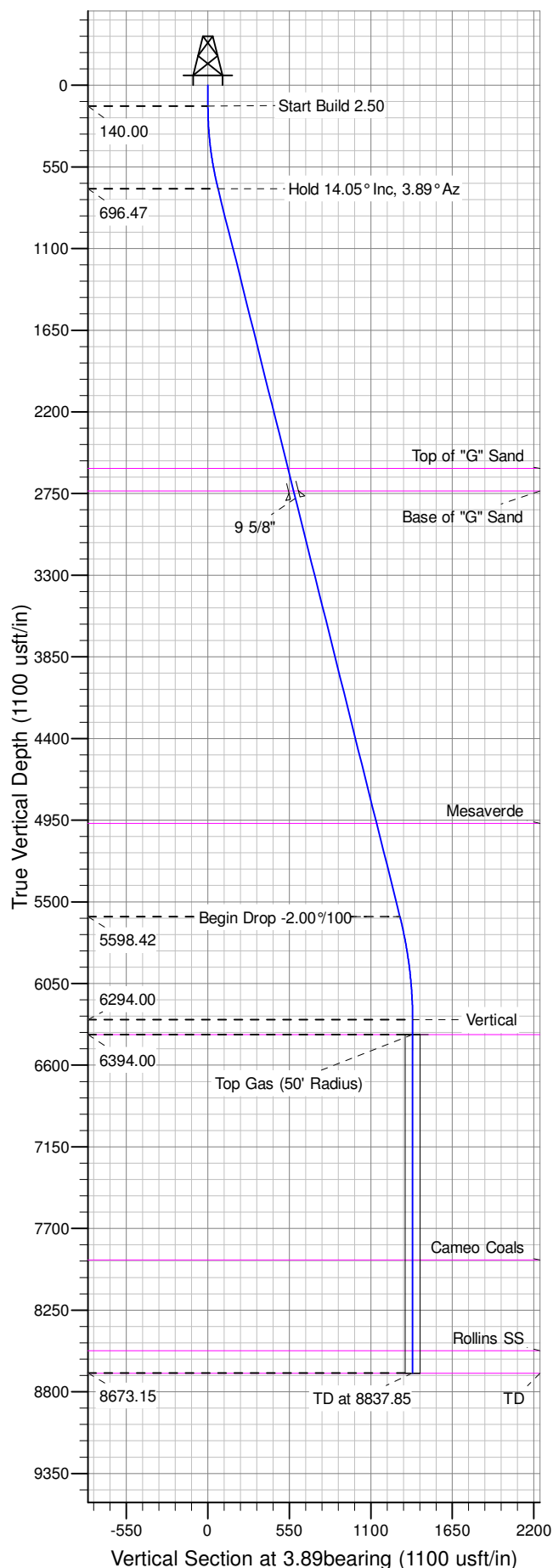




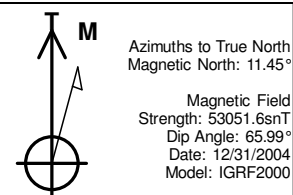
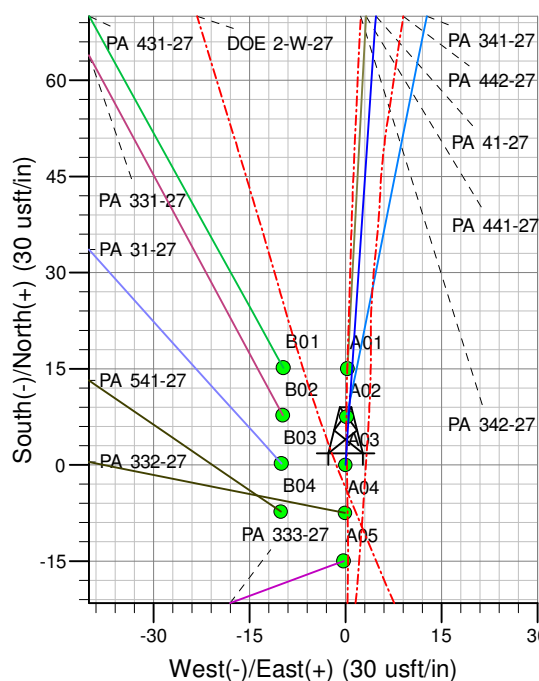
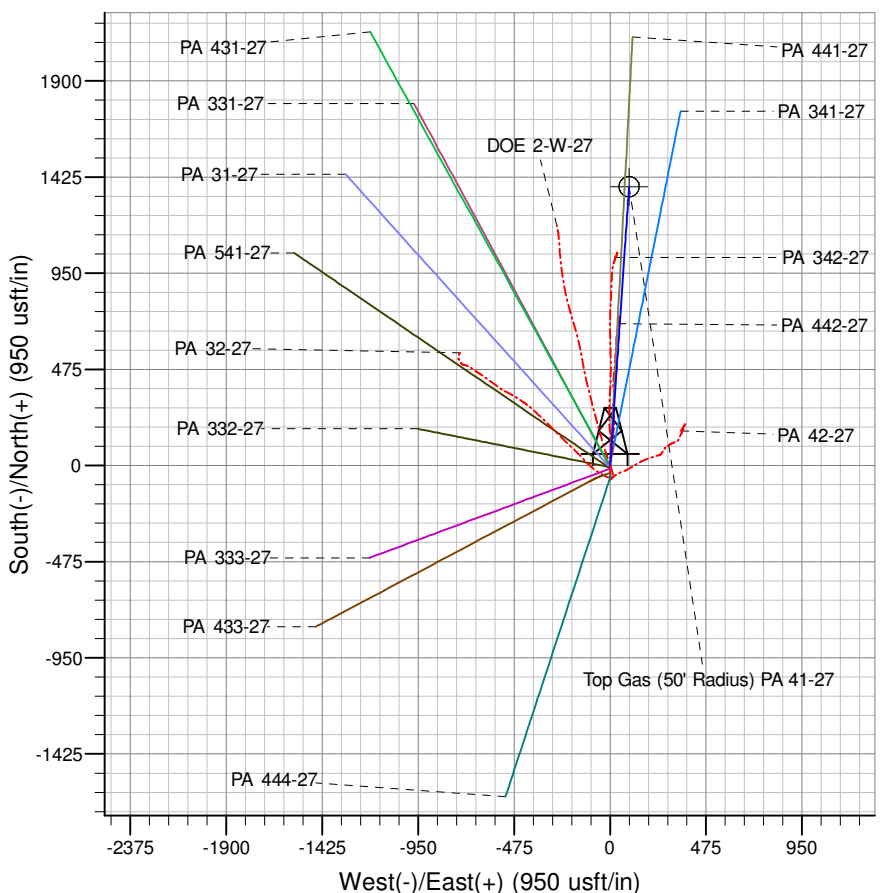
Well Name: PA 41-27
Surface Location: DOE 2-W-27 Pad
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
Ground Elevation: 5856.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1615095.31188	2300865.77504	39.49604	-107.97775	A03

KELLY BUSHING @ 5882.00usft (Nabors 576 (26' RKB) mab)



ANNOTATIONS									
TVD	MD	Inc	Azi	+N/-S	+E/-W	Vsect	Departure	Annotation	
140.00	140.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Start Build 2.50
696.47	702.08	14.05	3.89	68.42	4.65	68.58	68.58	68.58	Hold 14.05° Inc, 3.89° Az
5598.42	5755.25	14.05	3.89	1292.53	87.78	1295.51	1295.51	1295.51	Begin Drop -2.00°/100
6294.00	6457.85	0.00	0.00	1378.07	93.59	1381.24	1381.24	1381.24	Vertical
6394.00	6557.85	0.00	0.00	1378.07	93.59	1381.24	1381.24	1381.24	Top Gas
8673.15	8837.00	0.00	0.00	1378.07	93.59	1381.24	1381.24	1381.24	TD at 8837.85



