



Project: Weld County, CO
Site: Sec 25-T10N-R58W
Well: Razor #25B-2550
Wellbore: Hz
Design: APD

PROJECT DETAILS: Weld County, CO
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Northern Zone
System Datum: Mean Sea Level



Azimuths to True North
Magnetic North: 7.85°
Magnetic Field
Strength: 53038.3snT
Dip Angle: 67.40°
Date: 4/17/2015
Model: IGRF2010

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
1550.00	1570.24	Upper Pierre
3500.00	3567.59	Hygiene
3650.00	3721.23	Lower Pierre
5480.00	5645.82	P200 Marker
5500.00	5682.41	P300 Marker
5516.00	5715.08	P350 Marker
5530.00	5747.29	Sharon Springs
5534.00	5757.35	Niobrara
5551.00	5806.66	Top A Chalk

WELL DETAILS: Razor #25B-2550

+N/-S	+E/-W	Northing	Ground Level:	Easting	Latitude	Longitude	Spot
0.00	0.00	1544619.42	4757.00	3467509.59	40° 48' 58.100 N	103° 48' 39.320 W	

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	925.00	12.50	325.00	920.05	55.63	-38.95	2.00	325.00	-51.87	
4	4435.00	12.50	325.00	4346.85	677.94	-474.70	0.00	0.00	-632.16	
5	5060.00	0.00	0.00	4966.90	733.56	-513.65	2.00	180.00	-684.03	
6	5147.23	0.00	0.00	5054.13	733.56	-513.65	0.00	0.00	-684.03	
7	5965.41	90.00	178.71	5575.00	212.83	-501.92	11.00	178.71	-166.49	PBHL 2550
8	10560.57	90.00	178.71	5575.00	-4381.17	-398.45	0.00	0.00	4399.25	PBHL 2550

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSec	Departure	Annotation
300.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	Build 2°/100'
920.05	925.00	12.50	325.00	55.63	-38.95	-51.87	67.91	Hold 12.50° Inc
4346.85	4435.00	12.50	325.00	677.94	-474.70	-632.16	827.61	Drop 2°/100'
4966.90	5060.00	0.00	0.00	733.56	-513.65	-684.03	895.52	Hold Vertical
5054.13	5147.23	0.00	0.00	733.56	-513.65	-684.03	895.52	KOP, Build 11°/100'
5575.00	5965.41	90.00	178.71	212.83	-501.92	-166.49	1416.39	LP @ 90° Inc, Hold
5575.00	10560.57	90.00	178.71	-4381.17	-398.45	4399.25	6011.54	TD at 10560.57' MD

DESIGN TARGET DETAILS

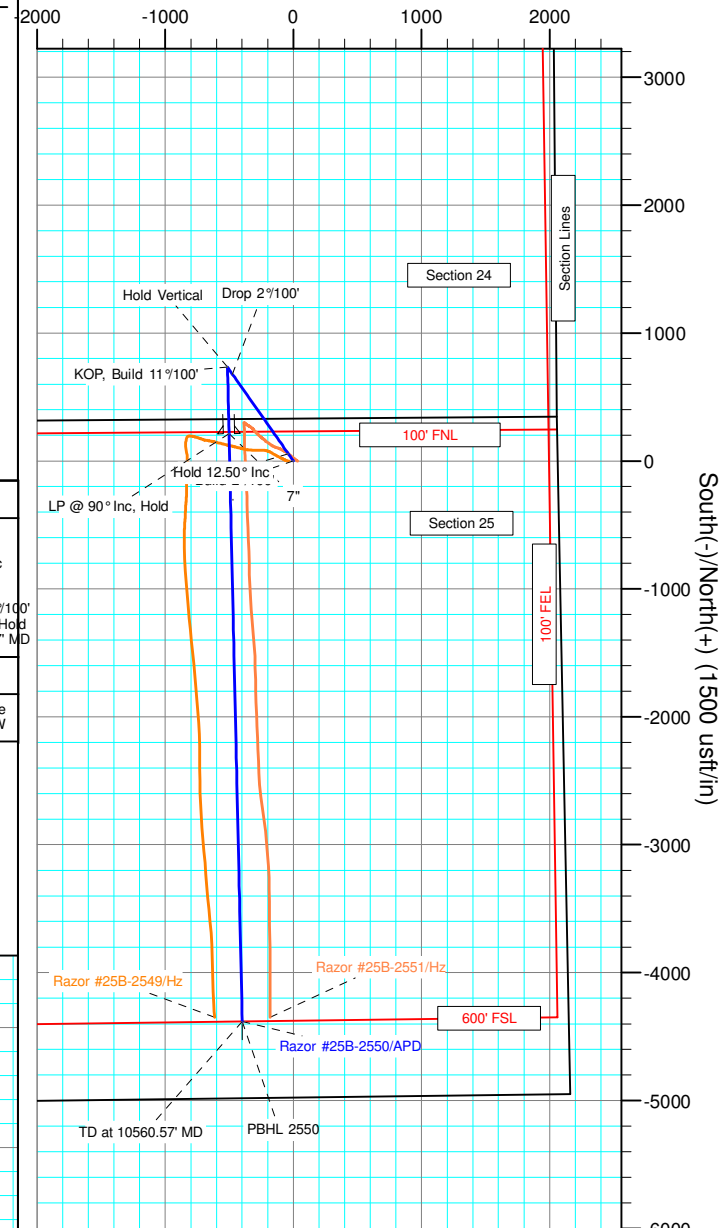
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL 2550	5575.00	-4381.17	-398.45	1540231.46	3467194.65	40° 48' 14.810 N	103° 48' 44.501 W

