

US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_Palyo 18-11 pad

Palyo 28-11

Palyo 28-11

Plan: Palyo 28-11 (wp01)

Standard Planning Report

04 January, 2011



Project: COLORADO NORTHERN ZONE - 83
Site: WELD_Palyo 18-11 pad
Well: Palyo 28-11
Wellbore: Palyo 28-11
Section:
SHL:
Design: Palyo 28-11 (wp01)
Latitude: 40.157569
Longitude: -104.635452
GL: 4854.00
KB: WELL @ 4854.00ft (Original Well Elev)

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
4054.00	4255.86	PK
4409.00	4634.11	SX
6814.00	7093.03	NIO
7099.00	7378.03	CD
7180.00	7459.03	GH
7554.00	7833.03	J



Weatherford®

WELL DETAILS: Palyo 28-11

+N/-S	+E/-W	Northing	Ground Level: Easting	4854.00 Latitude	Longitude	Slot
0.00	0.00	1301423.57	3241642.78	40.157569	-104.635452	

CASING DETAILS

TVD	MD	Name	Size
800.00	802.57	8-5/8"	8-5/8

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
Palyo 28-11 BHL	7704.00	999.27	1357.79	1302436.04	3242990.76	40.160312	-104.630594	Point

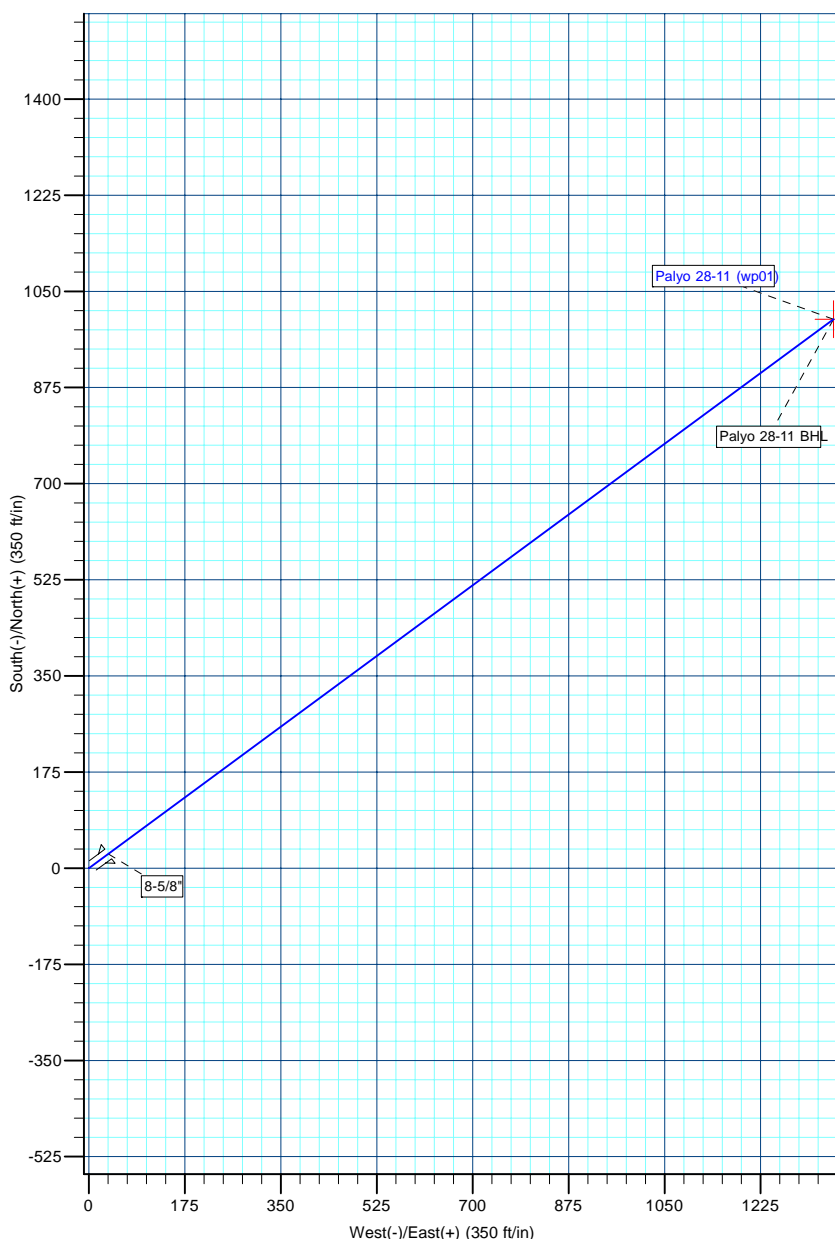
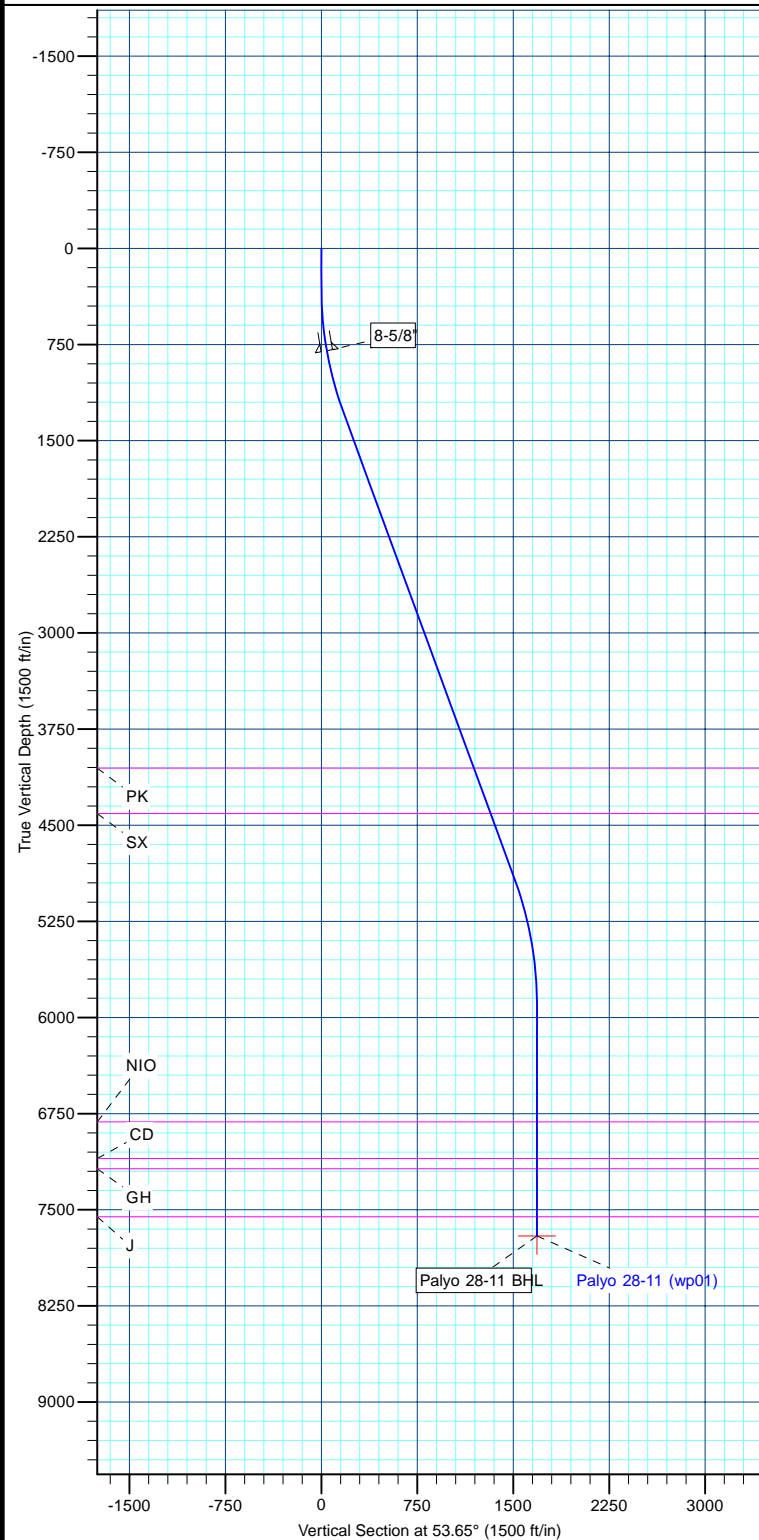


Azimuths to True North
Magnetic North: 8.83°

Magnetic Field
Strength: 53065.0snT
Dip Angle: 66.89°
Date: 1/3/2011
Model: IGRF2010

