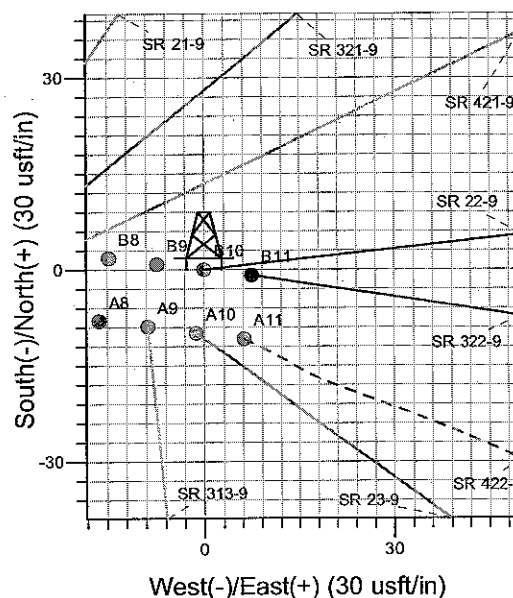
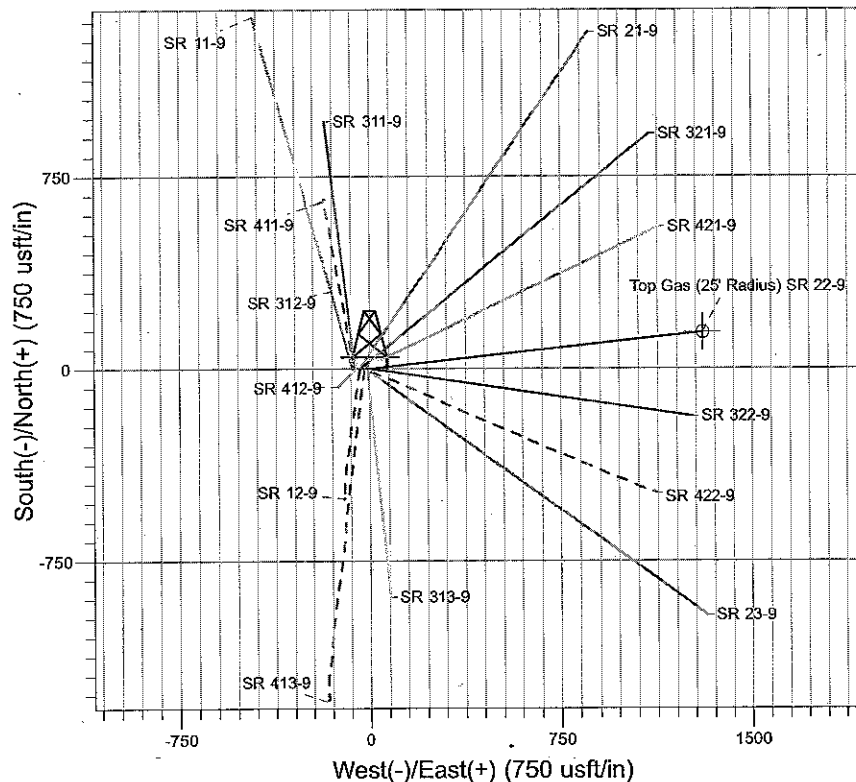
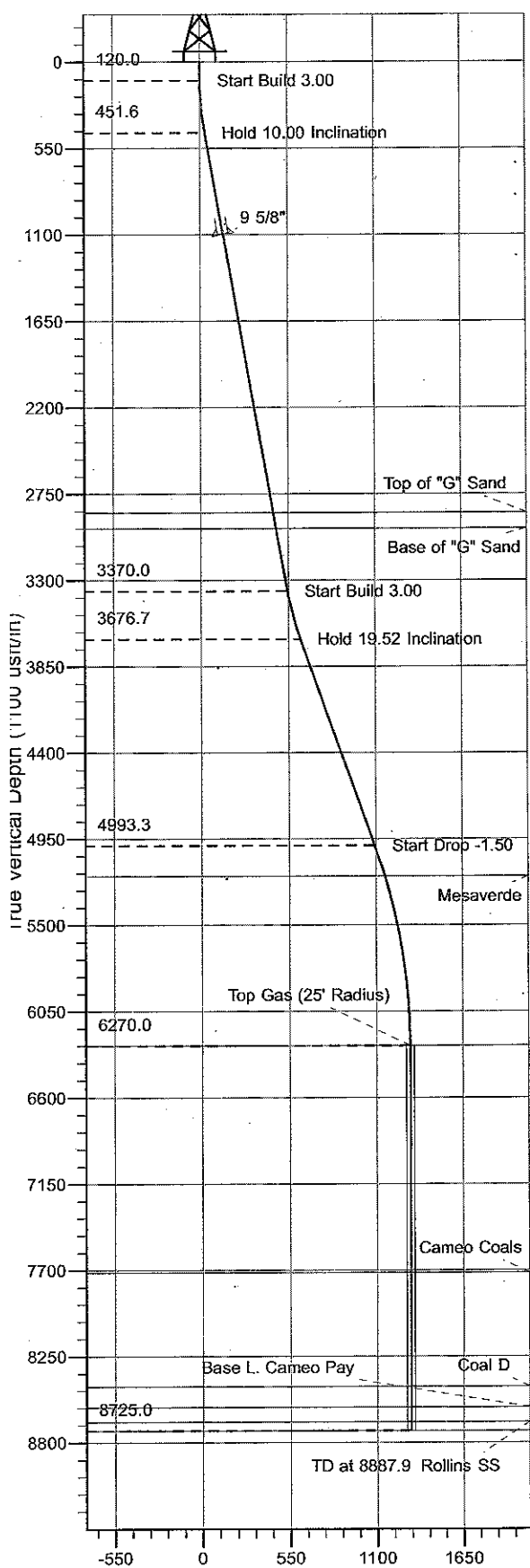




