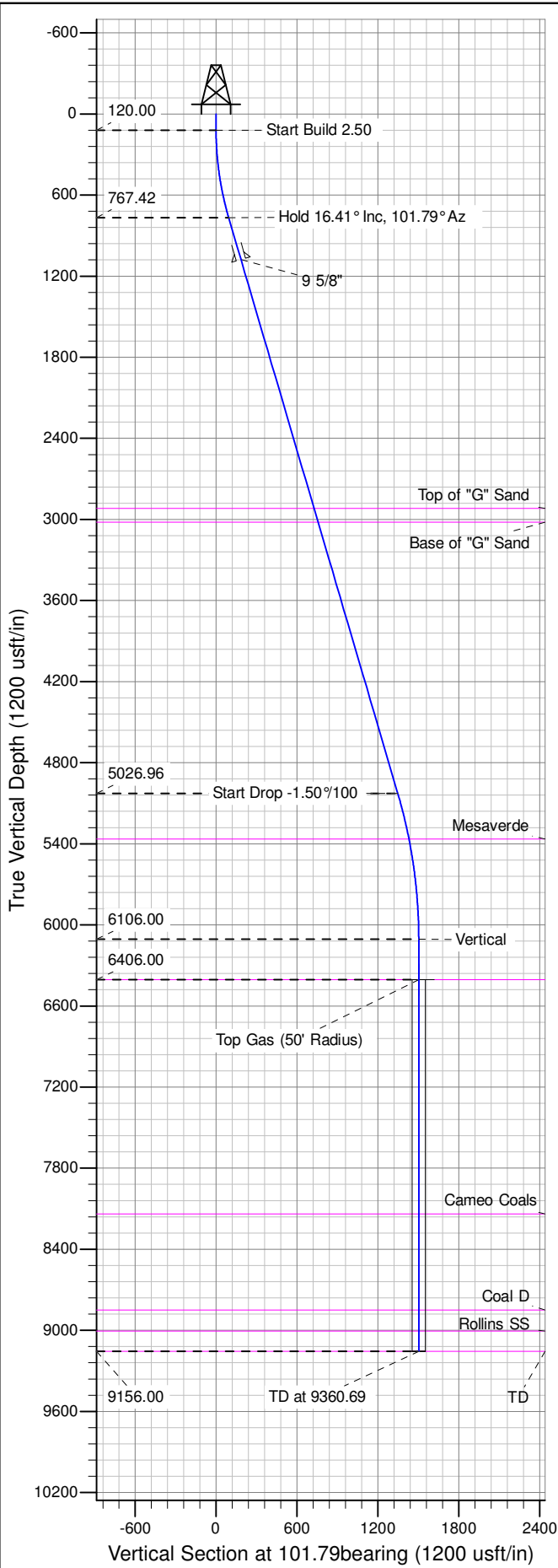
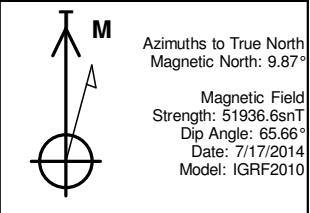
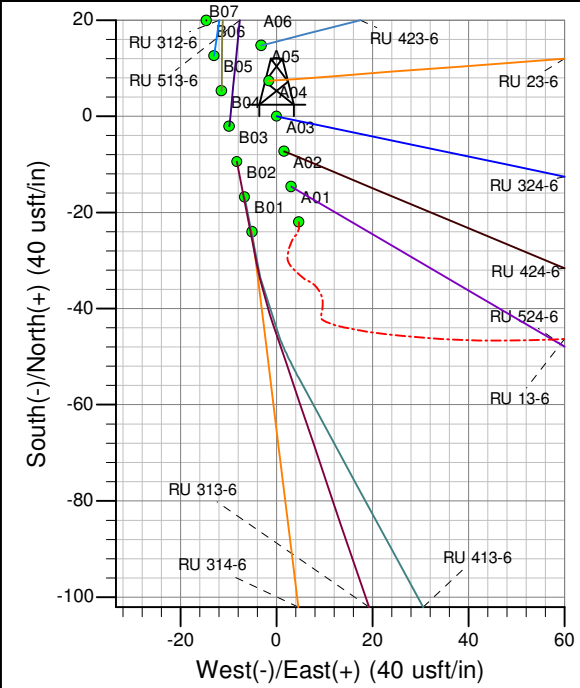
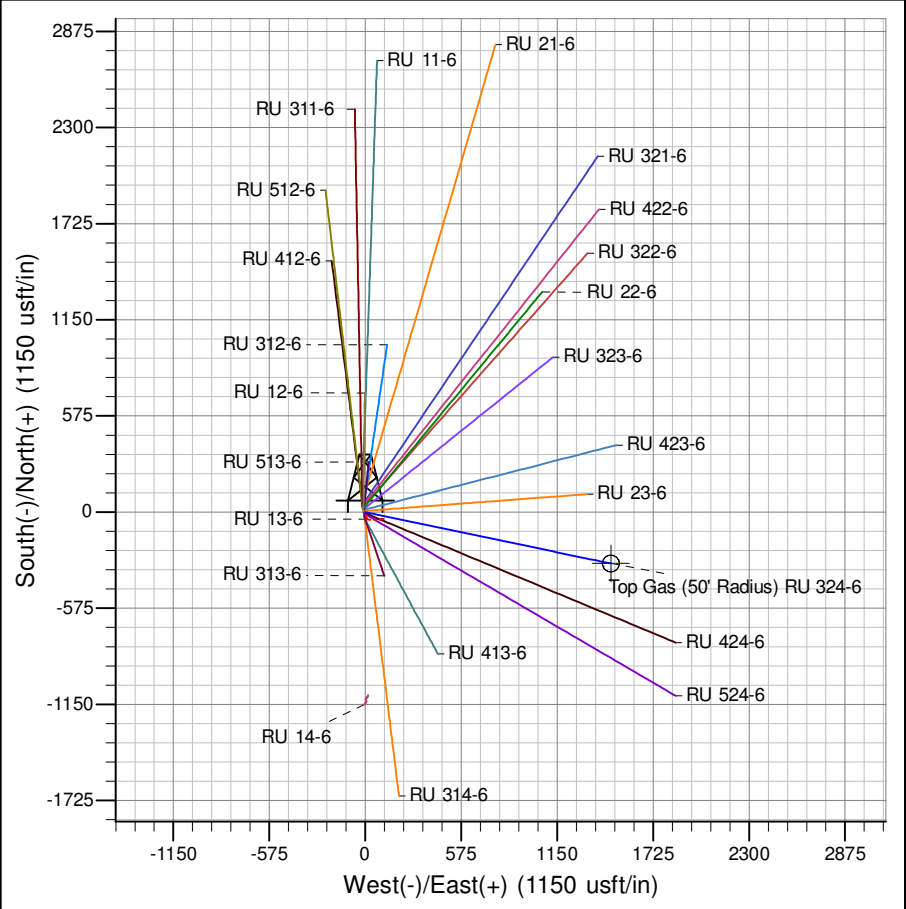