Project: PA 27-06S-095W
Site: DOE 2-W-27 Pad
Well: PA 41-27
Design #2 21Apr14 mab

PICEANCE VLY NAD 83

PA 27-06S-095W

DOE 2-W-27 Pad

PA 41-27 - Slot A03

Wellbore #1

Plan: Design #2 21Apr14 mab

Standard Planning Report - Geographic

02 June, 2014

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well PA 41-27 - Slot A03
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 41-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 21Apr14 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 41-27 - Slot A03			
Well Position	+N/-S	0.00 usft	Northing:	1,615,095.31188 usft
	+E/-W	0.00 usft	Easting:	2,300,865.77504 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 21Apr14 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	3.89

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	
140.00	0.00	0.00	140.00	0.00	0.00	0.00	0.00	0.00	0.00	
702.08	14.05	3.89	696.47	68.42	4.65	2.50	2.50	0.00	3.89	
5,755.25	14.05	3.89	5,598.42	1,292.53	87.78	0.00	0.00	0.00	0.00	
6,457.85	0.00	0.00	6,294.00	1,378.07	93.59	2.00	-2.00	0.00	180.00	
6,557.85	0.00	0.00	6,394.00	1,378.07	93.59	0.00	0.00	0.00	0.00	Top Gas (50' Radius)
8,837.85	0.00	0.00	8,674.00	1,378.07	93.59	0.00	0.00	0.00	0.00	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well PA 41-27 - Slot A03
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 41-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 21Apr14 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	1,615,095.31188	2,300,865.77504	39.49604	-107.97775
140.00	0.00	0.00	140.00	0.00	0.00	1,615,095.31188	2,300,865.77504	39.49604	-107.97775
Start Build 2.50									
200.00	1.50	3.89	199.99	0.78	0.05	1,615,096.09365	2,300,865.84960	39.49604	-107.97775
400.00	6.50	3.89	399.44	14.70	1.00	1,615,109.97696	2,300,867.17369	39.49608	-107.97775
600.00	11.50	3.89	596.92	45.90	3.12	1,615,141.11139	2,300,870.14305	39.49616	-107.97774
702.08	14.05	3.89	696.47	68.42	4.65	1,615,163.58162	2,300,872.28609	39.49623	-107.97773
Hold 14.05° Inc, 3.89° Az									
800.00	14.05	3.89	791.45	92.14	6.26	1,615,187.24766	2,300,874.54317	39.49629	-107.97773
1,000.00	14.05	3.89	985.47	140.59	9.55	1,615,235.58718	2,300,879.15341	39.49642	-107.97772
1,200.00	14.05	3.89	1,179.48	189.04	12.84	1,615,283.92669	2,300,883.76366	39.49656	-107.97770
1,400.00	14.05	3.89	1,373.50	237.49	16.13	1,615,332.26621	2,300,888.37392	39.49669	-107.97769
1,600.00	14.05	3.89	1,567.51	285.94	19.42	1,615,380.60573	2,300,892.98417	39.49682	-107.97768
1,800.00	14.05	3.89	1,761.53	334.39	22.71	1,615,428.94526	2,300,897.59442	39.49696	-107.97767
2,000.00	14.05	3.89	1,955.54	382.84	26.00	1,615,477.28478	2,300,902.20467	39.49709	-107.97766
2,200.00	14.05	3.89	2,149.56	431.29	29.29	1,615,525.62430	2,300,906.81492	39.49722	-107.97765
