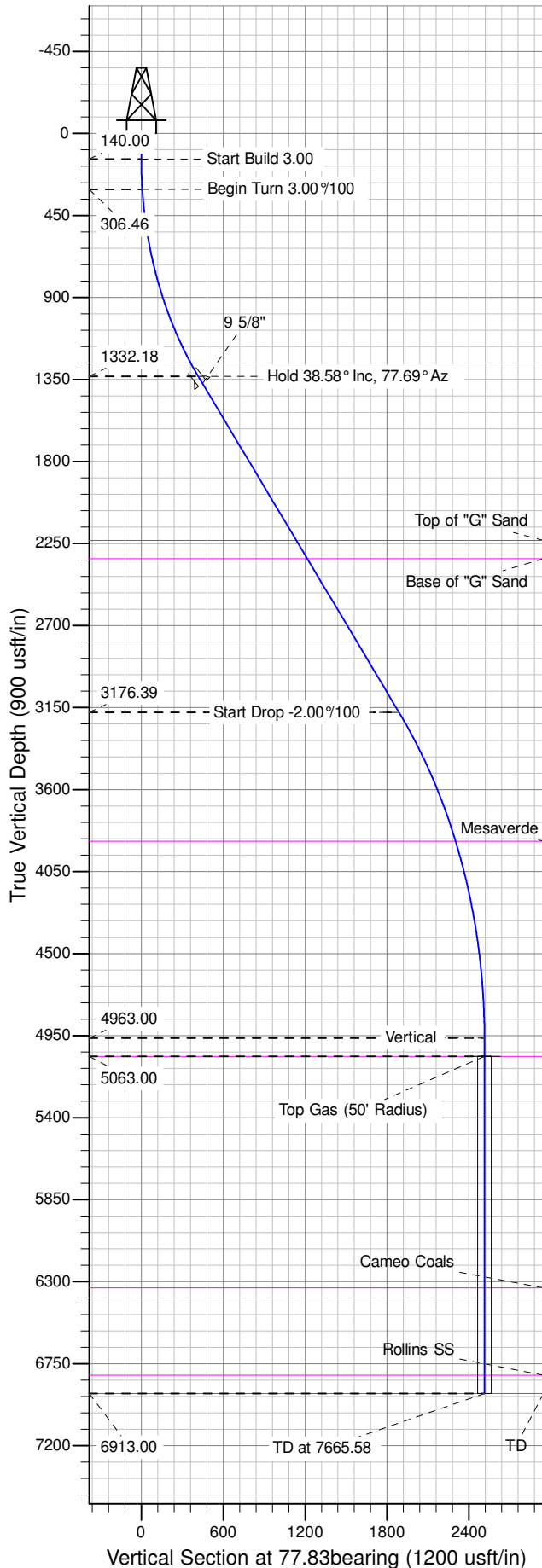
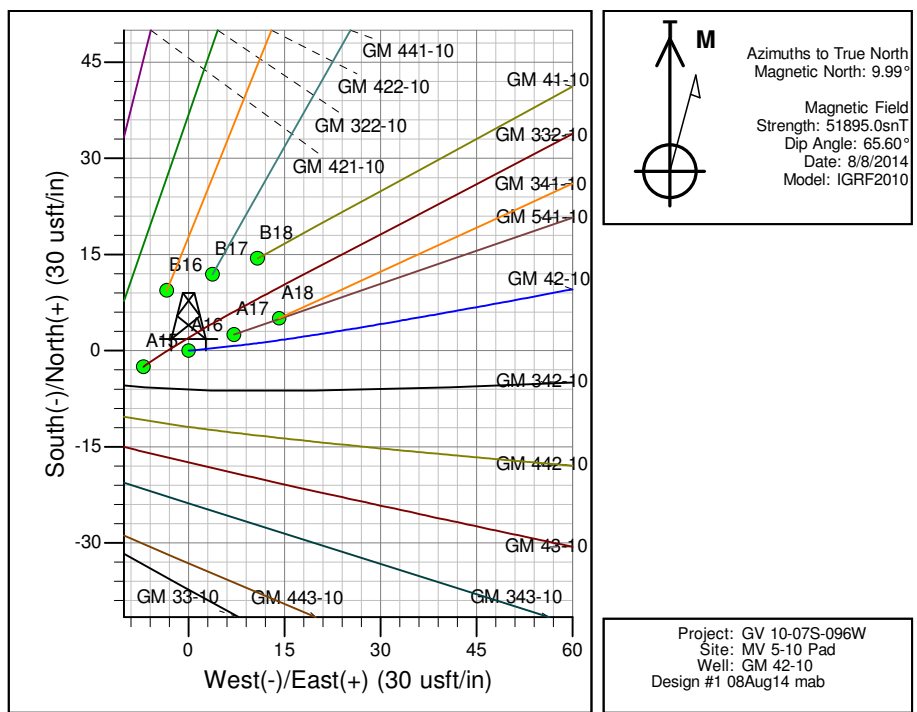