Well Name: RU 324-6  
Surface Location: RU 13-6 Pad  
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone  
Ground Elevation: 6985.00  
+N/-S +E/-W Northing Easting Latitude Longitude Slot  
0.00 0.00 1603427.50000 2343757.20000 39.467128 -107.824749 A04  
KELLY BUSHING @ 7011.00usft (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 2.50	
767.42	776.36	16.41	101.79	-19.07	91.38	93.35	93.35	Hold 16.41° Inc, 101.79° Az	
5026.96	5216.76	16.41	101.79	-275.28	1319.31	1347.72	1347.72	Start Drop -1.50°/100	
6106.00	6310.69	0.00	0.00	-307.06	1471.60	1503.30	1503.30	Vertical	
6406.00	6610.69	0.00	0.00	-307.06	1471.60	1503.30	1503.30	Top Gas	
9156.00	9360.69	0.00	0.00	-307.06	1471.60	1503.30	1503.30	TD at 9360.69	



Project: RU 06-07S-093W  
Site: RU 13-6 Pad  
Well: RU 324-6  
Design #1 17Jul14 mab

# **PICEANCE VLY NAD 83**

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

**RU 13-6 Pad**

**RU 324-6 - Slot A04**

**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 324-6 - Slot A04
<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 324-6	<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>From:</b>	Map	<b>Easting:</b>	2,343,761.30000 usft
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13.200 in
		<b>Latitude:</b>	39.467067
		<b>Longitude:</b>	-107.824733
		<b>Grid Convergence:</b>	-1.47 °

<b>Well</b>	RU 324-6 - Slot A04		
<b>Well Position</b>	<b>+N/-S</b>	0.00 usft	<b>Northing:</b> 1,603,427.50000 usft
	<b>+E/-W</b>	0.00 usft	<b>Easting:</b> 2,343,757.20000 usft
<b>Position Uncertainty</b>	0.00 usft	<b>Wellhead Elevation:</b>	0.00 usft
		<b>Latitude:</b>	39.467128
		<b>Longitude:</b>	-107.824749
		<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	101.79

