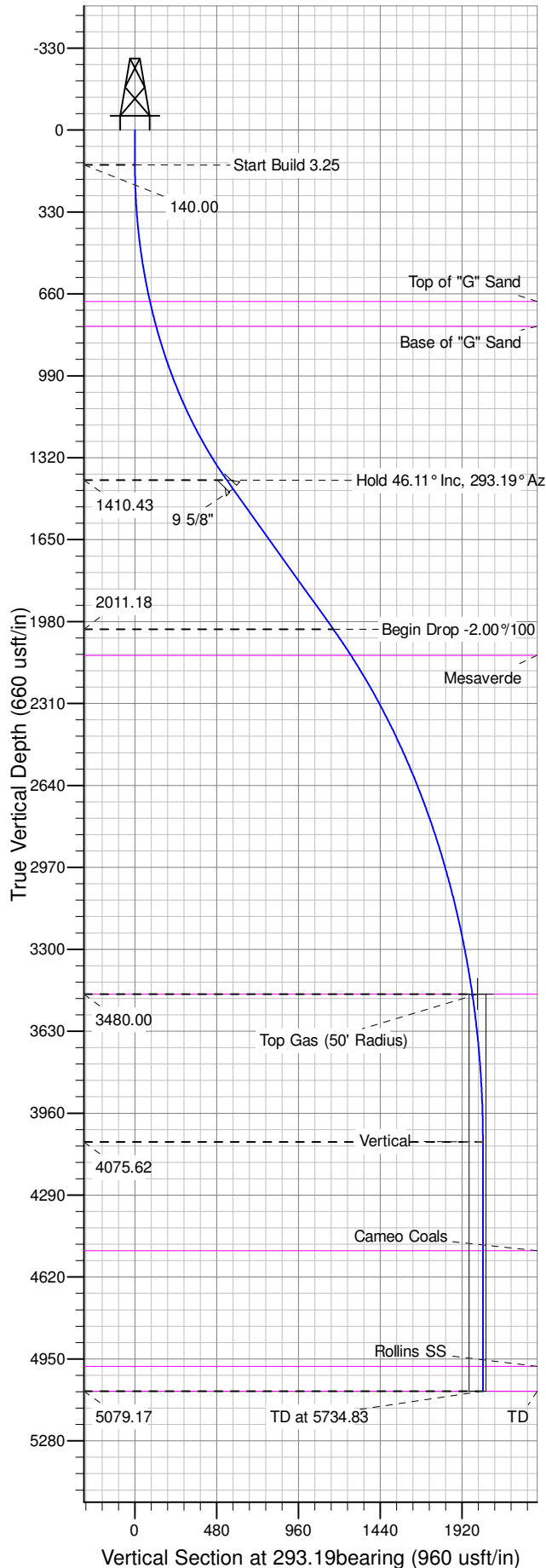
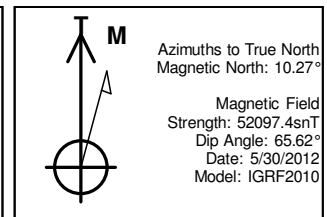
