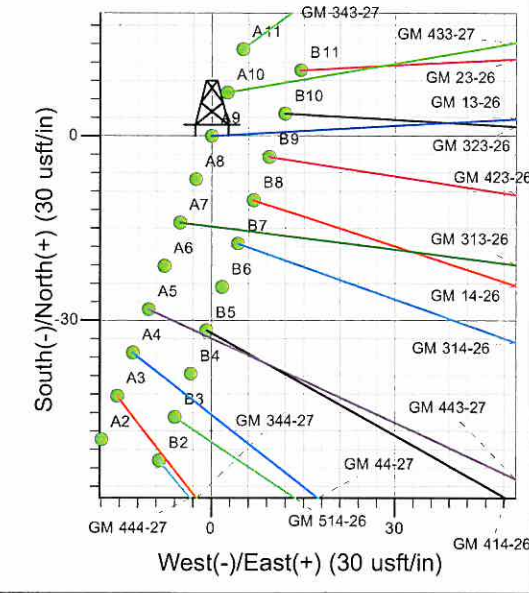
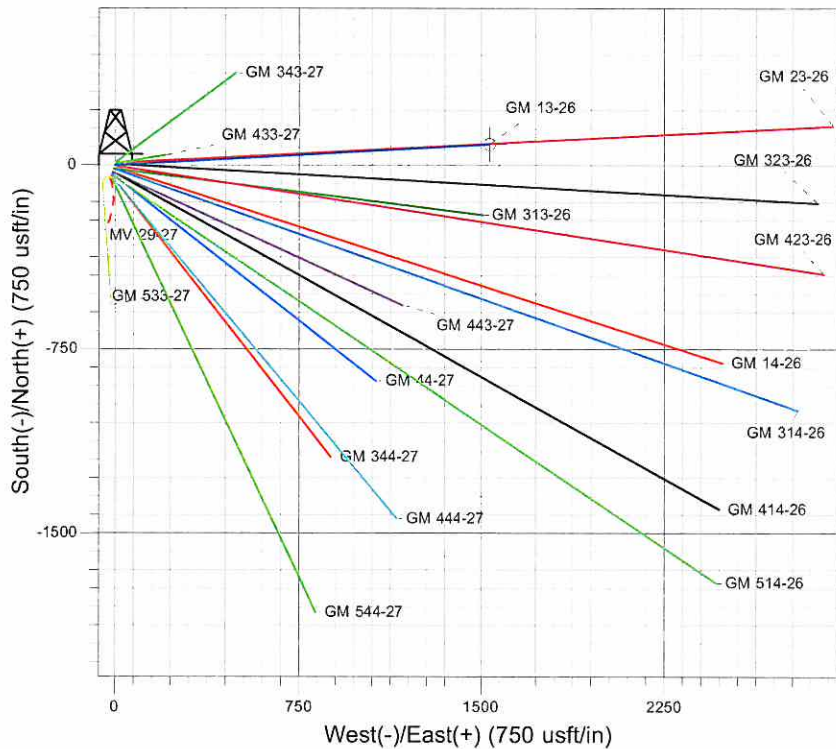
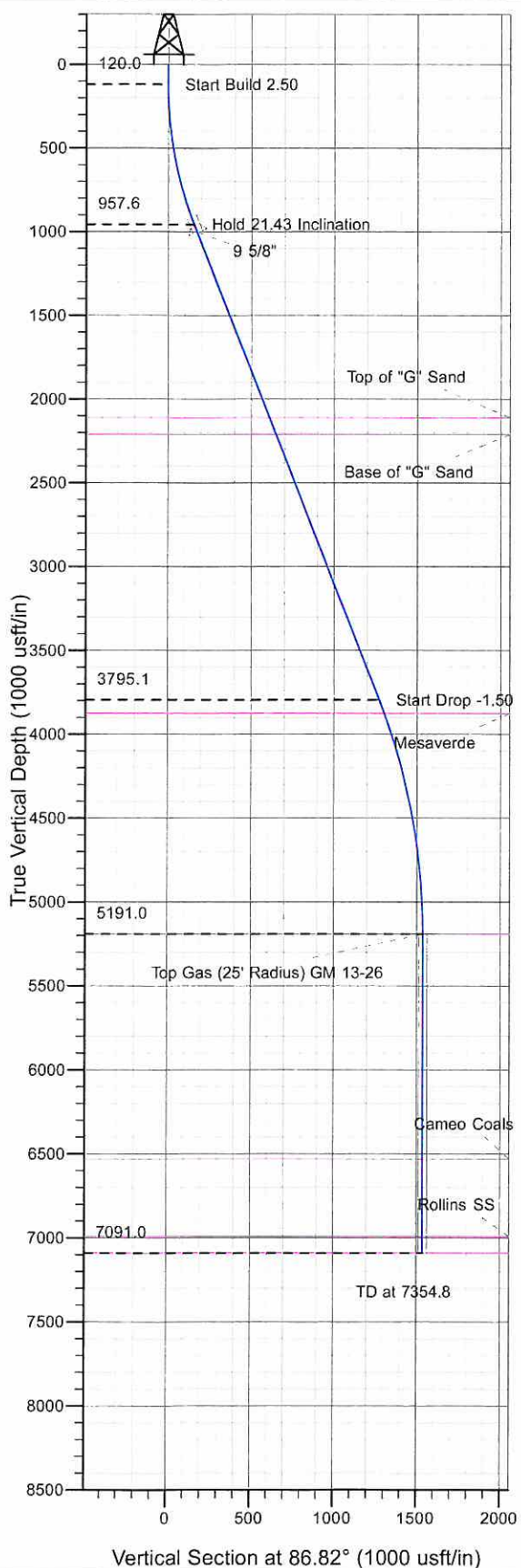




