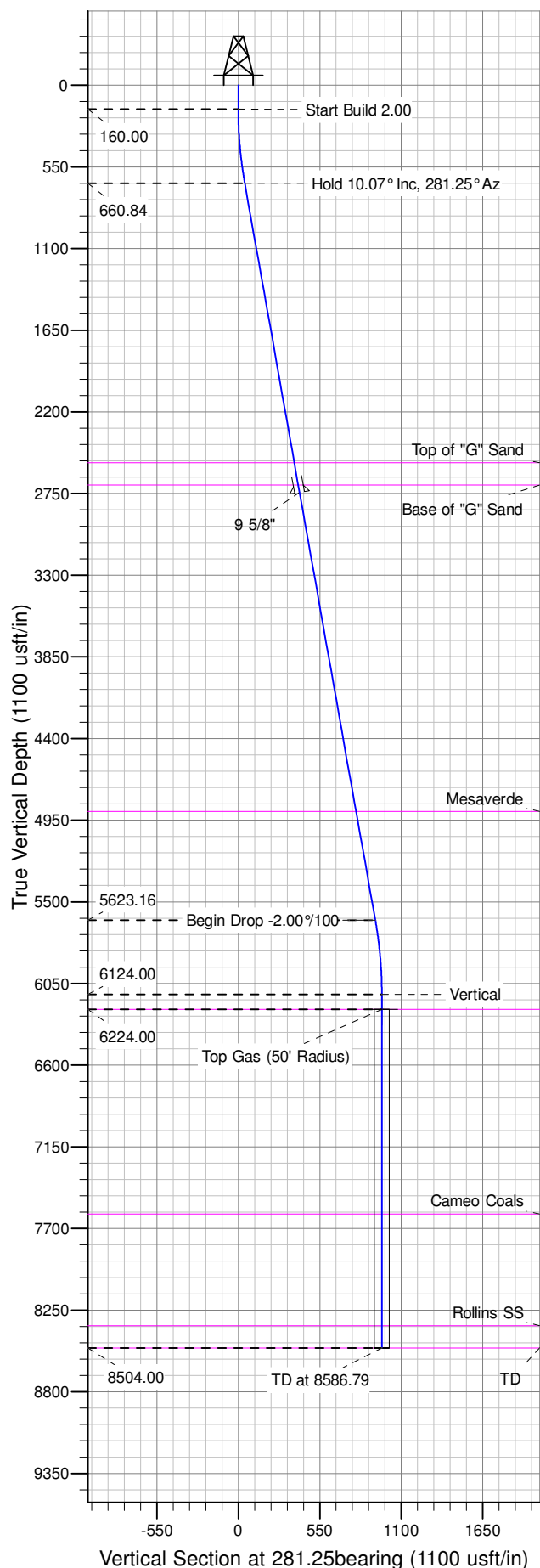
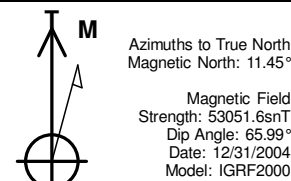
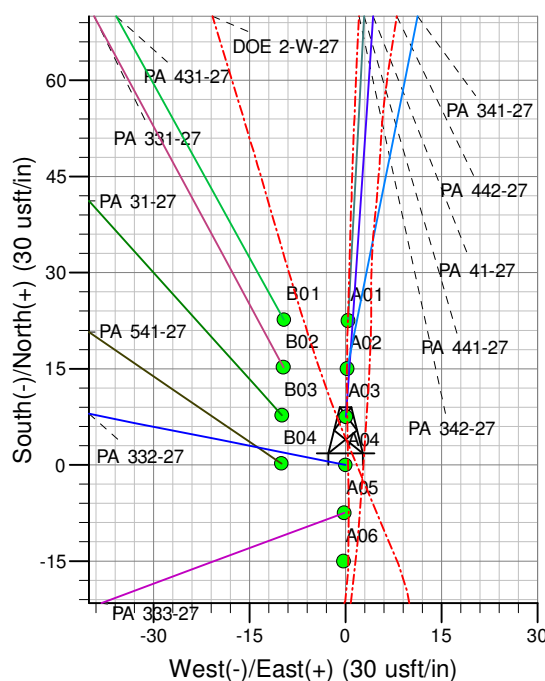
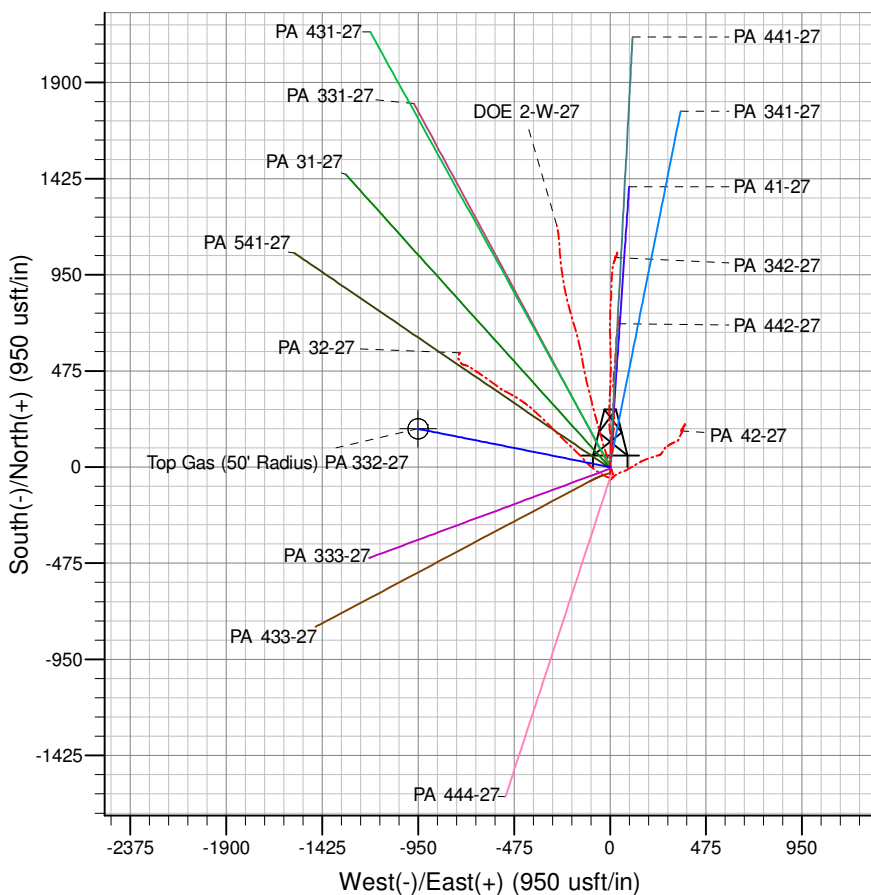