Surface Location: SR 12-9 Pad  
 North American Datum 1983 , US State Plane 1983 , Colorado Central Zone  
 Ground Elevation: 6575.0  
 +N/-S +E/-W Northing Easting Latitude Longitude Slot  
 0.0 0.0 1599785.90 2322704.50 39° 27' 20.270 N 107° 53' 56.234 W B10  
 Corrected KB @ 6599.0usft (E Rig (24') kjs)



Project: RU 09-07S-094W  
 Site: SR 12-9 Pad  
 Well: SR 22-9  
 Plan #2 21Dec09 kjs

M Azimuths to True North  
 Magnetic North: 10.73°  
 Magnetic Field  
 Strength: 52603.4nT  
 Dip Angle: 65.83°  
 Date: 1/10/2008  
 Model: IGRF2005-10

#### ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSec	Departure	Annotation
120.0	120.0	0.00	0.00	0.0	0.0	0.0	0.0	Start Build 3.00
451.6	453.3	10.00	83.82	3.1	28.8	29.0	29.0	Hold 10.00 Inclination
3370.0	3416.7	10.00	83.82	58.5	540.4	543.6	543.6	Start Build 3.00
3676.7	3734.2	19.53	83.82	67.2	620.8	624.4	624.4	Hold 19.52 Inclination
4993.3	5131.2	19.53	83.82	117.5	1085.0	1091.3	1091.3	Start Drop -1.50
6270.0	6432.9	0.00	0.00	141.2	1303.4	1311.0	1311.0	Top Gas
8725.0	8887.9	0.00	0.00	141.2	1303.4	1311.0	1311.0	TD at 8887.9

