.7	13.90	14.578	
3,300.0	3,297.2	3,288.1	3,283.2	7.4	7.5	129.96	-111.1	130.7	213.6	199.2	14.36	14.875	
3,400.0	3,396.9	3,387.4	3,382.2	7.6	7.8	130.92	-116.2	135.2	224.7	209.8	14.82	15.158	
3,500.0	3,496.7	3,486.7	3,481.3	7.9	8.0	131.78	-121.2	139.6	235.8	220.5	15.28	15.426	
3,600.0	3,596.5	3,586.0	3,580.4	8.1	8.3	132.57	-126.2	144.0	246.9	231.2	15.75	15.681	
3,700.0	3,696.2	3,685.4	3,679.5	8.4	8.5	133.29	-131.3	148.5	258.1	241.9	16.21	15.923	
3,800.0	3,796.0	3,784.7	3,778.6	8.6	8.8	133.95	-136.3	152.9	269.4	252.7	16.68	16.153	
3,900.0	3,895.7	3,884.0	3,877.7	8.9	9.0	134.56	-141.4	157.3	280.6	263.5	17.14	16.373	
4,000.0	3,995.5	3,983.3	3,976.8	9.1	9.3	135.12	-146.4	161.8	291.9	274.3	17.61	16.582	
4,100.0	4,095.3	4,082.6	4,075.9	9.4	9.5	135.64	-151.4	166.2	303.3	285.2	18.07	16.781	
4,200.0	4,195.0	4,182.0	4,175.0	9.6	9.8	136.13	-156.5	170.6	314.6	296.1	18.54	16.971	
4,300.0	4,294.8	4,281.3	4,274.1	9.9	10.1	136.57	-161.5	175.1	326.0	307.0	19.01	17.152	
4,400.0	4,394.5	4,380.6	4,373.2	10.1	10.3	136.99	-166.5	179.5	337.4	317.9	19.47	17.326	
4,500.0	4,494.3	4,479.9	4,472.3	10.4	10.6	137.38	-171.6	183.9	348.8	328.8	19.94	17.491	
4,600.0	4,594.1	4,579.2	4,571.4	10.6	10.8	137.75	-176.6	188.4	360.2	339.8	20.41	17.650	
4,700.0	4,693.8	4,678.6	4,670.5	10.9	11.1	138.09	-181.6	192.8	371.6	350.8	20.88	17.802	
4,800.0	4,793.6	4,777.9	4,769.6	11.1	11.3	138.41	-186.7	197.2	383.1	361.7	21.34	17.948	
4,900.0	4,893.3	4,877.2	4,868.6	11.4	11.6	138.72	-191.7	201.6	394.5	372.7	21.81	18.088	
5,000.0	4,993.1	4,976.5	4,967.7	11.6	11.9	139.01	-196.8	206.1	406.0	383.7	22.28	18.222	
5,100.0	5,092.9	5,075.9	5,066.8	11.9	12.1	139.28	-201.8	210.5	417.5	394.7	22.75	18.351	

Company:	Whiting Oil & Gas	**Local Co-ordinate Reference:**	Well Razor #21D-0904B
Project:	SEC.21-T10N-R58W	**TVD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Reference Site:	Razor #21D Pad Sec.21-T10N-R58W	**MD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Razor #21D-0904B	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (12-09-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Razor #21D Pad Sec.21-T10N-R58W - Razor #21D-2804B - Wellbore #1 - Plan #1 (12-09-13) — **Offset Site Error:** 0.0 ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,200.0	5,192.6	5,175.2	5,165.9	12.1	12.4	139.53	-206.8	214.9	429.0	405.8	23.22	18.475	
5,300.0	5,292.4	5,274.5	5,265.0	12.4	12.6	139.78	-211.9	219.4	440.5	416.8	23.69	18.594	