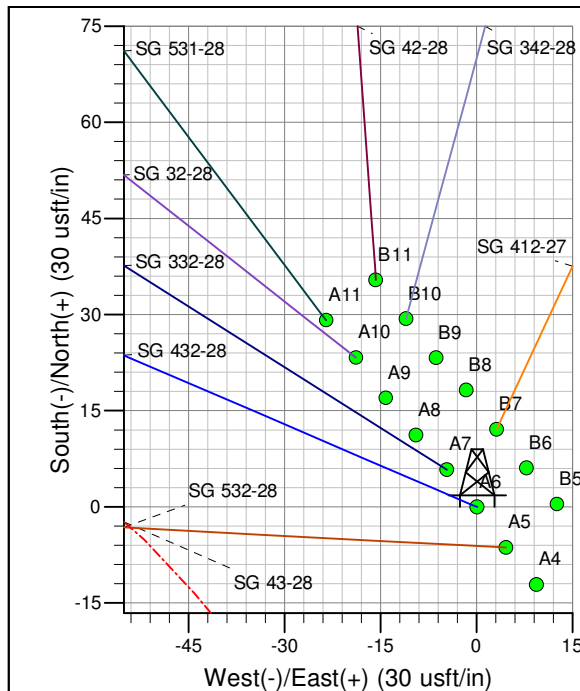
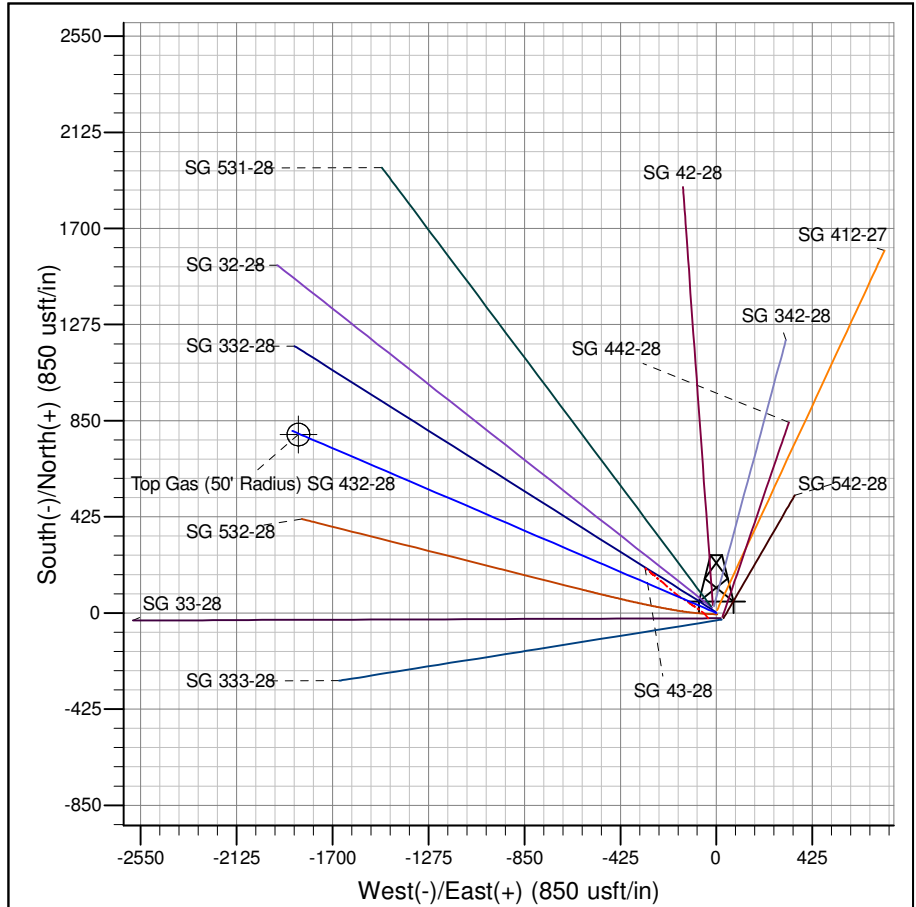