# **PICEANCE VLY NAD 83**

**RU 09-07S-094W**

**SR 12-9 Pad**

**SR 22-9 - Slot B10**

**Wellbore #1**

**Plan: Plan #2 21Dec09 kjs**

## **Standard Planning Report - Geographic**

**22 December, 2009**

# Williams

## Planning Report - Geographic

<b>Database:</b>	Compass R5000 WIN AUTH	<b>Local Co-ordinate Reference:</b>	Well SR 22-9 - Slot B10
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	Corrected KB @ 6599.0usft (E Rig (24') kjs)
<b>Project:</b>	RU 09-07S-094W	<b>MD Reference:</b>	Corrected KB @ 6599.0usft (E Rig (24') kjs)
<b>Site:</b>	SR 12-9 Pad	<b>North Reference:</b>	True
<b>Well:</b>	SR 22-9	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2 21Dec09 kjs		

<b>Project</b>	RU 09-07S-094W, Garfield County, CO		
<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		Using geodetic scale factor

<b>Site</b>	SR 12-9 Pad			
<b>Site Position:</b>		<b>Northing:</b>	1,599,774.90 usft	<b>Latitude:</b> 39° 27' 20.163 N
<b>From:</b>	Map	<b>Easting:</b>	2,322,710.40 usft	<b>Longitude:</b> 107° 53' 56.155 W
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	13.200 in	<b>Grid Convergence:</b> -1.51 °

<b>Well</b>	SR 22-9 - Slot B10			
<b>Well Position</b>	<b>+N/-S</b>	0.0 usft	<b>Northing:</b>	1,599,785.90 usft
	<b>+E/-W</b>	0.0 usft	<b>Easting:</b>	2,322,704.50 usft
<b>Position Uncertainty</b>	0.0 usft		<b>Wellhead Elevation:</b>	<b>Ground Level:</b> 6,575.0 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	1/10/2008	10.73	65.83	52,603

<b>Design</b>	Plan #2 21Dec09 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)</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Direction</b>
	(usft)	(usft)	(usft)	(°)
	0.0	0.0	0.0	83.82

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	0.00	
120.0	0.00	0.00	120.0	0.0	0.0	0.00	0.00	0.00	0.00	
453.3	10.00	83.82	451.6	3.1	28.8	3.00	3.00	0.00	83.82	
3,416.7	10.00	83.82	3,370.0	58.5	540.4	0.00	0.00	0.00	0.00	
3,734.2	19.53	83.82	3,676.7	67.2	620.8	3.00	3.00	0.00	0.00	
5,131.2	19.53	83.82	4,993.3	117.5	1,085.0	0.00	0.00	0.00	0.00	
6,432.9	0.00	0.00	6,270.0	141.2	1,303.4	1.50	-1.50	0.00	180.00	Top Gas (25' Radius)
8,887.9	0.00	0.00	8,725.0	141.2	1,303.4	0.00	0.00	0.00	0.00	

