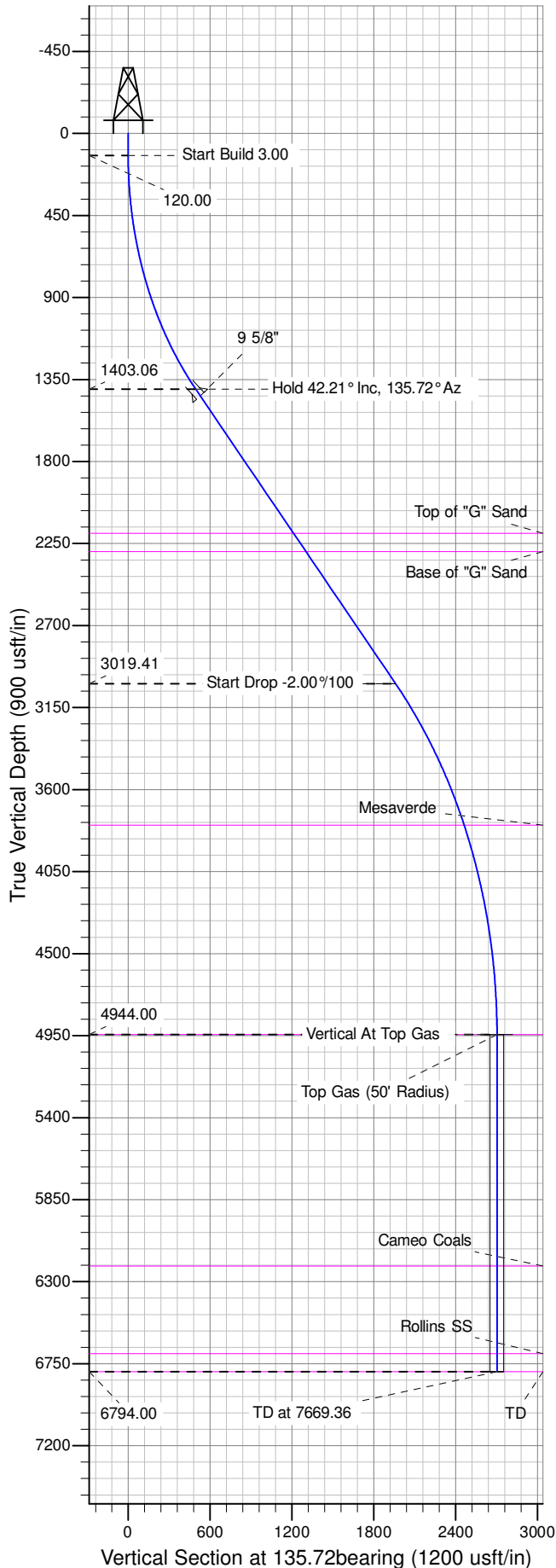
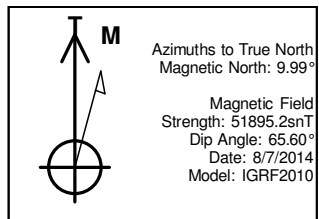
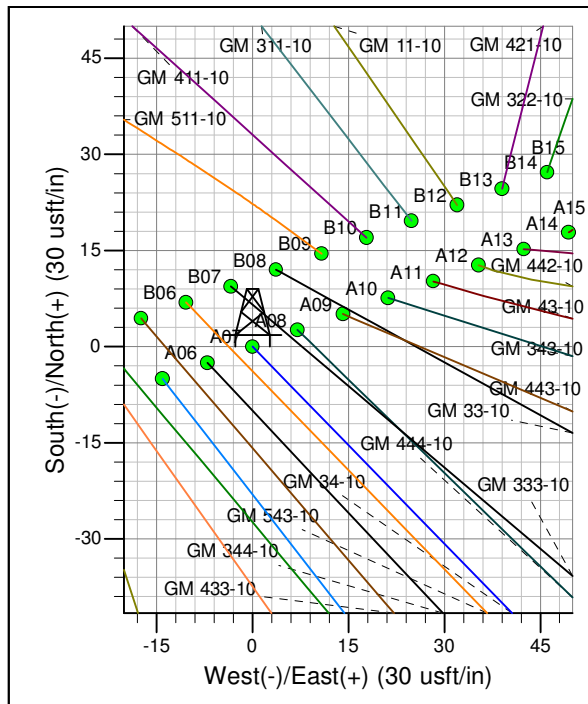
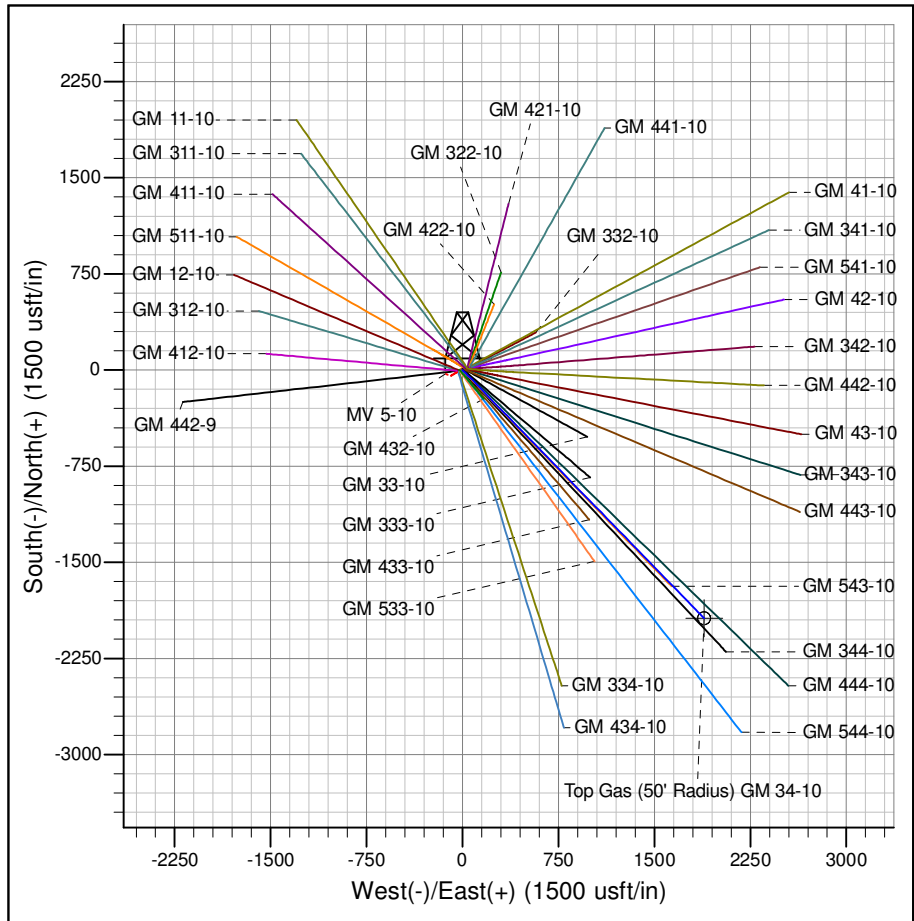




