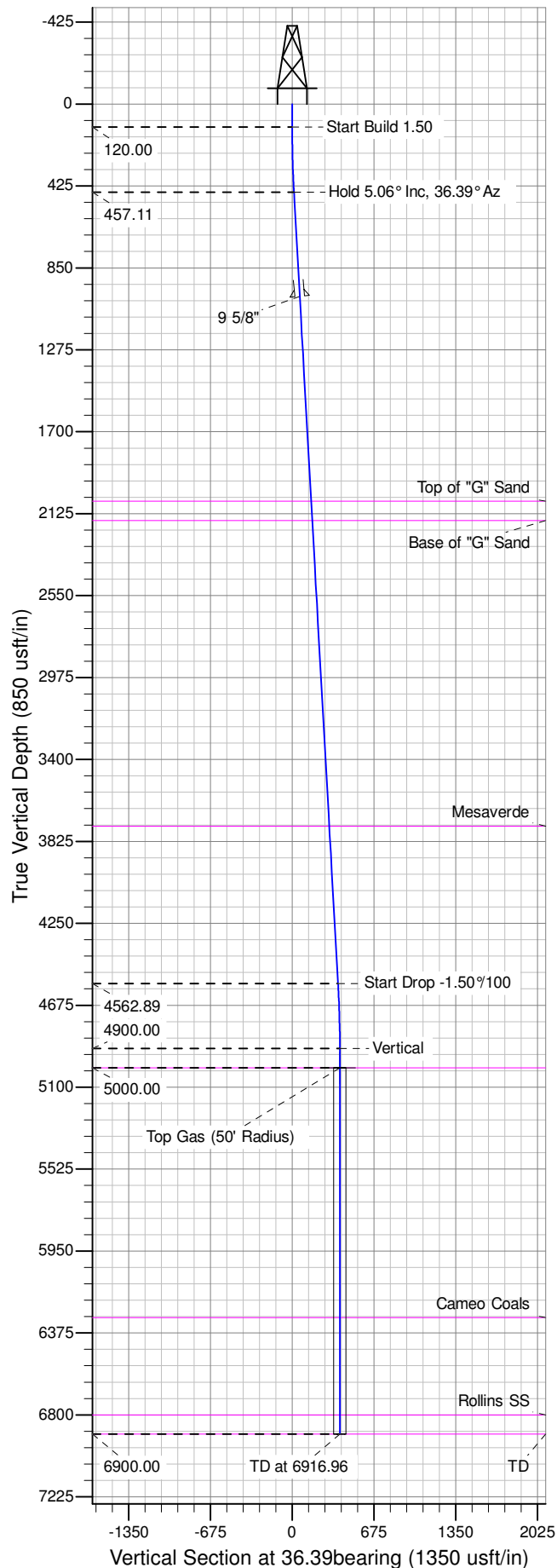




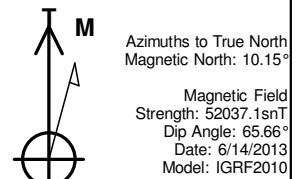
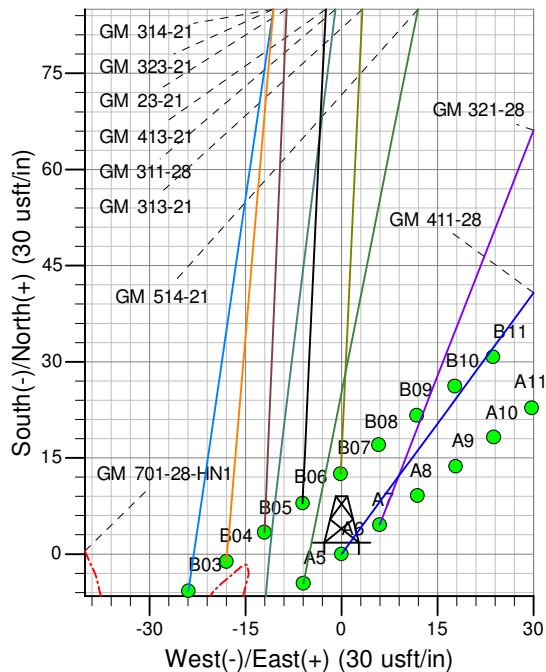
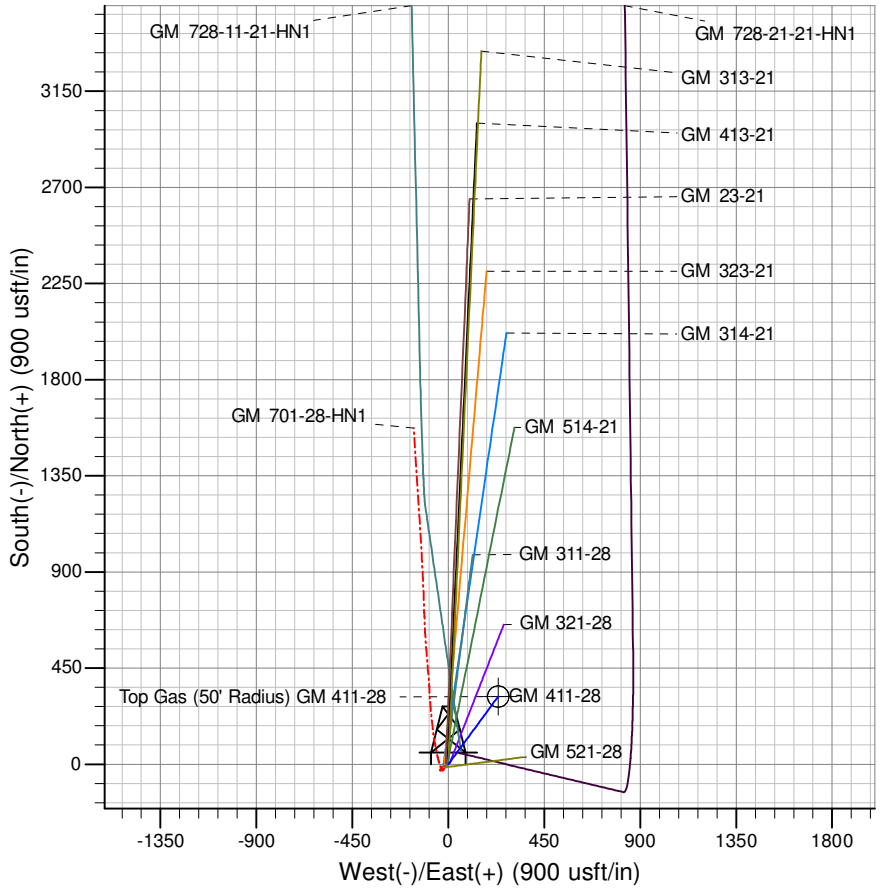
Well Name: GM 411-28
Surface Location: GM 11-28 Pad
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
Ground Elevation: 5604.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1617269.26	2260942.97	39.49893	-108.11938	A6

KELLY BUSHING @ 5630.00usft (Nabors 573 (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 1.50
457.11	457.54	5.06	36.39	12.00	8.84	14.90	14.90	Hold 5.06° Inc, 36.39° Az
4562.89	4579.42	5.06	36.39	304.83	224.66	378.68	378.68	Start Drop -1.50°/100
4900.00	4916.96	0.00	0.00	316.83	233.50	393.58	393.58	Vertical
5000.00	5016.96	0.00	0.00	316.83	233.50	393.58	393.58	Top Gas
6900.00	6916.96	0.00	0.00	316.83	233.50	393.58	393.58	TD at 6916.96



Project: GV 28-06S-096W
Site: GM 11-28 Pad
Well: GM 411-28
Plan #2 07Jul14 kjs

PICEANCE VLY NAD 83

GV 28-06S-096W

GM 11-28 Pad

GM 411-28 - Slot A6

Wellbore #1

Plan: Plan #2 07Jul14 kjs

Standard Planning Report - Geographic

28 August, 2014

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 411-28 - Slot A6
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5630.00usft (Nabors 573 (26' RKB) mab)
Project:	GV 28-06S-096W	MD Reference:	KELLY BUSHING @ 5630.00usft (Nabors 573 (26' RKB) mab)
Site:	GM 11-28 Pad	North Reference:	True
Well:	GM 411-28	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 07Jul14 kjs		

Project	GV 28-06S-096W, 28-06S-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	GM 11-28 Pad			
Site Position:		Northing:	1,617,299.30000 usft	Latitude: 39.49901
From: Map		Easting:	2,260,967.51000 usft	Longitude: -108.11930
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence: -1.65 °

Well	GM 411-28 - Slot A6			
Well Position	+N/-S	0.00 usft	Northing:	1,617,269.26000 usft
	+E/-W	0.00 usft	Easting:	2,260,942.97000 usft
Position Uncertainty	0.00 usft		Wellhead Elevation:	
			Ground Level:	5,604.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	6/14/2013	10.15	65.66	52,037

Design	Plan #2 07Jul14 kjs			
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	36.39

