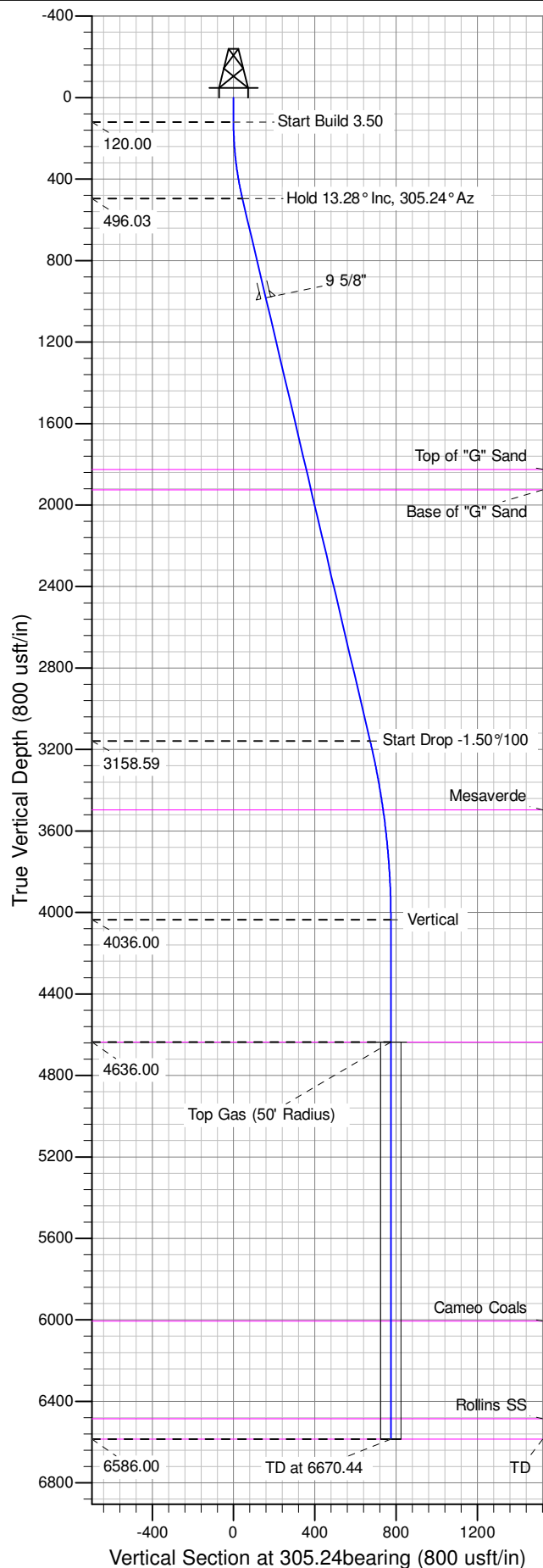
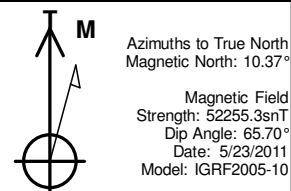
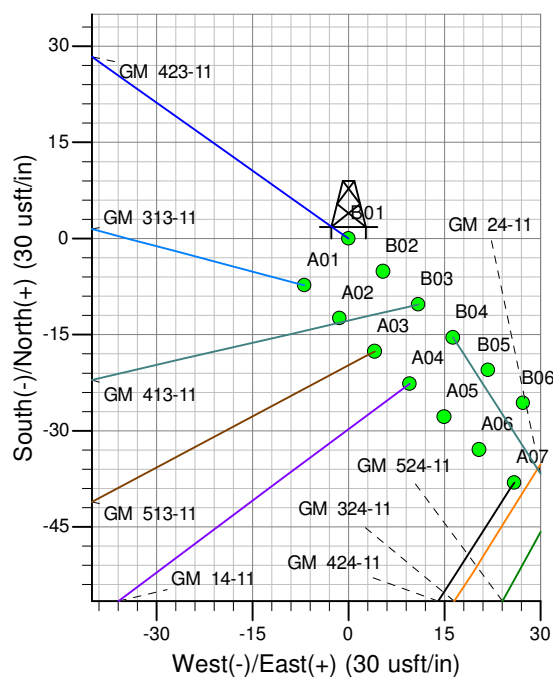
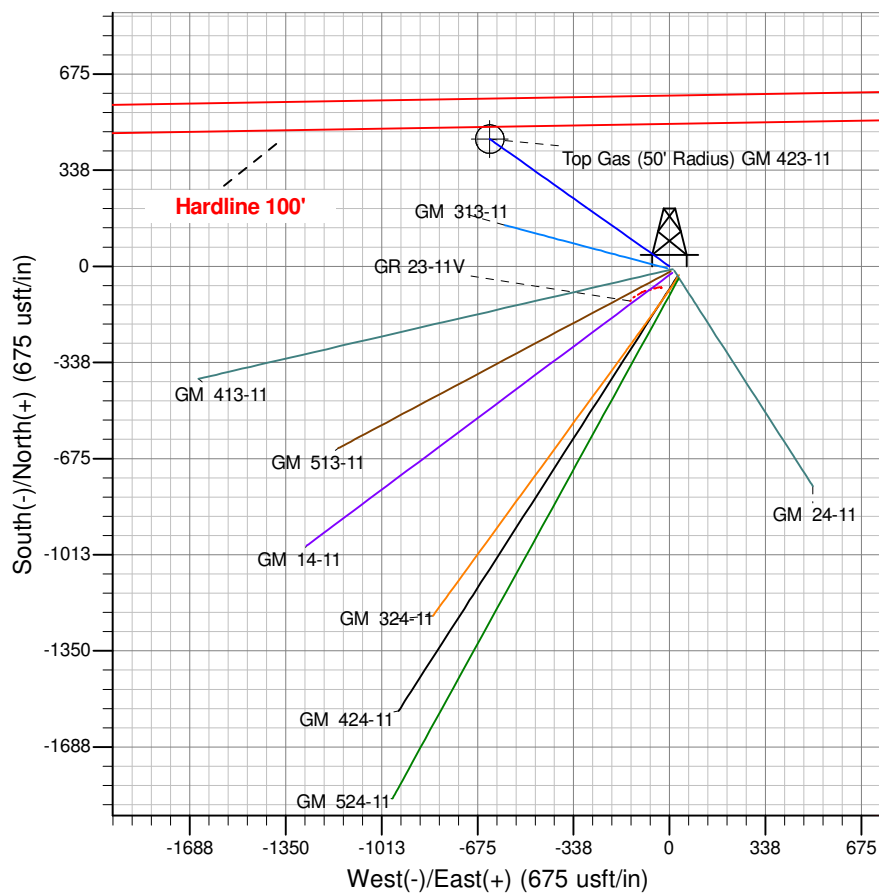