5,400.0	5,392.1	5,373.8	5,364.1	12.6	12.9	140.01	-216.9	223.8	452.0	427.8	24.16	18.709	
5,500.0	5,491.0	5,450.0	5,440.0	12.9	13.1	140.37	-221.9	227.7	470.6	446.3	24.28	19.381	
5,600.0	5,585.6	5,500.0	5,489.2	13.3	13.3	138.58	-229.9	232.0	511.6	487.6	24.03	21.293	
5,700.0	5,672.2	5,528.1	5,516.4	13.9	13.4	134.03	-236.3	235.1	572.1	548.3	23.78	24.058	
5,800.0	5,747.8	5,550.0	5,537.2	14.6	13.5	125.58	-242.2	237.9	647.8	623.5	24.35	26.609	
5,900.0	5,809.5	5,572.1	5,558.0	15.5	13.6	111.61	-249.0	241.0	733.6	707.1	26.50	27.687	
6,000.0	5,855.1	5,580.0	5,565.4	16.5	13.6	88.60	-251.7	242.2	825.0	795.8	29.17	28.285	
6,100.0	5,883.0	5,580.2	5,565.6	17.8	13.6	62.19	-251.7	242.3	917.8	890.0	27.83	32.979	
6,200.0	5,892.0	5,573.8	5,559.6	19.2	13.6	42.57	-249.6	241.3	1,008.9	985.5	23.48	42.970	
6,300.0	5,892.0	5,550.0	5,537.2	20.5	13.5	35.13	-242.2	237.9	1,100.2	1,078.4	21.80	50.457	
6,400.0	5,892.0	5,550.0	5,537.2	21.8	13.5	28.63	-242.2	237.9	1,193.2	1,173.0	20.26	58.895	
6,500.0	5,892.0	5,550.0	5,537.2	23.3	13.5	20.42	-242.2	237.9	1,288.1	1,270.2	17.92	71.872	
6,600.0	5,892.0	5,550.0	5,537.2	24.7	13.5	10.35	-242.2	237.9	1,384.2	1,368.9	15.27	90.665	
6,700.0	5,892.0	5,550.0	5,537.2	26.2	13.5	-1.26	-242.2	237.9	1,481.1	1,466.9	14.16	104.572	
6,800.0	5,892.0	5,526.7	5,515.0	27.7	13.4	-13.27	-235.9	234.9	1,577.6	1,561.0	16.64	94.784	
6,900.0	5,892.0	5,520.4	5,508.9	29.3	13.4	-21.80	-234.4	234.2	1,674.5	1,654.1	20.40	82.073	
7,000.0	5,892.0	5,500.0	5,489.2	30.8	13.3	-21.10	-229.9	232.0	1,771.8	1,750.9	20.89	84.799	
7,100.0	5,892.0	5,500.0	5,489.2	32.4	13.3	-21.10	-229.9	232.0	1,869.0	1,847.2	21.73	86.028	
7,200.0	5,892.0	5,500.0	5,489.2	34.1	13.3	-21.10	-229.9	232.0	1,966.4	1,943.8	22.57	87.116	
7,300.0	5,892.0	5,500.0	5,489.2	35.8	13.3	-21.10	-229.9	232.0	2,064.1	2,040.6	23.43	88.085	
7,400.0	5,892.0	5,500.0	5,489.2	37.4	13.3	-21.10	-229.9	232.0	2,162.0	2,137.7	24.31	88.951	
7,500.0	5,892.0	5,500.0	5,489.2	39.2	13.3	-21.10	-229.9	232.0	2,260.0	2,234.9	25.19	89.728	
7,600.0	5,892.0	5,500.0	5,489.2	40.9	13.3	-21.10	-229.9	232.0	2,358.3	2,332.2	26.08	90.428	
7,700.0	5,892.0	5,500.0	5,489.2	42.6	13.3	-21.10	-229.9	232.0	2,456.7	2,429.7	26.98	91.063	
7,800.0	5,892.0	5,500.0	5,489.2	44.4	13.3	-21.10	-229.9	232.0	2,555.2	2,527.3	27.88	91.639	
7,900.0	5,892.0	5,478.2	5,467.8	46.2	13.2	-20.37	-225.9	229.9	2,653.3	2,624.9	28.34	93.610	
