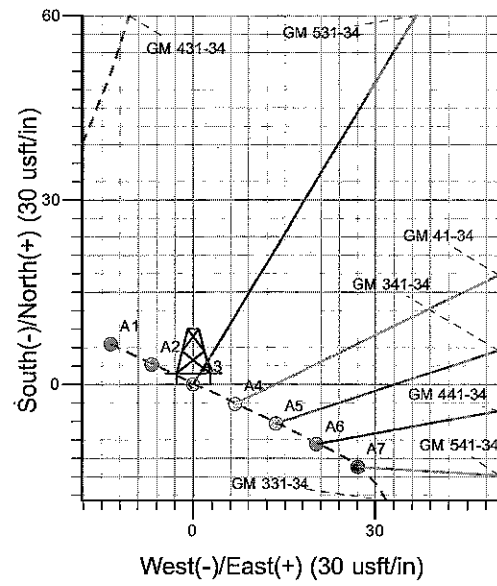
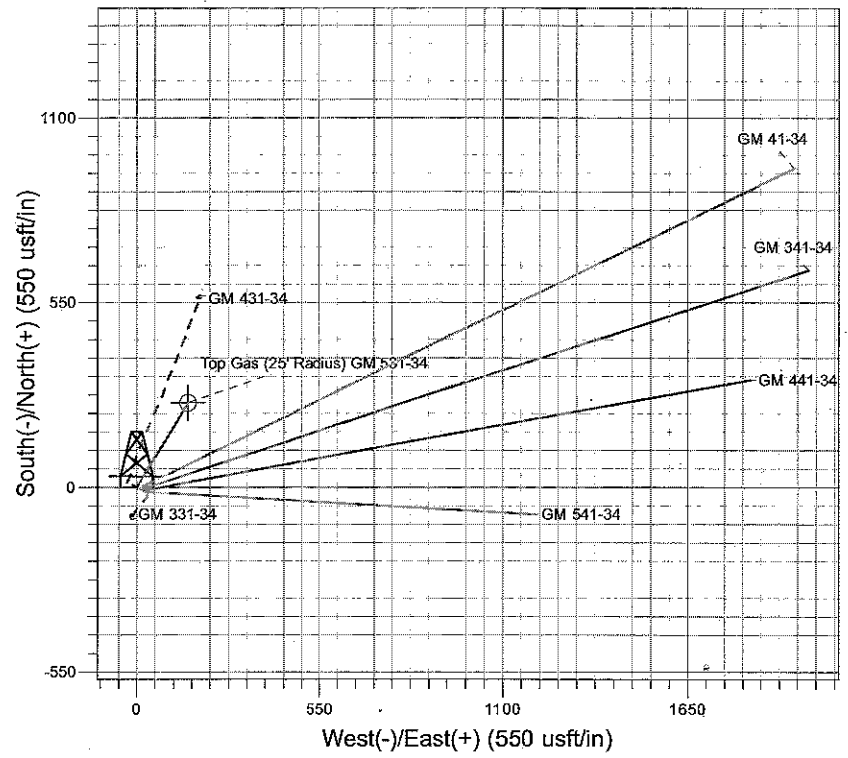
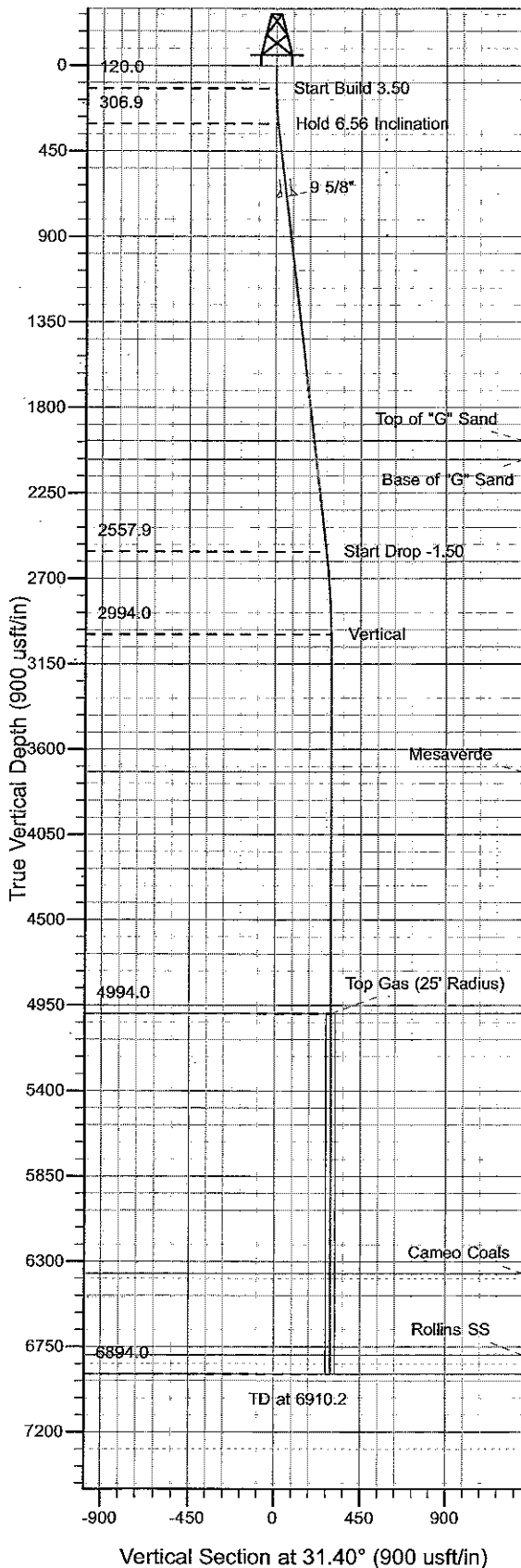