SHL:
329' FNL, 2060' FEL
Sec25-T10N-R58W

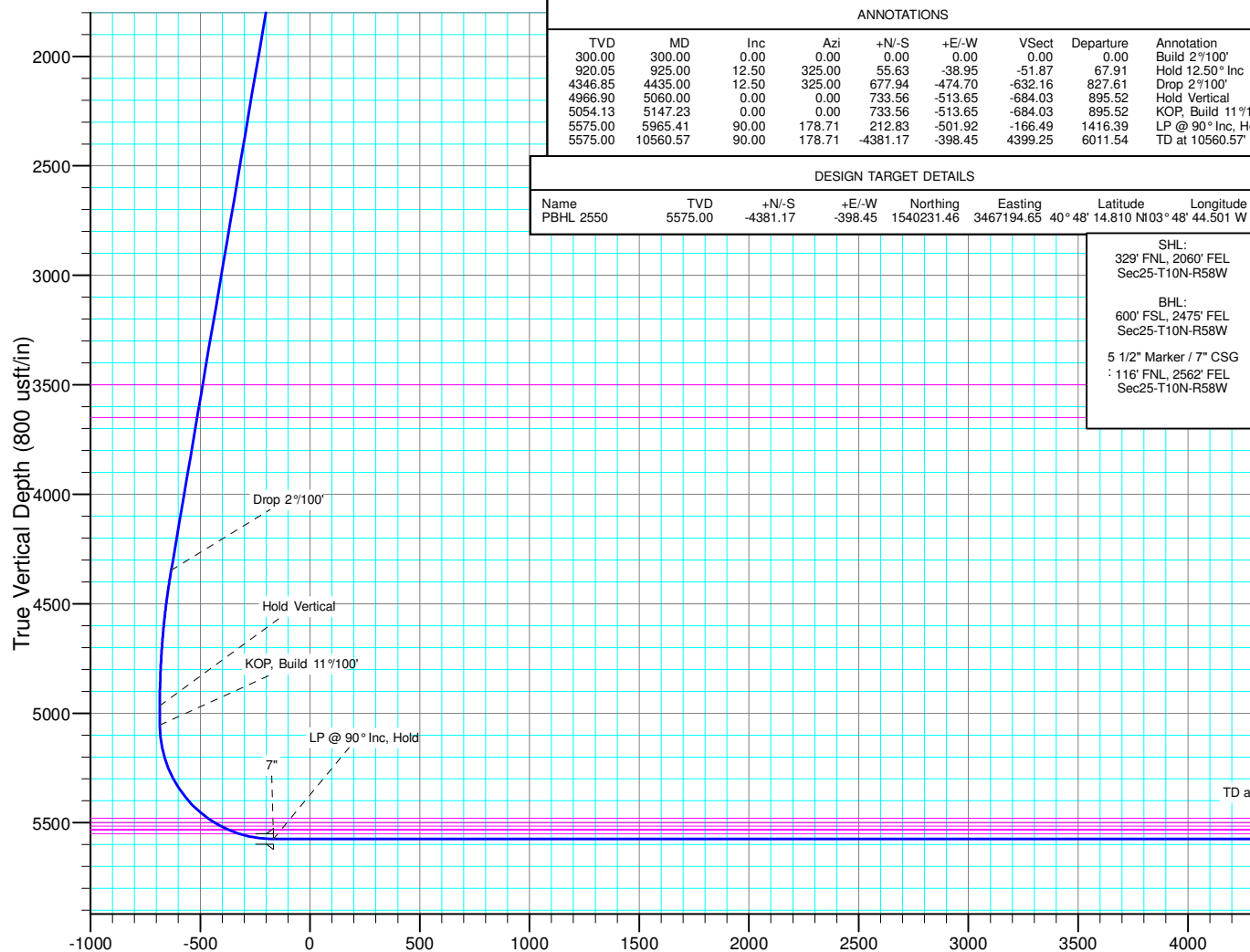
BHL:
600' FSL, 2475' FEL
Sec25-T10N-R58W

