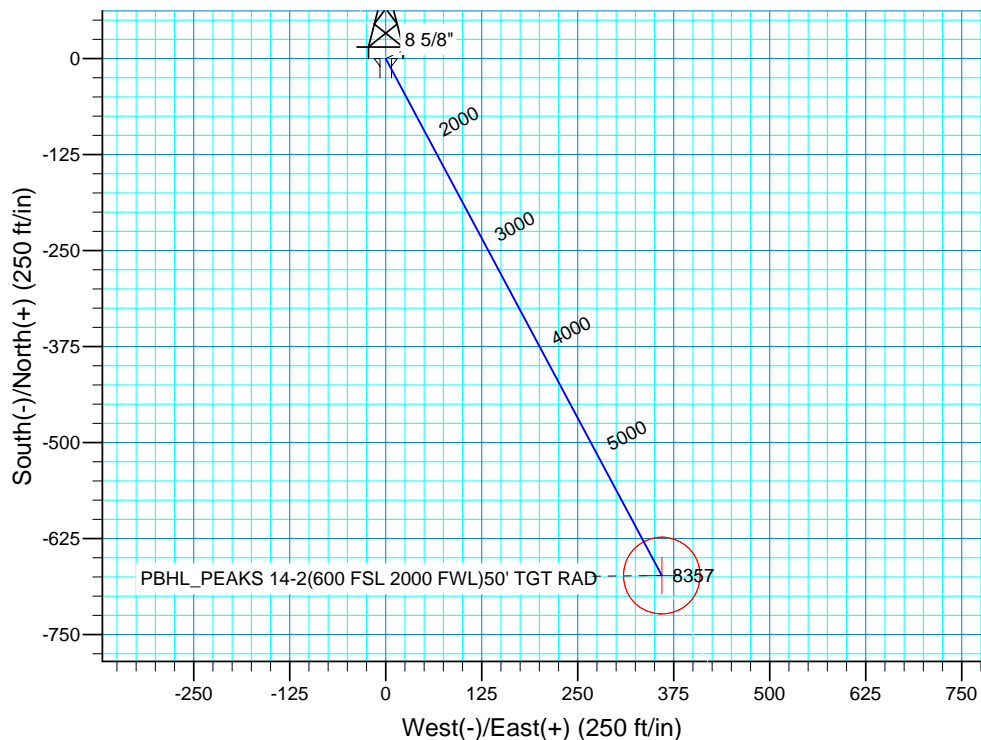
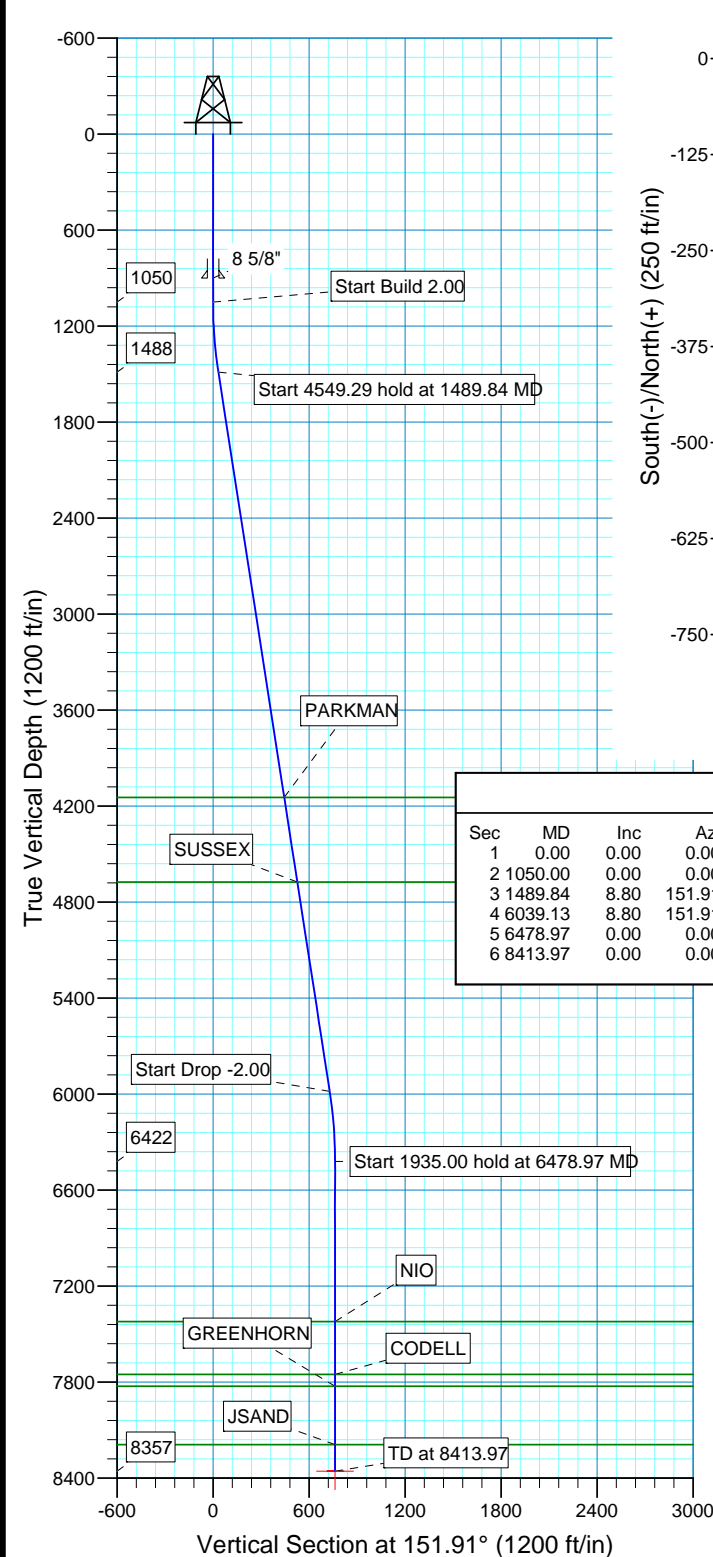
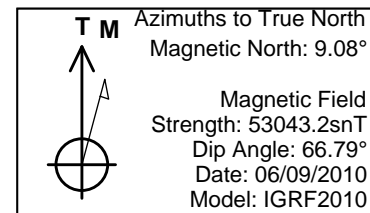


