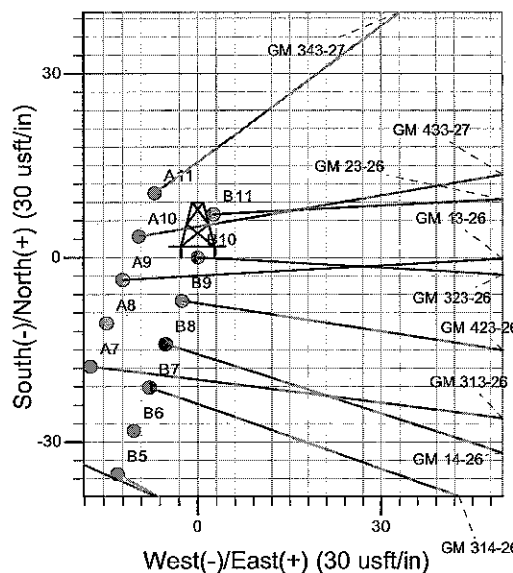
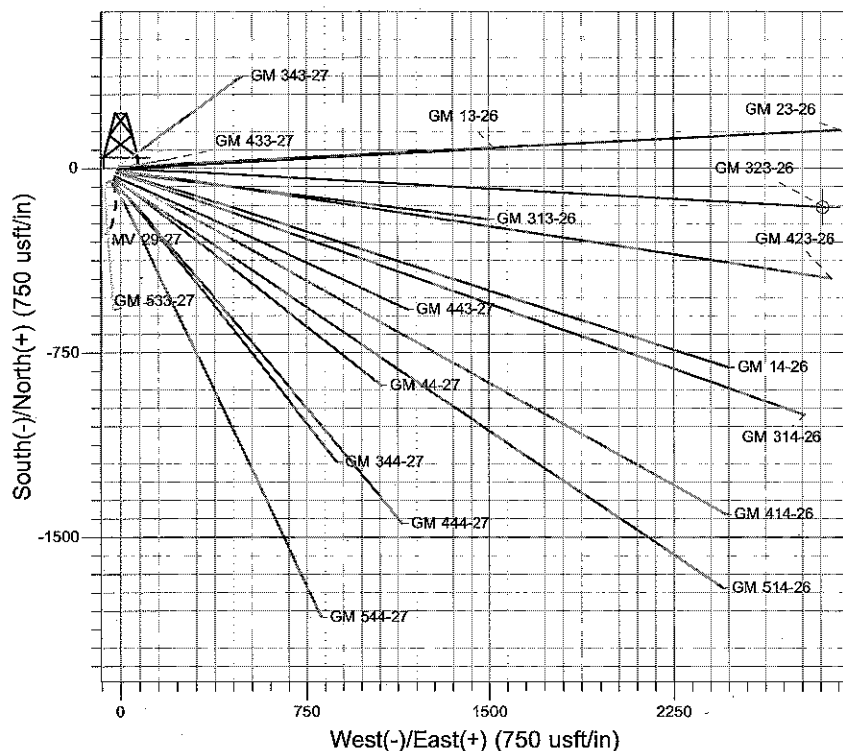
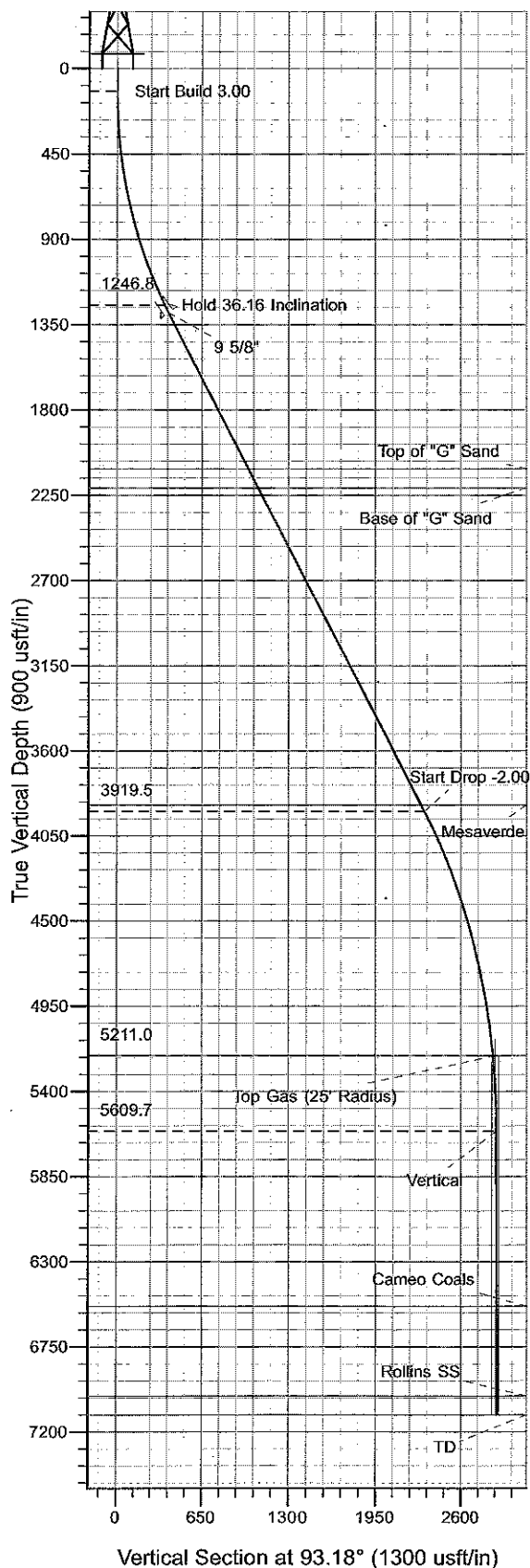




