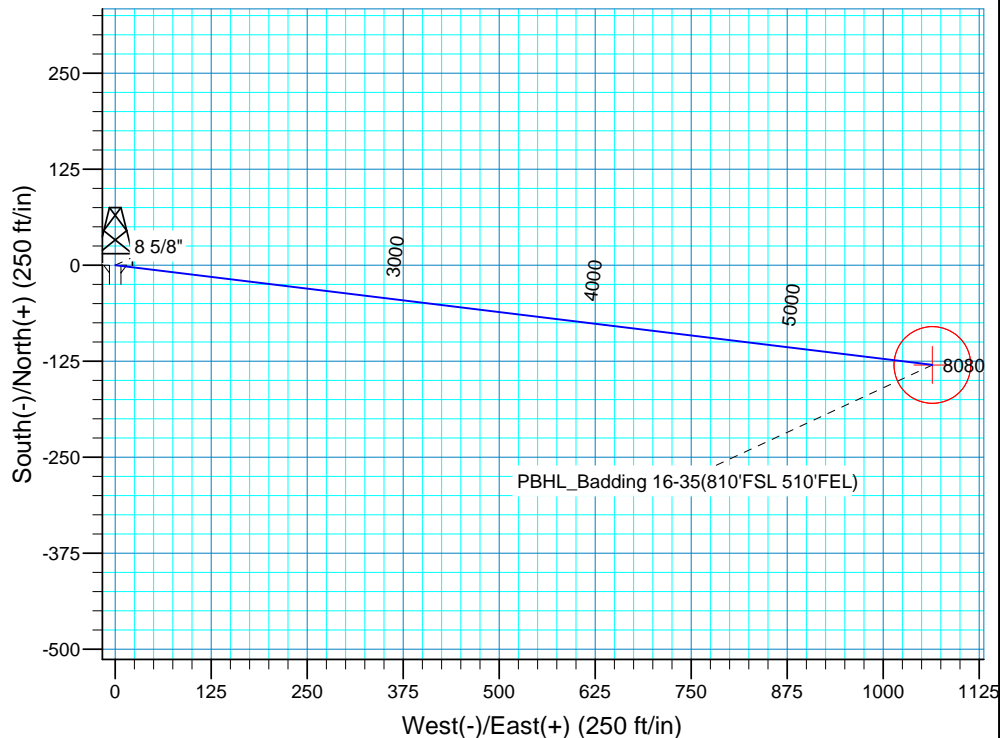
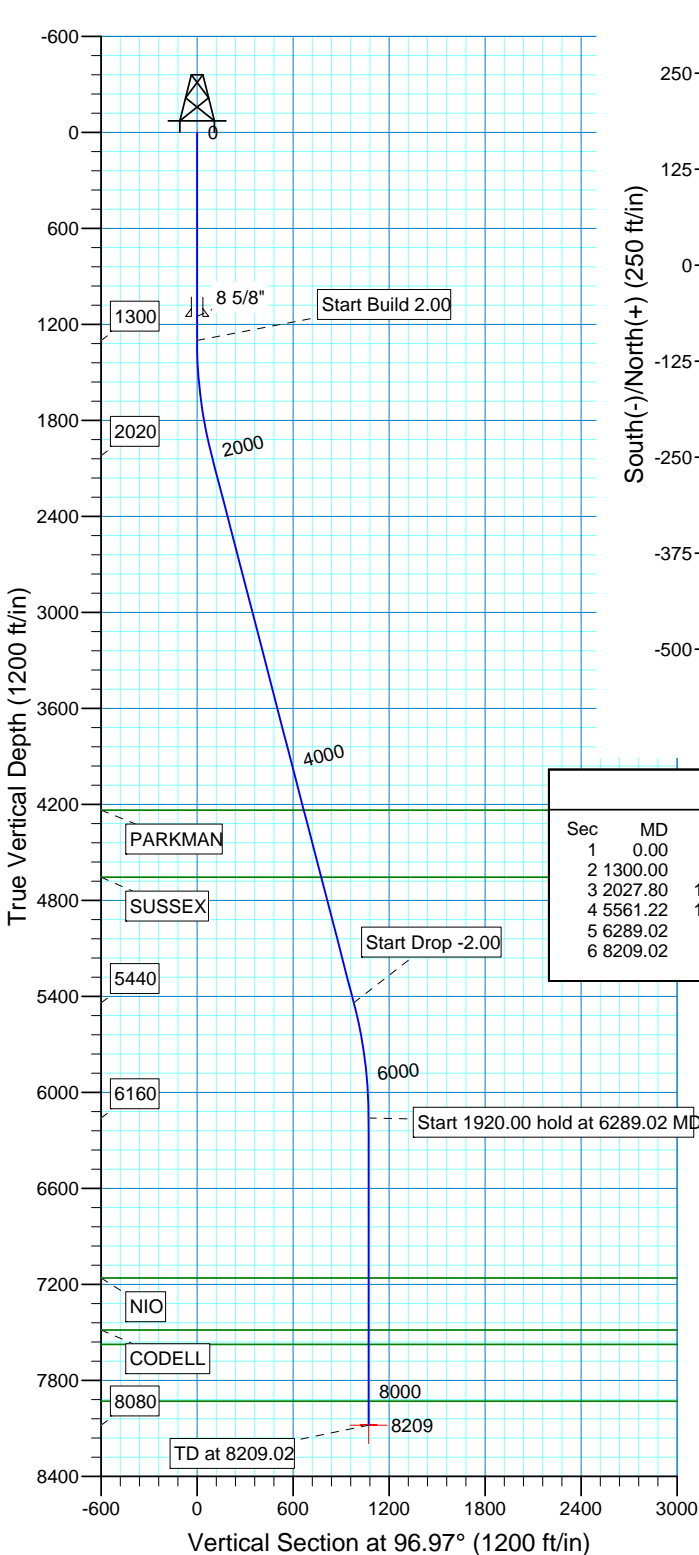


