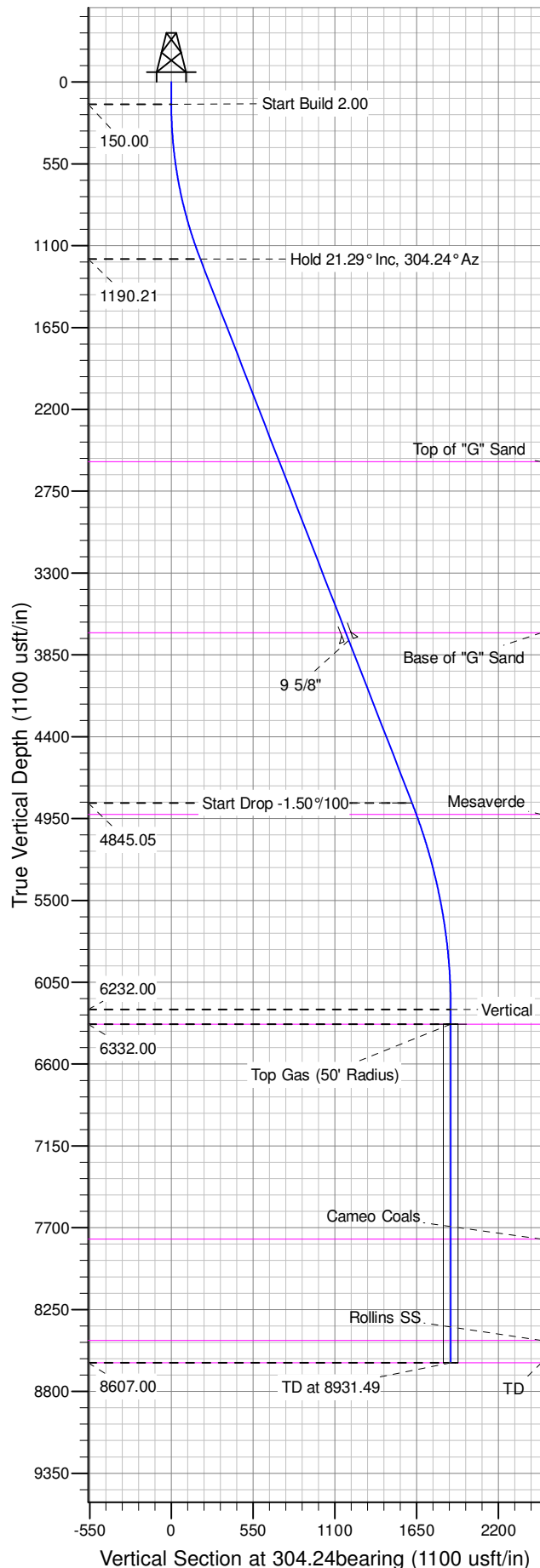
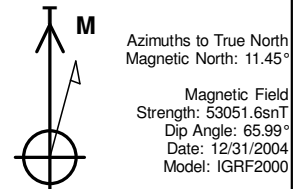
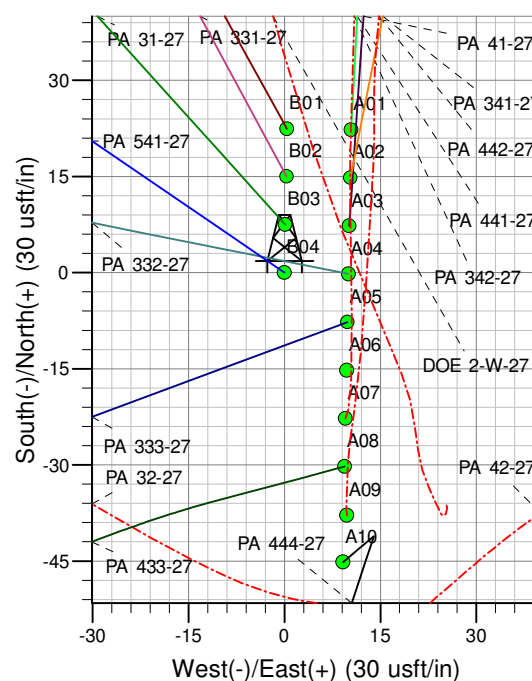
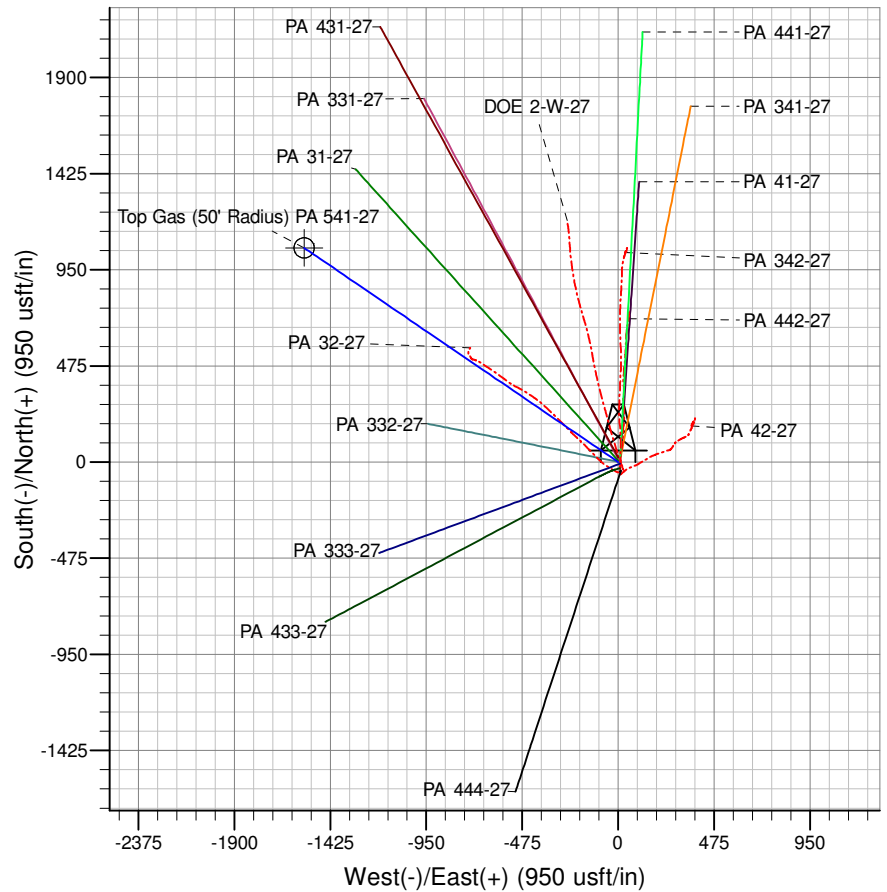




