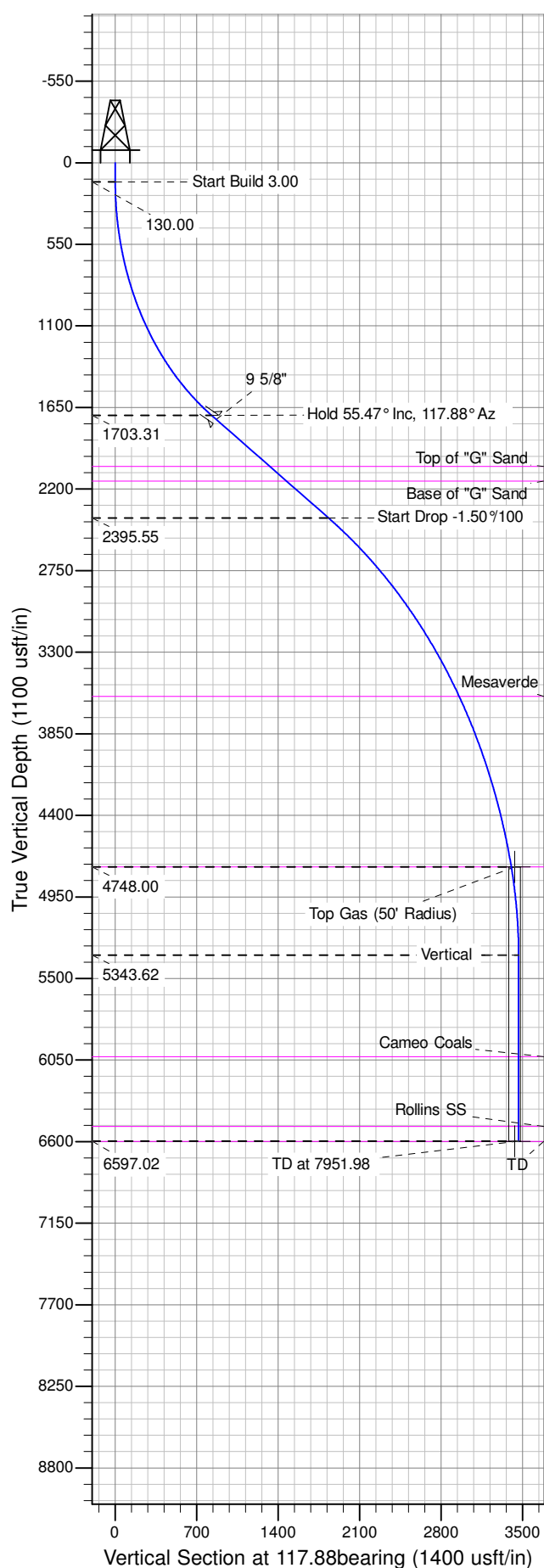
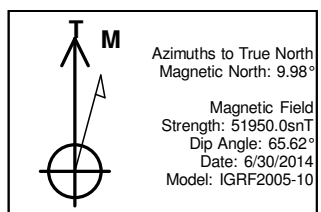
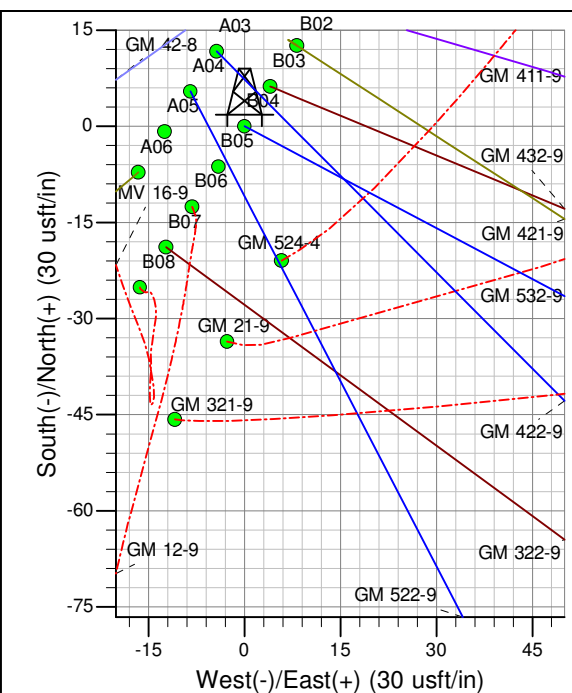
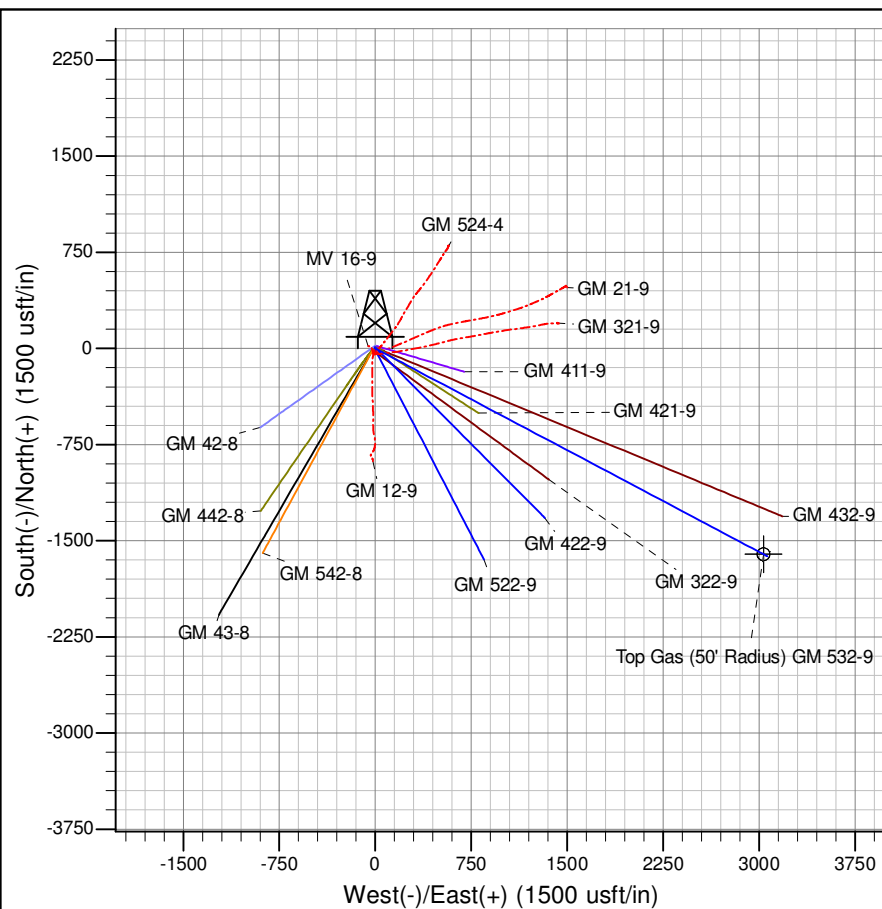




