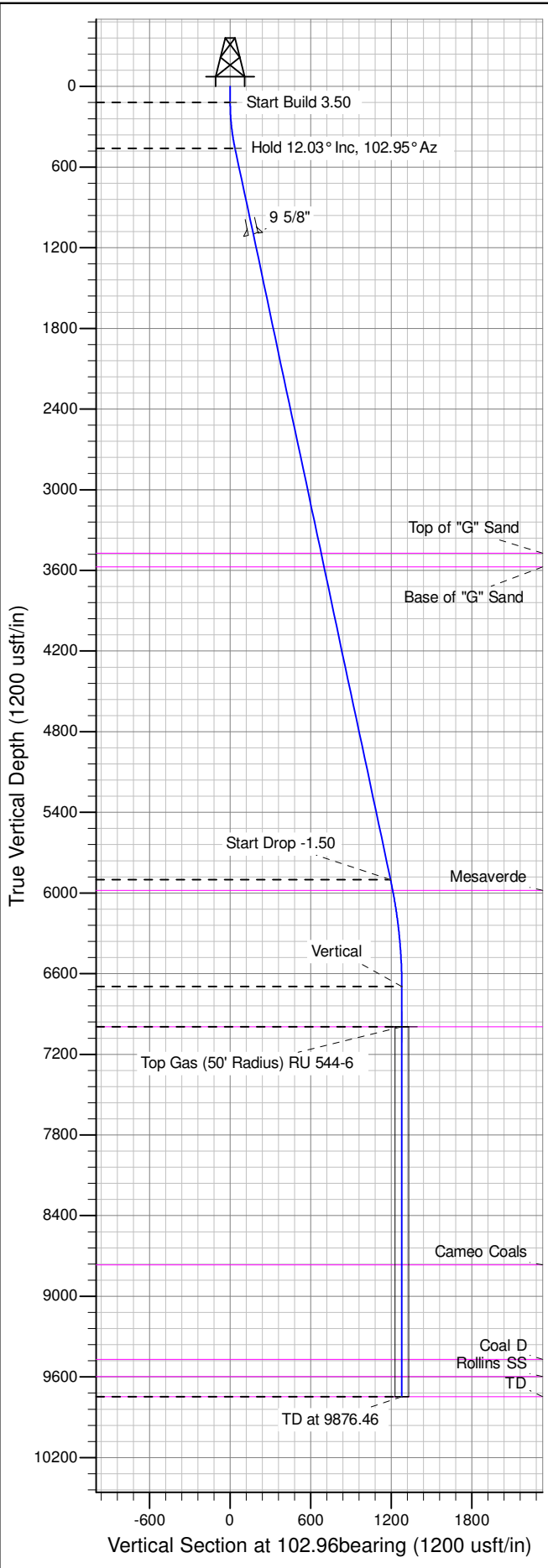
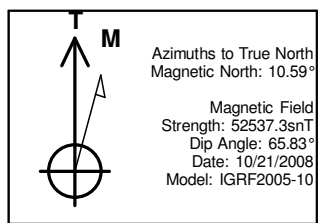