2,400.00	14.05	3.89	2,343.57	479.74	32.58	1,615,573.96382	2,300,911.42517	39.49736	-107.97763
2,600.00	14.05	3.89	2,537.59	528.19	35.87	1,615,622.30334	2,300,916.03542	39.49749	-107.97762
2,645.78	14.05	3.89	2,582.00	539.28	36.62	1,615,633.36887	2,300,917.09077	39.49752	-107.97762
Top of "G" Sand									
2,800.00	14.05	3.89	2,731.60	576.64	39.16	1,615,670.64285	2,300,920.64568	39.49762	-107.97761
2,800.41	14.05	3.89	2,732.00	576.74	39.17	1,615,670.74187	2,300,920.65512	39.49762	-107.97761
Base of "G" Sand									
2,851.95	14.05	3.89	2,782.00	589.22	40.02	1,615,683.19955	2,300,921.84324	39.49766	-107.97761
9 5/8"									
3,000.00	14.05	3.89	2,925.62	625.09	42.45	1,615,718.98237	2,300,925.25593	39.49775	-107.97760
3,200.00	14.05	3.89	3,119.63	673.54	45.74	1,615,767.32190	2,300,929.86618	39.49789	-107.97759
3,400.00	14.05	3.89	3,313.65	721.98	49.03	1,615,815.66142	2,300,934.47643	39.49802	-107.97758
3,600.00	14.05	3.89	3,507.66	770.43	52.32	1,615,864.00094	2,300,939.08668	39.49815	-107.97756
3,800.00	14.05	3.89	3,701.68	818.88	55.61	1,615,912.34046	2,300,943.69693	39.49829	-107.97755
4,000.00	14.05	3.89	3,895.69	867.33	58.90	1,615,960.67998	2,300,948.30718	39.49842	-107.97754
4,200.00	14.05	3.89	4,089.71	915.78	62.20	1,616,009.01950	2,300,952.91744	39.49855	-107.97753
4,400.00	14.05	3.89	4,283.72	964.23	65.49	1,616,057.35901	2,300,957.52769	39.49869	-107.97752
4,600.00	14.05	3.89	4,477.74	1,012.68	68.78	1,616,105.69854	2,300,962.13794	39.49882	-107.97751
4,800.00	14.05	3.89	4,671.75	1,061.13	72.07	1,616,154.03806	2,300,966.74819	39.49895	-107.97749
5,000.00	14.05	3.89	4,865.77	1,109.58	75.36	1,616,202.37758	2,300,971.35844	39.49908	-107.97748
5,109.51	14.05	3.89	4,972.00	1,136.11	77.16	1,616,228.84557	2,300,973.88275	39.49916	-107.97748
Mesaverde									
5,200.00	14.05	3.89	5,059.78	1,158.03	78.65	1,616,250.71710	2,300,975.96869	39.49922	-107.97747
5,400.00	14.05	3.89	5,253.80	1,206.48	81.94	1,616,299.05662	2,300,980.57894	39.49935	-107.97746
5,600.00	14.05	3.89	5,447.81	1,254.93	85.23	1,616,347.39614	2,300,985.18920	39.49948	-107.97745
5,755.25	14.05	3.89	5,598.42	1,292.53	87.78	1,616,384.91961	2,300,988.76790	39.49959	-107.97744
Begin Drop -2.00°/100									
5,800.00	13.16	3.89	5,641.91	1,303.04	88.50	1,616,395.39772	2,300,989.76722	39.49962	-107.97744
6,000.00	9.16	3.89	5,838.09	1,341.64	91.12	1,616,433.91347	2,300,993.44055	39.49972	-107.97743
6,200.00	5.16	3.89	6,036.49	1,366.50	92.81	1,616,458.71292	2,300,995.80573	39.49979	-107.97742
6,400.00	1.16	3.89	6,236.15	1,377.48	93.55	1,616,469.67526	2,300,996.85124	39.49982	-107.97742
6,457.85	0.00	0.00	6,294.00	1,378.07	93.59	1,616,470.25678	2,300,996.90670	39.49982	-107.97742
Vertical									
6,557.85	0.00	0.00	6,394.00	1,378.07	93.59	1,616,470.25678	2,300,996.90670	39.49982	-107.97742
Top Gas - Approx. Top Gas									

