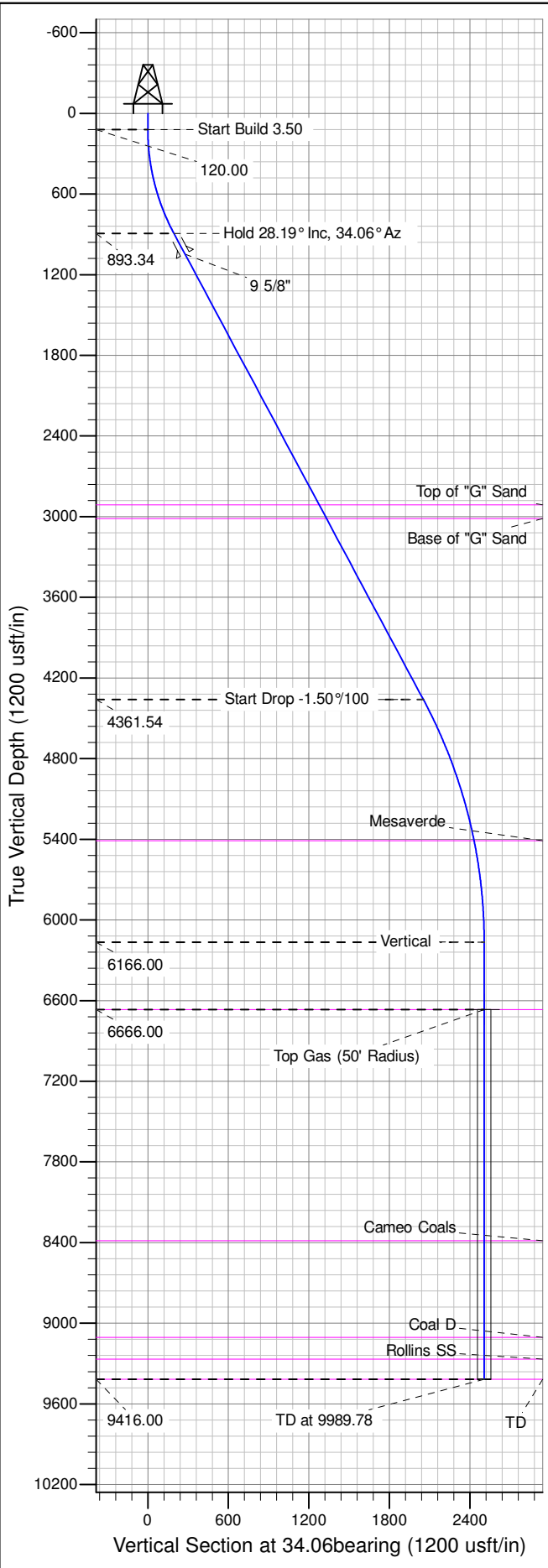




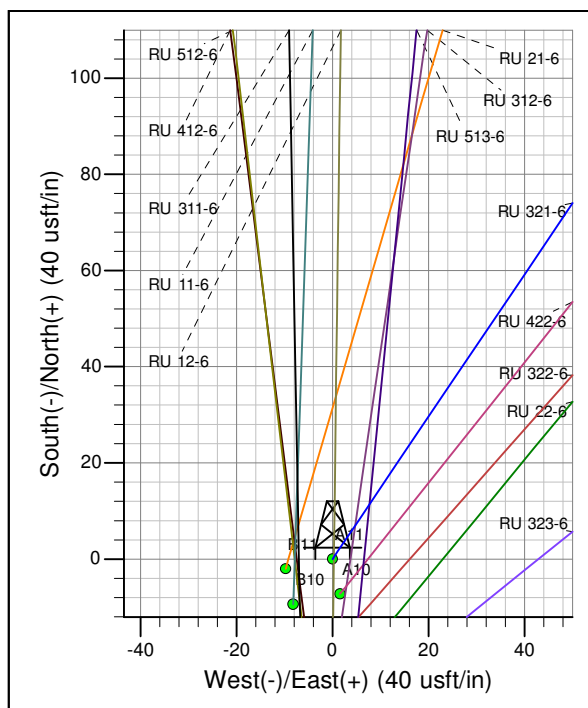
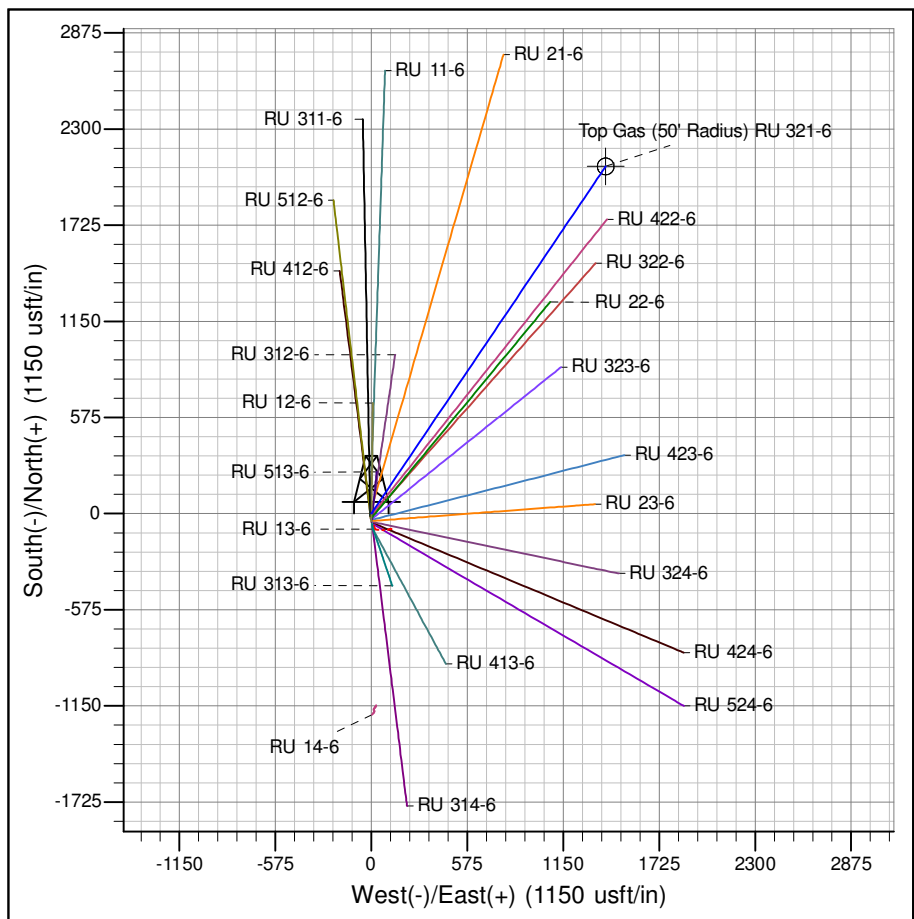
Well Name: RU 321-6  
Surface Location: RU 13-6 Pad  
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone  
Ground Elevation: 6985.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1603479.10000	2343747.40000	39.467269	-107.824789	A11

KELLY BUSHING @ 7011.00usft (Nabors 574 (26' RKB) mab)



ANNOTATIONS									
TVD	MD	Inc	Azi	+N/-S	+E/-W	Vsect	Departure	Annotation	
120.00	120.00	0.00	0.00	0.00	0.00	0.00	0.00	Start Build 3.50	
893.34	925.45	28.19	34.06	160.87	108.76	194.18	194.18	Hold 28.19° Inc, 34.06° Az	
4361.54	4860.41	28.19	34.06	1700.83	1149.92	2053.08	2053.08	Start Drop -1.50%/100	
6166.00	6739.78	0.00	0.00	2076.19	1403.70	2506.18	2506.18	Vertical	
6666.00	7239.78	0.00	0.00	2076.19	1403.70	2506.18	2506.18	Top Gas	
9416.00	9989.78	0.00	0.00	2076.19	1403.70	2506.18	2506.18	TD at 9989.78	



Azimuths to True North  
Magnetic North: 9.87°

Magnetic Field  
Strength: 51936.7snT  
Dip Angle: 65.66°  
Date: 7/17/2014  
Model: IGRF2010

Project: RU 06-07S-093W  
Site: RU 13-6 Pad  
Well: RU 321-6  
Design #1 17Jul14 mab

# **PICEANCE VLY NAD 83**

**RU 06-07S-093W**

**RU 13-6 Pad**

**RU 321-6 - Slot A11**

**Wellbore #1**

**Plan: Design #1 17Jul14 mab**

## **Standard Planning Report - Geographic**

**16 September, 2014**

**WPX**  
Planning Report - Geographic

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well RU 321-6 - Slot A11
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 7011.00usft (Nabors 574 (26' RKB) mab)
<b>Project:</b>	RU 06-07S-093W	<b>MD Reference:</b>	KELLY BUSHING @ 7011.00usft (Nabors 574 (26' RKB) mab)
<b>Site:</b>	RU 13-6 Pad	<b>North Reference:</b>	True
<b>Well:</b>	RU 321-6	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 17Jul14 mab		

