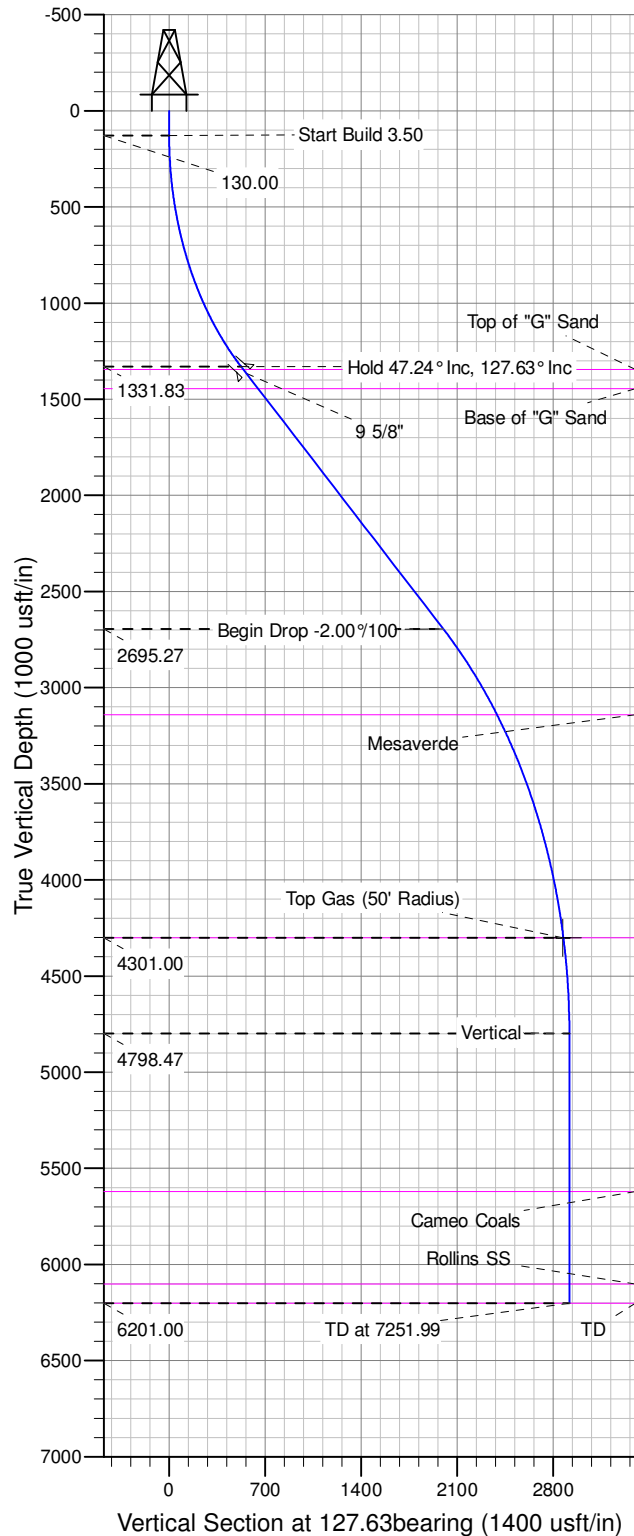
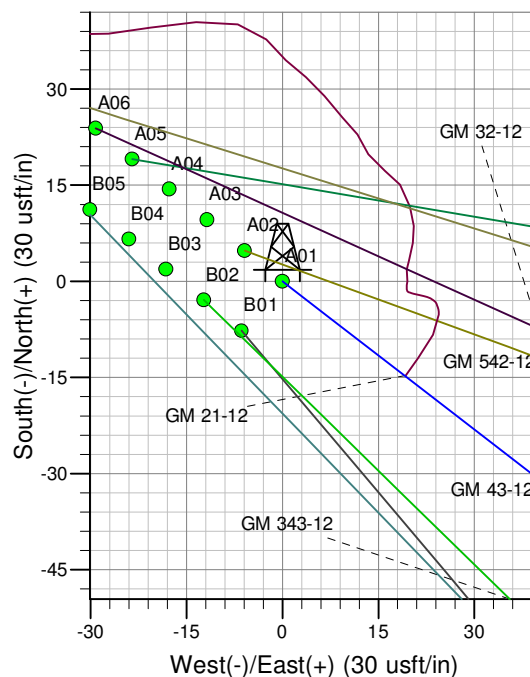
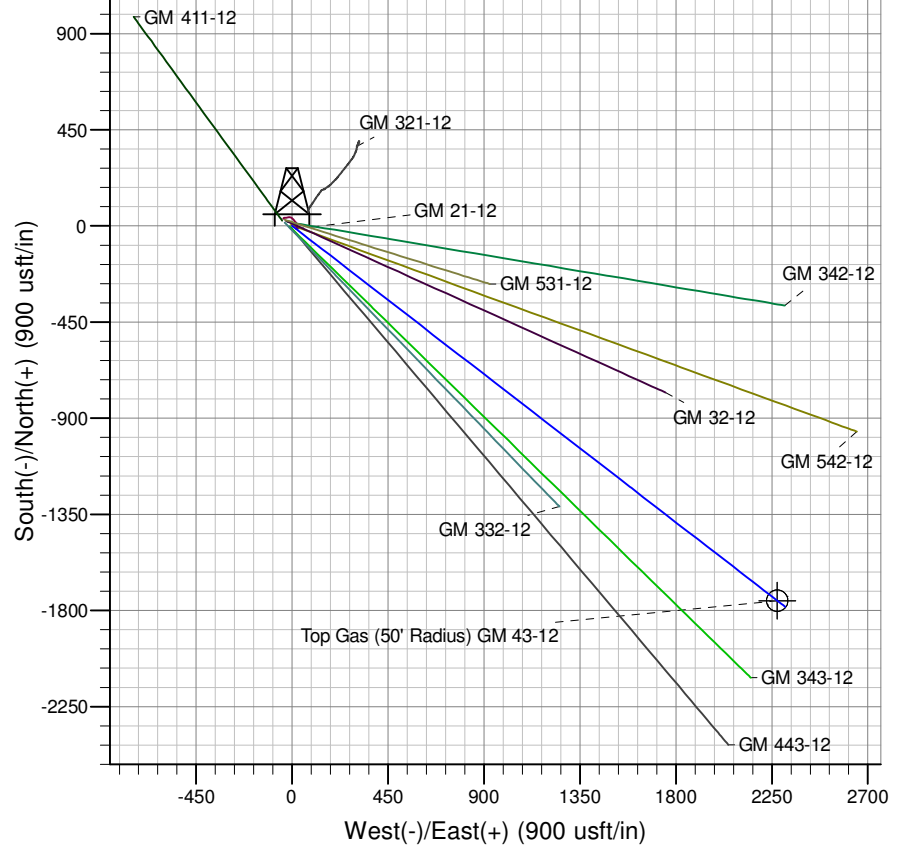




