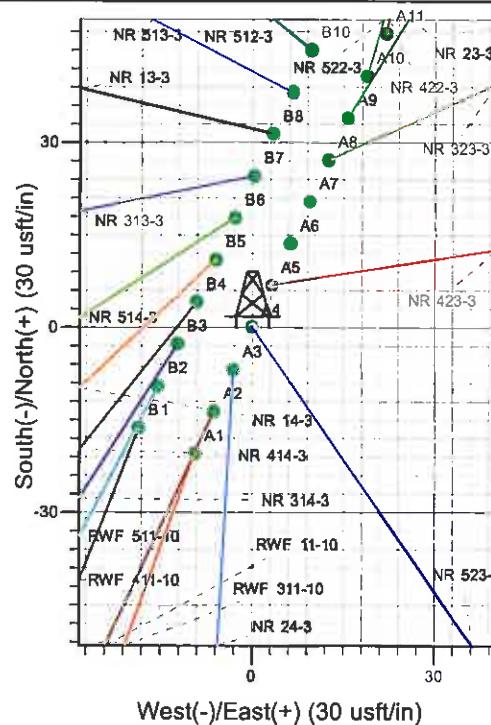
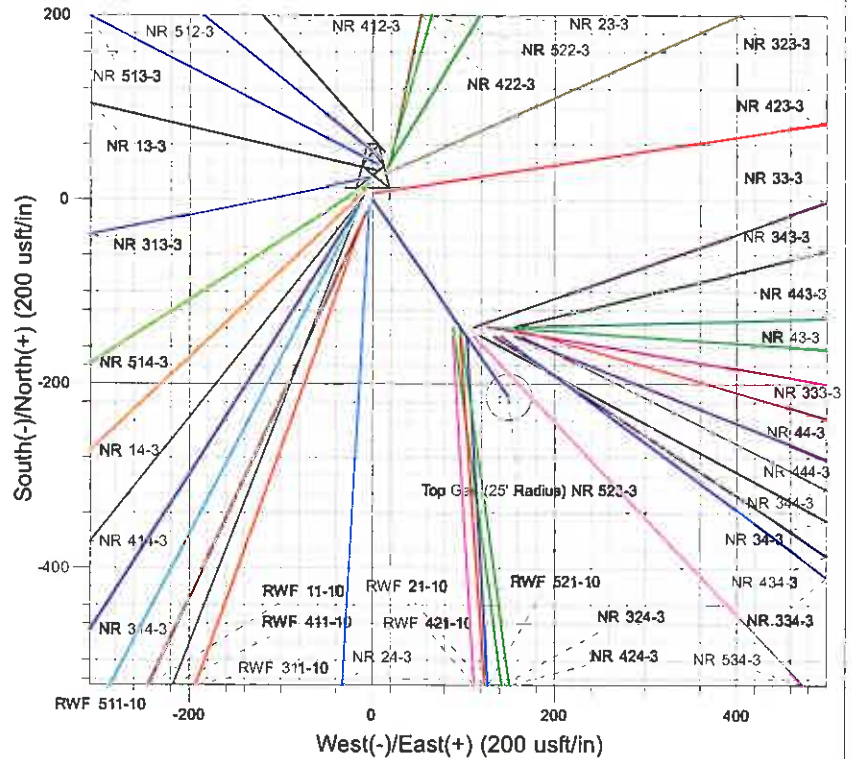
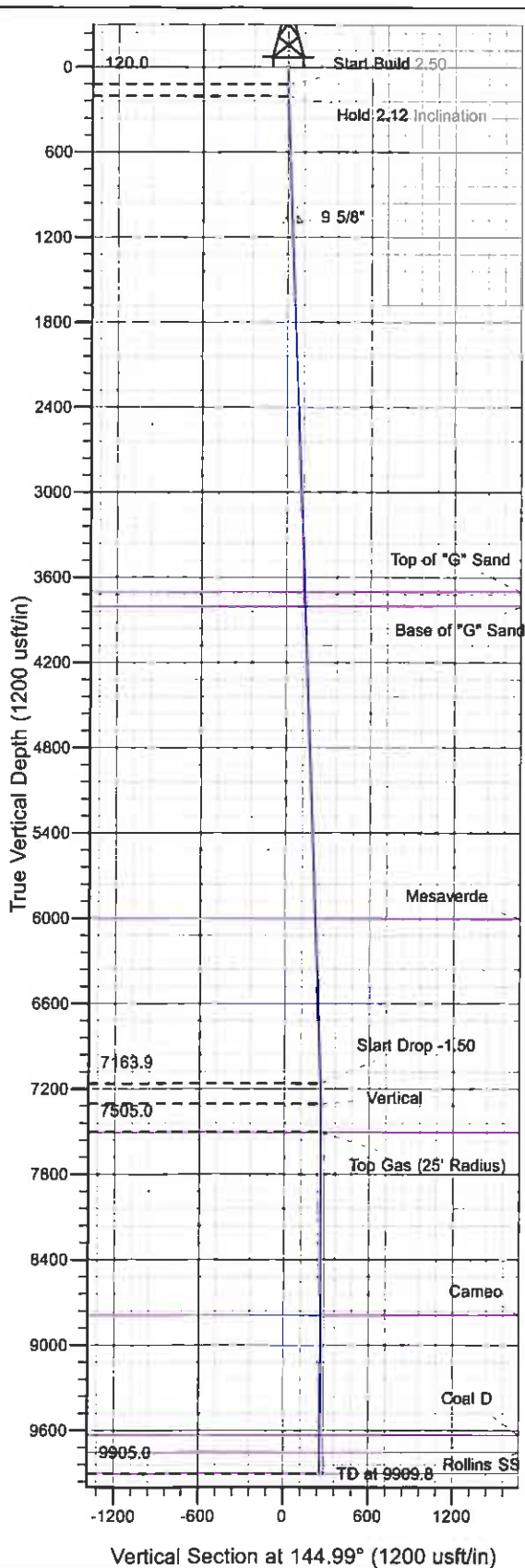




