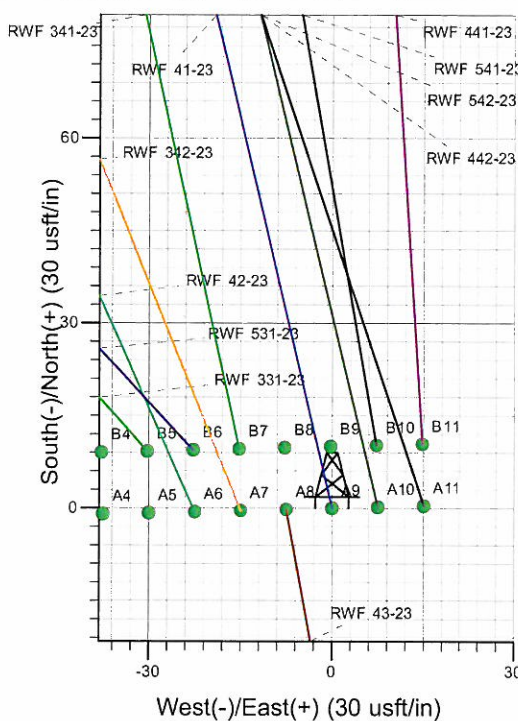
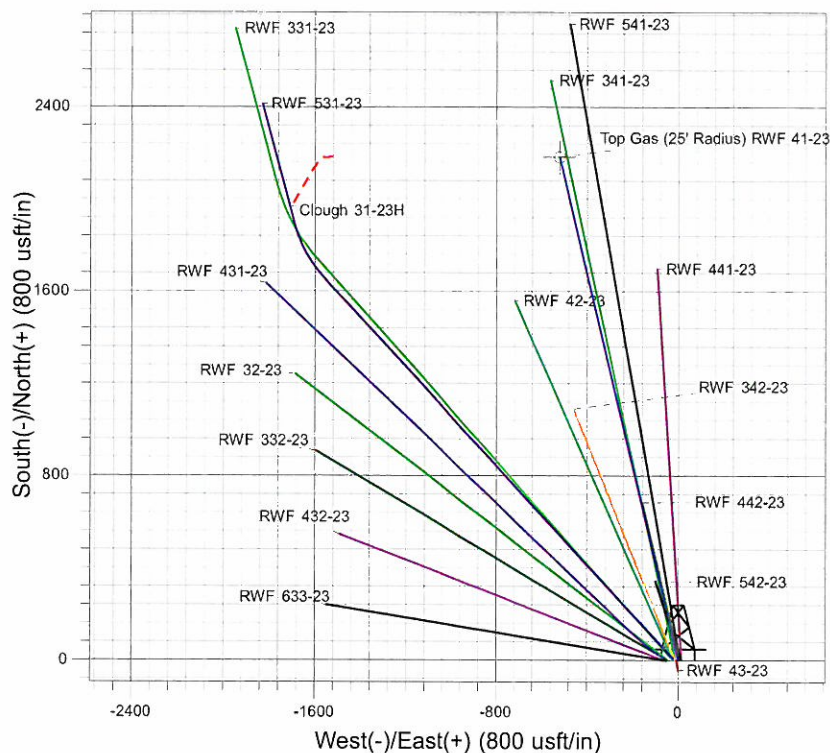
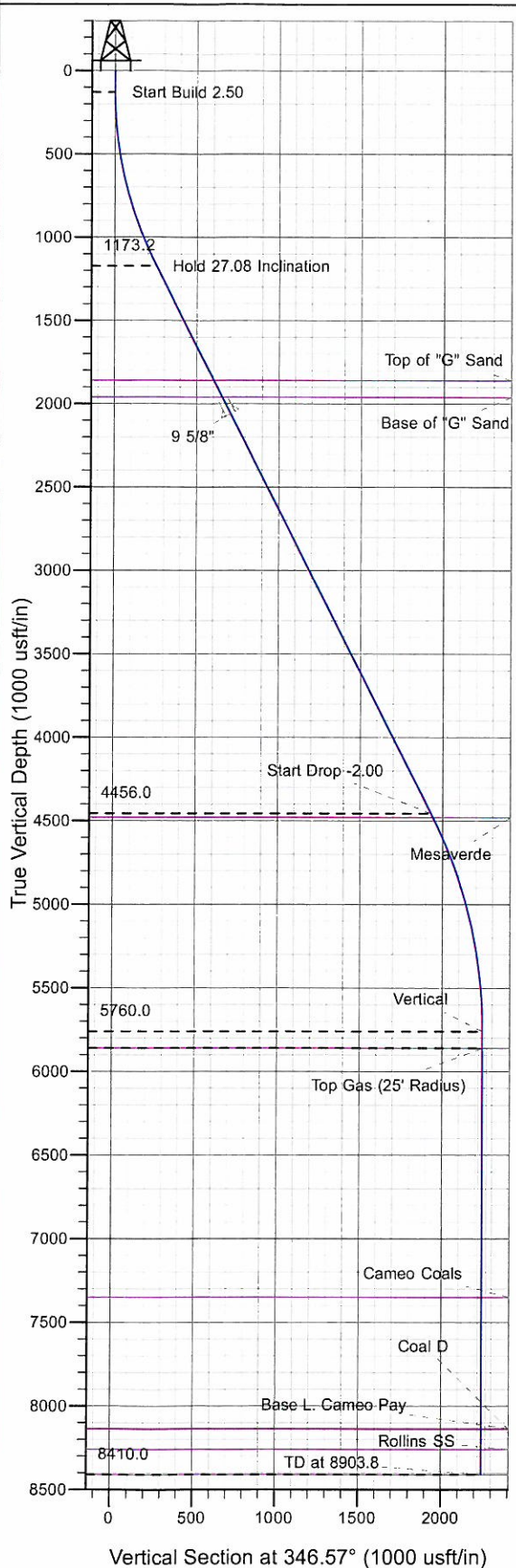




