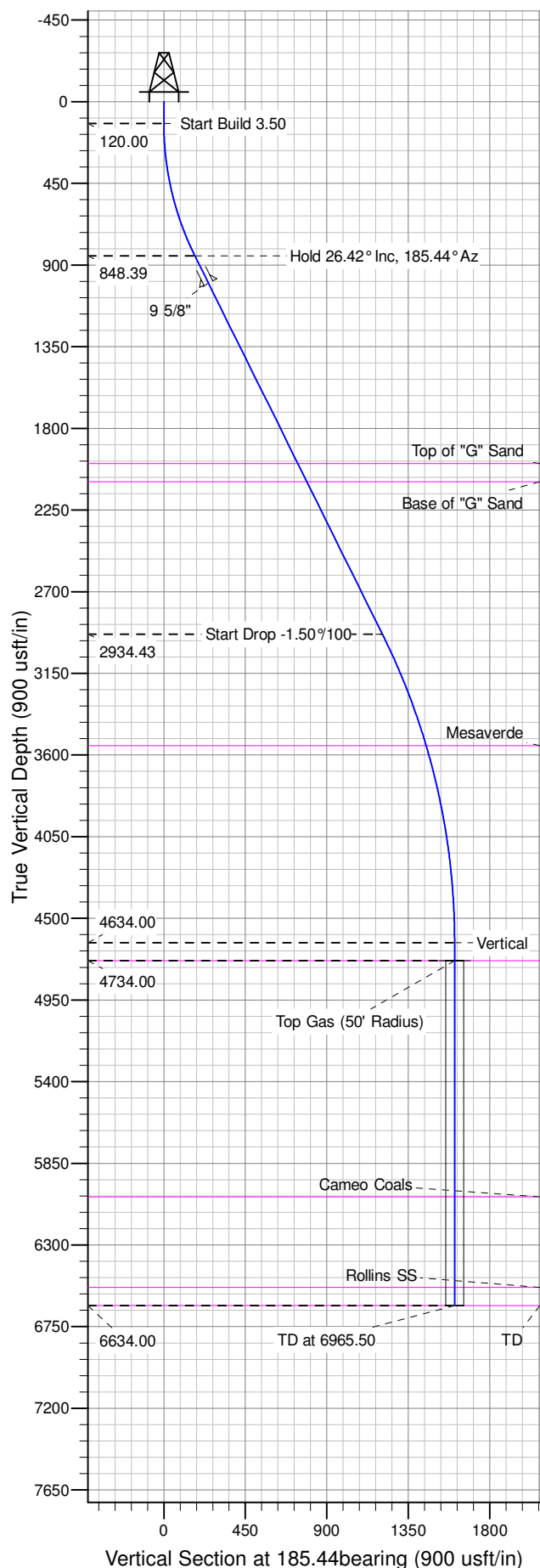
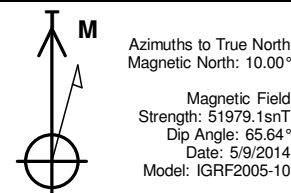
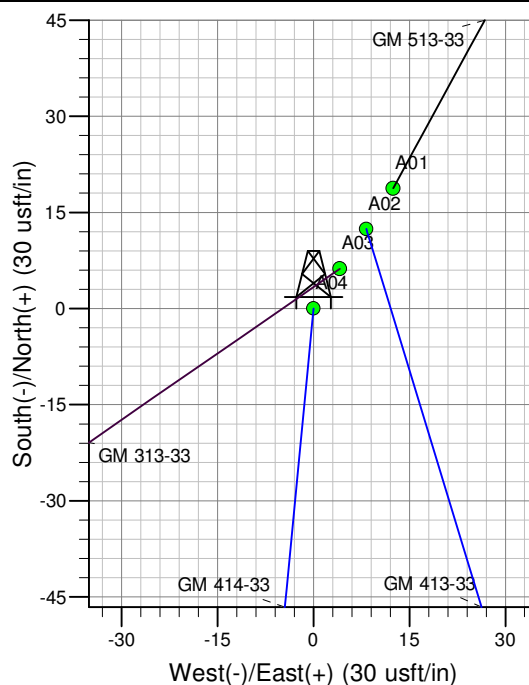
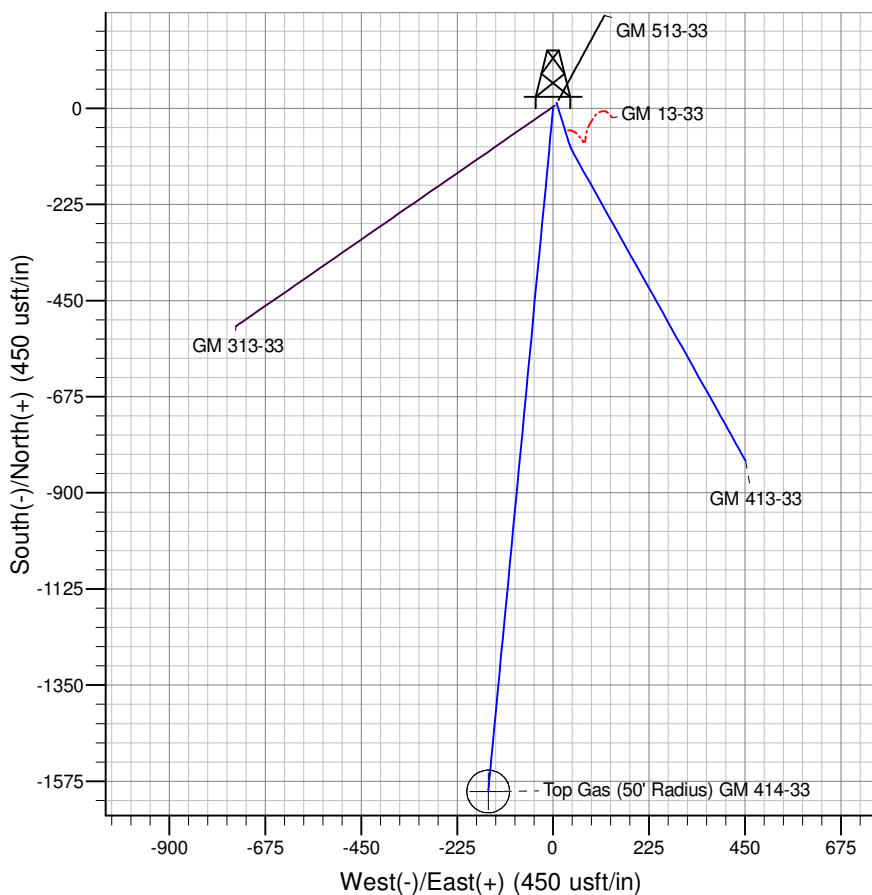