Well Name: NR 523-3
 Surface Location: NR 23-3 Pad (West)
 North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
 Ground Elevation: 6720.0
 +N/-S +E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1634958.10 2329717.43 39° 33' 9.599 N 107° 52' 38.587 W A4
 KELLY BUSHING @ 6744.0usft (H&P (24') kjs)



Project: RU 03-06S-094W
 Site: NR 23-3 Pad (West)
 Well: NR 523-3
 Design #1 30Aug10 kjs

M Azimuths to True North
 Magnetic North: 10.41°
 Magnetic Field
 Strength: 52370.6nT
 Dip Angle: 65.83°
 Date: 8/30/2010
 Model: IGRF2010

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 2.50
204.7	204.7	2.12	144.99	-1.3	0.9	1.6	1.6	Hold 2.12 Inclination
7163.9	7168.6	2.12	144.99	-212.0	148.5	258.9	258.9	Start Drop -1.50
7305.0	7309.8	0.00	0.00	-214.1	150.0	261.5	261.5	Vertical
7505.0	7509.8	0.00	0.00	-214.1	150.0	261.5	261.5	Top Gas
9905.0	9909.8	0.00	0.00	-214.1	150.0	261.5	261.5	TD at 9909.8

PICEANCE VLY NAD 83

RU 03-06S-094W

NR 23-3 Pad (West)

NR 523-3 - Slot A4

Wellbore #1

Plan: Design #1 30Aug10 kjs

Standard Planning Report - Geographic

22 February, 2011

Williams
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well NR 523-3 - Slot A4
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 6744.0usft (H&P (24') kjs)
Project:	RU 03-06S-094W	MD Reference:	KELLY BUSHING @ 6744.0usft (H&P (24') kjs)
Site:	NR 23-3 Pad (West)	North Reference:	True
Well:	NR 523-3	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 30Aug10 kjs		

Project	RU 03-06S-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		

Site	NR 23-3 Pad (West)			
Site Position:		Northing:	1,634,937.90 usft	Latitude: 39° 33' 9.397 N
From:	Map	Easting:	2,329,707.50 usft	Longitude: 107° 52' 38.707 W
Position Uncertainty:	0.0 usft	Slot Radius:	13.200 in	Grid Convergence: -1.499 °

Well	NR 523-3 - Slot A4			
Well Position	+N-S	0.0 usft	Northing: 1,634,958.10 usft	Latitude: 39° 33' 9.599 N
	+E-W	0.0 usft	Easting: 2,329,717.44 usft	Longitude: 107° 52' 38.587 W
Position Uncertainty	0.0 usft	Wellhead Elevation:	Ground Level: 6,720.0 usft	

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	8/30/2010	10.408	65.630	52,371

Design	Design #1 30Aug10 kjs			
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	144.99

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)	TFD (°)	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	
204.7	2.12	144.99	204.7	-1.3	0.9	2.50	2.50	0.00	144.987	
7,168.6	2.12	144.99	7,163.9	-212.0	148.5	0.00	0.00	0.00	0.000	
7,309.8	0.00	0.00	7,305.0	-214.1	150.0	1.50	-1.50	0.00	180.000	
7,509.8	0.00	0.00	7,505.0	-214.1	150.0	0.00	0.00	0.00	0.000	Top Gas (25' Radius)
9,909.8	0.00	0.00	9,905.0	-214.1	150.0	0.00	0.00	0.00	0.000	