Well Name: RWF 41-23
 Surface Location: RWF 43-23 Pad
 North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
 Ground Elevation: 5599.0
 +N/-S +E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1619204.50 2337904.00 39° 30' 36.055 N 107° 50' 48.907 W A9
 WELL @ 5624.0usft (Original Well Elev)



Project: RU 23-06S-094W
 Site: RWF 43-23 Pad
 Well: RWF 41-23
 Plan #3 24Aug10 kjs

Azimuths to True North
 Magnetic North: 10.43°
 Magnetic Field
 Strength: 52395.0nT
 Dip Angle: 65.81°
 Date: 4/27/2010
 Model: IGRF2010

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSec	Departure	Annotation
130.0	130.0	0.00	0.00	0.0	0.0	0.0	0.0	Start Build 2.50
1173.2	1213.1	27.08	346.57	244.3	-58.3	251.2	251.2	Hold 27.08 Inclination
4456.0	4900.0	27.08	346.57	1876.7	-448.0	1929.4	1929.4	Start Drop -2.00
5760.0	6253.8	0.00	0.00	2182.1	-520.9	2243.4	2243.4	Vertical
5860.0	6353.8	0.00	0.00	2182.1	-520.9	2243.4	2243.4	Top Gas
8410.0	8903.8	0.00	0.00	2182.1	-520.9	2243.4	2243.4	TD at 8903.8

PICEANCE VLY NAD 83

RU 23-06S-094W

RWF 43-23 Pad

RWF 41-23 - Slot A9

Wellbore #1

Plan: Plan #3 24Aug10 kjs

Standard Planning Report - Geographic

27 August, 2010

Williams

Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well RWF 41-23 - Slot A9
Company:	PICEANCE VLY NAD 83	TVD Reference:	WELL @ 5624.0usft (Original Well Elev)
Project:	RU 23-06S-094W	MD Reference:	WELL @ 5624.0usft (Original Well Elev)
Site:	RWF 43-23 Pad	North Reference:	True
Well:	RWF 41-23	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #3 24Aug10 kjs		

Project	RU 23-06S-094W, Garfield County, CO, 23-06S-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	RWF 43-23 Pad		
Site Position:		Northing:	1,619,204.50 usft
From:	Map	Easting:	2,337,897.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13.200 in
		Latitude:	39° 30' 36.053 N
		Longitude:	107° 50' 48.996 W
		Grid Convergence:	-1.480 °

Well	RWF 41-23 - Slot A9		
Well Position	+N/-S	0.0 usft	Northing: 1,619,204.50 usft
	+E/-W	0.0 usft	Easting: 2,337,904.00 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	Latitude: 39° 30' 36.055 N
			Longitude: 107° 50' 48.907 W
			Ground Level: 5,599.0 usft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2010	4/27/2010	10.434
			Dip Angle
			(°)
			65.810
			Field Strength
			(nT)
			52,395

Design	Plan #3 24Aug10 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
			(°)
			346.57

Plan Sections										
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Dogleg Rate	Build Rate	Turn Rate	TFO	Target
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)	(°)	
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.000	
130.0	0.00	0.00	130.0	0.0	0.0	0.00	0.00	0.00	0.000	
1,213.1	27.08	346.57	1,173.2	244.3	-58.3	2.50	2.50	0.00	346.575	
4,900.0	27.08	346.57	4,456.0	1,876.7	-448.0	0.00	0.00	0.00	0.000	
6,253.8	0.00	0.00	5,760.0	2,182.1	-520.9	2.00	-2.00	0.00	180.000	
6,353.8	0.00	0.00	5,860.0	2,182.1	-520.9	0.00	0.00	0.00	0.000	Top Gas (25' Radius)
8,903.8	0.00	0.00	8,410.0	2,182.1	-520.9	0.00	0.00	0.00	0.000	

