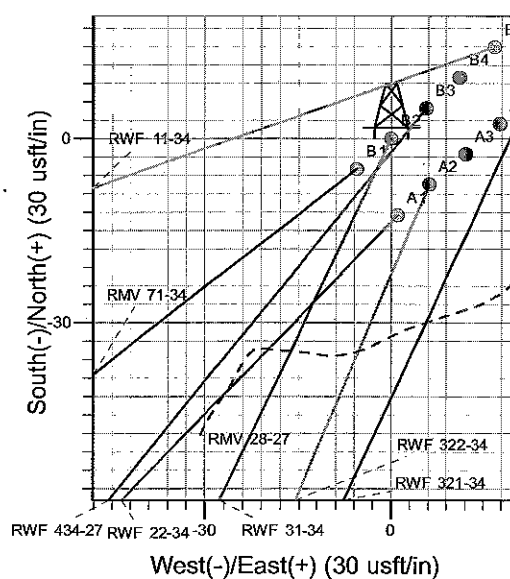
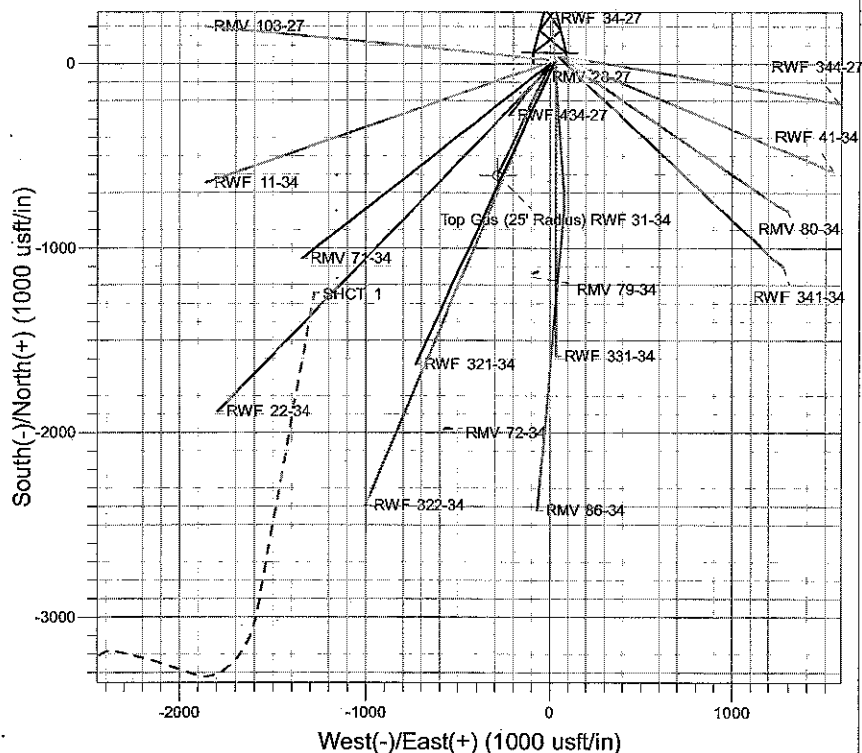
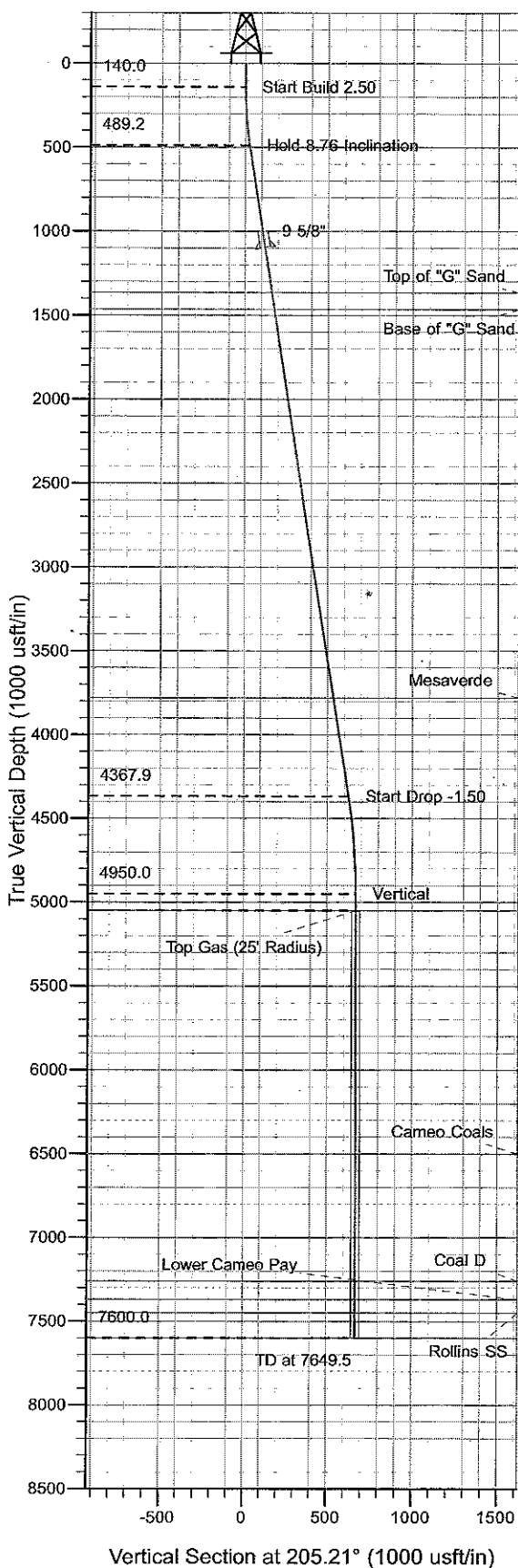