Well Name: PA 541-27
Surface Location: DOE 2-W-27 Pad
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
Ground Elevation: 5856.00
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.00 0.00 1615088.30531 2300855.47736 39.49602 -107.97778 B04
KELLY BUSHING @ 5882.00usft (Nabors 576 (26' RKB) mab)



ANNOTATIONS									
TVD	MD	Inc	Azi	+N/-S	+E/-W	Vsect	Departure	Annotation	
150.00	150.00	0.00	0.00	0.00	0.00	0.00	0.00	Start Build 2.00	
1190.21	1214.54	21.29	304.24	110.01	-161.64	195.52	195.52	Hold 21.29° Inc, 304.24° Az	
4845.05	5137.10	21.29	304.24	911.41	-1339.08	1619.81	1619.81	Start Drop -1.50°/100	
6232.00	6556.49	0.00	0.00	1058.09	-1554.59	1880.51	1880.51	Vertical	
6332.00	6656.49	0.00	0.00	1058.09	-1554.59	1880.51	1880.51	Top Gas	
8607.00	8931.49	0.00	0.00	1058.09	-1554.59	1880.51	1880.51	TD at 8931.49	



Project: PA 27-06S-095W
Site: DOE 2-W-27 Pad
Well: PA 541-27
Design #2 24Apr14 mab

PICEANCE VLY NAD 83

PA 27-06S-095W

DOE 2-W-27 Pad

PA 541-27 - Slot B04

Wellbore #1

Plan: Design #2 24Apr14 mab

Standard Planning Report - Geographic

03 June, 2014

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well PA 541-27 - Slot B04
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5882.00usft (Nabors 576 (26' RKB) mab)
Project:	PA 27-06S-095W	MD Reference:	KELLY BUSHING @ 5882.00usft (Nabors 576 (26' RKB) mab)
Site:	DOE 2-W-27 Pad	North Reference:	True
Well:	PA 541-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 24Apr14 mab		

