



Project: GV 14-07S-096W

Site: GM 34-14 Pad

Well: GM 533-14

Design #2 20Feb14 kjs

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Azimuths to True North
Magnetic North: 10.11°
Magnetic Field
Strength: 52065.0snT
Dip Angle: 65.64°
Date: 4/23/2013
Model: IGRF2005-10

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 4.00
379.14	380.58	10.42	337.28	21.80	-9.13	23.64	23.64	Hold 10.42 Inclination
3200.70	3249.48	10.42	337.28	500.58	-209.57	542.68	542.68	Start Drop -2.00
3719.00	3770.65	0.00	0.00	544.19	-227.82	589.95	589.95	Vertical
3819.00	3870.65	0.00	0.00	544.19	-227.82	589.95	589.95	Top Gas
5719.00	5770.65	0.00	0.00	544.19	-227.82	589.95	589.95	TD at 5770.65

PICEANCE VLY NAD 83

GV 14-07S-096W

GM 34-14 Pad

GM 533-14 - Slot B07

Wellbore #1

Plan: Design #2 20Feb14 kjs

Standard Planning Report - Geographic

07 March, 2014

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 533-14 - Slot B07
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5199.00usft (Nabors (26' RKB) kjs)
Project:	GV 14-07S-096W	MD Reference:	KELLY BUSHING @ 5199.00usft (Nabors (26' RKB) kjs)
Site:	GM 34-14 Pad	North Reference:	True
Well:	GM 533-14	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 20Feb14 kjs		

Project	GV 14-07S-096W, Garfield County, CO, 14-07S-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	GM 34-14 Pad			
Site Position:		Northing:	1,592,854.30 usft	Latitude: 39.43286
From: Map		Easting:	2,272,852.10 usft	Longitude: -108.07474
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence: -1.624 °

Well	GM 533-14 - Slot B07			
Well Position	+N/-S	0.00 usft	Northing:	1,592,867.30 usft
	+E/-W	0.00 usft	Easting:	2,272,807.90 usft
Position Uncertainty	0.00 usft		Wellhead Elevation:	
			Ground Level:	5,173.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2005-10	4/23/2013	10.111	65.637	52,065

Design	Design #2 20Feb14 kjs			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	337.28