<b>Project</b>	RU 06-07S-093W		
<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 13-6 Pad			
<b>Site Position:</b>		<b>Northing:</b>	1,603,405.40000 usft	<b>Latitude:</b> 39.467067
<b>From:</b> Map		<b>Easting:</b>	2,343,761.30000 usft	<b>Longitude:</b> -107.824733
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13.200 in	<b>Grid Convergence:</b> -1.47 °

<b>Well</b>	RU 321-6 - Slot A11			
<b>Well Position</b>	<b>+N/-S</b>	0.00 usft	<b>Northing:</b>	1,603,479.10000 usft
	<b>+E/-W</b>	0.00 usft	<b>Easting:</b>	2,343,747.40000 usft
<b>Position Uncertainty</b>	0.00 usft		<b>Wellhead Elevation:</b>	0.00 usft
			<b>Ground Level:</b>	6,985.00 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>
	IGRF2010	7/17/2014	9.87	65.66	51,937

<b>Design</b>	Design #1 17Jul14 mab			
<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	34.06

<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	
925.45	28.19	34.06	893.34	160.87	108.76	3.50	3.50	0.00	34.06	
4,860.41	28.19	34.06	4,361.54	1,700.83	1,149.92	0.00	0.00	0.00	0.00	
6,739.78	0.00	0.00	6,166.00	2,076.19	1,403.70	1.50	-1.50	0.00	180.00	
7,239.78	0.00	0.00	6,666.00	2,076.19	1,403.70	0.00	0.00	0.00	0.00	Top Gas (50' Radius)
9,989.78	0.00	0.00	9,416.00	2,076.19	1,403.70	0.00	0.00	0.00	0.00	

