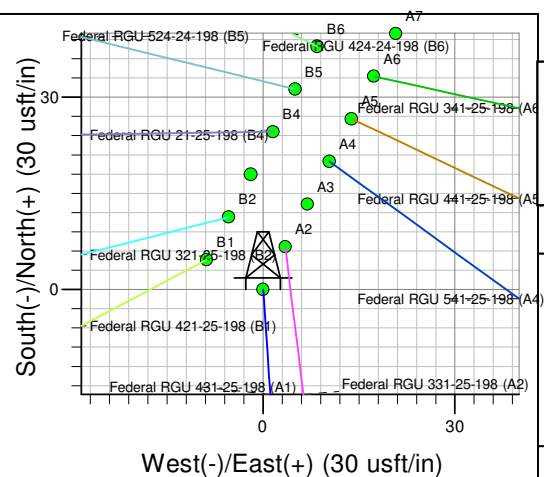
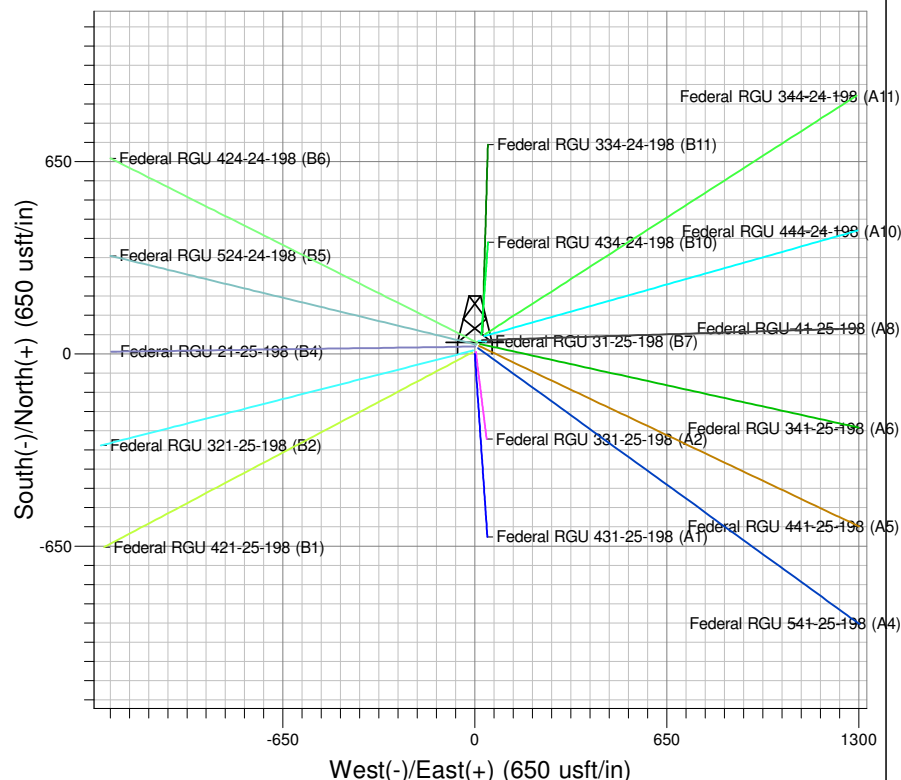


Well Name: Federal RGU 431-25-198
Surface Location: RGU 31-25-198 Pad
NAD 1927 (NADCON CONUS), US State Plane 1927 (Exact solution) Colorado North 501
Ground Elevation: 6640.0
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.0 0.0 234035.41 1203914.51 39° 56' 26.983 N 108° 20' 22.384 W A1
Cyclone 29 (21' RKB) JILLY BUSHING @ 6661.0usft (Cyclone 29 (21' RKB) jib)



Project: RG 25-01S-098W
Site: RGU 31-25-198 Pad
Well: Federal RGU 431-25-198
Plan: Plan #1 14Jan09 kjs

Azimuths to True North
Magnetic North: 10.74°
Magnetic Field
Strength: 52621.0snT
Dip Angle: 66.09°
Date: 12/12/2009
Model: IGRF200510

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.000	0.0	
120.0	0.00	0.00	120.0	0.0	0.0	0.00	0.000	0.0	
357.5	4.75	176.08	357.2	-9.8	0.7	2.00	176.077	9.8	
7569.8	4.75	176.08	7544.7	-605.6	41.5	0.00	0.000	606.8	
7886.4	0.00	0.00	7861.0	-618.7	42.4	1.50	180.000	619.9	Mesaverde (50' Radius) Federal RGU 431-25-198
2796.4	0.00	0.00	12771.0	-618.7	42.4	0.00	0.000	619.9	

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSect	Departure	Annotation
120.0	120.0	0.00	0.00	0.0	0.0	0.0	0.0	Start Build 2.00
357.2	357.5	4.75	176.08	-9.8	0.7	9.8	9.8	Hold 4.75 inc
7544.7	7569.8	4.75	176.08	-605.6	41.5	606.8	607.0	Start Drop -1.50
7861.0	7886.4	0.00	0.00	-618.7	42.4	619.9	620.1	Vertical
12771.0	12796.4	0.00	0.00	-618.7	42.4	619.9	620.1	TD at 12796.4

PICEANCE HL NAD 27

RG 25-01S-098W

RGU 31-25-198 Pad

Federal RGU 431-25-198 - Slot A1

Wellbore #1

Plan: Plan #1 14Jan09 kjs

Standard Planning Report - Geographic

25 January, 2010

Williams
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well Federal RGU 431-25-198 (A1) - Slot A1
Company:	PICEANCE HL NAD 27	TVD Reference:	KELLY BUSHING @ 6661.0usft (Cyclone 29 (21' RKB) jib)
Project:	RG 25-01S-098W	MD Reference:	KELLY BUSHING @ 6661.0usft (Cyclone 29 (21' RKB) jib)
Site:	RGU 31-25-198 Pad	North Reference:	True
Well:	Federal RGU 431-25-198	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 14Jan09 kjs		