WELL DETAILS: P_Badding 16-35					
GL 5086' & RKB 15' @ 5101.00ft (ASSUMED) 5086.00					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	1276528.61	3212502.88	40° 5' 23.870 N	104° 44' 25.678 W

**T M** Azimuths to True North  
 Magnetic North: 8.91°  
 Magnetic Field  
 Strength: 53085.7snT  
 Dip Angle: 66.84°  
 Date: 07/16/2010  
 Model: IGRF200510

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)								
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	8080.00	-130.02	1064.03	1276407.71	3213567.98	40° 5' 22.585 N	104° 44' 11.987 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	1300.00	0.00	0.00	1300.00	0.00	0.00	0.00	0.00	0.00	
3	2027.80	14.56	96.97	2019.99	-11.15	91.27	2.00	96.97	91.95	
4	5561.22	14.56	96.97	5440.01	-118.87	972.75	0.00	0.00	979.99	
5	6289.02	0.00	0.00	6160.00	-130.02	1064.03	2.00	180.00	1071.94	
6	8209.02	0.00	0.00	8080.00	-130.02	1064.03	0.00	0.00	1071.94	PBHL_Badding 16-35(810'FSL 510'FEL)

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
4237.00	4318.32	PARKMAN
4655.00	4750.18	SUSSEX
7160.00	7289.02	NIO
7485.00	7614.02	CODELL
7575.00	7704.02	GREENHORN
7930.00	8059.02	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:	SEC 35 T2N R66
System Datum:	Mean Sea Level
Local North:	No north reference data is available



**Scientific Drilling**  
Rocky Mountain Operations

# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83**

**WELD\_Badding 20-35 Pad**

**P\_Badding 16-35**

**P\_Badding 16-35**

**Plan: Plan #1 7-16-10 RHS**

## **Standard Planning Report**

**18 July, 2010**



<b>Database:</b>	EDM 2003.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well P_Badding 16-35
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL 5086' & RKB 15' @ 5101.00ft (ASSUMED)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL 5086' & RKB 15' @ 5101.00ft (ASSUMED)
<b>Site:</b>	WELD_Badding 20-35 Pad	<b>North Reference:</b>	True
<b>Well:</b>	P_Badding 16-35	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_Badding 16-35		
<b>Design:</b>	Plan #1 7-16-10 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		

<b>Site</b>	WELD_Badding 20-35 Pad, SEC 35 T2N R66				
<b>Site Position:</b>		<b>Northing:</b>	1,276,531.97 ft	<b>Latitude:</b>	40° 5' 23.903 N
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,212,512.08 ft	<b>Longitude:</b>	104° 44' 25.559 W
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	in	<b>Grid Convergence:</b>	0.49 °