Well Name: GM 532-9
Surface Location: MV 16-9 Pad
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
Ground Elevation: 6087.00
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.00 0.00 1601963.10000 2260347.70000 39.45688 -108.11992 B04
KELLY BUSHING @ 6108.00usft (Cyclone 17 (21' RKB) mab)



ANNOTATIONS									
TVD	MD	Inc	Azi	+N/-S	+E/-W	Vsect	Departure	Annotation	
130.00	130.00	0.00	0.00	0.00	0.00	0.00	0.00	Start Build 3.00	
1703.31	1978.84	55.47	117.88	-386.82	731.13	827.15	827.15	Hold 55.47° Inc, 117.88° Az	
2395.55	3199.92	55.47	117.88	-857.23	1620.26	1833.05	1833.05	Start Drop -1.50°/100	
4748.00	6097.61	12.00	117.88	-1591.83	3008.74	3403.88	3403.88	Top Gas	
5343.62	6697.61	0.00	0.00	-1621.10	3064.07	3466.49	3466.49	Vertical	
6597.02	7951.00	0.00	0.00	-1621.10	3064.07	3466.49	3466.49	TD at 7951.98	



Project: GV 09-07S-096W
Site: MV 16-9 Pad
Well: GM 532-9
Design #1 30Jun14 mab

PICEANCE VLY NAD 83

GV 09-07S-096W

MV 16-9 Pad

GM 532-9 - Slot B04

Wellbore #1

Plan: Design #1 30Jun14 mab

Standard Planning Report - Geographic

04 August, 2014

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 532-9 - Slot B04
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 6108.00usft (Cyclone 17 (21' RKB) mab)
Project:	GV 09-07S-096W	MD Reference:	KELLY BUSHING @ 6108.00usft (Cyclone 17 (21' RKB) mab)
Site:	MV 16-9 Pad	North Reference:	True
Well:	GM 532-9	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 30Jun14 mab		

Project	GV 09-07S-096W, Garfield County, CO, 09-07S-096W		
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	MV 16-9 Pad			
Site Position:		Northing:	1,601,987.30000 usft	Latitude: 39.45695
From: Map		Easting:	2,260,352.30000 usft	Longitude: -108.11991
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence: -1.65 °

Well	GM 532-9 - Slot B04			
Well Position	+N/-S	0.00 usft	Northing:	1,601,963.10000 usft
	+E/-W	0.00 usft	Easting:	2,260,347.70000 usft
Position Uncertainty	0.00 usft		Wellhead Elevation:	0.00 usft
			Ground Level:	6,087.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2005-10	6/30/2014	9.98	65.62	51,950

Design	Design #1 30Jun14 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	117.88

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	
130.00	0.00	0.00	130.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,978.84	55.47	117.88	1,703.31	-386.82	731.13	3.00	3.00	0.00	117.88	
3,199.92	55.47	117.88	2,395.55	-857.23	1,620.26	0.00	0.00	0.00	0.00	
6,097.61	12.00	117.88	4,748.00	-1,591.83	3,008.74	1.50	-1.50	0.00	180.00	Top Gas (50' Radius)
6,697.61	0.00	0.00	5,343.62	-1,621.10	3,064.07	2.00	-2.00	0.00	180.00	
7,951.98	0.00	0.00	6,598.00	-1,621.10	3,064.07	0.00	0.00	0.00	0.00	TD / PBHL GM 532-9