<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	
776.36	16.41	101.79	767.42	-19.07	91.38	2.50	2.50	0.00	101.79	
5,216.76	16.41	101.79	5,026.96	-275.28	1,319.31	0.00	0.00	0.00	0.00	
6,310.69	0.00	0.00	6,106.00	-307.06	1,471.60	1.50	-1.50	0.00	180.00	
6,610.69	0.00	0.00	6,406.00	-307.06	1,471.60	0.00	0.00	0.00	0.00	Top Gas (50' Radius)
9,360.69	0.00	0.00	9,156.00	-307.06	1,471.60	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 324-6 - Slot A04
<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 324-6	<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	1,603,427.50000	2,343,757.20000	39.467128	-107.824749	
120.00	0.00	0.00	120.00	0.00	0.00	1,603,427.50000	2,343,757.20000	39.467128	-107.824749	
Start Build 2.50										
200.00	2.00	101.79	199.98	-0.29	1.37	1,603,427.17996	2,343,758.55888	39.467127	-107.824745	
400.00	7.00	101.79	399.30	-3.49	16.72	1,603,423.58408	2,343,773.82732	39.467118	-107.824690	
600.00	12.00	101.79	596.50	-10.23	49.03	1,603,416.01972	2,343,805.94620	39.467100	-107.824576	
776.36	16.41	101.79	767.42	-19.07	91.38	1,603,406.10224	2,343,848.05661	39.467075	-107.824426	
Hold 16.41° Inc, 101.79° Az										
800.00	16.41	101.79	790.10	-20.43	97.92	1,603,404.57125	2,343,854.55733	39.467072	-107.824403	
1,000.00	16.41	101.79	981.96	-31.97	153.22	1,603,391.62020	2,343,909.54858	39.467040	-107.824207	
1,100.00	16.41	101.79	1,077.88	-37.74	180.88	1,603,385.14468	2,343,937.04421	39.467024	-107.824109	
9 5/8"										
1,200.00	16.41	101.79	1,173.81	-43.51	208.53	1,603,378.66915	2,343,964.53983	39.467008	-107.824011	
1,400.00	16.41	101.79	1,365.66	-55.05	263.84	1,603,365.71809	2,344,019.53109	39.466977	-107.823815	
1,600.00	16.41	101.79	1,557.52	-66.59	319.14	1,603,352.76704	2,344,074.52233	39.466945	-107.823619	
1,800.00	16.41	101.79	1,749.37	-78.13	374.45	1,603,339.81598	2,344,129.51358	39.466913	-107.823423	
2,000.00	16.41	101.79	1,941.23	-89.67	429.76	1,603,326.86493	2,344,184.50483	39.466882	-107.823227	
2,200.00	16.41	101.79	2,133.08	-101.21	485.07	1,603,313.91387	2,344,239.49608	39.466850	-107.823031	
2,400.00	16.41	101.79	2,324.93	-112.75	540.37	1,603,300.96282	2,344,294.48733	39.466818	-107.822835	
2,600.00	16.41	101.79	2,516.79	-124.29	595.68	1,603,288.01176	2,344,349.47858	39.466787	-107.822640	
2,800.00	16.41	101.79	2,708.64	-135.83	650.99	1,603,275.06070	2,344,404.46983	39.466755	-107.822444	
3,000.00	16.41	101.79	2,900.50	-147.37	706.29	1,603,262.10965	2,344,459.46107	39.466723	-107.822248	
3,019.29	16.41	101.79	2,919.00	-148.49	711.63	1,603,260.86049	2,344,464.76508	39.466720	-107.822229	