<b>Well</b>	P_Badding 16-35, 948' FSL 1574' FEL					
<b>Well Position</b>	<b>+N/-S</b>	0.00 ft	<b>Northing:</b>	1,276,528.61 ft	<b>Latitude:</b>	40° 5' 23.870 N
	<b>+E/-W</b>	0.00 ft	<b>Easting:</b>	3,212,502.88 ft	<b>Longitude:</b>	104° 44' 25.678 W
<b>Position Uncertainty</b>		0.00 ft	<b>Wellhead Elevation:</b>	ft	<b>Ground Level:</b>	5,086.00 ft

<b>Wellbore</b>	P_Badding 16-35				
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	07/16/10	8.91	66.84	53,086

<b>Design</b>	Plan #1 7-16-10 RHS				
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<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	96.97	

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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,027.80	14.56	96.97	2,019.99	-11.15	91.27	2.00	2.00	0.00	96.97	
5,561.22	14.56	96.97	5,440.01	-118.87	972.75	0.00	0.00	0.00	0.00	
6,289.02	0.00	0.00	6,160.00	-130.02	1,064.03	2.00	-2.00	0.00	180.00	
8,209.02	0.00	0.00	8,080.00	-130.02	1,064.03	0.00	0.00	0.00	0.00	PBHL_Badding 16-

<b>Database:</b>	EDM 2003.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well P_Badding 16-35
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL 5086' & RKB 15' @ 5101.00ft (ASSUMED)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL 5086' & RKB 15' @ 5101.00ft (ASSUMED)
<b>Site:</b>	WELD_Badding 20-35 Pad	<b>North Reference:</b>	True
<b>Well:</b>	P_Badding 16-35	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_Badding 16-35		
<b>Design:</b>	Plan #1 7-16-10 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
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
1,150.00	0.00	0.00	1,150.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>8 5/8"</b>									
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Start Build 2.00</b>									
1,400.00	2.00	96.97	1,399.98	-0.21	1.73	1.75	2.00	2.00	0.00
1,500.00	4.00	96.97	1,499.84	-0.85	6.93	6.98	2.00	2.00	0.00
1,600.00	6.00	96.97	1,599.45	-1.90	15.58	15.69	2.00	2.00	0.00
1,700.00	8.00	96.97	1,698.70	-3.38	27.67	27.88	2.00	2.00	0.00
1,800.00	10.00	96.97	1,797.47	-5.28	43.20	43.52	2.00	2.00	0.00
1,900.00	12.00	96.97	1,895.62	-7.59	62.14	62.60	2.00	2.00	0.00
2,000.00	14.00	96.97	1,993.06	-10.32	84.47	85.10	2.00	2.00	0.00
2,027.80	14.56	96.97	2,019.99	-11.15	91.27	91.95	2.00	2.00	0.00
<b>Start 3533.43 hold at 2027.80 MD</b>									
2,100.00	14.56	96.97	2,089.88	-13.35	109.29	110.10	0.00	0.00	0.00
2,200.00	14.56	96.97	2,186.67	-16.40	134.23	135.23	0.00	0.00	0.00
2,300.00	14.56	96.97	2,283.46	-19.45	159.18	160.36	0.00	0.00	0.00
2,400.00	14.56	96.97	2,380.25	-22.50	184.13	185.50	0.00	0.00	0.00
2,500.00	14.56	96.97	2,477.04	-25.55	209.07	210.63	0.00	0.00	0.00
2,600.00	14.56	96.97	2,573.83	-28.60	234.02	235.76	0.00	0.00	0.00
2,700.00	14.56	96.97	2,670.62	-31.64	258.97	260.89	0.00	0.00	0.00
2,800.00	14.56	96.97	2,767.41	-34.69	283.91	286.03	0.00	0.00	0.00
2,900.00	14.56	96.97	2,864.20	-37.74	308.86	311.16	0.00	0.00	0.00
3,000.00	14.56	96.97	2,960.99	-40.79	333.81	336.29	0.00	0.00	0.00
3,100.00	14.56	96.97	3,057.78	-43.84	358.75	361.42	0.00	0.00	0.00
3,200.00	14.56	96.97	3,154.57	-46.89	383.70	386.56	0.00	0.00	0.00
3,300.00	14.56	96.97	3,251.36	-49.94	408.65	411.69	0.00	0.00	0.00
3,400.00	14.56	96.97	3,348.15	-52.98	433.60	436.82	0.00	0.00	0.00
3,500.00	14.56	96.97	3,444.94	-56.03	458.54	461.95	0.00	0.00	0.00
3,600.00	14.56	96.97	3,541.73	-59.08	483.49	487.09	0.00	0.00	0.00
3,700.00	14.56	96.97	3,638.52	-62.13	508.44	512.22	0.00	0.00	0.00
3,800.00	14.56	96.97	3,735.31	-65.18	533.38	537.35	0.00	0.00	0.00
3,900.00	14.56	96.97	3,832.10	-68.23	558.33	562.48	0.00	0.00	0.00
4,000.00	14.56	96.97	3,928.89	-71.27	583.28	587.62	0.00	0.00	0.00
4,100.00	14.56	96.97	4,025.68	-74.32	608.22	612.75	0.00	0.00	0.00
4,200.00	14.56	96.97	4,122.47	-77.37	633.17	637.88	0.00	0.00	0.00
4,300.00	14.56	96.97	4,219.27	-80.42	658.12	663.01	0.00	0.00	0.00
4,318.32	14.56	96.97	4,237.00	-80.98	662.69	667.62	0.00	0.00	0.00
<b>PARKMAN</b>									
4,400.00	14.56	96.97	4,316.06	-83.47	683.06	688.15	0.00	0.00	0.00
4,500.00	14.56	96.97	4,412.85	-86.52	708.01	713.28	0.00	0.00	0.00