**WPX**  
Planning Report - Geographic

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well RU 321-6 - Slot A11
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 7011.00usft (Nabors 574 (26' RKB) mab)
<b>Project:</b>	RU 06-07S-093W	<b>MD Reference:</b>	KELLY BUSHING @ 7011.00usft (Nabors 574 (26' RKB) mab)
<b>Site:</b>	RU 13-6 Pad	<b>North Reference:</b>	True
<b>Well:</b>	RU 321-6	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 17Jul14 mab		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	1,603,479.10000	2,343,747.40000	39.467269	-107.824789
120.00	0.00	0.00	120.00	0.00	0.00	1,603,479.10000	2,343,747.40000	39.467269	-107.824789
Start Build 3.50									
200.00	2.80	34.06	199.97	1.62	1.09	1,603,480.69045	2,343,748.53566	39.467273	-107.824785
400.00	9.80	34.06	398.64	19.79	13.38	1,603,498.53947	2,343,761.28071	39.467323	-107.824741
600.00	16.80	34.06	593.15	57.88	39.13	1,603,535.95861	2,343,787.99975	39.467428	-107.824650
800.00	23.80	34.06	780.61	115.33	77.97	1,603,592.39002	2,343,828.29446	39.467585	-107.824513
925.45	28.19	34.06	893.34	160.87	108.76	1,603,637.12353	2,343,860.23632	39.467710	-107.824404
Hold 28.19° Inc, 34.06° Az									
1,000.00	28.19	34.06	959.05	190.04	128.49	1,603,665.78490	2,343,880.70190	39.467790	-107.824334
1,100.00	28.19	34.06	1,047.19	229.18	154.95	1,603,704.22885	2,343,908.15271	39.467898	-107.824240
9 5/8"									
1,200.00	28.19	34.06	1,135.33	268.31	181.41	1,603,742.67280	2,343,935.60352	39.468005	-107.824146
1,400.00	28.19	34.06	1,311.60	346.58	234.32	1,603,819.56069	2,343,990.50514	39.468220	-107.823959
1,600.00	28.19	34.06	1,487.88	424.86	287.24	1,603,896.44860	2,344,045.40674	39.468435	-107.823771
1,800.00	28.19	34.06	1,664.15	503.13	340.16	1,603,973.33650	2,344,100.30836	39.468650	-107.823584
2,000.00	28.19	34.06	1,840.43	581.40	393.08	1,604,050.22440	2,344,155.20998	39.468865	-107.823397
2,200.00	28.19	34.06	2,016.71	659.67	446.00	1,604,127.11230	2,344,210.11160	39.469080	-107.823209
2,400.00	28.19	34.06	2,192.98	737.94	498.92	1,604,204.00019	2,344,265.01322	39.469295	-107.823022
2,600.00	28.19	34.06	2,369.26	816.21	551.84	1,604,280.88809	2,344,319.91484	39.469509	-107.822834
2,800.00	28.19	34.06	2,545.54	894.48	604.75	1,604,357.77600	2,344,374.81646	39.469724	-107.822647
3,000.00	28.19	34.06	2,721.81	972.75	657.67	1,604,434.66390	2,344,429.71806	39.469939	-107.822459
3,200.00	28.19	34.06	2,898.09	1,051.02	710.59	1,604,511.55180	2,344,484.61968	39.470154	-107.822272
3,216.92	28.19	34.06	2,913.00	1,057.64	715.07	1,604,518.05616	2,344,489.26411	39.470172	-107.822256
Top of "G" Sand									
3,330.38	28.19	34.06	3,013.00	1,102.05	745.09	1,604,561.67403	2,344,520.40934	39.470294	-107.822150
Base of "G" Sand									
3,400.00	28.19	34.06	3,074.36	1,129.29	763.51	1,604,588.43969	2,344,539.52130	39.470369	-107.822084
3,600.00	28.19	34.06	3,250.64	1,207.57	816.43	1,604,665.32759	2,344,594.42292	39.470584	-107.821897
3,800.00	28.19	34.06	3,426.92	1,285.84	869.35	1,604,742.21549	2,344,649.32454	39.470799	-107.821709
4,000.00	28.19	34.06	3,603.19	1,364.11	922.27	1,604,819.10339	2,344,704.22616	39.471014	-107.821522
4,200.00	28.19	34.06	3,779.47	1,442.38	975.18	1,604,895.99130	2,344,759.12778	39.471228	-107.821335
4,400.00	28.19	34.06	3,955.74	1,520.65	1,028.10	1,604,972.87919	2,344,814.02939	39.471443	-107.821147
4,600.00	28.19	34.06	4,132.02	1,598.92	1,081.02	1,605,049.76709	2,344,868.93100	39.471658	-107.820960
4,800.00	28.19	34.06	4,308.30	1,677.19	1,133.94	1,605,126.65499	2,344,923.83262	39.471873	-107.820772
4,860.41	28.19	34.06	4,361.54	1,700.83	1,149.92	1,605,149.87842	2,344,940.41525	39.471938	-107.820716
Start Drop -1.50°/100									
5,000.00	26.10	34.06	4,485.75	1,753.59	1,185.59	1,605,201.70165	2,344,977.41951	39.472083	-107.820589
5,200.00	23.10	34.06	4,667.58	1,822.54	1,232.21	1,605,269.43852	2,345,025.78685	39.472272	-107.820424
5,400.00	20.10	34.06	4,853.52	1,883.52	1,273.44	1,605,329.33828	2,345,068.55813	39.472440	-107.820278
5,600.00	17.10	34.06	5,043.06	1,936.35	1,309.16	1,605,381.23675	2,345,105.61611	39.472585	-107.820151
5,800.00	14.10	34.06	5,235.67	1,980.89	1,339.27	1,605,424.99169	2,345,136.85922	39.472707	-107.820045
5,979.78	11.40	34.06	5,411.00	2,013.76	1,361.49	1,605,457.27323	2,345,159.90978	39.472797	-107.819966
Mesaverde									
6,000.00	11.10	34.06	5,430.83	2,017.02	1,363.70	1,605,460.48316	2,345,162.20182	39.472806	-107.819958
6,200.00	8.10	34.06	5,628.01	2,044.64	1,382.37	1,605,487.61390	2,345,181.57446	39.472882	-107.819892
6,400.00	5.10	34.06	5,826.66	2,063.67	1,395.24	1,605,506.30952	2,345,194.92402	39.472934	-107.819847
6,600.00	2.10	34.06	6,026.25	2,074.07	1,402.27	1,605,516.51880	2,345,202.21393	39.472963	-107.819822
6,739.78	0.00	0.00	6,166.00	2,076.19	1,403.70	1,605,518.60000	2,345,203.70000	39.472968	-107.819817
Vertical									
6,800.00	0.00	0.00	6,226.22	2,076.19	1,403.70	1,605,518.60000	2,345,203.70000	39.472968	-107.819817
7,000.00	0.00	0.00	6,426.22	2,076.19	1,403.70	1,605,518.60000	2,345,203.70000	39.472968	-107.819817