Well Name: GM 423-11
Surface Location: GR 23-11V Pad
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
Ground Elevation: 5793.00
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.00 0.00 1599246.60000 2271906.90000 39.450330 -108.078730 B01
KELLY BUSHING @ 5817.00usft (H&P 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 3.50	
496.03	499.42	13.28	305.24	25.25	-35.75	43.77	43.77	Hold 13.28° Inc, 305.24° Az	
3158.59	3235.13	13.28	305.24	387.81	-549.02	672.18	672.18	Start Drop -1.50%/100	
4036.00	4120.44	0.00	0.00	446.74	-632.45	774.32	774.32	Vertical	
4636.00	4720.44	0.00	0.00	446.74	-632.45	774.32	774.32	Top Gas	
6586.00	6670.44	0.00	0.00	446.74	-632.45	774.32	774.32	TD at 6670.44	



Project: GV 11-07S-096W
Site: GR 23-11V Pad
Well: GM 423-11
Design #2 22Jul14 mab

PICEANCE VLY NAD 83

GV 11-07S-096W

GR 23-11V Pad

GM 423-11 - Slot B01

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 423-11 - Slot B01
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 423-11	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 423-11 - Slot B01			
Well Position	+N/-S	0.00 usft	Northing:	1,599,246.60000 usft
	+E/-W	0.00 usft	Easting:	2,271,906.90000 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	305.24

