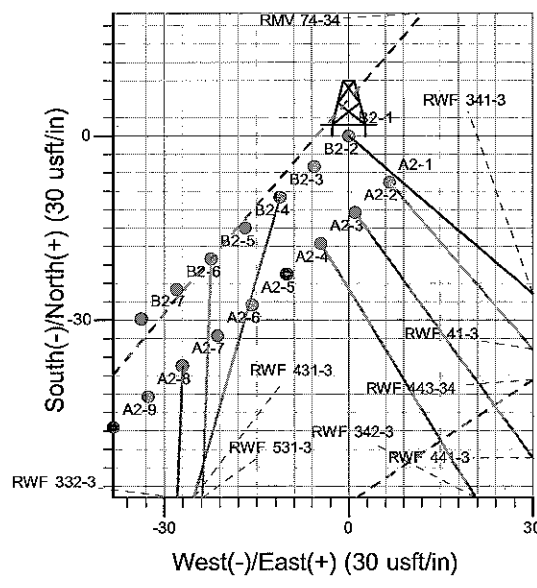
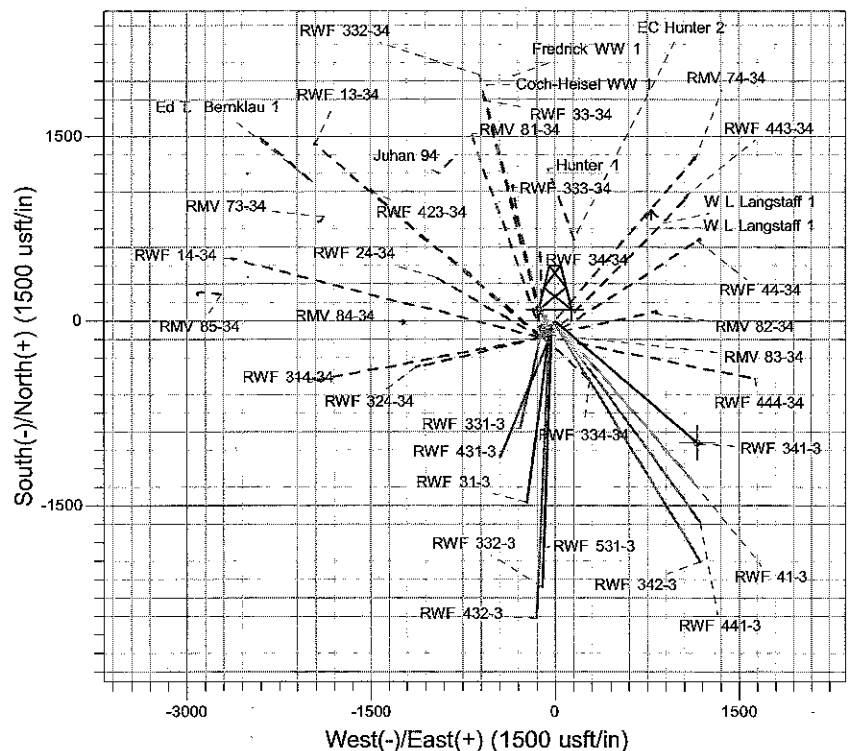
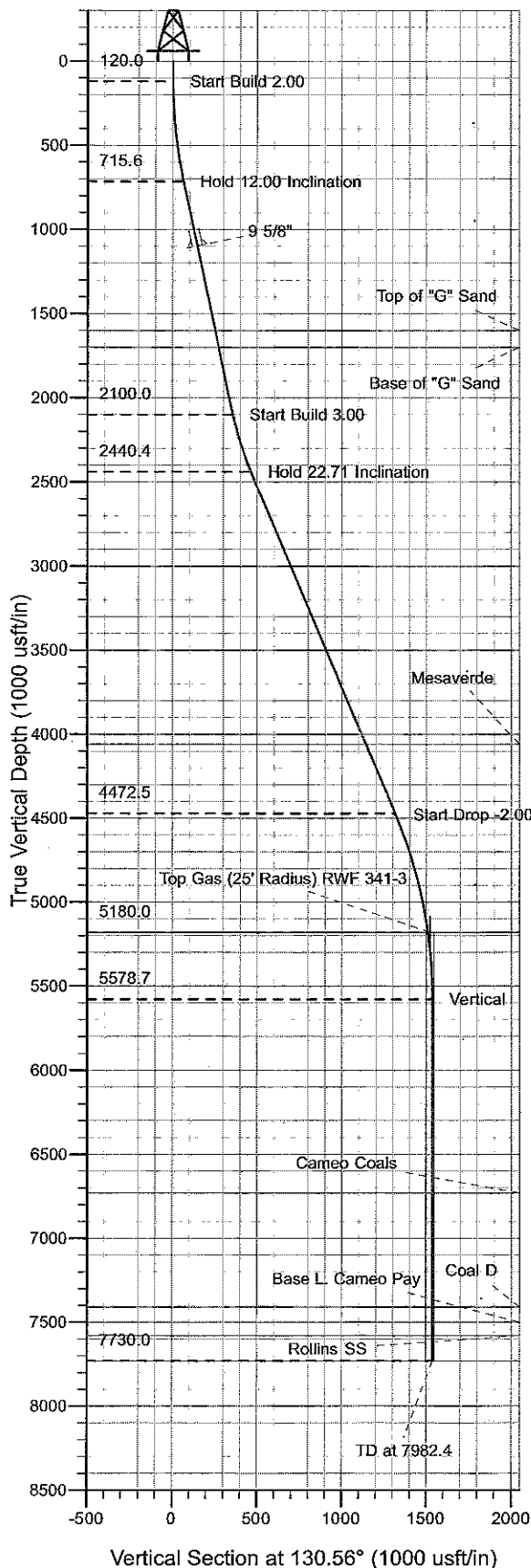