Well Name: GM 414-33  
Surface Location: GM 13-33 Pad  
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone  
Ground Elevation: 5743.00  
+N/-S 0.00 +E/-W 0.00 Northing 1610216.90000 Easting 2260970.20000 Latitude 39.47958 Longitude -108.11856 Slot A04  
KELLY BUSHING @ 5764.00usft (Cyclone 17 (21' 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	0.00	Start Build 3.50
848.39	874.85	26.42	185.44	-170.20	-16.20	170.97	170.97	Hold 26.42° Inc, 185.44° Az	
2934.43	3204.18	26.42	185.44	-1201.96	-114.43	1207.40	1207.40	Start Drop -1.50°/100	
4634.00	4965.50	0.00	0.00	-1599.11	-152.24	1606.34	1606.34	Vertical	
4734.00	5065.50	0.00	0.00	-1599.11	-152.24	1606.34	1606.34	Top Gas	
6634.00	6965.50	0.00	0.00	-1599.11	-152.24	1606.34	1606.34	TD at 6965.50	



Project: GV 33-06S-096W  
Site: GM 13-33 Pad  
Well: GM 414-33  
Design #1 09May14 mab

# **PICEANCE VLY NAD 83**

**GV 33-06S-096W**

**GM 13-33 Pad**

**GM 414-33 - Slot A04**

**Wellbore #1**

**Plan: Design #1 09May14 mab**

## **Standard Planning Report - Geographic**

**24 June, 2014**

**WPX**  
Planning Report - Geographic

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well GM 414-33 - Slot A04
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 5764.00usft (Cyclone 17 (21' RKB) mab)
<b>Project:</b>	GV 33-06S-096W	<b>MD Reference:</b>	KELLY BUSHING @ 5764.00usft (Cyclone 17 (21' RKB) mab)
<b>Site:</b>	GM 13-33 Pad	<b>North Reference:</b>	True
<b>Well:</b>	GM 414-33	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 09May14 mab		

<b>Project</b>	GV 33-06S-096W, Garfield County, CO, 33-06S-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>	GM 13-33 Pad			
<b>Site Position:</b>		<b>Northing:</b>	1,610,235.30000 usft	<b>Latitude:</b> 39.47963
<b>From:</b> Map		<b>Easting:</b>	2,260,983.20000 usft	<b>Longitude:</b> -108.11852
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13.200 in	<b>Grid Convergence:</b> -1.65 °

<b>Well</b>	GM 414-33 - Slot A04			
<b>Well Position</b>	<b>+N/-S</b>	0.00 usft	<b>Northing:</b>	1,610,216.90000 usft
	<b>+E/-W</b>	0.00 usft	<b>Easting:</b>	2,260,970.20000 usft
<b>Position Uncertainty</b>	0.00 usft		<b>Wellhead Elevation:</b>	0.00 usft
			<b>Ground Level:</b>	5,743.00 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	5/9/2014	10.00	65.64	51,979

<b>Design</b>	Design #1 09May14 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	185.44

