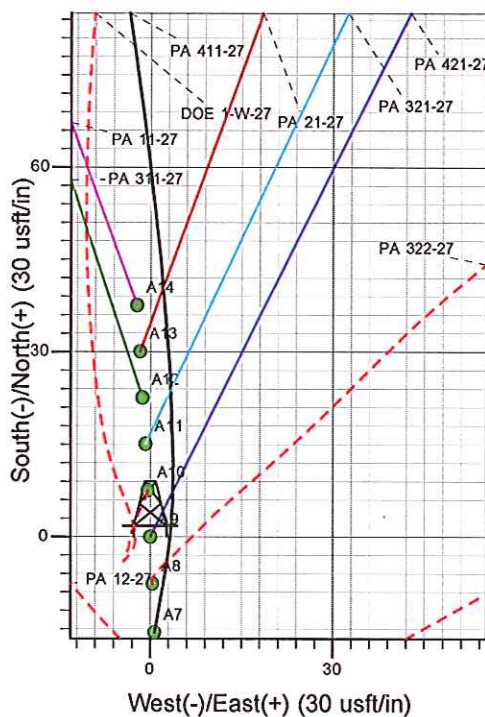
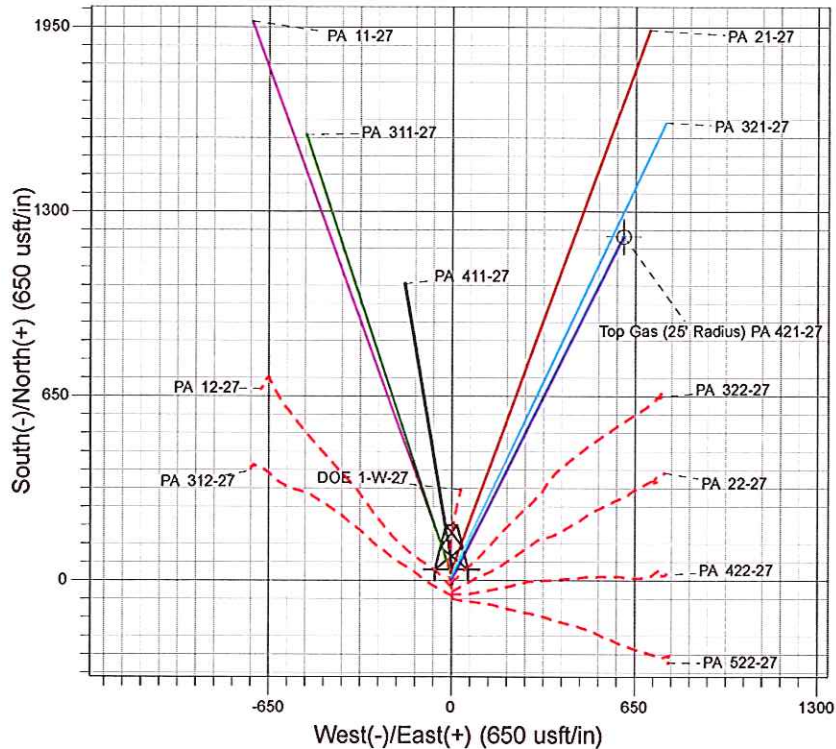
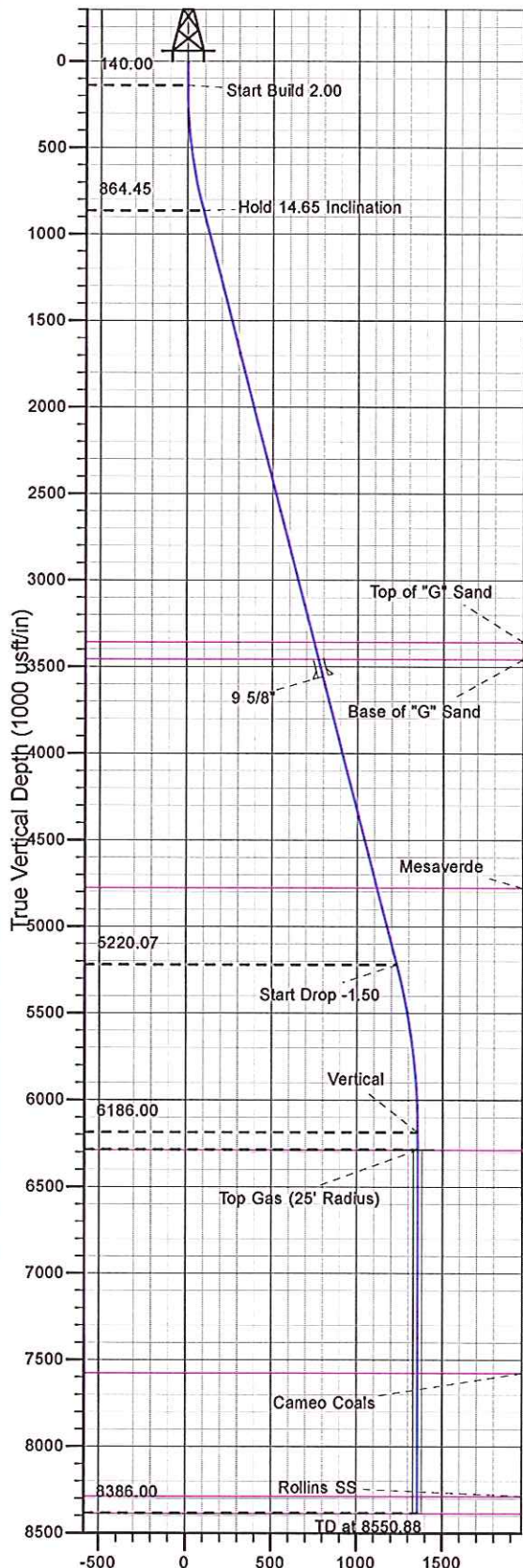




