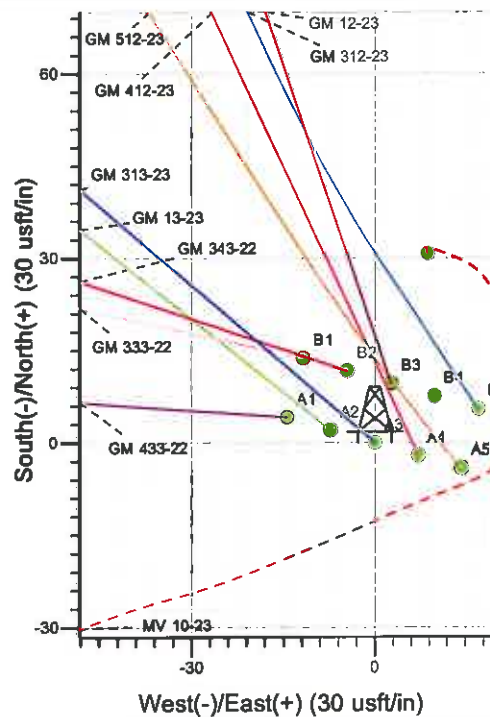
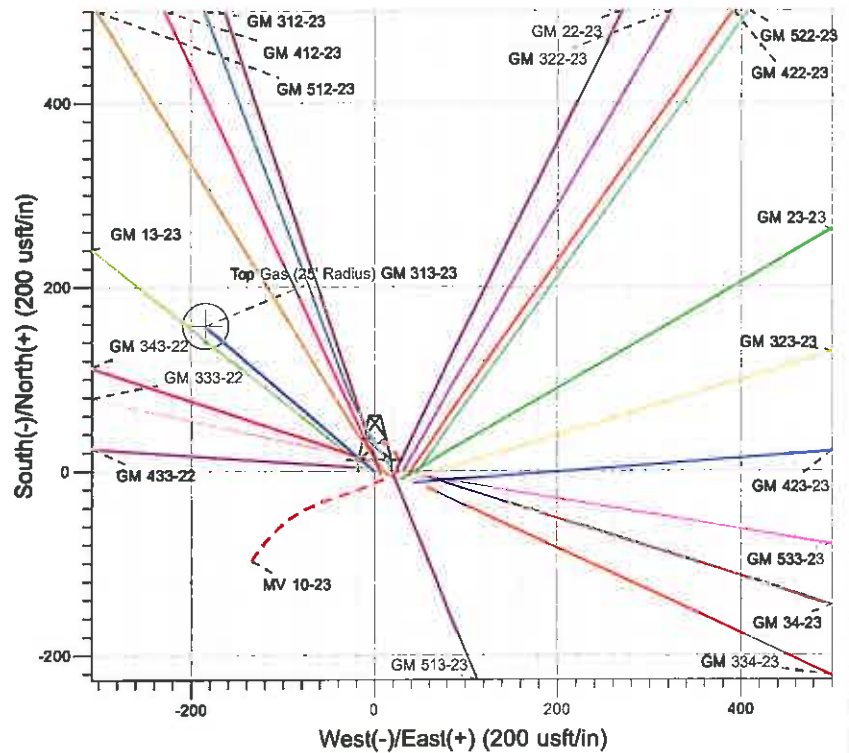
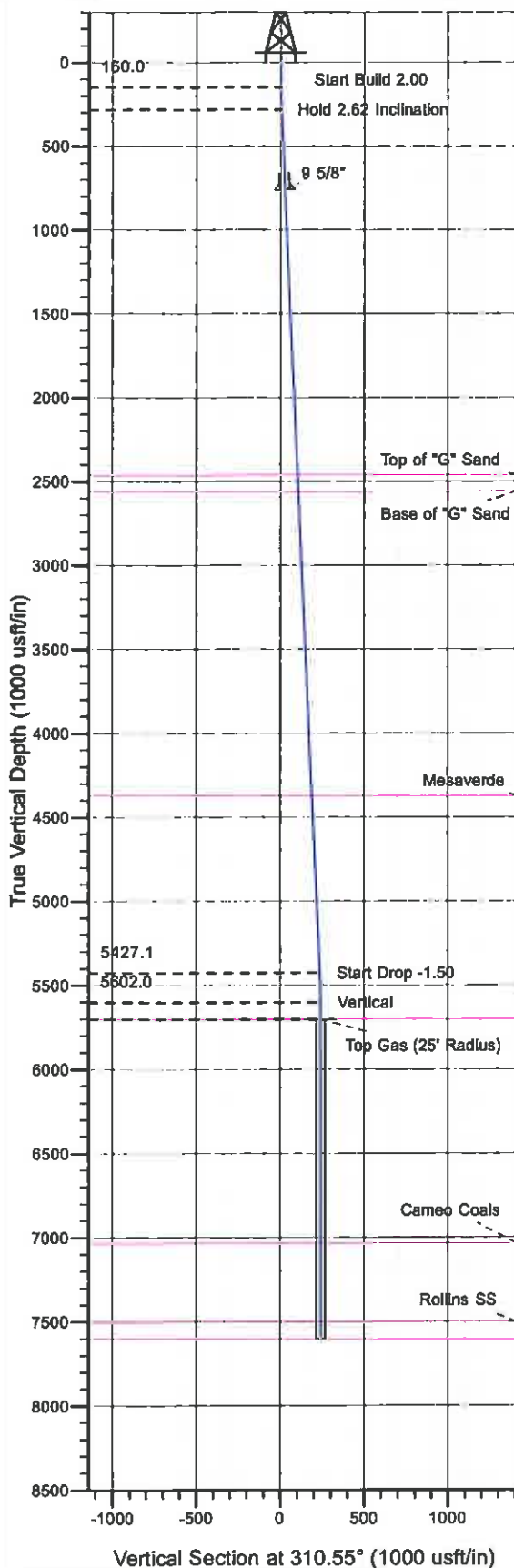




