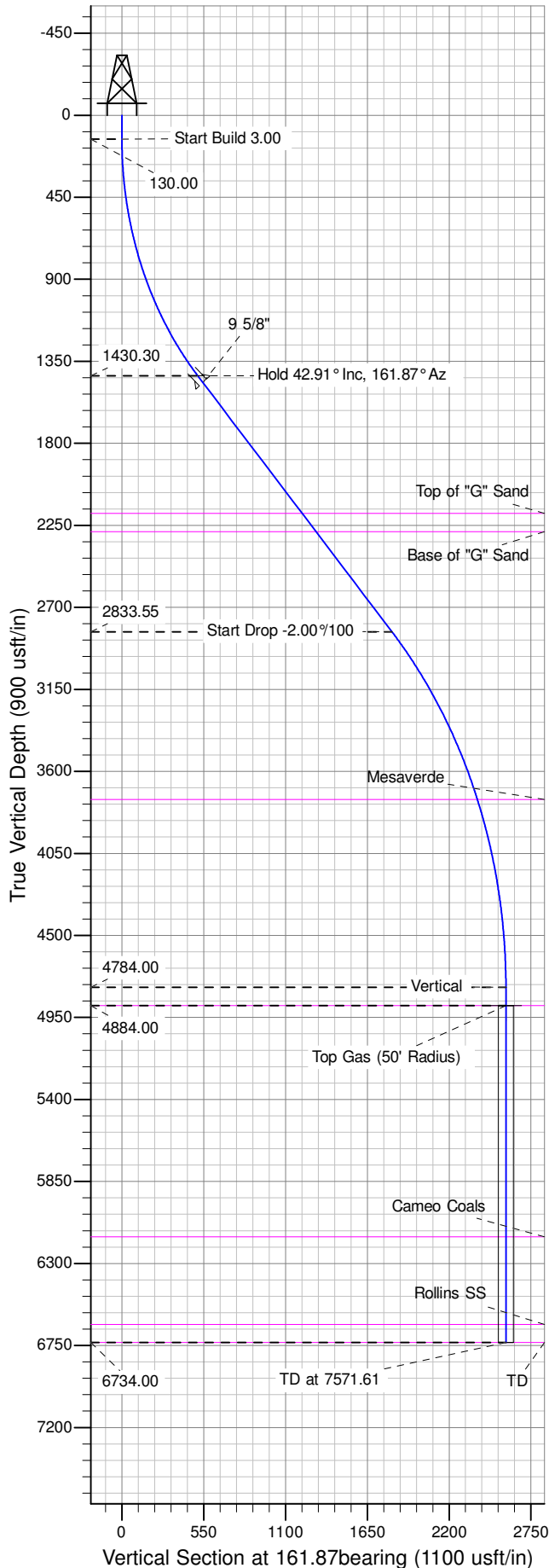
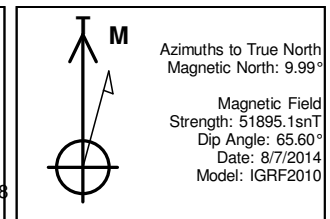
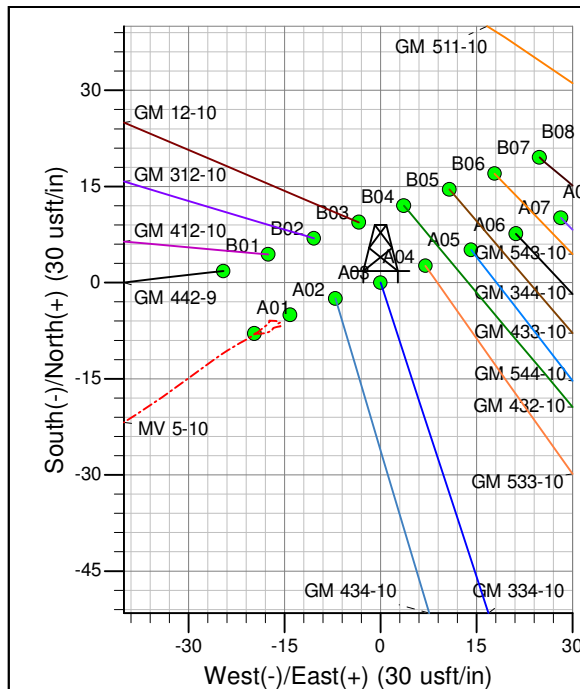
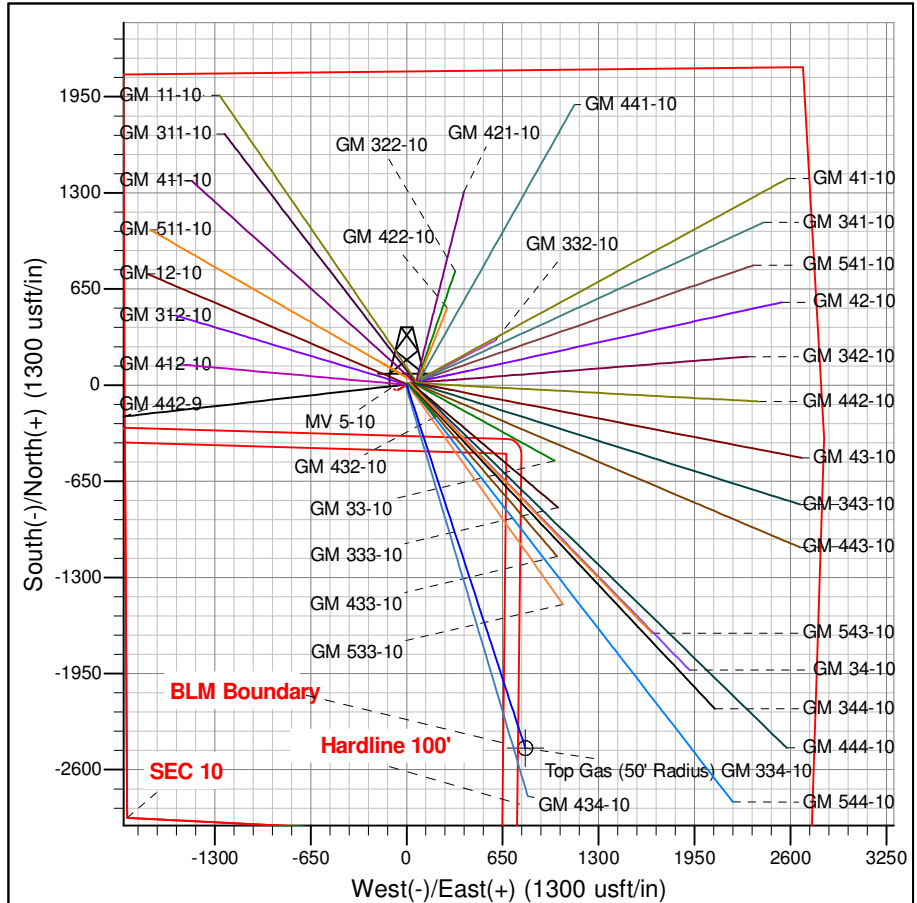