Well Name: PA 421-27
 Surface Location: DOE 1-W-27 Pad
 North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
 Ground Elevation: 5840.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1615420.80	2297661.30	39.49669	-107.98913	A9

KELLY BUSHING @ 5866.00usft (Nabors 577 (26' KB))



Project: PA 27-06S-095W
 Site: DOE 1-W-27 Pad
 Well: PA 421-27
 Design #2 10Jan13 kjs



Azimuths to True North
 Magnetic North: 11.45°

Magnetic Field
 Strength: 53050.5nT
 Dip Angle: 65.99°
 Date: 12/31/2004
 Model: IGRF2000

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation
140.00	0.00	0.00	140.00	0.00	0.00	0.00	0.00	Start Build 2.00
872.40	14.65	26.65	864.45	83.22	41.76	93.11	93.11	Hold 14.65 Inclination
5374.35	14.65	26.65	5220.07	1100.75	552.35	1231.56	1231.56	Start Drop -1.50
6350.88	0.00	0.00	6186.00	1211.71	608.03	1355.71	1355.71	Vertical
6450.88	0.00	0.00	6286.00	1211.71	608.03	1355.71	1355.71	Top Gas
8550.88	0.00	0.00	8386.00	1211.71	608.03	1355.71	1355.71	TD at 8550.88



PICEANCE VLY NAD 83

PA 27-06S-095W

DOE 1-W-27 Pad

PA 421-27 - Slot A9

Wellbore #1

Plan: Design #2 10Jan13 kjs

Standard Planning Report - Geographic

10 January, 2013



WPX Energy
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well PA 421-27 - Slot A9
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5866.00usft (Nabors 577 (26' KB))
Project:	PA 27-06S-095W	MD Reference:	KELLY BUSHING @ 5866.00usft (Nabors 577 (26' KB))
Site:	DOE 1-W-27 Pad	North Reference:	True
Well:	PA 421-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 10Jan13 kjs		