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	
499.42	13.28	305.24	496.03	25.25	-35.75	3.50	3.50	0.00	305.24	
3,235.13	13.28	305.24	3,158.59	387.81	-549.02	0.00	0.00	0.00	0.00	
4,120.44	0.00	0.00	4,036.00	446.74	-632.45	1.50	-1.50	0.00	180.00	
4,720.44	0.00	0.00	4,636.00	446.74	-632.45	0.00	0.00	0.00	0.00	Top Gas (50' Radius)
6,670.45	0.00	0.00	6,586.00	446.74	-632.45	0.00	0.00	0.00	0.00	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 423-11 - Slot B01
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 423-11	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	1,599,246.60000	2,271,906.90000	39.450330	-108.078730	
120.00	0.00	0.00	120.00	0.00	0.00	1,599,246.60000	2,271,906.90000	39.450330	-108.078730	
Start Build 3.50										
200.00	2.80	305.24	199.97	1.13	-1.60	1,599,247.77238	2,271,905.33642	39.450333	-108.078736	
400.00	9.80	305.24	398.64	13.78	-19.51	1,599,260.92948	2,271,887.78898	39.450368	-108.078799	
499.42	13.28	305.24	496.03	25.25	-35.75	1,599,272.85834	2,271,871.87963	39.450400	-108.078856	
Hold 13.28° Inc, 305.24° Az										
600.00	13.28	305.24	593.92	38.58	-54.62	1,599,286.71767	2,271,853.39564	39.450436	-108.078923	
800.00	13.28	305.24	788.57	65.09	-92.15	1,599,314.27629	2,271,816.64110	39.450509	-108.079056	
1,000.00	13.28	305.24	983.23	91.60	-129.67	1,599,341.83491	2,271,779.88655	39.450582	-108.079189	
9 5/8"										
1,200.00	13.28	305.24	1,177.88	118.10	-167.19	1,599,369.39354	2,271,743.13201	39.450655	-108.079322	
1,400.00	13.28	305.24	1,372.53	144.61	-204.72	1,599,396.95216	2,271,706.37746	39.450727	-108.079455	
1,600.00	13.28	305.24	1,567.18	171.11	-242.24	1,599,424.51079	2,271,669.62292	39.450800	-108.079588	
1,800.00	13.28	305.24	1,761.84	197.62	-279.77	1,599,452.06940	2,271,632.86837	39.450873	-108.079721	
1,865.93	13.28	305.24	1,826.00	206.36	-292.13	1,599,461.15379	2,271,620.75265	39.450897	-108.079764	
Top of "G" Sand										
1,968.68	13.28	305.24	1,926.00	219.97	-311.41	1,599,475.31168	2,271,601.87047	39.450934	-108.079833	
Base of "G" Sand										
2,000.00	13.28	305.24	1,956.49	224.12	-317.29	1,599,479.62802	2,271,596.11383	39.450946	-108.079853	
2,200.00	13.28	305.24	2,151.14	250.63	-354.81	1,599,507.18665	2,271,559.35929	39.451018	-108.079986	
2,400.00	13.28	305.24	2,345.79	277.13	-392.34	1,599,534.74527	2,271,522.60475	39.451091	-108.080119	
2,600.00	13.28	305.24	2,540.44	303.64	-429.86	1,599,562.30390	2,271,485.85020	39.451164	-108.080252	
2,800.00	13.28	305.24	2,735.10	330.15	-467.38	1,599,589.86252	2,271,449.09566	39.451237	-108.080385	
3,000.00	13.28	305.24	2,929.75	356.65	-504.91	1,599,617.42114	2,271,412.34111	39.451309	-108.080518	
3,200.00	13.28	305.24	3,124.40	383.16	-542.43	1,599,644.97977	2,271,375.58657	39.451382	-108.080651	
3,235.13	13.28	305.24	3,158.59	387.81	-549.02	1,599,649.82088	2,271,369.13005	39.451395	-108.080674	
Start Drop -1.50°/100										
3,400.00	10.81	305.24	3,319.82	407.66	-577.12	1,599,670.45439	2,271,341.61142	39.451449	-108.080774	
3,578.63	8.13	305.24	3,496.00	424.61	-601.11	1,599,688.07747	2,271,318.10777	39.451496	-108.080858	
Mesaverde										
3,600.00	7.81	305.24	3,517.16	426.32	-603.53	1,599,689.85426	2,271,315.73809	39.451501	-108.080867	