8,000.0	5,892.0	5,475.3	5,465.0	48.0	13.2	-20.28	-225.4	229.6	2,751.8	2,722.7	29.19	94.277	
8,100.0	5,892.0	5,472.7	5,462.4	49.8	13.2	-20.19	-225.0	229.4	2,850.5	2,820.5	30.04	94.893	
8,200.0	5,892.0	5,450.0	5,440.0	51.6	13.1	-19.47	-221.9	227.7	2,949.7	2,919.2	30.47	96.813	
8,300.0	5,892.0	5,450.0	5,440.0	53.4	13.1	-19.47	-221.9	227.7	3,048.4	3,017.0	31.37	97.184	
8,400.0	5,892.0	5,450.0	5,440.0	55.2	13.1	-19.47	-221.9	227.7	3,147.2	3,114.9	32.27	97.528	
8,500.0	5,892.0	5,450.0	5,440.0	57.0	13.1	-19.47	-221.9	227.7	3,246.1	3,212.9	33.17	97.847	
8,600.0	5,892.0	5,450.0	5,440.0	58.9	13.1	-19.47	-221.9	227.7	3,345.0	3,310.9	34.08	98.143	
8,700.0	5,892.0	5,450.0	5,440.0	60.7	13.1	-19.47	-221.9	227.7	3,444.0	3,409.0	34.99	98.420	
8,800.0	5,892.0	5,450.0	5,440.0	62.6	13.1	-19.47	-221.9	227.7	3,543.0	3,507.1	35.91	98.678	
8,900.0	5,892.0	5,450.0	5,440.0	64.4	13.1	-19.47	-221.9	227.7	3,642.1	3,605.3	36.82	98.920	
9,000.0	5,892.0	5,450.0	5,440.0	66.3	13.1	-19.47	-221.9	227.7	3,741.3	3,703.6	37.73	99.147	
9,100.0	5,892.0	5,450.0	5,440.0	68.1	13.1	-19.47	-221.9	227.7	3,840.5	3,801.8	38.65	99.360	
9,200.0	5,892.0	5,450.0	5,440.0	70.0	13.1	-19.47	-221.9	227.7	3,939.7	3,900.2	39.57	99.561	
9,300.0	5,892.0	5,450.0	5,440.0	71.9	13.1	-19.47	-221.9	227.7	4,039.0	3,998.5	40.49	99.751	
9,400.0	5,892.0	5,450.0	5,440.0	73.7	13.1	-19.47	-221.9	227.7	4,138.3	4,096.9	41.41	99.929	
9,500.0	5,892.0	5,450.0	5,440.0	75.6	13.1	-19.47	-221.9	227.7	4,237.7	4,195.3	42.33	100.099	
9,600.0	5,892.0	5,450.0	5,440.0	77.5	13.1	-19.47	-221.9	227.7	4,337.0	4,293.8	43.26	100.259	
9,700.0	5,892.0	5,450.0	5,440.0	79.4	13.1	-19.47	-221.9	227.7	4,436.4	4,392.3	44.18	100.411	
9,800.0	5,892.0	5,450.0	5,440.0	81.2	13.1	-19.47	-221.9	227.7	4,535.9	4,490.8	45.11	100.555	
9,900.0	5,892.0	5,450.0	5,440.0	83.1	13.1	-19.47	-221.9	227.7	4,635.3	4,589.3	46.03	100.692	
10,000.0	5,892.0	5,450.0	5,440.0	85.0	13.1	-19.47	-221.9	227.7	4,734.8	4,687.8	46.96	100.823	
10,100.0	5,892.0	5,450.0	5,440.0	86.9	13.1	-19.47	-221.9	227.7	4,834.3	4,786.4	47.89	100.947	
10,200.0	5,892.0	5,450.0	5,440.0	88.8	13.1	-19.47	-221.9	227.7	4,933.8	4,885.0	48.82	101.066	
10,300.0	5,892.0	5,450.0	5,440.0	90.7	13.1	-19.47	-221.9	227.7	5,033.3	4,983.6	49.75	101.180	

Company:	Whiting Oil & Gas	**Local Co-ordinate Reference:**	Well Razor #21D-0904B
