

# **PICEANCE VLY NAD 83**

**RU 12-07S-094W**

**RU 32-12 Pad**

**SR 41-12 - Slot B7**

**Wellbore #1**

**Plan: Design #1 27Apr16 sam**

## **Standard Planning Report**

**07 June, 2016**

# WPX

## Planning Report

<b>Database:</b>	COMPASS	<b>Local Co-ordinate Reference:</b>	Well SR 41-12 (B7) - Slot B7
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KB @ 7278.00usft (HP 318)
<b>Project:</b>	RU 12-07S-094W	<b>MD Reference:</b>	KB @ 7278.00usft (HP 318)
<b>Site:</b>	RU 32-12 Pad	<b>North Reference:</b>	True
<b>Well:</b>	SR 41-12	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 27Apr16 sam		

<b>Project</b>	RU 12-07S-094W		
<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 Central Zone		Using geodetic scale factor

<b>Site</b>	RU 32-12 Pad			
<b>Site Position:</b>		<b>Northing:</b>	1,599,166.61 usft	<b>Latitude:</b> 39.455244
<b>From:</b> Map		<b>Easting:</b>	2,341,071.28 usft	<b>Longitude:</b> -107.833873
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13.200 in	<b>Grid Convergence:</b> -1.47 °

<b>Well</b>	SR 41-12 - Slot B7			
<b>Well Position</b>	<b>+N/-S</b>	30.63 usft	<b>Northing:</b>	1,599,197.20 usft
	<b>+E/-W</b>	1.34 usft	<b>Easting:</b>	2,341,073.40 usft
<b>Position Uncertainty</b>		0.00 usft	<b>Wellhead Elevation:</b>	0.00 usft
			<b>Ground Level:</b>	7,254.00 usft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2015	4/27/2016	9.74	65.60	51,644

<b>Design</b>	Design #1 27Apr16 sam			
<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) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (bearing)</b>
	0.00	0.00	0.00	24.51

<b>Plan Sections</b>										
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
120.00	0.00	0.00	120.00	0.00	0.00	0.00	0.00	0.00	0.00	
851.83	25.61	24.51	827.70	146.38	66.75	3.50	3.50	0.00	24.51	
4,059.02	25.61	24.51	3,719.70	1,407.90	642.01	0.00	0.00	0.00	0.00	
5,766.63	0.00	0.00	5,371.00	1,749.45	797.76	1.50	-1.50	0.00	180.00	
5,966.63	0.00	0.00	5,571.00	1,749.45	797.76	0.00	0.00	0.00	0.00	10 acre SR 41-12 MV
9,741.63	0.00	0.00	9,346.00	1,749.45	797.76	0.00	0.00	0.00	0.00	