Well Name: SG 432-28  
Surface Location: SG 43-28 Pad  
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone  
Ground Elevation: 5119.00  
+N/-S +E/-W Northing Easting Latitude Longitude Slot  
-0.02 0.12 1583860.13000 2263453.05000 39.40744 -108.10709 A6  
KELLY BUSHING @ 5145.00usft (Nabors 573 (26' RKB) kjs)



ANNOTATIONS									
TVD	MD	Inc	Azi	+N/-S	+E/-W	Vsect	Departure	Annotation	
140.00	140.00	0.00	0.00	-0.02	0.12	0.00	0.00	Start Build 3.25	
1410.43	1558.65	46.11	293.19	212.92	-496.84	540.65	540.65	Hold 46.11° Inc, 293.19° Az	
2011.18	2425.14	46.11	293.19	458.84	-1070.78	1165.07	1165.07	Begin Drop -2.00°/100	
3480.00	4130.45	12.00	293.19	780.21	-1820.79	1981.03	1981.03	Top Gas	
4075.62	4730.45	0.00	0.00	804.86	-1878.33	2043.63	2043.63	Vertical	
5079.17	5734.00	0.00	0.00	804.86	-1878.33	2043.63	2043.63	TD at 5734.83	



Project: SG 28-07S-096W  
Site: SG 43-28 Pad  
Well: SG 432-28  
Design #3 16Apr14 mab

# **PICEANCE VLY NAD 83**

**SG 28-07S-096W**

**SG 43-28 Pad**

**SG 432-28 - Slot A6**

**Wellbore #1**

**Plan: Design #3 16Apr14 mab**

## **Standard Planning Report - Geographic**

**23 May, 2014**

**WPX**  
Planning Report - Geographic

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well SG 432-28 - Slot A6
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 5145.00usft (Nabors 573 (26' RKB) kjs)
<b>Project:</b>	SG 28-07S-096W	<b>MD Reference:</b>	KELLY BUSHING @ 5145.00usft (Nabors 573 (26' RKB) kjs)
<b>Site:</b>	SG 43-28 Pad	<b>North Reference:</b>	True
<b>Well:</b>	SG 432-28	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #3 16Apr14 mab		

<b>Project</b>	SG 28-07S-096W, Garfield County, CO, 28-07S-096W		
<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>	SG 43-28 Pad		
<b>Site Position:</b>		<b>Northing:</b>	1,583,837.93900 usft
<b>From:</b>	Map	<b>Easting:</b>	2,263,416.17600 usft
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13.200 in
		<b>Latitude:</b>	39.40738
		<b>Longitude:</b>	-108.10722
		<b>Grid Convergence:</b>	-1.64 °

<b>Well</b>	SG 432-28 - Slot A6		
<b>Well Position</b>	<b>+N/-S</b>	-0.02 usft	<b>Northing:</b> 1,583,860.13000 usft
	<b>+E/-W</b>	0.12 usft	<b>Easting:</b> 2,263,453.05000 usft
<b>Position Uncertainty</b>	0.00 usft	<b>Wellhead Elevation:</b>	<b>Latitude:</b> 39.40744
			<b>Longitude:</b> -108.10709
			<b>Ground Level:</b> 5,119.00 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	5/30/2012	10.27	65.62	52,097

<b>Design</b>	Design #3 16Apr14 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	-0.02	0.12	293.19	

<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	-0.02	0.12	0.00	0.00	0.00	0.00	
140.00	0.00	0.00	140.00	-0.02	0.12	0.00	0.00	0.00	0.00	
1,558.65	46.11	293.19	1,410.43	212.92	-496.84	3.25	3.25	0.00	293.19	
2,425.14	46.11	293.19	2,011.18	458.84	-1,070.78	0.00	0.00	0.00	0.00	
4,130.45	12.00	293.19	3,480.00	780.21	-1,820.79	2.00	-2.00	0.00	180.00	Top Gas (50' Radius)
4,730.45	0.00	0.00	4,075.62	804.86	-1,878.33	2.00	-2.00	11.13	180.00	
5,734.83	0.00	0.00	5,080.00	804.86	-1,878.33	0.00	0.00	0.00	0.00	