5 1/2" Marker / 7" CSG
116' FNL, 2562' FEL
Sec25-T10N-R58W

West(-)/East(+) (1500 usft/in)



South(-)/North(+) (1500 usft/in)



Vertical Section at 185.20° (800 usft/in)



Whiting Petroleum Corp.

**Weld County, CO
Sec 25-T10N-R58W
Razor #25B-2550**

Hz

Plan: APD

Standard Planning Report

22 April, 2015



WOG

Planning Report

Database:	LandmarkEDM	Local Co-ordinate Reference:	Well Razor #25B-2550
Company:	Whiting Petroleum Corp.	TVD Reference:	KBE @ 4778.00usft (Original Well Elev)
Project:	Weld County, CO	MD Reference:	KBE @ 4778.00usft (Original Well Elev)
Site:	Sec 25-T10N-R58W	North Reference:	True
Well:	Razor #25B-2550	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	APD		

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

Site	Sec 25-T10N-R58W			
Site Position:		Northing:	1,544,564.45 usft	Latitude: 40° 48' 58.050 N
From:	Lat/Long	Easting:	3,464,883.62 usft	Longitude: 103° 49' 13.480 W
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence: 1.09 °

Well	Razor #25B-2550			
Well Position	+N/-S	5.22 usft	Northing:	1,544,619.42 usft
	+E/-W	2,626.53 usft	Easting:	3,467,509.58 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:		Ground Level: 4,757.00 usft

Wellbore	Hz				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	4/17/2015	7.85	67.40	53,038

Design	APD			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	185.20

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
925.00	12.50	325.00	920.05	55.63	-38.95	2.00	2.00	0.00	325.00	
4,435.00	12.50	325.00	4,346.85	677.94	-474.70	0.00	0.00	0.00	0.00	
5,060.00	0.00	0.00	4,966.90	733.56	-513.65	2.00	-2.00	0.00	180.00	
5,147.23	0.00	0.00	5,054.13	733.56	-513.65	0.00	0.00	0.00	0.00	
5,965.41	90.00	178.71	5,575.00	212.83	-501.92	11.00	11.00	0.00	178.71	PBHL 2550
10,560.57	90.00	178.71	5,575.00	-4,381.17	-398.45	0.00	0.00	0.00	0.00	PBHL 2550



