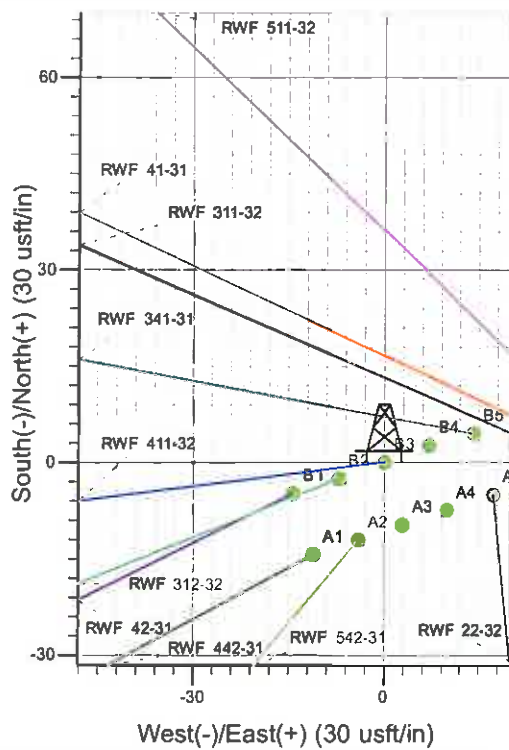
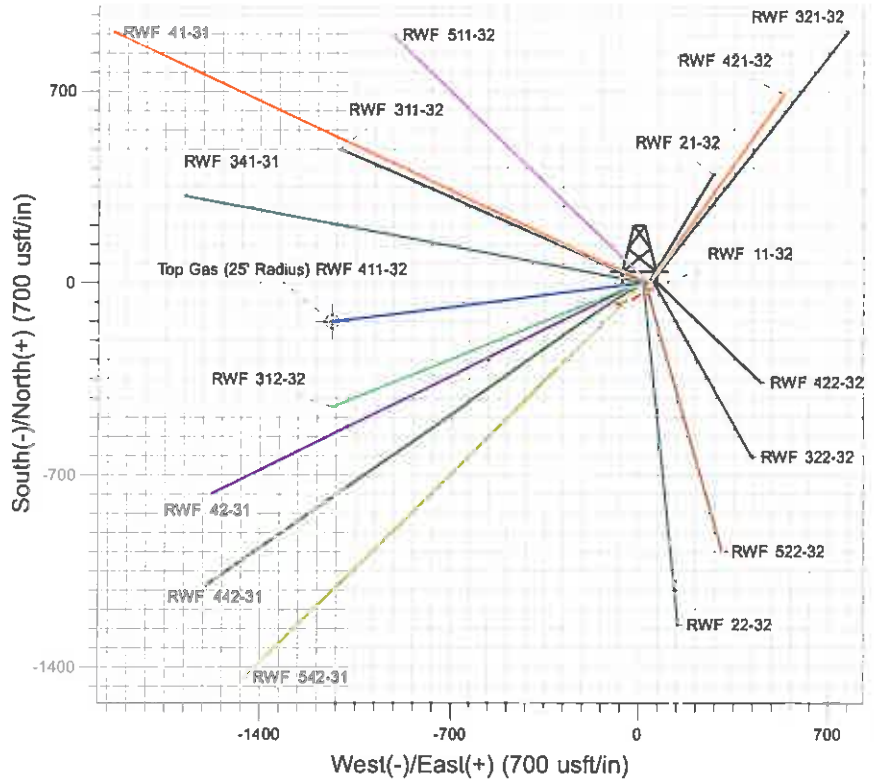
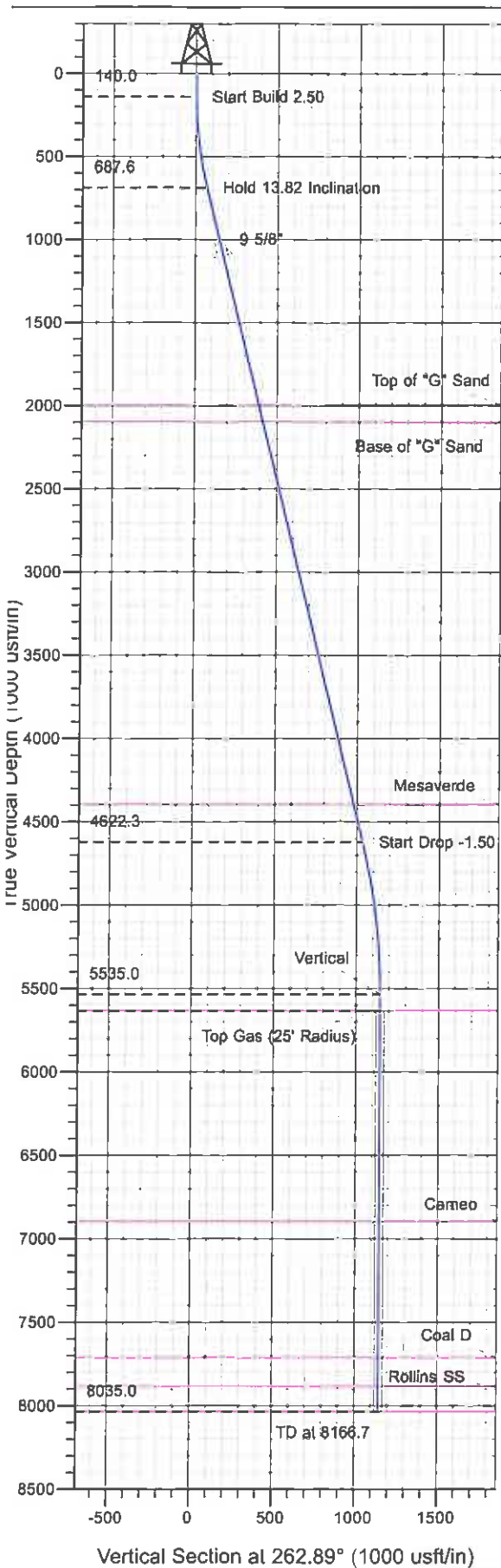