Well Name: PA 332-27
Surface Location: DOE 2-W-27 Pad
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
Ground Elevation: 5856.00
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.00 0.00 1615087.81364 2300865.48579 39.49602 -107.97775 A04
KELLY BUSHING @ 5882.00usft (Nabors 576 (26' RKB) mab)



ANNOTATIONS									
TVD	MD	Inc	Azi	+N/-S	+E/-W	Vsect	Departure	Annotation	
160.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	Start Build 2.00	
660.84	663.43	10.07	281.25	8.61	-43.27	44.12	44.12	Hold 10.07° Inc, 281.25° Az	
5623.16	5703.36	10.07	281.25	180.49	-907.46	925.24	925.24	Begin Drop -2.00°/100	
6124.00	6206.79	0.00	0.00	189.09	-950.73	969.36	969.36	Vertical	
6224.00	6306.79	0.00	0.00	189.09	-950.73	969.36	969.36	Top Gas	
8504.00	8586.79	0.00	0.00	189.09	-950.73	969.36	969.36	TD at 8586.79	



Project: PA 27-06S-095W
Site: DOE 2-W-27 Pad
Well: PA 332-27
Design #2 23Apr14 mab

PICEANCE VLY NAD 83

PA 27-06S-095W

DOE 2-W-27 Pad

PA 332-27 - Slot A04

Wellbore #1

Plan: Design #2 23Apr14 mab

Standard Planning Report - Geographic

03 June, 2014

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well PA 332-27 - Slot A04
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 332-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 23Apr14 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 332-27 - Slot A04			
Well Position	+N/-S	0.00 usft	Northing:	1,615,087.81364 usft
	+E/-W	0.00 usft	Easting:	2,300,865.48579 usft
Position Uncertainty	0.00 usft		Wellhead Elevation:	
			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 23Apr14 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	281.25