Project	PA 27-06S-095W, Garfield County, CO, 27-06S-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	DOE 1-W-27 Pad			
Site Position:		Northing:	1,615,428.38 usft	Latitude: 39.49671
From:	Map	Easting:	2,297,661.11 usft	Longitude: -107.98913
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence: -1.57 °

Well	PA 421-27 - Slot A9			
Well Position	+N/-S	0.00 usft	Northing:	1,615,420.80 usft
	+E/-W	0.00 usft	Easting:	2,297,661.30 usft
Position Uncertainty	0.00 usft		Wellhead Elevation:	Ground Level: 5,840.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2000	12/31/2004	11.45	65.99	53,050

Design	Design #2 10Jan13 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	26.65

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	0.00	
140.00	0.00	0.00	140.00	0.00	0.00	0.00	0.00	0.00	0.00	
872.40	14.65	26.65	864.45	83.22	41.76	2.00	2.00	0.00	26.65	
5,374.35	14.65	26.65	5,220.07	1,100.75	552.35	0.00	0.00	0.00	0.00	
6,350.88	0.00	0.00	6,186.00	1,211.71	608.03	1.50	-1.50	0.00	180.00	
6,450.88	0.00	0.00	6,286.00	1,211.71	608.03	0.00	0.00	0.00	0.00	Top Gas (25' Radius)
8,550.88	0.00	0.00	8,386.00	1,211.71	608.03	0.00	0.00	0.00	0.00	



WPX Energy
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well PA 421-27 - Slot A9
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5866.00usft (Nabors 577 (26' KB))
Project:	PA 27-06S-095W	MD Reference:	KELLY BUSHING @ 5866.00usft (Nabors 577 (26' KB))
Site:	DOE 1-W-27 Pad	North Reference:	True
Well:	PA 421-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 10Jan13 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	1,615,420.80	2,297,661.30	39.49669	-107.98913
140.00	0.00	0.00	140.00	0.00	0.00	1,615,420.80	2,297,661.30	39.49669	-107.98913
Start Build 2.00									
500.00	7.20	26.65	499.05	20.19	10.13	1,615,440.70	2,297,671.98	39.49675	-107.98910
872.40	14.65	26.65	864.45	83.22	41.76	1,615,502.84	2,297,705.32	39.49692	-107.98898
Hold 14.65 Inclination									
1,000.00	14.65	26.65	987.90	112.06	56.23	1,615,531.27	2,297,720.58	39.49700	-107.98893
1,500.00	14.65	26.65	1,471.65	225.07	112.94	1,615,642.68	2,297,780.36	39.49731	-107.98873
2,000.00	14.65	26.65	1,955.40	338.08	169.65	1,615,754.09	2,297,840.14	39.49762	-107.98853
2,500.00	14.65	26.65	2,439.15	451.09	226.36	1,615,865.50	2,297,899.92	39.49793	-107.98833
3,000.00	14.65	26.65	2,922.90	564.10	283.06	1,615,976.91	2,297,959.70	39.49824	-107.98813
3,447.65	14.65	26.65	3,356.00	665.28	333.84	1,616,076.65	2,298,013.22	39.49852	-107.98795
Top of "G" Sand									
3,500.00	14.65	26.65	3,406.65	677.11	339.77	1,616,088.32	2,298,019.48	39.49855	-107.98793
3,551.01	14.65	26.65	3,456.00	688.64	345.56	1,616,099.68	2,298,025.58	39.49858	-107.98791
Base of "G" Sand									
3,654.37	14.65	26.65	3,556.00	712.00	357.28	1,616,122.71	2,298,037.94	39.49865	-107.98787
9 5/8"									
4,000.00	14.65	26.65	3,890.39	790.12	396.48	1,616,199.73	2,298,079.26	39.49886	-107.98773
4,500.00	14.65	26.65	4,374.14	903.13	453.19	1,616,311.14	2,298,139.04	39.49917	-107.98753
4,915.36	14.65	26.65	4,776.00	997.01	500.30	1,616,403.69	2,298,188.70	39.49943	-107.98736
Mesaverde									
5,000.00	14.65	26.65	4,857.89	1,016.14	509.90	1,616,422.55	2,298,198.82	39.49948	-107.98733
5,374.35	14.65	26.65	5,220.07	1,100.75	552.35	1,616,505.96	2,298,243.58	39.49971	-107.98717
Start Drop -1.50									
5,500.00	12.76	26.65	5,342.14	1,127.36	565.71	1,616,532.19	2,298,257.66	39.49979	-107.98713
6,000.00	5.26	26.65	5,835.62	1,197.32	600.81	1,616,601.16	2,298,294.66	39.49998	-107.98700
6,350.88	0.00	0.00	6,186.00	1,211.71	608.03	1,616,615.35	2,298,302.28	39.50002	-107.98698
Vertical									
6,450.88	0.00	0.00	6,286.00	1,211.71	608.03	1,616,615.35	2,298,302.28	39.50002	-107.98698
Top Gas - Approx. Top Gas									
6,500.00	0.00	0.00	6,335.12	1,211.71	608.03	1,616,615.35	2,298,302.28	39.50002	-107.98698
7,000.00	0.00	0.00	6,835.12	1,211.71	608.03	1,616,615.35	2,298,302.28	39.50002	-107.98698
7,500.00	0.00	0.00	7,335.12	1,211.71	608.03	1,616,615.35	2,298,302.28	39.50002	-107.98698
7,740.88	0.00	0.00	7,576.00	1,211.71	608.03	1,616,615.35	2,298,302.28	39.50002	-107.98698
Cameo Coals									
8,000.00	0.00	0.00	7,835.12	1,211.71	608.03	1,616,615.35	2,298,302.28	39.50002	-107.98698
8,450.88	0.00	0.00	8,286.00	1,211.71	608.03	1,616,615.35	2,298,302.28	39.50002	-107.98698
Rollins SS									
8,500.00	0.00	0.00	8,335.12	1,211.71	608.03	1,616,615.35	2,298,302.28	39.50002	-107.98698
8,550.87	0.00	0.00	8,385.99	1,211.71	608.03	1,616,615.35	2,298,302.28	39.50002	-107.98698
TD									
8,550.88	0.00	0.00	8,386.00	1,211.71	608.03	1,616,615.35	2,298,302.28	39.50002	-107.98698
TD at 8550.88									



