



PICEANCE VLY NAD 83

PA 02-07S-095W

GV 86-2 Pad

PA 13-2 - Slot B1

Wellbore #1

Plan: Plan #2 12Feb13 kjs

Standard Planning Report - Geographic

05 June, 2013



WPX Energy
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well PA 13-2 - Slot B1
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5847.00usft (Nabors 577 (26' RKB) kjs)
Project:	PA 02-07S-095W	MD Reference:	KELLY BUSHING @ 5847.00usft (Nabors 577 (26' RKB) kjs)
Site:	GV 86-2 Pad	North Reference:	True
Well:	PA 13-2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 12Feb13 kjs		

Project	PA 02-07S-095W, Garfield County, CO, 02-07S-095W		
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	GV 86-2 Pad			
Site Position:		Northing:	1,603,715.70 usft	Latitude: 39.46496
From: Map		Easting:	2,302,953.10 usft	Longitude: -107.96926
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence: -1.557 °

Well	PA 13-2 - Slot B1			
Well Position	+N/-S	0.00 usft	Northing:	1,603,793.30 usft
	+E/-W	0.00 usft	Easting:	2,302,923.30 usft
Position Uncertainty	0.00 usft		Wellhead Elevation:	
			Ground Level:	5,821.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2005-10	10/31/2007	10.785	65.824	52,624

Design	Plan #2 12Feb13 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	287.48

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	
760.88	12.82	287.48	755.54	21.44	-68.09	2.00	2.00	0.00	287.481	
4,518.58	12.82	287.48	4,419.61	271.87	-863.22	0.00	0.00	0.00	0.000	
5,373.08	0.00	0.00	5,267.00	300.46	-954.01	1.50	-1.50	0.00	180.000	
5,473.08	0.00	0.00	5,367.00	300.46	-954.01	0.00	0.00	0.00	0.000	Top Gas (50' Radius)
7,623.08	0.00	0.00	7,517.00	300.46	-954.01	0.00	0.00	0.00	0.000	



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Project:	PA 02-07S-095W	MD Reference:	KELLY BUSHING @ 5847.00usft (Nabors 577 (26' RKB) kjs)
Site:	GV 86-2 Pad	North Reference:	True
Well:	PA 13-2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 12Feb13 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	1,603,793.30	2,302,923.30	39.46517	-107.96937	
120.00	0.00	0.00	120.00	0.00	0.00	1,603,793.30	2,302,923.30	39.46517	-107.96937	
Start Build 2.00										
500.00	7.60	287.48	498.89	7.56	-24.00	1,603,801.50	2,302,899.51	39.46520	-107.96946	
760.88	12.82	287.48	755.54	21.44	-68.09	1,603,816.58	2,302,855.82	39.46523	-107.96961	
Hold 12.82 Inclination										
862.00	12.82	287.48	854.15	28.18	-89.49	1,603,823.90	2,302,834.62	39.46525	-107.96969	
9 5/8"										
1,000.00	12.82	287.48	988.71	37.38	-118.69	1,603,833.89	2,302,805.68	39.46528	-107.96979	
1,500.00	12.82	287.48	1,476.25	70.70	-224.49	1,603,870.07	2,302,700.83	39.46537	-107.97017	
1,931.50	12.82	287.48	1,897.00	99.46	-315.79	1,603,901.29	2,302,610.34	39.46545	-107.97049	
Top of "G" Sand										
2,000.00	12.82	287.48	1,963.79	104.02	-330.29	1,603,906.25	2,302,595.98	39.46546	-107.97054	
2,034.06	12.82	287.48	1,997.00	106.29	-337.50	1,603,908.72	2,302,588.83	39.46547	-107.97057	
Base of "G" Sand										
2,500.00	12.82	287.48	2,451.33	137.34	-436.09	1,603,942.43	2,302,491.13	39.46555	-107.97092	
3,000.00	12.82	287.48	2,938.87	170.66	-541.89	1,603,978.62	2,302,386.27	39.46564	-107.97129	
3,500.00	12.82	287.48	3,426.41	203.99	-647.69	1,604,014.80	2,302,281.42	39.46573	-107.97167	
4,000.00	12.82	287.48	3,913.95	237.31	-753.49	1,604,050.98	2,302,176.57	39.46583	-107.97204	
4,156.96	12.82	287.48	4,067.00	247.77	-786.70	1,604,062.34	2,302,143.66	39.46586	-107.97216	
Mesaverde										
4,500.00	12.82	287.48	4,401.49	270.63	-859.29	1,604,087.17	2,302,071.72	39.46592	-107.97242	
4,518.58	12.82	287.48	4,419.61	271.87	-863.22	1,604,088.51	2,302,067.83	39.46592	-107.97243	
Start Drop -1.50										
5,000.00	5.60	287.48	4,894.52	294.99	-936.64	1,604,113.62	2,301,995.06	39.46598	-107.97269	
5,373.08	0.00	0.00	5,267.00	300.46	-954.01	1,604,119.56	2,301,977.85	39.46600	-107.97275	
Vertical										
5,473.08	0.00	0.00	5,367.00	300.46	-954.01	1,604,119.56	2,301,977.85	39.46600	-107.97275	
Top Gas - Approx. Top Gas										
5,500.00	0.00	0.00	5,393.92	300.46	-954.01	1,604,119.56	2,301,977.85	39.46600	-107.97275	
6,000.00	0.00	0.00	5,893.92	300.46	-954.01	1,604,119.56	2,301,977.85	39.46600	-107.97275	
6,500.00	0.00	0.00	6,393.92	300.46	-954.01	1,604,119.56	2,301,977.85	39.46600	-107.97275	
6,653.08	0.00	0.00	6,547.00	300.46	-954.01	1,604,119.56	2,301,977.85	39.46600	-107.97275	
Cameo Coals										
7,000.00	0.00	0.00	6,893.92	300.46	-954.01	1,604,119.56	2,301,977.85	39.46600	-107.97275	
7,473.08	0.00	0.00	7,367.00	300.46	-954.01	1,604,119.56	2,301,977.85	39.46600	-107.97275	
Rollins SS										
7,500.00	0.00	0.00	7,393.92	300.46	-954.01	1,604,119.56	2,301,977.85	39.46600	-107.97275	
7,623.08	0.00	0.00	7,517.00	300.46	-954.01	1,604,119.56	2,301,977.85	39.46600	-107.97275	
TD at 7623.08 - TD										

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) P/	0.00	0.00	5,367.00	300.46	-954.01	1,604,119.56	2,301,977.85	39.46600	-107.97275	
- plan hits target center										
- Circle (radius 50.00)										



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Project:	PA 02-07S-095W	MD Reference:	KELLY BUSHING @ 5847.00usft (Nabors 577 (26' RKB) kjs)
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Wellbore:	Wellbore #1		
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Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
862.00	854.15	9 5/8"	9.625	13.500	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,931.50	1,897.00	Top of "G" Sand				
2,034.06	1,997.00	Base of "G" Sand				
4,156.96	4,067.00	Mesaverde				
5,473.08	5,367.00	Approx. Top Gas				
6,653.08	6,547.00	Cameo Coals				
7,473.08	7,367.00	Rollins SS				
7,623.08	7,517.00	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 2.00	
760.88	755.54	21.44	-68.09	Hold 12.82 Inclination	
4,518.58	4,419.61	271.87	-863.22	Start Drop -1.50	
5,373.08	5,267.00	300.46	-954.01	Vertical	
5,473.08	5,367.00	300.46	-954.01	Top Gas	
7,623.08	7,517.00	300.46	-954.01	TD at 7623.08	