**Williams**  
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well SR 22-9 - Slot B10
Company:	PICEANCE VLY NAD 83	TVD Reference:	Corrected KB @ 6599.0usft (E Rig (24') kjs)
Project:	RU 09-07S-094W	MD Reference:	Corrected KB @ 6599.0usft (E Rig (24') kjs)
Site:	SR 12-9 Pad	North Reference:	True
Well:	SR 22-9	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 21Dec09 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	1,599,785.90	2,322,704.50	39° 27' 20.270 N	107° 53' 56.234 W
120.0	0.00	0.00	120.0	0.0	0.0	1,599,785.90	2,322,704.50	39° 27' 20.270 N	107° 53' 56.234 W
<b>Start Build 3.00</b>									
453.3	10.00	83.82	451.6	3.1	28.8	1,599,788.26	2,322,733.42	39° 27' 20.301 N	107° 53' 55.866 W
<b>Hold 10.00 Inclination</b>									
1,111.7	10.00	83.82	1,100.0	15.4	142.5	1,599,797.56	2,322,847.36	39° 27' 20.423 N	107° 53' 54.417 W
<b>9 5/8"</b>									
2,909.0	10.00	83.82	2,870.0	49.0	452.8	1,599,822.95	2,323,158.41	39° 27' 20.755 N	107° 53' 50.462 W
<b>Top of "G" Sand</b>									
3,010.5	10.00	83.82	2,970.0	50.9	470.3	1,599,824.39	2,323,175.98	39° 27' 20.773 N	107° 53' 50.238 W
<b>Base of "G" Sand</b>									
3,416.7	10.00	83.82	3,370.0	58.5	540.4	1,599,830.12	2,323,246.28	39° 27' 20.849 N	107° 53' 49.344 W
<b>Start Build 3.00</b>									
3,734.2	19.53	83.82	3,676.7	67.2	620.8	1,599,836.70	2,323,326.83	39° 27' 20.935 N	107° 53' 48.320 W
<b>Hold 19.52 Inclination</b>									
5,131.2	19.53	83.82	4,993.3	117.5	1,085.0	1,599,874.71	2,323,792.17	39° 27' 21.431 N	107° 53' 42.402 W
<b>Start Drop -1.50</b>									
5,338.0	16.42	83.82	5,190.0	124.4	1,148.4	1,599,879.91	2,323,855.76	39° 27' 21.499 N	107° 53' 41.593 W
<b>Mesaverde</b>									
6,432.9	0.00	0.00	6,270.0	141.2	1,303.4	1,599,892.60	2,324,011.10	39° 27' 21.665 N	107° 53' 39.617 W
<b>Top Gas - Approx. Top Gas</b>									
7,877.9	0.00	0.00	7,715.0	141.2	1,303.4	1,599,892.60	2,324,011.10	39° 27' 21.665 N	107° 53' 39.617 W
<b>Cameo Coals</b>									
8,607.9	0.00	0.00	8,445.0	141.2	1,303.4	1,599,892.60	2,324,011.10	39° 27' 21.665 N	107° 53' 39.617 W
<b>Coal D</b>									
8,737.9	0.00	0.00	8,575.0	141.2	1,303.4	1,599,892.60	2,324,011.10	39° 27' 21.665 N	107° 53' 39.617 W
<b>Base L. Cameo Pay</b>									
8,832.9	0.00	0.00	8,670.0	141.2	1,303.4	1,599,892.60	2,324,011.10	39° 27' 21.665 N	107° 53' 39.617 W
<b>Rollins SS</b>									
8,887.9	0.00	0.00	8,725.0	141.2	1,303.4	1,599,892.60	2,324,011.10	39° 27' 21.665 N	107° 53' 39.617 W
<b>TD at 8887.9 - TD</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) SF	0.00	0.00	6,270.0	141.2	1,303.4	1,599,892.60	2,324,011.10	39° 27' 21.665 N	107° 53' 39.617 W
- plan hits target center									
- Circle (radius 25.0)									

**Casing Points**

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)
1,111.7	1,100.0	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 SR 22-9 - Slot B10
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	Corrected KB @ 6599.0usft (E Rig (24') kjs)
<b>Project:</b>	RU 09-07S-094W	<b>MD Reference:</b>	Corrected KB @ 6599.0usft (E Rig (24') kjs)
<b>Site:</b>	SR 12-9 Pad	<b>North Reference:</b>	True
<b>Well:</b>	SR 22-9	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2 21Dec09 kjs		

### Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,909.0	2,870.0	Top of "G" Sand			
3,010.5	2,970.0	Base of "G" Sand			
5,338.0	5,190.0	Mesaverde			
6,432.9	6,270.0	Approx. Top Gas			
7,877.9	7,715.0	Cameo Coals			
8,607.9	8,445.0	Coal D			
8,737.9	8,575.0	Base L. Cameo Pay			
8,832.9	8,670.0	Rollins SS			
8,887.9	8,725.0	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 3.00
453.3	451.6	3.1	28.8	Hold 10.00 Inclination
3,416.7	3,370.0	58.5	540.4	Start Build 3.00
3,734.2	3,676.7	67.2	620.8	Hold 19.52 Inclination
5,131.2	4,993.3	117.5	1,085.0	Start Drop -1.50
6,432.9	6,270.0	141.2	1,303.4	Top Gas
8,887.9	8,725.0	141.2	1,303.4	TD at 8887.9