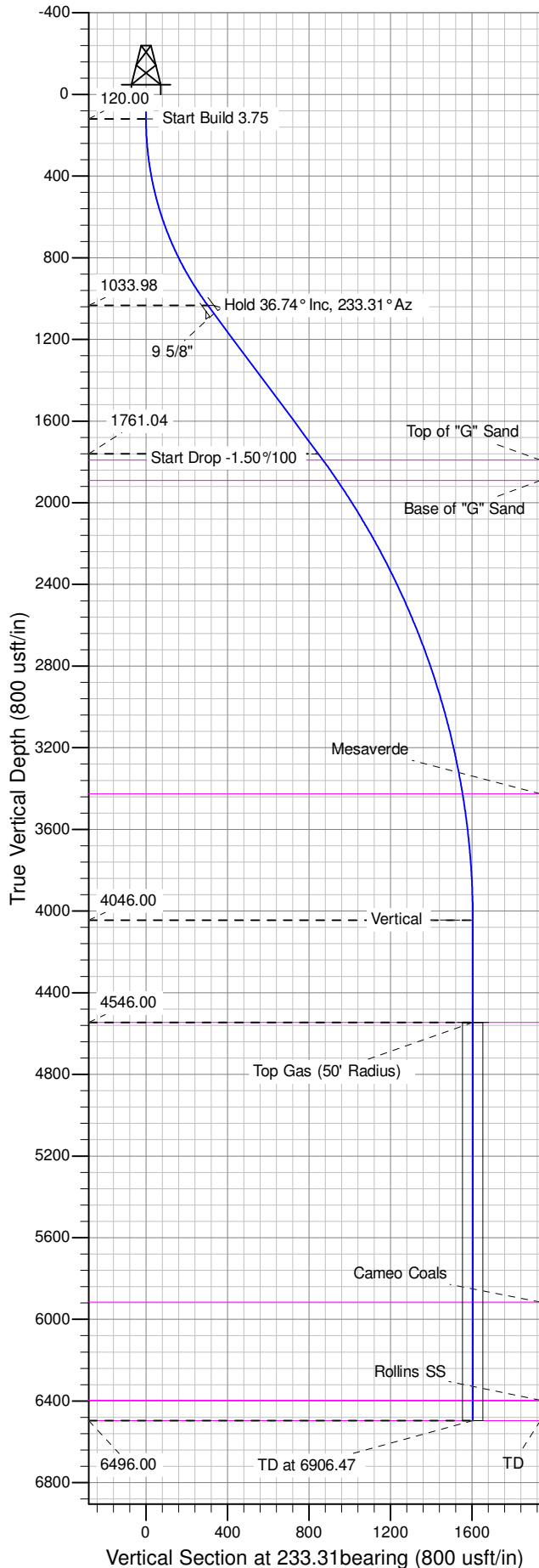
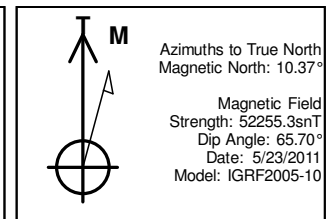