Well Name: RWF 31-34
 Surface Location: RMV 28-27 Pad
 North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
 Ground Elevation: 5297.0
 +N/-S +E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1612164.60 2330484.00 39° 29' 24.594 N 107° 52' 21.204 W B2
 KELLY BUSHING @ 5321.0usft (H&P (24' RKB) kjs)



Project: RU 27-06S-094W
 Site: RMV 28-27 Pad
 Well: RWF 31-34
 Plan #2 20Apr10 kjs

M Azimuths to True North
 Magnetic North: 10.70°
 Magnetic Field
 Strength: 52620.9snT
 Dip Angle: 65.85°
 Date: 3/7/2008
 Model: IGRF2005-10

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSec	Departure	Annotation
140.0	140.0	0.00	0.00	0.0	0.0	0.0	0.0	Start Build 2.50
489.2	490.6	8.77	205.21	-24.2	-11.4	26.8	26.8	Hold 8.76 Inclination
4367.9	4415.1	8.77	205.21	-565.3	-266.1	624.8	624.8	Start Drop -1.50
4950.0	4999.5	0.00	0.00	-605.7	-285.1	669.4	669.4	Vertical
5050.0	5099.5	0.00	0.00	-605.7	-285.1	669.4	669.4	Top gas
7600.0	7649.5	0.00	0.00	-605.7	-285.1	669.4	669.4	TD at 7649.5

PICEANCE VLY NAD 83

RU 27-06S-094W

RMV 28-27 Pad

RWF 31-34 - Slot B2

Wellbore #1

Plan: Plan #2 20Apr10 kjs

Standard Planning Report - Geographic

07 July, 2010

Williams

Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well RWF 31-34 - Slot B2
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5321.0usft (H&P (24' RKB) kjs)
Project:	RU 27-06S-094W	MD Reference:	KELLY BUSHING @ 5321.0usft (H&P (24' RKB) kjs)
Site:	RMV 28-27 Pad	North Reference:	True
Well:	RWF 31-34	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 20Apr10 kjs		

Project	RU 27-06S-094W, Garfield County, CO, 27-06S-094W		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		Using geodetic scale factor

Site	RMV 28-27 Pad		
Site Position:		Northing:	1,612,143.20 usft
From:	Map	Easting:	2,330,505.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	39° 29' 24.388 N
		Longitude:	107° 52' 20.929 W
		Grid Convergence:	-1.50 °

Well	RWF 31-34 - Slot B2		
Well Position	+N-S	0.0 usft	Northing:
	+E-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	
		Latitude:	39° 29' 24.594 N
		Longitude:	107° 52' 21.204 W
		Ground Level:	5,297.0 usft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination
	IGRF2005-10	3/7/2008	10.70
			Dip Angle
			65.85
			Field Strength
			52,621

Design	Plan #2 20Apr10 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
			(°)
			205.21

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	
140.0	0.00	0.00	140.0	0.0	0.0	0.00	0.00	0.00	0.00	
490.6	8.77	205.21	489.2	-24.2	-11.4	2.50	2.50	0.00	205.21	
4,415.1	8.77	205.21	4,367.9	-565.3	-266.1	0.00	0.00	0.00	0.00	
4,999.5	0.00	0.00	4,950.0	-605.7	-285.1	1.50	-1.50	0.00	180.00	
5,099.5	0.00	0.00	5,050.0	-605.7	-285.1	0.00	0.00	0.00	0.00	Top Gas (25' Radius)
7,649.5	0.00	0.00	7,600.0	-605.7	-285.1	0.00	0.00	0.00	0.00	

