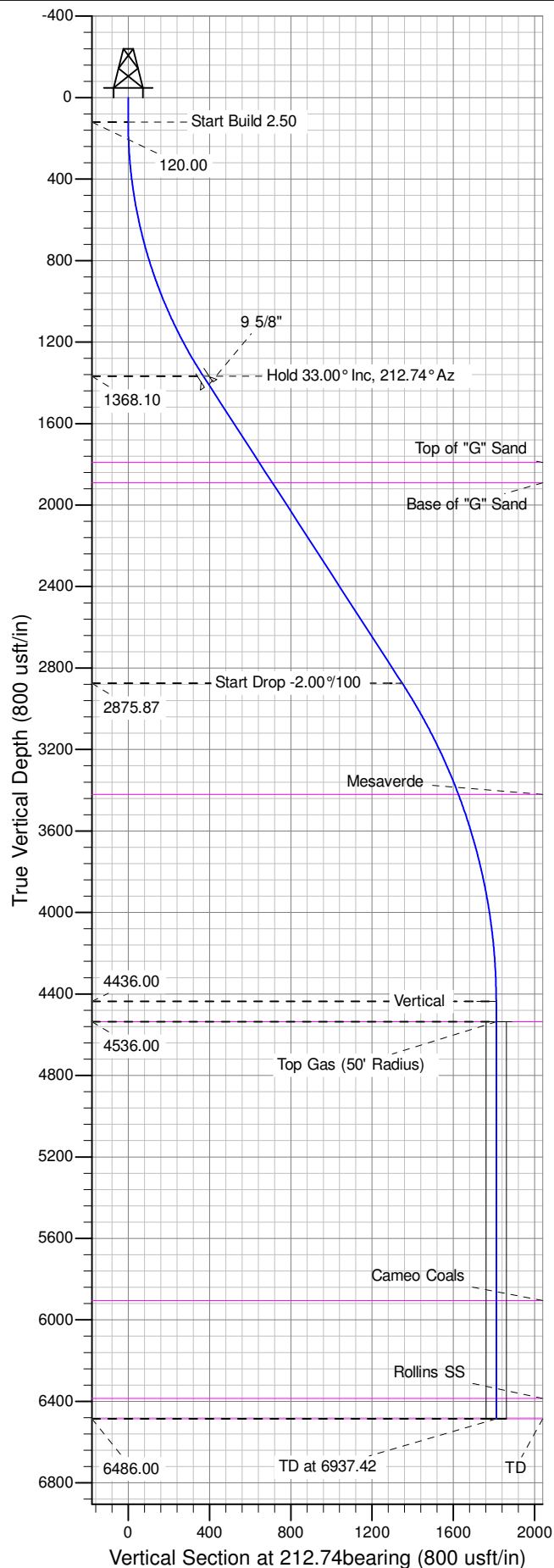
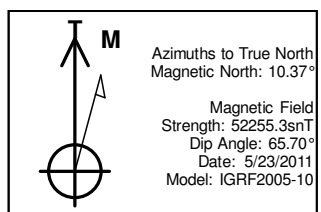
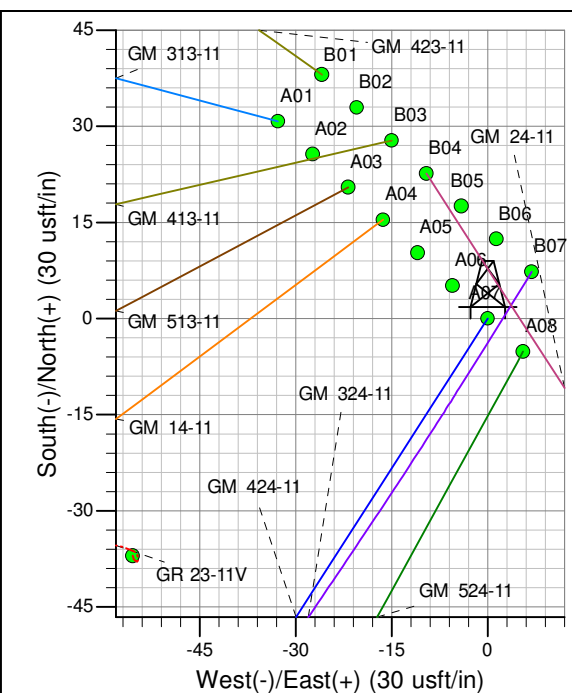
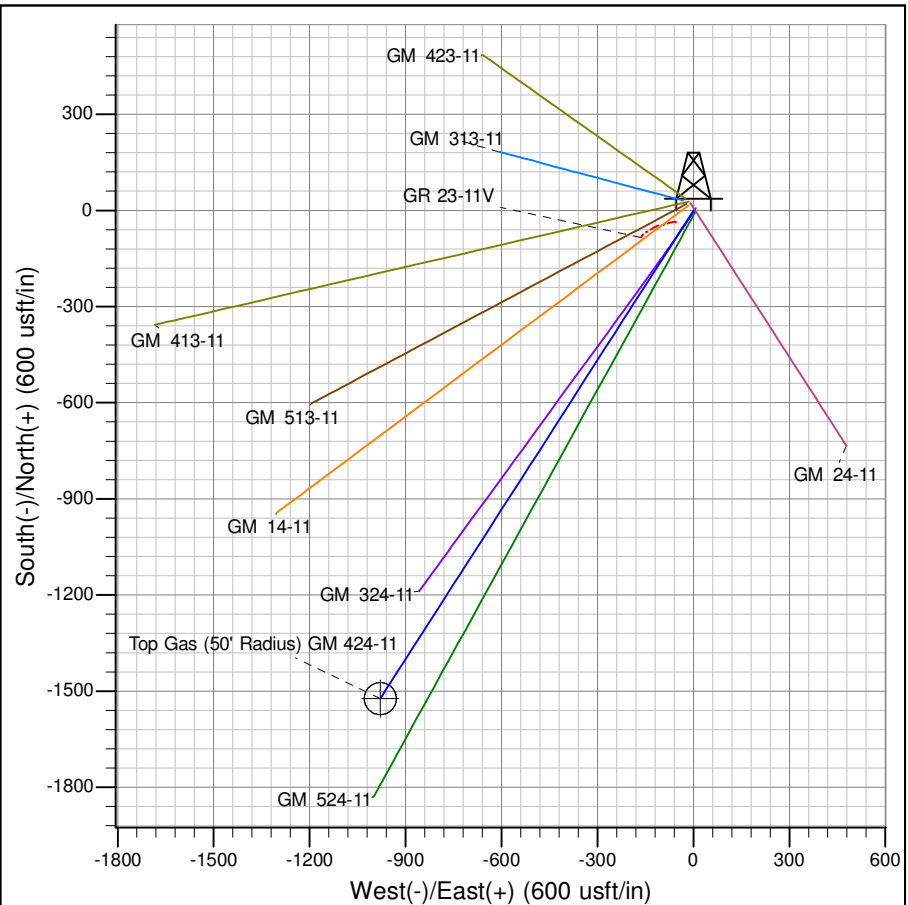