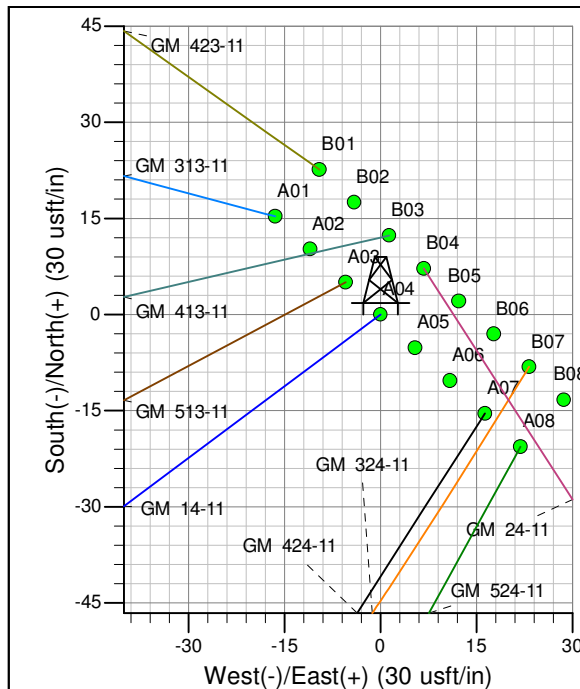
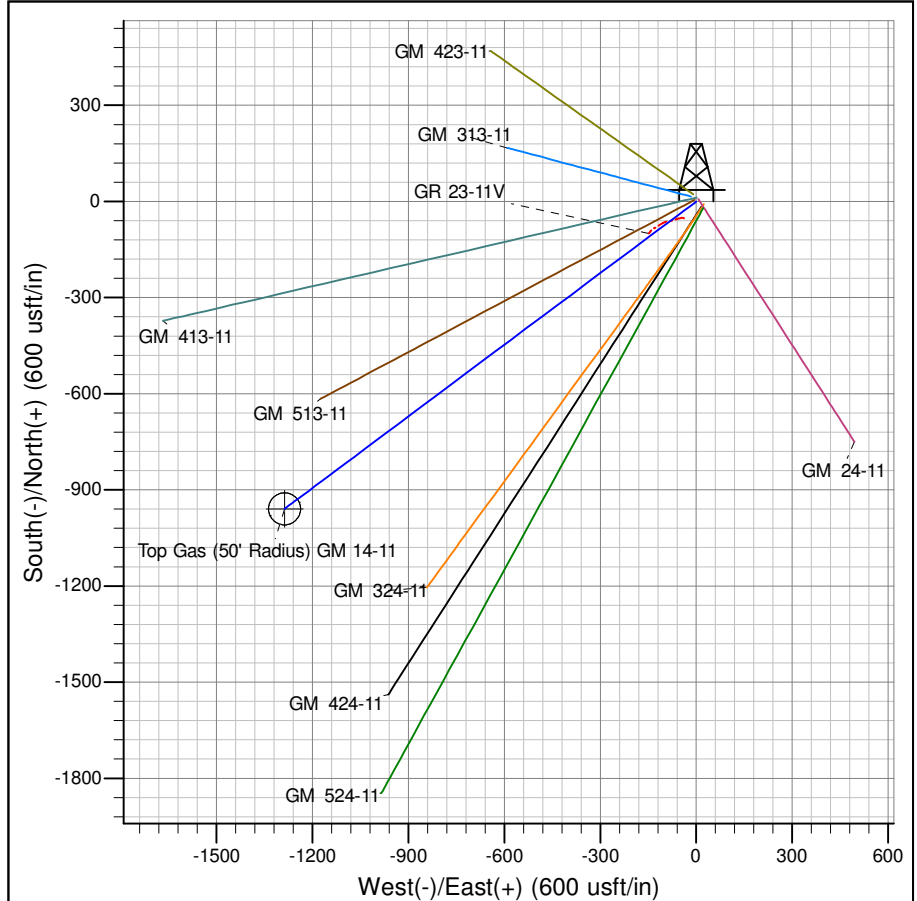