Well Name: RWF 341-3
 Surface Location: RMV 83-34 Pad
 North American Datum 1983 , US State Plane 1983, Colorado Central Zone
 Ground Elevation: 5626.0
 +N/-S 0.0 +E/-W 0.0 Northing 1607130.80 Easting 2330718.70 Latitude 39° 28' 34.919 N Longitude 107° 52' 16.535 W Slot B2-1
 KELLY BUSHING @ 5650.0usft (H&P 24' KB JMS)



Project: RU 34-06S-094W
 Site: RMV 83-34 Pad
 Well: RWF 341-3
 Design #1 14Apr10 JMS


 Azimuths to True North
 Magnetic North: 10.45°
 Magnetic Field
 Strength: 52376.9nT
 Dip Angle: 65.78°
 Date: 4/14/2010
 Model: IGRF2010

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	Vsect	Departure	Annotation
120.0	120.0	0.00	0.00	0.0	0.0	62.6	0.0	Start Build 2.00
715.6	720.0	12.00	130.53	-40.7	47.6	62.6	62.6	Hold 12.00 Inclination
2100.0	2135.3	12.00	130.53	-231.9	271.2	356.9	356.9	Start Build 3.00
2440.4	2492.4	22.71	130.57	-301.1	352.0	463.2	463.2	Hold 22.71 Inclination
4472.5	4695.4	22.71	130.57	-854.3	998.2	1313.9	1313.9	Start Drop -2.00
5180.0	5431.1	8.00	130.57	-980.7	1145.8	1508.2	1508.2	Top Gas
5578.7	5831.1	0.00	0.00	-998.9	1167.0	1536.1	1536.1	Vertical
7730.0	7982.4	0.00	0.00	-998.9	1167.0	1536.1	1536.1	TD at 7982.4