**WPX**  
Planning Report - Geographic

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well RU 321-6 - Slot A11
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 7011.00usft (Nabors 574 (26' RKB) mab)
<b>Project:</b>	RU 06-07S-093W	<b>MD Reference:</b>	KELLY BUSHING @ 7011.00usft (Nabors 574 (26' RKB) mab)
<b>Site:</b>	RU 13-6 Pad	<b>North Reference:</b>	True
<b>Well:</b>	RU 321-6	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 17Jul14 mab		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
7,200.00	0.00	0.00	6,626.22	2,076.19	1,403.70	1,605,518.60000	2,345,203.70000	39.472968	-107.819817	
7,239.78	0.00	0.00	6,666.00	2,076.19	1,403.70	1,605,518.60000	2,345,203.70000	39.472968	-107.819817	
Top Gas - Approx. Top Gas										
7,400.00	0.00	0.00	6,826.22	2,076.19	1,403.70	1,605,518.60000	2,345,203.70000	39.472968	-107.819817	
7,600.00	0.00	0.00	7,026.22	2,076.19	1,403.70	1,605,518.60000	2,345,203.70000	39.472968	-107.819817	
7,800.00	0.00	0.00	7,226.22	2,076.19	1,403.70	1,605,518.60000	2,345,203.70000	39.472968	-107.819817	
8,000.00	0.00	0.00	7,426.22	2,076.19	1,403.70	1,605,518.60000	2,345,203.70000	39.472968	-107.819817	
8,200.00	0.00	0.00	7,626.22	2,076.19	1,403.70	1,605,518.60000	2,345,203.70000	39.472968	-107.819817	
8,400.00	0.00	0.00	7,826.22	2,076.19	1,403.70	1,605,518.60000	2,345,203.70000	39.472968	-107.819817	
8,600.00	0.00	0.00	8,026.22	2,076.19	1,403.70	1,605,518.60000	2,345,203.70000	39.472968	-107.819817	
8,800.00	0.00	0.00	8,226.22	2,076.19	1,403.70	1,605,518.60000	2,345,203.70000	39.472968	-107.819817	
8,960.78	0.00	0.00	8,387.00	2,076.19	1,403.70	1,605,518.60000	2,345,203.70000	39.472968	-107.819817	
Cameo Coals										
9,000.00	0.00	0.00	8,426.22	2,076.19	1,403.70	1,605,518.60000	2,345,203.70000	39.472968	-107.819817	
9,200.00	0.00	0.00	8,626.22	2,076.19	1,403.70	1,605,518.60000	2,345,203.70000	39.472968	-107.819817	
9,400.00	0.00	0.00	8,826.22	2,076.19	1,403.70	1,605,518.60000	2,345,203.70000	39.472968	-107.819817	
9,600.00	0.00	0.00	9,026.22	2,076.19	1,403.70	1,605,518.60000	2,345,203.70000	39.472968	-107.819817	
9,679.78	0.00	0.00	9,106.00	2,076.19	1,403.70	1,605,518.60000	2,345,203.70000	39.472968	-107.819817	
Coal D										
9,800.00	0.00	0.00	9,226.22	2,076.19	1,403.70	1,605,518.60000	2,345,203.70000	39.472968	-107.819817	
9,839.78	0.00	0.00	9,266.00	2,076.19	1,403.70	1,605,518.60000	2,345,203.70000	39.472968	-107.819817	
Rollins SS										
9,989.78	0.00	0.00	9,416.00	2,076.19	1,403.70	1,605,518.60000	2,345,203.70000	39.472968	-107.819817	
TD at 9989.78										

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										
Top Gas (50' Radius) RL	0.00	0.00	6,666.00	2,076.19	1,403.70	1,605,518.60000	2,345,203.70000	39.472968	-107.819817	
- 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	1,047.19	9 5/8"	9.625	13.500	

**WPX**  
Planning Report - Geographic

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well RU 321-6 - Slot A11
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 7011.00usft (Nabors 574 (26' RKB) mab)
<b>Project:</b>	RU 06-07S-093W	<b>MD Reference:</b>	KELLY BUSHING @ 7011.00usft (Nabors 574 (26' RKB) mab)
<b>Site:</b>	RU 13-6 Pad	<b>North Reference:</b>	True
<b>Well:</b>	RU 321-6	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 17Jul14 mab		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (bearing)	
3,216.92	2,913.00	Top of "G" Sand				
3,330.38	3,013.00	Base of "G" Sand				
5,979.78	5,411.00	Mesaverde				
7,239.78	6,666.00	Approx. Top Gas				
8,960.78	8,387.00	Cameo Coals				
9,679.78	9,106.00	Coal D				
9,839.78	9,266.00	Rollins SS				

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	
925.45	893.34	160.87	108.76	Hold 28.19° Inc, 34.06° Az	
4,860.41	4,361.54	1,700.83	1,149.92	Start Drop -1.50°/100	
6,739.78	6,166.00	2,076.19	1,403.70	Vertical	
7,239.78	6,666.00	2,076.19	1,403.70	Top Gas	
9,989.78	9,416.00	2,076.19	1,403.70	TD at 9989.78	