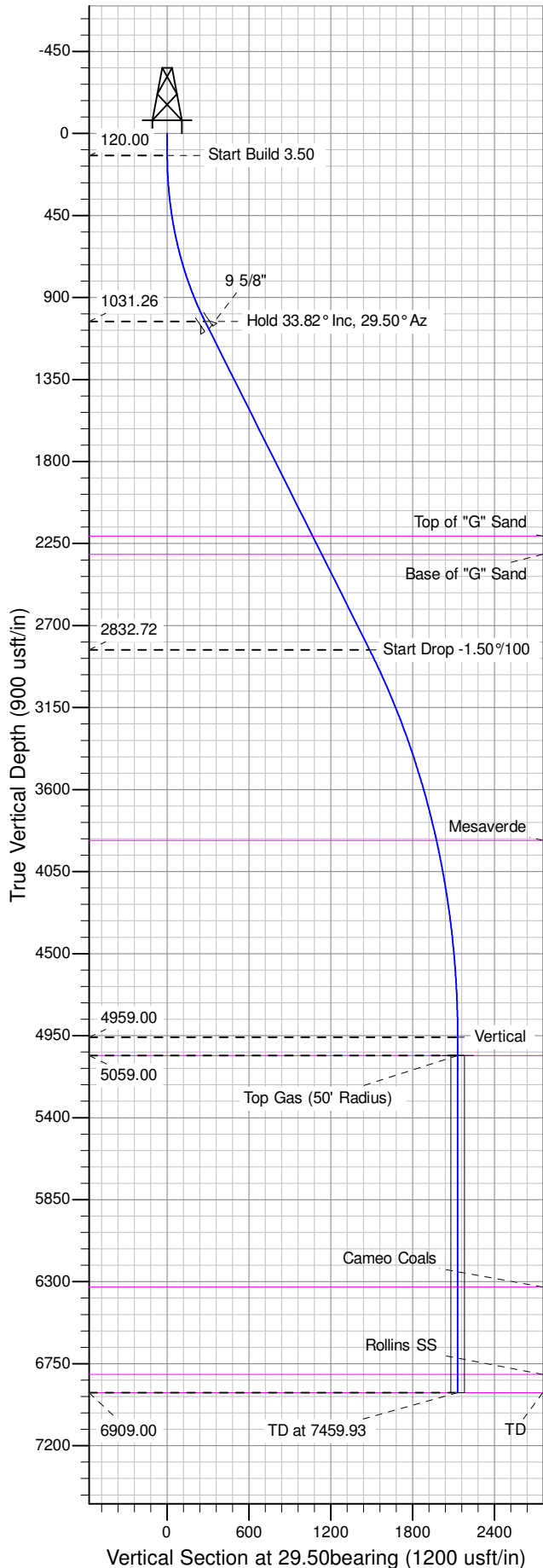
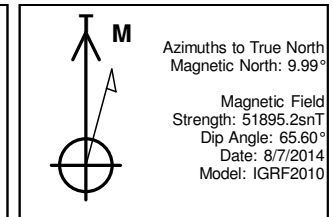