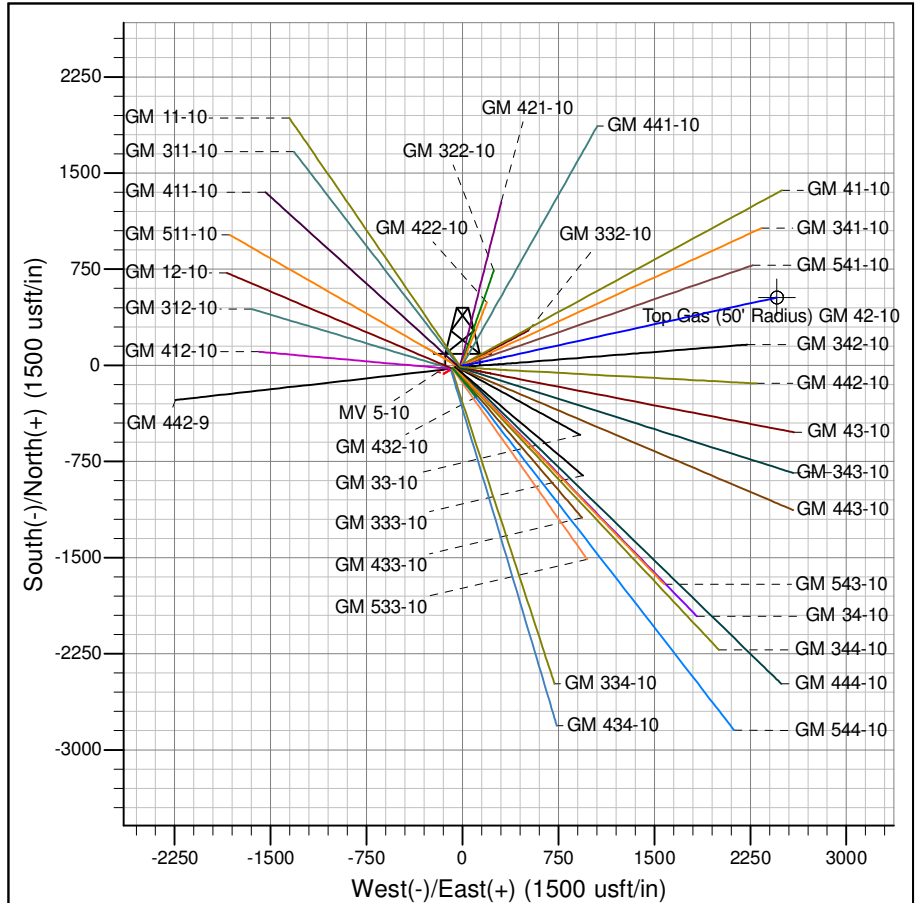




