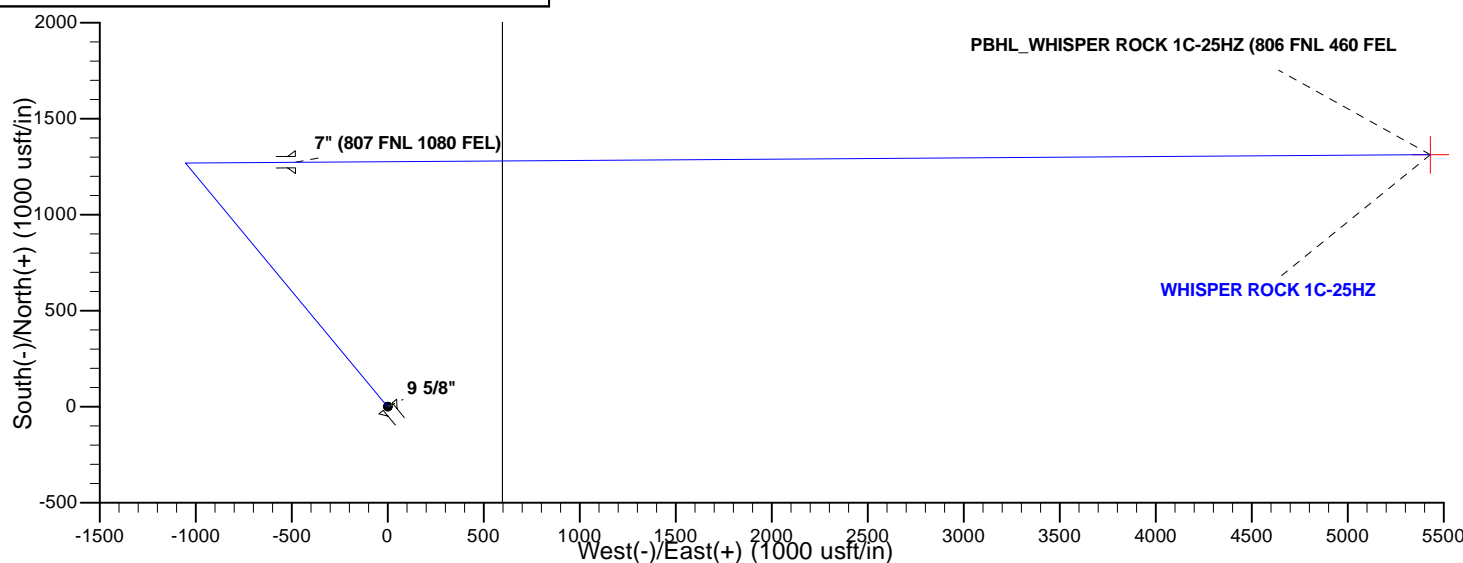
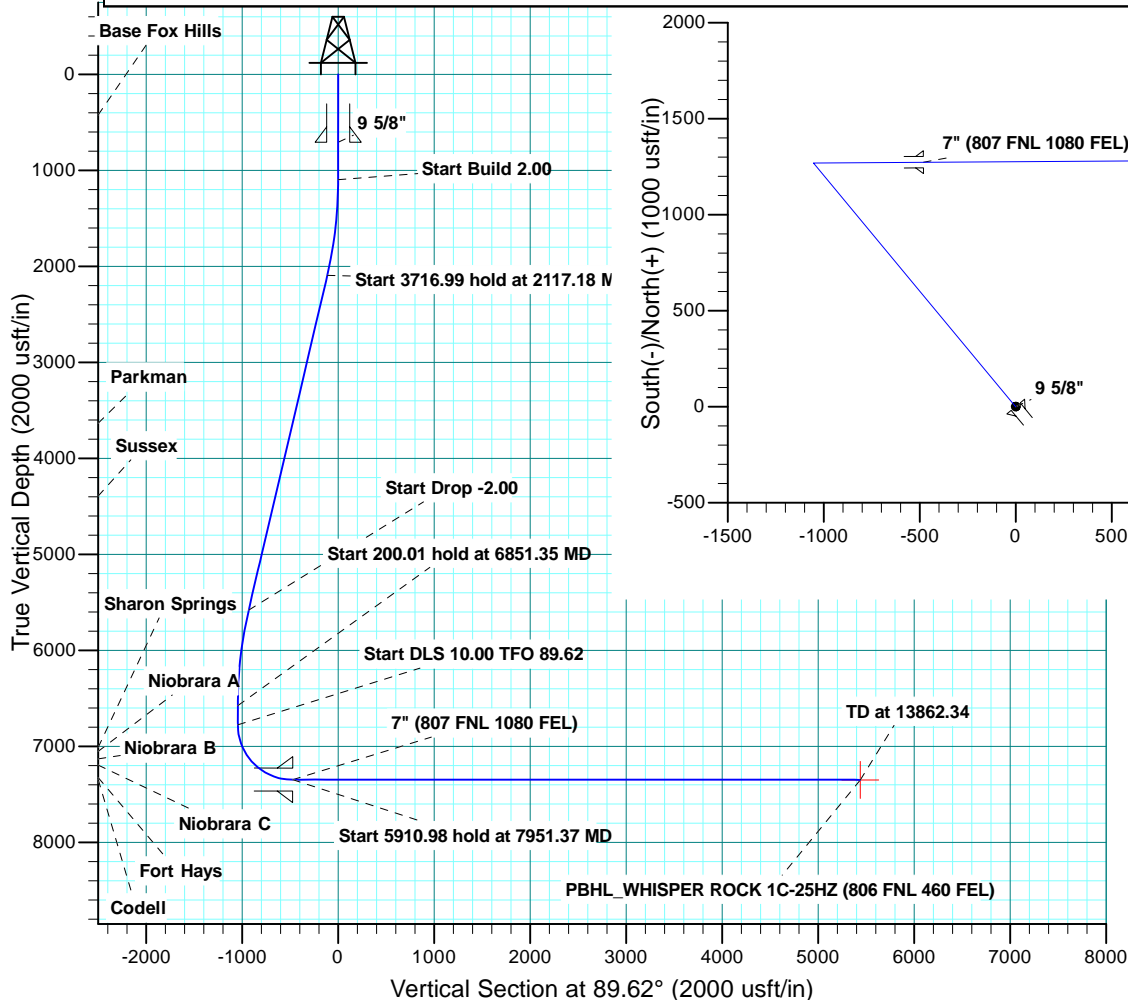