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 532-9 - Slot B04
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 6108.00usft (Cyclone 17 (21' RKB) mab)
Project:	GV 09-07S-096W	MD Reference:	KELLY BUSHING @ 6108.00usft (Cyclone 17 (21' RKB) mab)
Site:	MV 16-9 Pad	North Reference:	True
Well:	GM 532-9	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 30Jun14 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	1,601,963.10000	2,260,347.70000	39.45688	-108.11993	
130.00	0.00	0.00	130.00	0.00	0.00	1,601,963.10000	2,260,347.70000	39.45688	-108.11993	
Start Build 3.00										
200.00	2.10	117.88	199.98	-0.60	1.13	1,601,962.46774	2,260,348.81596	39.45688	-108.11992	
400.00	8.10	117.88	399.10	-8.91	16.84	1,601,953.70817	2,260,364.27690	39.45685	-108.11987	
600.00	14.10	117.88	595.27	-26.91	50.86	1,601,934.73721	2,260,397.76128	39.45680	-108.11975	
800.00	20.10	117.88	786.34	-54.40	102.82	1,601,905.76272	2,260,448.90225	39.45673	-108.11956	
1,000.00	26.10	117.88	970.22	-91.08	172.14	1,601,867.10214	2,260,517.13947	39.45663	-108.11932	
1,200.00	32.10	117.88	1,144.90	-136.54	258.08	1,601,819.17905	2,260,601.72536	39.45650	-108.11901	
1,400.00	38.10	117.88	1,308.45	-190.30	359.69	1,601,762.51852	2,260,701.73315	39.45636	-108.11865	
1,600.00	44.10	117.88	1,459.10	-251.75	475.85	1,601,697.74130	2,260,816.06714	39.45619	-108.11824	
1,800.00	50.10	117.88	1,595.18	-320.24	605.29	1,601,625.55713	2,260,943.47466	39.45600	-108.11778	
1,978.84	55.47	117.88	1,703.31	-386.82	731.13	1,601,555.38043	2,261,067.33892	39.45582	-108.11734	
Hold 55.47° Inc, 117.88° Az										
2,000.00	55.47	117.88	1,715.30	-394.97	746.53	1,601,546.78943	2,261,082.50233	39.45579	-108.11728	
2,028.84	55.47	117.88	1,731.65	-406.08	767.53	1,601,535.07866	2,261,103.17224	39.45576	-108.11721	
9 5/8"										
2,200.00	55.47	117.88	1,828.68	-472.02	892.17	1,601,465.57743	2,261,225.84427	39.45558	-108.11677	
2,400.00	55.47	117.88	1,942.07	-549.06	1,037.80	1,601,384.36545	2,261,369.18619	39.45537	-108.11625	
2,586.86	55.47	117.88	2,048.00	-621.05	1,173.86	1,601,308.48733	2,261,503.11365	39.45517	-108.11577	
Top of "G" Sand										
2,600.00	55.47	117.88	2,055.45	-626.11	1,183.43	1,601,303.15345	2,261,512.52813	39.45516	-108.11574	
2,763.26	55.47	117.88	2,148.00	-689.01	1,302.31	1,601,236.85986	2,261,629.53858	39.45499	-108.11532	
Base of "G" Sand										
2,800.00	55.47	117.88	2,168.83	-703.16	1,329.06	1,601,221.94146	2,261,655.87006	39.45495	-108.11522	