Well Name: GM 531-34
 Surface Location: GM 331-34 Pad
 North American Datum 1983 , US State Plane 1983 Colorado Central Zone
 Ground Elevation: 5598.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1611963.50	2268233.30	39° 29' 5.794 N	108° 5' 34.868 W	A3

KELLY BUSHING @ 5622.0usft (H&P (24' RKB) kjs)



Project: GV 34-06S-096W
 Site: GM 331-34 Pad
 Well: GM 531-34
 Design #1 24Feb10 kjs

Azimuths to True North
 Magnetic North: 10.56°
 Magnetic Field
 Strength: 52365.8snT
 Dip Angle: 65.75°
 Date: 2/24/2010
 Model: IGRF2010

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	Vsect	Departure	Annotation
120.0	120.0	0.00	0.00	0.0	0.0	0.0	0.0	Start Build 3.50
306.9	307.3	6.56	31.40	9.1	5.6	10.7	10.7	Hold 6.56 Inclination
2557.9	2573.1	6.56	31.40	230.0	140.4	269.4	269.4	Start Drop -1.50
2994.0	3010.2	0.00	0.00	251.3	153.4	294.4	294.4	Vertical
4994.0	5010.2	0.00	0.00	251.3	153.4	294.4	294.4	Top Gas
6894.0	6910.2	0.00	0.00	251.3	153.4	294.4	294.4	TD at 6910.2

PICEANCE VLY NAD 83

GV 34-06S-096W

GM 331-34 Pad

GM 531-34 - Slot A3

Wellbore #1

Plan: Design #1 24Feb10 kjs

Standard Planning Report - Geographic

25 June, 2010

Williams
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well GM 531-34 - Slot A3
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 531-34	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 24Feb10 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	Latitude:	39° 29' 5.859 N	
From: Map	Easting:	2,268,219.96 usft	Longitude:	108° 5' 35.040 W	
Position Uncertainty:	0.0 usft	Slot Radius:	13.200 in	Grid Convergence:	-1.635 °

Well	GM 531-34 - Slot A3					
Well Position	+N/-S	0.0 usft	Northing:	1,611,963.50 usft	Latitude:	39° 29' 5.794 N
	+E/-W	0.0 usft	Easting:	2,268,233.30 usft	Longitude:	108° 5' 34.868 W
Position Uncertainty	0.0 usft		Wellhead Elevation:		Ground Level:	5,598.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
	IGRF2010	2/24/2010	(°)	(°)	(nT)
			10.562	65.747	52,366

Design	Design #1 24Feb10 kjs			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.0	0.0	0.0	31.40