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	
160.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	
663.43	10.07	281.25	660.84	8.61	-43.27	2.00	2.00	0.00	281.25	
5,703.36	10.07	281.25	5,623.16	180.49	-907.46	0.00	0.00	0.00	0.00	
6,206.79	0.00	0.00	6,124.00	189.09	-950.73	2.00	-2.00	0.00	180.00	
6,306.79	0.00	0.00	6,224.00	189.09	-950.73	0.00	0.00	0.00	0.00	Top Gas (50' Radius)
8,586.79	0.00	0.00	8,504.00	189.09	-950.73	0.00	0.00	0.00	0.00	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well PA 332-27 - Slot A04
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 332-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 23Apr14 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	1,615,087.81364	2,300,865.48579	39.49602	-107.97775	
160.00	0.00	0.00	160.00	0.00	0.00	1,615,087.81364	2,300,865.48579	39.49602	-107.97775	
Start Build 2.00										
200.00	0.80	281.25	200.00	0.05	-0.27	1,615,087.87556	2,300,865.21351	39.49602	-107.97775	
400.00	4.80	281.25	399.72	1.96	-9.85	1,615,090.04148	2,300,855.68910	39.49602	-107.97778	
600.00	8.80	281.25	598.27	6.58	-33.08	1,615,095.29131	2,300,832.60347	39.49604	-107.97787	
663.43	10.07	281.25	660.84	8.61	-43.27	1,615,097.59665	2,300,822.46595	39.49604	-107.97790	
Hold 10.07° Inc, 281.25° Az										
800.00	10.07	281.25	795.31	13.26	-66.69	1,615,102.89090	2,300,799.18497	39.49605	-107.97799	
1,000.00	10.07	281.25	992.23	20.08	-100.98	1,615,110.64399	2,300,765.09149	39.49607	-107.97811	
1,200.00	10.07	281.25	1,189.15	26.91	-135.28	1,615,118.39708	2,300,730.99801	39.49609	-107.97823	
1,400.00	10.07	281.25	1,386.07	33.73	-169.57	1,615,126.15017	2,300,696.90453	39.49611	-107.97835	
1,600.00	10.07	281.25	1,582.99	40.55	-203.86	1,615,133.90326	2,300,662.81105	39.49613	-107.97847	
1,800.00	10.07	281.25	1,779.91	47.37	-238.16	1,615,141.65635	2,300,628.71757	39.49615	-107.97859	
2,000.00	10.07	281.25	1,976.83	54.19	-272.45	1,615,149.40944	2,300,594.62408	39.49617	-107.97872	
2,200.00	10.07	281.25	2,173.75	61.01	-306.75	1,615,157.16253	2,300,560.53060	39.49619	-107.97884	
2,400.00	10.07	281.25	2,370.67	67.83	-341.04	1,615,164.91562	2,300,526.43712	39.49620	-107.97896	
2,574.01	10.07	281.25	2,542.00	73.76	-370.88	1,615,171.66126	2,300,496.77383	39.49622	-107.97906	
Top of "G" Sand										
2,600.00	10.07	281.25	2,567.59	74.65	-375.33	1,615,172.66871	2,300,492.34364	39.49622	-107.97908	
2,726.36	10.07	281.25	2,692.00	78.96	-397.00	1,615,177.56703	2,300,470.80377	39.49623	-107.97916	
Base of "G" Sand										
2,777.14	10.07	281.25	2,742.00	80.69	-405.71	1,615,179.53562	2,300,462.14708	39.49624	-107.97919	
9 5/8"										
2,800.00	10.07	281.25	2,764.51	81.47	-409.63	1,615,180.42180	2,300,458.25017	39.49624	-107.97920	
3,000.00	10.07	281.25	2,961.43	88.29	-443.92	1,615,188.17489	2,300,424.15669	39.49626	-107.97932	
3,200.00	10.07	281.25	3,158.35	95.11	-478.21	1,615,195.92798	2,300,390.06321	39.49628	-107.97944	
3,400.00	10.07	281.25	3,355.27	101.93	-512.51	1,615,203.68108	2,300,355.96972	39.49630	-107.97957	
3,600.00	10.07	281.25	3,552.19	108.75	-546.80	1,615,211.43417	2,300,321.87624	39.49632	-107.97969	
3,800.00	10.07	281.25	3,749.11	115.58	-581.09	1,615,219.18726	2,300,287.78276	39.49634	-107.97981	
4,000.00	10.07	281.25	3,946.03	122.40	-615.39	1,615,226.94035	2,300,253.68928	39.49635	-107.97993	
4,200.00	10.07	281.25	4,142.95	129.22	-649.68	1,615,234.69344	2,300,219.59580	39.49637	-107.98005	
4,400.00	10.07	281.25	4,339.87	136.04	-683.98	1,615,242.44653	2,300,185.50232	39.49639	-107.98017	
4,600.00	10.07	281.25	4,536.79	142.86	-718.27	1,615,250.19962	2,300,151.40884	39.49641	-107.98029	
4,800.00	10.07	281.25	4,733.71	149.68	-752.56	1,615,257.95271	2,300,117.31535	39.49643	-107.98042	
4,960.77	10.07	281.25	4,892.00	155.16	-780.13	1,615,264.18500	2,300,089.90941	39.49644	-107.98051	
Mesaverde										