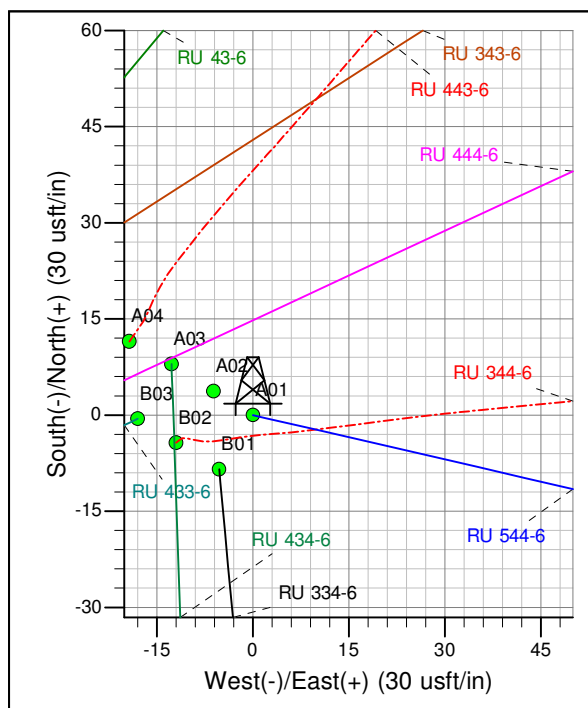
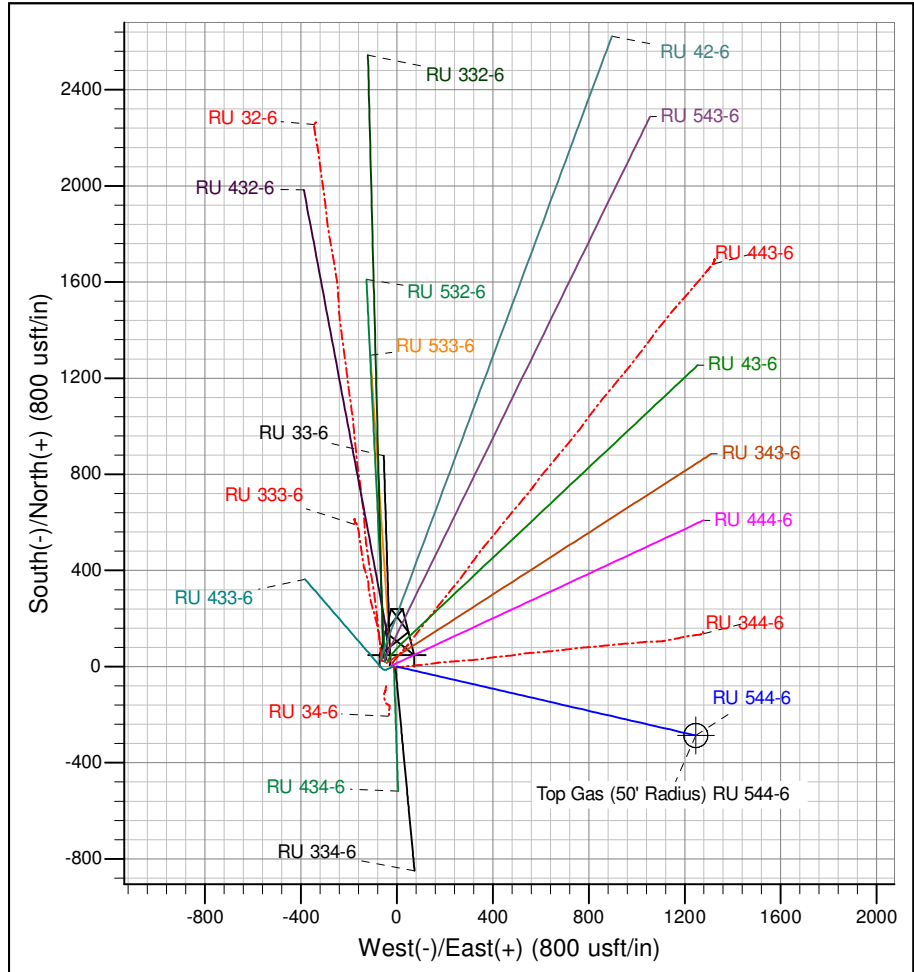