WOG

Planning Report

Database:	LandmarkEDM	Local Co-ordinate Reference:	Well Razor #25B-2550
Company:	Whiting Petroleum Corp.	TVD Reference:	KBE @ 4778.00usft (Original Well Elev)
Project:	Weld County, CO	MD Reference:	KBE @ 4778.00usft (Original Well Elev)
Site:	Sec 25-T10N-R58W	North Reference:	True
Well:	Razor #25B-2550	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	APD		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
Build 2°/100'									
400.00	2.00	325.00	399.98	1.43	-1.00	-1.33	2.00	2.00	0.00
500.00	4.00	325.00	499.84	5.72	-4.00	-5.33	2.00	2.00	0.00
600.00	6.00	325.00	599.45	12.86	-9.00	-11.99	2.00	2.00	0.00
700.00	8.00	325.00	698.70	22.84	-15.99	-21.30	2.00	2.00	0.00
800.00	10.00	325.00	797.47	35.65	-24.96	-33.24	2.00	2.00	0.00
900.00	12.00	325.00	895.62	51.28	-35.91	-47.82	2.00	2.00	0.00
925.00	12.50	325.00	920.05	55.63	-38.95	-51.87	2.00	2.00	0.00
Hold 12.50° Inc									
1,000.00	12.50	325.00	993.28	68.92	-48.26	-64.27	0.00	0.00	0.00
1,100.00	12.50	325.00	1,090.91	86.65	-60.68	-80.80	0.00	0.00	0.00
1,200.00	12.50	325.00	1,188.54	104.38	-73.09	-97.33	0.00	0.00	0.00
1,300.00	12.50	325.00	1,286.16	122.11	-85.50	-113.87	0.00	0.00	0.00
1,400.00	12.50	325.00	1,383.79	139.84	-97.92	-130.40	0.00	0.00	0.00
1,500.00	12.50	325.00	1,481.42	157.57	-110.33	-146.93	0.00	0.00	0.00
1,570.24	12.50	325.00	1,550.00	170.03	-119.05	-158.54	0.00	0.00	0.00
Upper Pierre									
1,600.00	12.50	325.00	1,579.05	175.30	-122.75	-163.46	0.00	0.00	0.00
1,700.00	12.50	325.00	1,676.68	193.03	-135.16	-180.00	0.00	0.00	0.00
1,800.00	12.50	325.00	1,774.31	210.76	-147.58	-196.53	0.00	0.00	0.00
1,900.00	12.50	325.00	1,871.94	228.49	-159.99	-213.06	0.00	0.00	0.00
2,000.00	12.50	325.00	1,969.57	246.22	-172.41	-229.59	0.00	0.00	0.00
2,100.00	12.50	325.00	2,067.20	263.95	-184.82	-246.13	0.00	0.00	0.00
2,200.00	12.50	325.00	2,164.83	281.68	-197.23	-262.66	0.00	0.00	0.00
2,300.00	12.50	325.00	2,262.46	299.41	-209.65	-279.19	0.00	0.00	0.00
2,400.00	12.50	325.00	2,360.09	317.14	-222.06	-295.72	0.00	0.00	0.00
2,500.00	12.50	325.00	2,457.72	334.87	-234.48	-312.26	0.00	0.00	0.00
2,600.00	12.50	325.00	2,555.35	352.60	-246.89	-328.79	0.00	0.00	0.00
2,700.00	12.50	325.00	2,652.98	370.33	-259.31	-345.32	0.00	0.00	0.00
2,800.00	12.50	325.00	2,750.61	388.06	-271.72	-361.85	0.00	0.00	0.00
2,900.00	12.50	325.00	2,848.24	405.79	-284.14	-378.39	0.00	0.00	0.00
3,000.00	12.50	325.00	2,945.87	423.52	-296.55	-394.92	0.00	0.00	0.00
3,100.00	12.50	325.00	3,043.50	441.25	-308.96	-411.45	0.00	0.00	0.00
3,200.00	12.50	325.00	3,141.13	458.98	-321.38	-427.98	0.00	0.00	0.00
3,300.00	12.50	325.00	3,238.76	476.71	-333.79	-444.51	0.00	0.00	0.00
3,400.00	12.50	325.00	3,336.39	494.44	-346.21	-461.05	0.00	0.00	0.00
3,500.00	12.50	325.00	3,434.02	512.17	-358.62	-477.58	0.00	0.00	0.00
3,567.59	12.50	325.00	3,500.00	524.15	-367.01	-488.75	0.00	0.00	0.00
Hygiene									
3,600.00	12.50	325.00	3,531.65	529.90	-371.04	-494.11	0.00	0.00	0.00
3,700.00	12.50	325.00	3,629.28	547.63	-383.45	-510.64	0.00	0.00	0.00
3,721.23	12.50	325.00	3,650.00	551.39	-386.09	-514.15	0.00	0.00	0.00
Lower Pierre									
3,800.00	12.50	325.00	3,726.90	565.35	-395.87	-527.18	0.00	0.00	0.00
3,900.00	12.50	325.00	3,824.53	583.08	-408.28	-543.71	0.00	0.00	0.00
4,000.00	12.50	325.00	3,922.16	600.81	-420.69	-560.24	0.00	0.00	0.00
4,100.00	12.50	325.00	4,019.79	618.54	-433.11	-576.77	0.00	0.00	0.00
4,200.00	12.50	325.00	4,117.42	636.27	-445.52	-593.31	0.00	0.00	0.00
4,300.00	12.50	325.00	4,215.05	654.00	-457.94	-609.84	0.00	0.00	0.00
4,400.00	12.50	325.00	4,312.68	671.73	-470.35	-626.37	0.00	0.00	0.00