Project	PA 27-06S-095W, Garfield County, CO, 27-06S-095W		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		Using geodetic scale factor

Site	DOE 2-W-27 Pad			
Site Position:		Northing:	1,615,065.30000 usft	Latitude: 39.49596
From: Map		Easting:	2,300,864.40000 usft	Longitude: -107.97775
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence: -1.56 °

Well	PA 541-27 - Slot B04			
Well Position	+N/-S	0.00 usft	Northing:	1,615,088.30531 usft
	+E/-W	0.00 usft	Easting:	2,300,855.47736 usft
Position Uncertainty	0.00 usft		Wellhead Elevation:	
			Ground Level:	5,856.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2000	12/31/2004	11.44	65.99	53,052

Design	Design #2 24Apr14 mab			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (bearing)
	0.00	0.00	0.00	304.24

Plan Sections										
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	
150.00	0.00	0.00	150.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,214.54	21.29	304.24	1,190.21	110.01	-161.64	2.00	2.00	0.00	304.24	
5,137.10	21.29	304.24	4,845.05	911.41	-1,339.08	0.00	0.00	0.00	0.00	
6,556.49	0.00	0.00	6,232.00	1,058.09	-1,554.59	1.50	-1.50	0.00	180.00	
6,656.49	0.00	0.00	6,332.00	1,058.09	-1,554.59	0.00	0.00	0.00	0.00	Top Gas (50' Radius)
8,931.49	0.00	0.00	8,607.00	1,058.09	-1,554.59	0.00	0.00	0.00	0.00	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well PA 541-27 - Slot B04
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5882.00usft (Nabors 576 (26' RKB) mab)
Project:	PA 27-06S-095W	MD Reference:	KELLY BUSHING @ 5882.00usft (Nabors 576 (26' RKB) mab)
Site:	DOE 2-W-27 Pad	North Reference:	True
Well:	PA 541-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 24Apr14 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	1,615,088.30531	2,300,855.47736	39.49602	-107.97779	
150.00	0.00	0.00	150.00	0.00	0.00	1,615,088.30531	2,300,855.47736	39.49602	-107.97779	
Start Build 2.00										
200.00	1.00	304.24	200.00	0.25	-0.36	1,615,088.56055	2,300,855.12351	39.49602	-107.97779	
400.00	5.00	304.24	399.68	6.13	-9.01	1,615,094.68235	2,300,846.63632	39.49604	-107.97782	
600.00	9.00	304.24	598.15	19.85	-29.16	1,615,108.93757	2,300,826.87310	39.49607	-107.97789	
800.00	13.00	304.24	794.44	41.31	-60.70	1,615,131.25674	2,300,795.93011	39.49613	-107.97800	
1,000.00	17.00	304.24	987.58	70.43	-103.48	1,615,161.53114	2,300,753.95812	39.49621	-107.97815	
1,200.00	21.00	304.24	1,176.65	107.06	-157.30	1,615,199.61327	2,300,701.16160	39.49631	-107.97834	
1,214.54	21.29	304.24	1,190.21	110.01	-161.64	1,615,202.68164	2,300,696.90765	39.49632	-107.97836	
Hold 21.29° Inc, 304.24° Az										
1,400.00	21.29	304.24	1,363.01	147.90	-217.31	1,615,242.07425	2,300,642.29429	39.49642	-107.97856	
1,600.00	21.29	304.24	1,549.36	188.76	-277.34	1,615,284.55536	2,300,583.39908	39.49654	-107.97877	
1,800.00	21.29	304.24	1,735.71	229.63	-337.37	1,615,327.03647	2,300,524.50386	39.49665	-107.97898	
2,000.00	21.29	304.24	1,922.06	270.49	-397.41	1,615,369.51759	2,300,465.60866	39.49676	-107.97919	
2,200.00	21.29	304.24	2,108.41	311.35	-457.44	1,615,411.99870	2,300,406.71345	39.49687	-107.97941	