Williams
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well NR 523-3 - Slot A4
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 6744.0usft (H&P (24') kjs)
Project:	RU 03-06S-094W	MD Reference:	KELLY BUSHING @ 6744.0usft (H&P (24') kjs)
Site:	NR 23-3 Pad (West)	North Reference:	True
Well:	NR 523-3	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 30Aug10 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	1,634,958.10	2,329,717.44	39° 33' 9.599 N	107° 52' 38.587 W
120.0	0.00	0.00	120.0	0.0	0.0	1,634,958.10	2,329,717.44	39° 33' 9.599 N	107° 52' 38.587 W
Start Build 2.50									
204.7	2.12	144.99	204.7	-1.3	0.9	1,634,956.79	2,329,718.30	39° 33' 9.586 N	107° 52' 38.575 W
Hold 2.12 Inclination									
1,100.6	2.12	144.99	1,100.0	-28.4	19.9	1,634,929.19	2,329,736.58	39° 33' 9.319 N	107° 52' 38.333 W
9 5/8"									
3,707.4	2.12	144.99	3,705.0	-107.3	75.2	1,634,848.89	2,329,789.75	39° 33' 8.539 N	107° 52' 37.627 W
Top of "G" Sand									
3,807.5	2.12	144.99	3,805.0	-110.3	77.3	1,634,845.81	2,329,791.80	39° 33' 8.509 N	107° 52' 37.600 W
Base of "G" Sand									
6,009.0	2.12	144.99	6,005.0	-176.9	123.9	1,634,777.99	2,329,836.71	39° 33' 7.851 N	107° 52' 37.004 W
Mesaverde									
7,168.6	2.12	144.99	7,163.9	-212.0	148.5	1,634,742.27	2,329,860.36	39° 33' 7.504 N	107° 52' 36.690 W
Start Drop -1.50									
7,309.8	0.00	0.00	7,305.0	-214.1	150.0	1,634,740.10	2,329,861.80	39° 33' 7.483 N	107° 52' 36.671 W
Vertical									
7,509.8	0.00	0.00	7,505.0	-214.1	150.0	1,634,740.10	2,329,861.80	39° 33' 7.483 N	107° 52' 36.671 W
Top Gas - Approx. Top Gas									
8,799.8	0.00	0.00	8,795.0	-214.1	150.0	1,634,740.10	2,329,861.80	39° 33' 7.483 N	107° 52' 36.671 W
Cameo									
9,639.8	0.00	0.00	9,635.0	-214.1	150.0	1,634,740.10	2,329,861.80	39° 33' 7.483 N	107° 52' 36.671 W
Coal D									
9,759.8	0.00	0.00	9,755.0	-214.1	150.0	1,634,740.10	2,329,861.80	39° 33' 7.483 N	107° 52' 36.671 W
Rollins SS									
9,909.8	0.00	0.00	9,905.0	-214.1	150.0	1,634,740.10	2,329,861.80	39° 33' 7.483 N	107° 52' 36.671 W
TD at 9909.8 - 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) NI - plan hits target center - Circle (radius 25.0)	0.00	0.00	7,505.0	-214.1	150.0	1,634,740.10	2,329,861.80	39° 33' 7.483 N	107° 52' 36.671 W

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)		Name	Casing Diameter (in)	Hole Diameter (in)
1,100.6	1,100.0	9 5/8"		9.625	12.250

Williams
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well NR 523-3 - Slot A4
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 6744.0usft (H&P (24') kjs)
Project:	RU 03-06S-094W	MD Reference:	KELLY BUSHING @ 6744.0usft (H&P (24') kjs)
Site:	NR 23-3 Pad (West)	North Reference:	True
Well:	NR 523-3	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 30Aug10 kjs		

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (")	Dip Direction (")
3,707.4	3,705.0	Top of "G" Sand			
3,807.5	3,805.0	Base of "G" Sand			
6,009.0	6,005.0	Mesaverde			
7,509.8	7,505.0	Approx. Top Gas			
8,799.8	8,795.0	Cameo			
9,639.8	9,635.0	Coal D			
9,759.8	9,755.0	Rollins SS			
9,909.8	9,905.0	TD			

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
120.0	120.0	0.0	0.0	Start Build 2.50
204.7	204.7	-1.3	0.9	Hold 2.12 Inclination
7,168.6	7,163.9	-212.0	148.5	Start Drop -1.50
7,309.8	7,305.0	-214.1	150.0	Vertical
7,509.8	7,505.0	-214.1	150.0	Top Gas
9,909.8	9,905.0	-214.1	150.0	TD at 9909.8