Well Name: GM 42-10  
Surface Location: MV 5-10 Pad  
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone  
Ground Elevation: 6148.00  
+N/-S +E/-W Northing Easting Latitude Longitude Slot  
0.00 0.00 1600375.00 2266974.30 39.45304 -108.09630 A16  
KELLY BUSHING @ 6174.00usft (Nabors (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	Start Build	3.00
306.46	306.67	5.00	84.00	0.76	7.23	7.23	7.27	Begin Turn	3.00%/100
1332.18	1427.23	38.58	77.69	82.75	408.76	417.01	417.14	Hold	38.58° Inc, 77.69° Az
3176.39	3786.44	38.58	77.69	396.51	1846.22	1888.32	1888.45	Start Drop	-2.00%/100
4963.00	5715.58	0.00	0.00	529.88	2457.19	2513.68	2513.81	Vertical	
5063.00	5815.58	0.00	0.00	529.88	2457.19	2513.68	2513.81	Top Gas	
6913.00	7665.58	0.00	0.00	529.88	2457.19	2513.68	2513.81	TD at	7665.58



# **PICEANCE VLY NAD 83**

**GV 10-07S-096W**

**MV 5-10 Pad**

**GM 42-10 - Slot A16**

**Wellbore #1**

**Plan: Design #1 08Aug14 mab**

## **Standard Planning Report - Geographic**

**13 October, 2014**

**WPX**  
Planning Report - Geographic

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well GM 42-10 - Slot A16
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 6174.00usft (Nabors _ (26' RKB) mab)
<b>Project:</b>	GV 10-07S-096W	<b>MD Reference:</b>	KELLY BUSHING @ 6174.00usft (Nabors _ (26' RKB) mab)
<b>Site:</b>	MV 5-10 Pad	<b>North Reference:</b>	True
<b>Well:</b>	GM 42-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 08Aug14 mab		

<b>Project</b>	GV 10-07S-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 5-10 Pad			
<b>Site Position:</b>		<b>Northing:</b>	1,600,354.00000 usft	<b>Latitude:</b> 39.45298
<b>From:</b> Map		<b>Easting:</b>	2,266,910.20000 usft	<b>Longitude:</b> -108.09653
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13.200 in	<b>Grid Convergence:</b> -1.64 °

<b>Well</b>	GM 42-10 - Slot A16			
<b>Well Position</b>	<b>+N/-S</b>	0.00 usft	<b>Northing:</b>	1,600,375.00000 usft
	<b>+E/-W</b>	0.00 usft	<b>Easting:</b>	2,266,974.30000 usft
<b>Position Uncertainty</b>	0.00 usft		<b>Wellhead Elevation:</b>	0.00 usft
			<b>Ground Level:</b>	6,148.00 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>
	IGRF2010	8/8/2014	9.99	65.60	51,895

<b>Design</b>	Design #1 08Aug14 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	77.83