2,400.00	21.29	304.24	2,294.76	352.21	-517.48	1,615,454.47981	2,300,347.81824	39.49699	-107.97962	
2,600.00	21.29	304.24	2,481.11	393.07	-577.51	1,615,496.96093	2,300,288.92302	39.49710	-107.97983	
2,676.08	21.29	304.24	2,552.00	408.61	-600.35	1,615,513.12105	2,300,266.51886	39.49714	-107.97991	
Top of "G" Sand										
2,800.00	21.29	304.24	2,667.46	433.93	-637.55	1,615,539.44204	2,300,230.02781	39.49721	-107.98004	
3,000.00	21.29	304.24	2,853.81	474.79	-697.58	1,615,581.92315	2,300,171.13260	39.49732	-107.98026	
3,200.00	21.29	304.24	3,040.16	515.65	-757.61	1,615,624.40427	2,300,112.23739	39.49743	-107.98047	
3,400.00	21.29	304.24	3,226.51	556.51	-817.65	1,615,666.88537	2,300,053.34219	39.49755	-107.98068	
3,600.00	21.29	304.24	3,412.86	597.37	-877.68	1,615,709.36649	2,299,994.44697	39.49766	-107.98090	
3,800.00	21.29	304.24	3,599.21	638.23	-937.72	1,615,751.84760	2,299,935.55176	39.49777	-107.98111	
3,910.32	21.29	304.24	3,702.00	660.77	-970.83	1,615,775.27993	2,299,903.06552	39.49783	-107.98123	
Base of "G" Sand										
3,963.98	21.29	304.24	3,752.00	671.74	-986.94	1,615,786.67814	2,299,887.26320	39.49786	-107.98128	
9 5/8"										
4,000.00	21.29	304.24	3,785.56	679.09	-997.75	1,615,794.32871	2,299,876.65655	39.49788	-107.98132	
4,200.00	21.29	304.24	3,971.91	719.96	-1,057.79	1,615,836.80983	2,299,817.76134	39.49800	-107.98153	
4,400.00	21.29	304.24	4,158.26	760.82	-1,117.82	1,615,879.29094	2,299,758.86612	39.49811	-107.98175	
4,600.00	21.29	304.24	4,344.61	801.68	-1,177.85	1,615,921.77206	2,299,699.97091	39.49822	-107.98196	
4,800.00	21.29	304.24	4,530.96	842.54	-1,237.89	1,615,964.25317	2,299,641.07571	39.49833	-107.98217	
5,000.00	21.29	304.24	4,717.31	883.40	-1,297.92	1,616,006.73428	2,299,582.18050	39.49844	-107.98238	
5,137.10	21.29	304.24	4,845.05	911.41	-1,339.08	1,616,035.85521	2,299,541.80765	39.49852	-107.98253	
Start Drop -1.50°/100										
5,200.00	20.35	304.24	4,903.85	923.99	-1,357.56	1,616,048.93253	2,299,523.67745	39.49856	-107.98260	
5,219.35	20.06	304.24	4,922.00	927.75	-1,363.08	1,616,052.84044	2,299,518.25958	39.49857	-107.98262	
Mesaverde										
5,400.00	17.35	304.24	5,093.10	960.34	-1,410.96	1,616,086.72315	2,299,471.28506	39.49866	-107.98279	
5,600.00	14.35	304.24	5,285.48	991.06	-1,456.11	1,616,118.66790	2,299,426.99730	39.49874	-107.98295	
5,800.00	11.35	304.24	5,480.45	1,016.08	-1,492.87	1,616,144.67922	2,299,390.93558	39.49881	-107.98308	
6,000.00	8.35	304.24	5,677.48	1,035.33	-1,521.14	1,616,164.68582	2,299,363.19872	39.49886	-107.98318	
6,200.00	5.35	304.24	5,876.03	1,048.74	-1,540.85	1,616,178.63284	2,299,343.86277	39.49890	-107.98325	
6,400.00	2.35	304.24	6,075.56	1,056.29	-1,551.94	1,616,186.48207	2,299,332.98071	39.49892	-107.98328	
6,556.49	0.00	0.00	6,232.00	1,058.09	-1,554.59	1,616,188.35697	2,299,330.38138	39.49892	-107.98329	
Vertical										
6,600.00	0.00	0.00	6,275.51	1,058.09	-1,554.59	1,616,188.35697	2,299,330.38138	39.49892	-107.98329	
6,656.49	0.00	0.00	6,332.00	1,058.09	-1,554.59	1,616,188.35697	2,299,330.38138	39.49892	-107.98329	
Top Gas - Approx. Top Gas										

