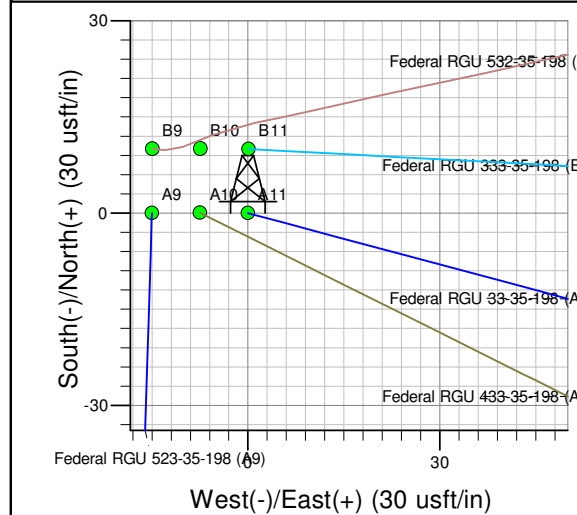
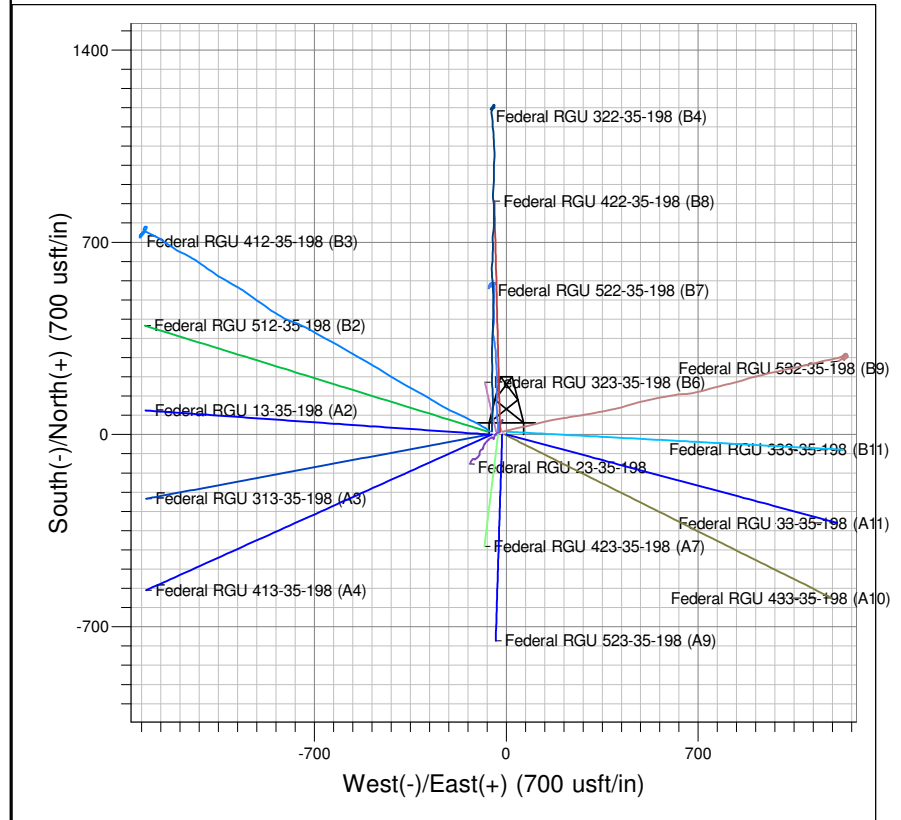
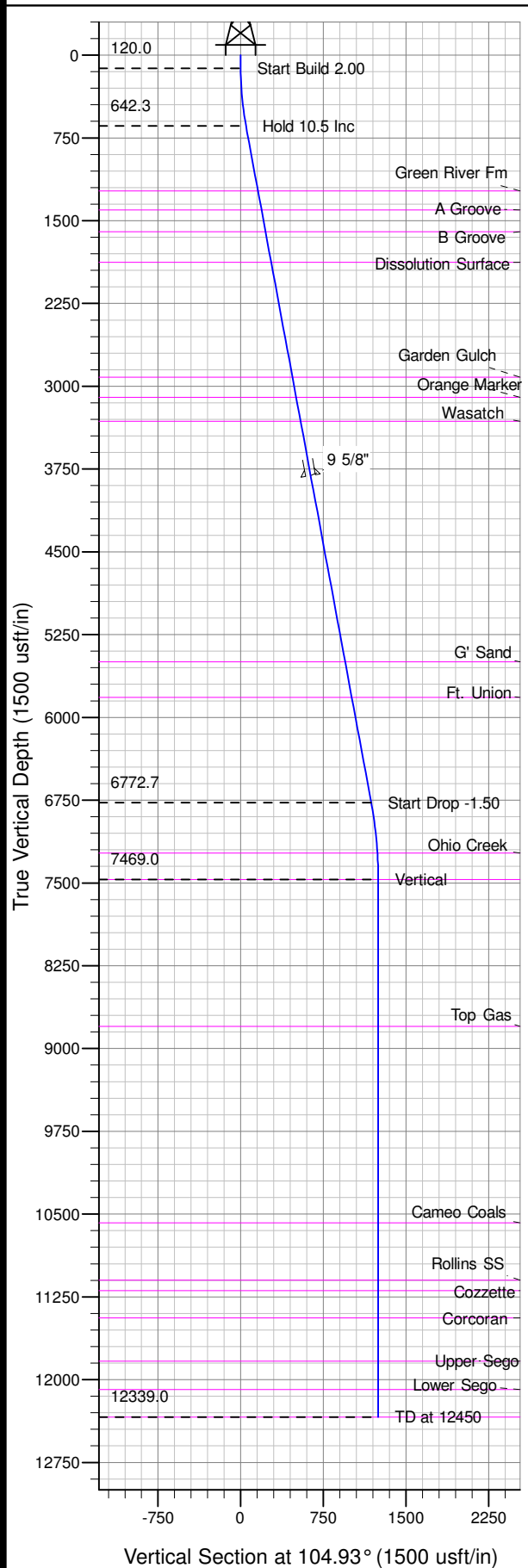