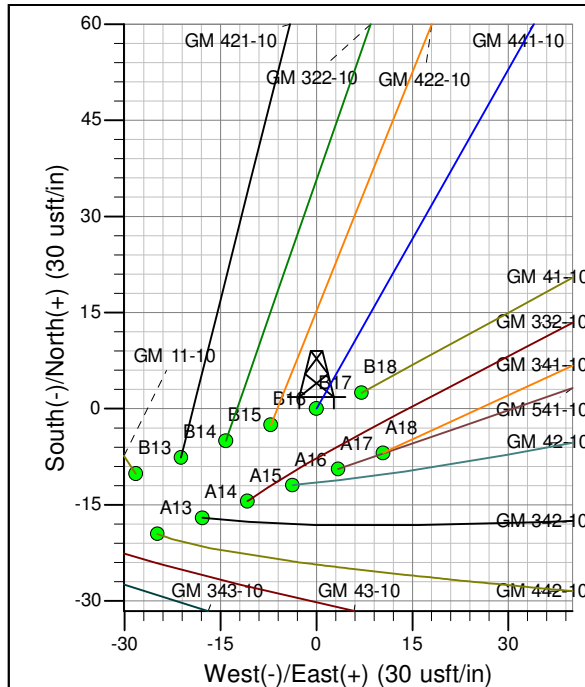
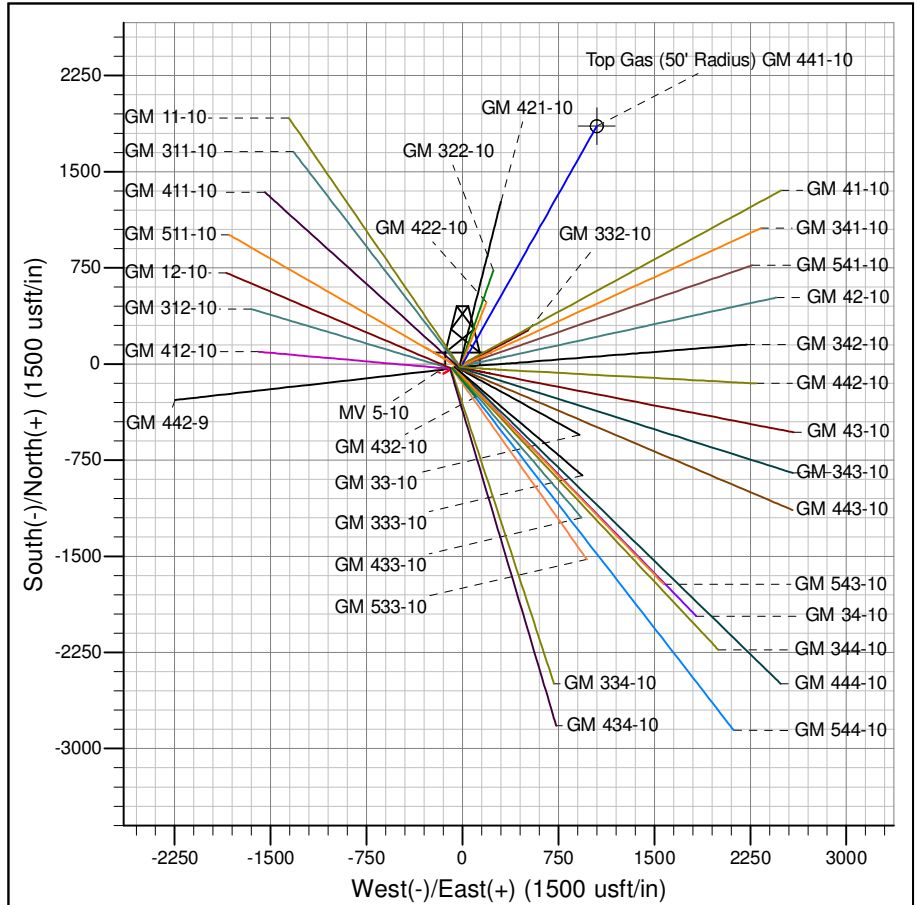