WOG Planning Report

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Project:	Weld County, CO	MD Reference:	KBE @ 4778.00usft (Original Well Elev)
Site:	Sec 25-T10N-R58W	North Reference:	True
Well:	Razor #25B-2550	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	APD		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,435.00	12.50	325.00	4,346.85	677.94	-474.70	-632.16	0.00	0.00	0.00
Drop 2°/100'									
4,500.00	11.20	325.00	4,410.47	688.87	-482.35	-642.35	2.00	-2.00	0.00
4,600.00	9.20	325.00	4,508.88	703.38	-492.51	-655.88	2.00	-2.00	0.00
4,700.00	7.20	325.00	4,607.85	715.06	-500.69	-666.77	2.00	-2.00	0.00
4,800.00	5.20	325.00	4,707.26	723.91	-506.88	-675.02	2.00	-2.00	0.00
4,900.00	3.20	325.00	4,806.99	729.91	-511.09	-680.62	2.00	-2.00	0.00
5,000.00	1.20	325.00	4,906.91	733.05	-513.29	-683.55	2.00	-2.00	0.00
5,060.00	0.00	0.00	4,966.90	733.56	-513.65	-684.03	2.00	-2.00	0.00
Hold Vertical									
5,100.00	0.00	0.00	5,006.91	733.56	-513.65	-684.03	0.00	0.00	0.00
5,147.23	0.00	0.00	5,054.13	733.56	-513.65	-684.03	0.00	0.00	0.00
KOP, Build 11°/100'									
5,150.00	0.30	178.71	5,056.91	733.56	-513.65	-684.02	11.00	11.00	0.00
5,200.00	5.80	178.71	5,106.82	730.89	-513.59	-681.37	11.00	11.00	0.00
5,250.00	11.30	178.71	5,156.24	723.46	-513.42	-673.99	11.00	11.00	0.00
5,300.00	16.81	178.71	5,204.73	711.33	-513.15	-661.93	11.00	11.00	0.00
5,350.00	22.31	178.71	5,251.82	694.60	-512.77	-645.30	11.00	11.00	0.00
5,400.00	27.81	178.71	5,297.10	673.44	-512.29	-624.27	11.00	11.00	0.00
5,450.00	33.31	178.71	5,340.14	648.04	-511.72	-599.03	11.00	11.00	0.00
5,500.00	38.81	178.71	5,380.55	618.63	-511.06	-569.80	11.00	11.00	0.00
5,550.00	44.31	178.71	5,417.95	585.48	-510.31	-536.86	11.00	11.00	0.00
5,600.00	49.81	178.71	5,452.00	548.91	-509.49	-500.50	11.00	11.00	0.00
5,645.82	54.85	178.71	5,480.00	512.66	-508.67	-464.48	11.00	11.00	0.00
P200 Marker									
5,650.00	55.31	178.71	5,482.39	509.23	-508.59	-461.08	11.00	11.00	0.00
5,682.41	58.87	178.71	5,500.00	482.03	-507.98	-434.04	11.00	11.00	0.00
P300 Marker									
5,700.00	60.81	178.71	5,508.84	466.83	-507.64	-418.94	11.00	11.00	0.00
5,715.08	62.46	178.71	5,516.00	453.57	-507.34	-405.75	11.00	11.00	0.00
P350 Marker									
5,747.29	66.01	178.71	5,530.00	424.57	-506.69	-376.93	11.00	11.00	0.00
Sharon Springs									
5,750.00	66.31	178.71	5,531.09	422.09	-506.63	-374.47	11.00	11.00	0.00
5,757.35	67.11	178.71	5,534.00	415.34	-506.48	-367.76	11.00	11.00	0.00
Niobrara									
5,800.00	71.81	178.71	5,548.96	375.43	-505.58	-328.09	11.00	11.00	0.00
5,806.66	72.54	178.71	5,551.00	369.09	-505.44	-321.79	11.00	11.00	0.00
Top A Chalk									
5,850.00	77.31	178.71	5,562.27	327.26	-504.50	-280.22	11.00	11.00	0.00
5,900.00	82.81	178.71	5,570.90	278.05	-503.39	-231.31	11.00	11.00	0.00
5,950.00	88.31	178.71	5,574.78	228.23	-502.27	-181.80	11.00	11.00	0.00
5,965.41	90.00	178.71	5,575.00	212.82	-501.92	-166.49	11.00	11.00	0.00
LP @ 90° Inc, Hold - 5 1/2" Marker / 7" CSG									
6,000.00	90.00	178.71	5,575.00	178.24	-501.14	-132.12	0.00	0.00	0.00
6,100.00	90.00	178.71	5,575.00	78.27	-498.89	-32.76	0.00	0.00	0.00
6,200.00	90.00	178.71	5,575.00	-21.71	-496.64	66.60	0.00	0.00	0.00
6,300.00	90.00	178.71	5,575.00	-121.68	-494.38	165.96	0.00	0.00	0.00
6,400.00	90.00	178.71	5,575.00	-221.66	-492.13	265.32	0.00	0.00	0.00
6,500.00	90.00	178.71	5,575.00	-321.63	-489.88	364.68	0.00	0.00	0.00
6,600.00	90.00	178.71	5,575.00	-421.60	-487.63	464.04	0.00	0.00	0.00
6,700.00	90.00	178.71	5,575.00	-521.58	-485.38	563.40	0.00	0.00	0.00