Well Name: Federal RGU 33-35-198
Surface Location: RGU 23-35-198 Pad
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
Ground Elevation: 6778.0
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.0 0.0 1772352.70 2197208.30 39° 55' 9.122 N 108° 21' 44.783 W A11
KELLY BUSHING @ 6799.0usft (Cyclone 29 (21' RKB) jjb)



Project: RG 35-01S-098W
Site: RGU 23-35-198 Pad
Well: Federal RGU 33-35-198
Plan #1 18nov08 kfk

Azimuths to True North
Magnetic North: 10.62°
Magnetic Field
Strength: 52513.1nT
Dip Angle: 66.04°
Date: 11/23/2010
Model: IGRF2005-10

SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	V Sect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.000	0.0	
2	120.0	0.00	0.00	120.0	0.0	0.0	0.00	0.000	0.0	
3	645.2	10.50	104.93	642.3	-12.4	46.4	2.00	104.932	48.0	
4	6880.1	10.50	104.93	6772.7	-305.2	1144.6	0.00	0.000	1184.6	
5	7580.3	0.00	0.00	7469.0	-321.7	1206.5	1.50	180.000	1248.7	Meseverde (50' Radius) Federal RGU 33-35-198
6	12450.3	0.00	0.00	12339.0	-321.7	1206.5	0.00	0.000	1248.7	

ANNOTATIONS										
TVD	MD	Inc	Azi	+N/-S	+E/-W	V Sect	Departure	Annotation		
120.0	120.0	0.00	0.00	0.0	0.0	0.0	0.0	Start Build 2.00		
642.3	645.2	10.50	104.93	-12.4	46.4	48.0	48.0	Hold 10.5 Inc		
6772.7	6880.1	10.50	104.93	-305.2	1144.6	1184.6	1184.6	Start Drop -1.50		
7469.0	7580.3	0.00	0.00	-321.7	1206.5	1248.7	1248.7	Vertical		
12339.0	12450.3	0.00	0.00	-321.7	1206.5	1248.7	1248.7	TD at 12450		

PICEANCE HL NAD 83

RG 35-01S-098W

RGU 23-35-198 Pad

Federal RGU 33-35-198 - Slot A11

Wellbore #1

Plan: Plan #1 18nov08 kfk

Standard Planning Report - Geographic

07 June, 2010

Williams
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well Federal RGU 33-35-198 (A11) - Slot A11
Company:	PICEANCE HL NAD 83	TVD Reference:	KELLY BUSHING @ 6799.0usft (Cyclone 29 (21' RKB) jib)
Project:	RG 35-01S-098W	MD Reference:	KELLY BUSHING @ 6799.0usft (Cyclone 29 (21' RKB) jib)
Site:	RGU 23-35-198 Pad	North Reference:	True
Well:	Federal RGU 33-35-198	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 18nov08 kfk		

Project	RG 35-01S-098W, Rio Blanco County, CO, RG 35-01S-098W		
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	RGU 23-35-198 Pad		
Site Position:		Northing:	1,772,401.04 usft
From:	Lat/Long	Easting:	2,197,194.87 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13.200 in
		Grid Convergence:	-1.805 °