SHL: WHISPER ROCK 1C-25HZ								
GL 4995 KB 17 @ 5012.00usft								
		+N-S	+E-W	Northing	Easting	Latitude	Longitude	
		0.00	0.00	14630954.12	1650773.65	40.286197	-104.962862	
DESIGN TARGET DETAILS								
Name	TVD	+N-S	+E-W	Northing	Easting	Latitude	Longitude	Shape
PBHL 7350.00		1312.66	5430.31	14632269.06	1656203.41	40.289800	-104.943389	Point
- plan hits target center								
SECTION DETAILS								
MD	Inc	Azi	TVD	+N-S	+E-W	Dleg	TFace	VSect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1100.00	0.00	0.00	1100.00	0.00	0.00	0.00	0.00	0.00
2117.18	20.34	320.31	2095.94	137.51	-114.12	2.00	320.31	-113.20
5834.17	20.34	320.31	5581.08	1131.88	-939.36	0.00	0.00	-931.83
6851.35	0.00	0.00	6577.03	1269.39	-1053.48	2.00	180.00	-1045.04
7051.37	0.00	0.00	6777.04	1269.39	-1053.48	0.00	0.00	-1045.04
7951.37	90.00	89.62	7350.00	1273.21	-480.54	10.00	89.62	-472.08
13862.34	90.00	89.62	7350.00	1312.66	5430.31	0.00	0.00	5438.90
PBHL_WHISPER ROCK 1C-25HZ (806 FNL 460 FEL)								

PBHL\_ WHISPER ROCK 1C-25HZ (806 FNL 460 FEL)



CASING DETAILS			
TVD	MD	Name	Size
709.00	709.00	9 5/8"	9.625
7350.00	7951.37	7"	7.000