Well Name: GM 313-23
 Surface Location: MV 10-23 Pad
 North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
 Ground Elevation: 5976.0
 +N/-S +E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1619649.81 2271212.80 39° 30' 22.571 N 108° 4' 59.667 W A3
 KELLY BUSHING @ 6002.0usft (Nabors 576 (26' RKB) kjs)



Project: GV 23-06S-096W
 Site: MV 10-23 Pad
 Well: GM 313-23
 Design #1 04Oct10 kjs

Azimuths to True North
 Magnetic North: 10.48°
 Magnetic Field
 Strength: 52314.3snT
 Dip Angle: 65.75°
 Date: 10/4/2010
 Model: IGRF2010

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSec	Departure	Annotation
150.0	150.0	0.00	0.00	0.0	0.0	0.0	0.0	Start Build 2.00
281.2	281.2	2.62	310.55	2.0	-2.3	3.0	3.0	Hold 2.62 Inclination
5427.1	5432.5	2.62	310.55	155.3	-181.5	238.9	238.9	Start Drop -1.50
5802.0	5807.5	0.00	0.00	157.9	-184.6	242.9	242.9	Vertical
5702.0	5707.5	0.00	0.00	157.9	-184.6	242.9	242.9	Top Gas
7602.0	7607.5	0.00	0.00	157.9	-184.6	242.9	242.9	TD at 7607.5

PICEANCE VLY NAD 83

GV 23-06S-096W

MV 10-23 Pad

GM 313-23 - Slot A3

Wellbore #1

Plan: Design #1 04Oct10 kjs

Standard Planning Report - Geographic

08 February, 2011

Williams
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well GM 313-23 - Slot A3
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 6002.0usft (Nabors 576 (26' RKB) kjs)
Project:	GV 23-06S-096W	MD Reference:	KELLY BUSHING @ 6002.0usft (Nabors 576 (26' RKB) kjs)
Site:	MV 10-23 Pad	North Reference:	True
Well:	GM 313-23	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 04Oct10 kjs		

Project	GV 23-06S-096W, Garfield County, CO, 23-06S-096W		
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	MV 10-23 Pad			
Site Position:		Northing:	1,619,663.89 usft	Latitude: 39° 30' 22.707 N
From:	Map	Easting:	2,271,201.54 usft	Longitude: 108° 4' 59.616 W
Position Uncertainty:	0.0 usft	Slot Radius:	13.200 in	Grid Convergence: -1.629 °

Well	GM 313-23 - Slot A3			
Well Position	+N/-S	0.0 usft	Northing:	1,619,649.81 usft
	+E/-W	0.0 usft	Easting:	2,271,212.80 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:		Ground Level: 5,976.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	10/4/2010	10.482	65.750	52,314

Design	Design #1 04Oct10 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	310.55

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	
150.0	0.00	0.00	150.0	0.0	0.0	0.00	0.00	0.00	0.000	
281.2	2.82	310.55	281.2	2.0	-2.3	2.00	2.00	0.00	310.549	
5,432.5	2.82	310.55	5,427.1	155.3	-181.5	0.00	0.00	0.00	0.000	
5,607.5	0.00	0.00	5,602.0	157.9	-184.6	1.50	-1.50	0.00	180.000	
5,707.5	0.00	0.00	5,702.0	157.9	-184.6	0.00	0.00	0.00	0.000	Top Gas (25' Radius)
7,607.5	0.00	0.00	7,602.0	157.9	-184.6	0.00	0.00	0.00	0.000	

