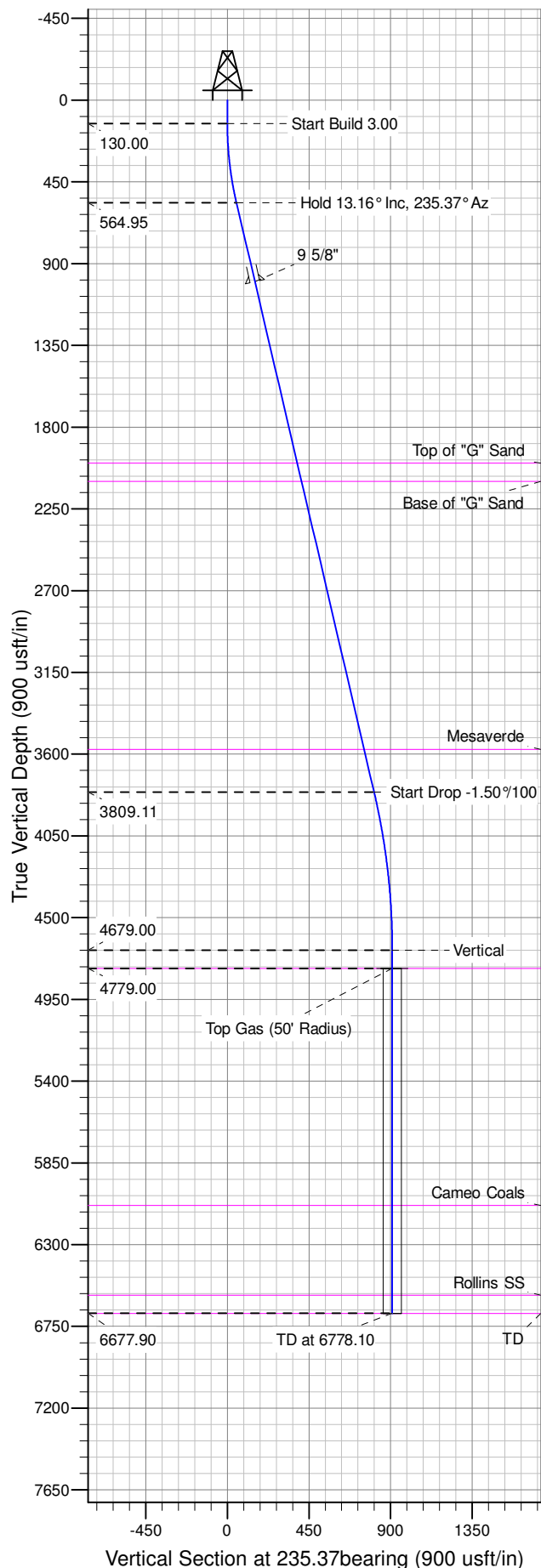
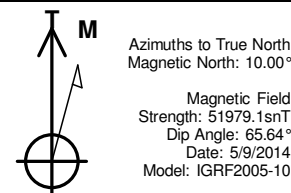
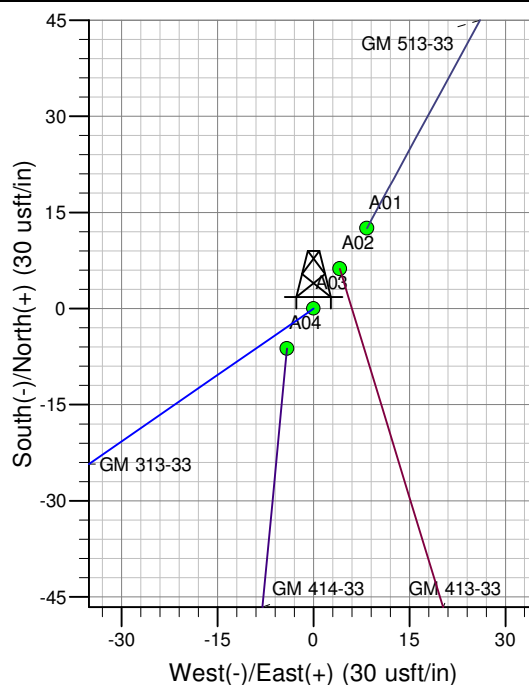
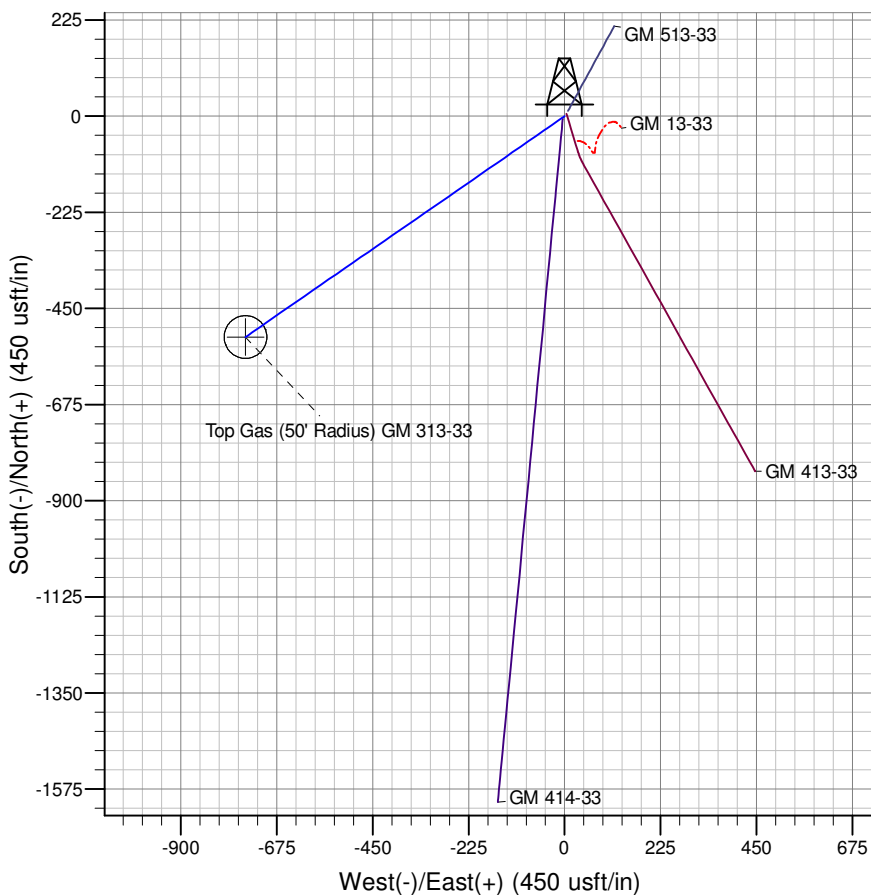