<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	
874.85	26.42	185.44	848.39	-170.20	-16.20	3.50	3.50	0.00	185.44	
3,204.18	26.42	185.44	2,934.43	-1,201.96	-114.43	0.00	0.00	0.00	0.00	
4,965.50	0.00	0.00	4,634.00	-1,599.11	-152.24	1.50	-1.50	0.00	180.00	
5,065.50	0.00	0.00	4,734.00	-1,599.11	-152.24	0.00	0.00	0.00	0.00	Top Gas (50' Radius)
6,965.50	0.00	0.00	6,634.00	-1,599.11	-152.24	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 414-33 - Slot A04
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 5764.00usft (Cyclone 17 (21' RKB) mab)
<b>Project:</b>	GV 33-06S-096W	<b>MD Reference:</b>	KELLY BUSHING @ 5764.00usft (Cyclone 17 (21' RKB) mab)
<b>Site:</b>	GM 13-33 Pad	<b>North Reference:</b>	True
<b>Well:</b>	GM 414-33	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 09May14 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	1,610,216.90000	2,260,970.20000	39.47958	-108.11857	
120.00	0.00	0.00	120.00	0.00	0.00	1,610,216.90000	2,260,970.20000	39.47958	-108.11857	
Start Build 3.50										
200.00	2.80	185.44	199.97	-1.95	-0.19	1,610,214.96064	2,260,969.95879	39.47957	-108.11857	
400.00	9.80	185.44	398.64	-23.78	-2.26	1,610,193.19605	2,260,967.25177	39.47951	-108.11857	
600.00	16.80	185.44	593.15	-69.55	-6.62	1,610,147.56823	2,260,961.57672	39.47939	-108.11859	
800.00	23.80	185.44	780.61	-138.59	-13.19	1,610,078.75738	2,260,953.01823	39.47920	-108.11861	
874.85	26.42	185.44	848.39	-170.20	-16.20	1,610,047.24014	2,260,949.09821	39.47911	-108.11862	
Hold 26.42° Inc, 185.44° Az										
1,000.00	26.42	185.44	960.46	-225.64	-21.48	1,609,991.98452	2,260,942.22568	39.47896	-108.11864	
1,044.15	26.42	185.44	1,000.00	-245.19	-23.34	1,609,972.49171	2,260,939.80122	39.47891	-108.11865	
9 5/8"										
1,200.00	26.42	185.44	1,139.57	-314.23	-29.92	1,609,903.67961	2,260,931.24258	39.47872	-108.11867	
1,400.00	26.42	185.44	1,318.69	-402.81	-38.35	1,609,815.37470	2,260,920.25948	39.47847	-108.11870	
1,600.00	26.42	185.44	1,497.80	-491.40	-46.78	1,609,727.06979	2,260,909.27638	39.47823	-108.11873	
1,800.00	26.42	185.44	1,676.91	-579.99	-55.22	1,609,638.76489	2,260,898.29327	39.47799	-108.11876	
2,000.00	26.42	185.44	1,856.02	-668.58	-63.65	1,609,550.45997	2,260,887.31018	39.47774	-108.11879	
2,154.07	26.42	185.44	1,994.00	-736.83	-70.15	1,609,482.43351	2,260,878.84925	39.47756	-108.11881	
Top of "G" Sand										
2,200.00	26.42	185.44	2,035.13	-757.17	-72.09	1,609,462.15506	2,260,876.32708	39.47750	-108.11882	
2,265.73	26.42	185.44	2,094.00	-786.29	-74.86	1,609,433.13187	2,260,872.71726	39.47742	-108.11883	