**WPX**  
Planning Report - Geographic

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well SG 432-28 - Slot A6
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 5145.00usft (Nabors 573 (26' RKB) kjs)
<b>Project:</b>	SG 28-07S-096W	<b>MD Reference:</b>	KELLY BUSHING @ 5145.00usft (Nabors 573 (26' RKB) kjs)
<b>Site:</b>	SG 43-28 Pad	<b>North Reference:</b>	True
<b>Well:</b>	SG 432-28	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #3 16Apr14 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	-0.02	0.12	1,583,860.13000	2,263,453.05000	39.40744	-108.10709
140.00	0.00	0.00	140.00	-0.02	0.12	1,583,860.13000	2,263,453.05000	39.40744	-108.10709
<b>Start Build 3.25</b>									
200.00	1.95	293.19	199.99	0.38	-0.82	1,583,860.55883	2,263,452.12357	39.40744	-108.10710
400.00	8.45	293.19	399.06	7.52	-17.47	1,583,868.16867	2,263,435.68349	39.40746	-108.10716
600.00	14.95	293.19	594.80	23.48	-54.73	1,583,885.19543	2,263,398.89939	39.40751	-108.10729
699.34	18.18	293.19	690.00	34.63	-80.76	1,583,897.08947	2,263,373.20387	39.40754	-108.10738
<b>Top of "G" Sand</b>									
800.00	21.45	293.19	784.69	48.07	-112.12	1,583,911.42020	2,263,342.24417	39.40757	-108.10749
805.71	21.64	293.19	790.00	48.90	-114.05	1,583,912.30061	2,263,340.34216	39.40758	-108.10750
<b>Base of "G" Sand</b>									
1,000.00	27.95	293.19	966.29	80.97	-188.90	1,583,946.50584	2,263,266.44622	39.40766	-108.10776
1,200.00	34.45	293.19	1,137.28	121.75	-284.08	1,583,990.00126	2,263,172.47999	39.40778	-108.10810
1,400.00	40.95	293.19	1,295.44	169.90	-396.44	1,584,041.34728	2,263,061.55355	39.40791	-108.10850
1,558.65	46.11	293.19	1,410.43	212.92	-496.84	1,584,087.22848	2,262,962.43317	39.40803	-108.10885
<b>Hold 46.11° Inc, 293.19° Az</b>									
1,600.00	46.11	293.19	1,439.09	224.65	-524.23	1,584,099.74374	2,262,935.39556	39.40806	-108.10895
1,608.65	46.11	293.19	1,445.09	227.11	-529.95	1,584,102.36205	2,262,929.73905	39.40807	-108.10897
<b>9 5/8"</b>									
1,800.00	46.11	293.19	1,577.76	281.41	-656.70	1,584,160.28264	2,262,804.60915	39.40822	-108.10942
2,000.00	46.11	293.19	1,716.42	338.18	-789.18	1,584,220.82153	2,262,673.82272	39.40837	-108.10989
2,200.00	46.11	293.19	1,855.09	394.94	-921.65	1,584,281.36042	2,262,543.03629	39.40853	-108.11036
2,400.00	46.11	293.19	1,993.75	451.71	-1,054.13	1,584,341.89931	2,262,412.24987	39.40868	-108.11082
2,425.14	46.11	293.19	2,011.18	458.84	-1,070.78	1,584,349.50807	2,262,395.81213	39.40870	-108.11088
<b>Begin Drop -2.00°/100</b>									
2,572.45	43.16	293.19	2,116.00	499.60	-1,165.90	1,584,392.97689	2,262,301.90336	39.40881	-108.11122
<b>Mesaverde</b>									
2,600.00	42.61	293.19	2,136.19	506.98	-1,183.13	1,584,400.85162	2,262,284.89102	39.40883	-108.11128
2,800.00	38.61	293.19	2,287.99	558.24	-1,302.77	1,584,455.52120	2,262,166.78450	39.40898	-108.11170
3,000.00	34.61	293.19	2,448.50	605.21	-1,412.37	1,584,505.60966	2,262,058.57488	39.40910	-108.11209
3,200.00	30.61	293.19	2,616.94	647.65	-1,511.42	1,584,550.87298	2,261,960.78935	39.40922	-108.11244
3,400.00	26.61	293.19	2,792.49	685.36	-1,599.43	1,584,591.09064	2,261,873.90430	39.40932	-108.11275
3,600.00	22.61	293.19	2,974.28	718.15	-1,675.97	1,584,626.06671	2,261,798.34304	39.40941	-108.11303
3,800.00	18.61	293.19	3,161.45	745.88	-1,740.66	1,584,655.63079	2,261,734.47369	39.40949	-108.11325
4,000.00	14.61	293.19	3,353.06	768.39	-1,793.20	1,584,679.63883	2,261,682.60742	39.40955	-108.11344
4,130.45	12.00	293.19	3,480.00	780.21	-1,820.79	1,584,692.24735	2,261,655.36835	39.40958	-108.11354
<b>Top Gas - Approx. Top Gas</b>									
4,200.00	10.61	293.19	3,548.20	785.58	-1,833.32	1,584,697.97389	2,261,642.99691	39.40960	-108.11358
4,400.00	6.61	293.19	3,745.91	797.37	-1,860.84	1,584,710.54663	2,261,615.83514	39.40963	-108.11368
4,600.00	2.61	293.19	3,945.22	803.70	-1,875.60	1,584,717.29580	2,261,601.25444	39.40965	-108.11373
4,730.45	0.00	0.00	4,075.62	804.86	-1,878.33	1,584,718.54312	2,261,598.55975	39.40965	-108.11374
<b>Vertical</b>									
4,800.00	0.00	0.00	4,145.17	804.86	-1,878.33	1,584,718.54312	2,261,598.55975	39.40965	-108.11374
5,000.00	0.00	0.00	4,345.17	804.86	-1,878.33	1,584,718.54313	2,261,598.55975	39.40965	-108.11374
5,168.83	0.00	0.00	4,514.00	804.86	-1,878.33	1,584,718.54313	2,261,598.55975	39.40965	-108.11374
<b>Cameo Coals</b>									
5,200.00	0.00	0.00	4,545.17	804.86	-1,878.33	1,584,718.54313	2,261,598.55975	39.40965	-108.11374
5,400.00	0.00	0.00	4,745.17	804.86	-1,878.33	1,584,718.54313	2,261,598.55975	39.40965	-108.11374
5,600.00	0.00	0.00	4,945.17	804.86	-1,878.33	1,584,718.54313	2,261,598.55975	39.40965	-108.11374
5,634.83	0.00	0.00	4,980.00	804.86	-1,878.33	1,584,718.54314	2,261,598.55975	39.40965	-108.11374
<b>Rollins SS</b>									