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	
307.3	6.56	31.40	306.9	9.1	5.6	3.50	3.50	0.00	31.402	
2,573.1	6.56	31.40	2,557.9	230.0	140.4	0.00	0.00	0.00	0.000	
3,010.2	0.00	0.00	2,994.0	251.3	153.4	1.50	-1.50	0.00	180.000	
5,010.2	0.00	0.00	4,994.0	251.3	153.4	0.00	0.00	0.00	0.000	Top Gas (25' Radius)
6,910.2	0.00	0.00	6,894.0	251.3	153.4	0.00	0.00	0.00	0.000	

Williams
 Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well GM 531-34 - Slot A3
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 531-34	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 24Feb10 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	1,611,963.50	2,268,233.30	39° 29' 5.794 N	108° 5' 34.868 W	
120.0	0.00	0.00	120.0	0.0	0.0	1,611,963.50	2,268,233.30	39° 29' 5.794 N	108° 5' 34.868 W	
Start Build 3.50										
307.3	6.56	31.40	306.9	9.1	5.6	1,611,972.47	2,268,239.14	39° 29' 5.885 N	108° 5' 34.796 W	
Hold 6.56 Inclination										
691.0	6.56	31.40	688.1	46.5	28.4	1,612,009.20	2,268,263.02	39° 29' 6.254 N	108° 5' 34.505 W	
9 5/8"										
1,985.4	6.56	31.40	1,974.0	172.7	105.4	1,612,133.10	2,268,343.60	39° 29' 7.501 N	108° 5' 33.523 W	
Top of "G" Sand										
2,086.0	6.56	31.40	2,074.0	182.5	111.4	1,612,142.73	2,268,349.86	39° 29' 7.598 N	108° 5' 33.447 W	
Base of "G" Sand										
2,573.1	6.56	31.40	2,557.9	230.0	140.4	1,612,189.35	2,268,380.18	39° 29' 8.067 N	108° 5' 33.077 W	
Start Drop -1.50										
3,010.2	0.00	0.00	2,994.0	251.3	153.4	1,612,210.30	2,268,393.80	39° 29' 8.278 N	108° 5' 32.911 W	
Vertical										
3,735.2	0.00	0.00	3,719.0	251.3	153.4	1,612,210.30	2,268,393.80	39° 29' 8.278 N	108° 5' 32.911 W	
Mesaverde										
5,010.2	0.00	0.00	4,994.0	251.3	153.4	1,612,210.30	2,268,393.80	39° 29' 8.278 N	108° 5' 32.911 W	
Top Gas - Approx. Top Gas										
6,380.2	0.00	0.00	6,364.0	251.3	153.4	1,612,210.30	2,268,393.80	39° 29' 8.278 N	108° 5' 32.911 W	
Cameo Coals										
6,810.2	0.00	0.00	6,794.0	251.3	153.4	1,612,210.30	2,268,393.80	39° 29' 8.278 N	108° 5' 32.911 W	
Rollins SS										
6,910.2	0.00	0.00	6,894.0	251.3	153.4	1,612,210.30	2,268,393.80	39° 29' 8.278 N	108° 5' 32.911 W	
TD at 6910.2 - TD										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
Top Gas (25' Radius) GI	0.00	0.00	4,994.0	251.3	153.4	1,612,210.30	2,268,393.80	39° 29' 8.278 N	108° 5' 32.911 W	
- hit/miss target										
- Shape										
- plan hits target center										
- Circle (radius 25.0)										

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
691.0	688.1	9 5/8"	9.625	12.250	

Williams
 Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well GM 531-34 - Slot A3
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 531-34	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 24Feb10 kjs		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (")	Dip Direction (")	
1,985.4	1,974.0	Top of "G" Sand				
2,086.0	2,074.0	Base of "G" Sand				
3,735.2	3,719.0	Mesaverde				
5,010.2	4,994.0	Approx. Top Gas				
6,380.2	6,364.0	Cameo Coals				
6,810.2	6,794.0	Rollins SS				
6,910.2	6,894.0	TD				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
120.0	120.0	0.0	0.0	Start Build 3.50	
307.3	306.9	9.1	5.6	Hold 6.56 Incline	
2,573.1	2,557.9	230.0	140.4	Start Drop -1.50	
3,010.2	2,994.0	251.3	153.4	Vertical	
5,010.2	4,994.0	251.3	153.4	Top Gas	
6,910.2	6,894.0	251.3	153.4	TD at 6910.2	