Well Name: GM 424-11  
Surface Location: GR 23-11V Pad  
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone  
Ground Elevation: 5793.00  
+N/-S +E/-W Northing Easting Latitude Longitude Slot  
0.00 0.00 1599207.80000 2271931.70000 39.450226 -108.078638 A07  
KELLY BUSHING @ 5817.00usft (H&P 318 (24' 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	
1368.10	1439.86	33.00	212.74	-310.95	-199.90	369.66	369.66	Hold 33.00° Inc, 212.74° Az	
2875.87	3237.60	33.00	212.74	-1134.49	-729.32	1348.69	1348.69	Start Drop -2.00°/100	
4436.00	4887.42	0.00	0.00	-1523.17	-979.19	1810.77	1810.77	Vertical	
4536.00	4987.42	0.00	0.00	-1523.17	-979.19	1810.77	1810.77	Top Gas	
6486.00	6937.42	0.00	0.00	-1523.17	-979.19	1810.77	1810.77	TD at 6937.42	



Azimuths to True North  
Magnetic North: 10.37°

Magnetic Field  
Strength: 52255.3snT  
Dip Angle: 65.70°  
Date: 5/23/2011  
Model: IGRF2005-10

Project: GV 11-07S-096W  
Site: GR 23-11V Pad  
Well: GM 424-11  
Design #2 22Jul14 mab