Top of "G" Sand										
3,123.54	16.41	101.79	3,019.00	-154.50	740.46	1,603,254.11002	2,344,493.42815	39.466704	-107.822127	
Base of "G" Sand										
3,200.00	16.41	101.79	3,092.35	-158.91	761.60	1,603,249.15859	2,344,514.45232	39.466691	-107.822052	
3,400.00	16.41	101.79	3,284.20	-170.45	816.91	1,603,236.20754	2,344,569.44357	39.466660	-107.821856	
3,600.00	16.41	101.79	3,476.06	-181.99	872.22	1,603,223.25648	2,344,624.43482	39.466628	-107.821660	
3,800.00	16.41	101.79	3,667.91	-193.53	927.52	1,603,210.30542	2,344,679.42607	39.466596	-107.821464	
4,000.00	16.41	101.79	3,859.77	-205.08	982.83	1,603,197.35437	2,344,734.41732	39.466565	-107.821268	
4,200.00	16.41	101.79	4,051.62	-216.62	1,038.14	1,603,184.40331	2,344,789.40858	39.466533	-107.821072	
4,400.00	16.41	101.79	4,243.47	-228.16	1,093.44	1,603,171.45226	2,344,844.39982	39.466501	-107.820877	
4,600.00	16.41	101.79	4,435.33	-239.70	1,148.75	1,603,158.50120	2,344,899.39107	39.466470	-107.820681	
4,800.00	16.41	101.79	4,627.18	-251.24	1,204.06	1,603,145.55014	2,344,954.38232	39.466438	-107.820485	
5,000.00	16.41	101.79	4,819.04	-262.78	1,259.36	1,603,132.59909	2,345,009.37357	39.466406	-107.820289	
5,200.00	16.41	101.79	5,010.89	-274.32	1,314.67	1,603,119.64803	2,345,064.36482	39.466375	-107.820093	
5,216.76	16.41	101.79	5,026.96	-275.28	1,319.31	1,603,118.56292	2,345,068.97232	39.466372	-107.820077	
Start Drop -1.50°/100										
5,400.00	13.66	101.79	5,203.92	-284.99	1,365.83	1,603,107.66785	2,345,115.23368	39.466345	-107.819912	
5,564.96	11.19	101.79	5,365.00	-292.24	1,400.57	1,603,099.53376	2,345,149.77167	39.466325	-107.819789	
Mesaverde										
5,600.00	10.66	101.79	5,399.41	-293.60	1,407.07	1,603,098.01163	2,345,156.23476	39.466322	-107.819766	
5,800.00	7.66	101.79	5,596.83	-300.10	1,438.23	1,603,090.71394	2,345,187.22138	39.466304	-107.819655	
6,000.00	4.66	101.79	5,795.66	-304.48	1,459.24	1,603,085.79476	2,345,208.10860	39.466292	-107.819581	
6,200.00	1.66	101.79	5,995.33	-306.73	1,470.03	1,603,083.26759	2,345,218.83918	39.466286	-107.819543	
6,310.69	0.00	0.00	6,106.00	-307.06	1,471.60	1,603,082.90000	2,345,220.40000	39.466285	-107.819537	
Vertical										
6,400.00	0.00	0.00	6,195.31	-307.06	1,471.60	1,603,082.90000	2,345,220.40000	39.466285	-107.819537	
6,600.00	0.00	0.00	6,395.31	-307.06	1,471.60	1,603,082.90000	2,345,220.40000	39.466285	-107.819537	
6,610.69	0.00	0.00	6,406.00	-307.06	1,471.60	1,603,082.90000	2,345,220.40000	39.466285	-107.819537	
Top Gas - Approx. Top Gas										