FORMATION TOP DETAILS			
TVDPath	MDPath	Formation	Inc
424.00	424.00	Base Fox Hills	0.00
3634.00	3757.56	Parkman	20.34
4392.00	4565.98	Sussex	20.34
7011.00	7292.37	Sharon Springs	24.10
7053.00	7339.29	Niobrara A	28.79
7130.00	7431.64	Niobrara B	38.03
7196.00	7521.26	Niobrara C	46.99
7327.00	7788.48	Fort Hays	73.71
7347.00	7892.73	Codell	84.14



Scientific Drilling

# **US ROCKIES WATTENBERG PLANNING**

**WELD-NAD83-UTMFT13N**

**WILSON RANCH 8 -26HZ**

**WHISPER ROCK 1C-25HZ**

**PLAN A**

**Plan: Permit Rev-1**

## **Standard Planning Report**

**30 December, 2014**

<b>Database:</b>	Denver Sales	<b>Local Co-ordinate Reference:</b>	Well WHISPER ROCK 1C-25HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	GL 4995 KB 17 @ 5012.00usft
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	GL 4995 KB 17 @ 5012.00usft
<b>Site:</b>	WILSON RANCH 8 -26HZ	<b>North Reference:</b>	True
<b>Well:</b>	WHISPER ROCK 1C-25HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	PLAN A		
<b>Design:</b>	Permit Rev-1		

<b>Project</b>	WELD-NAD83-UTMFT13N		
<b>Map System:</b>	Universal Transverse Mercator (US Survey Feet)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Zone 13N (108 W to 102 W)		

Site	WILSON RANCH 8 -26HZ				
Site Position:		Northing:	14,630,963.58 usft	Latitude:	40.286223
From:	Lat/Long	Easting:	1,650,762.21 usft	Longitude:	-104.962903
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence:	0.02

Well	WHISPER ROCK 1C-25HZ,					
Well Position	+N/-S	-9.47 usft	Northing:	14,630,954.12 usft	Latitude:	40.286197
	+E/-W	11.43 usft	Easting:	1,650,773.64 usft	Longitude:	-104.962862
Position Uncertainty		3.28 usft	Wellhead Elevation:	0.00 usft	Ground Level:	4,995.00 usft

<b>Wellbore</b>	PLAN A				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF200510	11/6/2014	8.45	66.82	52,723

<b>Design</b>	Permit Rev-1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	89.62

<b>Plan Sections</b>										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,117.18	20.34	320.31	2,095.94	137.51	-114.12	2.00	2.00	0.00	320.31	
5,834.17	20.34	320.31	5,581.08	1,131.88	-939.36	0.00	0.00	0.00	0.00	
6,851.35	0.00	0.00	6,577.03	1,269.39	-1,053.48	2.00	-2.00	0.00	180.00	
7,051.37	0.00	0.00	6,777.04	1,269.39	-1,053.48	0.00	0.00	0.00	0.00	
7,951.37	90.00	89.62	7,350.00	1,273.21	-480.54	10.00	10.00	9.96	89.62	
13,862.34	90.00	89.62	7,350.00	1,312.66	5,430.31	0.00	0.00	0.00	0.00	PBHL_WHISPER RO