**WPX**  
Planning Report - Geographic

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well SG 432-28 - Slot A6
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 5145.00usft (Nabors 573 (26' RKB) kjs)
<b>Project:</b>	SG 28-07S-096W	<b>MD Reference:</b>	KELLY BUSHING @ 5145.00usft (Nabors 573 (26' RKB) kjs)
<b>Site:</b>	SG 43-28 Pad	<b>North Reference:</b>	True
<b>Well:</b>	SG 432-28	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #3 16Apr14 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
5,734.83	0.00	0.00	5,080.00	804.86	-1,878.33	1,584,718.54314	2,261,598.55975	39.40965	-108.11374
TD at 5734.83 - TD									

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) SC	0.00	0.00	3,480.00	788.74	-1,851.24	1,584,701.65000	2,261,625.18000	39.40961	-108.11365
- plan misses target center by 30.95usft at 4136.59usft MD (3486.01 TVD, 780.71 N, -1821.96 E)									
- Circle (radius 50.00)									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,608.65	1,445.09	9 5/8"	9.625	13.500	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (bearing)	
699.34	690.00	Top of "G" Sand				
805.71	790.00	Base of "G" Sand				
2,572.45	2,116.00	Mesaverde				
4,130.45	3,480.00	Approx. Top Gas				
5,168.83	4,514.00	Cameo Coals				
5,634.83	4,980.00	Rollins SS				
5,734.83	5,080.00	TD				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
140.00	140.00	-0.02	0.12	Start Build 3.25	
1,558.65	1,410.43	212.92	-496.84	Hold 46.11° Inc, 293.19° Az	
2,425.14	2,011.18	458.84	-1,070.78	Begin Drop -2.00°/100	
4,130.45	3,480.00	780.21	-1,820.79	Top Gas	
4,730.45	4,075.62	804.86	-1,878.33	Vertical	
5,734.83	5,080.00	804.86	-1,878.33	TD at 5734.83	