Well Name: GM 334-10
Surface Location: MV 5-10 Pad
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
Ground Elevation: 6148.00
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.00 0.00 1600347.00000 2266888.80000 39.45296 -108.09660 A04
KELLY BUSHING @ 6174.00usft (Nabors (26' 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	
1430.30	1560.30	42.91	161.87	-485.63	159.03	511.01	511.01	Hold 42.91° Inc, 161.87° Az	
2833.55	3476.16	42.91	161.87	-1725.25	564.98	1815.40	1815.40	Start Drop -2.00°/100	
4784.00	5621.61	0.00	0.00	-2453.70	803.52	2581.91	2581.91	Vertical	
4884.00	5721.61	0.00	0.00	-2453.70	803.52	2581.91	2581.91	Top Gas	
6734.00	7571.61	0.00	0.00	-2453.70	803.52	2581.91	2581.91	TD at 7571.61	



Project: GV 10-07S-096W
Site: MV 5-10 Pad
Well: GM 334-10
Design #1 07Aug14 mab

PICEANCE VLY NAD 83

GV 10-07S-096W

MV 5-10 Pad

GM 334-10 - Slot A04

Wellbore #1

Plan: Design #1 07Aug14 mab

Standard Planning Report - Geographic

13 October, 2014

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 334-10 - Slot A04
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 334-10	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 334-10 - Slot A04			
Well Position	+N/-S	0.00 usft	Northing:	1,600,347.00000 usft
	+E/-W	0.00 usft	Easting:	2,266,888.80000 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	161.87