Well Name: RU 544-6  
Surface Location: RU 34-6 Pad  
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone  
Ground Elevation: 7537.00  
+N/-S      +E/-W      Northing      Easting      Latitude      Longitude      Slot  
0.00      0.00      1603580.30000      2346599.30000      39.46775      -107.81470      A01  
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 3.50	
461.11	463.63	12.03	102.95	-8.05	35.02	35.93	35.93	Hold 12.03° Inc, 102.95° Az	
5900.08	6024.66	12.03	102.95	-267.78	1164.30	1194.69	1194.69	Start Drop -1.50	
6696.00	6826.46	0.00	0.00	-286.57	1246.01	1278.54	1278.54	Vertical	
6996.00	7126.46	0.00	0.00	-286.57	1246.01	1278.54	1278.54	Top Gas	
9746.00	9876.46	0.00	0.00	-286.57	1246.01	1278.54	1278.54	TD at 9876.46	



Project: RU 06-07S-093W  
Site: RU 34-6 Pad  
Well: RU 544-6  
Plan #5 08Jul14 mab



## **PICEANCE VLY NAD 83**

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

**RU 34-6 Pad**

**RU 544-6 - Slot A01**

**Wellbore #1**

**Plan: Plan #5 08Jul14 mab**

## **Standard Planning Report - Geographic**

**14 August, 2014**



**WPX**  
Planning Report - Geographic

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well RU 544-6 - Slot A01
<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 544-6	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #5 08Jul14 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 544-6 - Slot A01					
Well Position	+N/-S	0.00 usft	Northing:	1,603,580.30000 usft	Latitude:	39.46775
	+E/-W	0.00 usft	Easting:	2,346,599.30000 usft	Longitude:	-107.81470
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 #5 08Jul14 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	102.96

<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	
463.63	12.03	102.95	461.11	-8.05	35.02	3.50	3.50	0.00	102.95	
6,024.66	12.03	102.95	5,900.08	-267.78	1,164.30	0.00	0.00	0.00	0.00	
6,826.46	0.00	0.00	6,696.00	-286.57	1,246.01	1.50	-1.50	0.00	180.00	
7,126.46	0.00	0.00	6,996.00	-286.57	1,246.01	0.00	0.00	0.00	0.00	Top Gas (50' Radius)
9,876.46	0.00	0.00	9,746.00	-286.57	1,246.01	0.00	0.00	0.00	0.00	

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well RU 544-6 - Slot A01
<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 544-6	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #5 08Jul14 mab		