# **PICEANCE VLY NAD 83**

**GV 11-07S-096W**

**GR 23-11V Pad**

**GM 424-11 - Slot A07**

**Wellbore #1**

**Plan: Design #2 22Jul14 mab**

## **Standard Planning Report - Geographic**

**11 September, 2014**

**WPX**  
Planning Report - Geographic

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well GM 424-11 - Slot A07
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 5817.00usft (H&P 318 (24' RKB) mab)
<b>Project:</b>	GV 11-07S-096W	<b>MD Reference:</b>	KELLY BUSHING @ 5817.00usft (H&P 318 (24' RKB) mab)
<b>Site:</b>	GR 23-11V Pad	<b>North Reference:</b>	True
<b>Well:</b>	GM 424-11	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #2 22Jul14 mab		

<b>Project</b>	GV 11-07S-096W, Garfield County, CO, 11-07S-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>	GR 23-11V Pad			
<b>Site Position:</b>		<b>Northing:</b>	1,599,207.80000 usft	<b>Latitude:</b> 39.450226
<b>From:</b> Map		<b>Easting:</b>	2,271,931.70000 usft	<b>Longitude:</b> -108.078638
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13.200 in	<b>Grid Convergence:</b> -1.63 °

<b>Well</b>	GM 424-11 - Slot A07			
<b>Well Position</b>	<b>+N/-S</b>	0.00 usft	<b>Northing:</b>	1,599,207.80000 usft
	<b>+E/-W</b>	0.00 usft	<b>Easting:</b>	2,271,931.70000 usft
<b>Position Uncertainty</b>	0.00 usft		<b>Wellhead Elevation:</b>	
			<b>Ground Level:</b>	5,793.00 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	5/23/2011	10.37	65.70	52,255

<b>Design</b>	Design #2 22Jul14 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	212.74

<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	
1,439.86	33.00	212.74	1,368.10	-310.95	-199.90	2.50	2.50	0.00	212.74	
3,237.60	33.00	212.74	2,875.87	-1,134.49	-729.32	0.00	0.00	0.00	0.00	
4,887.42	0.00	0.00	4,436.00	-1,523.17	-979.19	2.00	-2.00	0.00	180.00	
4,987.42	0.00	0.00	4,536.00	-1,523.17	-979.19	0.00	0.00	0.00	0.00	Top Gas (50' Radius)
6,937.42	0.00	0.00	6,486.00	-1,523.17	-979.19	0.00	0.00	0.00	0.00	

