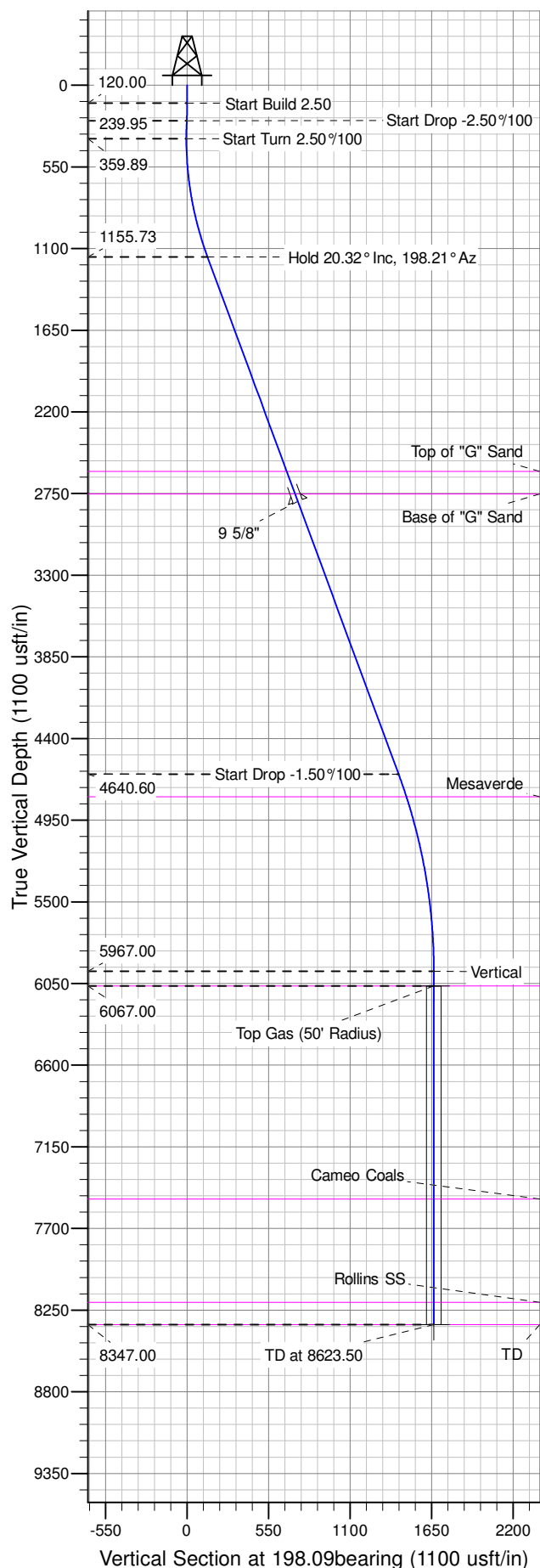
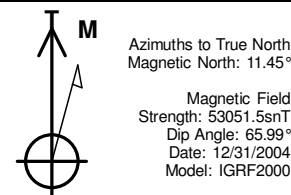
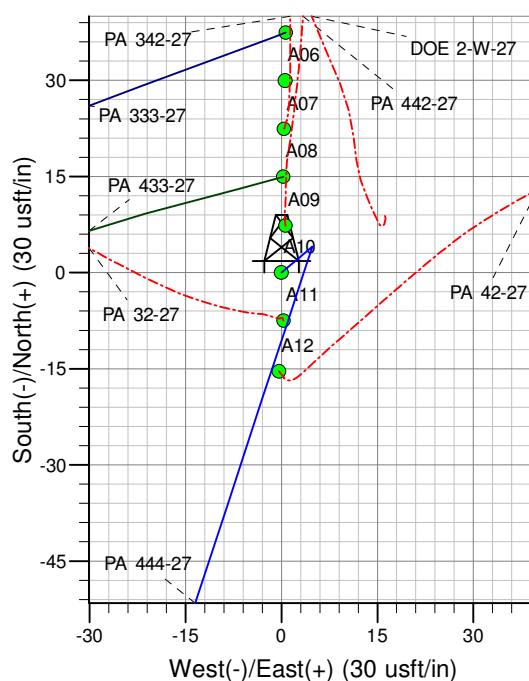
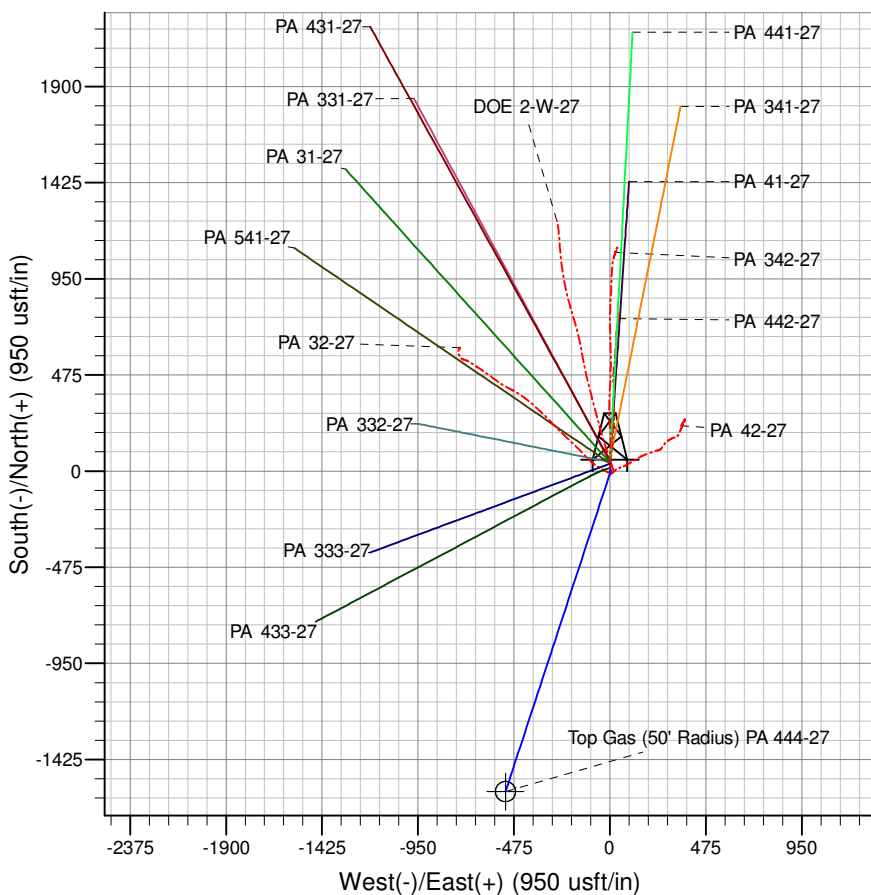