Well Name: GM 34-10
Surface Location: MV 5-10 Pad
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
Ground Elevation: 6148.00
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.00 0.00 1600356.30000 2266917.30000 39.45299 -108.09650 A08
KELLY BUSHING @ 6174.00usft (Nabors (26' 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 3.00	
1403.06	1526.90	42.21	135.72	-354.53	345.70	495.18	495.18	Hold 42.21° Inc, 135.72° Az	
3019.41	3709.01	42.21	135.72	-1404.11	1369.15	1961.15	1961.15	Start Drop -2.00°/100	
4944.00	5819.36	0.00	0.00	-1935.90	1887.71	2703.92	2703.92	Vertical At Top Gas	
6794.00	7669.36	0.00	0.00	-1935.90	1887.71	2703.92	2703.92	TD at 7669.36	



Project: GV 10-07S-096W
Site: MV 5-10 Pad
Well: GM 34-10
Design #1 07Aug14 mab

PICEANCE VLY NAD 83

GV 10-07S-096W

MV 5-10 Pad

GM 34-10 - Slot A08

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 34-10 - Slot A08
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 34-10	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 34-10 - Slot A08			
Well Position	+N/-S	0.00 usft	Northing:	1,600,356.30000 usft
	+E/-W	0.00 usft	Easting:	2,266,917.30000 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	135.72