**WPX**  
Planning Report - Geographic

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well GM 424-11 - Slot A07
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 5817.00usft (H&P 318 (24' RKB) mab)
<b>Project:</b>	GV 11-07S-096W	<b>MD Reference:</b>	KELLY BUSHING @ 5817.00usft (H&P 318 (24' RKB) mab)
<b>Site:</b>	GR 23-11V Pad	<b>North Reference:</b>	True
<b>Well:</b>	GM 424-11	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #2 22Jul14 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	1,599,207.80000	2,271,931.70000	39.450226	-108.078638	
120.00	0.00	0.00	120.00	0.00	0.00	1,599,207.80000	2,271,931.70000	39.450226	-108.078638	
<b>Start Build 2.50</b>										
200.00	2.00	212.74	199.98	-1.17	-0.75	1,599,206.64757	2,271,930.91205	39.450223	-108.078641	
400.00	7.00	212.74	399.30	-14.37	-9.24	1,599,193.69882	2,271,922.05855	39.450186	-108.078671	
600.00	12.00	212.74	596.50	-42.13	-27.08	1,599,166.45965	2,271,903.43422	39.450110	-108.078734	
800.00	17.00	212.74	790.07	-84.24	-54.15	1,599,125.13737	2,271,875.18079	39.449995	-108.078830	
1,000.00	22.00	212.74	978.54	-140.38	-90.24	1,599,070.04648	2,271,837.51329	39.449840	-108.078958	
1,200.00	27.00	212.74	1,160.47	-210.12	-135.08	1,599,001.60624	2,271,790.71840	39.449649	-108.079116	
1,400.00	32.00	212.74	1,334.49	-292.94	-188.32	1,598,920.33753	2,271,735.15224	39.449422	-108.079305	
1,439.86	33.00	212.74	1,368.10	-310.95	-199.90	1,598,902.66054	2,271,723.06589	39.449372	-108.079346	
<b>Hold 33.00° Inc, 212.74° Az</b>										
1,489.86	33.00	212.74	1,410.04	-333.86	-214.62	1,598,880.18350	2,271,707.69758	39.449309	-108.079398	
<b>9 5/8"</b>										
1,600.00	33.00	212.74	1,502.41	-384.31	-247.06	1,598,830.67211	2,271,673.84498	39.449171	-108.079513	
1,800.00	33.00	212.74	1,670.15	-475.93	-305.96	1,598,740.76584	2,271,612.37304	39.448919	-108.079722	
1,944.09	33.00	212.74	1,791.00	-541.94	-348.39	1,598,675.99451	2,271,568.08671	39.448738	-108.079872	
<b>Top of "G" Sand</b>										
2,000.00	33.00	212.74	1,837.90	-567.55	-364.86	1,598,650.85956	2,271,550.90111	39.448668	-108.079930	
2,063.32	33.00	212.74	1,891.00	-596.55	-383.50	1,598,622.39619	2,271,531.43974	39.448588	-108.079996	
<b>Base of "G" Sand</b>										
2,200.00	33.00	212.74	2,005.64	-659.17	-423.75	1,598,560.95330	2,271,489.42917	39.448416	-108.080139	
2,400.00	33.00	212.74	2,173.38	-750.79	-482.65	1,598,471.04703	2,271,427.95722	39.448165	-108.080347	
2,600.00	33.00	212.74	2,341.12	-842.41	-541.55	1,598,381.14075	2,271,366.48528	39.447913	-108.080556	
2,800.00	33.00	212.74	2,508.86	-934.02	-600.45	1,598,291.23448	2,271,305.01334	39.447662	-108.080764	
3,000.00	33.00	212.74	2,676.60	-1,025.64	-659.35	1,598,201.32821	2,271,243.54140	39.447410	-108.080973	
3,200.00	33.00	212.74	2,844.34	-1,117.26	-718.25	1,598,111.42194	2,271,182.06947	39.447158	-108.081181	
3,237.60	33.00	212.74	2,875.87	-1,134.49	-729.32	1,598,094.52131	2,271,170.51394	39.447111	-108.081221	
<b>Start Drop -2.00°/100</b>										
3,400.00	29.75	212.74	3,014.51	-1,205.59	-775.03	1,598,024.74083	2,271,122.80268	39.446916	-108.081383	
3,600.00	25.75	212.74	3,191.48	-1,283.91	-825.37	1,597,947.89194	2,271,070.25851	39.446701	-108.081561	
3,800.00	21.75	212.74	3,374.51	-1,351.65	-868.92	1,597,881.41997	2,271,024.80939	39.446515	-108.081715	
3,849.89	20.75	212.74	3,421.00	-1,366.85	-878.70	1,597,866.49558	2,271,014.60508	39.446473	-108.081750	
<b>Mesaverde</b>										
4,000.00	17.75	212.74	3,562.70	-1,408.48	-905.46	1,597,825.64878	2,270,986.67674	39.446359	-108.081844	
4,200.00	13.75	212.74	3,755.16	-1,454.13	-934.81	1,597,780.85005	2,270,956.04635	39.446234	-108.081948	
4,400.00	9.75	212.74	3,950.93	-1,488.38	-956.82	1,597,747.24206	2,270,933.06743	39.446140	-108.082026	
4,600.00	5.75	212.74	4,149.06	-1,511.06	-971.40	1,597,724.98853	2,270,917.85195	39.446077	-108.082078	
4,800.00	1.75	212.74	4,348.59	-1,522.05	-978.47	1,597,714.19789	2,270,910.47402	39.446047	-108.082103	
4,887.42	0.00	0.00	4,436.00	-1,523.17	-979.19	1,597,713.09697	2,270,909.72129	39.446044	-108.082105	
<b>Vertical</b>										
4,987.42	0.00	0.00	4,536.00	-1,523.17	-979.19	1,597,713.09697	2,270,909.72129	39.446044	-108.082105	
<b>Top Gas - Approx. Top Gas</b>										
5,000.00	0.00	0.00	4,548.58	-1,523.17	-979.19	1,597,713.09697	2,270,909.72129	39.446044	-108.082105	
5,200.00	0.00	0.00	4,748.58	-1,523.17	-979.19	1,597,713.09697	2,270,909.72129	39.446044	-108.082105	
5,400.00	0.00	0.00	4,948.58	-1,523.17	-979.19	1,597,713.09697	2,270,909.72129	39.446044	-108.082105	
5,600.00	0.00	0.00	5,148.58	-1,523.17	-979.19	1,597,713.09697	2,270,909.72129	39.446044	-108.082105	
5,800.00	0.00	0.00	5,348.58	-1,523.17	-979.19	1,597,713.09697	2,270,909.72129	39.446044	-108.082105	
6,000.00	0.00	0.00	5,548.58	-1,523.17	-979.19	1,597,713.09697	2,270,909.72129	39.446044	-108.082105	
6,200.00	0.00	0.00	5,748.58	-1,523.17	-979.19	1,597,713.09697	2,270,909.72129	39.446044	-108.082105	