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
0.00	0.00	0.00	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	
1309.65	20.19	53.65	1288.88	104.37	141.82	2.00	53.65	176.08	
5173.38	20.19	53.65	4915.12	894.90	1215.97	0.00	0.00	1509.78	
6183.03	0.00	0.00	5904.00	999.27	1357.79	2.00	180.00	1685.86	
7983.03	0.00	0.00	7704.00	999.27	1357.79	0.00	0.00	1685.86	Palyo 28-11 BHL



Database:	edm5000p	Local Co-ordinate Reference:	Well Palyo 28-11
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 4854.00ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 4854.00ft (Original Well Elev)
Site:	WELD_Palyo 18-11 pad	North Reference:	True
Well:	Palyo 28-11	Survey Calculation Method:	Minimum Curvature
Wellbore:	Palyo 28-11		
Design:	Palyo 28-11 (wp01)		

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_Palyo 18-11 pad			
Site Position: From: Position Uncertainty:		Northing:	1,301,423.64 ft	Latitude:	40.157570
	Lat/Long	Easting:	3,241,610.64 ft	Longitude:	-104.635567
	0.00 ft	Slot Radius:	0 "	Grid Convergence:	0.56

Well	Palyo 28-11					
Well Position	+N-S	-0.38 ft	Northing:	1,301,423.57 ft	Latitude:	40.157569
	+E-W	32.14 ft	Easting:	3,241,642.78 ft	Longitude:	-104.635452
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	4,854.00 ft

Wellbore	Palyo 28-11				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	1/3/2011	8.83	66.89	53,065

Design	Palyo 28-11 (wp01)			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	53.65

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	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,309.65	20.19	53.65	1,288.88	104.37	141.82	2.00	2.00	0.00	53.65	
5,173.38	20.19	53.65	4,915.12	894.90	1,215.97	0.00	0.00	0.00	0.00	
6,183.03	0.00	0.00	5,904.00	999.27	1,357.79	2.00	-2.00	0.00	180.00	
7,983.03	0.00	0.00	7,704.00	999.27	1,357.79	0.00	0.00	0.00	0.00	Palyo 28-11 BHL

Database:	edm5000p	Local Co-ordinate Reference:	Well Palyo 28-11
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 4854.00ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 4854.00ft (Original Well Elev)
Site:	WELD_Palyo 18-11 pad	North Reference:	True
Well:	Palyo 28-11	Survey Calculation Method:	Minimum Curvature
Wellbore:	Palyo 28-11		
Design:	Palyo 28-11 (wp01)		

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
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
802.57	10.05	53.65	800.00	26.06	35.41	43.97	2.00	2.00	0.00
8-5/8"									
1,309.65	20.19	53.65	1,288.88	104.37	141.82	176.08	2.00	2.00	0.00
4,255.86	20.19	53.65	4,054.00	707.17	960.89	1,193.07	0.00	0.00	0.00
PK									
4,634.11	20.19	53.65	4,409.00	784.57	1,066.05	1,323.63	0.00	0.00	0.00
SX									
5,173.38	20.19	53.65	4,915.12	894.90	1,215.97	1,509.78	0.00	0.00	0.00
6,183.03	0.00	0.00	5,904.00	999.27	1,357.79	1,685.86	2.00	-2.00	0.00
7,093.03	0.00	0.00	6,814.00	999.27	1,357.79	1,685.86	0.00	0.00	0.00
NIO									
7,378.03	0.00	0.00	7,099.00	999.27	1,357.79	1,685.86	0.00	0.00	0.00
CD									
7,459.03	0.00	0.00	7,180.00	999.27	1,357.79	1,685.86	0.00	0.00	0.00
GH									
7,833.03	0.00	0.00	7,554.00	999.27	1,357.79	1,685.86	0.00	0.00	0.00
J									
7,983.03	0.00	0.00	7,704.00	999.27	1,357.79	1,685.86	0.00	0.00	0.00
Palyo 28-11 BHL									

Design 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									
Palyo 28-11 BHL	0.00	0.00	7,704.00	999.27	1,357.79	1,302,436.04	3,242,990.76	40.160312	-104.630594
- plan hits target center									
- Point									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
802.57	800.00	8-5/8"	8-5/8	11	

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,255.86	4,054.00	PK			
4,634.11	4,409.00	SX			
7,093.03	6,814.00	NIO			
7,378.03	7,099.00	CD			
7,459.03	7,180.00	GH			
7,833.03	7,554.00	J			

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Design:	Palyo 28-11 (wp01)		