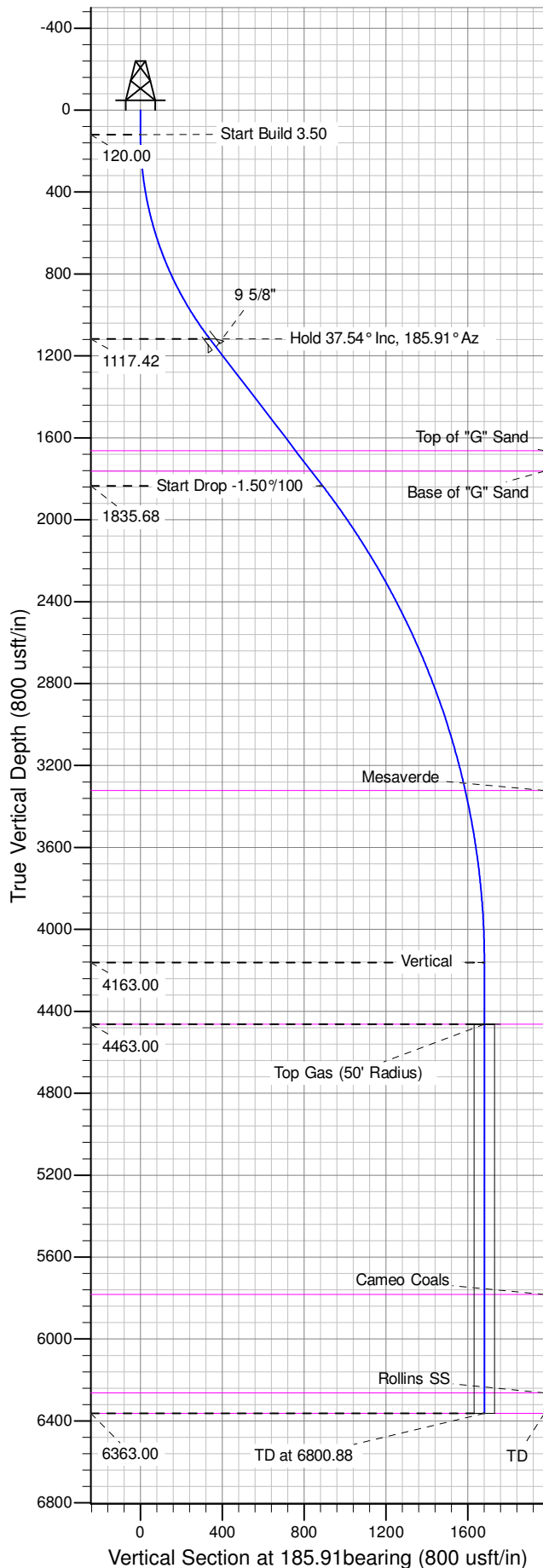
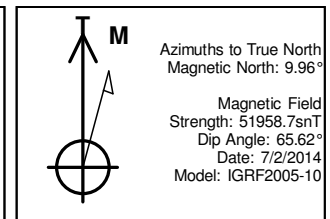