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	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	0.000	
120.00	0.00	0.00	120.00	0.00	0.00	0.00	0.00	0.00	0.000	
380.58	10.42	337.28	379.15	21.80	-9.13	4.00	4.00	0.00	337.283	
3,249.48	10.42	337.28	3,200.70	500.58	-209.57	0.00	0.00	0.00	0.000	
3,770.65	0.00	0.00	3,719.00	544.19	-227.82	2.00	-2.00	0.00	180.000	
3,870.65	0.00	0.00	3,819.00	544.19	-227.82	0.00	0.00	0.00	0.000	Top Gas (50' Radius)
5,770.65	0.00	0.00	5,719.00	544.19	-227.82	0.00	0.00	0.00	0.000	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 533-14 - Slot B07
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5199.00usft (Nabors (26' RKB) kjs)
Project:	GV 14-07S-096W	MD Reference:	KELLY BUSHING @ 5199.00usft (Nabors (26' RKB) kjs)
Site:	GM 34-14 Pad	North Reference:	True
Well:	GM 533-14	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 20Feb14 kjs		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	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	1,592,867.30	2,272,807.90	39.43289	-108.07490	
100.00	0.00	0.00	100.00	0.00	0.00	1,592,867.30	2,272,807.90	39.43289	-108.07490	
120.00	0.00	0.00	120.00	0.00	0.00	1,592,867.30	2,272,807.90	39.43289	-108.07490	
Start Build 4.00										
200.00	3.20	337.28	199.96	2.06	-0.86	1,592,869.38	2,272,807.10	39.43290	-108.07491	
300.00	7.20	337.28	299.53	10.42	-4.36	1,592,877.83	2,272,803.84	39.43292	-108.07492	
380.58	10.42	337.28	379.14	21.80	-9.13	1,592,889.35	2,272,799.40	39.43295	-108.07493	
Hold 10.42 Inclination										
380.58	10.42	337.28	379.15	21.80	-9.13	1,592,889.35	2,272,799.39	39.43295	-108.07493	
400.00	10.42	337.28	398.24	25.04	-10.48	1,592,892.63	2,272,798.13	39.43296	-108.07494	
500.00	10.42	337.28	496.59	41.73	-17.47	1,592,909.50	2,272,791.62	39.43301	-108.07496	
600.00	10.42	337.28	594.94	58.42	-24.46	1,592,926.38	2,272,785.11	39.43305	-108.07499	
700.00	10.42	337.28	693.29	75.11	-31.44	1,592,943.26	2,272,778.60	39.43310	-108.07501	
800.00	10.42	337.28	791.64	91.80	-38.43	1,592,960.14	2,272,772.09	39.43315	-108.07504	
900.00	10.42	337.28	889.99	108.49	-45.42	1,592,977.02	2,272,765.58	39.43319	-108.07506	
980.33	10.42	337.28	969.00	121.89	-51.03	1,592,990.58	2,272,760.35	39.43323	-108.07508	
Top of "G" Sand										
1,000.00	10.42	337.28	988.34	125.18	-52.40	1,592,993.90	2,272,759.07	39.43324	-108.07509	
1,011.85	10.42	337.28	1,000.00	127.15	-53.23	1,592,995.90	2,272,758.30	39.43324	-108.07509	
9 5/8"										
1,082.01	10.42	337.28	1,069.00	138.86	-58.13	1,593,007.74	2,272,753.73	39.43328	-108.07511	
Base of "G" Sand										
1,100.00	10.42	337.28	1,086.69	141.86	-59.39	1,593,010.78	2,272,752.56	39.43328	-108.07511	
1,200.00	10.42	337.28	1,185.04	158.55	-66.38	1,593,027.66	2,272,746.05	39.43333	-108.07514	
1,300.00	10.42	337.28	1,283.39	175.24	-73.36	1,593,044.54	2,272,739.54	39.43338	-108.07516	
1,400.00	10.42	337.28	1,381.74	191.93	-80.35	1,593,061.42	2,272,733.02	39.43342	-108.07519	
1,500.00	10.42	337.28	1,480.09	208.62	-87.34	1,593,078.29	2,272,726.51	39.43347	-108.07521	
1,600.00	10.42	337.28	1,578.44	225.31	-94.32	1,593,095.17	2,272,720.00	39.43351	-108.07524	
1,700.00	10.42	337.28	1,676.79	241.99	-101.31	1,593,112.05	2,272,713.49	39.43356	-108.07526	
1,800.00	10.42	337.28	1,775.14	258.68	-108.30	1,593,128.93	2,272,706.98	39.43360	-108.07529	
1,900.00	10.42	337.28	1,873.49	275.37	-115.28	1,593,145.81	2,272,700.47	39.43365	-108.07531	
2,000.00	10.42	337.28	1,971.84	292.06	-122.27	1,593,162.69	2,272,693.96	39.43370	-108.07534	
2,100.00	10.42	337.28	2,070.19	308.75	-129.26	1,593,179.57	2,272,687.45	39.43374	-108.07536	
2,200.00	10.42	337.28	2,168.54	325.44	-136.24	1,593,196.45	2,272,680.94	39.43379	-108.07539	
2,300.00	10.42	337.28	2,266.89	342.13	-143.23	1,593,213.33	2,272,674.43	39.43383	-108.07541	
2,400.00	10.42	337.28	2,365.24	358.81	-150.22	1,593,230.21	2,272,667.92	39.43388	-108.07543	
2,500.00	10.42	337.28	2,463.59	375.50	-157.20	1,593,247.09	2,272,661.41	39.43393	-108.07546	
2,600.00	10.42	337.28	2,561.94	392.19	-164.19	1,593,263.96	2,272,654.90	39.43397	-108.07548	
2,700.00	10.42	337.28	2,660.29	408.88	-171.18	1,593,280.84	2,272,648.39	39.43402	-108.07551	
2,739.36	10.42	337.28	2,699.00	415.45	-173.93	1,593,287.49	2,272,645.82	39.43403	-108.07552	
Mesaverde										
2,800.00	10.42	337.28	2,758.64	425.57	-178.16	1,593,297.72	2,272,641.88	39.43406	-108.07553	
2,900.00	10.42	337.28	2,856.99	442.26	-185.15	1,593,314.60	2,272,635.37	39.43411	-108.07556	
3,000.00	10.42	337.28	2,955.34	458.95	-192.14	1,593,331.48	2,272,628.86	39.43415	-108.07558	
3,100.00	10.42	337.28	3,053.69	475.63	-199.12	1,593,348.36	2,272,622.35	39.43420	-108.07561	
3,200.00	10.42	337.28	3,152.04	492.32	-206.11	1,593,365.24	2,272,615.83	39.43425	-108.07563	
3,249.48	10.42	337.28	3,200.70	500.58	-209.57	1,593,373.59	2,272,612.61	39.43427	-108.07564	
Start Drop -2.00										
3,300.00	9.41	337.28	3,250.47	508.61	-212.93	1,593,381.71	2,272,609.48	39.43429	-108.07566	
3,400.00	7.41	337.28	3,349.39	522.10	-218.58	1,593,395.36	2,272,604.22	39.43433	-108.07568	
3,500.00	5.41	337.28	3,448.75	532.40	-222.89	1,593,405.78	2,272,600.20	39.43436	-108.07569	
3,600.00	3.41	337.28	3,548.45	539.50	-225.86	1,593,412.96	2,272,597.43	39.43438	-108.07570	