<b>Database:</b>	Denver Sales	<b>Local Co-ordinate Reference:</b>	Well WHISPER ROCK 1C-25HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	GL 4995 KB 17 @ 5012.00usft
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	GL 4995 KB 17 @ 5012.00usft
<b>Site:</b>	WILSON RANCH 8 -26HZ	<b>North Reference:</b>	True
<b>Well:</b>	WHISPER ROCK 1C-25HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	PLAN A		
<b>Design:</b>	Permit Rev-1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
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
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
424.00	0.00	0.00	424.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Base Fox Hills</b>									
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
709.00	0.00	0.00	709.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>9 5/8"</b>									
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Start Build 2.00</b>									
1,200.00	2.00	320.31	1,199.98	1.34	-1.11	-1.11	2.00	2.00	0.00
1,300.00	4.00	320.31	1,299.84	5.37	-4.46	-4.42	2.00	2.00	0.00
1,400.00	6.00	320.31	1,399.45	12.08	-10.02	-9.94	2.00	2.00	0.00
1,500.00	8.00	320.31	1,498.70	21.45	-17.80	-17.66	2.00	2.00	0.00
1,600.00	10.00	320.31	1,597.47	33.49	-27.79	-27.57	2.00	2.00	0.00
1,700.00	12.00	320.31	1,695.62	48.17	-39.98	-39.66	2.00	2.00	0.00
1,800.00	14.00	320.31	1,793.06	65.48	-54.35	-53.91	2.00	2.00	0.00
1,900.00	16.00	320.31	1,889.64	85.40	-70.87	-70.31	2.00	2.00	0.00
2,000.00	18.00	320.31	1,985.27	107.90	-89.54	-88.83	2.00	2.00	0.00
2,100.00	20.00	320.31	2,079.82	132.95	-110.33	-109.45	2.00	2.00	0.00
2,117.18	20.34	320.31	2,095.94	137.51	-114.12	-113.20	2.00	2.00	0.00
<b>Start 3716.99 hold at 2117.18 MD</b>									
2,200.00	20.34	320.31	2,173.60	159.66	-132.51	-131.44	0.00	0.00	0.00
2,300.00	20.34	320.31	2,267.36	186.41	-154.71	-153.47	0.00	0.00	0.00
2,400.00	20.34	320.31	2,361.12	213.17	-176.91	-175.49	0.00	0.00	0.00
2,500.00	20.34	320.31	2,454.88	239.92	-199.11	-197.52	0.00	0.00	0.00
2,600.00	20.34	320.31	2,548.65	266.67	-221.31	-219.54	0.00	0.00	0.00
2,700.00	20.34	320.31	2,642.41	293.42	-243.52	-241.56	0.00	0.00	0.00
2,800.00	20.34	320.31	2,736.17	320.18	-265.72	-263.59	0.00	0.00	0.00
2,900.00	20.34	320.31	2,829.93	346.93	-287.92	-285.61	0.00	0.00	0.00
3,000.00	20.34	320.31	2,923.70	373.68	-310.12	-307.64	0.00	0.00	0.00
3,100.00	20.34	320.31	3,017.46	400.43	-332.32	-329.66	0.00	0.00	0.00
3,200.00	20.34	320.31	3,111.22	427.18	-354.52	-351.68	0.00	0.00	0.00
3,300.00	20.34	320.31	3,204.98	453.94	-376.73	-373.71	0.00	0.00	0.00
3,400.00	20.34	320.31	3,298.75	480.69	-398.93	-395.73	0.00	0.00	0.00
3,500.00	20.34	320.31	3,392.51	507.44	-421.13	-417.76	0.00	0.00	0.00
3,600.00	20.34	320.31	3,486.27	534.19	-443.33	-439.78	0.00	0.00	0.00
3,700.00	20.34	320.31	3,580.03	560.95	-465.53	-461.80	0.00	0.00	0.00
3,757.56	20.34	320.31	3,634.00	576.34	-478.31	-474.48	0.00	0.00	0.00
<b>Parkman</b>									
3,800.00	20.34	320.31	3,673.79	587.70	-487.74	-483.83	0.00	0.00	0.00
3,900.00	20.34	320.31	3,767.56	614.45	-509.94	-505.85	0.00	0.00	0.00
4,000.00	20.34	320.31	3,861.32	641.20	-532.14	-527.88	0.00	0.00	0.00
4,100.00	20.34	320.31	3,955.08	667.95	-554.34	-549.90	0.00	0.00	0.00
4,200.00	20.34	320.31	4,048.84	694.71	-576.54	-571.92	0.00	0.00	0.00
4,300.00	20.34	320.31	4,142.61	721.46	-598.75	-593.95	0.00	0.00	0.00
4,400.00	20.34	320.31	4,236.37	748.21	-620.95	-615.97	0.00	0.00	0.00