3,000.00	55.47	117.88	2,282.21	-780.21	1,474.69	1,601,140.72946	2,261,799.21199	39.45474	-108.11470	
3,199.92	55.47	117.88	2,395.55	-857.23	1,620.26	1,601,059.54948	2,261,942.49742	39.45452	-108.11419	
Start Drop -1.50°/100										
3,200.00	55.47	117.88	2,395.59	-857.26	1,620.32	1,601,059.51747	2,261,942.55392	39.45452	-108.11419	
3,400.00	52.46	117.88	2,513.23	-932.88	1,763.26	1,600,979.80659	2,262,083.24634	39.45432	-108.11368	
3,600.00	49.46	117.88	2,639.18	-1,005.52	1,900.56	1,600,903.23989	2,262,218.38918	39.45412	-108.11320	
3,800.00	46.46	117.88	2,773.09	-1,074.98	2,031.84	1,600,830.02724	2,262,347.61200	39.45393	-108.11273	
4,000.00	43.46	117.88	2,914.58	-1,141.07	2,156.76	1,600,760.36931	2,262,470.56062	39.45375	-108.11229	
4,200.00	40.46	117.88	3,063.28	-1,203.60	2,274.95	1,600,694.45702	2,262,586.89803	39.45357	-108.11187	
4,400.00	37.46	117.88	3,218.77	-1,262.41	2,386.10	1,600,632.47105	2,262,696.30538	39.45341	-108.11148	
4,600.00	34.46	117.88	3,380.62	-1,317.33	2,489.91	1,600,574.58130	2,262,798.48278	39.45326	-108.11111	
4,800.00	31.46	117.88	3,548.41	-1,368.22	2,586.09	1,600,520.94642	2,262,893.15016	39.45312	-108.11077	
4,857.88	30.60	117.88	3,598.00	-1,382.17	2,612.46	1,600,506.24073	2,262,919.10619	39.45308	-108.11068	
Mesaverde										
5,000.00	28.46	117.88	3,721.66	-1,414.93	2,674.38	1,600,471.71342	2,262,980.04807	39.45299	-108.11046	
5,200.00	25.46	117.88	3,899.89	-1,457.33	2,754.53	1,600,427.01726	2,263,058.93831	39.45288	-108.11017	
5,400.00	22.46	117.88	4,082.63	-1,495.31	2,826.32	1,600,386.98045	2,263,129.60466	39.45277	-108.10992	
5,600.00	19.46	117.88	4,269.37	-1,528.77	2,889.56	1,600,351.71271	2,263,191.85341	39.45268	-108.10969	
5,800.00	16.46	117.88	4,459.60	-1,557.62	2,944.08	1,600,321.31073	2,263,245.51395	39.45260	-108.10950	
6,000.00	13.46	117.88	4,652.80	-1,581.77	2,989.72	1,600,295.85782	2,263,290.43919	39.45254	-108.10934	
6,097.61	12.00	117.88	4,748.00	-1,591.83	3,008.74	1,600,285.25447	2,263,309.15447	39.45251	-108.10927	
Top Gas - Approx. Top Gas										
6,200.00	9.95	117.88	4,848.51	-1,600.94	3,025.97	1,600,275.64524	2,263,326.11508	39.45248	-108.10921	
6,400.00	5.95	117.88	5,046.55	-1,613.88	3,050.42	1,600,262.00928	2,263,350.18300	39.45245	-108.10912	
6,600.00	1.95	117.88	5,246.03	-1,620.32	3,062.60	1,600,255.21592	2,263,362.17352	39.45243	-108.10908	
6,697.61	0.00	0.00	5,343.62	-1,621.10	3,064.07	1,600,254.39637	2,263,363.62006	39.45243	-108.10908	
Vertical										