Surface Location: RWF 11-32 Pad
 North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
 Ground Elevation: 5539.0
 +N/-S +E/-W Northing Easting Latitude Longitude Slope
 0.0 0.0 1610862.20 2318212.00 39° 29' 8.530 N 107° 54' 57.246 W B3
 KELLY BUSHING @ 5565.0usft (SSD 573 (26' RKB) kjs)



Project: RU 32-06S-094W
 Site: RWF 11-32 Pad
 Well: RWF 411-32
 Design #1 08Jun11 kjs



Azimuths to True North
 Magnetic North: 10.32°
 Magnetic Field
 Strength: 52260.9snT
 Dip Angle: 65.75°
 Date: 6/6/2011
 Model: IGRF2010

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
687.6	693.0	13.82	262.89	-8.2	-65.9	66.4	66.4	Hold 13.82 Inclination
4622.3	4745.0	13.82	262.89	-128.1	-1026.7	1034.6	1034.6	Start Drop -1.50
5535.0	5666.7	0.00	0.00	-141.8	-1136.5	1145.3	1145.3	Vertical
5635.0	5766.7	0.00	0.00	-141.8	-1136.5	1145.3	1145.3	Top Gas
8035.0	8166.7	0.00	0.00	-141.8	-1136.5	1145.3	1145.3	TD at 8166.7

PICEANCE VLY NAD 83

RU 32-06S-094W

RWF 11-32 Pad

RWF 411-32 - Slot B3

Wellbore #1

Plan: Design #1 08Jun11 kjs

Standard Planning Report - Geographic

27 July, 2011

Williams
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well RWF 411-32 - Slot B3
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5565.0usft (SSD 573 (26' RKB) kjs)
Project:	RU 32-06S-094W	MD Reference:	KELLY BUSHING @ 5565.0usft (SSD 573 (26' RKB) kjs)
Site:	RWF 11-32 Pad	North Reference:	True
Well:	RWF 411-32	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 08Jun11 kjs		

Project	RU 32-06S-094W, Garfield County, CO		
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 11-32 Pad		
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Site Position:		Northing:	1,610,858.10 usft	Latitude:	39° 29' 8.495 N
From:	Map	Easting:	2,318,234.00 usft	Longitude:	107° 54' 56.965 W
Position Uncertainty:	0.0 usft	Slot Radius:	13.200 in	Grid Convergence:	-1.524 °

Well	RWF 411-32 - Slot B3		
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Well Position	+N/-S	0.0 usft	Northing:	1,610,862.20 usft	Latitude:	39° 29' 8.530 N
	+E/-W	0.0 usft	Easting:	2,318,212.00 usft	Longitude:	107° 54' 57.246 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	5,539.0 usft

Wellbore	Wellbore #1		
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	6/6/2011	10.319	65.746	52,261

Design	Design #1 08Jun11 kjs		
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Audit Notes:

Version:	Phase:	PLAN	Tie On Depth:	0.0
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Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	262.89

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	
140.0	0.00	0.00	140.0	0.0	0.0	0.00	0.00	0.00	0.000	
693.0	13.82	262.89	687.6	-8.2	-65.9	2.50	2.50	0.00	262.889	
4,745.0	13.82	262.89	4,622.3	-128.1	-1,026.7	0.00	0.00	0.00	0.000	
5,666.7	0.00	0.00	5,535.0	-141.8	-1,136.5	1.50	-1.50	0.00	180.000	
5,766.7	0.00	0.00	5,635.0	-141.8	-1,136.5	0.00	0.00	0.00	0.000	Top Gas (25' Radius)
8,166.7	0.00	0.00	8,035.0	-141.8	-1,136.5	0.00	0.00	0.00	0.000	