<b>Database:</b>	Denver Sales	<b>Local Co-ordinate Reference:</b>	Well WHISPER ROCK 1C-25HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	GL 4995 KB 17 @ 5012.00usft
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	GL 4995 KB 17 @ 5012.00usft
<b>Site:</b>	WILSON RANCH 8 -26HZ	<b>North Reference:</b>	True
<b>Well:</b>	WHISPER ROCK 1C-25HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	PLAN A		
<b>Design:</b>	Permit Rev-1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,500.00	20.34	320.31	4,330.13	774.96	-643.15	-638.00	0.00	0.00	0.00
4,565.98	20.34	320.31	4,392.00	792.62	-657.80	-652.53	0.00	0.00	0.00
<b>Sussex</b>									
4,600.00	20.34	320.31	4,423.89	801.72	-665.35	-660.02	0.00	0.00	0.00
4,700.00	20.34	320.31	4,517.66	828.47	-687.55	-682.04	0.00	0.00	0.00
4,800.00	20.34	320.31	4,611.42	855.22	-709.76	-704.07	0.00	0.00	0.00
4,900.00	20.34	320.31	4,705.18	881.97	-731.96	-726.09	0.00	0.00	0.00
5,000.00	20.34	320.31	4,798.94	908.72	-754.16	-748.12	0.00	0.00	0.00
5,100.00	20.34	320.31	4,892.71	935.48	-776.36	-770.14	0.00	0.00	0.00
5,200.00	20.34	320.31	4,986.47	962.23	-798.56	-792.16	0.00	0.00	0.00
5,300.00	20.34	320.31	5,080.23	988.98	-820.77	-814.19	0.00	0.00	0.00
5,400.00	20.34	320.31	5,173.99	1,015.73	-842.97	-836.21	0.00	0.00	0.00
5,500.00	20.34	320.31	5,267.76	1,042.49	-865.17	-858.24	0.00	0.00	0.00
5,600.00	20.34	320.31	5,361.52	1,069.24	-887.37	-880.26	0.00	0.00	0.00
5,700.00	20.34	320.31	5,455.28	1,095.99	-909.57	-902.28	0.00	0.00	0.00
5,800.00	20.34	320.31	5,549.04	1,122.74	-931.77	-924.31	0.00	0.00	0.00
5,834.17	20.34	320.31	5,581.08	1,131.88	-939.36	-931.83	0.00	0.00	0.00
<b>Start Drop -2.00</b>									
5,900.00	19.03	320.31	5,643.06	1,148.95	-953.52	-945.88	2.00	-2.00	0.00
6,000.00	17.03	320.31	5,738.15	1,172.76	-973.29	-965.49	2.00	-2.00	0.00
6,100.00	15.03	320.31	5,834.26	1,194.00	-990.92	-982.98	2.00	-2.00	0.00
6,200.00	13.03	320.31	5,931.27	1,212.65	-1,006.39	-998.33	2.00	-2.00	0.00
6,300.00	11.03	320.31	6,029.07	1,228.69	-1,019.70	-1,011.53	2.00	-2.00	0.00
6,400.00	9.03	320.31	6,127.54	1,242.09	-1,030.82	-1,022.56	2.00	-2.00	0.00
6,500.00	7.03	320.31	6,226.55	1,252.83	-1,039.74	-1,031.41	2.00	-2.00	0.00
6,600.00	5.03	320.31	6,326.00	1,260.91	-1,046.44	-1,038.06	2.00	-2.00	0.00
6,700.00	3.03	320.31	6,425.74	1,266.31	-1,050.93	-1,042.51	2.00	-2.00	0.00
6,800.00	1.03	320.31	6,525.68	1,269.04	-1,053.19	-1,044.75	2.00	-2.00	0.00
6,851.35	0.00	0.00	6,577.03	1,269.39	-1,053.48	-1,045.04	2.00	-2.00	0.00
<b>Start 200.01 hold at 6851.35 MD</b>									
6,900.00	0.00	0.00	6,625.67	1,269.39	-1,053.48	-1,045.04	0.00	0.00	0.00
7,000.00	0.00	0.00	6,725.67	1,269.39	-1,053.48	-1,045.04	0.00	0.00	0.00
7,051.37	0.00	0.00	6,777.04	1,269.39	-1,053.48	-1,045.04	0.00	0.00	0.00
<b>Start DLS 10.00 TFO 89.62</b>									
7,100.00	4.86	89.62	6,825.62	1,269.40	-1,051.42	-1,042.98	10.00	10.00	0.00
7,200.00	14.86	89.62	6,924.01	1,269.52	-1,034.31	-1,025.87	10.00	10.00	0.00
7,292.37	24.10	89.62	7,011.00	1,269.72	-1,003.54	-995.09	10.00	10.00	0.00
<b>Sharon Springs</b>									
7,300.00	24.86	89.62	7,017.94	1,269.74	-1,000.38	-991.93	10.00	10.00	0.00
7,339.29	28.79	89.62	7,053.00	1,269.86	-982.65	-974.20	10.00	10.00	0.00
<b>Niobrara A</b>									
7,400.00	34.86	89.62	7,104.56	1,270.08	-950.65	-942.20	10.00	10.00	0.00
7,431.64	38.03	89.62	7,130.00	1,270.20	-931.86	-923.41	10.00	10.00	0.00
<b>Niobrara B</b>									
7,500.00	44.86	89.62	7,181.22	1,270.50	-886.63	-878.19	10.00	10.00	0.00
7,521.26	46.99	89.62	7,196.00	1,270.61	-871.36	-862.92	10.00	10.00	0.00
<b>Niobrara C</b>									
7,600.00	54.86	89.62	7,245.59	1,271.01	-810.28	-801.83	10.00	10.00	0.00
7,700.00	64.86	89.62	7,295.74	1,271.59	-723.91	-715.46	10.00	10.00	0.00
7,788.48	73.71	89.62	7,327.00	1,272.14	-641.23	-632.78	10.00	10.00	0.00
<b>Fort Hays</b>									
7,800.00	74.86	89.62	7,330.12	1,272.22	-630.14	-621.69	10.00	10.00	0.00
7,892.73	84.14	89.62	7,347.00	1,272.82	-539.07	-530.61	10.00	10.00	0.00

