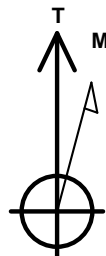


SECTION DETAILS

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	1000.0	0.00	0.00	1000.0	0.0	0.0	0.00	0.00	0.0
3	2325.0	26.50	235.10	2278.3	-172.2	-246.9	2.00	235.10	301.0
4	5219.9	26.50	235.10	4869.0	-911.2	-1306.2	0.00	0.00	1592.7
5	6986.5	0.00	0.00	6573.3	-1140.9	-1635.4	1.50	180.00	1994.0
6	8083.2	0.00	0.00	7670.0	-1140.9	-1635.4	0.00	0.00	1994.0



Azimuths to True North
Magnetic North: 9.01°

Magnetic Field
Strength: 53286.3snT
Dip Angle: 67.02°
Date: 6/30/2009
Model: IGRF200510

ROCKIES - PLANNING

COLORADO NORTHERN ZONE - 83

WELD_FRICO 11-11 PAD

P_FRICO 33-11

P_FRICO 33-11

Plan: Plan #1 06-30-09 ZJRA6

Standard Planning Report - Geographic

30 June, 2009

APC

Planning Report - Geographic

Database:	apc_edmp	Local Co-ordinate Reference:	Well P_FRICO 33-11
Company:	ROCKIES - PLANNING	TVD Reference:	WELL @ 4779.0ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 4779.0ft (Original Well Elev)
Site:	WELD_FRICO 11-11 PAD	North Reference:	True
Well:	P_FRICO 33-11	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_FRICO 33-11		
Design:	Plan #1 06-30-09 ZJRA6		

Project	COLORADO NORTHERN ZONE - 83		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site		WELD_FRICO 11-11 PAD			
Site Position:		Northing:	1,331,086.59ft	Latitude:	40.238990
From:	Lat/Long	Easting:	3,241,775.70ft	Longitude:	-104.633940
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.56 °

Well	P_FRICO 33-11					
Well Position	+N/-S	0.0 ft	Northing:	1,331,086.59 ft	Latitude:	40.238990
	+E/-W	0.0 ft	Easting:	3,241,775.70 ft	Longitude:	-104.633940
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,779.0 ft

Wellbore	P_FRICO 33-11				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	6/30/2009	9.01	67.02	53,286

Design	Plan #1 06-30-09 ZJRA6			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	7,670.0	0.0	0.0	235.10

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
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,325.0	26.50	235.10	2,278.3	-172.2	-246.9	2.00	2.00	0.00	235.10	
5,219.9	26.50	235.10	4,869.0	-911.2	-1,306.2	0.00	0.00	0.00	0.00	
6,986.5	0.00	0.00	6,573.3	-1,140.9	-1,635.4	1.50	-1.50	0.00	180.00	
8,083.2	0.00	0.00	7,670.0	-1,140.9	-1,635.4	0.00	0.00	0.00	0.00	PBHL_FRICO 33-1

APC

Planning Report - Geographic

Database:	apc_edmp	Local Co-ordinate Reference:	Well P_FRICO 33-11
Company:	ROCKIES - PLANNING	TVD Reference:	WELL @ 4779.0ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 4779.0ft (Original Well Elev)
Site:	WELD_FRICO 11-11 PAD	North Reference:	True
Well:	P_FRICO 33-11	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_FRICO 33-11		
Design:	Plan #1 06-30-09 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	1,331,086.59	3,241,775.70	40.238990	-104.633940
840.0	0.00	0.00	840.0	0.0	0.0	1,331,086.59	3,241,775.70	40.238990	-104.633940
Surface Casing									
1,000.0	0.00	0.00	1,000.0	0.0	0.0	1,331,086.59	3,241,775.70	40.238990	-104.633940
2,325.0	26.50	235.10	2,278.3	-172.2	-246.9	1,330,911.97	3,241,530.53	40.238517	-104.634824
3,698.0	26.50	235.10	3,507.0	-522.7	-749.3	1,330,556.57	3,241,031.53	40.237555	-104.636624
Parkman									
4,377.4	26.50	235.10	4,115.0	-696.2	-997.9	1,330,380.71	3,240,784.62	40.237079	-104.637514
Sussex									
5,219.9	26.50	235.10	4,869.0	-911.2	-1,306.2	1,330,162.63	3,240,478.42	40.236488	-104.638619
6,986.5	0.00	0.00	6,573.3	-1,140.9	-1,635.4	1,329,929.81	3,240,151.53	40.235858	-104.639798
7,205.2	0.00	0.00	6,792.0	-1,140.9	-1,635.4	1,329,929.81	3,240,151.53	40.235858	-104.639798
Niobrara "A"									
7,479.2	0.00	0.00	7,066.0	-1,140.9	-1,635.4	1,329,929.81	3,240,151.53	40.235858	-104.639798
Codell									
7,933.2	0.00	0.00	7,520.0	-1,140.9	-1,635.4	1,329,929.81	3,240,151.53	40.235858	-104.639798
JSand									
8,083.2	0.00	0.00	7,670.0	-1,140.9	-1,635.4	1,329,929.81	3,240,151.53	40.235858	-104.639798

Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting		
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)	Latitude	Longitude
PBHL_FRICO 33-11	0.00	0.00	7,670.0	-1,140.9	-1,635.4	1,329,929.81	3,240,151.53	40.235858	-104.639798
- plan hits target center									
- Point									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
840.0	840.0	Surface Casing	8-5/8	12-1/4	

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,377.4	4,115.0	Sussex		0.00	
3,698.0	3,507.0	Parkman		0.00	
7,205.2	6,792.0	Niobrara "A"		0.00	
7,479.2	7,066.0	Codell		0.00	
7,933.2	7,520.0	JSand		0.00	