Well	Federal RGU 33-35-198 - Slot A11		
Well Position	+N/-S	0.0 usft	Northing: 1,772,352.70 usft
	+E/-W	0.0 usft	Easting: 2,197,208.30 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	Latitude: 39° 55' 9.122 N
			Longitude: 108° 21' 44.975 W
			Ground Level: 6,778.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2005-10	11/23/2010	10.619	66.045	52,513

Design	Plan #1 18nov08 kfk			
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	104.93

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	
645.2	10.50	104.93	642.3	-12.4	46.4	2.00	2.00	0.00	104.932	
6,880.1	10.50	104.93	6,772.7	-305.2	1,144.6	0.00	0.00	0.00	0.000	
7,580.3	0.00	0.00	7,469.0	-321.7	1,206.5	1.50	-1.50	0.00	180.000	Meseverde (50' Radiu
12,450.3	0.00	0.00	12,339.0	-321.7	1,206.5	0.00	0.00	0.00	0.000	

Williams
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well Federal RGU 33-35-198 (A11) - Slot A11
Company:	PICEANCE HL NAD 83	TVD Reference:	KELLY BUSHING @ 6799.0usft (Cyclone 29 (21' RKB) jib)
Project:	RG 35-01S-098W	MD Reference:	KELLY BUSHING @ 6799.0usft (Cyclone 29 (21' RKB) jib)
Site:	RGU 23-35-198 Pad	North Reference:	True
Well:	Federal RGU 33-35-198	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 18nov08 kfk		

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	1,772,352.70	2,197,208.30	39° 55' 9.122 N	108° 21' 44.783 W
120.0	0.00	0.00	120.0	0.0	0.0	1,772,352.70	2,197,208.30	39° 55' 9.122 N	108° 21' 44.783 W
645.2	10.50	104.93	642.3	-12.4	46.4	1,772,338.87	2,197,254.27	39° 55' 9.000 N	108° 21' 44.188 W
6,880.1	10.50	104.93	6,772.7	-305.2	1,144.6	1,772,011.53	2,198,342.80	39° 55' 6.105 N	108° 21' 30.092 W
7,580.3	0.00	0.00	7,469.0	-321.7	1,206.5	1,771,993.10	2,198,404.10	39° 55' 5.942 N	108° 21' 29.298 W
12,450.3	0.00	0.00	12,339.0	-321.7	1,206.5	1,771,993.10	2,198,404.10	39° 55' 5.942 N	108° 21' 29.298 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	7,469.0	-321.7	1,206.5	1,771,993.10	2,198,404.10	39° 55' 5.942 N	108° 21' 29.298 W
- plan hits target center									
- Circle (radius 25.0)									
Meseverde (50' Radius)	0.00	0.00	7,469.0	-321.7	1,206.5	1,771,993.10	2,198,404.10	39° 55' 5.942 N	108° 21' 29.298 W
- plan hits target center									
- Circle (radius 50.0)									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
3,868.0	3,811.1	9 5/8"	9.625	12.250	

Williams
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well Federal RGU 33-35-198 (A11) - Slot A11
Company:	PICEANCE HL NAD 83	TVD Reference:	KELLY BUSHING @ 6799.0usft (Cyclone 29 (21' RKB) jjb)
Project:	RG 35-01S-098W	MD Reference:	KELLY BUSHING @ 6799.0usft (Cyclone 29 (21' RKB) jjb)
Site:	RGU 23-35-198 Pad	North Reference:	True
Well:	Federal RGU 33-35-198	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 18nov08 kfk		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,246.0	1,233.0	Green River Fm				
1,418.9	1,403.0	A Groove				
1,619.3	1,600.0	B Groove				
1,903.0	1,879.0	Dissolution Surface				
2,960.7	2,919.0	Garden Gulch				
3,143.8	3,099.0	Orange Marker				
3,367.6	3,319.0	Wasatch				
5,583.7	5,498.0	G' Sand				
5,910.2	5,819.0	Ft. Union				
7,340.2	7,229.0	Ohio Creek				
7,580.3	7,469.0	Mesaverde				
8,910.3	8,799.0	Top Gas				
10,691.3	10,580.0	Cameo Coals				
11,210.3	11,099.0	Rollins SS				
11,306.3	11,195.0	Cozzette				
11,552.3	11,441.0	Corcoran				
11,945.3	11,834.0	Upper Sego				
12,200.3	12,089.0	Lower Sego				
12,450.3	12,339.0	TD		0.000		

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	
645.2	642.3	-12.4	46.4	Hold 10.5 Inc	
6,880.1	6,772.7	-305.2	1,144.6	Start Drop -1.50	
7,580.3	7,469.0	-321.7	1,206.5	Vertical	
12,450.3	12,339.0	-321.7	1,206.5	TD at 12450	