

# **PICEANCE VLY NAD 83**

**RU 07-07S-093W**

**SR 43-12 Pad**

**RU 514-7 - Slot A1**

**Wellbore #1**

**Plan: Design #2 30Mar16 sam**

## **Standard Planning Report**

**04 May, 2016**

# WPX

## Planning Report

<b>Database:</b>	COMPASS	<b>Local Co-ordinate Reference:</b>	Well RU 514-7 (A1) - Slot A1
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KB @ 7381.00usft (HP 318)
<b>Project:</b>	RU 07-07S-093W	<b>MD Reference:</b>	KB @ 7381.00usft (HP 318)
<b>Site:</b>	SR 43-12 Pad	<b>North Reference:</b>	True
<b>Well:</b>	RU 514-7	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #2 30Mar16 sam		

<b>Project</b>	RU 07-07S-093W, Garfield County, CO		
<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

Site		SR 43-12 Pad			
Site Position:		Northing:	1,598,022.10 usft	Latitude:	39.452261
From:	Map	Easting:	2,343,309.20 usft	Longitude:	-107.825846
Position Uncertainty:	0.00 usft	Slot Radius:	0.000 in	Grid Convergence:	-1.47 °

Well	RU 514-7 - Slot A1					
Well Position	+N/-S	-67.09 usft	Northing:	1,597,954.70 usft	Latitude:	39.452077
	+E/-W	13.12 usft	Easting:	2,343,320.60 usft	Longitude:	-107.825799
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	7,357.00 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	3/9/2016	9.75	65.60	51,658

<b>Design</b>	Design #2 30Mar16 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	155.27

<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	
724.32	21.15	155.27	710.69	-100.17	46.13	3.50	3.50	0.00	155.27	
4,492.20	21.15	155.27	4,224.73	-1,335.06	614.88	0.00	0.00	0.00	0.00	
5,902.28	0.00	0.00	5,603.00	-1,568.79	722.53	1.50	-1.50	0.00	180.00	
6,002.28	0.00	0.00	5,703.00	-1,568.79	722.53	0.00	0.00	0.00	0.00	10 acre RU 514-7 MV
9,673.28	0.00	0.00	9,374.00	-1,568.79	722.53	0.00	0.00	0.00	0.00	