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	
1,526.90	42.21	135.72	1,403.06	-354.53	345.70	3.00	3.00	0.00	135.72	
3,709.01	42.21	135.72	3,019.41	-1,404.11	1,369.15	0.00	0.00	0.00	0.00	
5,819.36	0.00	0.00	4,944.00	-1,935.90	1,887.71	2.00	-2.00	0.00	180.00	Top Gas (50' Radius)
7,669.36	0.00	0.00	6,794.00	-1,935.90	1,887.71	0.00	0.00	0.00	0.00	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 34-10 - Slot A08
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 34-10	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	1,600,356.30000	2,266,917.30000	39.45299	-108.09651	
120.00	0.00	0.00	120.00	0.00	0.00	1,600,356.30000	2,266,917.30000	39.45299	-108.09651	
Start Build 3.00										
200.00	2.40	135.72	199.98	-1.20	1.17	1,600,355.06769	2,266,918.43476	39.45298	-108.09650	
400.00	8.40	135.72	399.00	-14.67	14.30	1,600,341.22903	2,266,931.17803	39.45295	-108.09646	
600.00	14.40	135.72	594.96	-42.96	41.89	1,600,312.16346	2,266,957.94295	39.45287	-108.09636	
800.00	20.40	135.72	785.72	-85.76	83.62	1,600,268.18942	2,266,998.43627	39.45275	-108.09621	
1,000.00	26.40	135.72	969.19	-142.60	139.05	1,600,209.78872	2,267,052.21433	39.45260	-108.09601	
1,200.00	32.40	135.72	1,143.35	-212.86	207.56	1,600,137.60117	2,267,118.68795	39.45240	-108.09577	
1,400.00	38.40	135.72	1,306.30	-295.77	288.41	1,600,052.41770	2,267,197.12881	39.45217	-108.09549	
1,526.90	42.21	135.72	1,403.06	-354.53	345.70	1,599,992.05125	2,267,252.71700	39.45201	-108.09528	
Hold 42.21° Inc, 135.72° Az										
1,576.90	42.21	135.72	1,440.10	-378.58	369.16	1,599,967.34044	2,267,275.47185	39.45195	-108.09520	
9 5/8"										
1,600.00	42.21	135.72	1,457.21	-389.69	379.99	1,599,955.92501	2,267,285.98371	39.45192	-108.09516	
1,800.00	42.21	135.72	1,605.36	-485.89	473.80	1,599,857.09007	2,267,376.99546	39.45165	-108.09483	
2,000.00	42.21	135.72	1,753.50	-582.09	567.60	1,599,758.25514	2,267,468.00722	39.45139	-108.09450	
2,200.00	42.21	135.72	1,901.65	-678.29	661.40	1,599,659.42020	2,267,559.01898	39.45112	-108.09416	
2,400.00	42.21	135.72	2,049.79	-774.49	755.21	1,599,560.58526	2,267,650.03073	39.45086	-108.09383	
2,594.69	42.21	135.72	2,194.00	-868.13	846.52	1,599,464.37595	2,267,738.62468	39.45060	-108.09351	
Top of "G" Sand										
2,600.00	42.21	135.72	2,197.94	-870.68	849.01	1,599,461.75032	2,267,741.04248	39.45060	-108.09350	
2,729.69	42.21	135.72	2,294.00	-933.06	909.84	1,599,397.66087	2,267,800.05901	39.45042	-108.09329	
Base of "G" Sand										
2,800.00	42.21	135.72	2,346.08	-966.88	942.81	1,599,362.91540	2,267,832.05424	39.45033	-108.09317	
3,000.00	42.21	135.72	2,494.23	-1,063.08	1,036.61	1,599,264.08046	2,267,923.06600	39.45007	-108.09284	
3,200.00	42.21	135.72	2,642.37	-1,159.28	1,130.42	1,599,165.24552	2,268,014.07776	39.44980	-108.09250	
3,400.00	42.21	135.72	2,790.51	-1,255.48	1,224.22	1,599,066.41058	2,268,105.08951	39.44954	-108.09217	
3,600.00	42.21	135.72	2,938.66	-1,351.67	1,318.02	1,598,967.57565	2,268,196.10126	39.44928	-108.09184	
3,709.01	42.21	135.72	3,019.41	-1,404.11	1,369.15	1,598,913.70455	2,268,245.70826	39.44913	-108.09166	
Start Drop -2.00°/100										
3,800.00	40.39	135.72	3,087.76	-1,447.10	1,411.07	1,598,869.53549	2,268,286.38115	39.44901	-108.09151	
4,000.00	36.39	135.72	3,244.50	-1,536.00	1,497.76	1,598,778.19825	2,268,370.48869	39.44877	-108.09120	
4,200.00	32.39	135.72	3,409.51	-1,616.85	1,576.60	1,598,695.12587	2,268,446.98555	39.44855	-108.09092	