Williams
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well RWF 31-34 - Slot B2
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5321.0usft (H&P (24' RKB) kjs)
Project:	RU 27-06S-094W	MD Reference:	KELLY BUSHING @ 5321.0usft (H&P (24' RKB) kjs)
Site:	RMV 28-27 Pad	North Reference:	True
Well:	RWF 31-34	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 20Apr10 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	1,612,164.60	2,330,484.00	39° 29' 24.594 N	107° 52' 21.204 W
140.0	0.00	0.00	140.0	0.0	0.0	1,612,164.60	2,330,484.00	39° 29' 24.594 N	107° 52' 21.204 W
Start Build 2.50									
490.6	8.77	205.21	489.2	-24.2	-11.4	1,612,140.69	2,330,471.97	39° 29' 24.355 N	107° 52' 21.349 W
Hold 8.76 Inclination									
1,108.6	8.77	205.21	1,100.0	-109.4	-51.5	1,612,056.56	2,330,429.66	39° 29' 23.513 N	107° 52' 21.861 W
9 5/8"									
1,376.7	8.77	205.21	1,365.0	-146.4	-68.9	1,612,020.06	2,330,411.30	39° 29' 23.147 N	107° 52' 22.083 W
Top of "G" Sand									
1,477.9	8.77	205.21	1,465.0	-160.3	-75.5	1,612,006.29	2,330,404.37	39° 29' 23.009 N	107° 52' 22.167 W
Base of "G" Sand									
3,820.3	8.77	205.21	3,780.0	-483.3	-227.5	1,611,687.43	2,330,243.98	39° 29' 19.817 N	107° 52' 24.106 W
Mesaverde									
4,415.1	8.77	205.21	4,367.9	-565.3	-266.1	1,611,606.45	2,330,203.25	39° 29' 19.007 N	107° 52' 24.598 W
Start Drop -1.50									
4,999.5	0.00	0.00	4,950.0	-605.7	-285.1	1,611,566.60	2,330,183.20	39° 29' 18.608 N	107° 52' 24.840 W
Vertical									
5,099.5	0.00	0.00	5,050.0	-605.7	-285.1	1,611,566.60	2,330,183.20	39° 29' 18.608 N	107° 52' 24.840 W
Top gas - Approx. Top Gas									
6,549.5	0.00	0.00	6,500.0	-605.7	-285.1	1,611,566.60	2,330,183.20	39° 29' 18.608 N	107° 52' 24.840 W
Cameo Coals									
7,309.5	0.00	0.00	7,260.0	-605.7	-285.1	1,611,566.60	2,330,183.20	39° 29' 18.608 N	107° 52' 24.840 W
Coal D									
7,419.5	0.00	0.00	7,370.0	-605.7	-285.1	1,611,566.60	2,330,183.20	39° 29' 18.608 N	107° 52' 24.840 W
Lower Cameo Pay									
7,499.5	0.00	0.00	7,450.0	-605.7	-285.1	1,611,566.60	2,330,183.20	39° 29' 18.608 N	107° 52' 24.840 W
Rollins SS									
7,649.5	0.00	0.00	7,600.0	-605.7	-285.1	1,611,566.60	2,330,183.20	39° 29' 18.608 N	107° 52' 24.840 W
TD at 7649.5 - 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) R1	0.00	0.00	5,050.0	-605.7	-285.1	1,611,566.60	2,330,183.20	39° 29' 18.608 N	107° 52' 24.840 W
- plan hits target center									
- Circle (radius 25.0)									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
1,108.6	1,100.0	9 5/8"	9-5/8	12-1/4	

Williams

Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well RWF 31-34 - Slot B2
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5321.0usft (H&P (24' RKB) kjs)
Project:	RU 27-06S-094W	MD Reference:	KELLY BUSHING @ 5321.0usft (H&P (24' RKB) kjs)
Site:	RMV 28-27 Pad	North Reference:	True
Well:	RWF 31-34	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 20Apr10 kjs		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,376.7	1,365.0	Top of "G" Sand				
1,477.9	1,465.0	Base of "G" Sand				
3,820.3	3,780.0	Mesaverde				
5,099.5	5,050.0	Approx. Top Gas				
6,549.5	6,500.0	Cameo Coals				
7,309.5	7,260.0	Coal D				
7,419.5	7,370.0	Lower Cameo Pay				
7,499.5	7,450.0	Rollins SS				
7,649.5	7,600.0	TD				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
140.0	140.0	0.0	0.0	Start Build 2.50	
490.6	489.2	-24.2	-11.4	Hold 8.76 Inclination	
4,415.1	4,367.9	-565.3	-266.1	Start Drop -1.50	
4,999.5	4,950.0	-605.7	-285.1	Vertical	
5,099.5	5,050.0	-605.7	-285.1	Top gas	
7,649.5	7,600.0	-605.7	-285.1	TD at 7649.5	