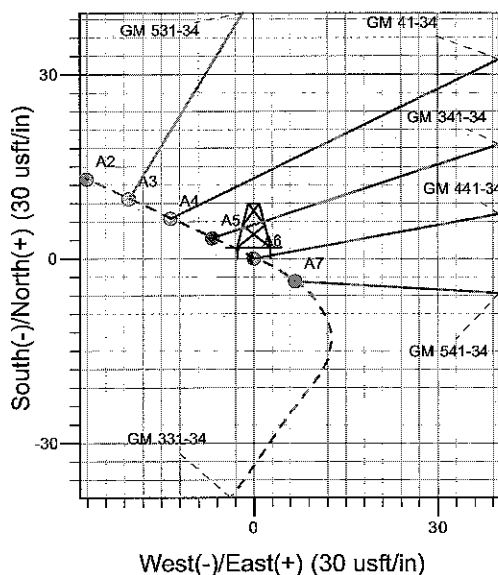
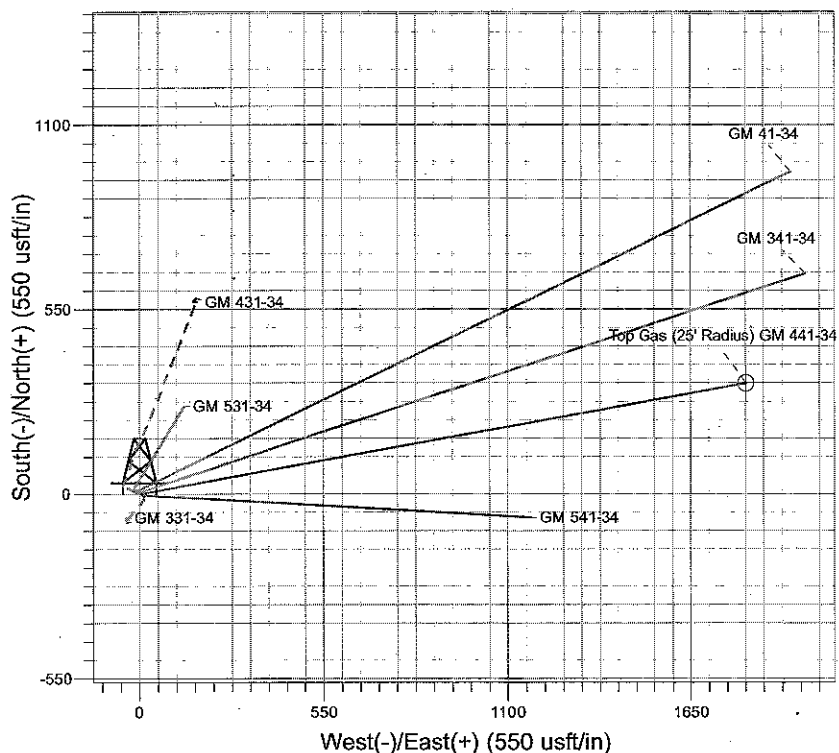
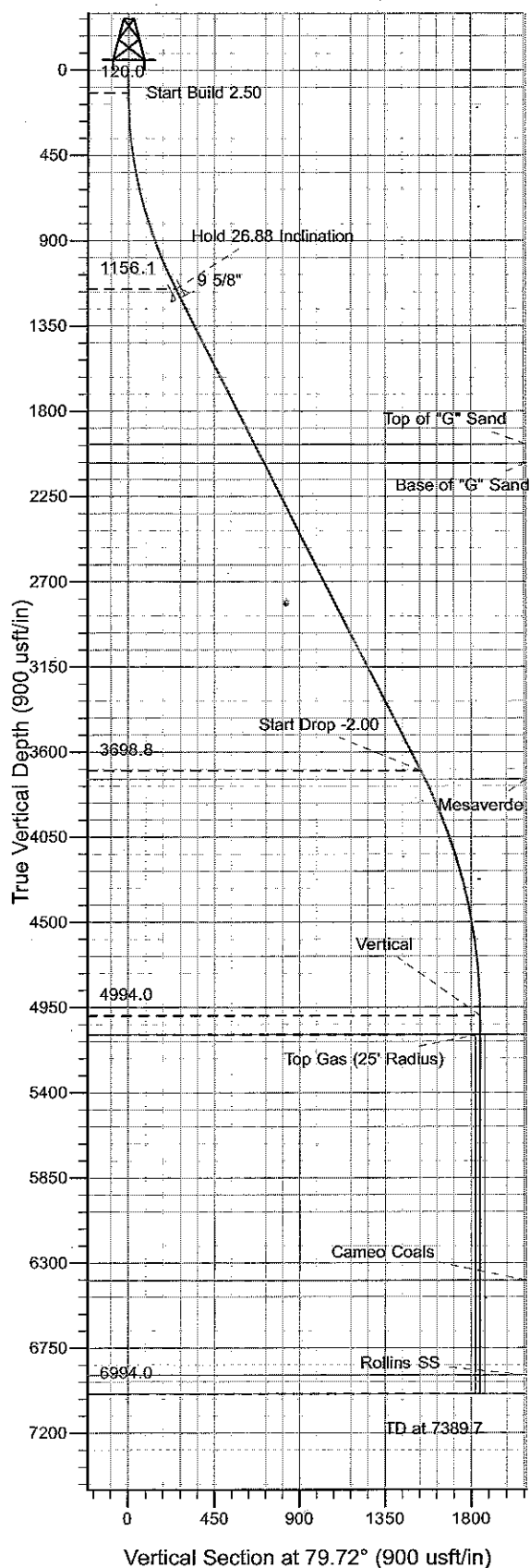