WELL DETAILS: P_PEAKS 14-2								
+N/-S	+E/-W	Northing	Easting	KB @ 5046.00ft	5031.00	Latitude	Longitude	
0.00	0.00	1271176.17	3147163.38			40° 4' 35.656 N	104° 58' 26.800 W	
WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)								
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	8357.00	-673.21	359.35	1270505.10	3147526.7240	4° 29.003 N	04° 58' 22.177 W	Circle (Radius: 50.00)



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	1050.00	0.00	0.00	1050.00	0.00	0.00	0.00	0.00	0.00	
3	1489.84	8.80	151.91	1488.11	-29.73	15.87	2.00	151.91	33.70	
4	6039.13	8.80	151.91	5983.89	-643.49	343.49	0.00	0.00	729.42	
5	6478.97	0.00	0.00	6422.00	-673.21	359.36	2.00	180.00	763.12	
6	8413.97	0.00	0.00	8357.00	-673.21	359.36	0.00	0.00	763.12	PBHL_PEAKS 14-2(600 FSL 2000 FWL)50' TGT R

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
4146.00	4179.36	PARKMAN
4676.00	4715.67	SUSSEX
7422.00	7478.97	NIO
7752.00	7808.97	CODELL
7827.00	7883.97	GREENHORN
8192.00	8248.97	JSAND

PROJECT DETAILS: COLORADO NORTHERN ZONE - 83

Geodetic System: US State Plane 1983  
Datum: North American Datum 1983  
Ellipsoid: GRS 1980  
Zone: Colorado Northern Zone  
Location: SECTION 2 T1N R68W  
System Datum: Mean Sea Level  
Local North: True

# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83**

**WELD\_PEAKS 14-2 PAD**

**P\_PEAKS 14-2**

**P\_PEAKS 14-2**

**Plan: PLAN #1 7-22-10 RHS**

## **Standard Planning Report**

**25 July, 2010**

<b>Database:</b>	EDM 2003.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well P_PEAKS 14-2
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	KB @ 5046.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	KB @ 5046.00ft
<b>Site:</b>	WELD_PEAKS 14-2 PAD	<b>North Reference:</b>	True
<b>Well:</b>	P_PEAKS 14-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_PEAKS 14-2		
<b>Design:</b>	PLAN #1 7-22-10 RHS		

<b>Project</b>	COLORADO NORTHERN ZONE - 83, KERR MCGEE OIL & GAS ONSHORE LP		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Northern Zone		

Site		WELD_PEAKS 14-2 PAD, SECTION 2 T1N R68W			
Site Position:		Northing:	1,271,180.07 ft	Latitude:	40° 4' 35.695 N
From:	Lat/Long	Easting:	3,147,154.18 ft	Longitude:	104° 58' 26.918 W
Position Uncertainty:	0.00 ft	Slot Radius:	in	Grid Convergence:	0.34 °

