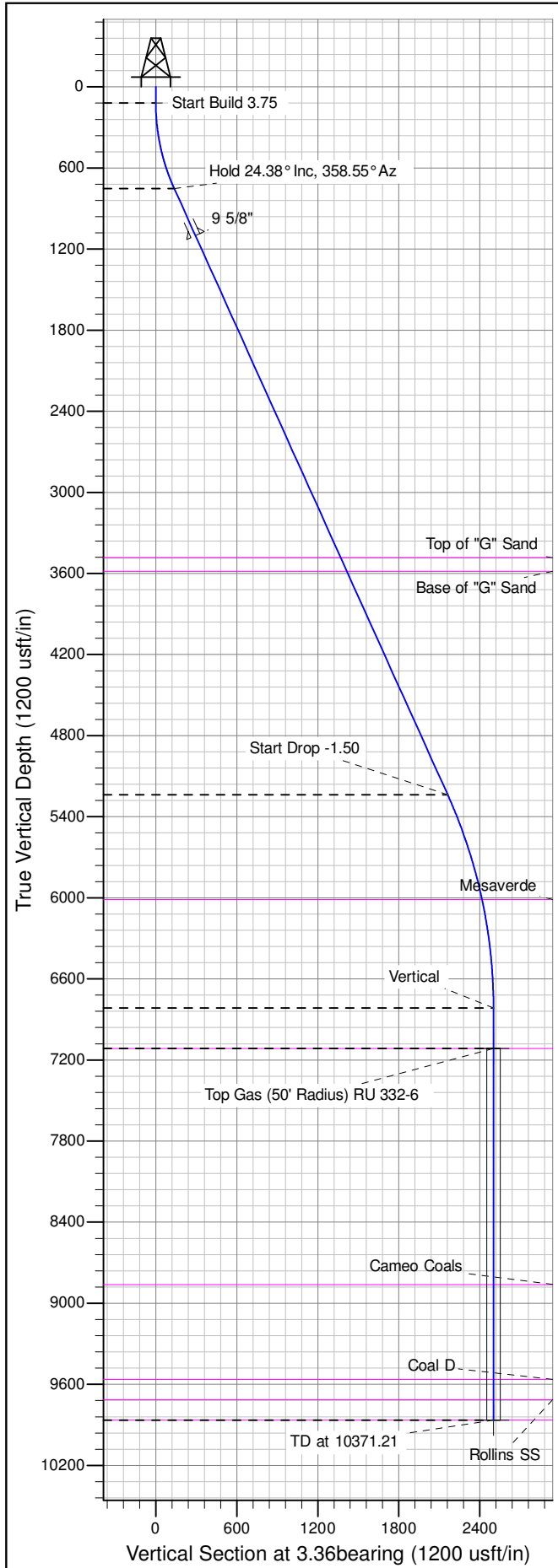
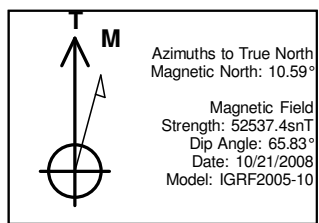
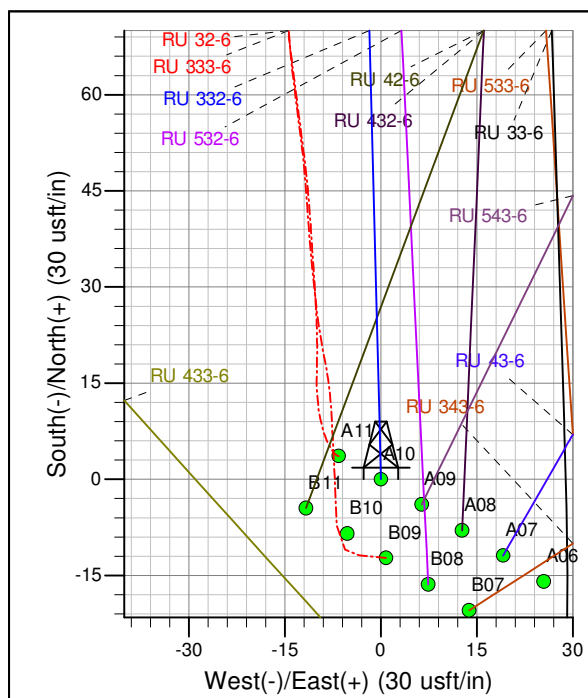
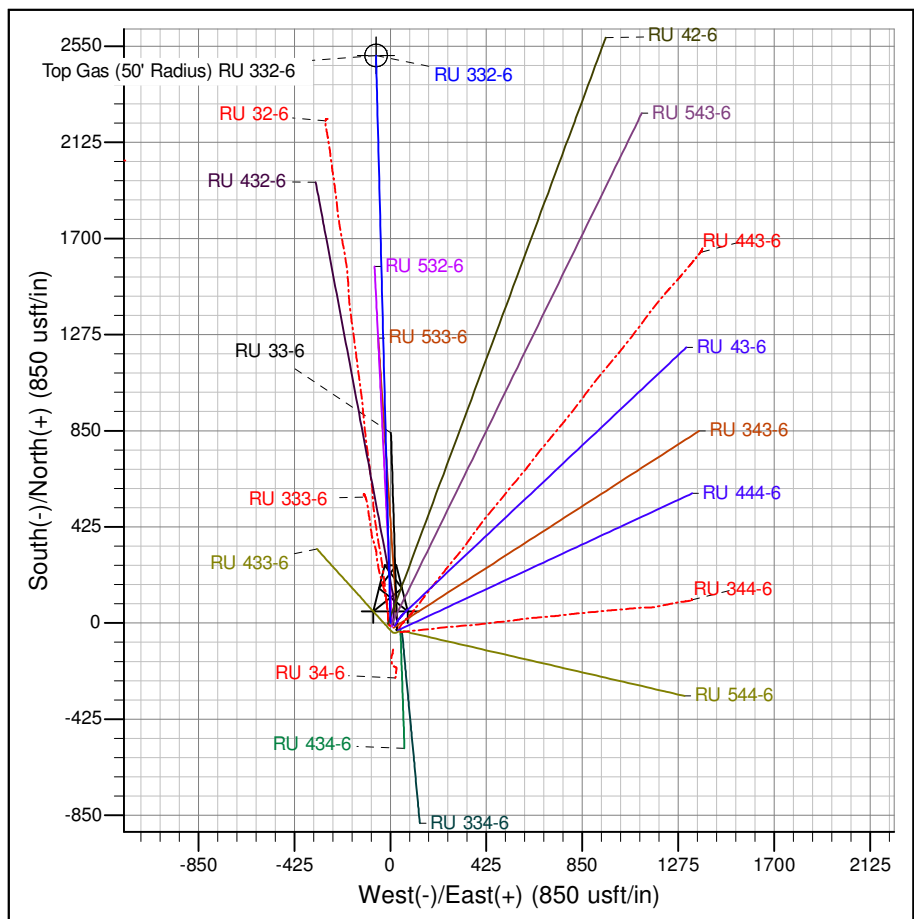