Well Name: GM 14-11
Surface Location: GR 23-11V Pad
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
Ground Elevation: 5793.00
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.00 0.00 1599223.70000 2271915.80000 39.450268 -108.078696 A04
KELLY BUSHING @ 5817.00usft (H&P 318 (24' 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 3.75	
1033.98	1099.76	36.74	233.31	-181.34	-243.39	303.52	303.52	Hold 36.74° Inc, 233.31° Az	
1761.04	2007.06	36.74	233.31	-505.61	-678.62	846.27	846.27	Start Drop -1.50%/100	
4046.00	4456.47	0.00	0.00	-958.96	-1287.10	1605.07	1605.07	Vertical	
4546.00	4956.47	0.00	0.00	-958.96	-1287.10	1605.07	1605.07	Top Gas	
6496.00	6906.47	0.00	0.00	-958.96	-1287.10	1605.07	1605.07	TD at 6906.47	



Project: GV 11-07S-096W
Site: GR 23-11V Pad
Well: GM 14-11
Design #2 22Jul14 mab

PICEANCE VLY NAD 83

GV 11-07S-096W

GR 23-11V Pad

GM 14-11 - Slot A04

Wellbore #1

Plan: Design #2 22Jul14 mab

Standard Planning Report - Geographic

11 September, 2014

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 14-11 - Slot A04
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5817.00usft (H&P 318 (24' RKB) mab)
Project:	GV 11-07S-096W	MD Reference:	KELLY BUSHING @ 5817.00usft (H&P 318 (24' RKB) mab)
Site:	GR 23-11V Pad	North Reference:	True
Well:	GM 14-11	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 22Jul14 mab		

Project	GV 11-07S-096W, Garfield County, CO, 11-07S-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	GR 23-11V Pad			
Site Position:		Northing:	1,599,207.80000 usft	Latitude: 39.450226
From: Map		Easting:	2,271,931.70000 usft	Longitude: -108.078638
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence: -1.63 °

Well	GM 14-11 - Slot A04			
Well Position	+N/-S	0.00 usft	Northing:	1,599,223.70000 usft
	+E/-W	0.00 usft	Easting:	2,271,915.80000 usft
Position Uncertainty	0.00 usft		Wellhead Elevation:	
			Ground Level:	5,793.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2005-10	5/23/2011	10.37	65.70	52,255

Design	Design #2 22Jul14 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	233.31