Well Name: GM 43-12
Surface Location: GM 21-12 Pad
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
Ground Elevation: 5125.00
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.00 0.00 1601305.87 2276871.12 39.45637 -108.06136 A01
KELLY BUSHING @ 5151.00usft (Nabors (26' RKB) kjs)



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 3.50	
1331.83	1479.60	47.24	127.63	-320.86	416.19	525.51	525.51	Hold 47.24° Inc, 127.63° Inc	
2695.27	3487.66	47.24	127.63	-1220.98	1583.72	1999.74	1999.74	Begin Drop -2.00°/100'	
4301.00	5349.45	10.00	127.63	-1755.91	2277.58	2875.87	2875.87	Top Gas	
4798.47	5849.45	0.00	0.00	-1782.49	2312.05	2919.39	2919.39	Vertical	
6201.00	7251.99	0.00	0.00	-1782.49	2312.05	2919.39	2919.39	TD at 7251.99	



Azimuths to True North
Magnetic North: 9.99°

Magnetic Field
Strength: 51991.8snT
Dip Angle: 65.63°
Date: 3/20/2014
Model: IGRF2005-10

Project: GV 12-07S-096W
Site: GM 21-12 Pad
Well: GM 43-12
Design #2 15Apr14 mab

PICEANCE VLY NAD 83

GV 12-07S-096W

GM 21-12 Pad

GM 43-12 - Slot A01

Wellbore #1

Plan: Design #2 15Apr14 mab

Standard Planning Report - Geographic

07 May, 2014

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 43-12 - Slot A01
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5151.00usft (Nabors (26' RKB) kjs)
Project:	GV 12-07S-096W	MD Reference:	KELLY BUSHING @ 5151.00usft (Nabors (26' RKB) kjs)
Site:	GM 21-12 Pad	North Reference:	True
Well:	GM 43-12	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 15Apr14 mab		

Project	GV 12-07S-096W, Garfield County CO, GV 12-07W-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 21-12 Pad			
Site Position:		Northing:	1,601,340.21 usft	Latitude: 39.45646
From: Map		Easting:	2,276,830.88 usft	Longitude: -108.06151
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence: -1.62 °

Well	GM 43-12 - Slot A01			
Well Position	+N/-S	0.00 usft	Northing:	1,601,305.87 usft
	+E/-W	0.00 usft	Easting:	2,276,871.12 usft
Position Uncertainty	0.00 usft		Wellhead Elevation:	0.00 usft
			Ground Level:	5,125.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2005-10	3/20/2014	9.99	65.63	51,992

Design	Design #2 15Apr14 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	127.63