<b>Database:</b>	EDM 2003.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well P_Badding 16-35
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL 5086' & RKB 15' @ 5101.00ft (ASSUMED)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL 5086' & RKB 15' @ 5101.00ft (ASSUMED)
<b>Site:</b>	WELD_Badding 20-35 Pad	<b>North Reference:</b>	True
<b>Well:</b>	P_Badding 16-35	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_Badding 16-35		
<b>Design:</b>	Plan #1 7-16-10 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	14.56	96.97	4,509.64	-89.56	732.96	738.41	0.00	0.00	0.00
4,700.00	14.56	96.97	4,606.43	-92.61	757.90	763.54	0.00	0.00	0.00
4,750.18	14.56	96.97	4,655.00	-94.14	770.42	776.15	0.00	0.00	0.00
<b>SUSSEX</b>									
4,800.00	14.56	96.97	4,703.22	-95.66	782.85	788.67	0.00	0.00	0.00
4,900.00	14.56	96.97	4,800.01	-98.71	807.80	813.81	0.00	0.00	0.00
5,000.00	14.56	96.97	4,896.80	-101.76	832.75	838.94	0.00	0.00	0.00
5,100.00	14.56	96.97	4,993.59	-104.81	857.69	864.07	0.00	0.00	0.00
5,200.00	14.56	96.97	5,090.38	-107.86	882.64	889.20	0.00	0.00	0.00
5,300.00	14.56	96.97	5,187.17	-110.90	907.59	914.34	0.00	0.00	0.00
5,400.00	14.56	96.97	5,283.96	-113.95	932.53	939.47	0.00	0.00	0.00
5,500.00	14.56	96.97	5,380.75	-117.00	957.48	964.60	0.00	0.00	0.00
5,561.22	14.56	96.97	5,440.01	-118.87	972.75	979.99	0.00	0.00	0.00
<b>Start Drop -2.00</b>									
5,600.00	13.78	96.97	5,477.60	-120.02	982.17	989.48	2.00	-2.00	0.00
5,700.00	11.78	96.97	5,575.12	-122.70	1,004.13	1,011.60	2.00	-2.00	0.00
5,800.00	9.78	96.97	5,673.35	-124.97	1,022.70	1,030.30	2.00	-2.00	0.00
5,900.00	7.78	96.97	5,772.17	-126.82	1,037.85	1,045.57	2.00	-2.00	0.00
6,000.00	5.78	96.97	5,871.47	-128.25	1,049.57	1,057.37	2.00	-2.00	0.00
6,100.00	3.78	96.97	5,971.12	-129.26	1,057.84	1,065.71	2.00	-2.00	0.00
6,200.00	1.78	96.97	6,070.99	-129.85	1,062.65	1,070.56	2.00	-2.00	0.00
6,289.02	0.00	0.00	6,160.00	-130.02	1,064.03	1,071.94	2.00	-2.00	0.00
<b>Start 1920.00 hold at 6289.02 MD</b>									
6,300.00	0.00	0.00	6,170.98	-130.02	1,064.03	1,071.94	0.00	0.00	0.00
6,400.00	0.00	0.00	6,270.98	-130.02	1,064.03	1,071.94	0.00	0.00	0.00
6,500.00	0.00	0.00	6,370.98	-130.02	1,064.03	1,071.94	0.00	0.00	0.00
6,600.00	0.00	0.00	6,470.98	-130.02	1,064.03	1,071.94	0.00	0.00	0.00
6,700.00	0.00	0.00	6,570.98	-130.02	1,064.03	1,071.94	0.00	0.00	0.00
6,800.00	0.00	0.00	6,670.98	-130.02	1,064.03	1,071.94	0.00	0.00	0.00
6,900.00	0.00	0.00	6,770.98	-130.02	1,064.03	1,071.94	0.00	0.00	0.00
7,000.00	0.00	0.00	6,870.98	-130.02	1,064.03	1,071.94	0.00	0.00	0.00
7,100.00	0.00	0.00	6,970.98	-130.02	1,064.03	1,071.94	0.00	0.00	0.00
7,200.00	0.00	0.00	7,070.98	-130.02	1,064.03	1,071.94	0.00	0.00	0.00
7,289.02	0.00	0.00	7,160.00	-130.02	1,064.03	1,071.94	0.00	0.00	0.00
<b>NIO</b>									
7,300.00	0.00	0.00	7,170.98	-130.02	1,064.03	1,071.94	0.00	0.00	0.00
7,400.00	0.00	0.00	7,270.98	-130.02	1,064.03	1,071.94	0.00	0.00	0.00
7,500.00	0.00	0.00	7,370.98	-130.02	1,064.03	1,071.94	0.00	0.00	0.00
7,600.00	0.00	0.00	7,470.98	-130.02	1,064.03	1,071.94	0.00	0.00	0.00
7,614.02	0.00	0.00	7,485.00	-130.02	1,064.03	1,071.94	0.00	0.00	0.00
<b>CODELL</b>									
7,700.00	0.00	0.00	7,570.98	-130.02	1,064.03	1,071.94	0.00	0.00	0.00
7,704.02	0.00	0.00	7,575.00	-130.02	1,064.03	1,071.94	0.00	0.00	0.00
<b>GREENHORN</b>									
7,800.00	0.00	0.00	7,670.98	-130.02	1,064.03	1,071.94	0.00	0.00	0.00
7,900.00	0.00	0.00	7,770.98	-130.02	1,064.03	1,071.94	0.00	0.00	0.00
8,000.00	0.00	0.00	7,870.98	-130.02	1,064.03	1,071.94	0.00	0.00	0.00
8,059.02	0.00	0.00	7,930.00	-130.02	1,064.03	1,071.94	0.00	0.00	0.00
<b>JSAND</b>									
8,100.00	0.00	0.00	7,970.98	-130.02	1,064.03	1,071.94	0.00	0.00	0.00
8,200.00	0.00	0.00	8,070.98	-130.02	1,064.03	1,071.94	0.00	0.00	0.00
8,209.02	0.00	0.00	8,080.00	-130.02	1,064.03	1,071.94	0.00	0.00	0.00

