

US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_Palyo 18-11 pad

Palyo 3-11

Palyo 3-11

Plan: Palyo 3-11 (wp01)

Standard Planning Report

04 January, 2011



Project: COLORADO NORTHERN ZONE - 83
 Site: WELD_Palyo 18-11 pad
 Well: Palyo 3-11
 Wellbore: Palyo 3-11
 Section:
 SHL:
 Design: Palyo 3-11 (wp01)
 Latitude: 40.157570
 Longitude: -104.635567
 GL: 4854.00
 KB: WELL @ 4854.00ft (Original Well Elev)

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
4054.00	4191.08	PK
4409.00	4546.08	SX
6814.00	6951.08	NIO
7099.00	7236.08	CD
7180.00	7317.08	GH



Weatherford

WELL DETAILS: Palyo 3-11

+N/-S	+E/-W	Northing	Ground Level:	4854.00	Latitude	Longitude	Slot
0.00	0.00	1301423.63	Easting	3241610.64	40.157570	-104.635567	

CASING DETAILS

TVD	MD	Name	Size
800.00	800.16	8-5/8"	8-5/8

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
Palyo 3-11 BHL	7259.00	483.41	682.82	1301913.68	3242288.71	40.158897	-104.633124	Point

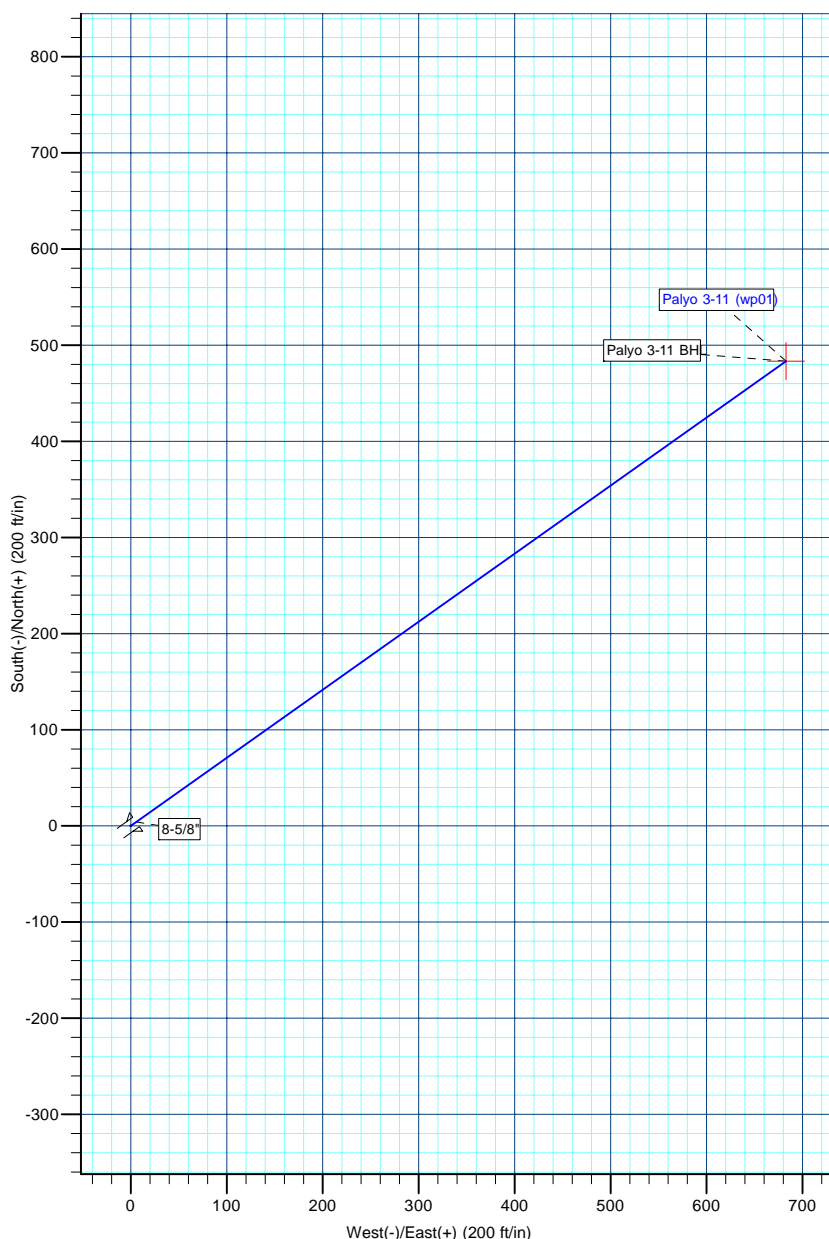
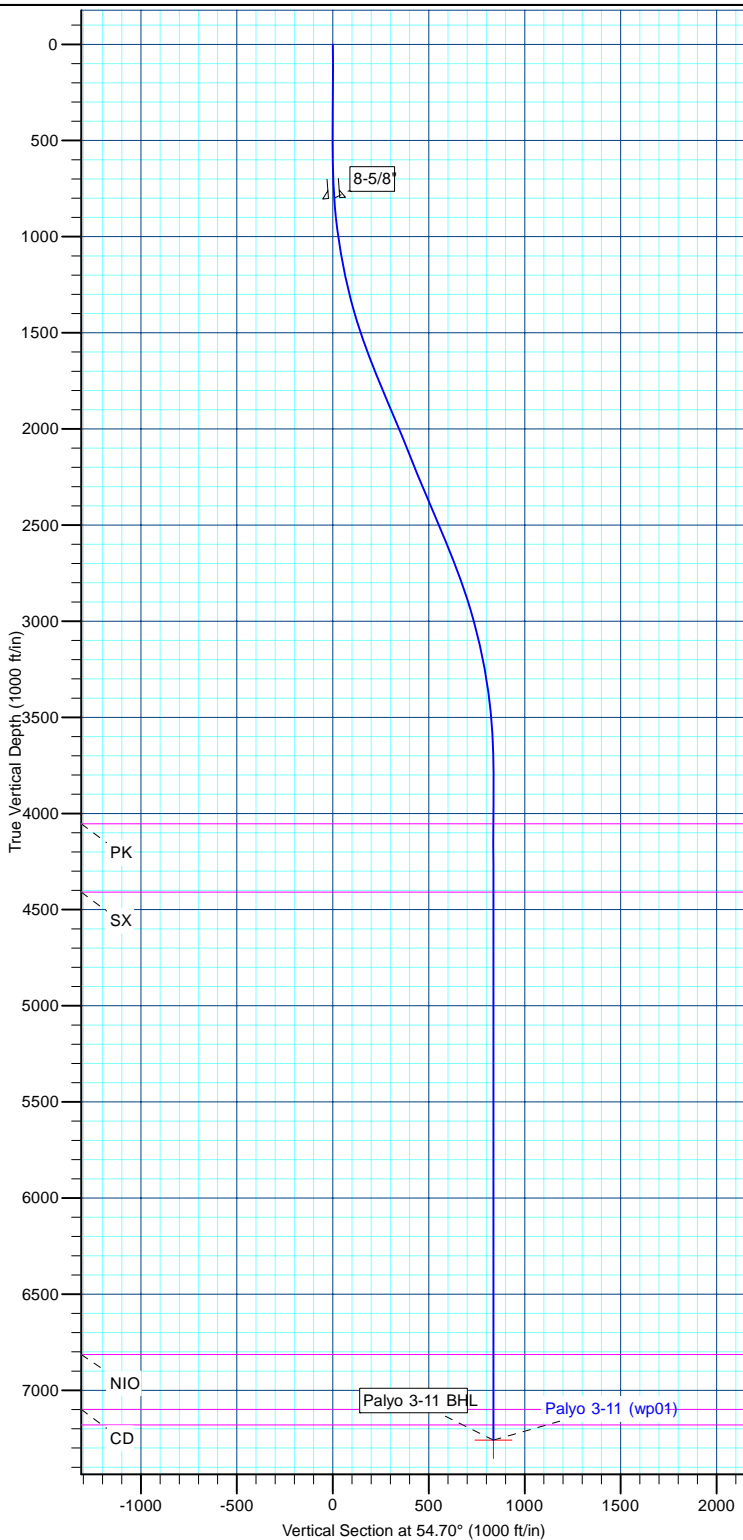