Base of "G" Sand										
2,400.00	26.42	185.44	2,214.24	-845.76	-80.52	1,609,373.85015	2,260,865.34398	39.47726	-108.11885	
2,600.00	26.42	185.44	2,393.35	-934.35	-88.95	1,609,285.54525	2,260,854.36088	39.47701	-108.11888	
2,800.00	26.42	185.44	2,572.47	-1,022.93	-97.39	1,609,197.24034	2,260,843.37778	39.47677	-108.11891	
3,000.00	26.42	185.44	2,751.58	-1,111.52	-105.82	1,609,108.93543	2,260,832.39468	39.47653	-108.11894	
3,200.00	26.42	185.44	2,930.69	-1,200.11	-114.25	1,609,020.63052	2,260,821.41158	39.47628	-108.11897	
3,204.18	26.42	185.44	2,934.43	-1,201.96	-114.43	1,609,018.78428	2,260,821.18195	39.47628	-108.11897	
Start Drop -1.50°/100										
3,400.00	23.48	185.44	3,111.96	-1,284.19	-122.26	1,608,936.82304	2,260,810.98785	39.47605	-108.11900	
3,600.00	20.48	185.44	3,297.40	-1,358.71	-129.35	1,608,862.54222	2,260,801.74902	39.47585	-108.11902	
3,800.00	17.48	185.44	3,486.50	-1,423.46	-135.52	1,608,797.99367	2,260,793.72067	39.47567	-108.11905	
3,865.36	16.50	185.44	3,549.00	-1,442.48	-137.33	1,608,779.04049	2,260,791.36333	39.47562	-108.11905	
Mesaverde										
4,000.00	14.48	185.44	3,678.74	-1,478.28	-140.74	1,608,743.35432	2,260,786.92479	39.47552	-108.11906	
4,200.00	11.48	185.44	3,873.61	-1,523.00	-145.00	1,608,698.77393	2,260,781.38001	39.47540	-108.11908	
4,400.00	8.48	185.44	4,070.56	-1,557.51	-148.28	1,608,664.37471	2,260,777.10154	39.47530	-108.11909	
4,600.00	5.48	185.44	4,269.05	-1,581.71	-150.58	1,608,640.25092	2,260,774.10110	39.47524	-108.11910	
4,800.00	2.48	185.44	4,468.55	-1,595.54	-151.90	1,608,626.46870	2,260,772.38690	39.47520	-108.11910	
4,965.50	0.00	0.00	4,634.00	-1,599.11	-152.24	1,608,622.91126	2,260,771.94444	39.47519	-108.11911	
Vertical										
5,000.00	0.00	0.00	4,668.50	-1,599.11	-152.24	1,608,622.91126	2,260,771.94444	39.47519	-108.11911	
5,065.50	0.00	0.00	4,734.00	-1,599.11	-152.24	1,608,622.91126	2,260,771.94444	39.47519	-108.11911	
Top Gas - Approx. Top Gas										
5,200.00	0.00	0.00	4,868.50	-1,599.11	-152.24	1,608,622.91126	2,260,771.94444	39.47519	-108.11911	
5,400.00	0.00	0.00	5,068.50	-1,599.11	-152.24	1,608,622.91126	2,260,771.94444	39.47519	-108.11911	
5,600.00	0.00	0.00	5,268.50	-1,599.11	-152.24	1,608,622.91126	2,260,771.94444	39.47519	-108.11911	
5,800.00	0.00	0.00	5,468.50	-1,599.11	-152.24	1,608,622.91126	2,260,771.94444	39.47519	-108.11911	
6,000.00	0.00	0.00	5,668.50	-1,599.11	-152.24	1,608,622.91126	2,260,771.94444	39.47519	-108.11911	
6,200.00	0.00	0.00	5,868.50	-1,599.11	-152.24	1,608,622.91126	2,260,771.94444	39.47519	-108.11911	