<b>Database:</b>	EDM 2003.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well P_Badding 16-35
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL 5086' & RKB 15' @ 5101.00ft (ASSUMED)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL 5086' & RKB 15' @ 5101.00ft (ASSUMED)
<b>Site:</b>	WELD_Badding 20-35 Pad	<b>North Reference:</b>	True
<b>Well:</b>	P_Badding 16-35	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_Badding 16-35		
<b>Design:</b>	Plan #1 7-16-10 RHS		

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)
PBHL_Badding 16-35(810'FSL 510'FEL)									

Target Name	- hit/miss target	- Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
PBHL_Badding 16-35			0.00	0.00	8,080.00	-130.02	1,064.03	1,276,407.71	3,213,567.98	40° 5' 22.585 N	104° 44' 11.987 W
- plan hits target center											
- Circle (radius 50.00)											

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
1,150.00	1,150.00	8 5/8"	8.62	11.00

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
7,614.02	7,485.00	CODELL			
8,059.02	7,930.00	JSAND			
7,704.02	7,575.00	GREENHORN			
7,289.02	7,160.00	NIO			
4,318.32	4,237.00	PARKMAN			
4,750.18	4,655.00	SUSSEX			

Measured Depth (ft)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment
1,300.00	1,300.00	0.00	0.00	Start Build 2.00
2,027.80	2,019.99	-11.15	91.27	Start 3533.43 hold at 2027.80 MD
5,561.22	5,440.01	-118.87	972.75	Start Drop -2.00
6,289.02	6,160.00	-130.02	1,064.03	Start 1920.00 hold at 6289.02 MD
8,209.02	8,080.00	-130.02	1,064.03	TD at 8209.02