Well Name: GM 441-10
Surface Location: MV 5-10 Pad
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
Ground Elevation: 6148.00
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.00 0.00 1600386.80 2266978.40 39.45307 -108.09629 B17
KELLY BUSHING @ 6174.00usft (Nabors (26' RKB) 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	Start Build 3.50	
1031.26	1086.43	33.82	29.50	241.15	136.45	277.08	277.08	Hold 33.82° Inc, 29.50° Az	
2832.72	3254.93	33.82	29.50	1291.75	730.89	1484.19	1484.19	Start Drop -1.50°/100	
4959.00	5509.93	0.00	0.00	1854.44	1049.28	2130.71	2130.71	Vertical	
5059.00	5609.93	0.00	0.00	1854.44	1049.28	2130.71	2130.71	Top Gas	
6909.00	7459.93	0.00	0.00	1854.44	1049.28	2130.71	2130.71	TD at 7459.93	



Project: GV 10-07S-096W
Site: MV 5-10 Pad
Well: GM 441-10
Design #1 07Aug14 mab

PICEANCE VLY NAD 83

GV 10-07S-096W

MV 5-10 Pad

GM 441-10 - Slot B17

Wellbore #1

Plan: Design #1 07Aug14 mab

Standard Planning Report - Geographic

14 October, 2014

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 441-10 - Slot B17
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 6174.00usft (Nabors _ (26' RKB) mab)
Project:	GV 10-07S-096W	MD Reference:	KELLY BUSHING @ 6174.00usft (Nabors _ (26' RKB) mab)
Site:	MV 5-10 Pad	North Reference:	True
Well:	GM 441-10	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 07Aug14 mab		

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

Well	GM 441-10 - Slot B17			
Well Position	+N/-S	0.00 usft	Northing:	1,600,386.80000 usft
	+E/-W	0.00 usft	Easting:	2,266,978.40000 usft
Position Uncertainty	0.00 usft		Wellhead Elevation:	0.00 usft
			Ground Level:	6,148.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	8/7/2014	9.99	65.60	51,895

Design	Design #1 07Aug14 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	29.50