WOG

Planning Report

Database:	LandmarkEDM	Local Co-ordinate Reference:	Well Razor #25B-2550
Company:	Whiting Petroleum Corp.	TVD Reference:	KBE @ 4778.00usft (Original Well Elev)
Project:	Weld County, CO	MD Reference:	KBE @ 4778.00usft (Original Well Elev)
Site:	Sec 25-T10N-R58W	North Reference:	True
Well:	Razor #25B-2550	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	APD		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
6,800.00	90.00	178.71	5,575.00	-621.55	-483.13	662.76	0.00	0.00	0.00
6,900.00	90.00	178.71	5,575.00	-721.53	-480.87	762.12	0.00	0.00	0.00
7,000.00	90.00	178.71	5,575.00	-821.50	-478.62	861.48	0.00	0.00	0.00
7,100.00	90.00	178.71	5,575.00	-921.48	-476.37	960.84	0.00	0.00	0.00
7,200.00	90.00	178.71	5,575.00	-1,021.45	-474.12	1,060.20	0.00	0.00	0.00
7,300.00	90.00	178.71	5,575.00	-1,121.43	-471.87	1,159.56	0.00	0.00	0.00
7,400.00	90.00	178.71	5,575.00	-1,221.40	-469.62	1,258.92	0.00	0.00	0.00
7,500.00	90.00	178.71	5,575.00	-1,321.38	-467.36	1,358.28	0.00	0.00	0.00
7,600.00	90.00	178.71	5,575.00	-1,421.35	-465.11	1,457.64	0.00	0.00	0.00
7,700.00	90.00	178.71	5,575.00	-1,521.33	-462.86	1,557.00	0.00	0.00	0.00
7,800.00	90.00	178.71	5,575.00	-1,621.30	-460.61	1,656.36	0.00	0.00	0.00
7,900.00	90.00	178.71	5,575.00	-1,721.28	-458.36	1,755.72	0.00	0.00	0.00
8,000.00	90.00	178.71	5,575.00	-1,821.25	-456.11	1,855.07	0.00	0.00	0.00
8,100.00	90.00	178.71	5,575.00	-1,921.22	-453.85	1,954.43	0.00	0.00	0.00
8,200.00	90.00	178.71	5,575.00	-2,021.20	-451.60	2,053.79	0.00	0.00	0.00
8,300.00	90.00	178.71	5,575.00	-2,121.17	-449.35	2,153.15	0.00	0.00	0.00
8,400.00	90.00	178.71	5,575.00	-2,221.15	-447.10	2,252.51	0.00	0.00	0.00
8,500.00	90.00	178.71	5,575.00	-2,321.12	-444.85	2,351.87	0.00	0.00	0.00
8,600.00	90.00	178.71	5,575.00	-2,421.10	-442.60	2,451.23	0.00	0.00	0.00
8,700.00	90.00	178.71	5,575.00	-2,521.07	-440.34	2,550.59	0.00	0.00	0.00
8,800.00	90.00	178.71	5,575.00	-2,621.05	-438.09	2,649.95	0.00	0.00	0.00
8,900.00	90.00	178.71	5,575.00	-2,721.02	-435.84	2,749.31	0.00	0.00	0.00
9,000.00	90.00	178.71	5,575.00	-2,821.00	-433.59	2,848.67	0.00	0.00	0.00
9,100.00	90.00	178.71	5,575.00	-2,920.97	-431.34	2,948.03	0.00	0.00	0.00
9,200.00	90.00	178.71	5,575.00	-3,020.95	-429.09	3,047.39	0.00	0.00	0.00
9,300.00	90.00	178.71	5,575.00	-3,120.92	-426.83	3,146.75	0.00	0.00	0.00
9,400.00	90.00	178.71	5,575.00	-3,220.89	-424.58	3,246.11	0.00	0.00	0.00
9,500.00	90.00	178.71	5,575.00	-3,320.87	-422.33	3,345.47	0.00	0.00	0.00
9,600.00	90.00	178.71	5,575.00	-3,420.84	-420.08	3,444.83	0.00	0.00	0.00
9,700.00	90.00	178.71	5,575.00	-3,520.82	-417.83	3,544.19	0.00	0.00	0.00
9,800.00	90.00	178.71	5,575.00	-3,620.79	-415.58	3,643.55	0.00	0.00	0.00
9,900.00	90.00	178.71	5,575.00	-3,720.77	-413.32	3,742.91	0.00	0.00	0.00
10,000.00	90.00	178.71	5,575.00	-3,820.74	-411.07	3,842.27	0.00	0.00	0.00
10,100.00	90.00	178.71	5,575.00	-3,920.72	-408.82	3,941.63	0.00	0.00	0.00
10,200.00	90.00	178.71	5,575.00	-4,020.69	-406.57	4,040.99	0.00	0.00	0.00
10,300.00	90.00	178.71	5,575.00	-4,120.67	-404.32	4,140.35	0.00	0.00	0.00
10,400.00	90.00	178.71	5,575.00	-4,220.64	-402.07	4,239.71	0.00	0.00	0.00
10,500.00	90.00	178.71	5,575.00	-4,320.62	-399.81	4,339.07	0.00	0.00	0.00
10,560.57	90.00	178.71	5,575.00	-4,381.17	-398.45	4,399.25	0.00	0.00	0.00
TD at 10560.57' MD									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL 2550	0.00	0.00	5,575.00	-4,381.17	-398.45	1,540,231.46	3,467,194.65	40° 48' 14.810 N	103° 48' 44.501 W
- plan hits target center									
- Point									