Planned Survey										
Measured			Vertical			Map				
Depth (usft)	Inclination (°)	Azimuth (bearing)	Depth (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
0.00	0.00	0.00	0.00	0.00	0.00	1,603,580.30000	2,346,599.30000	39.46775	-107.81470	
120.00	0.00	0.00	120.00	0.00	0.00	1,603,580.30000	2,346,599.30000	39.46775	-107.81470	
Start Build 3.50										
200.00	2.80	102.95	199.97	-0.44	1.90	1,603,579.81359	2,346,601.19279	39.46775	-107.81470	
400.00	9.80	102.95	398.64	-5.35	23.28	1,603,574.35479	2,346,622.43486	39.46773	-107.81462	
463.63	12.03	102.95	461.11	-8.05	35.02	1,603,571.35688	2,346,634.10075	39.46773	-107.81458	
Hold 12.03° Inc, 102.95° Az										
600.00	12.03	102.95	594.49	-14.42	62.71	1,603,564.28456	2,346,661.62161	39.46771	-107.81448	
800.00	12.03	102.95	790.10	-23.76	103.33	1,603,553.91254	2,346,701.98270	39.46768	-107.81434	
1,000.00	12.03	102.95	985.71	-33.10	143.94	1,603,543.54053	2,346,742.34379	39.46766	-107.81419	
1,116.86	12.03	102.95	1,100.00	-38.56	167.67	1,603,537.48034	2,346,765.92607	39.46764	-107.81411	
9 5/8"										
1,200.00	12.03	102.95	1,181.32	-42.45	184.55	1,603,533.16851	2,346,782.70488	39.46763	-107.81405	
1,400.00	12.03	102.95	1,376.93	-51.79	225.17	1,603,522.79650	2,346,823.06596	39.46761	-107.81390	
1,600.00	12.03	102.95	1,572.54	-61.13	265.78	1,603,512.42448	2,346,863.42705	39.46758	-107.81376	
1,800.00	12.03	102.95	1,768.15	-70.47	306.40	1,603,502.05247	2,346,903.78814	39.46755	-107.81362	
2,000.00	12.03	102.95	1,963.76	-79.81	347.01	1,603,491.68045	2,346,944.14922	39.46753	-107.81347	
2,200.00	12.03	102.95	2,159.37	-89.15	387.62	1,603,481.30844	2,346,984.51031	39.46750	-107.81333	
2,400.00	12.03	102.95	2,354.98	-98.49	428.24	1,603,470.93642	2,347,024.87140	39.46748	-107.81319	
2,600.00	12.03	102.95	2,550.59	-107.83	468.85	1,603,460.56441	2,347,065.23249	39.46745	-107.81304	
2,800.00	12.03	102.95	2,746.20	-117.17	509.47	1,603,450.19239	2,347,105.59358	39.46743	-107.81290	
3,000.00	12.03	102.95	2,941.81	-126.51	550.08	1,603,439.82038	2,347,145.95467	39.46740	-107.81275	
3,200.00	12.03	102.95	3,137.42	-135.85	590.69	1,603,429.44836	2,347,186.31575	39.46737	-107.81261	
3,400.00	12.03	102.95	3,333.03	-145.19	631.31	1,603,419.07635	2,347,226.67683	39.46735	-107.81247	
3,543.11	12.03	102.95	3,473.00	-151.88	660.37	1,603,411.65447	2,347,255.55790	39.46733	-107.81236	
Top of "G" Sand										
3,600.00	12.03	102.95	3,528.64	-154.54	671.92	1,603,408.70433	2,347,267.03792	39.46732	-107.81232	
3,645.36	12.03	102.95	3,573.00	-156.65	681.13	1,603,406.35208	2,347,276.19136	39.46732	-107.81229	
Base of "G" Sand										
3,800.00	12.03	102.95	3,724.25	-163.88	712.54	1,603,398.33232	2,347,307.39901	39.46730	-107.81218	
4,000.00	12.03	102.95	3,919.86	-173.22	753.15	1,603,387.96031	2,347,347.76010	39.46727	-107.81203	
4,200.00	12.03	102.95	4,115.47	-182.56	793.76	1,603,377.58830	2,347,388.12119	39.46725	-107.81189	
4,400.00	12.03	102.95	4,311.08	-191.90	834.38	1,603,367.21628	2,347,428.48227	39.46722	-107.81175	
4,600.00	12.03	102.95	4,506.69	-201.24	874.99	1,603,356.84427	2,347,468.84336	39.46719	-107.81160	
4,800.00	12.03	102.95	4,702.30	-210.58	915.61	1,603,346.47225	2,347,509.20445	39.46717	-107.81146	
5,000.00	12.03	102.95	4,897.91	-219.92	956.22	1,603,336.10024	2,347,549.56554	39.46714	-107.81131	
5,200.00	12.03	102.95	5,093.52	-229.26	996.83	1,603,325.72822	2,347,589.92662	39.46712	-107.81117	
5,400.00	12.03	102.95	5,289.13	-238.60	1,037.45	1,603,315.35621	2,347,630.28771	39.46709	-107.81103	
5,600.00	12.03	102.95	5,484.74	-247.94	1,078.06	1,603,304.98419	2,347,670.64879	39.46707	-107.81088	
5,800.00	12.03	102.95	5,680.35	-257.28	1,118.68	1,603,294.61218	2,347,711.00988	39.46704	-107.81074	
6,000.00	12.03	102.95	5,875.96	-266.62	1,159.29	1,603,284.24016	2,347,751.37097	39.46702	-107.81060	
6,024.66	12.03	102.95	5,900.08	-267.78	1,164.30	1,603,282.96111	2,347,756.34820	39.46701	-107.81058	
Start Drop -1.50										
6,107.22	10.79	102.95	5,981.00	-271.44	1,180.21	1,603,278.89738	2,347,772.16159	39.46700	-107.81052	
Mesaverde										
6,200.00	9.40	102.95	6,072.35	-275.08	1,196.06	1,603,274.85075	2,347,787.90843	39.46699	-107.81047	
6,400.00	6.40	102.95	6,270.43	-281.24	1,222.83	1,603,268.01269	2,347,814.51767	39.46698	-107.81037	
6,600.00	3.40	102.95	6,469.67	-285.06	1,239.47	1,603,263.76411	2,347,831.05036	39.46696	-107.81031	
6,800.00	0.40	102.95	6,669.54	-286.55	1,245.92	1,603,262.11665	2,347,837.46120	39.46696	-107.81029	
6,826.46	0.00	0.00	6,696.00	-286.57	1,246.01	1,603,262.09384	2,347,837.54995	39.46696	-107.81029	
Vertical										
7,000.00	0.00	0.00	6,869.54	-286.57	1,246.01	1,603,262.09384	2,347,837.54995	39.46696	-107.81029	