Well Name: GM 313-33
Surface Location: GM 13-33 Pad
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
Ground Elevation: 5743.00
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.00 0.00 1610223.00 2260974.50 39.47959 -108.11855 A03
KELLY BUSHING @ 5764.00usft (Cyclone 17 (21' 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	
564.95	568.80	13.16	235.37	-28.52	-41.29	50.19	50.19	Hold 13.16° Inc, 235.37° Az	
3809.11	3900.51	13.16	235.37	-459.73	-665.61	808.94	808.94	Start Drop -1.50%/100	
4679.00	4778.10	0.00	0.00	-516.78	-748.19	909.31	909.31	Vertical	
4779.00	4878.10	0.00	0.00	-516.78	-748.19	909.31	909.31	Top Gas	
6677.90	6777.00	0.00	0.00	-516.78	-748.19	909.31	909.31	TD at 6778.10	



Project: GV 33-06S-096W
Site: GM 13-33 Pad
Well: GM 313-33
Design #1 09May14 mab

PICEANCE VLY NAD 83

GV 33-06S-096W

GM 13-33 Pad

GM 313-33 - Slot A03

Wellbore #1

Plan: Design #1 09May14 mab

Standard Planning Report - Geographic

24 June, 2014

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 313-33 - Slot A03
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5764.00usft (Cyclone 17 (21' RKB) mab)
Project:	GV 33-06S-096W	MD Reference:	KELLY BUSHING @ 5764.00usft (Cyclone 17 (21' RKB) mab)
Site:	GM 13-33 Pad	North Reference:	True
Well:	GM 313-33	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 09May14 mab		

Project	GV 33-06S-096W, Garfield County, CO, 33-06S-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 13-33 Pad		
Site Position:		Northing:	1,610,235.30 usft
From:	Map	Easting:	2,260,983.20 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in
		Latitude:	39.47963
		Longitude:	-108.11852
		Grid Convergence:	-1.65 °

Well	GM 313-33 - Slot A03		
Well Position	+N/-S	0.00 usft	Northing: 1,610,223.00 usft
	+E/-W	0.00 usft	Easting: 2,260,974.50 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	0.00 usft
		Latitude:	39.47960
		Longitude:	-108.11855
		Ground Level:	5,743.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2005-10	5/9/2014	10.00	65.64	51,979

Design	Design #1 09May14 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	235.37