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	
120.00	0.00	0.00	120.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,086.43	33.82	29.50	1,031.26	241.15	136.45	3.50	3.50	0.00	29.50	
3,254.93	33.82	29.50	2,832.72	1,291.75	730.89	0.00	0.00	0.00	0.00	
5,509.93	0.00	0.00	4,959.00	1,854.44	1,049.28	1.50	-1.50	0.00	180.00	
5,609.93	0.00	0.00	5,059.00	1,854.44	1,049.28	0.00	0.00	0.00	0.00	Top Gas (50' Radius)
7,459.93	0.00	0.00	6,909.00	1,854.44	1,049.28	0.00	0.00	0.00	0.00	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 441-10 - Slot B17
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 6174.00usft (Nabors _ (26' RKB) mab)
Project:	GV 10-07S-096W	MD Reference:	KELLY BUSHING @ 6174.00usft (Nabors _ (26' RKB) mab)
Site:	MV 5-10 Pad	North Reference:	True
Well:	GM 441-10	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 07Aug14 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	1,600,386.80000	2,266,978.40000	39.45308	-108.09629	
120.00	0.00	0.00	120.00	0.00	0.00	1,600,386.80000	2,266,978.40000	39.45308	-108.09629	
Start Build 3.50										
200.00	2.80	29.50	199.97	1.70	0.96	1,600,388.47270	2,266,979.41061	39.45308	-108.09629	
400.00	9.80	29.50	398.64	20.79	11.76	1,600,407.24474	2,266,990.75225	39.45313	-108.09625	
600.00	16.80	29.50	593.15	60.81	34.41	1,600,446.59892	2,267,014.52915	39.45324	-108.09617	
800.00	23.80	29.50	780.61	121.16	68.56	1,600,505.94855	2,267,050.38685	39.45341	-108.09605	
1,000.00	30.80	29.50	958.23	200.95	113.70	1,600,584.40887	2,267,097.79079	39.45363	-108.09589	
1,086.43	33.82	29.50	1,031.26	241.15	136.45	1,600,623.94482	2,267,121.67752	39.45374	-108.09581	
Hold 33.82° Inc, 29.50° Az										
1,136.43	33.82	29.50	1,072.80	265.38	150.16	1,600,647.76705	2,267,136.07037	39.45380	-108.09576	
9 5/8"										
1,200.00	33.82	29.50	1,125.61	296.18	167.58	1,600,678.05361	2,267,154.36882	39.45389	-108.09570	
1,400.00	33.82	29.50	1,291.76	393.07	222.41	1,600,773.33930	2,267,211.93828	39.45415	-108.09551	
1,600.00	33.82	29.50	1,457.91	489.97	277.23	1,600,868.62499	2,267,269.50772	39.45442	-108.09531	
1,800.00	33.82	29.50	1,624.06	586.87	332.06	1,600,963.91069	2,267,327.07717	39.45469	-108.09512	
2,000.00	33.82	29.50	1,790.20	683.76	386.88	1,601,059.19637	2,267,384.64662	39.45495	-108.09492	
2,200.00	33.82	29.50	1,956.35	780.66	441.71	1,601,154.48206	2,267,442.21607	39.45522	-108.09473	
2,400.00	33.82	29.50	2,122.50	877.55	496.54	1,601,249.76775	2,267,499.78553	39.45548	-108.09454	
2,504.12	33.82	29.50	2,209.00	928.00	525.08	1,601,299.37507	2,267,529.75714	39.45562	-108.09443	
Top of "G" Sand										
2,600.00	33.82	29.50	2,288.65	974.45	551.36	1,601,345.05345	2,267,557.35498	39.45575	-108.09434	
2,624.50	33.82	29.50	2,309.00	986.32	558.08	1,601,356.72484	2,267,564.40657	39.45578	-108.09432	
Base of "G" Sand										
2,800.00	33.82	29.50	2,454.80	1,071.35	606.19	1,601,440.33913	2,267,614.92443	39.45602	-108.09415	
3,000.00	33.82	29.50	2,620.95	1,168.24	661.01	1,601,535.62482	2,267,672.49387	39.45628	-108.09395	
3,200.00	33.82	29.50	2,787.09	1,265.14	715.84	1,601,630.91051	2,267,730.06332	39.45655	-108.09376	
3,254.93	33.82	29.50	2,832.72	1,291.75	730.89	1,601,657.07876	2,267,745.87358	39.45662	-108.09371	
Start Drop -1.50°/100										
3,400.00	31.65	29.50	2,954.75	1,360.03	769.53	1,601,724.22101	2,267,786.43941	39.45681	-108.09357	
3,600.00	28.65	29.50	3,127.67	1,447.44	818.99	1,601,810.18336	2,267,838.37592	39.45705	-108.09339	
3,800.00	25.65	29.50	3,305.62	1,526.86	863.93	1,601,888.28211	2,267,885.56140	39.45727	-108.09323	
4,000.00	22.65	29.50	3,488.09	1,598.06	904.21	1,601,958.30317	2,267,927.86654	39.45746	-108.09309	
4,200.00	19.65	29.50	3,674.60	1,660.86	939.74	1,602,020.05463	2,267,965.17537	39.45763	-108.09297	
4,400.00	16.65	29.50	3,864.63	1,715.07	970.42	1,602,073.36723	2,267,997.38563	39.45778	-108.09286	