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well PA 541-27 - Slot B04
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5882.00usft (Nabors 576 (26' RKB) mab)
Project:	PA 27-06S-095W	MD Reference:	KELLY BUSHING @ 5882.00usft (Nabors 576 (26' RKB) mab)
Site:	DOE 2-W-27 Pad	North Reference:	True
Well:	PA 541-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 24Apr14 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
6,800.00	0.00	0.00	6,475.51	1,058.09	-1,554.59	1,616,188.35697	2,299,330.38138	39.49892	-107.98329
7,000.00	0.00	0.00	6,675.51	1,058.09	-1,554.59	1,616,188.35697	2,299,330.38138	39.49892	-107.98329
7,200.00	0.00	0.00	6,875.51	1,058.09	-1,554.59	1,616,188.35697	2,299,330.38138	39.49892	-107.98329
7,400.00	0.00	0.00	7,075.51	1,058.09	-1,554.59	1,616,188.35697	2,299,330.38138	39.49892	-107.98329
7,600.00	0.00	0.00	7,275.51	1,058.09	-1,554.59	1,616,188.35697	2,299,330.38138	39.49892	-107.98329
7,800.00	0.00	0.00	7,475.51	1,058.09	-1,554.59	1,616,188.35697	2,299,330.38138	39.49892	-107.98329
8,000.00	0.00	0.00	7,675.51	1,058.09	-1,554.59	1,616,188.35697	2,299,330.38138	39.49892	-107.98329
8,101.49	0.00	0.00	7,777.00	1,058.09	-1,554.59	1,616,188.35697	2,299,330.38138	39.49892	-107.98329
Cameo Coals									
8,200.00	0.00	0.00	7,875.51	1,058.09	-1,554.59	1,616,188.35697	2,299,330.38138	39.49892	-107.98329
8,400.00	0.00	0.00	8,075.51	1,058.09	-1,554.59	1,616,188.35697	2,299,330.38138	39.49892	-107.98329
8,600.00	0.00	0.00	8,275.51	1,058.09	-1,554.59	1,616,188.35697	2,299,330.38138	39.49892	-107.98329
8,781.49	0.00	0.00	8,457.00	1,058.09	-1,554.59	1,616,188.35697	2,299,330.38138	39.49892	-107.98329
Rollins SS									
8,800.00	0.00	0.00	8,475.51	1,058.09	-1,554.59	1,616,188.35697	2,299,330.38138	39.49892	-107.98329
8,931.49	0.00	0.00	8,607.00	1,058.09	-1,554.59	1,616,188.35697	2,299,330.38138	39.49892	-107.98329
TD at 8931.49 - TD									

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) PA - plan hits target center - Circle (radius 50.00)	0.00	0.00	6,332.00	1,058.09	-1,554.59	1,616,188.35697	2,299,330.38138	39.49892	-107.98329

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
3,963.98	3,752.00	9 5/8"	9.625	13.500	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (bearing)	
2,676.08	2,552.00	Top of "G" Sand		0.00		
3,910.32	3,702.00	Base of "G" Sand				
5,219.35	4,922.00	Mesaverde				
6,656.49	6,332.00	Approx. Top Gas				
8,101.49	7,777.00	Cameo Coals				
8,781.49	8,457.00	Rollins SS				
8,931.49	8,607.00	TD				

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well PA 541-27 - Slot B04
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5882.00usft (Nabors 576 (26' RKB) mab)
Project:	PA 27-06S-095W	MD Reference:	KELLY BUSHING @ 5882.00usft (Nabors 576 (26' RKB) mab)
Site:	DOE 2-W-27 Pad	North Reference:	True
Well:	PA 541-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 24Apr14 mab		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
150.00	150.00	0.00	0.00	Start Build 2.00
1,214.54	1,190.21	110.01	-161.64	Hold 21.29° Inc, 304.24° Az
5,137.10	4,845.05	911.41	-1,339.08	Start Drop -1.50°/100
6,556.49	6,232.00	1,058.09	-1,554.59	Vertical
6,656.49	6,332.00	1,058.09	-1,554.59	Top Gas
8,931.49	8,607.00	1,058.09	-1,554.59	TD at 8931.49