Project	RG 25-01S-098W, Rio Blanco County, CO, RG 25-01S-098W		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Colorado North 501		Using geodetic scale factor

Site	RGU 31-25-198 Pad		
Site Position:		Northing:	234,112.07 usft
From:	Map	Easting:	1,203,931.20 usft
Position Uncertainty:	0.0 usft	Slot Radius:	0.000 in
		Latitude:	39° 56' 27.745 N
		Longitude:	108° 20' 22.202 W
		Grid Convergence:	-1.835 °

Well	Federal RGU 431-25-198 - Slot A1					
Well Position	+N/-S	0.0 usft	Northing:	234,035.41 usft	Latitude:	39° 56' 26.983 N
	+E/-W	0.0 usft	Easting:	1,203,914.50 usft	Longitude:	108° 20' 22.384 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	6,640.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	12/12/2009	10.738	66.092	52,621

Design	Plan #1 14Jan09 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	177.79

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	
357.5	4.75	176.08	357.2	-9.8	0.7	2.00	2.00	0.00	176.077	
7,569.8	4.75	176.08	7,544.7	-605.6	41.5	0.00	0.00	0.00	0.000	
7,886.4	0.00	0.00	7,861.0	-618.7	42.4	1.50	-1.50	0.00	180.000	Mesaverde (50' Radiu
12,796.4	0.00	0.00	12,771.0	-618.7	42.4	0.00	0.00	0.00	0.000	

Williams
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well Federal RGU 431-25-198 (A1) - Slot A1
Company:	PICEANCE HL NAD 27	TVD Reference:	KELLY BUSHING @ 6661.0usft (Cyclone 29 (21' RKB) jjb)
Project:	RG 25-01S-098W	MD Reference:	KELLY BUSHING @ 6661.0usft (Cyclone 29 (21' RKB) jjb)
Site:	RGU 31-25-198 Pad	North Reference:	True
Well:	Federal RGU 431-25-198	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 14Jan09 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	234,035.41	1,203,914.50	39° 56' 26.983 N	108° 20' 22.384 W	
120.0	0.00	0.00	120.0	0.0	0.0	234,035.41	1,203,914.50	39° 56' 26.983 N	108° 20' 22.384 W	
357.5	4.75	176.08	357.2	-9.8	0.7	234,025.57	1,203,914.86	39° 56' 26.886 N	108° 20' 22.376 W	
7,569.8	4.75	176.08	7,544.7	-605.6	41.5	233,428.80	1,203,936.62	39° 56' 20.998 N	108° 20' 21.851 W	
7,886.4	0.00	0.00	7,861.0	-618.7	42.4	233,415.70	1,203,937.10	39° 56' 20.868 N	108° 20' 21.840 W	
12,796.4	0.00	0.00	12,771.0	-618.7	42.4	233,415.70	1,203,937.10	39° 56' 20.868 N	108° 20' 21.840 W	

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										
Mesaverde (25' Radius)	0.00	0.00	7,861.0	-618.7	42.4	233,415.70	1,203,937.10	39° 56' 20.868 N	108° 20' 21.840 W	
- plan hits target center										
- Circle (radius 25.0)										
Mesaverde (50' Radius)	0.00	0.00	7,861.0	-618.7	42.4	233,415.70	1,203,937.10	39° 56' 20.868 N	108° 20' 21.840 W	
- plan hits target center										
- Circle (radius 50.0)										

Casing Points										
Measured Depth (usft)	Vertical Depth (usft)	Name				Casing Diameter (in)	Hole Diameter (in)			
3,932.0	3,919.5	9 5/8"				9.625	13.500			

Williams
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well Federal RGU 431-25-198 (A1) - Slot A1
Company:	PICEANCE HL NAD 27	TVD Reference:	KELLY BUSHING @ 6661.0usft (Cyclone 29 (21' RKB) jjb)
Project:	RG 25-01S-098W	MD Reference:	KELLY BUSHING @ 6661.0usft (Cyclone 29 (21' RKB) jjb)
Site:	RGU 31-25-198 Pad	North Reference:	True
Well:	Federal RGU 431-25-198	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 14Jan09 kjs		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,274.4	1,271.0	Green River Fm				
1,470.1	1,466.0	A Groove				
1,675.8	1,671.0	B Groove				
1,966.8	1,961.0	Dissolution Surface				
3,025.4	3,016.0	Garden Gulch				
3,201.0	3,191.0	Orange Marker				
3,431.8	3,421.0	Wasatch				
5,835.1	5,816.0	G' Sand				
6,211.4	6,191.0	Ft. Union				
7,596.1	7,571.0	Ohio Creek				
7,886.4	7,861.0	Mesaverde				
8,886.4	8,861.0	Top Gas				
11,196.4	11,171.0	Cameo Coals				
11,576.4	11,551.0	Rollins SS				
11,711.4	11,686.0	Cozzette				
11,926.4	11,901.0	Corcoran				
12,316.4	12,291.0	Upper Sego				
12,546.4	12,521.0	Lower Sego				

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	
357.5	357.2	-9.8	0.7	Hold 4.75 inc	
7,569.8	7,544.7	-605.6	41.5	Start Drop -1.50	
7,886.4	7,861.0	-618.7	42.4	Vertical	
12,796.4	12,771.0	-618.7	42.4	TD at 12796.4	