Well Name: PA 444-27
Surface Location: DOE 2-W-27 Pad
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
Ground Elevation: 5856.00
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.00 0.00 1615042.90704 2300863.38555 39.49589 -107.97775 A10
KELLY BUSHING @ 5882.00usft (Nabors 576 (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	0.00	Start Build 2.50
239.95	240.00	3.00	50.00	2.02	2.41	-2.67	3.14	3.14	Start Drop -2.50%/100
359.89	360.00	0.00	0.00	4.04	4.81	-5.33	6.28	6.28	Start Turn 2.50%/100
1155.73	1172.77	20.32	198.21	-131.44	-39.75	137.28	148.90	148.90	Hold 20.32° Inc, 198.21° Az
4640.60	4888.89	20.32	198.21	-1357.25	-442.94	1427.70	1439.32	1439.32	Start Drop -1.50%/100
5967.00	6243.50	0.00	358.44	-1583.04	-517.21	1665.39	1677.01	1677.01	Vertical
6067.00	6343.50	0.00	0.00	-1583.04	-517.21	1665.39	1677.01	1677.01	Top Gas
8347.00	8623.50	0.00	358.44	-1583.04	-517.21	1665.39	1677.01	1677.01	TD at 8623.50



Project: PA 27-06S-095W
Site: DOE 2-W-27 Pad
Well: PA 444-27
Design #2 24Apr14 mab

PICEANCE VLY NAD 83

PA 27-06S-095W

DOE 2-W-27 Pad

PA 444-27 - Slot A10

Wellbore #1

Plan: Design #2 24Apr14 mab

Standard Planning Report - Geographic

03 June, 2014

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well PA 444-27 - Slot A10
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5882.00usft (Nabors 576 (26' RKB) mab)
Project:	PA 27-06S-095W	MD Reference:	KELLY BUSHING @ 5882.00usft (Nabors 576 (26' RKB) mab)
Site:	DOE 2-W-27 Pad	North Reference:	True
Well:	PA 444-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 24Apr14 mab		

