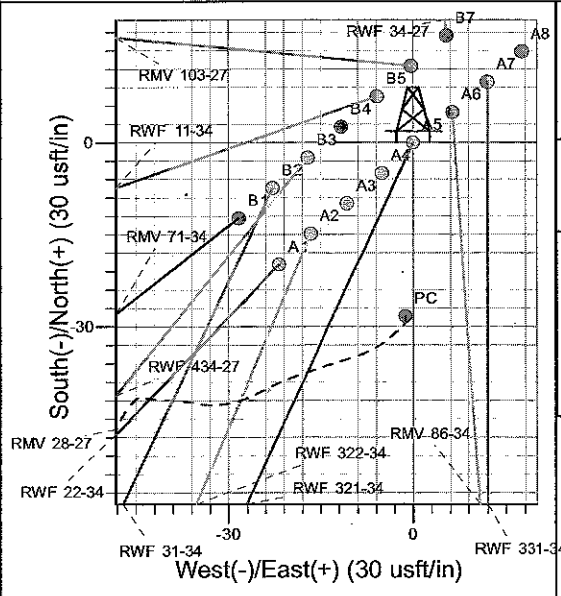
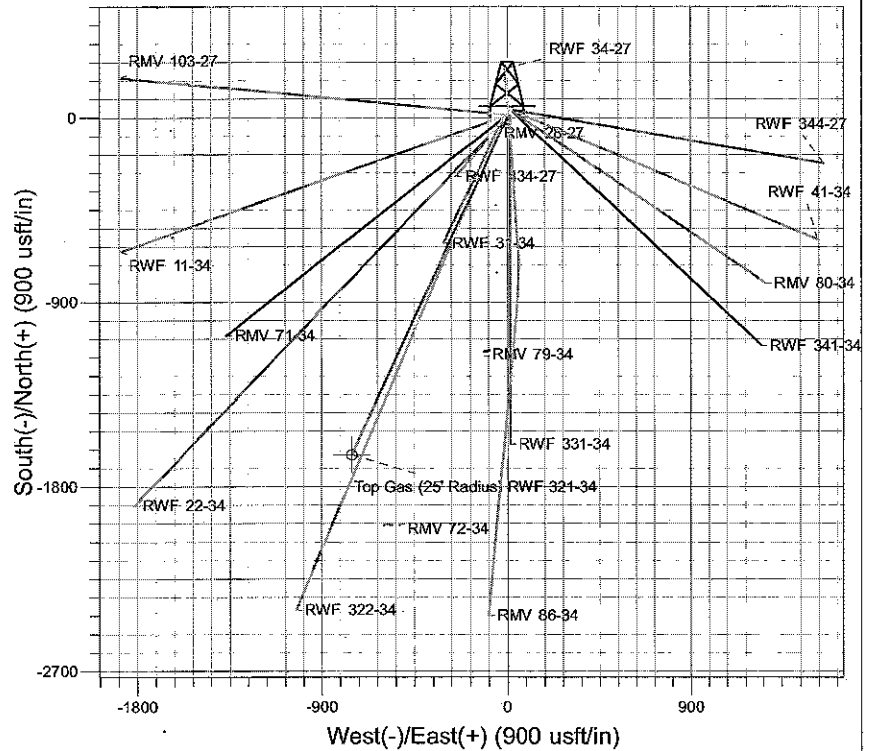
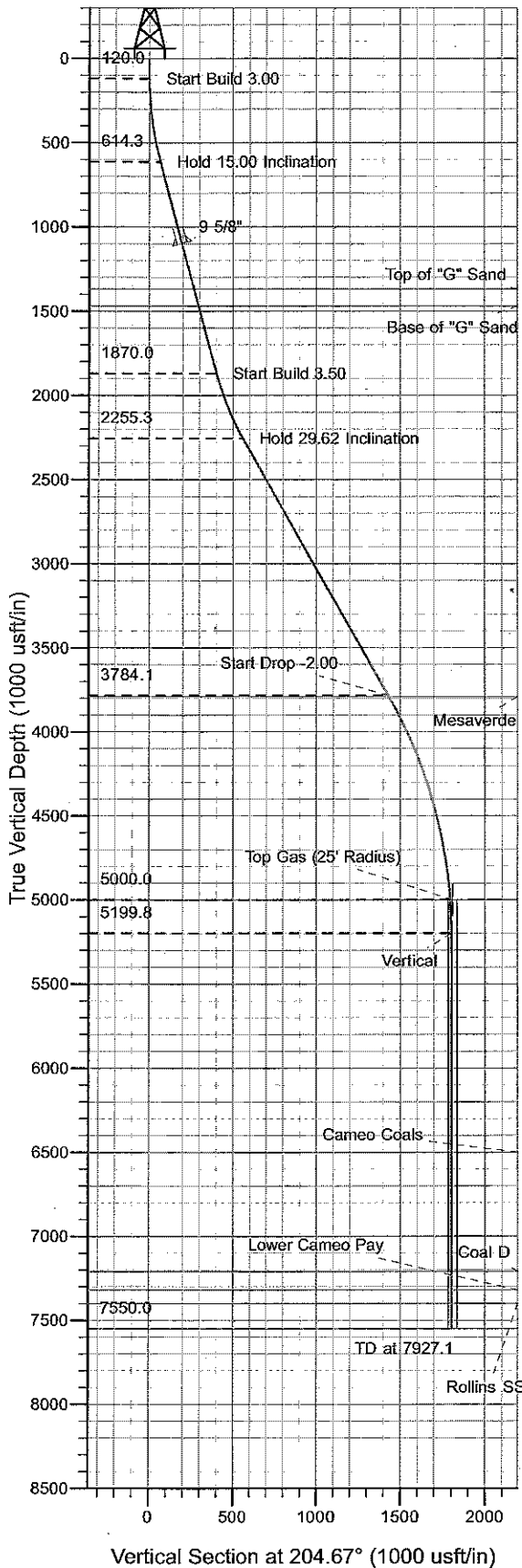
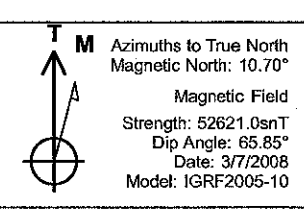