Well	P_PEAKS 14-2					
Well Position	+N-S	0.00 ft	Northing:	1,271,176.17 ft	Latitude:	40° 4' 35.656 N
	+E-W	0.00 ft	Easting:	3,147,163.38 ft	Longitude:	104° 58' 26.800 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	5,031.00 ft

<b>Wellbore</b>	P_PEAKS 14-2				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	06/09/2010	9.08	66.79	53,043

<b>Design</b>	PLAN #1 7-22-10 RHS			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	151.91

<b>Plan Sections</b>										
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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,050.00	0.00	0.00	1,050.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,489.84	8.80	151.91	1,488.11	-29.73	15.87	2.00	2.00	0.00	151.91	
6,039.13	8.80	151.91	5,983.89	-643.49	343.49	0.00	0.00	0.00	0.00	
6,478.97	0.00	0.00	6,422.00	-673.21	359.36	2.00	-2.00	0.00	180.00	
8,413.97	0.00	0.00	8,357.00	-673.21	359.36	0.00	0.00	0.00	0.00	PBHL_PEAKS 14-2

<b>Database:</b>	EDM 2003.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well P_PEAKS 14-2
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	KB @ 5046.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	KB @ 5046.00ft
<b>Site:</b>	WELD_PEAKS 14-2 PAD	<b>North Reference:</b>	True
<b>Well:</b>	P_PEAKS 14-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_PEAKS 14-2		
<b>Design:</b>	PLAN #1 7-22-10 RHS		

#### 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)
0.00	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
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
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
<b>8 5/8"</b>									
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,050.00	0.00	0.00	1,050.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Start Build 2.00</b>									
1,100.00	1.00	151.91	1,100.00	-0.38	0.21	0.44	2.00	2.00	0.00
1,200.00	3.00	151.91	1,199.93	-3.46	1.85	3.93	2.00	2.00	0.00
1,300.00	5.00	151.91	1,299.68	-9.62	5.13	10.90	2.00	2.00	0.00
1,400.00	7.00	151.91	1,399.13	-18.84	10.06	21.35	2.00	2.00	0.00
1,489.84	8.80	151.91	1,488.11	-29.73	15.87	33.70	2.00	2.00	0.00
<b>Start 4549.29 hold at 1489.84 MD</b>									
1,500.00	8.80	151.91	1,498.15	-31.10	16.60	35.25	0.00	0.00	0.00
1,600.00	8.80	151.91	1,596.98	-44.59	23.80	50.55	0.00	0.00	0.00
1,700.00	8.80	151.91	1,695.80	-58.08	31.00	65.84	0.00	0.00	0.00
1,800.00	8.80	151.91	1,794.63	-71.57	38.21	81.13	0.00	0.00	0.00
1,900.00	8.80	151.91	1,893.45	-85.06	45.41	96.42	0.00	0.00	0.00
2,000.00	8.80	151.91	1,992.27	-98.56	52.61	111.72	0.00	0.00	0.00
2,100.00	8.80	151.91	2,091.10	-112.05	59.81	127.01	0.00	0.00	0.00
2,200.00	8.80	151.91	2,189.92	-125.54	67.01	142.30	0.00	0.00	0.00
2,300.00	8.80	151.91	2,288.74	-139.03	74.21	157.60	0.00	0.00	0.00
2,400.00	8.80	151.91	2,387.57	-152.52	81.41	172.89	0.00	0.00	0.00
2,500.00	8.80	151.91	2,486.39	-166.01	88.62	188.18	0.00	0.00	0.00
2,600.00	8.80	151.91	2,585.22	-179.50	95.82	203.48	0.00	0.00	0.00
2,700.00	8.80	151.91	2,684.04	-192.99	103.02	218.77	0.00	0.00	0.00
2,800.00	8.80	151.91	2,782.86	-206.49	110.22	234.06	0.00	0.00	0.00
2,900.00	8.80	151.91	2,881.69	-219.98	117.42	249.35	0.00	0.00	0.00
3,000.00	8.80	151.91	2,980.51	-233.47	124.62	264.65	0.00	0.00	0.00
3,100.00	8.80	151.91	3,079.33	-246.96	131.82	279.94	0.00	0.00	0.00
3,200.00	8.80	151.91	3,178.16	-260.45	139.03	295.23	0.00	0.00	0.00
3,300.00	8.80	151.91	3,276.98	-273.94	146.23	310.53	0.00	0.00	0.00
3,400.00	8.80	151.91	3,375.80	-287.43	153.43	325.82	0.00	0.00	0.00
3,500.00	8.80	151.91	3,474.63	-300.93	160.63	341.11	0.00	0.00	0.00
3,600.00	8.80	151.91	3,573.45	-314.42	167.83	356.41	0.00	0.00	0.00
3,700.00	8.80	151.91	3,672.28	-327.91	175.03	371.70	0.00	0.00	0.00
3,800.00	8.80	151.91	3,771.10	-341.40	182.24	386.99	0.00	0.00	0.00
3,900.00	8.80	151.91	3,869.92	-354.89	189.44	402.29	0.00	0.00	0.00
4,000.00	8.80	151.91	3,968.75	-368.38	196.64	417.58	0.00	0.00	0.00
4,100.00	8.80	151.91	4,067.57	-381.87	203.84	432.87	0.00	0.00	0.00
4,179.36	8.80	151.91	4,146.00	-392.58	209.56	445.01	0.00	0.00	0.00
<b>PARKMAN</b>									
4,200.00	8.80	151.91	4,166.39	-395.36	211.04	448.16	0.00	0.00	0.00
4,300.00	8.80	151.91	4,265.22	-408.86	218.24	463.46	0.00	0.00	0.00
4,400.00	8.80	151.91	4,364.04	-422.35	225.44	478.75	0.00	0.00	0.00
4,500.00	8.80	151.91	4,462.87	-435.84	232.65	494.04	0.00	0.00	0.00