Well Name: GM 441-34
 Surface Location: GM 331-34 Pad
 North American Datum 1983, US State Plane 1983 Colorado Central Zone
 Ground Elevation: 5598.0
 +N/-S +E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1611953.20 2268253.30 39° 29' 5.698 N 108° 5' 34.609 W A6
 KELLY BUSHING @ 5622.0usft (H&P (24 RKB) kjs)



Project: GV 34-06S-096W
 Site: GM 331-34 Pad
 Well: GM 441-34
 Design #1 25Feb10 kjs

↑ M
 ↑
 Azimuths to True North
 Magnetic North: 10.56°
 Magnetic Field
 Strength: 52365.5nT
 Dip Angle: 65.75°
 Date: 2/25/2010
 Model: IGRF2010

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	V	Sect	Departure	Annotation
120.0	120.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	Start Build 2.50
1156.1	1195.1	26.88	79.72	44.2	243.6	247.6	247.6	247.6	Hold 26.88 Inclination
3698.8	4045.8	26.88	79.72	274.1	1511.7	1536.4	1536.4	1536.4	Start Drop -2.00
4994.0	5389.7	0.00	0.00	329.3	1816.2	1845.8	1845.8	1845.8	Vertical
5094.0	5489.7	0.00	0.00	329.3	1816.2	1845.8	1845.8	1845.8	Top Gas
6994.0	7389.7	0.00	0.00	329.3	1816.2	1845.8	1845.8	1845.8	TD at 7389.7

PICEANCE VLY NAD 83

GV 34-06S-096W

GM 331-34 Pad

GM 441-34 - Slot A6

Wellbore #1

Plan: Design #1 25Feb10 kjs

Standard Planning Report - Geographic

25 June, 2010

Williams

Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well GM 441-34 - Slot A6
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5622.0usft (H&P (24 RKB) kjs)
Project:	GV 34-06S-096W	MD Reference:	KELLY BUSHING @ 5622.0usft (H&P (24 RKB) kjs)
Site:	GM 331-34 Pad	North Reference:	True
Well:	GM 441-34	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 25Feb10 kjs		

Project	GV 34-06S-096W		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site	GM 331-34 Pad		
Site Position:		Northing:	1,611,970.39 usft
From:	Map	Easting:	2,268,219.96 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13.200 in
		Latitude:	39° 29' 5.859 N
		Longitude:	108° 5' 35.040 W
		Grid Convergence:	-1.635 °

Well	GM 441-34 - Slot A6		
Well Position	+N/-S	0.0 usft	Northing: 1,611,953.20 usft
	+E/-W	0.0 usft	Easting: 2,268,253.30 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	Ground Level: 5,598.0 usft
		Latitude:	39° 29' 5.698 N
		Longitude:	108° 5' 34.609 W

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination (°)
	IGRF2010	2/25/2010	10.562
			Dip Angle (°)
			65.747
			Field Strength (nT)
			52,366

Design	Design #1 25Feb10 kjs		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)
	0.0	0.0	0.0
			Direction (°)
			79.72

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
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.000	
120.0	0.00	0.00	120.0	0.0	0.0	0.00	0.00	0.00	0.000	
1,195.1	26.88	79.72	1,156.1	44.2	243.6	2.50	2.50	0.00	79.724	
4,045.8	26.88	79.72	3,698.8	274.1	1,511.7	0.00	0.00	0.00	0.000	
5,389.7	0.00	0.00	4,994.0	329.3	1,816.2	2.00	-2.00	0.00	180.000	
5,489.7	0.00	0.00	5,094.0	329.3	1,816.2	0.00	0.00	0.00	0.000	Top Gas (25' Radius)
7,389.7	0.00	0.00	6,994.0	329.3	1,816.2	0.00	0.00	0.00	0.000	