Well Name: GM 323-26  
 Surface Location: MV 29-27 Pad  
 North American Datum 1983 , US State Plane 1983, Colorado Central Zone  
 Ground Elevation: 5659.0  
 +N/-S +E/-W Northing Easting Latitude Longitude Slot  
 0.0 0.0 1614992.09 2269219.63 39° 29' 35.994 N 108° 5' 23.393 W B10  
 KELLY BUSHING @ 5683.0usft (H&P 271 (24'KB) JMS)



Project: RU 27-06S-096W  
 Site: MV 29-27 Pad  
 Well: GM 323-26  
 Plan #1 29Jan09 kjs



Azimuths to True North  
 Magnetic North: 10.68°  
 Magnetic Field  
 Strength: 52503.3snT  
 Dip Angle: 65.79°  
 Date: 1/29/2009  
 Model: IGRF2005-10

#### 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 3.00
1246.8	1325.2	36.16	93.18	-20.4	367.3	367.8	367.8	Hold 36.16 Inclination
3919.5	4635.4	36.16	93.18	-128.6	2317.2	2320.8	2320.8	Start Drop -2.00
5211.0	6043.2	8.00	93.18	-157.6	2840.3	2844.7	2844.7	Top Gas
5609.7	6443.2	0.00	0.00	-159.2	2868.1	2872.5	2872.5	Vertical
7111.0	7944.5	0.00	0.00	-159.2	2868.1	2872.5	2872.5	TD at 7944.5

# **PICEANCE VLY NAD 83**

**RU 27-06S-096W**

**MV 29-27 Pad**

**GM 323-26 - Slot B10**

**Wellbore #1**

**Plan: Plan #1 29Jan09 kjs**

## **Standard Planning Report - Geographic**

**05 May, 2010**

**Williams**  
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well GM 323-26 - Slot B10
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5683.0usft (H&P 271 (24'KB) JMS)
Project:	RU 27-06S-096W	MD Reference:	KELLY BUSHING @ 5683.0usft (H&P 271 (24'KB) JMS)
Site:	MV 29-27 Pad	North Reference:	True
Well:	GM 323-26	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 29Jan09 kjs		

Project	RU 27-06S-096W		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site	MV 29-27 Pad		
Site Position:		Northing:	1,614,933.00 usft
From:	Map	Easting:	2,269,185.50 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13.200 in
		Latitude:	39° 29' 35.400 N
		Longitude:	108° 5' 23.807 W
		Grid Convergence:	-1.633 °

Well	GM 323-26 - Slot B10		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	Ground Level:
			5,659.0 usft
			Latitude:
			39° 29' 35.994 N
			Longitude:
			108° 5' 23.993 W

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2005-10	1/29/2009	10.680
			Dip Angle
			(°)
			65.793
			Field Strength
			(nT)
			52,503

Design	Plan #1 29Jan09 kjs		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth:
			0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction
			(°)
			93.18

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	
1,325.2	36.16	93.18	1,246.8	-20.4	367.3	3.00	3.00	0.00	93.177	
4,635.4	36.16	93.18	3,919.5	-128.6	2,317.2	0.00	0.00	0.00	0.000	
6,043.2	8.00	93.18	5,211.0	-157.6	2,840.3	2.00	-2.00	0.00	180.000	Top Gas (25' Radius)
6,443.2	0.00	0.00	5,609.7	-159.2	2,868.1	2.00	-2.00	0.00	180.000	
7,944.5	0.00	0.00	7,111.0	-159.2	2,868.1	0.00	0.00	0.00	0.000	