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	
1,099.76	36.74	233.31	1,033.98	-181.34	-243.39	3.75	3.75	0.00	233.31	
2,007.06	36.74	233.31	1,761.04	-505.61	-678.62	0.00	0.00	0.00	0.00	
4,456.47	0.00	0.00	4,046.00	-958.96	-1,287.10	1.50	-1.50	0.00	180.00	
4,956.47	0.00	0.00	4,546.00	-958.96	-1,287.10	0.00	0.00	0.00	0.00	Top Gas (50' Radius)
6,906.47	0.00	0.00	6,496.00	-958.96	-1,287.10	0.00	0.00	0.00	0.00	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 14-11 - Slot A04
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5817.00usft (H&P 318 (24' RKB) mab)
Project:	GV 11-07S-096W	MD Reference:	KELLY BUSHING @ 5817.00usft (H&P 318 (24' RKB) mab)
Site:	GR 23-11V Pad	North Reference:	True
Well:	GM 14-11	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 22Jul14 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	1,599,223.70000	2,271,915.80000	39.450268	-108.078696	
120.00	0.00	0.00	120.00	0.00	0.00	1,599,223.70000	2,271,915.80000	39.450268	-108.078696	
Start Build 3.75										
200.00	3.00	233.31	199.96	-1.25	-1.68	1,599,222.49719	2,271,914.08614	39.450265	-108.078702	
400.00	10.50	233.31	398.44	-15.29	-20.52	1,599,209.00340	2,271,894.85906	39.450226	-108.078769	
600.00	18.00	233.31	592.14	-44.68	-59.97	1,599,180.74397	2,271,854.59266	39.450146	-108.078908	
800.00	25.50	233.31	777.77	-88.92	-119.35	1,599,138.20242	2,271,793.97590	39.450024	-108.079119	
1,000.00	33.00	233.31	952.15	-147.27	-197.66	1,599,082.10664	2,271,714.04595	39.449864	-108.079396	
1,099.76	36.74	233.31	1,033.98	-181.34	-243.39	1,599,049.34856	2,271,667.36949	39.449770	-108.079558	
Hold 36.74° Inc, 233.31° Az										
1,149.76	36.74	233.31	1,074.05	-199.21	-267.38	1,599,032.16847	2,271,642.88985	39.449721	-108.079643	
9 5/8"										
1,200.00	36.74	233.31	1,114.31	-217.16	-291.48	1,599,014.90476	2,271,618.29107	39.449672	-108.079728	
1,400.00	36.74	233.31	1,274.58	-288.64	-387.42	1,598,946.17977	2,271,520.36597	39.449476	-108.080068	
1,600.00	36.74	233.31	1,434.85	-360.12	-483.36	1,598,877.45479	2,271,422.44086	39.449279	-108.080408	
1,800.00	36.74	233.31	1,595.12	-431.60	-579.29	1,598,808.72980	2,271,324.51576	39.449083	-108.080747	
2,000.00	36.74	233.31	1,755.38	-503.08	-675.23	1,598,740.00481	2,271,226.59065	39.448887	-108.081087	
2,007.06	36.74	233.31	1,761.04	-505.61	-678.62	1,598,737.57863	2,271,223.13363	39.448880	-108.081099	
Start Drop -1.50°/100										
2,044.31	36.18	233.31	1,791.00	-518.83	-696.37	1,598,724.86273	2,271,205.01495	39.448844	-108.081162	
Top of "G" Sand										
2,166.79	34.35	233.31	1,891.00	-561.08	-753.07	1,598,684.24521	2,271,147.13972	39.448728	-108.081363	
Base of "G" Sand										
2,200.00	33.85	233.31	1,918.50	-572.20	-768.00	1,598,673.55059	2,271,131.90113	39.448697	-108.081416	
2,400.00	30.85	233.31	2,087.45	-636.13	-853.81	1,598,612.08821	2,271,044.32437	39.448522	-108.081719	
2,600.00	27.85	233.31	2,261.76	-694.68	-932.40	1,598,555.78912	2,270,964.10473	39.448361	-108.081998	
2,800.00	24.85	233.31	2,440.97	-747.71	-1,003.57	1,598,504.80765	2,270,891.46206	39.448215	-108.082250	
3,000.00	21.85	233.31	2,624.57	-795.06	-1,067.12	1,598,459.28352	2,270,826.59548	39.448085	-108.082475	
3,200.00	18.85	233.31	2,812.07	-836.60	-1,122.88	1,598,419.34152	2,270,769.68279	39.447971	-108.082672	
3,400.00	15.85	233.31	3,002.95	-872.22	-1,170.69	1,598,385.09113	2,270,720.87997	39.447874	-108.082841	
3,600.00	12.85	233.31	3,196.69	-901.83	-1,210.43	1,598,356.62623	2,270,680.32079	39.447792	-108.082982	
3,800.00	9.85	233.31	3,392.76	-925.34	-1,241.98	1,598,334.02482	2,270,648.11642	39.447728	-108.083094	
3,833.71	9.34	233.31	3,426.00	-928.69	-1,246.49	1,598,330.79710	2,270,643.51728	39.447718	-108.083110	
Mesaverde										
4,000.00	6.85	233.31	3,590.62	-942.68	-1,265.26	1,598,317.34887	2,270,624.35513	39.447680	-108.083176	