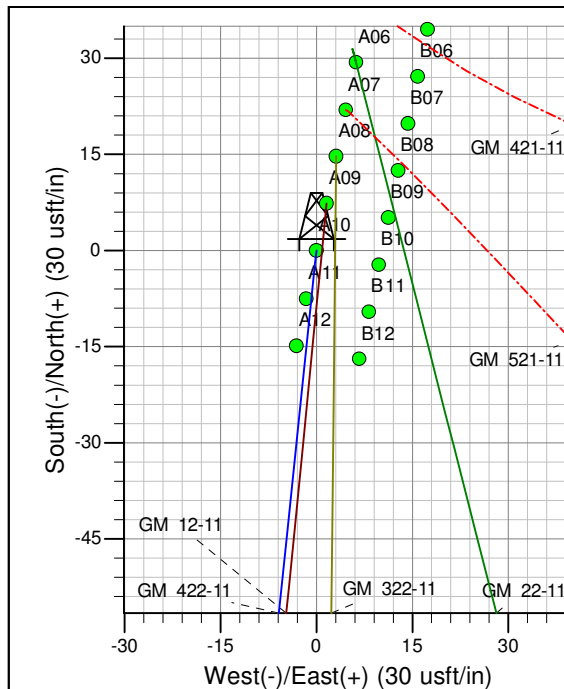
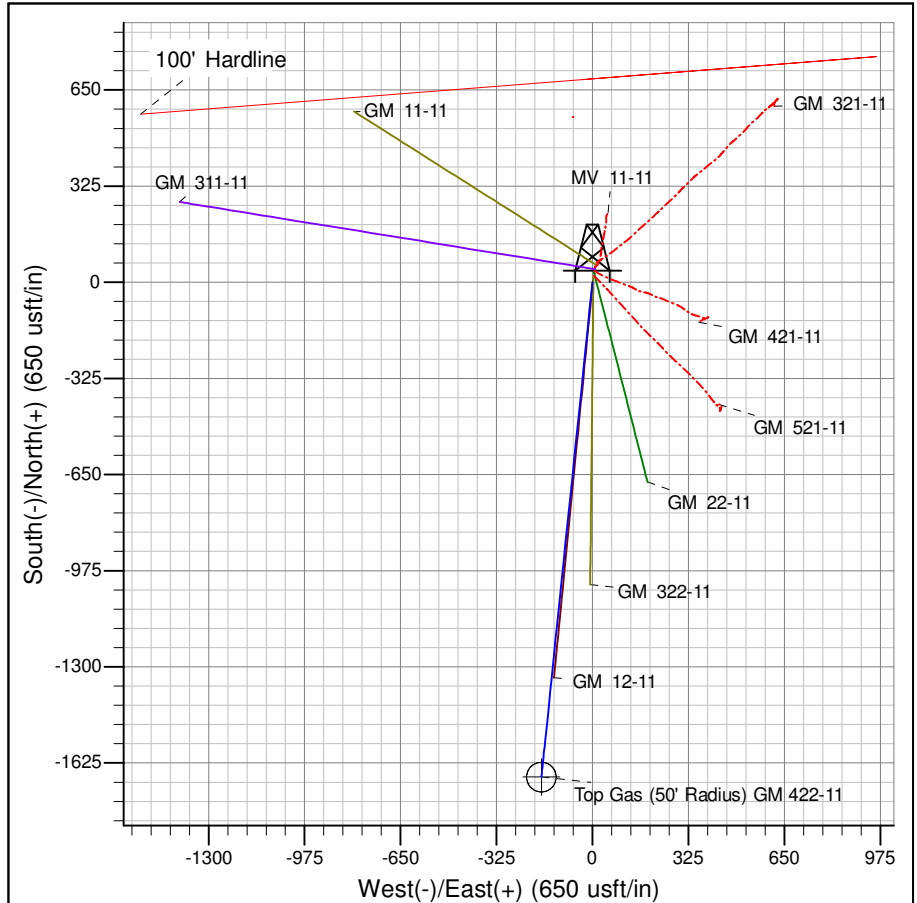