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	
457.54	5.06	36.39	457.11	12.00	8.84	1.50	1.50	0.00	36.39	
4,579.42	5.06	36.39	4,562.89	304.83	224.66	0.00	0.00	0.00	0.00	
4,916.96	0.00	0.00	4,900.00	316.83	233.50	1.50	-1.50	0.00	180.00	
5,016.96	0.00	0.00	5,000.00	316.83	233.50	0.00	0.00	0.00	0.00	Top Gas (50' Radius)
6,916.96	0.00	0.00	6,900.00	316.83	233.50	0.00	0.00	0.00	0.00	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 411-28 - Slot A6
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5630.00usft (Nabors 573 (26' RKB) mab)
Project:	GV 28-06S-096W	MD Reference:	KELLY BUSHING @ 5630.00usft (Nabors 573 (26' RKB) mab)
Site:	GM 11-28 Pad	North Reference:	True
Well:	GM 411-28	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 07Jul14 kjs		

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	1,617,269.26000	2,260,942.97000	39.49893	-108.11938	
120.00	0.00	0.00	120.00	0.00	0.00	1,617,269.26000	2,260,942.97000	39.49893	-108.11938	
Start Build 1.50										
200.00	1.20	36.39	199.99	0.67	0.50	1,617,269.91973	2,260,943.48621	39.49893	-108.11938	
400.00	4.20	36.39	399.75	8.26	6.09	1,617,277.33843	2,260,949.29106	39.49895	-108.11936	
457.54	5.06	36.39	457.11	12.00	8.84	1,617,280.99774	2,260,952.15432	39.49896	-108.11935	
Hold 5.06° Inc, 36.39° Az										
600.00	5.06	36.39	599.01	22.12	16.30	1,617,290.89878	2,260,959.90150	39.49899	-108.11932	
800.00	5.06	36.39	798.22	36.33	26.77	1,617,304.79930	2,260,970.77812	39.49903	-108.11929	
1,000.00	5.06	36.39	997.44	50.54	37.24	1,617,318.69983	2,260,981.65474	39.49907	-108.11925	
9 5/8"										
1,200.00	5.06	36.39	1,196.66	64.75	47.72	1,617,332.60035	2,260,992.53135	39.49911	-108.11921	
1,400.00	5.06	36.39	1,395.88	78.95	58.19	1,617,346.50087	2,261,003.40797	39.49915	-108.11918	
1,600.00	5.06	36.39	1,595.10	93.16	68.66	1,617,360.40139	2,261,014.28459	39.49919	-108.11914	
1,800.00	5.06	36.39	1,794.32	107.37	79.13	1,617,374.30192	2,261,025.16120	39.49923	-108.11910	
2,000.00	5.06	36.39	1,993.54	121.58	89.60	1,617,388.20244	2,261,036.03782	39.49926	-108.11906	
2,067.72	5.06	36.39	2,061.00	126.39	93.15	1,617,392.90930	2,261,039.72075	39.49928	-108.11905	
Top of "G" Sand										
2,168.11	5.06	36.39	2,161.00	133.52	98.41	1,617,399.88678	2,261,045.18036	39.49930	-108.11903	
Base of "G" Sand										
2,200.00	5.06	36.39	2,192.76	135.79	100.08	1,617,402.10296	2,261,046.91444	39.49930	-108.11903	
2,400.00	5.06	36.39	2,391.98	150.00	110.55	1,617,416.00348	2,261,057.79105	39.49934	-108.11899	
2,600.00	5.06	36.39	2,591.20	164.21	121.02	1,617,429.90400	2,261,068.66767	39.49938	-108.11895	
2,800.00	5.06	36.39	2,790.42	178.42	131.49	1,617,443.80453	2,261,079.54429	39.49942	-108.11892	
3,000.00	5.06	36.39	2,989.64	192.63	141.96	1,617,457.70505	2,261,090.42090	39.49946	-108.11888	
3,200.00	5.06	36.39	3,188.86	206.83	152.43	1,617,471.60557	2,261,101.29752	39.49950	-108.11884	
3,400.00	5.06	36.39	3,388.08	221.04	162.91	1,617,485.50609	2,261,112.17414	39.49954	-108.11881	
3,600.00	5.06	36.39	3,587.30	235.25	173.38	1,617,499.40662	2,261,123.05075	39.49958	-108.11877	
3,759.32	5.06	36.39	3,746.00	246.57	181.72	1,617,510.47996	2,261,131.71521	39.49961	-108.11874	
Mesaverde										
3,800.00	5.06	36.39	3,786.52	249.46	183.85	1,617,513.30714	2,261,133.92737	39.49962	-108.11873	
4,000.00	5.06	36.39	3,985.74	263.67	194.32	1,617,527.20766	2,261,144.80399	39.49965	-108.11869	
4,200.00	5.06	36.39	4,184.96	277.88	204.79	1,617,541.10818	2,261,155.68060	39.49969	-108.11866	
4,400.00	5.06	36.39	4,384.18	292.09	215.27	1,617,555.00870	2,261,166.55722	39.49973	-108.11862	
4,579.42	5.06	36.39	4,562.89	304.83	224.66	1,617,567.47869	2,261,176.31449	39.49977	-108.11859	
Start Drop -1.50°/100										
4,600.00	4.75	36.39	4,583.40	306.25	225.70	1,617,568.86572	2,261,177.39979	39.49977	-108.11858	
4,800.00	1.75	36.39	4,783.06	315.39	232.44	1,617,577.80630	2,261,184.39545	39.49980	-108.11856	
4,916.96	0.00	0.00	4,900.00	316.83	233.50	1,617,579.21643	2,261,185.49882	39.49980	-108.11856	
Vertical										
5,000.00	0.00	0.00	4,983.04	316.83	233.50	1,617,579.21643	2,261,185.49882	39.49980	-108.11856	
5,016.96	0.00	0.00	5,000.00	316.83	233.50	1,617,579.21643	2,261,185.49882	39.49980	-108.11856	
Top Gas - Approx. Top Gas										
5,200.00	0.00	0.00	5,183.04	316.83	233.50	1,617,579.21643	2,261,185.49882	39.49980	-108.11856	
5,400.00	0.00	0.00	5,383.04	316.83	233.50	1,617,579.21643	2,261,185.49882	39.49980	-108.11856	
5,600.00	0.00	0.00	5,583.04	316.83	233.50	1,617,579.21643	2,261,185.49882	39.49980	-108.11856	
5,800.00	0.00	0.00	5,783.04	316.83	233.50	1,617,579.21643	2,261,185.49882	39.49980	-108.11856	
6,000.00	0.00	0.00	5,983.04	316.83	233.50	1,617,579.21643	2,261,185.49882	39.49980	-108.11856	
6,200.00	0.00	0.00	6,183.04	316.83	233.50	1,617,579.21643	2,261,185.49882	39.49980	-108.11856	
6,312.96	0.00	0.00	6,296.00	316.83	233.50	1,617,579.21643	2,261,185.49882	39.49980	-108.11856	
Cameo Coals										