Well Name: RWF 321-34
 Surface Location: RMV 28-27 Pad
 North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
 Ground Elevation: 5297.0
 +N/-S +E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1612171.40 2330507.00 39° 29' 24.667 N 107° 52' 20.913 W A5
 KELLY BUSHING @ 5321.0usft (H&P (24' RKB) kjs)



Project: RU 27-06S-094W
 Site: RMV 28-27 Pad
 Well: RWF 321-34
 Plan #2 20Apr10 kjs



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
614.3	620.0	15.00	204.69	-59.1	-27.2	65.1	65.1	Hold 15.00 Inclination
1870.0	1920.0	15.00	204.69	-364.8	-167.7	401.5	401.5	Start Build 3.50
2255.3	2337.6	29.62	204.67	-508.5	-233.7	559.6	559.6	Hold 29.62 Inclination
3784.1	4096.1	29.62	204.67	-1298.2	-596.4	1428.7	1428.7	Start Drop -2.00
5000.0	5376.9	4.00	204.67	-1632.0	-749.7	1795.9	1795.9	Top Gas
5199.8	5576.9	0.00	0.00	-1638.3	-752.6	1802.9	1802.9	Vertical
7550.0	7927.1	0.00	0.00	-1638.3	-752.6	1802.9	1802.9	TD at 7927.1

PICEANCE VLY NAD 83

RU 27-06S-094W

RMV 28-27 Pad

RWF 321-34 - Slot A5

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 321-34 - Slot A5
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 321-34	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 321-34 - Slot A5		
Well Position	+N/-S	0.0 usft	Northing: 1,612,171.40 usft
	+E/-W	0.0 usft	Easting: 2,330,507.00 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	Latitude: 39° 29' 24.667 N
			Longitude: 107° 52' 20.913 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
			(nT)
			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
			(°)
			204.67

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	
620.0	15.00	204.69	614.3	-59.1	-27.2	3.00	3.00	0.00	204.69	
1,920.0	15.00	204.69	1,870.0	-364.8	-167.7	0.00	0.00	0.00	0.00	
2,337.6	29.62	204.67	2,255.3	-508.5	-233.7	3.50	3.50	0.00	0.00	
4,096.1	29.62	204.67	3,784.1	-1,298.2	-596.4	0.00	0.00	0.00	0.00	
5,376.9	4.00	204.67	5,000.0	-1,632.0	-749.7	2.00	-2.00	0.00	180.00	Top Gas (25" Radius)
5,576.9	0.00	0.00	5,199.8	-1,638.3	-752.6	2.00	-2.00	77.67	180.00	
7,927.1	0.00	0.00	7,550.0	-1,638.3	-752.6	0.00	0.00	0.00	0.00	