Well Name: GM 422-11  
Surface Location: MV 11-11 Pad  
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone  
Ground Elevation: 5559.00  
+N/-S +E/-W Northing Easting Latitude Longitude Slot  
0.00 0.00 1601759.20000 2271276.00000 39.45718 -108.08122 A10  
KELLY BUSHING @ 5583.00usft (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 3.50	
1117.42	1192.52	37.54	185.91	-337.15	-34.91	338.95	338.95	Hold 37.54° Inc, 185.91° Az	
1835.68	2098.33	37.54	185.91	-886.11	-91.76	890.85	890.85	Start Drop -1.50°/100	
4163.00	4600.88	0.00	0.00	-1672.79	-173.23	1681.73	1681.73	Vertical	
4463.00	4900.88	0.00	0.00	-1672.79	-173.23	1681.73	1681.73	Top Gas	
6363.00	6800.88	0.00	0.00	-1672.79	-173.23	1681.73	1681.73	TD at 6800.88	



Project: GV 11-07S-096W  
Site: MV 11-11 Pad  
Well: GM 422-11  
Design #2 08Jul14 sam

# **PICEANCE VLY NAD 83**

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

**MV 11-11 Pad**

**GM 422-11 - Slot A10**

**Wellbore #1**

**Plan: Design #2 08Jul14 sam**

## **Standard Planning Report - Geographic**

**19 August, 2014**

**WPX**  
Planning Report - Geographic

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well GM 422-11 - Slot A10
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 5583.00usft (H&P 318 (24' RKB) mab)
<b>Project:</b>	GV 11-07S-096W	<b>MD Reference:</b>	KELLY BUSHING @ 5583.00usft (H&P 318 (24' RKB) mab)
<b>Site:</b>	MV 11-11 Pad	<b>North Reference:</b>	True
<b>Well:</b>	GM 422-11	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #2 08Jul14 sam		

<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>	MV 11-11 Pad			
<b>Site Position:</b>		<b>Northing:</b>	1,601,781.00000 usft	<b>Latitude:</b> 39.45724
<b>From:</b> Map		<b>Easting:</b>	2,271,281.20000 usft	<b>Longitude:</b> -108.08120
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13.200 in	<b>Grid Convergence:</b> -1.63 °

<b>Well</b>	GM 422-11 - Slot A10			
<b>Well Position</b>	<b>+N/-S</b>	0.00 usft	<b>Northing:</b>	1,601,759.20000 usft
	<b>+E/-W</b>	0.00 usft	<b>Easting:</b>	2,271,276.00000 usft
<b>Position Uncertainty</b>	0.00 usft		<b>Wellhead Elevation:</b>	0.00 usft
			<b>Ground Level:</b>	5,559.00 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	7/2/2014	9.96	65.62	51,959

<b>Design</b>	Design #2 08Jul14 sam			
<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	185.91

<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	
1,192.52	37.54	185.91	1,117.42	-337.15	-34.91	3.50	3.50	0.00	185.91	
2,098.33	37.54	185.91	1,835.68	-886.11	-91.76	0.00	0.00	0.00	0.00	
4,600.88	0.00	0.00	4,163.00	-1,672.79	-173.23	1.50	-1.50	0.00	180.00	
4,900.88	0.00	0.00	4,463.00	-1,672.79	-173.23	0.00	0.00	0.00	0.00	Top Gas (50' Radius)
6,800.88	0.00	0.00	6,363.00	-1,672.79	-173.23	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 422-11 - Slot A10
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 5583.00usft (H&P 318 (24' RKB) mab)
<b>Project:</b>	GV 11-07S-096W	<b>MD Reference:</b>	KELLY BUSHING @ 5583.00usft (H&P 318 (24' RKB) mab)
<b>Site:</b>	MV 11-11 Pad	<b>North Reference:</b>	True
<b>Well:</b>	GM 422-11	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #2 08Jul14 sam		