<b>Database:</b>	Denver Sales	<b>Local Co-ordinate Reference:</b>	Well WHISPER ROCK 1C-25HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	GL 4995 KB 17 @ 5012.00usft
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	GL 4995 KB 17 @ 5012.00usft
<b>Site:</b>	WILSON RANCH 8 -26HZ	<b>North Reference:</b>	True
<b>Well:</b>	WHISPER ROCK 1C-25HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	PLAN A		
<b>Design:</b>	Permit Rev-1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
<b>Codell</b>									
7,900.00	84.86	89.62	7,347.70	1,272.87	-531.83	-523.38	10.00	10.00	0.00
7,951.37	90.00	89.62	7,350.00	1,273.21	-480.53	-472.08	10.00	10.00	0.00
<b>Start 5910.98 hold at 7951.37 MD - 7" (807 FNL 1080 FEL)</b>									
8,000.00	90.00	89.62	7,350.00	1,273.54	-431.90	-423.45	0.00	0.00	0.00
8,100.00	90.00	89.62	7,350.00	1,274.21	-331.90	-323.45	0.00	0.00	0.00
8,200.00	90.00	89.62	7,350.00	1,274.87	-231.91	-223.45	0.00	0.00	0.00
8,300.00	90.00	89.62	7,350.00	1,275.54	-131.91	-123.45	0.00	0.00	0.00
8,400.00	90.00	89.62	7,350.00	1,276.21	-31.91	-23.45	0.00	0.00	0.00
8,500.00	90.00	89.62	7,350.00	1,276.87	68.09	76.55	0.00	0.00	0.00
8,600.00	90.00	89.62	7,350.00	1,277.54	168.08	176.55	0.00	0.00	0.00
8,700.00	90.00	89.62	7,350.00	1,278.21	268.08	276.55	0.00	0.00	0.00
8,800.00	90.00	89.62	7,350.00	1,278.88	368.08	376.55	0.00	0.00	0.00
8,900.00	90.00	89.62	7,350.00	1,279.54	468.08	476.55	0.00	0.00	0.00
9,000.00	90.00	89.62	7,350.00	1,280.21	568.08	576.55	0.00	0.00	0.00
9,100.00	90.00	89.62	7,350.00	1,280.88	668.07	676.55	0.00	0.00	0.00
9,200.00	90.00	89.62	7,350.00	1,281.55	768.07	776.55	0.00	0.00	0.00
9,300.00	90.00	89.62	7,350.00	1,282.21	868.07	876.55	0.00	0.00	0.00
9,400.00	90.00	89.62	7,350.00	1,282.88	968.07	976.55	0.00	0.00	0.00
9,500.00	90.00	89.62	7,350.00	1,283.55	1,068.06	1,076.55	0.00	0.00	0.00
9,600.00	90.00	89.62	7,350.00	1,284.22	1,168.06	1,176.55	0.00	0.00	0.00
9,700.00	90.00	89.62	7,350.00	1,284.88	1,268.06	1,276.55	0.00	0.00	0.00
9,800.00	90.00	89.62	7,350.00	1,285.55	1,368.06	1,376.55	0.00	0.00	0.00
9,900.00	90.00	89.62	7,350.00	1,286.22	1,468.06	1,476.55	0.00	0.00	0.00
10,000.00	90.00	89.62	7,350.00	1,286.89	1,568.05	1,576.55	0.00	0.00	0.00
10,100.00	90.00	89.62	7,350.00	1,287.55	1,668.05	1,676.55	0.00	0.00	0.00
10,200.00	90.00	89.62	7,350.00	1,288.22	1,768.05	1,776.55	0.00	0.00	0.00
10,300.00	90.00	89.62	7,350.00	1,288.89	1,868.05	1,876.55	0.00	0.00	0.00
10,400.00	90.00	89.62	7,350.00	1,289.55	1,968.04	1,976.55	0.00	0.00	0.00
10,500.00	90.00	89.62	7,350.00	1,290.22	2,068.04	2,076.55	0.00	0.00	0.00
10,600.00	90.00	89.62	7,350.00	1,290.89	2,168.04	2,176.55	0.00	0.00	0.00
10,700.00	90.00	89.62	7,350.00	1,291.56	2,268.04	2,276.55	0.00	0.00	0.00
10,800.00	90.00	89.62	7,350.00	1,292.22	2,368.04	2,376.55	0.00	0.00	0.00
10,900.00	90.00	89.62	7,350.00	1,292.89	2,468.03	2,476.55	0.00	0.00	0.00
11,000.00	90.00	89.62	7,350.00	1,293.56	2,568.03	2,576.55	0.00	0.00	0.00
11,100.00	90.00	89.62	7,350.00	1,294.23	2,668.03	2,676.55	0.00	0.00	0.00
11,200.00	90.00	89.62	7,350.00	1,294.89	2,768.03	2,776.55	0.00	0.00	0.00
11,300.00	90.00	89.62	7,350.00	1,295.56	2,868.02	2,876.55	0.00	0.00	0.00
11,400.00	90.00	89.62	7,350.00	1,296.23	2,968.02	2,976.55	0.00	0.00	0.00
11,500.00	90.00	89.62	7,350.00	1,296.90	3,068.02	3,076.55	0.00	0.00	0.00
11,600.00	90.00	89.62	7,350.00	1,297.56	3,168.02	3,176.55	0.00	0.00	0.00
11,700.00	90.00	89.62	7,350.00	1,298.23	3,268.02	3,276.55	0.00	0.00	0.00
11,800.00	90.00	89.62	7,350.00	1,298.90	3,368.01	3,376.55	0.00	0.00	0.00
11,900.00	90.00	89.62	7,350.00	1,299.56	3,468.01	3,476.55	0.00	0.00	0.00
12,000.00	90.00	89.62	7,350.00	1,300.23	3,568.01	3,576.55	0.00	0.00	0.00
12,100.00	90.00	89.62	7,350.00	1,300.90	3,668.01	3,676.55	0.00	0.00	0.00
12,200.00	90.00	89.62	7,350.00	1,301.57	3,768.00	3,776.55	0.00	0.00	0.00
12,300.00	90.00	89.62	7,350.00	1,302.23	3,868.00	3,876.55	0.00	0.00	0.00
12,400.00	90.00	89.62	7,350.00	1,302.90	3,968.00	3,976.55	0.00	0.00	0.00
12,500.00	90.00	89.62	7,350.00	1,303.57	4,068.00	4,076.55	0.00	0.00	0.00
12,600.00	90.00	89.62	7,350.00	1,304.24	4,168.00	4,176.55	0.00	0.00	0.00
12,700.00	90.00	89.62	7,350.00	1,304.90	4,267.99	4,276.55	0.00	0.00	0.00
12,800.00	90.00	89.62	7,350.00	1,305.57	4,367.99	4,376.55	0.00	0.00	0.00
12,900.00	90.00	89.62	7,350.00	1,306.24	4,467.99	4,476.55	0.00	0.00	0.00