WPX
Planning Report - Geographic

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Project:	GV 14-07S-096W	MD Reference:	KELLY BUSHING @ 5199.00usft (Nabors (26' RKB) kjs)
Site:	GM 34-14 Pad	North Reference:	True
Well:	GM 533-14	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 20Feb14 kjs		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
3,700.00	1.41	337.28	3,648.36	543.38	-227.49	1,593,416.88	2,272,595.91	39.43439	-108.07571	
3,770.65	0.00	0.00	3,719.00	544.19	-227.82	1,593,417.70	2,272,595.60	39.43439	-108.07571	
Vertical										
3,800.00	0.00	0.00	3,748.35	544.19	-227.82	1,593,417.70	2,272,595.60	39.43439	-108.07571	
3,870.65	0.00	0.00	3,819.00	544.19	-227.82	1,593,417.70	2,272,595.60	39.43439	-108.07571	
Top Gas - Approx. Top Gas										
3,900.00	0.00	0.00	3,848.35	544.19	-227.82	1,593,417.70	2,272,595.60	39.43439	-108.07571	
4,000.00	0.00	0.00	3,948.35	544.19	-227.82	1,593,417.70	2,272,595.60	39.43439	-108.07571	
4,100.00	0.00	0.00	4,048.35	544.19	-227.82	1,593,417.70	2,272,595.60	39.43439	-108.07571	
4,200.00	0.00	0.00	4,148.35	544.19	-227.82	1,593,417.70	2,272,595.60	39.43439	-108.07571	
4,300.00	0.00	0.00	4,248.35	544.19	-227.82	1,593,417.70	2,272,595.60	39.43439	-108.07571	
4,400.00	0.00	0.00	4,348.35	544.19	-227.82	1,593,417.70	2,272,595.60	39.43439	-108.07571	
4,500.00	0.00	0.00	4,448.35	544.19	-227.82	1,593,417.70	2,272,595.60	39.43439	-108.07571	
4,600.00	0.00	0.00	4,548.35	544.19	-227.82	1,593,417.70	2,272,595.60	39.43439	-108.07571	
4,700.00	0.00	0.00	4,648.35	544.19	-227.82	1,593,417.70	2,272,595.60	39.43439	-108.07571	
4,800.00	0.00	0.00	4,748.35	544.19	-227.82	1,593,417.70	2,272,595.60	39.43439	-108.07571	
4,900.00	0.00	0.00	4,848.35	544.19	-227.82	1,593,417.70	2,272,595.60	39.43439	-108.07571	
5,000.00	0.00	0.00	4,948.35	544.19	-227.82	1,593,417.70	2,272,595.60	39.43439	-108.07571	
5,100.00	0.00	0.00	5,048.35	544.19	-227.82	1,593,417.70	2,272,595.60	39.43439	-108.07571	
5,200.00	0.00	0.00	5,148.35	544.19	-227.82	1,593,417.70	2,272,595.60	39.43439	-108.07571	
5,200.65	0.00	0.00	5,149.00	544.19	-227.82	1,593,417.70	2,272,595.60	39.43439	-108.07571	
Cameo Coals										
5,300.00	0.00	0.00	5,248.35	544.19	-227.82	1,593,417.70	2,272,595.60	39.43439	-108.07571	
5,400.00	0.00	0.00	5,348.35	544.19	-227.82	1,593,417.70	2,272,595.60	39.43439	-108.07571	
5,500.00	0.00	0.00	5,448.35	544.19	-227.82	1,593,417.70	2,272,595.60	39.43439	-108.07571	
5,600.00	0.00	0.00	5,548.35	544.19	-227.82	1,593,417.70	2,272,595.60	39.43439	-108.07571	
5,670.65	0.00	0.00	5,619.00	544.19	-227.82	1,593,417.70	2,272,595.60	39.43439	-108.07571	
Rollins SS										
5,700.00	0.00	0.00	5,648.35	544.19	-227.82	1,593,417.70	2,272,595.60	39.43439	-108.07571	
5,770.65	0.00	0.00	5,719.00	544.19	-227.82	1,593,417.70	2,272,595.60	39.43439	-108.07571	
TD at 5770.65										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
- hit/miss target										
- Shape										
Top Gas (50' Radius) GI	0.00	0.00	3,819.00	544.19	-227.82	1,593,417.70	2,272,595.60	39.43439	-108.07571	
- plan hits target center										
- Circle (radius 50.00)										

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,011.85	1,000.00	9 5/8"	9.625	12.250	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 533-14 - Slot B07
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5199.00usft (Nabors (26' RKB) kjs)
Project:	GV 14-07S-096W	MD Reference:	KELLY BUSHING @ 5199.00usft (Nabors (26' RKB) kjs)
Site:	GM 34-14 Pad	North Reference:	True
Well:	GM 533-14	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 20Feb14 kjs		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
980.33	969.00	Top of "G" Sand				
1,082.01	1,069.00	Base of "G" Sand				
2,739.36	2,699.00	Mesaverde				
3,870.65	3,819.00	Approx. Top Gas				
5,200.65	5,149.00	Cameo Coals				
5,670.65	5,619.00	Rollins SS				
5,770.65	5,719.00	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 4.00	
380.58	379.14	21.80	-9.13	Hold 10.42 Inclination	
3,249.48	3,200.70	500.58	-209.57	Start Drop -2.00	
3,770.65	3,719.00	544.19	-227.82	Vertical	
3,870.65	3,819.00	544.19	-227.82	Top Gas	
5,770.65	5,719.00	544.19	-227.82	TD at 5770.65	