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 2-W-27 Pad			
Site Position:		Northing:	1,615,065.30000 usft	Latitude: 39.49596
From: Map		Easting:	2,300,864.40000 usft	Longitude: -107.97775
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence: -1.56 °

Well	PA 444-27 - Slot A10			
Well Position	+N/-S	0.00 usft	Northing:	1,615,042.90704 usft
	+E/-W	0.00 usft	Easting:	2,300,863.38555 usft
Position Uncertainty	0.00 usft		Wellhead Elevation:	0.00 usft
			Ground Level:	5,856.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2000	12/31/2004	11.44	65.99	53,052

Design	Design #2 24Apr14 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	198.09

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	
240.00	3.00	50.00	239.95	2.02	2.41	2.50	2.50	0.00	50.00	
360.00	0.00	0.00	359.89	4.04	4.81	2.50	-2.50	0.00	180.00	
1,172.77	20.32	198.21	1,155.73	-131.44	-39.75	2.50	2.50	0.00	198.21	
4,888.89	20.32	198.21	4,640.60	-1,357.25	-442.94	0.00	0.00	0.00	0.00	
6,243.50	0.00	358.44	5,967.00	-1,583.04	-517.21	1.50	-1.50	0.00	180.00	
8,623.50	0.00	358.44	8,347.00	-1,583.04	-517.21	0.00	0.00	0.00	0.00	TD / PBHL PA 444-27