<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	
140.00	0.00	0.00	140.00	0.00	0.00	0.00	0.00	0.00	0.00	
306.67	5.00	84.00	306.46	0.76	7.23	3.00	3.00	0.00	84.00	
1,427.23	38.58	77.69	1,332.18	82.75	408.76	3.00	3.00	-0.56	-7.12	
3,786.44	38.58	77.69	3,176.39	396.51	1,846.22	0.00	0.00	0.00	0.00	
5,715.58	0.00	0.00	4,963.00	529.88	2,457.20	2.00	-2.00	0.00	180.00	
7,665.58	0.00	0.00	6,913.00	529.88	2,457.20	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 42-10 - Slot A16
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 6174.00usft (Nabors _ (26' RKB) mab)
<b>Project:</b>	GV 10-07S-096W	<b>MD Reference:</b>	KELLY BUSHING @ 6174.00usft (Nabors _ (26' RKB) mab)
<b>Site:</b>	MV 5-10 Pad	<b>North Reference:</b>	True
<b>Well:</b>	GM 42-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 08Aug14 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	1,600,375.00000	2,266,974.30000	39.45304	-108.09631	
140.00	0.00	0.00	140.00	0.00	0.00	1,600,375.00000	2,266,974.30000	39.45304	-108.09631	
<b>Start Build 3.00</b>										
200.00	1.80	84.00	199.99	0.10	0.94	1,600,375.07168	2,266,975.23963	39.45304	-108.09630	
306.67	5.00	84.00	306.46	0.76	7.23	1,600,375.55280	2,266,981.54621	39.45304	-108.09628	
<b>Begin Turn 3.00°/100</b>										
400.00	7.79	81.44	399.20	2.13	17.53	1,600,376.62434	2,266,991.87940	39.45305	-108.09625	
600.00	13.78	79.44	595.58	8.51	54.36	1,600,381.95690	2,267,028.88344	39.45307	-108.09611	
800.00	19.77	78.63	786.98	19.56	110.99	1,600,391.37699	2,267,085.79548	39.45310	-108.09591	
1,000.00	25.77	78.19	971.31	35.13	186.77	1,600,404.78139	2,267,161.99197	39.45314	-108.09565	
1,200.00	31.77	77.91	1,146.55	55.07	280.89	1,600,422.02325	2,267,256.63809	39.45319	-108.09531	
1,400.00	37.77	77.71	1,310.77	79.16	392.31	1,600,442.91365	2,267,368.69689	39.45326	-108.09492	
1,427.23	38.58	77.69	1,332.18	82.75	408.76	1,600,446.02807	2,267,385.23577	39.45327	-108.09486	
<b>Hold 38.58° Inc, 77.69° Az</b>										
1,477.23	38.58	77.69	1,371.26	89.40	439.22	1,600,451.80426	2,267,415.87615	39.45329	-108.09475	
<b>9 5/8"</b>										
1,600.00	38.58	77.69	1,467.23	105.72	514.02	1,600,465.98746	2,267,491.11239	39.45333	-108.09449	
1,800.00	38.58	77.69	1,623.57	132.32	635.88	1,600,489.09277	2,267,613.67692	39.45341	-108.09406	
2,000.00	38.58	77.69	1,779.92	158.92	757.74	1,600,512.19809	2,267,736.24144	39.45348	-108.09362	
2,200.00	38.58	77.69	1,936.26	185.52	879.60	1,600,535.30341	2,267,858.80597	39.45355	-108.09319	
2,400.00	38.58	77.69	2,092.60	212.12	1,001.46	1,600,558.40873	2,267,981.37051	39.45362	-108.09276	
2,579.61	38.58	77.69	2,233.00	236.01	1,110.90	1,600,579.15830	2,268,091.43872	39.45369	-108.09237	
<b>Top of "G" Sand</b>										
2,600.00	38.58	77.69	2,248.94	238.72	1,123.32	1,600,581.51405	2,268,103.93503	39.45370	-108.09233	
2,707.53	38.58	77.69	2,333.00	253.02	1,188.84	1,600,593.93704	2,268,169.83410	39.45374	-108.09210	
<b>Base of "G" Sand</b>										
2,800.00	38.58	77.69	2,405.28	265.32	1,245.18	1,600,604.61936	2,268,226.49956	39.45377	-108.09190	
3,000.00	38.58	77.69	2,561.62	291.92	1,367.04	1,600,627.72467	2,268,349.06409	39.45384	-108.09147	
3,200.00	38.58	77.69	2,717.96	318.52	1,488.90	1,600,650.82999	2,268,471.62861	39.45392	-108.09103	
3,400.00	38.58	77.69	2,874.31	345.12	1,610.76	1,600,673.93531	2,268,594.19315	39.45399	-108.09060	
3,600.00	38.58	77.69	3,030.65	371.72	1,732.62	1,600,697.04063	2,268,716.75768	39.45406	-108.09017	
3,786.44	38.58	77.69	3,176.39	396.51	1,846.22	1,600,718.57928	2,268,831.01165	39.45413	-108.08977	
<b>Start Drop -2.00°/100</b>										
3,800.00	38.31	77.69	3,187.01	398.31	1,854.46	1,600,720.14128	2,268,839.29746	39.45414	-108.08974	
4,000.00	34.31	77.69	3,348.14	423.56	1,970.14	1,600,742.07626	2,268,955.65380	39.45420	-108.08933	
4,200.00	30.31	77.69	3,517.13	446.36	2,074.57	1,600,761.87570	2,269,060.68196	39.45427	-108.08896	
4,400.00	26.31	77.69	3,693.18	466.58	2,167.22	1,600,779.44314	2,269,153.87025	39.45432	-108.08863	
4,600.00	22.31	77.69	3,875.40	484.14	2,247.65	1,600,794.69299	2,269,234.76467	39.45437	-108.08835	
4,608.21	22.15	77.69	3,883.00	484.80	2,250.68	1,600,795.26822	2,269,237.81600	39.45437	-108.08834	
<b>Mesaverde</b>										
4,800.00	18.31	77.69	4,062.93	498.94	2,315.46	1,600,807.55097	2,269,302.97112	39.45441	-108.08811	
5,000.00	14.31	77.69	4,254.84	510.92	2,370.33	1,600,817.95442	2,269,358.15730	39.45444	-108.08791	
5,200.00	10.31	77.69	4,450.20	520.01	2,411.99	1,600,825.85266	2,269,400.05434	39.45447	-108.08777	
5,400.00	6.31	77.69	4,648.06	526.17	2,440.23	1,600,831.20722	2,269,428.45813	39.45449	-108.08767	
5,600.00	2.31	77.69	4,847.45	529.38	2,454.92	1,600,833.99200	2,269,443.23029	39.45450	-108.08761	
5,715.58	0.00	0.00	4,963.00	529.88	2,457.20	1,600,834.42384	2,269,445.52102	39.45450	-108.08761	
<b>Vertical</b>										
5,800.00	0.00	0.00	5,047.42	529.88	2,457.20	1,600,834.42384	2,269,445.52102	39.45450	-108.08761	
5,815.58	0.00	0.00	5,063.00	529.88	2,457.20	1,600,834.42384	2,269,445.52102	39.45450	-108.08761	
<b>Top Gas - Approx. Top Gas</b>										
6,000.00	0.00	0.00	5,247.42	529.88	2,457.20	1,600,834.42384	2,269,445.52102	39.45450	-108.08761	