Williams
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well RWF 411-32 - Slot B3
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5565.0usft (SSD 573 (26' RKB) kjs)
Project:	RU 32-06S-094W	MD Reference:	KELLY BUSHING @ 5565.0usft (SSD 573 (26' RKB) kjs)
Site:	RWF 11-32 Pad	North Reference:	True
Well:	RWF 411-32	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 08Jun11 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	1,610,862.20	2,318,212.00	39° 29' 8.530 N	107° 54' 57.246 W
140.0	0.00	0.00	140.0	0.0	0.0	1,610,862.20	2,318,212.00	39° 29' 8.530 N	107° 54' 57.246 W
Start Build 2.50									
693.0	13.82	262.89	687.6	-8.2	-65.9	1,610,855.73	2,318,145.93	39° 29' 8.449 N	107° 54' 58.087 W
Hold 13.82 Inclination									
1,117.7	13.82	262.89	1,100.0	-20.8	-166.6	1,610,845.85	2,318,044.94	39° 29' 8.324 N	107° 54' 59.371 W
9 5/8"									
2,039.4	13.82	262.89	1,995.0	-48.0	-385.1	1,610,824.41	2,317,825.75	39° 29' 8.055 N	107° 55' 2.159 W
Top of "G" Sand									
2,142.3	13.82	262.89	2,095.0	-51.1	-409.5	1,610,822.02	2,317,801.26	39° 29' 8.025 N	107° 55' 2.470 W
Base of "G" Sand									
4,511.0	13.82	262.89	4,395.0	-121.2	-971.2	1,610,766.91	2,317,237.98	39° 29' 7.332 N	107° 55' 9.633 W
Mesaverde									
4,745.0	13.82	262.89	4,622.3	-128.1	-1,026.7	1,610,761.47	2,317,182.33	39° 29' 7.264 N	107° 55' 10.341 W
Start Drop -1.50									
5,666.7	0.00	0.00	5,535.0	-141.8	-1,136.5	1,610,750.70	2,317,072.20	39° 29' 7.128 N	107° 55' 11.742 W
Vertical									
5,766.7	0.00	0.00	5,635.0	-141.8	-1,136.5	1,610,750.70	2,317,072.20	39° 29' 7.128 N	107° 55' 11.742 W
Top Gas - Approx. Top Gas - Top Gas (25' Radius) RWF 411-32									
7,026.7	0.00	0.00	6,895.0	-141.8	-1,136.5	1,610,750.70	2,317,072.20	39° 29' 7.128 N	107° 55' 11.742 W
Cameo									
7,846.7	0.00	0.00	7,715.0	-141.8	-1,136.5	1,610,750.70	2,317,072.20	39° 29' 7.128 N	107° 55' 11.742 W
Coal D									
8,016.7	0.00	0.00	7,885.0	-141.8	-1,136.5	1,610,750.70	2,317,072.20	39° 29' 7.128 N	107° 55' 11.742 W
Rollins SS									
8,166.7	0.00	0.00	8,035.0	-141.8	-1,136.5	1,610,750.70	2,317,072.20	39° 29' 7.128 N	107° 55' 11.742 W
TD at 8166.7 - TD									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Top Gas (25' Radius) R1 - plan hits target center - Circle (radius 25.0)	0.00	0.00	5,635.0	-141.8	-1,136.5	1,610,750.70	2,317,072.20	39° 29' 7.128 N	107° 55' 11.742 W

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)
1,117.7	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 411-32 - Slot B3
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5565.0usft (SSD 573 (26' RKB) kjs)
Project:	RU 32-06S-094W	MD Reference:	KELLY BUSHING @ 5565.0usft (SSD 573 (26' RKB) kjs)
Site:	RWF 11-32 Pad	North Reference:	True
Well:	RWF 411-32	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 08Jun11 kjs		

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,039.4	1,995.0	Top of "G" Sand			
2,142.3	2,095.0	Base of "G" Sand			
4,511.0	4,395.0	Mesaverde			
5,766.7	5,635.0	Approx. Top Gas			
7,026.7	6,895.0	Cameo			
7,846.7	7,715.0	Coal D			
8,016.7	7,885.0	Rollins SS			
8,166.7	8,035.0	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
693.0	687.6	-8.2	-65.9	Hold 13.82 Inclination
4,745.0	4,622.3	-128.1	-1,026.7	Start Drop -1.50
5,666.7	5,535.0	-141.8	-1,136.5	Vertical
5,766.7	5,635.0	-141.8	-1,136.5	Top Gas
8,166.7	8,035.0	-141.8	-1,136.5	TD at 8166.7