4,400.00	28.39	135.72	3,582.00	-1,689.27	1,647.22	1,598,620.72309	2,268,515.49906	39.44835	-108.09067	
4,600.00	24.39	135.72	3,761.13	-1,752.90	1,709.26	1,598,555.35237	2,268,575.69543	39.44817	-108.09045	
4,635.99	23.67	135.72	3,794.00	-1,763.39	1,719.49	1,598,544.57333	2,268,585.62126	39.44815	-108.09042	
Mesaverde										
4,800.00	20.39	135.72	3,946.02	-1,807.42	1,762.43	1,598,499.33220	2,268,627.28138	39.44802	-108.09027	
5,000.00	16.39	135.72	4,135.77	-1,852.58	1,806.46	1,598,452.93550	2,268,670.00559	39.44790	-108.09011	
5,200.00	12.39	135.72	4,329.46	-1,888.16	1,841.15	1,598,416.38832	2,268,703.65992	39.44780	-108.08999	
5,400.00	8.39	135.72	4,526.14	-1,913.97	1,866.32	1,598,389.86870	2,268,728.08040	39.44773	-108.08990	
5,600.00	4.39	135.72	4,724.86	-1,929.89	1,881.85	1,598,373.50586	2,268,743.14806	39.44769	-108.08984	
5,800.00	0.39	135.72	4,924.64	-1,935.86	1,887.67	1,598,367.37950	2,268,748.78949	39.44767	-108.08982	
5,819.36	0.00	0.00	4,944.00	-1,935.90	1,887.71	1,598,367.33140	2,268,748.83378	39.44767	-108.08982	
Vertical At Top Gas - Approx. Top Gas										
6,000.00	0.00	0.00	5,124.64	-1,935.90	1,887.71	1,598,367.33140	2,268,748.83378	39.44767	-108.08982	
6,200.00	0.00	0.00	5,324.64	-1,935.90	1,887.71	1,598,367.33140	2,268,748.83378	39.44767	-108.08982	
6,400.00	0.00	0.00	5,524.64	-1,935.90	1,887.71	1,598,367.33140	2,268,748.83378	39.44767	-108.08982	
6,600.00	0.00	0.00	5,724.64	-1,935.90	1,887.71	1,598,367.33140	2,268,748.83378	39.44767	-108.08982	
6,800.00	0.00	0.00	5,924.64	-1,935.90	1,887.71	1,598,367.33140	2,268,748.83378	39.44767	-108.08982	
7,000.00	0.00	0.00	6,124.64	-1,935.90	1,887.71	1,598,367.33140	2,268,748.83378	39.44767	-108.08982	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 34-10 - Slot A08
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 34-10	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
7,089.36	0.00	0.00	6,214.00	-1,935.90	1,887.71	1,598,367.33140	2,268,748.83378	39.44767	-108.08982
Cameo Coals									
7,200.00	0.00	0.00	6,324.64	-1,935.90	1,887.71	1,598,367.33140	2,268,748.83378	39.44767	-108.08982
7,400.00	0.00	0.00	6,524.64	-1,935.90	1,887.71	1,598,367.33140	2,268,748.83378	39.44767	-108.08982
7,569.36	0.00	0.00	6,694.00	-1,935.90	1,887.71	1,598,367.33140	2,268,748.83378	39.44767	-108.08982
Rollins SS									
7,600.00	0.00	0.00	6,724.64	-1,935.90	1,887.71	1,598,367.33140	2,268,748.83378	39.44767	-108.08982
7,669.36	0.00	0.00	6,794.00	-1,935.90	1,887.71	1,598,367.33140	2,268,748.83378	39.44767	-108.08982
TD at 7669.36 - 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	4,944.00	-1,935.90	1,887.71	1,598,367.33140	2,268,748.83378	39.44767	-108.08982

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,576.90	1,440.10	9 5/8"	9.625	13.500	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (bearing)	
2,594.69	2,194.00	Top of "G" Sand				
2,729.69	2,294.00	Base of "G" Sand				
4,635.99	3,794.00	Mesaverde				
5,819.36	4,944.00	Approx. Top Gas				
7,089.36	6,214.00	Cameo Coals				
7,569.36	6,694.00	Rollins SS				
7,669.36	6,794.00	TD				

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 3.00	
1,526.90	1,403.06	-354.53	345.70	Hold 42.21° Inc, 135.72° Az	
3,709.01	3,019.41	-1,404.11	1,369.15	Start Drop -2.00°/100	
5,819.36	4,944.00	-1,935.90	1,887.71	Vertical At Top Gas	
7,669.36	6,794.00	-1,935.90	1,887.71	TD at 7669.36	