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well RU 544-6 - Slot A01
<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 544-6	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #5 08Jul14 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
7,126.46	0.00	0.00	6,996.00	-286.57	1,246.01	1,603,262.09384	2,347,837.54995	39.46696	-107.81029
<b>Top Gas - Approx. Top Gas</b>									
7,200.00	0.00	0.00	7,069.54	-286.57	1,246.01	1,603,262.09384	2,347,837.54995	39.46696	-107.81029
7,400.00	0.00	0.00	7,269.54	-286.57	1,246.01	1,603,262.09384	2,347,837.54995	39.46696	-107.81029
7,600.00	0.00	0.00	7,469.54	-286.57	1,246.01	1,603,262.09384	2,347,837.54995	39.46696	-107.81029
7,800.00	0.00	0.00	7,669.54	-286.57	1,246.01	1,603,262.09384	2,347,837.54995	39.46696	-107.81029
8,000.00	0.00	0.00	7,869.54	-286.57	1,246.01	1,603,262.09384	2,347,837.54995	39.46696	-107.81029
8,200.00	0.00	0.00	8,069.54	-286.57	1,246.01	1,603,262.09384	2,347,837.54995	39.46696	-107.81029
8,400.00	0.00	0.00	8,269.54	-286.57	1,246.01	1,603,262.09384	2,347,837.54995	39.46696	-107.81029
8,600.00	0.00	0.00	8,469.54	-286.57	1,246.01	1,603,262.09384	2,347,837.54995	39.46696	-107.81029
8,800.00	0.00	0.00	8,669.54	-286.57	1,246.01	1,603,262.09384	2,347,837.54995	39.46696	-107.81029
8,897.46	0.00	0.00	8,767.00	-286.57	1,246.01	1,603,262.09384	2,347,837.54995	39.46696	-107.81029
<b>Cameo Coals</b>									
9,000.00	0.00	0.00	8,869.54	-286.57	1,246.01	1,603,262.09384	2,347,837.54995	39.46696	-107.81029
9,200.00	0.00	0.00	9,069.54	-286.57	1,246.01	1,603,262.09384	2,347,837.54995	39.46696	-107.81029
9,400.00	0.00	0.00	9,269.54	-286.57	1,246.01	1,603,262.09384	2,347,837.54995	39.46696	-107.81029
9,599.46	0.00	0.00	9,469.00	-286.57	1,246.01	1,603,262.09384	2,347,837.54995	39.46696	-107.81029
<b>Coal D</b>									
9,600.00	0.00	0.00	9,469.54	-286.57	1,246.01	1,603,262.09384	2,347,837.54995	39.46696	-107.81029
9,726.46	0.00	0.00	9,596.00	-286.57	1,246.01	1,603,262.09384	2,347,837.54995	39.46696	-107.81029
<b>Rollins SS</b>									
9,800.00	0.00	0.00	9,669.54	-286.57	1,246.01	1,603,262.09384	2,347,837.54995	39.46696	-107.81029
9,876.46	0.00	0.00	9,746.00	-286.57	1,246.01	1,603,262.09384	2,347,837.54995	39.46696	-107.81029
<b>TD at 9876.46 - TD</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	6,996.00	-286.84	1,246.22	1,603,261.82000	2,347,837.75000	39.46696	-107.81029
- plan misses target center by 0.34usft at 7126.46usft MD (6996.00 TVD, -286.57 N, 1246.01 E)									
- Circle (radius 50.00)									
TD / PBHL RU 544-6	0.00	0.00	8,999.00	-216.42	1,125.03	1,603,335.30000	2,347,718.40000	39.46715	-107.81072
- plan misses target center by 139.85usft at 9129.46usft MD (8999.00 TVD, -286.57 N, 1246.01 E)									
- Point									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,116.86	1,100.00	9 5/8"	9.625	13.500	



<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well RU 544-6 - Slot A01
<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 544-6	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #5 08Jul14 mab		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (bearing)	
3,543.11	3,473.00	Top of "G" Sand				
3,645.36	3,573.00	Base of "G" Sand				
6,107.22	5,981.00	Mesaverde				
7,126.46	6,996.00	Approx. Top Gas				
8,897.46	8,767.00	Cameo Coals				
9,599.46	9,469.00	Coal D				
9,726.46	9,596.00	Rollins SS				
9,876.46	9,746.00	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 3.50	
463.63	461.11	-8.05	35.02	Hold 12.03° Inc, 102.95° Az	
6,024.66	5,900.08	-267.78	1,164.30	Start Drop -1.50	
6,826.46	6,696.00	-286.57	1,246.01	Vertical	
7,126.46	6,996.00	-286.57	1,246.01	Top Gas	
9,876.46	9,746.00	-286.57	1,246.01	TD at 9876.46	