Azimuths to True North
 Magnetic North: 8.83°

Magnetic Field
 Strength: 53064.9snT
 Dip Angle: 66.89°
 Date: 1/3/2011
 Model: IGRF2010

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
0.00	0.00	0.00	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	
1725.49	22.51	54.70	1696.76	126.11	178.13	2.00	54.70	218.26	
2770.60	22.51	54.70	2662.24	357.30	504.69	0.00	0.00	618.37	
3896.08	0.00	0.00	3759.00	483.41	682.82	2.00	180.00	836.62	
7396.08	0.00	0.00	7259.00	483.41	682.82	0.00	0.00	836.62	Palyo 3-11 BHL



Database:	edm5000p	Local Co-ordinate Reference:	Well Palyo 3-11
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 3-11	Survey Calculation Method:	Minimum Curvature
Wellbore:	Palyo 3-11		
Design:	Palyo 3-11 (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:		Northing:	1,301,423.64 ft	Latitude: 40.157570
From:	Lat/Long	Easting:	3,241,610.64 ft	Longitude: -104.635567
Position Uncertainty:	0.00 ft	Slot Radius:	0 "	Grid Convergence: 0.56 °

Well	Palyo 3-11			
Well Position	+N/-S	0.00 ft	Northing:	1,301,423.63 ft
	+E/-W	0.00 ft	Easting:	3,241,610.64 ft
Position Uncertainty		0.00 ft	Wellhead Elevation:	Ground Level: 4,854.00 ft

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

Design	Palyo 3-11 (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	54.70

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	
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,725.49	22.51	54.70	1,696.76	126.11	178.13	2.00	2.00	0.00	54.70	
2,770.60	22.51	54.70	2,662.24	357.30	504.69	0.00	0.00	0.00	0.00	
3,896.08	0.00	0.00	3,759.00	483.41	682.82	2.00	-2.00	0.00	180.00	
7,396.08	0.00	0.00	7,259.00	483.41	682.82	0.00	0.00	0.00	0.00	Palyo 3-11 BHL

Database:	edm5000p	Local Co-ordinate Reference:	Well Palyo 3-11
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 3-11	Survey Calculation Method:	Minimum Curvature
Wellbore:	Palyo 3-11		
Design:	Palyo 3-11 (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
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
800.16	4.00	54.70	800.00	4.04	5.70	6.99	2.00	2.00	0.00
8-5/8"									
1,725.49	22.51	54.70	1,696.76	126.11	178.13	218.26	2.00	2.00	0.00
2,770.60	22.51	54.70	2,662.24	357.30	504.69	618.37	0.00	0.00	0.00
3,896.08	0.00	0.00	3,759.00	483.41	682.82	836.62	2.00	-2.00	0.00
4,191.08	0.00	0.00	4,054.00	483.41	682.82	836.62	0.00	0.00	0.00
PK									
4,546.08	0.00	0.00	4,409.00	483.41	682.82	836.62	0.00	0.00	0.00
SX									
6,951.08	0.00	0.00	6,814.00	483.41	682.82	836.62	0.00	0.00	0.00
NIO									
7,236.08	0.00	0.00	7,099.00	483.41	682.82	836.62	0.00	0.00	0.00
CD									
7,317.08	0.00	0.00	7,180.00	483.41	682.82	836.62	0.00	0.00	0.00
GH									
7,396.08	0.00	0.00	7,259.00	483.41	682.82	836.62	0.00	0.00	0.00
Palyo 3-11 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 3-11 BHL	0.00	0.00	7,259.00	483.41	682.82	1,301,913.68	3,242,288.71	40.158897	-104.633124
- plan hits target center									
- Point									

Casing Points				
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
800.16	800.00	8-5/8"	8-5/8	11

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,191.08	4,054.00	PK			
4,546.08	4,409.00	SX			
6,951.08	6,814.00	NIO			
7,236.08	7,099.00	CD			
7,317.08	7,180.00	GH			