<b>Database:</b>	EDM 2003.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well P_PEAKS 14-2
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	KB @ 5046.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	KB @ 5046.00ft
<b>Site:</b>	WELD_PEAKS 14-2 PAD	<b>North Reference:</b>	True
<b>Well:</b>	P_PEAKS 14-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_PEAKS 14-2		
<b>Design:</b>	PLAN #1 7-22-10 RHS		

#### 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)
4,600.00	8.80	151.91	4,561.69	-449.33	239.85	509.34	0.00	0.00	0.00
4,700.00	8.80	151.91	4,660.51	-462.82	247.05	524.63	0.00	0.00	0.00
4,715.67	8.80	151.91	4,676.00	-464.93	248.18	527.03	0.00	0.00	0.00
<b>SUSSEX</b>									
4,800.00	8.80	151.91	4,759.34	-476.31	254.25	539.92	0.00	0.00	0.00
4,900.00	8.80	151.91	4,858.16	-489.80	261.45	555.22	0.00	0.00	0.00
5,000.00	8.80	151.91	4,956.98	-503.29	268.65	570.51	0.00	0.00	0.00
5,100.00	8.80	151.91	5,055.81	-516.79	275.86	585.80	0.00	0.00	0.00
5,200.00	8.80	151.91	5,154.63	-530.28	283.06	601.09	0.00	0.00	0.00
5,300.00	8.80	151.91	5,253.46	-543.77	290.26	616.39	0.00	0.00	0.00
5,400.00	8.80	151.91	5,352.28	-557.26	297.46	631.68	0.00	0.00	0.00
5,500.00	8.80	151.91	5,451.10	-570.75	304.66	646.97	0.00	0.00	0.00
5,600.00	8.80	151.91	5,549.93	-584.24	311.86	662.27	0.00	0.00	0.00
5,700.00	8.80	151.91	5,648.75	-597.73	319.06	677.56	0.00	0.00	0.00
5,800.00	8.80	151.91	5,747.57	-611.22	326.27	692.85	0.00	0.00	0.00
5,900.00	8.80	151.91	5,846.40	-624.72	333.47	708.15	0.00	0.00	0.00
6,000.00	8.80	151.91	5,945.22	-638.21	340.67	723.44	0.00	0.00	0.00
6,039.13	8.80	151.91	5,983.89	-643.49	343.49	729.42	0.00	0.00	0.00
<b>Start Drop -2.00</b>									
6,100.00	7.58	151.91	6,044.14	-651.13	347.57	738.09	2.00	-2.00	0.00
6,200.00	5.58	151.91	6,143.48	-661.24	352.96	749.55	2.00	-2.00	0.00
6,300.00	3.58	151.91	6,243.15	-668.28	356.72	757.53	2.00	-2.00	0.00
6,400.00	1.58	151.91	6,343.04	-672.25	358.84	762.03	2.00	-2.00	0.00
6,478.97	0.00	0.00	6,422.00	-673.21	359.36	763.12	2.00	-2.00	0.00
<b>Start 1935.00 hold at 6478.97 MD</b>									
6,500.00	0.00	0.00	6,443.03	-673.21	359.36	763.12	0.00	0.00	0.00
6,600.00	0.00	0.00	6,543.03	-673.21	359.36	763.12	0.00	0.00	0.00
6,700.00	0.00	0.00	6,643.03	-673.21	359.36	763.12	0.00	0.00	0.00
6,800.00	0.00	0.00	6,743.03	-673.21	359.36	763.12	0.00	0.00	0.00
6,900.00	0.00	0.00	6,843.03	-673.21	359.36	763.12	0.00	0.00	0.00
7,000.00	0.00	0.00	6,943.03	-673.21	359.36	763.12	0.00	0.00	0.00
7,100.00	0.00	0.00	7,043.03	-673.21	359.36	763.12	0.00	0.00	0.00
7,200.00	0.00	0.00	7,143.03	-673.21	359.36	763.12	0.00	0.00	0.00
7,300.00	0.00	0.00	7,243.03	-673.21	359.36	763.12	0.00	0.00	0.00