PICEANCE VLY NAD 83

RU 34-06S-094W

RMV 83-34 Pad

RWF 341-3 - Slot B2-1

Wellbore #1

Plan: Design #1 14Apr10 JMS

Standard Planning Report - Geographic

29 April, 2010

Williams

Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well RWF 341-3 - Slot B2-1
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5650.0usft (H&P 24' KB JMS)
Project:	RU 34-06S-094W	MD Reference:	KELLY BUSHING @ 5650.0usft (H&P 24' KB JMS)
Site:	RMV 83-34 Pad	North Reference:	True
Well:	RWF 341-3	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 14Apr10 JMS		

Project	RU 34-06S-094W, Garfield County, CO, 34-06S-094W		
Map System:	US State Plane 1983	System Datum:	Ground Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		Using geodetic scale factor

Site	RMV 83-34 Pad				
Site Position:		Northing:	1,607,043.10 usft	Latitude:	39° 28' 34.035 N
From:	Map	Easting:	2,330,648.70 usft	Longitude:	107° 52' 17.399 W
Position Uncertainty:	0.0 usft	Slot Radius:	0.000 in	Grid Convergence:	-1.496 °

Well	RWF 341-3 - Slot B2-1					
Well Position	+N/-S	0.0 usft	Northing:	1,607,130.80 usft	Latitude:	39° 28' 34.919 N
	+E/-W	0.0 usft	Easting:	2,330,718.70 usft	Longitude:	107° 52' 16.535 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	5,626.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	4/14/2010	10.445	65.778	52,377

Design	Design #1 14Apr10 JMS			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	130.56

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	
720.0	12.00	130.53	715.6	-40.7	47.6	2.00	2.00	0.00	130.530	
2,135.3	12.00	130.53	2,100.0	-231.9	271.2	0.00	0.00	0.00	0.000	
2,492.4	22.71	130.57	2,440.4	-301.1	352.0	3.00	3.00	0.00	0.000	
4,695.4	22.71	130.57	4,472.5	-854.3	998.2	0.00	0.00	0.00	0.000	
5,431.1	8.00	130.57	5,180.0	-980.7	1,145.8	2.00	-2.00	0.00	180.000	Top Gas (25' Radius)
5,831.1	0.00	0.00	5,578.7	-998.9	1,167.0	2.00	-2.00	0.00	180.000	
7,982.4	0.00	0.00	7,730.0	-998.9	1,167.0	0.00	0.00	0.00	0.000	

Williams

Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well RWF 341-3 - Slot B2-1
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5650.0usft (H&P 24' KB JMS)
Project:	RU 34-06S-094W	MD Reference:	KELLY BUSHING @ 5650.0usft (H&P 24' KB JMS)
Site:	RMV 83-34 Pad	North Reference:	True
Well:	RWF 341-3	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 14Apr10 JMS		

