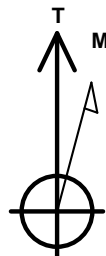


#### SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0
2	1500.0	0.00	0.00	1500.0	0.0	0.0	0.00	0.00	0.0
3	2250.0	15.00	17.00	2241.5	93.3	28.5	2.00	17.00	97.6
4	5148.7	15.00	17.00	5041.4	810.8	247.9	0.00	0.00	847.8
5	6148.7	0.00	0.00	6030.0	935.3	285.9	1.50	180.00	978.0
6	7578.7	0.00	0.00	7460.0	935.3	285.9	0.00	0.00	978.0



Azimuths to True North  
Magnetic North: 9.10°

Magnetic Field  
Strength: 53245.2snT  
Dip Angle: 66.96°  
Date: 7/17/2009  
Model: IGRF200510

# **ROCKIES - PLANNING**

**COLORADO NORTHERN ZONE - 83**

**WELD\_CAMP 8-24 PAD**

**P\_CAMP 41-24**

**P\_CAMP 41-24**

**Plan: Plan #1 07-17-09 ZJRA6**

## **Standard Planning Report - Geographic**

**17 July, 2009**

# APC

## Planning Report - Geographic

<b>Database:</b>	apc_edmp	<b>Local Co-ordinate Reference:</b>	Well P_CAMP 41-24
<b>Company:</b>	ROCKIES - PLANNING	<b>TVD Reference:</b>	WELL @ 4800.0ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 4800.0ft
<b>Site:</b>	WELD_CAMP 8-24 PAD	<b>North Reference:</b>	True
<b>Well:</b>	P_CAMP 41-24	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_CAMP 41-24		
<b>Design:</b>	Plan #1 07-17-09 ZJRA6		

<b>Project</b>	COLORADO NORTHERN ZONE - 83		
<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_CAMP 8-24 PAD			
Site Position:		Northing:	1,320,435.95ft	Latitude:	40.211060
From:	Lat/Long	Easting:	3,186,801.83ft	Longitude:	-104.831140
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.43 °

Well	P_CAMP 41-24					
Well Position	+N/-S	0.0 ft	Northing:	1,320,435.94 ft	Latitude:	40.211060
	+E/-W	0.0 ft	Easting:	3,186,801.83 ft	Longitude:	-104.831140
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,800.0 ft

<b>Wellbore</b>	P_CAMP 41-24				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF200510	7/17/2009	9.10	66.96	53,245

<b>Design</b>	Plan #1 07-17-09 ZJRA6			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	7,460.0	0.0	0.0	17.00

<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
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,250.0	15.00	17.00	2,241.5	93.3	28.5	2.00	2.00	0.00	17.00	
5,148.7	15.00	17.00	5,041.4	810.8	247.9	0.00	0.00	0.00	0.00	
6,148.7	0.00	0.00	6,030.0	935.3	285.9	1.50	-1.50	0.00	180.00	
7,578.7	0.00	0.00	7,460.0	935.3	285.9	0.00	0.00	0.00	0.00	PBHL_CAMP 41-24

# APC

## Planning Report - Geographic

<b>Database:</b>	apc_edmp	<b>Local Co-ordinate Reference:</b>	Well P_CAMP 41-24
<b>Company:</b>	ROCKIES - PLANNING	<b>TVD Reference:</b>	WELL @ 4800.0ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 4800.0ft
<b>Site:</b>	WELD_CAMP 8-24 PAD	<b>North Reference:</b>	True
<b>Well:</b>	P_CAMP 41-24	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_CAMP 41-24		
<b>Design:</b>	Plan #1 07-17-09 ZJRA6		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
0.0	0.00	0.00	0.0	0.0	0.0	1,320,435.94	3,186,801.83	40.211060	-104.831140
850.0	0.00	0.00	850.0	0.0	0.0	1,320,435.94	3,186,801.83	40.211060	-104.831140
<b>Surface Casing</b>									
1,500.0	0.00	0.00	1,500.0	0.0	0.0	1,320,435.94	3,186,801.83	40.211060	-104.831140
2,250.0	15.00	17.00	2,241.5	93.3	28.5	1,320,529.51	3,186,829.67	40.211316	-104.831038
5,148.7	15.00	17.00	5,041.4	810.8	247.9	1,321,248.59	3,187,043.60	40.213286	-104.830252
6,148.7	0.00	0.00	6,030.0	935.3	285.9	1,321,373.34	3,187,080.71	40.213627	-104.830116
7,143.7	0.00	0.00	7,025.0	935.3	285.9	1,321,373.34	3,187,080.71	40.213627	-104.830116
<b>Niobrara "A"</b>									
7,413.7	0.00	0.00	7,295.0	935.3	285.9	1,321,373.34	3,187,080.71	40.213627	-104.830116
<b>Codell</b>									
7,578.7	0.00	0.00	7,460.0	935.3	285.9	1,321,373.34	3,187,080.71	40.213627	-104.830116

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL_CAMP 41-24	0.00	0.00	7,460.0	935.3	285.9	1,321,373.34	3,187,080.71	40.213627	-104.830116
- plan hits target center									
- Point									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
850.0	850.0	Surface Casing	8-5/8	12-1/4	

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
7,143.7	7,025.0	Niobrara "A"		0.00	
7,413.7	7,295.0	Codell		0.00	