Well Name: RU 332-6  
Surface Location: RU 34-6 Pad  
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone  
Ground Elevation: 7537.00  
+N/-S +E/-W Northing Easting Latitude Longitude Slot  
0.00 0.00 1603617.40000 2346543.20000 39.46784 -107.81490 A10  
KELLY BUSHING @ 7563.00usft (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 3.75	
750.64	770.08	24.38	358.55	136.18	-3.45	135.74	136.22	Hold 24.38° Inc, 358.55° Az	
5237.40	5696.02	24.38	358.55	2168.72	-54.96	2161.76	2169.42	Start Drop -1.50	
6814.00	7321.21	0.00	0.00	2509.16	-63.58	2501.11	2509.97	Vertical	
7114.00	7621.21	0.00	0.00	2509.16	-63.58	2501.11	2509.97	Top Gas	
9864.00	10371.21	0.00	0.00	2509.16	-63.58	2501.11	2509.97	TD at 10371.21	



Project: RU 06-07S-093W  
Site: RU 34-6 Pad  
Well: RU 332-6  
Plan #4 10Jul14 mab



## **PICEANCE VLY NAD 83**

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

**RU 34-6 Pad**

**RU 332-6 - Slot A10**

**Wellbore #1**

**Plan: Plan #4 10Jul14 mab**

## **Standard Planning Report - Geographic**

**13 August, 2014**



**WPX**  
Planning Report - Geographic

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well RU 332-6 - Slot A10
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 7563.00usft (Nabors 574 (26' RKB) mab)
<b>Project:</b>	RU 06-07S-093W	<b>MD Reference:</b>	KELLY BUSHING @ 7563.00usft (Nabors 574 (26' RKB) mab)
<b>Site:</b>	RU 34-6 Pad	<b>North Reference:</b>	True
<b>Well:</b>	RU 332-6	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #4 10Jul14 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 34-6 Pad			
<b>Site Position:</b>		<b>Northing:</b>	1,603,613.20000 usft	<b>Latitude:</b> 39.46783
<b>From:</b> Map		<b>Easting:</b>	2,346,531.50000 usft	<b>Longitude:</b> -107.81494
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13.200 in	<b>Grid Convergence:</b> -1.46 °

Well	RU 332-6 - Slot A10					
Well Position	+N/-S	0.00 usft	Northing:	1,603,617.40000 usft	Latitude:	39.46785
	+E/-W	0.00 usft	Easting:	2,346,543.20000 usft	Longitude:	-107.81490
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	7,537.00 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>
	IGRF2005-10	10/21/2008	10.59	65.83	52,537

<b>Design</b>	Plan #4 10Jul14 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	3.36

<b>Plan Sections</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (bearing)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	<b>TFO (°)</b>	<b>Target</b>
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	
770.08	24.38	358.55	750.64	136.18	-3.45	3.75	3.75	0.00	358.55	
5,696.02	24.38	358.55	5,237.40	2,168.72	-54.96	0.00	0.00	0.00	0.00	
7,321.21	0.00	0.00	6,814.00	2,509.16	-63.58	1.50	-1.50	0.00	180.00	
7,621.21	0.00	0.00	7,114.00	2,509.16	-63.58	0.00	0.00	0.00	0.00	Top Gas (50' Radius)
10,371.21	0.00	0.00	9,864.00	2,509.16	-63.58	0.00	0.00	0.00	0.00	