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	
1,560.30	42.91	161.87	1,430.30	-485.63	159.03	3.00	3.00	0.00	161.87	
3,476.16	42.91	161.87	2,833.55	-1,725.25	564.98	0.00	0.00	0.00	0.00	
5,621.61	0.00	0.00	4,784.00	-2,453.70	803.52	2.00	-2.00	0.00	180.00	
5,721.61	0.00	0.00	4,884.00	-2,453.70	803.52	0.00	0.00	0.00	0.00	Top Gas (50' Radius)
7,571.61	0.00	0.00	6,734.00	-2,453.70	803.52	0.00	0.00	0.00	0.00	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 334-10 - Slot A04
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 334-10	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	1,600,347.00000	2,266,888.80000	39.45296	-108.09661	
130.00	0.00	0.00	130.00	0.00	0.00	1,600,347.00000	2,266,888.80000	39.45296	-108.09661	
Start Build 3.00										
200.00	2.10	161.87	199.98	-1.22	0.40	1,600,345.77017	2,266,889.16416	39.45296	-108.09661	
400.00	8.10	161.87	399.10	-18.11	5.93	1,600,328.73154	2,266,894.20951	39.45291	-108.09659	
600.00	14.10	161.87	595.27	-54.68	17.91	1,600,291.83028	2,266,905.13643	39.45281	-108.09654	
800.00	20.10	161.87	786.34	-110.54	36.20	1,600,235.47071	2,266,921.82520	39.45266	-108.09648	
1,000.00	26.10	161.87	970.22	-185.08	60.61	1,600,160.27031	2,266,944.09297	39.45245	-108.09639	
1,200.00	32.10	161.87	1,144.90	-277.48	90.87	1,600,067.05297	2,266,971.69577	39.45220	-108.09629	
1,400.00	38.10	161.87	1,308.45	-386.72	126.64	1,599,956.84002	2,267,004.33119	39.45190	-108.09616	
1,560.30	42.91	161.87	1,430.30	-485.63	159.03	1,599,857.04236	2,267,033.88251	39.45163	-108.09604	
Hold 42.91° Inc, 161.87° Az										
1,600.00	42.91	161.87	1,459.38	-511.32	167.44	1,599,831.12686	2,267,041.55641	39.45156	-108.09601	
1,610.30	42.91	161.87	1,466.92	-517.98	169.63	1,599,824.40316	2,267,043.54738	39.45154	-108.09601	
9 5/8"										
1,800.00	42.91	161.87	1,605.87	-640.73	209.82	1,599,700.56937	2,267,080.21609	39.45120	-108.09586	
2,000.00	42.91	161.87	1,752.35	-770.13	252.20	1,599,570.01188	2,267,118.87578	39.45084	-108.09571	
2,200.00	42.91	161.87	1,898.84	-899.54	294.58	1,599,439.45439	2,267,157.53546	39.45049	-108.09556	
2,400.00	42.91	161.87	2,045.33	-1,028.94	336.95	1,599,308.89690	2,267,196.19515	39.45013	-108.09541	
2,589.33	42.91	161.87	2,184.00	-1,151.44	377.07	1,599,185.30404	2,267,232.79251	39.44980	-108.09527	
Top of "G" Sand										
2,600.00	42.91	161.87	2,191.81	-1,158.35	379.33	1,599,178.33941	2,267,234.85482	39.44978	-108.09526	
2,725.86	42.91	161.87	2,284.00	-1,239.78	406.00	1,599,096.17850	2,267,259.18369	39.44956	-108.09517	
Base of "G" Sand										
2,800.00	42.91	161.87	2,338.30	-1,287.75	421.71	1,599,047.78192	2,267,273.51451	39.44942	-108.09511	
3,000.00	42.91	161.87	2,484.79	-1,417.16	464.08	1,598,917.22444	2,267,312.17420	39.44907	-108.09496	
3,200.00	42.91	161.87	2,631.28	-1,546.56	506.46	1,598,786.66694	2,267,350.83388	39.44871	-108.09481	
3,400.00	42.91	161.87	2,777.76	-1,675.97	548.84	1,598,656.10945	2,267,389.49357	39.44836	-108.09466	
3,476.16	42.91	161.87	2,833.55	-1,725.25	564.98	1,598,606.39051	2,267,404.21596	39.44822	-108.09461	
Start Drop -2.00°/100										
3,600.00	40.43	161.87	2,926.04	-1,803.48	590.60	1,598,527.45646	2,267,427.58931	39.44801	-108.09452	
3,800.00	36.43	161.87	3,082.68	-1,921.60	629.28	1,598,408.28435	2,267,462.87764	39.44768	-108.09438	
4,000.00	32.43	161.87	3,247.61	-2,029.05	664.46	1,598,299.87884	2,267,494.97785	39.44739	-108.09425	
4,200.00	28.43	161.87	3,420.02	-2,125.31	695.98	1,598,202.76806	2,267,523.73356	39.44712	-108.09414	