Williams
Planning Report - Geographic

Database: Compass R5000 WIN AUTH
Company: PICEANCE VLY NAD 83
Project: GV 23-06S-096W
Site: MV 10-23 Pad
Well: GM 313-23
Wellbore: Wellbore #1
Design: Design #1 04Oct10 kjs

Local Co-ordinate Reference: Well GM 313-23 - Slot A3
TVD Reference: KELLY BUSHING @ 6002.0usft (Nabors 576 (26' RKB) kjs)
MD Reference: KELLY BUSHING @ 6002.0usft (Nabors 576 (26' RKB) kjs)
North Reference: True
Survey Calculation Method: Minimum Curvature

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	1,619,649.81	2,271,212.80	39° 30' 22.571 N	108° 4' 59.667 W
150.0	0.00	0.00	150.0	0.0	0.0	1,619,649.81	2,271,212.80	39° 30' 22.571 N	108° 4' 59.667 W
Start Build 2.00									
281.2	2.62	310.55	281.2	2.0	-2.3	1,619,651.82	2,271,210.57	39° 30' 22.590 N	108° 4' 59.696 W
Hold 2.62 Inclination									
761.0	2.62	310.55	760.5	16.2	-19.0	1,619,686.57	2,271,194.29	39° 30' 22.731 N	108° 4' 59.909 W
9 5/8"									
2,462.3	2.62	310.55	2,460.0	66.9	-78.2	1,619,718.88	2,271,136.56	39° 30' 23.232 N	108° 5' 0.664 W
Top of "G" Sand									
2,562.4	2.62	310.55	2,560.0	69.9	-81.7	1,619,721.96	2,271,133.16	39° 30' 23.261 N	108° 5' 0.709 W
Base of "G" Sand									
4,375.3	2.62	310.55	4,371.0	123.8	-144.7	1,619,777.70	2,271,071.64	39° 30' 23.795 N	108° 5' 1.514 W
Mesaverde									
5,432.5	2.62	310.55	5,427.1	155.3	-181.5	1,619,810.21	2,271,035.77	39° 30' 24.106 N	108° 5' 1.983 W
Start Drop -1.50									
5,607.5	0.00	0.00	5,602.0	157.9	-184.6	1,619,812.90	2,271,032.80	39° 30' 24.131 N	108° 5' 2.022 W
Vertical									
5,707.5	0.00	0.00	5,702.0	157.9	-184.6	1,619,812.90	2,271,032.80	39° 30' 24.131 N	108° 5' 2.022 W
Top Gas - Approx. Top Gas									
7,038.5	0.00	0.00	7,033.0	157.9	-184.6	1,619,812.90	2,271,032.80	39° 30' 24.131 N	108° 5' 2.022 W
Cameo Coals									
7,507.5	0.00	0.00	7,502.0	157.9	-184.6	1,619,812.90	2,271,032.80	39° 30' 24.131 N	108° 5' 2.022 W
Rollins SS									
7,607.5	0.00	0.00	7,602.0	157.9	-184.6	1,619,812.90	2,271,032.80	39° 30' 24.131 N	108° 5' 2.022 W
TD at 7607.5 - 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) G/ - plan hits target center - Circle (radius 25.0)	0.00	0.00	5,702.0	157.9	-184.6	1,619,812.90	2,271,032.80	39° 30' 24.131 N	108° 5' 2.022 W

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)
761.0	760.5	9 5/8"	9.625	12.250

Williams
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well GM 313-23 - Slot A3
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 6002.0usft (Nabors 576 (26' RKB) kjs)
Project:	GV 23-06S-096W	MD Reference:	KELLY BUSHING @ 6002.0usft (Nabors 576 (26' RKB) kjs)
Site:	MV 10-23 Pad	North Reference:	True
Well:	GM 313-23	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 04Oct10 kjs		

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,462.3	2,460.0	Top of "G" Sand			
2,562.4	2,560.0	Base of "G" Sand			
4,375.3	4,371.0	Mesaverde			
5,707.5	5,702.0	Approx. Top Gas			
7,038.5	7,033.0	Cameo Coals			
7,507.5	7,502.0	Rollins SS			
7,607.5	7,602.0	TD			

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
150.0	150.0	0.0	0.0	Start Build 2.00
281.2	281.2	2.0	-2.3	Hold 2.62 Inclination
5,432.5	5,427.1	155.3	-181.5	Start Drop -1.50
5,607.5	5,602.0	157.9	-184.6	Vertical
5,707.5	5,702.0	157.9	-184.6	Top Gas
7,607.5	7,602.0	157.9	-184.6	TD at 7607.5