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well RU 332-6 - Slot A10
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 7563.00usft (Nabors 574 (26' RKB) mab)
<b>Project:</b>	RU 06-07S-093W	<b>MD Reference:</b>	KELLY BUSHING @ 7563.00usft (Nabors 574 (26' RKB) mab)
<b>Site:</b>	RU 34-6 Pad	<b>North Reference:</b>	True
<b>Well:</b>	RU 332-6	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #4 10Jul14 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	1,603,617.40000	2,346,543.20000	39.46785	-107.81490	
120.00	0.00	0.00	120.00	0.00	0.00	1,603,617.40000	2,346,543.20000	39.46785	-107.81490	
Start Build 3.75										
200.00	3.00	358.55	199.96	2.09	-0.05	1,603,619.49383	2,346,543.20031	39.46785	-107.81490	
400.00	10.50	358.55	398.44	25.58	-0.65	1,603,642.98350	2,346,543.20374	39.46792	-107.81491	
600.00	18.00	358.55	592.14	74.76	-1.89	1,603,692.17688	2,346,543.21094	39.46805	-107.81491	
770.08	24.38	358.55	750.64	136.18	-3.45	1,603,753.61534	2,346,543.21993	39.46822	-107.81492	
Hold 24.38° Inc, 358.55° Az										
800.00	24.38	358.55	777.90	148.52	-3.76	1,603,765.96613	2,346,543.22174	39.46825	-107.81492	
1,000.00	24.38	358.55	960.06	231.05	-5.85	1,603,848.51295	2,346,543.23382	39.46848	-107.81492	
1,153.63	24.38	358.55	1,100.00	294.44	-7.46	1,603,911.92278	2,346,543.24310	39.46865	-107.81493	
9 5/8"										
1,200.00	24.38	358.55	1,142.23	313.57	-7.95	1,603,931.05978	2,346,543.24590	39.46871	-107.81493	
1,400.00	24.38	358.55	1,324.40	396.10	-10.04	1,604,013.60661	2,346,543.25799	39.46893	-107.81494	
1,600.00	24.38	358.55	1,506.57	478.62	-12.13	1,604,096.15344	2,346,543.27007	39.46916	-107.81495	
1,800.00	24.38	358.55	1,688.74	561.14	-14.22	1,604,178.70027	2,346,543.28215	39.46939	-107.81495	
2,000.00	24.38	358.55	1,870.91	643.67	-16.31	1,604,261.24709	2,346,543.29423	39.46961	-107.81496	
2,200.00	24.38	358.55	2,053.08	726.19	-18.40	1,604,343.79392	2,346,543.30631	39.46984	-107.81497	
2,400.00	24.38	358.55	2,235.24	808.72	-20.49	1,604,426.34075	2,346,543.31839	39.47007	-107.81498	
2,600.00	24.38	358.55	2,417.41	891.24	-22.58	1,604,508.88758	2,346,543.33047	39.47029	-107.81498	
2,800.00	24.38	358.55	2,599.58	973.76	-24.68	1,604,591.43440	2,346,543.34255	39.47052	-107.81499	
3,000.00	24.38	358.55	2,781.75	1,056.29	-26.77	1,604,673.98123	2,346,543.35463	39.47075	-107.81500	
3,200.00	24.38	358.55	2,963.92	1,138.81	-28.86	1,604,756.52806	2,346,543.36672	39.47097	-107.81501	