Williams
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well RWF 321-34 - Slot A5
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 321-34	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	1,612,171.40	2,330,507.00	39° 29' 24.667 N	107° 52' 20.913 W	
120.0	0.00	0.00	120.0	0.0	0.0	1,612,171.40	2,330,507.00	39° 29' 24.667 N	107° 52' 20.913 W	
Start Build 3.00										
620.0	15.00	204.69	614.3	-59.1	-27.2	1,612,113.00	2,330,478.29	39° 29' 24.083 N	107° 52' 21.260 W	
Hold 15.00 Inclination										
1,122.8	15.00	204.69	1,100.0	-177.4	-81.5	1,611,996.22	2,330,420.86	39° 29' 22.914 N	107° 52' 21.953 W	
9 5/8"										
1,402.3	15.00	204.69	1,370.0	-243.1	-111.8	1,611,931.30	2,330,388.93	39° 29' 22.264 N	107° 52' 22.339 W	
Top of "G" Sand										
1,505.9	15.00	204.69	1,470.0	-267.4	-123.0	1,611,907.26	2,330,377.11	39° 29' 22.024 N	107° 52' 22.481 W	
Base of "G" Sand										
1,920.0	15.00	204.69	1,870.0	-364.8	-167.7	1,611,811.08	2,330,329.81	39° 29' 21.061 N	107° 52' 23.052 W	
Start Build 3.50										
2,337.6	29.62	204.67	2,255.3	-508.5	-233.7	1,611,669.21	2,330,260.11	39° 29' 19.642 N	107° 52' 23.894 W	
Hold 29.62 Inclination										
4,096.1	29.62	204.67	3,784.1	-1,298.2	-596.4	1,610,889.24	2,329,876.92	39° 29' 11.836 N	107° 52' 28.520 W	
Start Drop -2.00										
4,102.9	29.48	204.67	3,790.0	-1,301.3	-597.8	1,610,886.25	2,329,875.45	39° 29' 11.806 N	107° 52' 28.538 W	
Mesaverde										
5,376.9	4.00	204.67	5,000.0	-1,632.0	-749.7	1,610,559.61	2,329,714.98	39° 29' 8.538 N	107° 52' 30.475 W	
Top Gas - Approx. Top Gas										
5,576.9	0.00	0.00	5,199.8	-1,638.3	-752.6	1,610,553.35	2,329,711.90	39° 29' 8.475 N	107° 52' 30.512 W	
Vertical										
6,877.1	0.00	0.00	6,500.0	-1,638.3	-752.6	1,610,553.35	2,329,711.90	39° 29' 8.475 N	107° 52' 30.512 W	
Cameo Coals										
7,587.1	0.00	0.00	7,210.0	-1,638.3	-752.6	1,610,553.35	2,329,711.90	39° 29' 8.475 N	107° 52' 30.512 W	
Coal D										
7,697.1	0.00	0.00	7,320.0	-1,638.3	-752.6	1,610,553.35	2,329,711.90	39° 29' 8.475 N	107° 52' 30.512 W	
Lower Cameo Pay										
7,777.1	0.00	0.00	7,400.0	-1,638.3	-752.6	1,610,553.35	2,329,711.90	39° 29' 8.475 N	107° 52' 30.512 W	
Rollins SS										
7,927.1	0.00	0.00	7,550.0	-1,638.3	-752.6	1,610,553.35	2,329,711.90	39° 29' 8.475 N	107° 52' 30.512 W	
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	5,000.0	-1,644.3	-755.5	1,610,547.50	2,329,708.90	39° 29' 8.416 N	107° 52' 30.548 W	
- plan misses target center by 13.5usft at 5377.4usft MD (5000.5 TVD, -1632.0 N, -749.7 E)										
- Circle (radius 25.0)										

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
1,122.8	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 321-34 - Slot A5
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 321-34	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 (°)	
1,402.3	1,370.0	Top of "G" Sand				
1,505.9	1,470.0	Base of "G" Sand				
4,102.9	3,790.0	Mesaverde				
5,376.9	5,000.0	Approx. Top Gas				
6,877.1	6,500.0	Cameo Coals				
7,587.1	7,210.0	Coal D				
7,697.1	7,320.0	Lower Cameo Pay				
7,777.1	7,400.0	Rollins SS				
7,927.1	7,550.0	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	
620.0	614.3	-59.1	-27.2	Hold 15.00 Inclination	
1,920.0	1,870.0	-364.8	-167.7	Start Build 3.50	
2,337.6	2,255.3	-508.5	-233.7	Hold 29.62 Inclination	
4,096.1	3,784.1	-1,298.2	-596.4	Start Drop -2.00	
5,376.9	5,000.0	-1,632.0	-749.7	Top Gas	
5,576.9	5,199.8	-1,638.3	-752.6	Vertical	
7,927.1	7,550.0	-1,638.3	-752.6	TD at 7927.1	