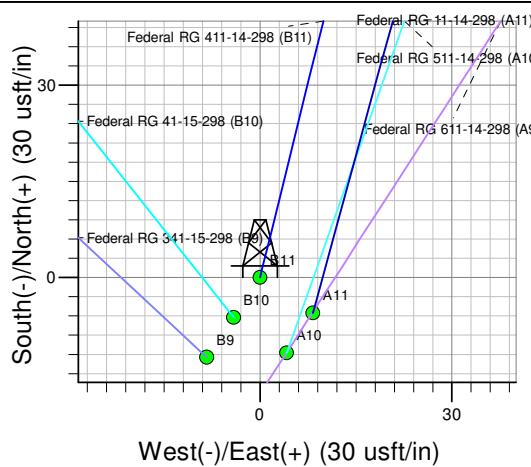
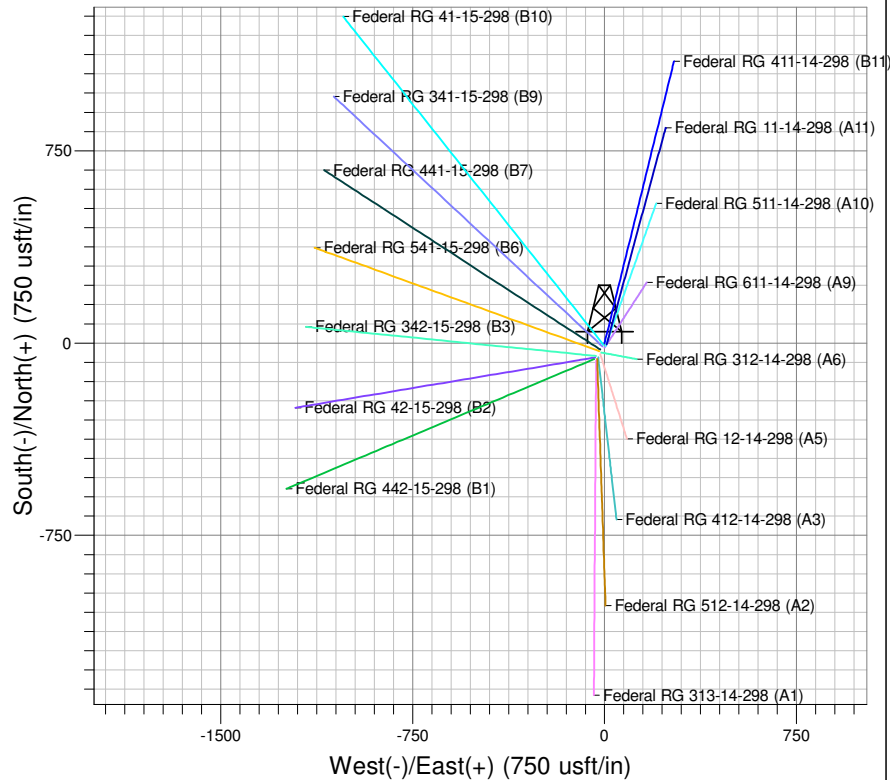


Well Name: Federal RG 411-14-298
 Surface Location: RG 12-14-298 Pad
 Federal RG 411-14-298
 North American Datum 1983, US State Plane 1983 Colorado Central Zone
 Ground Elevation: 6560.0
 Easting Latitude Longitude Slot
 0.0 0.0 1758361.90 2195540.60 39° 52' 50.411 N 108° 22' 0.510 W B11
 KELLY BUSHING @ 6581.0usft



Project: RG 14-02S-098W
 Site: RG 12-14-298 Pad
 Well: Federal RG 411-14-298
 Plan: Plan #2 21Mar10 kjs

Azimuths to True North
 Magnetic North: 11.04°
 Magnetic Field
 Strength: 52808.5snT
 Dip Angle: 66.10°
 Date: 8/27/2007
 Model: IGRF2005-10

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	V Sect	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	
556.1	10.90	13.87	553.5	40.2	9.9	2.50	13.867	41.3	
5958.7	10.90	13.87	5858.5	1032.2	254.8	0.00	0.000	1062.4	
6685.5	0.00	0.00	6581.0	1099.2	271.3	1.50	180.000	1131.3	Mesaverde (25' Radius) Federal RG 411-14-298
11155.5	0.00	0.00	11051.0	1099.2	271.3	0.00	0.000	1131.3	

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 2.50
553.5	556.1	10.90	13.87	40.2	9.9	41.3	41.4	Hold 10.9 Inc
5858.5	5958.7	10.90	13.87	1032.2	254.8	1062.4	1063.2	Start Drop -1.50
6581.0	6685.5	0.00	0.00	1099.2	271.3	1131.3	1132.2	Vertical
11051.0	11155.5	0.00	0.00	1099.2	271.3	1131.3	1132.2	TD at 11156