3,400.00	24.38	358.55	3,146.09	1,221.34	-30.95	1,604,839.07489	2,346,543.37880	39.47120	-107.81501	
3,600.00	24.38	358.55	3,328.26	1,303.86	-33.04	1,604,921.62172	2,346,543.39088	39.47142	-107.81502	
3,769.89	24.38	358.55	3,483.00	1,373.96	-34.82	1,604,991.74119	2,346,543.40114	39.47162	-107.81503	
Top of "G" Sand										
3,800.00	24.38	358.55	3,510.43	1,386.38	-35.13	1,605,004.16854	2,346,543.40296	39.47165	-107.81503	
3,879.68	24.38	358.55	3,583.00	1,419.26	-35.96	1,605,037.05460	2,346,543.40777	39.47174	-107.81503	
Base of "G" Sand										
4,000.00	24.38	358.55	3,692.59	1,468.91	-37.22	1,605,086.71537	2,346,543.41504	39.47188	-107.81504	
4,200.00	24.38	358.55	3,874.76	1,551.43	-39.31	1,605,169.26220	2,346,543.42712	39.47210	-107.81504	
4,400.00	24.38	358.55	4,056.93	1,633.96	-41.41	1,605,251.80903	2,346,543.43920	39.47233	-107.81505	
4,600.00	24.38	358.55	4,239.10	1,716.48	-43.50	1,605,334.35586	2,346,543.45128	39.47256	-107.81506	
4,800.00	24.38	358.55	4,421.27	1,799.00	-45.59	1,605,416.90268	2,346,543.46336	39.47278	-107.81507	
5,000.00	24.38	358.55	4,603.44	1,881.53	-47.68	1,605,499.44951	2,346,543.47545	39.47301	-107.81507	
5,200.00	24.38	358.55	4,785.61	1,964.05	-49.77	1,605,581.99634	2,346,543.48753	39.47324	-107.81508	
5,400.00	24.38	358.55	4,967.77	2,046.58	-51.86	1,605,664.54317	2,346,543.49961	39.47346	-107.81509	
5,600.00	24.38	358.55	5,149.94	2,129.10	-53.95	1,605,747.09000	2,346,543.51169	39.47369	-107.81509	
5,696.02	24.38	358.55	5,237.40	2,168.72	-54.96	1,605,786.72087	2,346,543.51749	39.47380	-107.81510	
Start Drop -1.50										
5,800.00	22.82	358.55	5,332.68	2,210.33	-56.01	1,605,828.34258	2,346,543.52358	39.47391	-107.81510	
6,000.00	19.82	358.55	5,518.98	2,283.01	-57.85	1,605,901.04035	2,346,543.53422	39.47411	-107.81511	
6,200.00	16.82	358.55	5,708.82	2,345.84	-59.44	1,605,963.88905	2,346,543.54342	39.47429	-107.81511	
6,400.00	13.82	358.55	5,901.69	2,398.65	-60.78	1,606,016.71640	2,346,543.55115	39.47443	-107.81512	
6,513.20	12.12	358.55	6,012.00	2,424.05	-61.43	1,606,042.11877	2,346,543.55487	39.47450	-107.81512	
Mesaverde										
6,600.00	10.82	358.55	6,097.07	2,441.30	-61.86	1,606,059.37763	2,346,543.55739	39.47455	-107.81512	
6,800.00	7.82	358.55	6,294.41	2,473.67	-62.68	1,606,091.75578	2,346,543.56213	39.47464	-107.81513	
7,000.00	4.82	358.55	6,493.17	2,495.67	-63.24	1,606,113.76212	2,346,543.56535	39.47470	-107.81513	
7,200.00	1.82	358.55	6,692.81	2,507.24	-63.53	1,606,125.33632	2,346,543.56705	39.47473	-107.81513	