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	1,601,759.20000	2,271,276.00000	39.45718	-108.08122	
120.00	0.00	0.00	120.00	0.00	0.00	1,601,759.20000	2,271,276.00000	39.45718	-108.08122	
<b>Start Build 3.50</b>										
200.00	2.80	185.91	199.97	-1.94	-0.20	1,601,757.26261	2,271,275.74355	39.45717	-108.08122	
400.00	9.80	185.91	398.64	-23.76	-2.46	1,601,735.52002	2,271,272.86557	39.45711	-108.08123	
600.00	16.80	185.91	593.15	-69.50	-7.20	1,601,689.93833	2,271,266.83210	39.45699	-108.08124	
800.00	23.80	185.91	780.61	-138.47	-14.34	1,601,621.19703	2,271,257.73307	39.45680	-108.08127	
1,000.00	30.80	185.91	958.23	-229.66	-23.78	1,601,530.32092	2,271,245.70415	39.45655	-108.08130	
1,192.52	37.54	185.91	1,117.42	-337.15	-34.91	1,601,423.19661	2,271,231.52452	39.45625	-108.08134	
<b>Hold 37.54° Inc, 185.91° Az</b>										
1,200.00	37.54	185.91	1,123.35	-341.68	-35.38	1,601,418.67816	2,271,230.92643	39.45624	-108.08134	
1,242.52	37.54	185.91	1,157.07	-367.45	-38.05	1,601,392.99634	2,271,227.52702	39.45617	-108.08135	
<b>9 5/8"</b>										
1,400.00	37.54	185.91	1,281.94	-462.89	-47.94	1,601,297.87933	2,271,214.93675	39.45591	-108.08139	
1,600.00	37.54	185.91	1,440.53	-584.10	-60.49	1,601,177.08048	2,271,198.94707	39.45557	-108.08143	
1,800.00	37.54	185.91	1,599.12	-705.31	-73.04	1,601,056.28163	2,271,182.95740	39.45524	-108.08148	
1,880.56	37.54	185.91	1,663.00	-754.13	-78.09	1,601,007.62492	2,271,176.51690	39.45511	-108.08149	
<b>Top of "G" Sand</b>										
2,000.00	37.54	185.91	1,757.71	-826.52	-85.59	1,600,935.48280	2,271,166.96772	39.45491	-108.08152	
2,006.67	37.54	185.91	1,763.00	-830.56	-86.01	1,600,931.45416	2,271,166.43447	39.45490	-108.08152	
<b>Base of "G" Sand</b>										
2,098.33	37.54	185.91	1,835.68	-886.11	-91.76	1,600,876.08982	2,271,159.10610	39.45474	-108.08154	
<b>Start Drop -1.50°/100</b>										
2,200.00	36.01	185.91	1,917.12	-946.65	-98.03	1,600,815.75466	2,271,151.11977	39.45458	-108.08157	
2,400.00	33.01	185.91	2,081.90	-1,059.36	-109.70	1,600,703.43325	2,271,136.25222	39.45427	-108.08161	
2,600.00	30.01	185.91	2,252.38	-1,163.33	-120.47	1,600,599.81477	2,271,122.53664	39.45398	-108.08164	
2,800.00	27.01	185.91	2,428.10	-1,258.28	-130.30	1,600,505.18320	2,271,110.01062	39.45372	-108.08168	
3,000.00	24.01	185.91	2,608.58	-1,343.96	-139.17	1,600,419.79794	2,271,098.70850	39.45349	-108.08171	
3,200.00	21.01	185.91	2,793.32	-1,420.12	-147.06	1,600,343.89303	2,271,088.66126	39.45328	-108.08174	
3,400.00	18.01	185.91	2,981.81	-1,486.56	-153.94	1,600,277.67650	2,271,079.89643	39.45310	-108.08176	
3,600.00	15.01	185.91	3,173.54	-1,543.10	-159.80	1,600,221.32987	2,271,072.43804	39.45294	-108.08178	
3,753.96	12.70	185.91	3,323.00	-1,579.78	-163.60	1,600,184.77659	2,271,067.59963	39.45284	-108.08180	
<b>Mesaverde</b>										
3,800.00	12.01	185.91	3,367.98	-1,589.58	-164.61	1,600,175.00757	2,271,066.30654	39.45281	-108.08180	
4,000.00	9.01	185.91	3,564.60	-1,625.88	-168.37	1,600,138.83655	2,271,061.51872	39.45271	-108.08181	
4,200.00	6.01	185.91	3,762.86	-1,651.88	-171.06	1,600,112.91598	2,271,058.08771	39.45264	-108.08182	
4,400.00	3.01	185.91	3,962.21	-1,667.54	-172.68	1,600,097.31688	2,271,056.02292	39.45260	-108.08183	
4,600.00	0.01	185.91	4,162.12	-1,672.79	-173.23	1,600,092.08203	2,271,055.33000	39.45259	-108.08183	
4,600.88	0.00	0.00	4,163.00	-1,672.79	-173.23	1,600,092.08193	2,271,055.32999	39.45259	-108.08183	
<b>Vertical</b>										
4,800.00	0.00	0.00	4,362.12	-1,672.79	-173.23	1,600,092.08193	2,271,055.32999	39.45259	-108.08183	
4,900.88	0.00	0.00	4,463.00	-1,672.79	-173.23	1,600,092.08193	2,271,055.32999	39.45259	-108.08183	
<b>Top Gas - Approx. Top Gas</b>										
5,000.00	0.00	0.00	4,562.12	-1,672.79	-173.23	1,600,092.08193	2,271,055.32999	39.45259	-108.08183	
5,200.00	0.00	0.00	4,762.12	-1,672.79	-173.23	1,600,092.08193	2,271,055.32999	39.45259	-108.08183	
5,400.00	0.00	0.00	4,962.12	-1,672.79	-173.23	1,600,092.08193	2,271,055.32999	39.45259	-108.08183	
5,600.00	0.00	0.00	5,162.12	-1,672.79	-173.23	1,600,092.08193	2,271,055.32999	39.45259	-108.08183	
5,800.00	0.00	0.00	5,362.12	-1,672.79	-173.23	1,600,092.08193	2,271,055.32999	39.45259	-108.08183	
6,000.00	0.00	0.00	5,562.12	-1,672.79	-173.23	1,600,092.08193	2,271,055.32999	39.45259	-108.08183	
6,200.00	0.00	0.00	5,762.12	-1,672.79	-173.23	1,600,092.08193	2,271,055.32999	39.45259	-108.08183	