**WPX**  
Planning Report - Geographic

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well RU 324-6 - Slot A04
<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 324-6	<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
6,800.00	0.00	0.00	6,595.31	-307.06	1,471.60	1,603,082.90000	2,345,220.40000	39.466285	-107.819537
7,000.00	0.00	0.00	6,795.31	-307.06	1,471.60	1,603,082.90000	2,345,220.40000	39.466285	-107.819537
7,200.00	0.00	0.00	6,995.31	-307.06	1,471.60	1,603,082.90000	2,345,220.40000	39.466285	-107.819537
7,400.00	0.00	0.00	7,195.31	-307.06	1,471.60	1,603,082.90000	2,345,220.40000	39.466285	-107.819537
7,600.00	0.00	0.00	7,395.31	-307.06	1,471.60	1,603,082.90000	2,345,220.40000	39.466285	-107.819537
7,800.00	0.00	0.00	7,595.31	-307.06	1,471.60	1,603,082.90000	2,345,220.40000	39.466285	-107.819537
8,000.00	0.00	0.00	7,795.31	-307.06	1,471.60	1,603,082.90000	2,345,220.40000	39.466285	-107.819537
8,200.00	0.00	0.00	7,995.31	-307.06	1,471.60	1,603,082.90000	2,345,220.40000	39.466285	-107.819537
8,343.69	0.00	0.00	8,139.00	-307.06	1,471.60	1,603,082.90000	2,345,220.40000	39.466285	-107.819537
Cameo Coals									
8,400.00	0.00	0.00	8,195.31	-307.06	1,471.60	1,603,082.90000	2,345,220.40000	39.466285	-107.819537
8,600.00	0.00	0.00	8,395.31	-307.06	1,471.60	1,603,082.90000	2,345,220.40000	39.466285	-107.819537
8,800.00	0.00	0.00	8,595.31	-307.06	1,471.60	1,603,082.90000	2,345,220.40000	39.466285	-107.819537
9,000.00	0.00	0.00	8,795.31	-307.06	1,471.60	1,603,082.90000	2,345,220.40000	39.466285	-107.819537
9,053.69	0.00	0.00	8,849.00	-307.06	1,471.60	1,603,082.90000	2,345,220.40000	39.466285	-107.819537
Coal D									
9,200.00	0.00	0.00	8,995.31	-307.06	1,471.60	1,603,082.90000	2,345,220.40000	39.466285	-107.819537
9,210.69	0.00	0.00	9,006.00	-307.06	1,471.60	1,603,082.90000	2,345,220.40000	39.466285	-107.819537
Rollins SS									
9,360.69	0.00	0.00	9,156.00	-307.06	1,471.60	1,603,082.90000	2,345,220.40000	39.466285	-107.819537
TD at 9360.69 - TD									

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (bearing)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Top Gas (50' Radius) RL - plan hits target center - Circle (radius 50.00)	0.00	0.00	6,406.00	-307.06	1,471.60	1,603,082.90000	2,345,220.40000	39.466285	-107.819537

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,100.00	1,077.88	9 5/8"	9.625	13.500	

**WPX**  
Planning Report - Geographic

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well RU 324-6 - Slot A04
<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 324-6	<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)
	3,019.29	2,919.00	Top of "G" Sand			
	3,123.54	3,019.00	Base of "G" Sand			
	5,564.96	5,365.00	Mesaverde			
	6,610.69	6,406.00	Approx. Top Gas			
	8,343.69	8,139.00	Cameo Coals			
	9,053.69	8,849.00	Coal D			
	9,210.69	9,006.00	Rollins SS			
	9,360.69	9,156.00	TD			

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 2.50
	776.36	767.42	-19.07	91.38	Hold 16.41° Inc, 101.79° Az
	5,216.76	5,026.96	-275.28	1,319.31	Start Drop -1.50°/100
	6,310.69	6,106.00	-307.06	1,471.60	Vertical
	6,610.69	6,406.00	-307.06	1,471.60	Top Gas
	9,360.69	9,156.00	-307.06	1,471.60	TD at 9360.69