7,400.00	0.00	0.00	7,343.03	-673.21	359.36	763.12	0.00	0.00	0.00
7,478.97	0.00	0.00	7,422.00	-673.21	359.36	763.12	0.00	0.00	0.00
<b>NIO</b>									
7,500.00	0.00	0.00	7,443.03	-673.21	359.36	763.12	0.00	0.00	0.00
7,600.00	0.00	0.00	7,543.03	-673.21	359.36	763.12	0.00	0.00	0.00
7,700.00	0.00	0.00	7,643.03	-673.21	359.36	763.12	0.00	0.00	0.00
7,800.00	0.00	0.00	7,743.03	-673.21	359.36	763.12	0.00	0.00	0.00
7,808.97	0.00	0.00	7,752.00	-673.21	359.36	763.12	0.00	0.00	0.00
<b>CODELL</b>									
7,883.97	0.00	0.00	7,827.00	-673.21	359.36	763.12	0.00	0.00	0.00
<b>GREENHORN</b>									
7,900.00	0.00	0.00	7,843.03	-673.21	359.36	763.12	0.00	0.00	0.00
8,000.00	0.00	0.00	7,943.03	-673.21	359.36	763.12	0.00	0.00	0.00
8,100.00	0.00	0.00	8,043.03	-673.21	359.36	763.12	0.00	0.00	0.00
8,200.00	0.00	0.00	8,143.03	-673.21	359.36	763.12	0.00	0.00	0.00
8,248.97	0.00	0.00	8,192.00	-673.21	359.36	763.12	0.00	0.00	0.00
<b>JSAND</b>									
8,300.00	0.00	0.00	8,243.03	-673.21	359.36	763.12	0.00	0.00	0.00
8,400.00	0.00	0.00	8,343.03	-673.21	359.36	763.12	0.00	0.00	0.00

<b>Database:</b>	EDM 2003.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well P_PEAKS 14-2
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	KB @ 5046.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	KB @ 5046.00ft
<b>Site:</b>	WELD_PEAKS 14-2 PAD	<b>North Reference:</b>	True
<b>Well:</b>	P_PEAKS 14-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_PEAKS 14-2		
<b>Design:</b>	PLAN #1 7-22-10 RHS		

#### 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)
8,413.97	0.00	0.00	8,357.00	-673.21	359.36	763.12	0.00	0.00	0.00
PBHL_PEAKS 14-2(600 FSL 2000 FWL)50' TGT RAD									

#### Targets

##### Target Name

- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- Shape									
PBHL_PEAKS 14-2(6	0.00	0.00	8,357.00	-673.21	359.35	1,270,505.10	3,147,526.72	40° 4' 29.003 N	104° 58' 22.177 W
- plan hits target center									
- Circle (radius 50.00)									

#### Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
900.00	900.00	8 5/8"	8.620	11.000

#### Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
7,883.97	7,827.00	GREENHORN		0.00	
8,248.97	8,192.00	JSAND		0.00	
4,715.67	4,676.00	SUSSEX			
7,478.97	7,422.00	NIO		0.00	
4,179.36	4,146.00	PARKMAN		0.00	
7,808.97	7,752.00	CODELL		0.00	

#### Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
1,050.00	1,050.00	0.00	0.00	Start Build 2.00
1,489.84	1,488.11	-29.73	15.87	Start 4549.29 hold at 1489.84 MD
6,039.13	5,983.89	-643.49	343.49	Start Drop -2.00
6,478.97	6,422.00	-673.21	359.36	Start 1935.00 hold at 6478.97 MD
8,413.97	8,357.00	-673.21	359.36	TD at 8413.97