3,800.00	4.81	305.24	3,715.93	438.99	-621.47	1,599,703.03194	2,271,298.16321	39.451535	-108.080931	
4,000.00	1.81	305.24	3,915.58	445.65	-630.90	1,599,709.95130	2,271,288.93496	39.451554	-108.080964	
4,120.44	0.00	0.00	4,036.00	446.74	-632.45	1,599,711.09033	2,271,287.41585	39.451557	-108.080969	
Vertical										
4,200.00	0.00	0.00	4,115.56	446.74	-632.45	1,599,711.09033	2,271,287.41585	39.451557	-108.080969	
4,400.00	0.00	0.00	4,315.56	446.74	-632.45	1,599,711.09033	2,271,287.41585	39.451557	-108.080969	
4,600.00	0.00	0.00	4,515.56	446.74	-632.45	1,599,711.09033	2,271,287.41585	39.451557	-108.080969	
4,720.44	0.00	0.00	4,636.00	446.74	-632.45	1,599,711.09033	2,271,287.41585	39.451557	-108.080969	
Top Gas - Approx. Top Gas										
4,800.00	0.00	0.00	4,715.56	446.74	-632.45	1,599,711.09033	2,271,287.41585	39.451557	-108.080969	
5,000.00	0.00	0.00	4,915.56	446.74	-632.45	1,599,711.09033	2,271,287.41585	39.451557	-108.080969	
5,200.00	0.00	0.00	5,115.56	446.74	-632.45	1,599,711.09033	2,271,287.41585	39.451557	-108.080969	
5,400.00	0.00	0.00	5,315.56	446.74	-632.45	1,599,711.09033	2,271,287.41585	39.451557	-108.080969	
5,600.00	0.00	0.00	5,515.56	446.74	-632.45	1,599,711.09033	2,271,287.41585	39.451557	-108.080969	
5,800.00	0.00	0.00	5,715.56	446.74	-632.45	1,599,711.09033	2,271,287.41585	39.451557	-108.080969	
6,000.00	0.00	0.00	5,915.56	446.74	-632.45	1,599,711.09033	2,271,287.41585	39.451557	-108.080969	
6,090.45	0.00	0.00	6,006.00	446.74	-632.45	1,599,711.09033	2,271,287.41585	39.451557	-108.080969	
Cameo Coals										
6,200.00	0.00	0.00	6,115.56	446.74	-632.45	1,599,711.09033	2,271,287.41585	39.451557	-108.080969	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 423-11 - Slot B01
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 423-11	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
6,400.00	0.00	0.00	6,315.56	446.74	-632.45	1,599,711.09033	2,271,287.41585	39.451557	-108.080969
6,570.45	0.00	0.00	6,486.00	446.74	-632.45	1,599,711.09033	2,271,287.41585	39.451557	-108.080969
Rollins SS									
6,600.00	0.00	0.00	6,515.56	446.74	-632.45	1,599,711.09033	2,271,287.41585	39.451557	-108.080969
6,670.45	0.00	0.00	6,586.00	446.74	-632.45	1,599,711.09033	2,271,287.41585	39.451557	-108.080969
TD at 6670.44 - 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	4,636.00	446.74	-632.45	1,599,711.09033	2,271,287.41585	39.451557	-108.080969

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,000.00	983.23	9 5/8"	9.625	13.500	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (bearing)	
1,865.93	1,826.00	Top of "G" Sand				
1,968.68	1,926.00	Base of "G" Sand				
3,578.63	3,496.00	Mesaverde				
4,720.44	4,636.00	Approx. Top Gas				
6,090.45	6,006.00	Cameo Coals				
6,570.45	6,486.00	Rollins SS				
6,670.45	6,586.00	TD				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
120.00	120.00	0.00	0.00	Start Build 3.50	
499.42	496.03	25.25	-35.75	Hold 13.28° Inc, 305.24° Az	
3,235.13	3,158.59	387.81	-549.02	Start Drop -1.50°/100	
4,120.44	4,036.00	446.74	-632.45	Vertical	
4,720.44	4,636.00	446.74	-632.45	Top Gas	
6,670.45	6,586.00	446.74	-632.45	TD at 6670.44	