<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well RU 332-6 - Slot A10
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 7563.00usft (Nabors 574 (26' RKB) mab)
<b>Project:</b>	RU 06-07S-093W	<b>MD Reference:</b>	KELLY BUSHING @ 7563.00usft (Nabors 574 (26' RKB) mab)
<b>Site:</b>	RU 34-6 Pad	<b>North Reference:</b>	True
<b>Well:</b>	RU 332-6	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #4 10Jul14 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
7,321.21	0.00	0.00	6,814.00	2,509.16	-63.58	1,606,127.25923	2,346,543.56733	39.47473	-107.81513
<b>Vertical</b>									
7,400.00	0.00	0.00	6,892.79	2,509.16	-63.58	1,606,127.25923	2,346,543.56733	39.47473	-107.81513
7,600.00	0.00	0.00	7,092.79	2,509.16	-63.58	1,606,127.25923	2,346,543.56733	39.47473	-107.81513
7,621.21	0.00	0.00	7,114.00	2,509.16	-63.58	1,606,127.25923	2,346,543.56733	39.47473	-107.81513
<b>Top Gas - Approx. Top Gas - Top Gas (50' Radius) RU 332-6</b>									
7,800.00	0.00	0.00	7,292.79	2,509.16	-63.58	1,606,127.25923	2,346,543.56733	39.47473	-107.81513
7,838.21	0.00	0.00	7,331.00	2,509.16	-63.58	1,606,127.25923	2,346,543.56733	39.47473	-107.81513
<b>Top Gas (25' Rad) RU 332-6 Revised 16nov10</b>									
8,000.00	0.00	0.00	7,492.79	2,509.16	-63.58	1,606,127.25923	2,346,543.56733	39.47473	-107.81513
8,200.00	0.00	0.00	7,692.79	2,509.16	-63.58	1,606,127.25923	2,346,543.56733	39.47473	-107.81513
8,400.00	0.00	0.00	7,892.79	2,509.16	-63.58	1,606,127.25923	2,346,543.56733	39.47473	-107.81513
8,600.00	0.00	0.00	8,092.79	2,509.16	-63.58	1,606,127.25923	2,346,543.56733	39.47473	-107.81513
8,800.00	0.00	0.00	8,292.79	2,509.16	-63.58	1,606,127.25923	2,346,543.56733	39.47473	-107.81513
9,000.00	0.00	0.00	8,492.79	2,509.16	-63.58	1,606,127.25923	2,346,543.56733	39.47473	-107.81513
9,200.00	0.00	0.00	8,692.79	2,509.16	-63.58	1,606,127.25923	2,346,543.56733	39.47473	-107.81513
9,369.21	0.00	0.00	8,862.00	2,509.16	-63.58	1,606,127.25923	2,346,543.56733	39.47473	-107.81513
<b>Cameo Coals</b>									
9,400.00	0.00	0.00	8,892.79	2,509.16	-63.58	1,606,127.25923	2,346,543.56733	39.47473	-107.81513
9,600.00	0.00	0.00	9,092.79	2,509.16	-63.58	1,606,127.25923	2,346,543.56733	39.47473	-107.81513
9,800.00	0.00	0.00	9,292.79	2,509.16	-63.58	1,606,127.25923	2,346,543.56733	39.47473	-107.81513
10,000.00	0.00	0.00	9,492.79	2,509.16	-63.58	1,606,127.25923	2,346,543.56733	39.47473	-107.81513
10,069.21	0.00	0.00	9,562.00	2,509.16	-63.58	1,606,127.25923	2,346,543.56733	39.47473	-107.81513
<b>Coal D</b>									
10,200.00	0.00	0.00	9,692.79	2,509.16	-63.58	1,606,127.25923	2,346,543.56733	39.47473	-107.81513
10,221.21	0.00	0.00	9,714.00	2,509.16	-63.58	1,606,127.25923	2,346,543.56733	39.47473	-107.81513
<b>Rollins SS</b>									
10,371.21	0.00	0.00	9,864.00	2,509.16	-63.58	1,606,127.25923	2,346,543.56733	39.47473	-107.81513
<b>TD at 10371.21 - TD - TD / PBHL RU 332-6</b>									