4,414.99	16.42	29.50	3,879.00	1,718.79	972.52	1,602,077.01923	2,267,999.59209	39.45779	-108.09285	
Mesaverde										
4,600.00	13.65	29.50	4,057.66	1,760.56	996.16	1,602,118.09483	2,268,024.40902	39.45791	-108.09277	
4,800.00	10.65	29.50	4,253.15	1,797.19	1,016.88	1,602,154.11485	2,268,046.17150	39.45801	-108.09269	
5,000.00	7.65	29.50	4,450.59	1,824.86	1,032.54	1,602,181.32856	2,268,062.61341	39.45808	-108.09264	
5,200.00	4.65	29.50	4,649.41	1,843.50	1,043.09	1,602,199.66137	2,268,073.68967	39.45814	-108.09260	
5,400.00	1.65	29.50	4,849.09	1,853.06	1,048.50	1,602,209.06301	2,268,079.36994	39.45816	-108.09258	
5,509.93	0.00	0.00	4,959.00	1,854.44	1,049.28	1,602,210.41669	2,268,080.18780	39.45817	-108.09258	
Vertical										
5,600.00	0.00	0.00	5,049.07	1,854.44	1,049.28	1,602,210.41669	2,268,080.18780	39.45817	-108.09258	
5,609.93	0.00	0.00	5,059.00	1,854.44	1,049.28	1,602,210.41669	2,268,080.18780	39.45817	-108.09258	
Top Gas - Approx. Top Gas										
5,800.00	0.00	0.00	5,249.07	1,854.44	1,049.28	1,602,210.41669	2,268,080.18780	39.45817	-108.09258	
6,000.00	0.00	0.00	5,449.07	1,854.44	1,049.28	1,602,210.41669	2,268,080.18780	39.45817	-108.09258	
6,200.00	0.00	0.00	5,649.07	1,854.44	1,049.28	1,602,210.41669	2,268,080.18780	39.45817	-108.09258	
6,400.00	0.00	0.00	5,849.07	1,854.44	1,049.28	1,602,210.41669	2,268,080.18780	39.45817	-108.09258	
6,600.00	0.00	0.00	6,049.07	1,854.44	1,049.28	1,602,210.41669	2,268,080.18780	39.45817	-108.09258	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 441-10 - Slot B17
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 6174.00usft (Nabors _ (26' RKB) mab)
Project:	GV 10-07S-096W	MD Reference:	KELLY BUSHING @ 6174.00usft (Nabors _ (26' RKB) mab)
Site:	MV 5-10 Pad	North Reference:	True
Well:	GM 441-10	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 07Aug14 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	6,249.07	1,854.44	1,049.28	1,602,210.41669	2,268,080.18780	39.45817	-108.09258
6,879.93	0.00	0.00	6,329.00	1,854.44	1,049.28	1,602,210.41669	2,268,080.18780	39.45817	-108.09258
Cameo Coals									
7,000.00	0.00	0.00	6,449.07	1,854.44	1,049.28	1,602,210.41669	2,268,080.18780	39.45817	-108.09258
7,200.00	0.00	0.00	6,649.07	1,854.44	1,049.28	1,602,210.41669	2,268,080.18780	39.45817	-108.09258
7,359.93	0.00	0.00	6,809.00	1,854.44	1,049.28	1,602,210.41669	2,268,080.18780	39.45817	-108.09258
Rollins SS									
7,400.00	0.00	0.00	6,849.07	1,854.44	1,049.28	1,602,210.41669	2,268,080.18780	39.45817	-108.09258
7,459.93	0.00	0.00	6,909.00	1,854.44	1,049.28	1,602,210.41669	2,268,080.18780	39.45817	-108.09258
TD at 7459.93 - 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) Gm - plan hits target center - Circle (radius 50.00)	0.00	0.00	5,059.00	1,854.44	1,049.28	1,602,210.41669	2,268,080.18780	39.45817	-108.09258

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,136.43	1,072.80	9 5/8"	9.625	13.500	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (bearing)	
2,504.12	2,209.00	Top of "G" Sand				
2,624.50	2,309.00	Base of "G" Sand				
4,414.99	3,879.00	Mesaverde				
5,609.93	5,059.00	Approx. Top Gas				
6,879.93	6,329.00	Cameo Coals				
7,359.93	6,809.00	Rollins SS				
7,459.93	6,909.00	TD				

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 441-10 - Slot B17
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 6174.00usft (Nabors _ (26' RKB) mab)
Project:	GV 10-07S-096W	MD Reference:	KELLY BUSHING @ 6174.00usft (Nabors _ (26' RKB) mab)
Site:	MV 5-10 Pad	North Reference:	True
Well:	GM 441-10	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 07Aug14 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
1,086.43	1,031.26	241.15	136.45	Hold 33.82° Inc, 29.50° Az
3,254.93	2,832.72	1,291.75	730.89	Start Drop -1.50°/100
5,509.93	4,959.00	1,854.44	1,049.28	Vertical
5,609.93	5,059.00	1,854.44	1,049.28	Top Gas
7,459.93	6,909.00	1,854.44	1,049.28	TD at 7459.93