Well Name: GM 13-26  
 Surface Location: MV 29-27 Pad  
 North American Datum 1983, US State Plane 1983, Colorado Central Zone  
 Ground Elevation: 5659.0  
 +N/-S +E/-W Northing Easting Latitude Longitude Slot  
 0.0 0.0 1614988.79 2269207.57 39° 29' 35.958 N 108° 5' 23.546 W A9  
 KELLY BUSHING @ 5683.0usft (H&P 271 (24'KB) JMS)



Project: RU 27-06S-096W  
 Site: MV 29-27 Pad  
 Well: GM 13-26  
 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 2.50	
957.6	977.4	21.44	86.82	8.8	158.3	158.5	158.5	Hold 21.43 Inclination	
3795.1	4025.8	21.44	86.82	70.5	1270.6	1272.6	1272.6	Start Drop -1.50	
5191.0	5454.8	0.00	0.00	85.2	1534.4	1536.8	1536.8	Top Gas	
7091.0	7354.8	0.00	0.00	85.2	1534.4	1536.8	1536.8	TD at 7354.8	

# **PICEANCE VLY NAD 83**

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

**MV 29-27 Pad**

**GM 13-26 - Slot A9**

**Wellbore #1**

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

## **Standard Planning Report - Geographic**

**17 May, 2010**

**Williams**  
Planning Report - Geographic

<b>Database:</b>	Compass R5000 WIN AUTH	<b>Local Co-ordinate Reference:</b>	Well GM 13-26 - Slot A9
<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 13-26	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 29Jan09 kjs		

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

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

Well	GM 13-26 - Slot A9					
Well Position	+N/-S	0.0 usft	Northing:	1,614,988.79 usft	Latitude:	39° 29' 35.958 N
	+E/-W	0.0 usft	Easting:	2,269,207.57 usft	Longitude:	108° 5' 23.546 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	5,659.0 usft

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

<b>Design</b>	Plan #1 29Jan09 kjs			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	86.82

<b>Plan Sections</b>										
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	
977.4	21.44	86.82	957.6	8.8	158.3	2.50	2.50	0.00	86.823	
4,025.8	21.44	86.82	3,795.1	70.5	1,270.6	0.00	0.00	0.00	0.000	
5,454.8	0.00	0.00	5,191.0	85.2	1,534.4	1.50	-1.50	0.00	180.000	Top Gas (25' Radius)
7,354.8	0.00	0.00	7,091.0	85.2	1,534.4	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 13-26 - Slot A9
<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 13-26	<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	1,614,988.79	2,269,207.57	39° 29' 35.958 N	108° 5' 23.546 W
120.0	0.00	0.00	120.0	0.0	0.0	1,614,988.79	2,269,207.57	39° 29' 35.958 N	108° 5' 23.546 W
977.4	21.44	86.82	957.6	8.8	158.3	1,614,993.06	2,269,366.04	39° 29' 36.045 N	108° 5' 21.527 W
4,025.8	21.44	86.82	3,795.1	70.5	1,270.6	1,615,023.08	2,270,479.68	39° 29' 36.655 N	108° 5' 7.337 W
5,454.8	0.00	0.00	5,191.0	85.2	1,534.4	1,615,030.20	2,270,743.80	39° 29' 36.799 N	108° 5' 3.972 W
7,354.8	0.00	0.00	7,091.0	85.2	1,534.4	1,615,030.20	2,270,743.80	39° 29' 36.799 N	108° 5' 3.972 W

**Design Targets**

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Top Gas (25' Radius) GI - plan hits target center - Circle (radius 25.0)	0.00	0.00	5,191.0	85.2	1,534.4	1,615,030.20	2,270,743.80	39° 29' 36.799 N	108° 5' 3.972 W

**Casing Points**

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)
1,027.0	1,003.7	9 5/8"	9.625	12.250

**Formations**

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,216.6	2,111.0	Top of "G" Sand			
2,324.0	2,211.0	Base of "G" Sand			
4,112.4	3,876.0	Mesaverde			
5,454.8	5,191.0	Approx. Top Gas			
6,794.8	6,531.0	Cameo Coals			
7,254.8	6,991.0	Rollins SS			
7,354.8	7,091.0	TD			

**Plan Annotations**

Measured Depth (usft)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment
120.0	120.0	0.0	0.0	Start Build 2.50
977.4	957.6	8.8	158.3	Hold 21.43 Inclination
4,025.8	3,795.1	70.5	1,270.6	Start Drop -1.50
5,454.8	5,191.0	85.2	1,534.4	Top Gas
7,354.8	7,091.0	85.2	1,534.4	TD at 7354.8