4,400.00	24.43	161.87	3,599.07	-2,209.90	723.69	1,598,117.42512	2,267,549.00465	39.44689	-108.09404	
4,568.02	21.07	161.87	3,754.00	-2,271.64	743.91	1,598,055.12895	2,267,567.45132	39.44672	-108.09397	
Mesaverde										
4,600.00	20.43	161.87	3,783.90	-2,282.41	747.43	1,598,044.26581	2,267,570.66803	39.44669	-108.09396	
4,800.00	16.43	161.87	3,973.60	-2,342.49	767.11	1,597,983.64655	2,267,588.61814	39.44653	-108.09389	
5,000.00	12.43	161.87	4,167.25	-2,389.86	782.62	1,597,935.86268	2,267,602.76753	39.44640	-108.09384	
5,200.00	8.43	161.87	4,363.91	-2,424.27	793.89	1,597,901.14699	2,267,613.04728	39.44630	-108.09380	
5,400.00	4.43	161.87	4,562.61	-2,445.55	800.86	1,597,879.66862	2,267,619.40729	39.44624	-108.09377	
5,600.00	0.43	161.87	4,762.39	-2,453.62	803.50	1,597,871.53220	2,267,621.81658	39.44622	-108.09376	
5,621.61	0.00	0.00	4,784.00	-2,453.70	803.52	1,597,871.45402	2,267,621.83973	39.44622	-108.09376	
Vertical										
5,721.61	0.00	0.00	4,884.00	-2,453.70	803.52	1,597,871.45402	2,267,621.83973	39.44622	-108.09376	
Top Gas - Approx. Top Gas										
5,800.00	0.00	0.00	4,962.39	-2,453.70	803.52	1,597,871.45402	2,267,621.83973	39.44622	-108.09376	
6,000.00	0.00	0.00	5,162.39	-2,453.70	803.52	1,597,871.45402	2,267,621.83973	39.44622	-108.09376	
6,200.00	0.00	0.00	5,362.39	-2,453.70	803.52	1,597,871.45402	2,267,621.83973	39.44622	-108.09376	
6,400.00	0.00	0.00	5,562.39	-2,453.70	803.52	1,597,871.45402	2,267,621.83973	39.44622	-108.09376	
6,600.00	0.00	0.00	5,762.39	-2,453.70	803.52	1,597,871.45402	2,267,621.83973	39.44622	-108.09376	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 334-10 - Slot A04
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 334-10	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	5,962.39	-2,453.70	803.52	1,597,871.45402	2,267,621.83973	39.44622	-108.09376
6,991.61	0.00	0.00	6,154.00	-2,453.70	803.52	1,597,871.45402	2,267,621.83973	39.44622	-108.09376
Cameo Coals									
7,000.00	0.00	0.00	6,162.39	-2,453.70	803.52	1,597,871.45402	2,267,621.83973	39.44622	-108.09376
7,200.00	0.00	0.00	6,362.39	-2,453.70	803.52	1,597,871.45402	2,267,621.83973	39.44622	-108.09376
7,400.00	0.00	0.00	6,562.39	-2,453.70	803.52	1,597,871.45402	2,267,621.83973	39.44622	-108.09376
7,471.61	0.00	0.00	6,634.00	-2,453.70	803.52	1,597,871.45402	2,267,621.83973	39.44622	-108.09376
Rollins SS									
7,571.61	0.00	0.00	6,734.00	-2,453.70	803.52	1,597,871.45402	2,267,621.83973	39.44622	-108.09376
TD at 7571.61 - 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	4,884.00	-2,453.70	803.52	1,597,871.45402	2,267,621.83973	39.44622	-108.09376

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,610.30	1,466.92	9 5/8"	9.625	13.500	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (bearing)	
2,589.33	2,184.00	Top of "G" Sand				
2,725.86	2,284.00	Base of "G" Sand				
4,568.02	3,754.00	Mesaverde				
5,721.61	4,884.00	Approx. Top Gas				
6,991.61	6,154.00	Cameo Coals				
7,471.61	6,634.00	Rollins SS				
7,571.61	6,734.00	TD				

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 334-10 - Slot A04
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 334-10	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)	
130.00	130.00	0.00	0.00	Start Build 3.00
1,560.30	1,430.30	-485.63	159.03	Hold 42.91° Inc, 161.87° Az
3,476.16	2,833.55	-1,725.25	564.98	Start Drop -2.00°/100
5,621.61	4,784.00	-2,453.70	803.52	Vertical
5,721.61	4,884.00	-2,453.70	803.52	Top Gas
7,571.61	6,734.00	-2,453.70	803.52	TD at 7571.61