Project:	SEC.21-T10N-R58W	**TVD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Reference Site:	Razor #21D Pad Sec.21-T10N-R58W	**MD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Razor #21D-0904B	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (12-09-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Razor #21D Pad Sec.21-T10N-R58W - Razor #21D-2804B - Wellbore #1 - Plan #1 (12-09-13)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

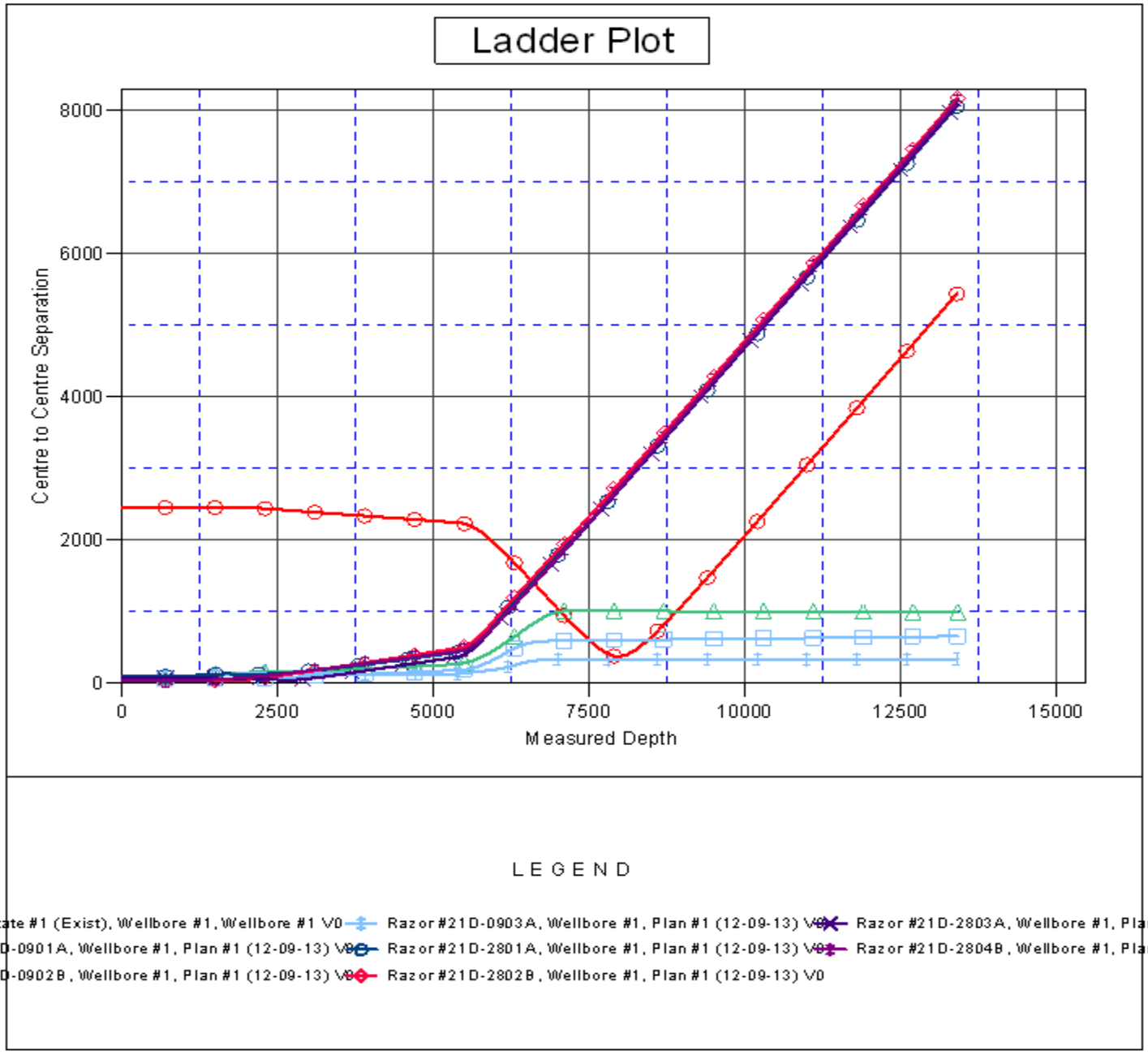
Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,400.0	5,892.0	5,450.0	5,440.0	92.6	13.1	-19.47	-221.9	227.7	5,132.9	5,082.2	50.68	101.288	
10,500.0	5,892.0	5,450.0	5,440.0	94.5	13.1	-19.47	-221.9	227.7	5,232.5	5,180.9	51.61	101.392	
10,600.0	5,892.0	5,450.0	5,440.0	96.3	13.1	-19.47	-221.9	227.7	5,332.1	5,279.5	52.54	101.491	
10,700.0	5,892.0	5,450.0	5,440.0	98.2	13.1	-19.47	-221.9	227.7	5,431.7	5,378.2	53.47	101.586	
10,800.0	5,892.0	5,450.0	5,440.0	100.1	13.1	-19.47	-221.9	227.7	5,531.3	5,476.9	54.40	101.678	
10,900.0	5,892.0	5,433.1	5,423.3	102.0	13.1	-18.94	-220.2	226.6	5,630.6	5,575.9	54.74	102.869	
11,000.0	5,892.0	5,432.4	5,422.5	103.9	13.0	-18.91	-220.2	226.5	5,730.2	5,674.6	55.63	103.003	
11,100.0	5,892.0	5,431.6	5,421.8	105.8	13.0	-18.89	-220.1	226.5	5,829.9	5,773.3	56.53	103.131	
11,200.0	5,892.0	5,430.9	5,421.1	107.7	13.0	-18.87	-220.1	226.5	5,929.5	5,872.1	57.43	103.256	
11,300.0	5,892.0	5,414.1	5,404.3	109.6	13.0	-18.35	-218.9	225.6	6,029.4	5,971.7	57.74	104.428	
11,400.0	5,892.0	5,414.1	5,404.3	111.5	13.0	-18.35	-218.9	225.6	6,129.1	6,070.4	58.65	104.500	
11,500.0	5,892.0	5,414.1	5,404.3	113.5	13.0	-18.35	-218.9	225.6	6,228.7	6,169.2	59.57	104.569	
11,600.0	5,892.0	5,414.1	5,404.3	115.4	13.0	-18.35	-218.9	225.6	6,328.4	6,267.9	60.48	104.635	
11,700.0	5,892.0	5,414.1	5,404.3	117.3	13.0	-18.35	-218.9	225.6	6,428.1	6,366.7	61.40	104.700	
11,800.0	5,892.0	5,414.1	5,404.3	119.2	13.0	-18.35	-218.9	225.6	6,527.7	6,465.4	62.31	104.762	
11,900.0	5,892.0	5,414.1	5,404.3	121.1	13.0	-18.35	-218.9	225.6	6,627.4	6,564.2	63.23	104.822	
12,000.0	5,892.0	5,414.1	5,404.3	123.0	13.0	-18.35	-218.9	225.6	6,727.1	6,663.0	64.14	104.880	
12,100.0	5,892.0	5,414.1	5,404.3	124.9	13.0	-18.35	-218.9	225.6	6,826.9	6,761.8	65.06	104.937	
12,200.0	5,892.0	5,414.1	5,404.3	126.8	13.0	-18.35	-218.9	225.6	6,926.6	6,860.6	65.97	104.991	
12,300.0	5,892.0	5,414.1	5,404.3	128.7	13.0	-18.35	-218.9	225.6	7,026.3	6,959.4	66.89	105.044	