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	7,114.00	2,509.14	-63.50	1,606,127.23782	2,346,543.64763	39.47473	-107.81513
- plan misses target center by 0.08usft at 7621.21usft MD (7114.00 TVD, 2509.16 N, -63.58 E)									
- Circle (radius 50.00)									
TD / PBHL RU 332-6	0.00	0.00	9,864.00	2,509.14	-63.50	1,606,127.23782	2,346,543.64763	39.47473	-107.81513
- plan misses target center by 0.08usft at 10371.21usft MD (9864.00 TVD, 2509.16 N, -63.58 E)									
- Point									

Casing Points				
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)
1,153.63	1,100.00	9 5/8"	9.625	13.500



<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well RU 332-6 - Slot A10
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 7563.00usft (Nabors 574 (26' RKB) mab)
<b>Project:</b>	RU 06-07S-093W	<b>MD Reference:</b>	KELLY BUSHING @ 7563.00usft (Nabors 574 (26' RKB) mab)
<b>Site:</b>	RU 34-6 Pad	<b>North Reference:</b>	True
<b>Well:</b>	RU 332-6	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #4 10Jul14 mab		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (bearing)	
3,769.89	3,483.00	Top of "G" Sand				
3,879.68	3,583.00	Base of "G" Sand				
6,513.20	6,012.00	Mesaverde				
7,621.21	7,114.00	Approx. Top Gas				
9,369.21	8,862.00	Cameo Coals				
10,069.21	9,562.00	Coal D				
10,221.21	9,714.00	Rollins SS				
10,371.21	9,864.00	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 3.75	
770.08	750.64	136.18	-3.45	Hold 24.38° Inc, 358.55° Az	
5,696.02	5,237.40	2,168.72	-54.96	Start Drop -1.50	
7,321.21	6,814.00	2,509.16	-63.58	Vertical	
7,621.21	7,114.00	2,509.16	-63.58	Top Gas	
10,371.21	9,864.00	2,509.16	-63.58	TD at 10371.21	