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 532-9 - Slot B04
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 6108.00usft (Cyclone 17 (21' RKB) mab)
Project:	GV 09-07S-096W	MD Reference:	KELLY BUSHING @ 6108.00usft (Cyclone 17 (21' RKB) mab)
Site:	MV 16-9 Pad	North Reference:	True
Well:	GM 532-9	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 30Jun14 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	5,446.02	-1,621.10	3,064.07	1,600,254.39637	2,263,363.62006	39.45243	-108.10908
7,000.00	0.00	0.00	5,646.02	-1,621.10	3,064.07	1,600,254.39637	2,263,363.62006	39.45243	-108.10908
7,200.00	0.00	0.00	5,846.02	-1,621.10	3,064.07	1,600,254.39637	2,263,363.62006	39.45243	-108.10908
7,381.98	0.00	0.00	6,028.00	-1,621.10	3,064.07	1,600,254.39637	2,263,363.62006	39.45243	-108.10908
Cameo Coals									
7,400.00	0.00	0.00	6,046.02	-1,621.10	3,064.07	1,600,254.39637	2,263,363.62006	39.45243	-108.10908
7,600.00	0.00	0.00	6,246.02	-1,621.10	3,064.07	1,600,254.39637	2,263,363.62006	39.45243	-108.10908
7,800.00	0.00	0.00	6,446.02	-1,621.10	3,064.07	1,600,254.39637	2,263,363.62006	39.45243	-108.10908
7,851.98	0.00	0.00	6,498.00	-1,621.10	3,064.07	1,600,254.39637	2,263,363.62006	39.45243	-108.10908
Rollins SS									
7,951.98	0.00	0.00	6,598.00	-1,621.10	3,064.07	1,600,254.39637	2,263,363.62006	39.45243	-108.10908
TD at 7951.98 - 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) GM	0.00	0.00	4,748.00	-1,605.42	3,034.19	1,600,270.93341	2,263,334.19918	39.45247	-108.10918	
- plan misses target center by 28.23usft at 6103.10usft MD (4753.37 TVD, -1592.36 N, 3009.74 E)										
- Circle (radius 50.00)										
TD / PBHL GM 532-9	0.00	0.00	6,598.00	-1,605.42	3,034.19	1,600,270.93341	2,263,334.19918	39.45247	-108.10918	
- plan misses target center by 33.75usft at 7951.98usft MD (6598.00 TVD, -1621.10 N, 3064.07 E)										
- Point										

Casing Points						
Measured Depth (usft)	Vertical Depth (usft)	Name			Casing Diameter (in)	Hole Diameter (in)
2,028.84	1,731.65	9 5/8"			9.625	13.500

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (bearing)	
2,586.86	2,048.00	Top of "G" Sand				
2,763.26	2,148.00	Base of "G" Sand				
4,857.88	3,598.00	Mesaverde				
6,097.61	4,748.00	Approx. Top Gas				
7,381.98	6,028.00	Cameo Coals				
7,851.98	6,498.00	Rollins SS				
7,951.98	6,598.00	TD				

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 532-9 - Slot B04
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 6108.00usft (Cyclone 17 (21' RKB) mab)
Project:	GV 09-07S-096W	MD Reference:	KELLY BUSHING @ 6108.00usft (Cyclone 17 (21' RKB) mab)
Site:	MV 16-9 Pad	North Reference:	True
Well:	GM 532-9	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 30Jun14 mab		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
130.00	130.00	0.00	0.00	Start Build 3.00
1,978.84	1,703.31	-386.82	731.13	Hold 55.47° Inc, 117.88° Az
3,199.92	2,395.55	-857.23	1,620.26	Start Drop -1.50°/100
6,097.61	4,748.00	-1,591.83	3,008.74	Top Gas
6,697.61	5,343.62	-1,621.10	3,064.07	Vertical
7,951.98	6,598.00	-1,621.10	3,064.07	TD at 7951.98