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well PA 444-27 - Slot A10
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5882.00usft (Nabors 576 (26' RKB) mab)
Project:	PA 27-06S-095W	MD Reference:	KELLY BUSHING @ 5882.00usft (Nabors 576 (26' RKB) mab)
Site:	DOE 2-W-27 Pad	North Reference:	True
Well:	PA 444-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 24Apr14 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	1,615,042.90704	2,300,863.38555	39.49589	-107.97775	
120.00	0.00	0.00	120.00	0.00	0.00	1,615,042.90704	2,300,863.38555	39.49589	-107.97775	
Start Build 2.50										
200.00	2.00	50.00	199.98	0.90	1.07	1,615,043.77491	2,300,864.47908	39.49590	-107.97775	
240.00	3.00	50.00	239.95	2.02	2.41	1,615,044.85951	2,300,865.84567	39.49590	-107.97774	
Start Drop -2.50°/100										
360.00	0.00	0.00	359.89	4.04	4.81	1,615,046.81198	2,300,868.30578	39.49591	-107.97774	
Start Turn 2.50°/100										
400.00	1.00	198.21	399.89	3.71	4.70	1,615,046.48351	2,300,868.18772	39.49590	-107.97774	
600.00	6.00	198.21	599.45	-7.89	0.89	1,615,034.99756	2,300,864.05938	39.49587	-107.97775	
800.00	11.00	198.21	797.19	-35.96	-8.34	1,615,007.18801	2,300,854.06392	39.49580	-107.97778	
1,000.00	16.00	198.21	991.60	-80.30	-22.93	1,614,963.26652	2,300,838.27743	39.49567	-107.97783	
1,172.77	20.32	198.21	1,155.73	-131.44	-39.75	1,614,912.60867	2,300,820.06972	39.49553	-107.97789	
Hold 20.32° Inc, 198.21° Az										
1,200.00	20.32	198.21	1,181.27	-140.42	-42.70	1,614,903.70992	2,300,816.87128	39.49551	-107.97790	
1,400.00	20.32	198.21	1,368.82	-206.39	-64.40	1,614,838.35603	2,300,793.38144	39.49533	-107.97798	
1,600.00	20.32	198.21	1,556.38	-272.37	-86.10	1,614,773.00212	2,300,769.89160	39.49515	-107.97806	
1,800.00	20.32	198.21	1,743.93	-338.34	-107.80	1,614,707.64822	2,300,746.40175	39.49497	-107.97813	
2,000.00	20.32	198.21	1,931.48	-404.31	-129.50	1,614,642.29432	2,300,722.91191	39.49478	-107.97821	
2,200.00	20.32	198.21	2,119.04	-470.28	-151.20	1,614,576.94041	2,300,699.42206	39.49460	-107.97829	
2,400.00	20.32	198.21	2,306.59	-536.26	-172.90	1,614,511.58651	2,300,675.93222	39.49442	-107.97837	
2,600.00	20.32	198.21	2,494.15	-602.23	-194.60	1,614,446.23261	2,300,652.44237	39.49424	-107.97844	
2,715.01	20.32	198.21	2,602.00	-640.17	-207.08	1,614,408.65119	2,300,638.93466	39.49414	-107.97849	
Top of "G" Sand										
2,800.00	20.32	198.21	2,681.70	-668.20	-216.30	1,614,380.87871	2,300,628.95253	39.49406	-107.97852	
2,874.96	20.32	198.21	2,752.00	-692.93	-224.43	1,614,356.38327	2,300,620.14825	39.49399	-107.97855	
Base of "G" Sand										
2,928.28	20.32	198.21	2,802.00	-710.52	-230.22	1,614,338.96063	2,300,613.88611	39.49394	-107.97857	
9 5/8"										
3,000.00	20.32	198.21	2,869.26	-734.18	-238.00	1,614,315.52480	2,300,605.46268	39.49388	-107.97860	
3,200.00	20.32	198.21	3,056.81	-800.15	-259.70	1,614,250.17090	2,300,581.97284	39.49370	-107.97867	
3,400.00	20.32	198.21	3,244.37	-866.12	-281.40	1,614,184.81700	2,300,558.48299	39.49352	-107.97875	
3,600.00	20.32	198.21	3,431.92	-932.09	-303.10	1,614,119.46309	2,300,534.99315	39.49334	-107.97883	
3,800.00	20.32	198.21	3,619.48	-998.07	-324.80	1,614,054.10920	2,300,511.50331	39.49315	-107.97890	
4,000.00	20.32	198.21	3,807.03	-1,064.04	-346.50	1,613,988.75529	2,300,488.01346	39.49297	-107.97898	
4,200.00	20.32	198.21	3,994.58	-1,130.01	-368.20	1,613,923.40139	2,300,464.52363	39.49279	-107.97906	
4,400.00	20.32	198.21	4,182.14	-1,195.99	-389.90	1,613,858.04748	2,300,441.03378	39.49261	-107.97913	
4,600.00	20.32	198.21	4,369.69	-1,261.96	-411.60	1,613,792.69358	2,300,417.54394	39.49243	-107.97921	
4,800.00	20.32	198.21	4,557.25	-1,327.93	-433.30	1,613,727.33967	2,300,394.05409	39.49225	-107.97929	
4,888.89	20.32	198.21	4,640.60	-1,357.25	-442.94	1,613,698.29401	2,300,383.61435	39.49217	-107.97932	
Start Drop -1.50°/100										
5,000.00	18.65	198.21	4,745.35	-1,392.46	-454.52	1,613,663.41696	2,300,371.07865	39.49207	-107.97936	
5,049.13	17.92	198.21	4,792.00	-1,407.10	-459.34	1,613,648.91203	2,300,365.86521	39.49203	-107.97938	
Mesaverde										
5,200.00	15.65	198.21	4,936.43	-1,448.48	-472.95	1,613,607.91884	2,300,351.13122	39.49192	-107.97943	
5,400.00	12.65	198.21	5,130.34	-1,494.93	-488.23	1,613,561.90746	2,300,334.59357	39.49179	-107.97948	