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 411-28 - Slot A6
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5630.00usft (Nabors 573 (26' RKB) mab)
Project:	GV 28-06S-096W	MD Reference:	KELLY BUSHING @ 5630.00usft (Nabors 573 (26' RKB) mab)
Site:	GM 11-28 Pad	North Reference:	True
Well:	GM 411-28	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 07Jul14 kjs		

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	6,383.04	316.83	233.50	1,617,579.21643	2,261,185.49882	39.49980	-108.11856
6,600.00	0.00	0.00	6,583.04	316.83	233.50	1,617,579.21643	2,261,185.49882	39.49980	-108.11856
6,800.00	0.00	0.00	6,783.04	316.83	233.50	1,617,579.21643	2,261,185.49882	39.49980	-108.11856
6,816.96	0.00	0.00	6,800.00	316.83	233.50	1,617,579.21643	2,261,185.49882	39.49980	-108.11856
Rollins SS									
6,916.96	0.00	0.00	6,900.00	316.83	233.50	1,617,579.21643	2,261,185.49882	39.49980	-108.11856
TD at 6916.96 - 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	5,000.00	316.83	233.50	1,617,579.21643	2,261,185.49882	39.49980	-108.11856	
- plan hits target center										
- Circle (radius 50.00)										

Casing Points							Casing Diameter (in)	Hole Diameter (in)
Measured Depth (usft)	Vertical Depth (usft)	Name						
1,000.00	997.44	9 5/8"					9.625	13.500

Formations							Dip (°)	Dip Direction (bearing)
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology					
2,067.72	2,061.00	Top of "G" Sand						
2,168.11	2,161.00	Base of "G" Sand						
3,759.32	3,746.00	Mesaverde						
5,016.96	5,000.00	Approx. Top Gas						
6,312.96	6,296.00	Cameo Coals						
6,816.96	6,800.00	Rollins SS						
6,916.96	6,900.00	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 1.50	
457.54	457.11	12.00	8.84	Hold 5.06° Inc, 36.39° Az	
4,579.42	4,562.89	304.83	224.66	Start Drop -1.50°/100	
4,916.96	4,900.00	316.83	233.50	Vertical	
5,016.96	5,000.00	316.83	233.50	Top Gas	
6,916.96	6,900.00	316.83	233.50	TD at 6916.96	