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well PA 41-27 - Slot A03
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 41-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 21Apr14 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
6,600.00	0.00	0.00	6,436.15	1,378.07	93.59	1,616,470.25678	2,300,996.90670	39.49982	-107.97742
6,800.00	0.00	0.00	6,636.15	1,378.07	93.59	1,616,470.25678	2,300,996.90670	39.49982	-107.97742
7,000.00	0.00	0.00	6,836.15	1,378.07	93.59	1,616,470.25678	2,300,996.90670	39.49982	-107.97742
7,200.00	0.00	0.00	7,036.15	1,378.07	93.59	1,616,470.25678	2,300,996.90670	39.49982	-107.97742
7,400.00	0.00	0.00	7,236.15	1,378.07	93.59	1,616,470.25678	2,300,996.90670	39.49982	-107.97742
7,600.00	0.00	0.00	7,436.15	1,378.07	93.59	1,616,470.25678	2,300,996.90670	39.49982	-107.97742
7,800.00	0.00	0.00	7,636.15	1,378.07	93.59	1,616,470.25678	2,300,996.90670	39.49982	-107.97742
8,000.00	0.00	0.00	7,836.15	1,378.07	93.59	1,616,470.25678	2,300,996.90670	39.49982	-107.97742
8,075.85	0.00	0.00	7,912.00	1,378.07	93.59	1,616,470.25678	2,300,996.90670	39.49982	-107.97742
Cameo Coals									
8,200.00	0.00	0.00	8,036.15	1,378.07	93.59	1,616,470.25678	2,300,996.90670	39.49982	-107.97742
8,400.00	0.00	0.00	8,236.15	1,378.07	93.59	1,616,470.25678	2,300,996.90670	39.49982	-107.97742
8,600.00	0.00	0.00	8,436.15	1,378.07	93.59	1,616,470.25678	2,300,996.90670	39.49982	-107.97742
8,687.85	0.00	0.00	8,524.00	1,378.07	93.59	1,616,470.25678	2,300,996.90670	39.49982	-107.97742
Rollins SS									
8,800.00	0.00	0.00	8,636.15	1,378.07	93.59	1,616,470.25678	2,300,996.90670	39.49982	-107.97742
8,837.85	0.00	0.00	8,674.00	1,378.07	93.59	1,616,470.25678	2,300,996.90670	39.49982	-107.97742
TD at 8837.85 - TD									

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting		
- Shape	(°)	(bearing	(usft)	(usft)	(usft)	(usft)	(usft)	Latitude	Longitude
Top Gas (50' Radius) PA	0.00	0.00	6,394.00	1,378.07	93.59	1,616,470.25678	2,300,996.90670	39.49982	-107.97742
- plan hits target center									
- Circle (radius 50.00)									

Casing Points							Casing Diameter (in)	Hole Diameter (in)
Measured Depth (usft)	Vertical Depth (usft)	Name						
2,851.95	2,782.00	9 5/8"					9.625	13.500

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (bearing)	
2,645.78	2,582.00	Top of "G" Sand		0.00		
2,800.41	2,732.00	Base of "G" Sand				
5,109.51	4,972.00	Mesaverde				
6,557.85	6,394.00	Approx. Top Gas				
8,075.85	7,912.00	Cameo Coals				
8,687.85	8,524.00	Rollins SS				
8,837.85	8,674.00	TD				

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well PA 41-27 - Slot A03
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 41-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 21Apr14 mab		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
140.00	140.00	0.00	0.00	Start Build 2.50
702.08	696.47	68.42	4.65	Hold 14.05° Inc, 3.89° Az
5,755.25	5,598.42	1,292.53	87.78	Begin Drop -2.00°/100
6,457.85	6,294.00	1,378.07	93.59	Vertical
6,557.85	6,394.00	1,378.07	93.59	Top Gas
8,837.85	8,674.00	1,378.07	93.59	TD at 8837.85