<b>Database:</b>	Denver Sales	<b>Local Co-ordinate Reference:</b>	Well WHISPER ROCK 1C-25HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	GL 4995 KB 17 @ 5012.00usft
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	GL 4995 KB 17 @ 5012.00usft
<b>Site:</b>	WILSON RANCH 8 -26HZ	<b>North Reference:</b>	True
<b>Well:</b>	WHISPER ROCK 1C-25HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	PLAN A		
<b>Design:</b>	Permit Rev-1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,000.00	90.00	89.62	7,350.00	1,306.91	4,567.99	4,576.55	0.00	0.00	0.00
13,100.00	90.00	89.62	7,350.00	1,307.57	4,667.98	4,676.55	0.00	0.00	0.00
13,200.00	90.00	89.62	7,350.00	1,308.24	4,767.98	4,776.55	0.00	0.00	0.00
13,300.00	90.00	89.62	7,350.00	1,308.91	4,867.98	4,876.55	0.00	0.00	0.00
13,400.00	90.00	89.62	7,350.00	1,309.57	4,967.98	4,976.55	0.00	0.00	0.00
13,500.00	90.00	89.62	7,350.00	1,310.24	5,067.98	5,076.55	0.00	0.00	0.00
13,600.00	90.00	89.62	7,350.00	1,310.91	5,167.97	5,176.55	0.00	0.00	0.00
13,700.00	90.00	89.62	7,350.00	1,311.58	5,267.97	5,276.55	0.00	0.00	0.00
13,800.00	90.00	89.62	7,350.00	1,312.24	5,367.97	5,376.55	0.00	0.00	0.00
13,862.34	90.00	89.62	7,350.00	1,312.66	5,430.31	5,438.90	0.00	0.00	0.00
TD at 13862.34 - PBHL_WHISPER ROCK 1C-25HZ (806 FNL 460 FEL)									