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	
1,479.60	47.24	127.63	1,331.83	-320.86	416.19	3.50	3.50	0.00	127.63	
3,487.66	47.24	127.63	2,695.27	-1,220.98	1,583.72	0.00	0.00	0.00	0.00	
5,349.45	10.00	127.63	4,301.00	-1,755.91	2,277.58	2.00	-2.00	0.00	180.00	Top Gas (50' Radius)
5,849.45	0.00	0.00	4,798.47	-1,782.49	2,312.05	2.00	-2.00	-25.53	180.00	
7,251.99	0.00	0.00	6,201.00	-1,782.49	2,312.05	0.00	0.00	0.00	0.00	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 43-12 - Slot A01
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5151.00usft (Nabors (26' RKB) kjs)
Project:	GV 12-07S-096W	MD Reference:	KELLY BUSHING @ 5151.00usft (Nabors (26' RKB) kjs)
Site:	GM 21-12 Pad	North Reference:	True
Well:	GM 43-12	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 15Apr14 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	1,601,305.87	2,276,871.12	39.45637	-108.06137
130.00	0.00	0.00	130.00	0.00	0.00	1,601,305.87	2,276,871.12	39.45637	-108.06137
Start Build 3.50									
200.00	2.45	127.63	199.98	-0.91	1.19	1,601,304.92	2,276,872.28	39.45637	-108.06136
400.00	9.45	127.63	398.78	-13.56	17.59	1,601,291.81	2,276,888.33	39.45633	-108.06130
600.00	16.45	127.63	593.57	-40.91	53.07	1,601,263.48	2,276,923.01	39.45626	-108.06118
800.00	23.45	127.63	781.45	-82.55	107.08	1,601,220.33	2,276,975.83	39.45614	-108.06099
1,000.00	30.45	127.63	959.62	-137.86	178.82	1,601,163.03	2,277,045.98	39.45599	-108.06073
1,200.00	37.45	127.63	1,125.42	-206.02	267.22	1,601,092.41	2,277,132.42	39.45580	-108.06042
1,400.00	44.45	127.63	1,276.38	-286.00	370.97	1,601,009.54	2,277,233.87	39.45558	-108.06005
1,479.60	47.24	127.63	1,331.83	-320.86	416.19	1,600,973.41	2,277,278.08	39.45549	-108.05989
Hold 47.24° Inc, 127.63° Inc									
1,500.47	47.24	127.63	1,346.00	-330.22	428.32	1,600,963.72	2,277,289.95	39.45546	-108.05985
Top of "G" Sand									
1,529.60	47.24	127.63	1,365.78	-343.28	445.26	1,600,950.19	2,277,306.51	39.45543	-108.05979
9 5/8"									
1,600.00	47.24	127.63	1,413.58	-374.83	486.19	1,600,917.49	2,277,346.54	39.45534	-108.05964
1,647.75	47.24	127.63	1,446.00	-396.24	513.96	1,600,895.32	2,277,373.68	39.45528	-108.05955
Base of "G" Sand									
1,800.00	47.24	127.63	1,549.38	-464.48	602.48	1,600,824.60	2,277,460.24	39.45509	-108.05923
2,000.00	47.24	127.63	1,685.17	-554.13	718.76	1,600,731.72	2,277,573.95	39.45485	-108.05882
2,200.00	47.24	127.63	1,820.97	-643.78	835.05	1,600,638.83	2,277,687.65	39.45460	-108.05841