12,400.0	5,892.0	5,414.1	5,404.3	130.6	13.0	-18.35	-218.9	225.6	7,126.0	7,058.2	67.81	105.095	
12,500.0	5,892.0	5,414.1	5,404.3	132.5	13.0	-18.35	-218.9	225.6	7,225.8	7,157.1	68.72	105.145	
12,600.0	5,892.0	5,414.1	5,404.3	134.4	13.0	-18.35	-218.9	225.6	7,325.5	7,255.9	69.64	105.193	
12,700.0	5,892.0	5,414.1	5,404.3	136.4	13.0	-18.35	-218.9	225.6	7,425.3	7,354.7	70.56	105.240	
12,800.0	5,892.0	5,414.1	5,404.3	138.3	13.0	-18.35	-218.9	225.6	7,525.1	7,453.6	71.47	105.285	
12,900.0	5,892.0	5,414.1	5,404.3	140.2	13.0	-18.35	-218.9	225.6	7,624.8	7,552.4	72.39	105.329	
13,000.0	5,892.0	5,414.1	5,404.3	142.1	13.0	-18.35	-218.9	225.6	7,724.6	7,651.3	73.31	105.372	
13,100.0	5,892.0	5,414.1	5,404.3	144.0	13.0	-18.35	-218.9	225.6	7,824.4	7,750.2	74.23	105.414	
13,200.0	5,892.0	5,414.1	5,404.3	145.9	13.0	-18.35	-218.9	225.6	7,924.2	7,849.0	75.14	105.454	
13,300.0	5,892.0	5,414.1	5,404.3	147.8	13.0	-18.35	-218.9	225.6	8,024.0	7,947.9	76.06	105.494	
13,400.0	5,892.0	5,414.1	5,404.3	149.7	13.0	-18.35	-218.9	225.6	8,123.8	8,046.8	76.98	105.532	
13,416.7	5,892.0	5,414.1	5,404.3	150.1	13.0	-18.35	-218.9	225.6	8,140.4	8,063.2	77.13	105.538	

Company:	Whiting Oil & Gas	**Local Co-ordinate Reference:**	Well Razor #21D-0904B
Project:	SEC.21-T10N-R58W	**TVD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Reference Site:	Razor #21D Pad Sec.21-T10N-R58W	**MD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Razor #21D-0904B	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (12-09-13)	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to WELL @ 4859.7ft (RKB - 17.3')
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: Razor #21D-0904B
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 1.05°



Company:	Whiting Oil & Gas	**Local Co-ordinate Reference:**	Well Razor #21D-0904B
Project:	SEC.21-T10N-R58W	**TVD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Reference Site:	Razor #21D Pad Sec.21-T10N-R58W	**MD Reference:**	WELL @ 4859.7ft (RKB - 17.3')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Razor #21D-0904B	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (12-09-13)	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to WELL @ 4859.7ft (RKB - 17.3')	Coordinates are relative to: Razor #21D-0904B
Offset Depths are relative to Offset Datum	Coordinate System is US State Plane 1983, Colorado Northern Zone
Central Meridian is -105.500000 °	Grid Convergence at Surface is: 1.05°