**WPX**  
Planning Report - Geographic

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well GM 414-33 - Slot A04
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 5764.00usft (Cyclone 17 (21' RKB) mab)
<b>Project:</b>	GV 33-06S-096W	<b>MD Reference:</b>	KELLY BUSHING @ 5764.00usft (Cyclone 17 (21' RKB) mab)
<b>Site:</b>	GM 13-33 Pad	<b>North Reference:</b>	True
<b>Well:</b>	GM 414-33	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 09May14 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
6,365.50	0.00	0.00	6,034.00	-1,599.11	-152.24	1,608,622.91126	2,260,771.94444	39.47519	-108.11911
<b>Cameo Coals</b>									
6,400.00	0.00	0.00	6,068.50	-1,599.11	-152.24	1,608,622.91126	2,260,771.94444	39.47519	-108.11911
6,600.00	0.00	0.00	6,268.50	-1,599.11	-152.24	1,608,622.91126	2,260,771.94444	39.47519	-108.11911
6,800.00	0.00	0.00	6,468.50	-1,599.11	-152.24	1,608,622.91126	2,260,771.94444	39.47519	-108.11911
6,865.50	0.00	0.00	6,534.00	-1,599.11	-152.24	1,608,622.91126	2,260,771.94444	39.47519	-108.11911
<b>Rollins SS</b>									
6,965.50	0.00	0.00	6,634.00	-1,599.11	-152.24	1,608,622.91126	2,260,771.94444	39.47519	-108.11911
<b>TD at 6965.50 - 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	4,734.00	-1,599.11	-152.24	1,608,622.91126	2,260,771.94444	39.47519	-108.11911

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,044.15	1,000.00	9 5/8"	9.625	13.500	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (bearing)	
2,154.07	1,994.00	Top of "G" Sand				
2,265.73	2,094.00	Base of "G" Sand				
3,865.36	3,549.00	Mesaverde				
5,065.50	4,734.00	Approx. Top Gas				
6,365.50	6,034.00	Cameo Coals				
6,865.50	6,534.00	Rollins SS				
6,965.50	6,634.00	TD				

**WPX**  
Planning Report - Geographic

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well GM 414-33 - Slot A04
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 5764.00usft (Cyclone 17 (21' RKB) mab)
<b>Project:</b>	GV 33-06S-096W	<b>MD Reference:</b>	KELLY BUSHING @ 5764.00usft (Cyclone 17 (21' RKB) mab)
<b>Site:</b>	GM 13-33 Pad	<b>North Reference:</b>	True
<b>Well:</b>	GM 414-33	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 09May14 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 3.50
874.85	848.39	-170.20	-16.20	Hold 26.42° Inc, 185.44° Az
3,204.18	2,934.43	-1,201.96	-114.43	Start Drop -1.50°/100
4,965.50	4,634.00	-1,599.11	-152.24	Vertical
5,065.50	4,734.00	-1,599.11	-152.24	Top Gas
6,965.50	6,634.00	-1,599.11	-152.24	TD at 6965.50