WPX Energy
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well PA 421-27 - Slot A9
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5866.00usft (Nabors 577 (26' KB))
Project:	PA 27-06S-095W	MD Reference:	KELLY BUSHING @ 5866.00usft (Nabors 577 (26' KB))
Site:	DOE 1-W-27 Pad	North Reference:	True
Well:	PA 421-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 10Jan13 kjs		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
Top Gas (25' Radius) P/	0.00	0.00	6,286.00	1,211.71	608.03	1,616,615.35	2,298,302.28	39.50002	-107.98698
- plan hits target center									
- Circle (radius 25.00)									

Casing Points				
Measured Depth	Vertical Depth		Casing Diameter	Hole Diameter
(usft)	(usft)	Name	(in)	(in)
3,654.37	3,556.00	9 5/8"	9.625	13.500

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(usft)	(usft)			(°)	(°)	
3,447.65	3,356.00	Top of "G" Sand				
3,551.01	3,456.00	Base of "G" Sand				
4,915.36	4,776.00	Mesaverde				
6,450.88	6,286.00	Approx. Top Gas				
7,740.88	7,576.00	Cameo Coals				
8,450.88	8,286.00	Rollins SS				
8,550.87	8,385.99	TD		0.00		

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(usft)	(usft)	+N/-S (usft)	+E/-W (usft)	
140.00	140.00	0.00	0.00	Start Build 2.00
872.40	864.45	83.22	41.76	Hold 14.65 Inclination
5,374.35	5,220.07	1,100.75	552.35	Start Drop -1.50
6,350.88	6,186.00	1,211.71	608.03	Vertical
6,450.88	6,286.00	1,211.71	608.03	Top Gas
8,550.88	8,386.00	1,211.71	608.03	TD at 8550.88