WOG Planning Report

Database:	LandmarkEDM	Local Co-ordinate Reference:	Well Razor #25B-2550
Company:	Whiting Petroleum Corp.	TVD Reference:	KBE @ 4778.00usft (Original Well Elev)
Project:	Weld County, CO	MD Reference:	KBE @ 4778.00usft (Original Well Elev)
Site:	Sec 25-T10N-R58W	North Reference:	True
Well:	Razor #25B-2550	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	APD		

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
5,965.41	5,575.00	7"	7.000	8.750	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,570.24	1,550.00	Upper Pierre				
3,567.59	3,500.00	Hygiene				
3,721.23	3,650.00	Lower Pierre				
5,645.82	5,480.00	P200 Marker				
5,682.41	5,500.00	P300 Marker				
5,715.08	5,516.00	P350 Marker				
5,747.29	5,530.00	Sharon Springs				
5,757.35	5,534.00	Niobrara				
5,806.66	5,551.00	Top A Chalk				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
300.00	300.00	0.00	0.00	Build 2°/100'	
925.00	920.05	55.63	-38.95	Hold 12.50° Inc	
4,435.00	4,346.85	677.94	-474.70	Drop 2°/100'	
5,060.00	4,966.90	733.56	-513.65	Hold Vertical	
5,147.23	5,054.13	733.56	-513.65	KOP, Build 11°/100'	
5,965.41	5,575.00	212.83	-501.92	LP @ 90° Inc, Hold	
10,560.57	5,575.00	-4,381.17	-398.45	TD at 10560.57' MD	