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Planning Report

<b>Database:</b>	COMPASS	<b>Local Co-ordinate Reference:</b>	Well SR 41-12 (B7) - Slot B7
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KB @ 7278.00usft (HP 318)
<b>Project:</b>	RU 12-07S-094W	<b>MD Reference:</b>	KB @ 7278.00usft (HP 318)
<b>Site:</b>	RU 32-12 Pad	<b>North Reference:</b>	True
<b>Well:</b>	SR 41-12	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 27Apr16 sam		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120.00	0.00	0.00	120.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Start Build 3.50</b>									
500.00	13.30	24.51	496.60	39.95	18.22	43.91	3.50	3.50	0.00
851.83	25.61	24.51	827.70	146.38	66.75	160.88	3.50	3.50	0.00
<b>Hold 25.61 Inclination</b>									
1,000.00	25.61	24.51	961.30	204.66	93.33	224.93	0.00	0.00	0.00
1,100.00	25.61	24.51	1,051.48	243.99	111.26	268.16	0.00	0.00	0.00
<b>9 5/8"</b>									
1,500.00	25.61	24.51	1,412.17	401.33	183.01	441.09	0.00	0.00	0.00
2,000.00	25.61	24.51	1,863.03	598.00	272.69	657.24	0.00	0.00	0.00
2,500.00	25.61	24.51	2,313.89	794.67	362.38	873.40	0.00	0.00	0.00
3,000.00	25.61	24.51	2,764.76	991.34	452.06	1,089.55	0.00	0.00	0.00
3,431.67	25.61	24.51	3,154.00	1,161.14	529.49	1,276.16	0.00	0.00	0.00
<b>Top of "G" Sand</b>									
3,492.66	25.61	24.51	3,209.00	1,185.13	540.43	1,302.53	0.00	0.00	0.00
<b>Base of "G" Sand</b>									
3,500.00	25.61	24.51	3,215.62	1,188.01	541.74	1,305.71	0.00	0.00	0.00
4,000.00	25.61	24.51	3,666.48	1,384.69	631.43	1,521.86	0.00	0.00	0.00
4,059.02	25.61	24.51	3,719.70	1,407.90	642.01	1,547.37	0.00	0.00	0.00
<b>Start Drop -1.50</b>									
4,500.00	19.00	24.51	4,127.45	1,560.11	711.42	1,714.66	1.50	-1.50	0.00
5,000.00	11.50	24.51	4,609.50	1,679.68	765.95	1,846.08	1.50	-1.50	0.00
5,500.00	4.00	24.51	5,104.58	1,740.98	793.90	1,913.45	1.50	-1.50	0.00
5,539.50	3.41	24.51	5,144.00	1,743.31	794.96	1,916.01	1.50	-1.50	0.00
<b>Lower Wasatch</b>									
5,766.63	0.00	0.00	5,371.00	1,749.45	797.76	1,922.76	1.50	-1.50	0.00
<b>Vertical</b>									
5,784.63	0.00	0.00	5,389.00	1,749.45	797.76	1,922.76	0.00	0.00	0.00
<b>Ohio Creek</b>									
5,966.63	0.00	0.00	5,571.00	1,749.45	797.76	1,922.76	0.00	0.00	0.00
<b>Top MVRD - Mesaverde</b>									
6,000.00	0.00	0.00	5,604.37	1,749.45	797.76	1,922.76	0.00	0.00	0.00
6,500.00	0.00	0.00	6,104.37	1,749.45	797.76	1,922.76	0.00	0.00	0.00
7,000.00	0.00	0.00	6,604.37	1,749.45	797.76	1,922.76	0.00	0.00	0.00
7,500.00	0.00	0.00	7,104.37	1,749.45	797.76	1,922.76	0.00	0.00	0.00
7,617.63	0.00	0.00	7,222.00	1,749.45	797.76	1,922.76	0.00	0.00	0.00
<b>Approx Top Gas</b>									
8,000.00	0.00	0.00	7,604.37	1,749.45	797.76	1,922.76	0.00	0.00	0.00
8,500.00	0.00	0.00	8,104.37	1,749.45	797.76	1,922.76	0.00	0.00	0.00
8,709.63	0.00	0.00	8,314.00	1,749.45	797.76	1,922.76	0.00	0.00	0.00
<b>Cameo</b>									
9,000.00	0.00	0.00	8,604.37	1,749.45	797.76	1,922.76	0.00	0.00	0.00
9,397.63	0.00	0.00	9,002.00	1,749.45	797.76	1,922.76	0.00	0.00	0.00
<b>Coal D</b>									
9,500.00	0.00	0.00	9,104.37	1,749.45	797.76	1,922.76	0.00	0.00	0.00
9,591.63	0.00	0.00	9,196.00	1,749.45	797.76	1,922.76	0.00	0.00	0.00
<b>Rollins</b>									
9,741.63	0.00	0.00	9,346.00	1,749.45	797.76	1,922.76	0.00	0.00	0.00
<b>TD at 9741.63 - TD</b>									

# WPX

## Planning Report

<b>Database:</b>	COMPASS	<b>Local Co-ordinate Reference:</b>	Well SR 41-12 (B7) - Slot B7
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KB @ 7278.00usft (HP 318)
<b>Project:</b>	RU 12-07S-094W	<b>MD Reference:</b>	KB @ 7278.00usft (HP 318)
<b>Site:</b>	RU 32-12 Pad	<b>North Reference:</b>	True
<b>Well:</b>	SR 41-12	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 27Apr16 sam		

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (bearing)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
10 acre SR 41-12 MVRD	0.00	0.00	5,571.00	1,749.45	797.76	1,600,925.50	2,341,915.80	39.460131	-107.831042
- plan hits target center									
- Circle (radius 50.00)									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,100.00	1,051.48	9 5/8"	9.625	13.500	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (bearing)	
3,431.67	3,154.00	Top of "G" Sand		0.00		
3,492.66	3,209.00	Base of "G" Sand		0.00		
5,539.50	5,144.00	Lower Wasatch		0.00		
5,784.63	5,389.00	Ohio Creek		0.00		
5,966.63	5,571.00	Mesaverde		0.00		
7,617.63	7,222.00	Approx Top Gas		0.00		
8,709.63	8,314.00	Cameo		0.00		
9,397.63	9,002.00	Coal D		0.00		
9,591.63	9,196.00	Rollins		0.00		
9,741.63	9,346.00	TD		0.00		

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
120.00	120.00	0.00	0.00	Start Build 3.50	
851.83	827.70	146.38	66.75	Hold 25.61 Inclination	
4,059.02	3,719.70	1,407.90	642.01	Start Drop -1.50	
5,766.63	5,371.00	1,749.45	797.76	Vertical	
5,966.63	5,571.00	1,749.45	797.76	Top MVRD	
9,741.63	9,346.00	1,749.45	797.76	TD at 9741.63	