4,200.00	3.85	233.31	3,789.72	-953.82	-1,280.20	1,598,306.64409	2,270,609.10206	39.447650	-108.083229	
4,400.00	0.85	233.31	3,989.53	-958.71	-1,286.77	1,598,301.93980	2,270,602.39900	39.447636	-108.083252	
4,456.47	0.00	0.00	4,046.00	-958.96	-1,287.10	1,598,301.70004	2,270,602.05736	39.447635	-108.083254	
Vertical										
4,600.00	0.00	0.00	4,189.53	-958.96	-1,287.10	1,598,301.70004	2,270,602.05736	39.447635	-108.083254	
4,800.00	0.00	0.00	4,389.53	-958.96	-1,287.10	1,598,301.70004	2,270,602.05736	39.447635	-108.083254	
4,956.47	0.00	0.00	4,546.00	-958.96	-1,287.10	1,598,301.70004	2,270,602.05736	39.447635	-108.083254	
Top Gas - Approx. Top Gas										
5,000.00	0.00	0.00	4,589.53	-958.96	-1,287.10	1,598,301.70004	2,270,602.05736	39.447635	-108.083254	
5,200.00	0.00	0.00	4,789.53	-958.96	-1,287.10	1,598,301.70004	2,270,602.05736	39.447635	-108.083254	
5,400.00	0.00	0.00	4,989.53	-958.96	-1,287.10	1,598,301.70004	2,270,602.05736	39.447635	-108.083254	
5,600.00	0.00	0.00	5,189.53	-958.96	-1,287.10	1,598,301.70004	2,270,602.05736	39.447635	-108.083254	
5,800.00	0.00	0.00	5,389.53	-958.96	-1,287.10	1,598,301.70004	2,270,602.05736	39.447635	-108.083254	
6,000.00	0.00	0.00	5,589.53	-958.96	-1,287.10	1,598,301.70004	2,270,602.05736	39.447635	-108.083254	
6,200.00	0.00	0.00	5,789.53	-958.96	-1,287.10	1,598,301.70004	2,270,602.05736	39.447635	-108.083254	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 14-11 - Slot A04
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5817.00usft (H&P 318 (24' RKB) mab)
Project:	GV 11-07S-096W	MD Reference:	KELLY BUSHING @ 5817.00usft (H&P 318 (24' RKB) mab)
Site:	GR 23-11V Pad	North Reference:	True
Well:	GM 14-11	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 22Jul14 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
6,326.47	0.00	0.00	5,916.00	-958.96	-1,287.10	1,598,301.70004	2,270,602.05736	39.447635	-108.083254
Cameo Coals									
6,400.00	0.00	0.00	5,989.53	-958.96	-1,287.10	1,598,301.70004	2,270,602.05736	39.447635	-108.083254
6,600.00	0.00	0.00	6,189.53	-958.96	-1,287.10	1,598,301.70004	2,270,602.05736	39.447635	-108.083254
6,800.00	0.00	0.00	6,389.53	-958.96	-1,287.10	1,598,301.70004	2,270,602.05736	39.447635	-108.083254
6,806.47	0.00	0.00	6,396.00	-958.96	-1,287.10	1,598,301.70004	2,270,602.05736	39.447635	-108.083254
Rollins SS									
6,906.47	0.00	0.00	6,496.00	-958.96	-1,287.10	1,598,301.70004	2,270,602.05736	39.447635	-108.083254
TD at 6906.47 - 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) G1 - plan hits target center - Circle (radius 50.00)	0.00	0.00	4,546.00	-958.96	-1,287.10	1,598,301.70004	2,270,602.05736	39.447635	-108.083254

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,149.76	1,074.05	9 5/8"	9.625	13.500	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (bearing)	
2,044.31	1,791.00	Top of "G" Sand				
2,166.79	1,891.00	Base of "G" Sand				
3,833.71	3,426.00	Mesaverde				
4,956.47	4,546.00	Approx. Top Gas				
6,326.47	5,916.00	Cameo Coals				
6,806.47	6,396.00	Rollins SS				
6,906.47	6,496.00	TD				

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 14-11 - Slot A04
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5817.00usft (H&P 318 (24' RKB) mab)
Project:	GV 11-07S-096W	MD Reference:	KELLY BUSHING @ 5817.00usft (H&P 318 (24' RKB) mab)
Site:	GR 23-11V Pad	North Reference:	True
Well:	GM 14-11	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 22Jul14 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 3.75
1,099.76	1,033.98	-181.34	-243.39	Hold 36.74° Inc, 233.31° Az
2,007.06	1,761.04	-505.61	-678.62	Start Drop -1.50°/100
4,456.47	4,046.00	-958.96	-1,287.10	Vertical
4,956.47	4,546.00	-958.96	-1,287.10	Top Gas
6,906.47	6,496.00	-958.96	-1,287.10	TD at 6906.47