# Williams

## Planning Report - Geographic

<b>Database:</b>	Compass R5000 WIN AUTH	<b>Local Co-ordinate Reference:</b>	Well GM 323-26 - Slot B10
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 5683.0usft (H&P 271 (24"KB) JMS)
<b>Project:</b>	RU 27-06S-096W	<b>MD Reference:</b>	KELLY BUSHING @ 5683.0usft (H&P 271 (24"KB) JMS)
<b>Site:</b>	MV 29-27 Pad	<b>North Reference:</b>	True
<b>Well:</b>	GM 323-26	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 29Jan09 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	1,614,992.08	2,269,219.63	39° 29' 35.994 N	108° 5' 23.393 W
120.0	0.00	0.00	120.0	0.0	0.0	1,614,992.08	2,269,219.63	39° 29' 35.994 N	108° 5' 23.393 W
<b>Start Build 3.00</b>									
1,325.2	36.16	93.18	1,246.8	-20.4	367.3	1,614,961.24	2,269,586.15	39° 29' 35.792 N	108° 5' 18.708 W
<b>Hold 36.16 Inclination</b>									
1,375.0	36.16	93.18	1,287.0	-22.0	396.6	1,614,958.78	2,269,615.43	39° 29' 35.776 N	108° 5' 18.334 W
<b>9 5/8"</b>									
2,395.5	36.16	93.18	2,111.0	-55.4	997.8	1,614,908.29	2,270,215.42	39° 29' 35.446 N	108° 5' 10.665 W
<b>Top of "G" Sand</b>									
2,519.4	36.16	93.18	2,211.0	-59.4	1,070.7	1,614,902.16	2,270,288.23	39° 29' 35.406 N	108° 5' 9.735 W
<b>Base of "G" Sand</b>									
4,593.9	36.16	93.18	3,886.0	-127.2	2,292.8	1,614,799.53	2,271,507.87	39° 29' 34.735 N	108° 4' 54.145 W
<b>Mesaverde</b>									
4,635.4	36.16	93.18	3,919.5	-128.6	2,317.2	1,614,797.48	2,271,532.27	39° 29' 34.722 N	108° 4' 53.834 W
<b>Start Drop -2.00</b>									
6,043.2	8.00	93.18	5,211.0	-157.6	2,840.3	1,614,753.56	2,272,054.27	39° 29' 34.434 N	108° 4' 47.162 W
<b>Top Gas - Approx. Top Gas</b>									
6,443.2	0.00	0.00	5,609.7	-159.2	2,868.1	1,614,751.22	2,272,082.05	39° 29' 34.419 N	108° 4' 46.806 W
<b>Vertical</b>									
7,369.5	0.00	0.00	6,536.0	-159.2	2,868.1	1,614,751.22	2,272,082.05	39° 29' 34.419 N	108° 4' 46.806 W
<b>Cameo Coals</b>									
7,844.5	0.00	0.00	7,011.0	-159.2	2,868.1	1,614,751.22	2,272,082.05	39° 29' 34.419 N	108° 4' 46.806 W
<b>Rollins SS</b>									
7,944.5	0.00	0.00	7,111.0	-159.2	2,868.1	1,614,751.22	2,272,082.05	39° 29' 34.419 N	108° 4' 46.806 W
<b>TD at 7944.5</b>									

### 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	5,211.0	-158.5	2,857.8	1,614,752.20	2,272,071.80	39° 29' 34.426 N	108° 4' 46.938 W
- plan misses target center by 17.5usft at 6044.5usft MD (5212.2 TVD, -157.6 N, 2840.5 E)									
- Circle (radius 25.0)									

### Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)
1,375.0	1,287.0	9 5/8"	9.625	12.250

**Williams**  
Planning Report - Geographic

<b>Database:</b>	Compass R5000 WIN AUTH	<b>Local Co-ordinate Reference:</b>	Well GM 323-26 - Slot B10
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 5683.0usft (H&P 271 (24'KB) JMS)
<b>Project:</b>	RU 27-06S-096W	<b>MD Reference:</b>	KELLY BUSHING @ 5683.0usft (H&P 271 (24'KB) JMS)
<b>Site:</b>	MV 29-27 Pad	<b>North Reference:</b>	True
<b>Well:</b>	GM 323-26	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 29Jan09 kjs		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
2,395.5	2,111.0	Top of "G" Sand				
2,519.4	2,211.0	Base of "G" Sand				
4,593.9	3,886.0	Mesaverde				
6,043.2	5,211.0	Approx. Top Gas				
7,369.5	6,536.0	Cameo Coals				
7,844.5	7,011.0	Rollins SS				
7,944.5	7,111.0	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 3.00	
1,325.2	1,246.8	-20.4	367.3	Hold 36.16 Inclination	
4,635.4	3,919.5	-128.6	2,317.2	Start Drop -2.00	
6,043.2	5,211.0	-157.6	2,840.3	Top Gas	
6,443.2	5,609.7	-159.2	2,868.1	Vertical	
7,944.5	7,111.0	-159.2	2,868.1	TD at 7944.5	