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<b>Database:</b>	COMPASS	<b>Local Co-ordinate Reference:</b>	Well RU 514-7 (A1) - Slot A1
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KB @ 7381.00usft (HP 318)
<b>Project:</b>	RU 07-07S-093W	<b>MD Reference:</b>	KB @ 7381.00usft (HP 318)
<b>Site:</b>	SR 43-12 Pad	<b>North Reference:</b>	True
<b>Well:</b>	RU 514-7	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #2 30Mar16 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	155.27	496.60	-39.88	18.37	43.91	3.50	3.50	0.00
724.32	21.15	155.27	710.69	-100.17	46.13	110.28	3.50	3.50	0.00
<b>Hold 21.15 Inclination</b>									
1,000.00	21.15	155.27	967.80	-190.52	87.75	209.76	0.00	0.00	0.00
1,124.00	21.15	155.27	1,083.44	-231.16	106.46	254.50	0.00	0.00	0.00
<b>9 5/8"</b>									
1,500.00	21.15	155.27	1,434.11	-354.39	163.22	390.17	0.00	0.00	0.00
2,000.00	21.15	155.27	1,900.43	-518.26	238.69	570.59	0.00	0.00	0.00
2,500.00	21.15	155.27	2,366.74	-682.13	314.17	751.00	0.00	0.00	0.00
3,000.00	21.15	155.27	2,833.06	-846.00	389.64	931.42	0.00	0.00	0.00
3,411.68	21.15	155.27	3,217.00	-980.93	451.78	1,079.96	0.00	0.00	0.00
<b>Top of "G" Sand</b>									
3,500.00	21.15	155.27	3,299.37	-1,009.87	465.11	1,111.83	0.00	0.00	0.00
3,540.34	21.15	155.27	3,337.00	-1,023.10	471.20	1,126.39	0.00	0.00	0.00
<b>Base of "G" Sand</b>									
4,000.00	21.15	155.27	3,765.69	-1,173.75	540.58	1,292.25	0.00	0.00	0.00
4,492.20	21.15	155.27	4,224.73	-1,335.06	614.88	1,469.85	0.00	0.00	0.00
<b>Start Drop -1.50</b>									
4,500.00	21.03	155.27	4,232.01	-1,337.61	616.05	1,472.66	1.50	-1.50	0.00
5,000.00	13.53	155.27	4,709.09	-1,472.45	678.15	1,621.11	1.50	-1.50	0.00
5,500.00	6.03	155.27	5,201.46	-1,549.57	713.67	1,706.02	1.50	-1.50	0.00
5,580.90	4.82	155.27	5,282.00	-1,556.52	716.87	1,713.67	1.50	-1.50	0.00
<b>Lower Wasatch</b>									
5,735.23	2.51	155.27	5,436.00	-1,565.47	721.00	1,723.53	1.50	-1.50	0.00
<b>Ohio Creek</b>									
5,902.28	0.00	0.00	5,603.00	-1,568.79	722.53	1,727.18	1.50	-1.50	0.00
<b>Vertical</b>									
6,000.00	0.00	0.00	5,700.72	-1,568.79	722.53	1,727.18	0.00	0.00	0.00
6,002.28	0.00	0.00	5,703.00	-1,568.79	722.53	1,727.18	0.00	0.00	0.00
<b>MVRD target - Mesaverde</b>									
6,500.00	0.00	0.00	6,200.72	-1,568.79	722.53	1,727.18	0.00	0.00	0.00
7,000.00	0.00	0.00	6,700.72	-1,568.79	722.53	1,727.18	0.00	0.00	0.00
7,500.00	0.00	0.00	7,200.72	-1,568.79	722.53	1,727.18	0.00	0.00	0.00
7,618.28	0.00	0.00	7,319.00	-1,568.79	722.53	1,727.18	0.00	0.00	0.00
<b>Approx Top Gas</b>									
8,000.00	0.00	0.00	7,700.72	-1,568.79	722.53	1,727.18	0.00	0.00	0.00
8,500.00	0.00	0.00	8,200.72	-1,568.79	722.53	1,727.18	0.00	0.00	0.00
8,675.28	0.00	0.00	8,376.00	-1,568.79	722.53	1,727.18	0.00	0.00	0.00
<b>Cameo</b>									
9,000.00	0.00	0.00	8,700.72	-1,568.79	722.53	1,727.18	0.00	0.00	0.00
9,400.28	0.00	0.00	9,101.00	-1,568.79	722.53	1,727.18	0.00	0.00	0.00
<b>Coal D</b>									
9,500.00	0.00	0.00	9,200.72	-1,568.79	722.53	1,727.18	0.00	0.00	0.00
9,523.28	0.00	0.00	9,224.00	-1,568.79	722.53	1,727.18	0.00	0.00	0.00
<b>Rollins</b>									
9,673.28	0.00	0.00	9,374.00	-1,568.79	722.53	1,727.18	0.00	0.00	0.00
<b>TD at 9673.28 - TD</b>									

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<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KB @ 7381.00usft (HP 318)
<b>Project:</b>	RU 07-07S-093W	<b>MD Reference:</b>	KB @ 7381.00usft (HP 318)
<b>Site:</b>	SR 43-12 Pad	<b>North Reference:</b>	True
<b>Well:</b>	RU 514-7	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #2 30Mar16 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 RU 514-7 MVRD	0.00	0.00	5,703.00	-1,568.79	722.53	1,596,368.00	2,344,002.70	39.447770	-107.823241
- plan hits target center									
- Circle (radius 50.00)									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,124.00	1,083.44	9 5/8"	9.625	13.500	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (bearing)	
3,411.68	3,217.00	Top of "G" Sand		0.00		
3,540.34	3,337.00	Base of "G" Sand		0.00		
5,580.90	5,282.00	Lower Wasatch		0.00		
5,735.23	5,436.00	Ohio Creek		0.00		
6,002.28	5,703.00	Mesaverde		0.00		
7,618.28	7,319.00	Approx Top Gas		0.00		
8,675.28	8,376.00	Cameo		0.00		
9,400.28	9,101.00	Coal D		0.00		
9,523.28	9,224.00	Rollins		0.00		
9,673.28	9,374.00	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	
724.32	710.69	-100.17	46.13	Hold 21.15 Inclination	
4,492.20	4,224.73	-1,335.06	614.88	Start Drop -1.50	
5,902.28	5,603.00	-1,568.79	722.53	Vertical	
6,002.28	5,703.00	-1,568.79	722.53	MVRD target	
9,673.28	9,374.00	-1,568.79	722.53	TD at 9673.28	