Williams
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well RWF 41-23 - Slot A9
Company:	PICEANCE VLY NAD 83	TVD Reference:	WELL @ 5624.0usft (Original Well Elev)
Project:	RU 23-06S-094W	MD Reference:	WELL @ 5624.0usft (Original Well Elev)
Site:	RWF 43-23 Pad	North Reference:	True
Well:	RWF 41-23	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #3 24Aug10 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	1,619,204.50	2,337,904.00	39° 30' 36.055 N	107° 50' 48.907 W	
130.0	0.00	0.00	130.0	0.0	0.0	1,619,204.50	2,337,904.00	39° 30' 36.055 N	107° 50' 48.907 W	
Start Build 2.50										
1,213.1	27.08	346.57	1,173.2	244.3	-58.3	1,619,450.23	2,337,852.02	39° 30' 38.469 N	107° 50' 49.651 W	
Hold 27.08 Inclination										
1,984.4	27.08	346.57	1,860.0	585.8	-139.8	1,619,793.72	2,337,779.35	39° 30' 41.845 N	107° 50' 50.691 W	
Top of "G" Sand										
2,096.7	27.08	346.57	1,960.0	635.6	-151.7	1,619,843.73	2,337,768.77	39° 30' 42.336 N	107° 50' 50.843 W	
Base of "G" Sand										
2,209.0	27.08	346.57	2,060.0	685.3	-163.6	1,619,893.74	2,337,758.19	39° 30' 42.827 N	107° 50' 50.994 W	
9 5/8"										
4,900.0	27.08	346.57	4,456.0	1,876.7	-448.0	1,621,092.03	2,337,504.69	39° 30' 54.602 N	107° 50' 54.623 W	
Start Drop -2.00										
4,926.8	26.54	346.57	4,480.0	1,888.4	-450.8	1,621,103.89	2,337,502.18	39° 30' 54.719 N	107° 50' 54.659 W	
Mesaverde										
6,253.8	0.00	0.00	5,760.0	2,182.1	-520.9	1,621,399.20	2,337,439.70	39° 30' 57.620 N	107° 50' 55.553 W	
Vertical										
6,353.8	0.00	0.00	5,860.0	2,182.1	-520.9	1,621,399.20	2,337,439.70	39° 30' 57.620 N	107° 50' 55.553 W	
Top Gas - Approx. Top Gas										
7,843.8	0.00	0.00	7,350.0	2,182.1	-520.9	1,621,399.20	2,337,439.70	39° 30' 57.620 N	107° 50' 55.553 W	
Cameo Coals										
8,628.8	0.00	0.00	8,135.0	2,182.1	-520.9	1,621,399.20	2,337,439.70	39° 30' 57.620 N	107° 50' 55.553 W	
Base L. Cameo Pay										
8,633.8	0.00	0.00	8,140.0	2,182.1	-520.9	1,621,399.20	2,337,439.70	39° 30' 57.620 N	107° 50' 55.553 W	
Coal D										
8,753.8	0.00	0.00	8,260.0	2,182.1	-520.9	1,621,399.20	2,337,439.70	39° 30' 57.620 N	107° 50' 55.553 W	
Rollins SS										
8,903.8	0.00	0.00	8,410.0	2,182.1	-520.9	1,621,399.20	2,337,439.70	39° 30' 57.620 N	107° 50' 55.553 W	
TD at 8903.8 - 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	5,860.0	2,182.1	-520.9	1,621,399.20	2,337,439.70	39° 30' 57.620 N	107° 50' 55.553 W	
- plan hits target center										
- Circle (radius 25.0)										

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
2,209.0	2,060.0	9 5/8"	9.625	12.250	

Williams
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well RWF 41-23 - Slot A9
Company:	PICEANCE VLY NAD 83	TVD Reference:	WELL @ 5624.0usft (Original Well Elev)
Project:	RU 23-06S-094W	MD Reference:	WELL @ 5624.0usft (Original Well Elev)
Site:	RWF 43-23 Pad	North Reference:	True
Well:	RWF 41-23	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #3 24Aug10 kjs		

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,984.4	1,860.0	Top of "G" Sand			
2,096.7	1,960.0	Base of "G" Sand			
4,926.8	4,480.0	Mesaverde			
6,353.8	5,860.0	Approx. Top Gas			
7,843.8	7,350.0	Cameo Coals			
8,628.8	8,135.0	Base L. Cameo Pay			
8,633.8	8,140.0	Coal D			
8,753.8	8,260.0	Rollins SS			
8,903.8	8,410.0	TD			

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
130.0	130.0	0.0	0.0	Start Build 2.50
1,213.1	1,173.2	244.3	-58.3	Hold 27.08 Inclination
4,900.0	4,456.0	1,876.7	-448.0	Start Drop -2.00
6,253.8	5,760.0	2,182.1	-520.9	Vertical
6,353.8	5,860.0	2,182.1	-520.9	Top Gas
8,903.8	8,410.0	2,182.1	-520.9	TD at 8903.8