**WPX**  
Planning Report - Geographic

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well GM 42-10 - Slot A16
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 6174.00usft (Nabors _ (26' RKB) mab)
<b>Project:</b>	GV 10-07S-096W	<b>MD Reference:</b>	KELLY BUSHING @ 6174.00usft (Nabors _ (26' RKB) mab)
<b>Site:</b>	MV 5-10 Pad	<b>North Reference:</b>	True
<b>Well:</b>	GM 42-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 08Aug14 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	
6,200.00	0.00	0.00	5,447.42	529.88	2,457.20	1,600,834.42384	2,269,445.52102	39.45450	-108.08761	
6,400.00	0.00	0.00	5,647.42	529.88	2,457.20	1,600,834.42384	2,269,445.52102	39.45450	-108.08761	
6,600.00	0.00	0.00	5,847.42	529.88	2,457.20	1,600,834.42384	2,269,445.52102	39.45450	-108.08761	
6,800.00	0.00	0.00	6,047.42	529.88	2,457.20	1,600,834.42384	2,269,445.52102	39.45450	-108.08761	
7,000.00	0.00	0.00	6,247.42	529.88	2,457.20	1,600,834.42384	2,269,445.52102	39.45450	-108.08761	
7,085.58	0.00	0.00	6,333.00	529.88	2,457.20	1,600,834.42384	2,269,445.52102	39.45450	-108.08761	
Cameo Coals										
7,200.00	0.00	0.00	6,447.42	529.88	2,457.20	1,600,834.42384	2,269,445.52102	39.45450	-108.08761	
7,400.00	0.00	0.00	6,647.42	529.88	2,457.20	1,600,834.42384	2,269,445.52102	39.45450	-108.08761	
7,565.58	0.00	0.00	6,813.00	529.88	2,457.20	1,600,834.42384	2,269,445.52102	39.45450	-108.08761	
Rollins SS										
7,600.00	0.00	0.00	6,847.42	529.88	2,457.20	1,600,834.42384	2,269,445.52102	39.45450	-108.08761	
7,665.58	0.00	0.00	6,913.00	529.88	2,457.20	1,600,834.42384	2,269,445.52102	39.45450	-108.08761	
TD at 7665.58 - 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) G1	0.00	0.00	5,063.00	529.88	2,457.20	1,600,834.42384	2,269,445.52102	39.45450		-108.08761
- plan hits target center										
- Circle (radius 50.00)										

Casing Points							Casing Diameter (in)	Hole Diameter (in)
Measured Depth (usft)	Vertical Depth (usft)	Name						
1,477.23	1,371.26	9 5/8"					9.625	13.500

Formations							Dip (°)	Dip Direction (bearing)
Measured Depth (usft)	Vertical Depth (usft)	Name		Lithology				
2,579.61	2,233.00	Top of "G" Sand						
2,707.53	2,333.00	Base of "G" Sand						
4,608.21	3,883.00	Mesaverde						
5,815.58	5,063.00	Approx. Top Gas						
7,085.58	6,333.00	Cameo Coals						
7,565.58	6,813.00	Rollins SS						
7,665.58	6,913.00	TD						

**WPX**  
Planning Report - Geographic

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well GM 42-10 - Slot A16
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 6174.00usft (Nabors _ (26' RKB) mab)
<b>Project:</b>	GV 10-07S-096W	<b>MD Reference:</b>	KELLY BUSHING @ 6174.00usft (Nabors _ (26' RKB) mab)
<b>Site:</b>	MV 5-10 Pad	<b>North Reference:</b>	True
<b>Well:</b>	GM 42-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 08Aug14 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 3.00
306.67	306.46	0.76	7.23	Begin Turn 3.00°/100
1,427.23	1,332.18	82.75	408.76	Hold 38.58° Inc, 77.69° Az
3,786.44	3,176.39	396.51	1,846.22	Start Drop -2.00°/100
5,715.58	4,963.00	529.88	2,457.20	Vertical
5,815.58	5,063.00	529.88	2,457.20	Top Gas
7,665.58	6,913.00	529.88	2,457.20	TD at 7665.58