5,000.00	10.07	281.25	4,930.63	156.50	-786.86	1,615,265.70579	2,300,083.22188	39.49645	-107.98054	
5,200.00	10.07	281.25	5,127.55	163.32	-821.15	1,615,273.45888	2,300,049.12840	39.49647	-107.98066	
5,400.00	10.07	281.25	5,324.47	170.14	-855.44	1,615,281.21197	2,300,015.03492	39.49649	-107.98078	
5,600.00	10.07	281.25	5,521.39	176.96	-889.74	1,615,288.96506	2,299,980.94144	39.49650	-107.98090	
5,703.36	10.07	281.25	5,623.16	180.49	-907.46	1,615,292.97203	2,299,963.32117	39.49651	-107.98097	
Begin Drop -2.00°/100										
5,800.00	8.14	281.25	5,718.57	183.47	-922.45	1,615,296.36164	2,299,948.41568	39.49652	-107.98102	
6,000.00	4.14	281.25	5,917.39	187.64	-943.42	1,615,301.10080	2,299,927.57567	39.49653	-107.98109	
6,200.00	0.14	281.25	6,117.21	189.09	-950.73	1,615,302.75325	2,299,920.30917	39.49654	-107.98112	
6,206.79	0.00	0.00	6,124.00	189.09	-950.73	1,615,302.75504	2,299,920.30132	39.49654	-107.98112	
Vertical										
6,306.79	0.00	0.00	6,224.00	189.09	-950.73	1,615,302.75504	2,299,920.30132	39.49654	-107.98112	
Top Gas - Approx. Top Gas										
6,400.00	0.00	0.00	6,317.21	189.09	-950.73	1,615,302.75504	2,299,920.30132	39.49654	-107.98112	
6,600.00	0.00	0.00	6,517.21	189.09	-950.73	1,615,302.75504	2,299,920.30132	39.49654	-107.98112	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well PA 332-27 - Slot A04
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 332-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 23Apr14 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
6,800.00	0.00	0.00	6,717.21	189.09	-950.73	1,615,302.75504	2,299,920.30132	39.49654	-107.98112
7,000.00	0.00	0.00	6,917.21	189.09	-950.73	1,615,302.75504	2,299,920.30132	39.49654	-107.98112
7,200.00	0.00	0.00	7,117.21	189.09	-950.73	1,615,302.75504	2,299,920.30132	39.49654	-107.98112
7,400.00	0.00	0.00	7,317.21	189.09	-950.73	1,615,302.75504	2,299,920.30132	39.49654	-107.98112
7,600.00	0.00	0.00	7,517.21	189.09	-950.73	1,615,302.75504	2,299,920.30132	39.49654	-107.98112
7,684.79	0.00	0.00	7,602.00	189.09	-950.73	1,615,302.75504	2,299,920.30132	39.49654	-107.98112
Cameo Coals									
7,800.00	0.00	0.00	7,717.21	189.09	-950.73	1,615,302.75504	2,299,920.30132	39.49654	-107.98112
8,000.00	0.00	0.00	7,917.21	189.09	-950.73	1,615,302.75504	2,299,920.30132	39.49654	-107.98112
8,200.00	0.00	0.00	8,117.21	189.09	-950.73	1,615,302.75504	2,299,920.30132	39.49654	-107.98112
8,400.00	0.00	0.00	8,317.21	189.09	-950.73	1,615,302.75504	2,299,920.30132	39.49654	-107.98112
8,436.79	0.00	0.00	8,354.00	189.09	-950.73	1,615,302.75504	2,299,920.30132	39.49654	-107.98112
Rollins SS									
8,586.79	0.00	0.00	8,504.00	189.09	-950.73	1,615,302.75504	2,299,920.30132	39.49654	-107.98112
TD at 8586.79 - TD									

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) PA - plan hits target center - Circle (radius 50.00)	0.00	0.00	6,224.00	189.09	-950.73	1,615,302.75504	2,299,920.30132	39.49654	-107.98112

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
2,777.14	2,742.00	9 5/8"	9.625	13.500	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (bearing)	
2,574.01	2,542.00	Top of "G" Sand		0.00		
2,726.36	2,692.00	Base of "G" Sand				
4,960.77	4,892.00	Mesaverde				
6,306.79	6,224.00	Approx. Top Gas				
7,684.79	7,602.00	Cameo Coals				
8,436.79	8,354.00	Rollins SS				
8,586.79	8,504.00	TD				

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well PA 332-27 - Slot A04
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 332-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 23Apr14 mab		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
160.00	160.00	0.00	0.00	Start Build 2.00
663.43	660.84	8.61	-43.27	Hold 10.07° Inc, 281.25° Az
5,703.36	5,623.16	180.49	-907.46	Begin Drop -2.00°/100
6,206.79	6,124.00	189.09	-950.73	Vertical
6,306.79	6,224.00	189.09	-950.73	Top Gas
8,586.79	8,504.00	189.09	-950.73	TD at 8586.79