2,400.00	47.24	127.63	1,956.77	-733.43	951.33	1,600,545.94	2,277,801.36	39.45435	-108.05800
2,600.00	47.24	127.63	2,092.56	-823.08	1,067.62	1,600,453.05	2,277,915.07	39.45411	-108.05758
2,800.00	47.24	127.63	2,228.36	-912.73	1,183.90	1,600,360.16	2,278,028.77	39.45386	-108.05717
3,000.00	47.24	127.63	2,364.16	-1,002.38	1,300.19	1,600,267.27	2,278,142.48	39.45362	-108.05676
3,200.00	47.24	127.63	2,499.95	-1,092.03	1,416.47	1,600,174.38	2,278,256.19	39.45337	-108.05635
3,400.00	47.24	127.63	2,635.75	-1,181.68	1,532.76	1,600,081.50	2,278,369.89	39.45312	-108.05594
3,487.66	47.24	127.63	2,695.27	-1,220.98	1,583.72	1,600,040.78	2,278,419.73	39.45302	-108.05576
Begin Drop -2.00°/100									
3,600.00	44.99	127.63	2,773.14	-1,270.41	1,647.84	1,599,989.57	2,278,482.42	39.45288	-108.05553
3,800.00	40.99	127.63	2,919.41	-1,353.66	1,755.82	1,599,903.31	2,278,588.01	39.45265	-108.05515
4,000.00	36.99	127.63	3,074.83	-1,430.47	1,855.46	1,599,823.72	2,278,685.44	39.45244	-108.05479
4,081.97	35.35	127.63	3,141.00	-1,460.01	1,893.77	1,599,793.12	2,278,722.90	39.45236	-108.05466
Mesaverde									
4,200.00	32.99	127.63	3,238.65	-1,500.48	1,946.26	1,599,751.19	2,278,774.23	39.45225	-108.05447
4,400.00	28.99	127.63	3,410.07	-1,563.34	2,027.80	1,599,686.06	2,278,853.96	39.45208	-108.05418
4,600.00	24.99	127.63	3,588.25	-1,618.75	2,099.67	1,599,628.65	2,278,924.23	39.45192	-108.05393
4,800.00	20.99	127.63	3,772.33	-1,666.43	2,161.52	1,599,579.24	2,278,984.71	39.45179	-108.05371
5,000.00	16.99	127.63	3,961.41	-1,706.15	2,213.04	1,599,538.08	2,279,035.09	39.45168	-108.05353
5,200.00	12.99	127.63	4,154.56	-1,737.73	2,254.00	1,599,505.37	2,279,075.14	39.45160	-108.05338
5,349.45	10.00	127.63	4,301.00	-1,755.91	2,277.58	1,599,486.53	2,279,098.20	39.45155	-108.05330
Top Gas - Approx. Top Gas									
5,400.00	8.99	127.63	4,350.86	-1,761.00	2,284.19	1,599,481.25	2,279,104.66	39.45153	-108.05328
5,600.00	4.99	127.63	4,549.33	-1,775.86	2,303.46	1,599,465.86	2,279,123.50	39.45149	-108.05321
5,800.00	0.99	127.63	4,749.02	-1,782.22	2,311.72	1,599,459.26	2,279,131.58	39.45148	-108.05318
5,849.45	0.00	0.00	4,798.47	-1,782.49	2,312.05	1,599,458.99	2,279,131.91	39.45147	-108.05318
Vertical									
6,000.00	0.00	0.00	4,949.01	-1,782.49	2,312.05	1,599,458.99	2,279,131.91	39.45147	-108.05318
6,200.00	0.00	0.00	5,149.01	-1,782.49	2,312.05	1,599,458.99	2,279,131.91	39.45147	-108.05318
6,400.00	0.00	0.00	5,349.01	-1,782.49	2,312.05	1,599,458.99	2,279,131.91	39.45147	-108.05318