**WPX**  
Planning Report - Geographic

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well GM 424-11 - Slot A07
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 5817.00usft (H&P 318 (24' RKB) mab)
<b>Project:</b>	GV 11-07S-096W	<b>MD Reference:</b>	KELLY BUSHING @ 5817.00usft (H&P 318 (24' RKB) mab)
<b>Site:</b>	GR 23-11V Pad	<b>North Reference:</b>	True
<b>Well:</b>	GM 424-11	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #2 22Jul14 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
6,357.42	0.00	0.00	5,906.00	-1,523.17	-979.19	1,597,713.09697	2,270,909.72129	39.446044	-108.082105
<b>Cameo Coals</b>									
6,400.00	0.00	0.00	5,948.58	-1,523.17	-979.19	1,597,713.09697	2,270,909.72129	39.446044	-108.082105
6,600.00	0.00	0.00	6,148.58	-1,523.17	-979.19	1,597,713.09697	2,270,909.72129	39.446044	-108.082105
6,800.00	0.00	0.00	6,348.58	-1,523.17	-979.19	1,597,713.09697	2,270,909.72129	39.446044	-108.082105
6,837.42	0.00	0.00	6,386.00	-1,523.17	-979.19	1,597,713.09697	2,270,909.72129	39.446044	-108.082105
<b>Rollins SS</b>									
6,937.42	0.00	0.00	6,486.00	-1,523.17	-979.19	1,597,713.09697	2,270,909.72129	39.446044	-108.082105
<b>TD at 6937.42 - TD</b>									

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) G1 - plan hits target center - Circle (radius 50.00)	0.00	0.00	4,536.00	-1,523.17	-979.19	1,597,713.09697	2,270,909.72129	39.446044	-108.082105

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,489.86	1,410.04	9 5/8"	9.625	13.500	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (bearing)	
1,944.09	1,791.00	Top of "G" Sand				
2,063.32	1,891.00	Base of "G" Sand				
3,849.89	3,421.00	Mesaverde				
4,987.42	4,536.00	Approx. Top Gas				
6,357.42	5,906.00	Cameo Coals				
6,837.42	6,386.00	Rollins SS				
6,937.42	6,486.00	TD				

**WPX**  
Planning Report - Geographic

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well GM 424-11 - Slot A07
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 5817.00usft (H&P 318 (24' RKB) mab)
<b>Project:</b>	GV 11-07S-096W	<b>MD Reference:</b>	KELLY BUSHING @ 5817.00usft (H&P 318 (24' RKB) mab)
<b>Site:</b>	GR 23-11V Pad	<b>North Reference:</b>	True
<b>Well:</b>	GM 424-11	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #2 22Jul14 mab		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
120.00	120.00	0.00	0.00	Start Build 2.50
1,439.86	1,368.10	-310.95	-199.90	Hold 33.00° Inc, 212.74° Az
3,237.60	2,875.87	-1,134.49	-729.32	Start Drop -2.00°/100
4,887.42	4,436.00	-1,523.17	-979.19	Vertical
4,987.42	4,536.00	-1,523.17	-979.19	Top Gas
6,937.42	6,486.00	-1,523.17	-979.19	TD at 6937.42