Williams
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well GM 441-34 - Slot A6
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5622.0usft (H&P (24 RKB) kjs)
Project:	GV 34-06S-096W	MD Reference:	KELLY BUSHING @ 5622.0usft (H&P (24 RKB) kjs)
Site:	GM 331-34 Pad	North Reference:	True
Well:	GM 441-34	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 25Feb10 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
0.0	0.00	0.00	0.0	0.0	0.0	1,611,953.20	2,268,253.30	39° 29' 5.698 N	108° 5' 34.609 W
120.0	0.00	0.00	120.0	0.0	0.0	1,611,953.20	2,268,253.30	39° 29' 5.698 N	108° 5' 34.609 W
Start Build 2.50									
1,195.1	26.88	79.72	1,156.1	44.2	243.6	1,611,990.39	2,268,498.08	39° 29' 6.135 N	108° 5' 31.502 W
Hold 26.88 Inclination									
1,245.0	26.88	79.72	1,200.6	48.2	265.8	1,611,993.78	2,268,520.37	39° 29' 6.174 N	108° 5' 31.219 W
9 5/8"									
2,112.1	26.88	79.72	1,974.0	118.1	651.5	1,612,052.67	2,268,907.91	39° 29' 6.866 N	108° 5' 26.299 W
Top of "G" Sand									
2,224.2	26.88	79.72	2,074.0	127.2	701.4	1,612,060.28	2,268,958.02	39° 29' 6.955 N	108° 5' 25.663 W
Base of "G" Sand									
4,045.8	26.88	79.72	3,698.8	274.1	1,511.7	1,612,184.00	2,269,772.23	39° 29' 8.407 N	108° 5' 15.327 W
Start Drop -2.00									
4,096.2	25.87	79.72	3,744.0	278.1	1,533.8	1,612,187.37	2,269,794.37	39° 29' 8.446 N	108° 5' 15.046 W
Mesaverde									
5,389.7	0.00	0.00	4,994.0	329.3	1,816.2	1,612,230.50	2,270,078.20	39° 29' 8.952 N	108° 5' 11.443 W
Vertical									
5,489.7	0.00	0.00	5,094.0	329.3	1,816.2	1,612,230.50	2,270,078.20	39° 29' 8.952 N	108° 5' 11.443 W
Top Gas - Approx. Top Gas									
6,789.7	0.00	0.00	6,394.0	329.3	1,816.2	1,612,230.50	2,270,078.20	39° 29' 8.952 N	108° 5' 11.443 W
Cameo Coals									
7,289.7	0.00	0.00	6,894.0	329.3	1,816.2	1,612,230.50	2,270,078.20	39° 29' 8.952 N	108° 5' 11.443 W
Rollins SS									
7,389.7	0.00	0.00	6,994.0	329.3	1,816.2	1,612,230.50	2,270,078.20	39° 29' 8.952 N	108° 5' 11.443 W
TD at 7389.7 - 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 (25' Radius) GI	0.00	0.00	5,094.0	329.3	1,816.2	1,612,230.50	2,270,078.20	39° 29' 8.952 N	108° 5' 11.443 W
- plan hits target center									
- Circle (radius 25.0)									

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)
1,245.0	1,200.6	9 5/8"	9.625	12.250

Williams

Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well GM 441-34 - Slot A6
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5622.0usft (H&P (24 RKB) kjs)
Project:	GV 34-06S-096W	MD Reference:	KELLY BUSHING @ 5622.0usft (H&P (24 RKB) kjs)
Site:	GM 331-34 Pad	North Reference:	True
Well:	GM 441-34	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 25Feb10 kjs		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
2,112.1	1,974.0	Top of "G" Sand				
2,224.2	2,074.0	Base of "G" Sand				
4,096.2	3,744.0	Mesaverde				
5,489.7	5,094.0	Approx. Top Gas				
6,789.7	6,394.0	Cameo Coals				
7,289.7	6,894.0	Rollins SS				
7,389.7	6,994.0	TD				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
120.0	120.0	0.0	0.0	Start Build 2.50	
1,195.1	1,156.1	44.2	243.6	Hold 26.88 Inclination	
4,045.8	3,698.8	274.1	1,511.7	Start Drop -2.00	
5,389.7	4,994.0	329.3	1,816.2	Vertical	
5,489.7	5,094.0	329.3	1,816.2	Top Gas	
7,389.7	6,994.0	329.3	1,816.2	TD at 7389.7	