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_WHISPER ROCK	0.00	0.00	7,350.00	1,312.66	5,430.31	14,632,269.05	1,656,203.40	40.289800	-104.943389
- plan hits target center									
- Point									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
709.00	709.00	9 5/8"	9.625	13.500	
7,951.37	7,350.00	7" (807 FNL 1080 FEL)	7.000	8.750	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
424.00	426.00	Base Fox Hills				
3,757.56	3,636.00	Parkman				
4,565.98	4,394.00	Sussex				
7,292.37	7,013.00	Sharon Springs				
7,339.29	7,055.00	Niobrara A				
7,431.64	7,132.00	Niobrara B				
7,521.26	7,198.00	Niobrara C				
7,788.48	7,329.00	Fort Hays				
7,892.73	7,349.00	Codell				

<b>Database:</b>	Denver Sales	<b>Local Co-ordinate Reference:</b>	Well WHISPER ROCK 1C-25HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	GL 4995 KB 17 @ 5012.00usft
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	GL 4995 KB 17 @ 5012.00usft
<b>Site:</b>	WILSON RANCH 8 -26HZ	<b>North Reference:</b>	True
<b>Well:</b>	WHISPER ROCK 1C-25HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	PLAN A		
<b>Design:</b>	Permit Rev-1		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,100.00	1,100.00	0.00	0.00	Start Build 2.00
2,117.18	2,095.94	137.51	-114.12	Start 3716.99 hold at 2117.18 MD
5,834.17	5,581.08	1,131.88	-939.36	Start Drop -2.00
6,851.35	6,577.03	1,269.39	-1,053.48	Start 200.01 hold at 6851.35 MD
7,051.37	6,777.04	1,269.39	-1,053.48	Start DLS 10.00 TFO 89.62
7,951.37	7,350.00	1,273.21	-480.54	Start 5910.98 hold at 7951.37 MD
13,862.34	7,350.00	1,312.66	5,430.31	TD at 13862.34