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	1,607,130.80	2,330,718.70	39° 28' 34.919 N	107° 52' 16.535 W
120.0	0.00	0.00	120.0	0.0	0.0	1,607,130.80	2,330,718.70	39° 28' 34.919 N	107° 52' 16.535 W
Start Build 2.00									
720.0	12.00	130.53	715.6	-40.7	47.6	1,607,088.89	2,330,765.20	39° 28' 34.517 N	107° 52' 15.929 W
Hold 12.00 Inclination									
1,113.0	12.00	130.53	1,100.0	-93.8	109.7	1,607,034.19	2,330,825.89	39° 28' 33.992 N	107° 52' 15.137 W
9 5/8"									
1,624.1	12.00	130.53	1,600.0	-162.8	190.5	1,606,963.05	2,330,904.84	39° 28' 33.310 N	107° 52' 14.107 W
Top of "G" Sand									
1,726.4	12.00	130.53	1,700.0	-176.7	206.6	1,606,948.82	2,330,920.63	39° 28' 33.173 N	107° 52' 13.900 W
Base of "G" Sand									
2,135.3	12.00	130.53	2,100.0	-231.9	271.2	1,606,891.90	2,330,983.78	39° 28' 32.627 N	107° 52' 13.076 W
Start Build 3.00									
2,492.4	22.71	130.57	2,440.4	-301.1	352.0	1,606,820.63	2,331,062.76	39° 28' 31.943 N	107° 52' 12.046 W
Hold 22.71 Inclination									
4,248.2	22.71	130.57	4,060.0	-742.0	867.0	1,606,366.41	2,331,566.04	39° 28' 27.585 N	107° 52' 5.479 W
Mesaverde									
4,695.4	22.71	130.57	4,472.5	-854.3	998.2	1,606,250.72	2,331,694.22	39° 28' 26.475 N	107° 52' 3.806 W
Start Drop -2.00									
5,431.1	8.00	130.57	5,180.0	-980.7	1,145.8	1,606,120.55	2,331,838.46	39° 28' 25.226 N	107° 52' 1.924 W
Top Gas - Approx. Top Gas									
5,831.1	0.00	0.00	5,578.7	-998.9	1,167.0	1,606,101.87	2,331,859.16	39° 28' 25.047 N	107° 52' 1.654 W
Vertical									
6,982.4	0.00	0.00	6,730.0	-998.9	1,167.0	1,606,101.87	2,331,859.16	39° 28' 25.047 N	107° 52' 1.654 W
Cameo Coals									
7,662.4	0.00	0.00	7,410.0	-998.9	1,167.0	1,606,101.87	2,331,859.16	39° 28' 25.047 N	107° 52' 1.654 W
Coal D									
7,752.4	0.00	0.00	7,500.0	-998.9	1,167.0	1,606,101.87	2,331,859.16	39° 28' 25.047 N	107° 52' 1.654 W
Base L Cameo Pay									
7,832.4	0.00	0.00	7,580.0	-998.9	1,167.0	1,606,101.87	2,331,859.16	39° 28' 25.047 N	107° 52' 1.654 W
Rollins SS									
7,982.4	0.00	0.00	7,730.0	-998.9	1,167.0	1,606,101.87	2,331,859.16	39° 28' 25.047 N	107° 52' 1.654 W
TD at 7982.4									

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	5,180.0	-989.1	1,156.4	1,606,111.90	2,331,848.80	39° 28' 25.143 N	107° 52' 1.789 W
- plan misses target center by 13.4usft at 5432.1usft MD (5180.9 TVD, -980.8 N, 1145.9 E)									
- Circle (radius 25.0)									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,113.0	1,100.0	9 5/8"	9.625	12.250	

Williams
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well RWF 341-3 - Slot B2-1
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5650.0usft (H&P 24' KB JMS)
Project:	RU 34-06S-094W	MD Reference:	KELLY BUSHING @ 5650.0usft (H&P 24' KB JMS)
Site:	RMV 83-34 Pad	North Reference:	True
Well:	RWF 341-3	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 14Apr10 JMS		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Direction (°)	
1,624.1	1,600.0	Top of "G" Sand				
1,726.4	1,700.0	Base of "G" Sand				
4,248.2	4,060.0	Mesaverde				
5,431.1	5,180.0	Approx. Top Gas				
6,982.4	6,730.0	Cameo Coals				
7,662.4	7,410.0	Coal D				
7,752.4	7,500.0	Base L. Cameo Pay				
7,832.4	7,580.0	Rollins SS				
7,982.4	7,730.0	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 2.00	
720.0	715.6	-40.7	47.6	Hold 12.00 Inclination	
2,135.3	2,100.0	-231.9	271.2	Start Build 3.00	
2,492.4	2,440.4	-301.1	352.0	Hold 22.71 Inclination	
4,695.4	4,472.5	-854.3	998.2	Start Drop -2.00	
5,431.1	5,180.0	-980.7	1,145.8	Top Gas	
5,831.1	5,578.7	-998.9	1,167.0	Vertical	
7,982.4	7,730.0	-998.9	1,167.0	TD at 7982.4	