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 43-12 - Slot A01
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5151.00usft (Nabors (26' RKB) kjs)
Project:	GV 12-07S-096W	MD Reference:	KELLY BUSHING @ 5151.00usft (Nabors (26' RKB) kjs)
Site:	GM 21-12 Pad	North Reference:	True
Well:	GM 43-12	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 15Apr14 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
6,600.00	0.00	0.00	5,549.01	-1,782.49	2,312.05	1,599,458.99	2,279,131.91	39.45147	-108.05318
6,671.99	0.00	0.00	5,621.00	-1,782.49	2,312.05	1,599,458.99	2,279,131.91	39.45147	-108.05318
Cameo Coals									
6,800.00	0.00	0.00	5,749.01	-1,782.49	2,312.05	1,599,458.99	2,279,131.91	39.45147	-108.05318
7,000.00	0.00	0.00	5,949.01	-1,782.49	2,312.05	1,599,458.99	2,279,131.91	39.45147	-108.05318
7,151.99	0.00	0.00	6,101.00	-1,782.49	2,312.05	1,599,458.99	2,279,131.91	39.45147	-108.05318
Rollins SS									
7,200.00	0.00	0.00	6,149.01	-1,782.49	2,312.05	1,599,458.99	2,279,131.91	39.45147	-108.05318
7,251.99	0.00	0.00	6,201.00	-1,782.49	2,312.05	1,599,458.99	2,279,131.91	39.45147	-108.05318
TD at 7251.99									

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 misses target center by 3.45usft at 5348.75usft MD (4300.31 TVD, -1755.84 N, 2277.49 E) - Circle (radius 50.00)	0.00	0.00	4,301.00	-1,753.97	2,274.67	1,599,488.55	2,279,095.34	39.45155	-108.05331
TD / PBHL GM 43-12 - plan misses target center by 1799.61usft at 7251.99usft MD (6201.00 TVD, -1782.49 N, 2312.05 E) - Point	0.00	0.00	8,000.00	-1,753.97	2,274.67	1,599,488.55	2,279,095.34	39.45155	-108.05331

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,529.60	1,365.78	9 5/8"	9.625	13.500	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (bearing)	
1,500.47	1,346.00	Top of "G" Sand				
1,647.75	1,446.00	Base of "G" Sand				
4,081.97	3,141.00	Mesaverde				
5,349.45	4,301.00	Approx. Top Gas				
6,671.99	5,621.00	Cameo Coals				
7,151.99	6,101.00	Rollins SS				

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 43-12 - Slot A01
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5151.00usft (Nabors (26' RKB) kjs)
Project:	GV 12-07S-096W	MD Reference:	KELLY BUSHING @ 5151.00usft (Nabors (26' RKB) kjs)
Site:	GM 21-12 Pad	North Reference:	True
Well:	GM 43-12	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 15Apr14 mab		

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 3.50
1,479.60	1,331.83	-320.86	416.19	Hold 47.24° Inc, 127.63° Inc
3,487.66	2,695.27	-1,220.98	1,583.72	Begin Drop -2.00°/100
5,349.45	4,301.00	-1,755.91	2,277.58	Top Gas
5,849.45	4,798.47	-1,782.49	2,312.05	Vertical
7,251.99	6,201.00	-1,782.49	2,312.05	TD at 7251.99