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	
568.80	13.16	235.37	564.95	-28.52	-41.29	3.00	3.00	0.00	235.37	
3,900.51	13.16	235.37	3,809.11	-459.73	-665.61	0.00	0.00	0.00	0.00	
4,778.10	0.00	0.00	4,679.00	-516.78	-748.19	1.50	-1.50	0.00	180.00	
4,878.10	0.00	0.00	4,779.00	-516.78	-748.19	0.00	0.00	0.00	0.00	Top Gas (50' Radius)
6,778.10	0.00	0.00	6,679.00	-516.78	-748.19	0.00	0.00	0.00	0.00	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 313-33 - Slot A03
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5764.00usft (Cyclone 17 (21' RKB) mab)
Project:	GV 33-06S-096W	MD Reference:	KELLY BUSHING @ 5764.00usft (Cyclone 17 (21' RKB) mab)
Site:	GM 13-33 Pad	North Reference:	True
Well:	GM 313-33	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 09May14 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	1,610,223.00	2,260,974.50	39.47960	-108.11855
130.00	0.00	0.00	130.00	0.00	0.00	1,610,223.00	2,260,974.50	39.47960	-108.11855
Start Build 3.00									
200.00	2.10	235.37	199.98	-0.73	-1.06	1,610,222.30	2,260,973.42	39.47959	-108.11855
400.00	8.10	235.37	399.10	-10.83	-15.68	1,610,212.62	2,260,958.52	39.47957	-108.11861
568.80	13.16	235.37	564.95	-28.52	-41.29	1,610,195.68	2,260,932.40	39.47952	-108.11870
Hold 13.16° Inc, 235.37° Az									
600.00	13.16	235.37	595.33	-32.56	-47.14	1,610,191.81	2,260,926.44	39.47951	-108.11872
800.00	13.16	235.37	790.07	-58.45	-84.62	1,610,167.02	2,260,888.24	39.47944	-108.11885
1,000.00	13.16	235.37	984.82	-84.33	-122.09	1,610,142.22	2,260,850.03	39.47936	-108.11898
1,015.59	13.16	235.37	1,000.00	-86.35	-125.02	1,610,140.29	2,260,847.05	39.47936	-108.11899
9 5/8"									
1,200.00	13.16	235.37	1,179.56	-110.22	-159.57	1,610,117.43	2,260,811.83	39.47929	-108.11912
1,400.00	13.16	235.37	1,374.31	-136.10	-197.05	1,610,092.64	2,260,773.62	39.47922	-108.11925
1,600.00	13.16	235.37	1,569.05	-161.99	-234.53	1,610,067.84	2,260,735.41	39.47915	-108.11938
1,800.00	13.16	235.37	1,763.80	-187.87	-272.00	1,610,043.05	2,260,697.21	39.47908	-108.11951
2,000.00	13.16	235.37	1,958.54	-213.76	-309.48	1,610,018.25	2,260,659.00	39.47901	-108.11965
2,041.55	13.16	235.37	1,999.00	-219.14	-317.27	1,610,013.10	2,260,651.06	39.47899	-108.11968
Top of "G" Sand									
2,144.25	13.16	235.37	2,099.00	-232.43	-336.51	1,610,000.37	2,260,631.45	39.47896	-108.11974
Base of "G" Sand									
2,200.00	13.16	235.37	2,153.29	-239.64	-346.96	1,609,993.46	2,260,620.80	39.47894	-108.11978
2,400.00	13.16	235.37	2,348.03	-265.53	-384.43	1,609,968.67	2,260,582.59	39.47887	-108.11991
2,600.00	13.16	235.37	2,542.77	-291.41	-421.91	1,609,943.87	2,260,544.38	39.47880	-108.12005
2,800.00	13.16	235.37	2,737.52	-317.30	-459.39	1,609,919.08	2,260,506.18	39.47872	-108.12018
3,000.00	13.16	235.37	2,932.26	-343.18	-496.86	1,609,894.29	2,260,467.97	39.47865	-108.12031
3,200.00	13.16	235.37	3,127.01	-369.07	-534.34	1,609,869.49	2,260,429.77	39.47858	-108.12044
3,400.00	13.16	235.37	3,321.75	-394.96	-571.82	1,609,844.70	2,260,391.56	39.47851	-108.12058
3,600.00	13.16	235.37	3,516.50	-420.84	-609.30	1,609,819.91	2,260,353.36	39.47844	-108.12071
3,659.05	13.16	235.37	3,574.00	-428.48	-620.36	1,609,812.59	2,260,342.07	39.47842	-108.12075
Mesaverde									
3,800.00	13.16	235.37	3,711.24	-446.73	-646.77	1,609,795.11	2,260,315.15	39.47837	-108.12084
3,900.51	13.16	235.37	3,809.11	-459.73	-665.61	1,609,782.65	2,260,295.95	39.47833	-108.12091
Start Drop -1.50°/100									
4,000.00	11.67	235.37	3,906.27	-471.89	-683.21	1,609,771.01	2,260,278.00	39.47830	-108.12097
4,200.00	8.67	235.37	4,103.10	-491.96	-712.27	1,609,751.78	2,260,248.38	39.47825	-108.12107
4,400.00	5.67	235.37	4,301.52	-506.15	-732.81	1,609,738.19	2,260,227.44	39.47821	-108.12115
4,600.00	2.67	235.37	4,500.96	-514.42	-744.78	1,609,730.28	2,260,215.24	39.47818	-108.12119
4,778.10	0.00	0.00	4,679.00	-516.78	-748.19	1,609,728.02	2,260,211.76	39.47818	-108.12120
Vertical									
4,800.00	0.00	0.00	4,700.90	-516.78	-748.19	1,609,728.02	2,260,211.76	39.47818	-108.12120
4,878.10	0.00	0.00	4,779.00	-516.78	-748.19	1,609,728.02	2,260,211.76	39.47818	-108.12120
Top Gas - Approx. Top Gas									
5,000.00	0.00	0.00	4,900.90	-516.78	-748.19	1,609,728.02	2,260,211.76	39.47818	-108.12120
5,200.00	0.00	0.00	5,100.90	-516.78	-748.19	1,609,728.02	2,260,211.76	39.47818	-108.12120
5,400.00	0.00	0.00	5,300.90	-516.78	-748.19	1,609,728.02	2,260,211.76	39.47818	-108.12120
5,600.00	0.00	0.00	5,500.90	-516.78	-748.19	1,609,728.02	2,260,211.76	39.47818	-108.12120
5,800.00	0.00	0.00	5,700.90	-516.78	-748.19	1,609,728.02	2,260,211.76	39.47818	-108.12120
6,000.00	0.00	0.00	5,900.90	-516.78	-748.19	1,609,728.02	2,260,211.76	39.47818	-108.12120
6,183.10	0.00	0.00	6,084.00	-516.78	-748.19	1,609,728.02	2,260,211.76	39.47818	-108.12120
Cameo Coals									