5,600.00	9.65	198.21	5,326.54	-1,531.67	-500.31	1,613,525.50894	2,300,321.51102	39.49169	-107.97953	
5,800.00	6.65	198.21	5,524.50	-1,558.61	-509.17	1,613,498.82305	2,300,311.91944	39.49162	-107.97956	
6,000.00	3.65	198.21	5,723.67	-1,575.67	-514.78	1,613,481.92293	2,300,305.84511	39.49157	-107.97958	
6,200.00	0.65	198.21	5,923.50	-1,582.81	-517.13	1,613,474.85491	2,300,303.30469	39.49155	-107.97959	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well PA 444-27 - Slot A10
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5882.00usft (Nabors 576 (26' RKB) mab)
Project:	PA 27-06S-095W	MD Reference:	KELLY BUSHING @ 5882.00usft (Nabors 576 (26' RKB) mab)
Site:	DOE 2-W-27 Pad	North Reference:	True
Well:	PA 444-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 24Apr14 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
6,243.50	0.00	358.44	5,967.00	-1,583.04	-517.21	1,613,474.62183	2,300,303.22091	39.49155	-107.97959
Vertical									
6,343.50	0.00	0.00	6,067.00	-1,583.04	-517.21	1,613,474.62183	2,300,303.22091	39.49155	-107.97959
Top Gas - Approx. Top Gas									
6,400.00	0.00	0.00	6,123.50	-1,583.04	-517.21	1,613,474.62183	2,300,303.22091	39.49155	-107.97959
6,600.00	0.00	0.00	6,323.50	-1,583.04	-517.21	1,613,474.62183	2,300,303.22091	39.49155	-107.97959
6,800.00	0.00	0.00	6,523.50	-1,583.04	-517.21	1,613,474.62183	2,300,303.22091	39.49155	-107.97959
7,000.00	0.00	0.00	6,723.50	-1,583.04	-517.21	1,613,474.62183	2,300,303.22091	39.49155	-107.97959
7,200.00	0.00	0.00	6,923.50	-1,583.04	-517.21	1,613,474.62183	2,300,303.22091	39.49155	-107.97959
7,400.00	0.00	0.00	7,123.50	-1,583.04	-517.21	1,613,474.62183	2,300,303.22091	39.49155	-107.97959
7,600.00	0.00	0.00	7,323.50	-1,583.04	-517.21	1,613,474.62183	2,300,303.22091	39.49155	-107.97959
7,778.50	0.00	0.00	7,502.00	-1,583.04	-517.21	1,613,474.62183	2,300,303.22091	39.49155	-107.97959
Cameo Coals									
7,800.00	0.00	0.00	7,523.50	-1,583.04	-517.21	1,613,474.62183	2,300,303.22091	39.49155	-107.97959
8,000.00	0.00	0.00	7,723.50	-1,583.04	-517.21	1,613,474.62183	2,300,303.22091	39.49155	-107.97959
8,200.00	0.00	0.00	7,923.50	-1,583.04	-517.21	1,613,474.62183	2,300,303.22091	39.49155	-107.97959
8,400.00	0.00	0.00	8,123.50	-1,583.04	-517.21	1,613,474.62183	2,300,303.22091	39.49155	-107.97959
8,473.50	0.00	0.00	8,197.00	-1,583.04	-517.21	1,613,474.62183	2,300,303.22091	39.49155	-107.97959
Rollins SS									
8,600.00	0.00	0.00	8,323.50	-1,583.04	-517.21	1,613,474.62183	2,300,303.22091	39.49155	-107.97959
8,623.50	0.00	358.44	8,347.00	-1,583.04	-517.21	1,613,474.62183	2,300,303.22091	39.49155	-107.97959
TD at 8623.50 - TD									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (bearing)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
Top Gas (50' Radius) PA	0.00	0.00	6,067.00	-1,583.04	-517.21	1,613,474.62183	2,300,303.22091	39.49155	-107.97959
- plan hits target center									
- Circle (radius 50.00)									
TD / PBHL PA 444-27	0.00	0.00	8,347.00	-1,583.04	-517.21	1,613,474.62183	2,300,303.22091	39.49155	-107.97959
- plan hits target center									
- Point									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
2,928.28	2,802.00	9 5/8"	9.625	13.500	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well PA 444-27 - Slot A10
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5882.00usft (Nabors 576 (26' RKB) mab)
Project:	PA 27-06S-095W	MD Reference:	KELLY BUSHING @ 5882.00usft (Nabors 576 (26' RKB) mab)
Site:	DOE 2-W-27 Pad	North Reference:	True
Well:	PA 444-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 24Apr14 mab		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (bearing)	
2,715.01	2,602.00	Top of "G" Sand				
2,874.96	2,752.00	Base of "G" Sand				
5,049.13	4,792.00	Mesaverde				
6,343.50	6,067.00	Approx. Top Gas				
7,778.50	7,502.00	Cameo Coals				
8,473.50	8,197.00	Rollins SS				
8,623.50	8,347.00	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 2.50	
240.00	239.95	2.02	2.41	Start Drop -2.50°/100	
360.00	359.89	4.04	4.81	Start Turn 2.50°/100	
1,172.77	1,155.73	-131.44	-39.75	Hold 20.32° Inc, 198.21° Az	
4,888.89	4,640.60	-1,357.25	-442.94	Start Drop -1.50°/100	
6,243.50	5,967.00	-1,583.04	-517.21	Vertical	
6,343.50	6,067.00	-1,583.04	-517.21	Top Gas	
8,623.50	8,347.00	-1,583.04	-517.21	TD at 8623.50	