**WPX**  
Planning Report - Geographic

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well GM 422-11 - Slot A10
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 5583.00usft (H&P 318 (24' RKB) mab)
<b>Project:</b>	GV 11-07S-096W	<b>MD Reference:</b>	KELLY BUSHING @ 5583.00usft (H&P 318 (24' RKB) mab)
<b>Site:</b>	MV 11-11 Pad	<b>North Reference:</b>	True
<b>Well:</b>	GM 422-11	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #2 08Jul14 sam		

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
6,220.88	0.00	0.00	5,783.00	-1,672.79	-173.23	1,600,092.08193	2,271,055.32999	39.45259	-108.08183
<b>Cameo Coals</b>									
6,400.00	0.00	0.00	5,962.12	-1,672.79	-173.23	1,600,092.08193	2,271,055.32999	39.45259	-108.08183
6,600.00	0.00	0.00	6,162.12	-1,672.79	-173.23	1,600,092.08193	2,271,055.32999	39.45259	-108.08183
6,700.88	0.00	0.00	6,263.00	-1,672.79	-173.23	1,600,092.08193	2,271,055.32999	39.45259	-108.08183
<b>Rollins SS</b>									
6,800.00	0.00	0.00	6,362.12	-1,672.79	-173.23	1,600,092.08193	2,271,055.32999	39.45259	-108.08183
6,800.88	0.00	0.00	6,363.00	-1,672.79	-173.23	1,600,092.08193	2,271,055.32999	39.45259	-108.08183
<b>TD at 6800.88 - 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	4,463.00	-1,672.79	-173.23	1,600,092.08193	2,271,055.32999	39.45259	-108.08183

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,242.52	1,157.07	9 5/8"	9.625	13.500	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (bearing)	
1,880.56	1,663.00	Top of "G" Sand				
2,006.67	1,763.00	Base of "G" Sand				
3,753.96	3,323.00	Mesaverde				
4,900.88	4,463.00	Approx. Top Gas				
6,220.88	5,783.00	Cameo Coals				
6,700.88	6,263.00	Rollins SS				
6,800.88	6,363.00	TD				

**WPX**  
Planning Report - Geographic

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well GM 422-11 - Slot A10
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 5583.00usft (H&P 318 (24' RKB) mab)
<b>Project:</b>	GV 11-07S-096W	<b>MD Reference:</b>	KELLY BUSHING @ 5583.00usft (H&P 318 (24' RKB) mab)
<b>Site:</b>	MV 11-11 Pad	<b>North Reference:</b>	True
<b>Well:</b>	GM 422-11	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #2 08Jul14 sam		

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 3.50
1,192.52	1,117.42	-337.15	-34.91	Hold 37.54° Inc, 185.91° Az
2,098.33	1,835.68	-886.11	-91.76	Start Drop -1.50°/100
4,600.88	4,163.00	-1,672.79	-173.23	Vertical
4,900.88	4,463.00	-1,672.79	-173.23	Top Gas
6,800.88	6,363.00	-1,672.79	-173.23	TD at 6800.88