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 313-33 - Slot A03
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5764.00usft (Cyclone 17 (21' RKB) mab)
Project:	GV 33-06S-096W	MD Reference:	KELLY BUSHING @ 5764.00usft (Cyclone 17 (21' RKB) mab)
Site:	GM 13-33 Pad	North Reference:	True
Well:	GM 313-33	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 09May14 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
6,200.00	0.00	0.00	6,100.90	-516.78	-748.19	1,609,728.02	2,260,211.76	39.47818	-108.12120
6,400.00	0.00	0.00	6,300.90	-516.78	-748.19	1,609,728.02	2,260,211.76	39.47818	-108.12120
6,600.00	0.00	0.00	6,500.90	-516.78	-748.19	1,609,728.02	2,260,211.76	39.47818	-108.12120
6,678.10	0.00	0.00	6,579.00	-516.78	-748.19	1,609,728.02	2,260,211.76	39.47818	-108.12120
Rollins SS									
6,778.10	0.00	0.00	6,679.00	-516.78	-748.19	1,609,728.02	2,260,211.76	39.47818	-108.12120
TD at 6778.10 - 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	358.35	4,779.00	-516.78	-748.19	1,609,728.02	2,260,211.76	39.47818	-108.12120
- plan hits target center									
- Circle (radius 50.00)									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,015.59	1,000.00	9 5/8"	9.625	13.500	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (bearing)	
2,041.55	1,999.00	Top of "G" Sand				
2,144.25	2,099.00	Base of "G" Sand				
3,659.05	3,574.00	Mesaverde				
4,878.10	4,779.00	Approx. Top Gas				
6,183.10	6,084.00	Cameo Coals				
6,678.10	6,579.00	Rollins SS				
6,778.10	6,679.00	TD				

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	
568.80	564.95	-28.52	-41.29	Hold 13.16° Inc, 235.37° Az	
3,900.51	3,809.11	-459.73	-665.61	Start Drop -1.50°/100	
4,778.10	4,679.00	-516.78	-748.19	Vertical	
4,878.10	4,779.00	-516.78	-748.19	Top Gas	
6,778.10	6,679.00	-516.78	-748.19	TD at 6778.10	