PICEANCE HL NAD 83

RG 14-02S-098W

RG 12-14-298 Pad

Federal RG 411-14-298 - Slot B11

Federal RG 411-14-298

Plan: Plan #2 21Mar10 kjs

Standard Planning Report - Geographic

29 March, 2010

Williams
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well Federal RG 411-14-298 (B11) - Slot B11
Company:	PICEANCE HL NAD 83	TVD Reference:	KELLY BUSHING @ 6581.0usft
Project:	RG 14-02S-098W	MD Reference:	KELLY BUSHING @ 6581.0usft
Site:	RG 12-14-298 Pad	North Reference:	True
Well:	Federal RG 411-14-298	Survey Calculation Method:	Minimum Curvature
Wellbore:	Federal RG 411-14-298		
Design:	Plan #2 21Mar10 kjs		

Project	RG 14-02S-098W, Rio Blanco County, CO, RG 14-02S-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		RG 12-14-298 Pad			
Site Position:		Northing:	1,758,307.10 usft	Latitude:	39° 52' 49.862 N
From:	Map	Easting:	2,195,514.10 usft	Longitude:	108° 22' 0.828 W
Position Uncertainty:	0.0 usft	Slot Radius:	13.200 in	Grid Convergence:	-1.808 °

Well		Federal RG 411-14-298 - Slot B11				
Well Position	+N/-S	0.0 usft	Northing:	1,758,361.90 usft	Latitude:	39° 52' 50.411 N
	+E/-W	0.0 usft	Easting:	2,195,540.60 usft	Longitude:	108° 22' 0.510 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	6,560.0 usft

Wellbore	Federal RG 411-14-298				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2005-10	8/27/2007	11.044	66.096	52,808

Design	Plan #2 21Mar10 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	11.62

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	
556.1	10.90	13.87	553.5	40.2	9.9	2.50	2.50	0.00	13.867	
5,958.7	10.90	13.87	5,858.5	1,032.2	254.8	0.00	0.00	0.00	0.000	
6,685.5	0.00	0.00	6,581.0	1,099.2	271.3	1.50	-1.50	0.00	180.000	Mesaverde (25' Radiu
11,155.5	0.00	0.00	11,051.0	1,099.2	271.3	0.00	0.00	0.00	0.000	

Williams
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well Federal RG 411-14-298 (B11) - Slot B11
Company:	PICEANCE HL NAD 83	TVD Reference:	KELLY BUSHING @ 6581.0usft
Project:	RG 14-02S-098W	MD Reference:	KELLY BUSHING @ 6581.0usft
Site:	RG 12-14-298 Pad	North Reference:	True
Well:	Federal RG 411-14-298	Survey Calculation Method:	Minimum Curvature
Wellbore:	Federal RG 411-14-298		
Design:	Plan #2 21Mar10 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	1,758,361.90	2,195,540.60	39° 52' 50.411 N	108° 22' 0.510 W
120.0	0.00	0.00	120.0	0.0	0.0	1,758,361.90	2,195,540.60	39° 52' 50.411 N	108° 22' 0.510 W
556.1	10.90	13.87	553.5	40.2	9.9	1,758,401.73	2,195,551.78	39° 52' 50.808 N	108° 22' 0.383 W
5,958.7	10.90	13.87	5,858.5	1,032.2	254.8	1,759,385.61	2,195,827.87	39° 53' 0.612 N	108° 21' 57.242 W
6,685.5	0.00	0.00	6,581.0	1,099.2	271.3	1,759,452.00	2,195,846.50	39° 53' 1.274 N	108° 21' 57.030 W
11,155.5	0.00	0.00	11,051.0	1,099.2	271.3	1,759,452.00	2,195,846.50	39° 53' 1.274 N	108° 21' 57.030 W

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
Mesaverde (25' Radius) - plan hits target center - Circle (radius 25.0)	0.00	0.00	6,581.0	1,099.2	271.3	1,759,452.00	2,195,846.50	39° 53' 1.274 N	108° 21' 57.030 W
Mesaverde (50' Radius) - plan hits target center - Circle (radius 50.0)	0.00	0.00	6,581.0	1,099.2	271.3	1,759,452.00	2,195,846.50	39° 53' 1.274 N	108° 21' 57.030 W

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
3,065.0	3,017.1	9 5/8"	9.625	13.500	

Williams
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well Federal RG 411-14-298 (B11) - Slot B11
Company:	PICEANCE HL NAD 83	TVD Reference:	KELLY BUSHING @ 6581.0usft
Project:	RG 14-02S-098W	MD Reference:	KELLY BUSHING @ 6581.0usft
Site:	RG 12-14-298 Pad	North Reference:	True
Well:	Federal RG 411-14-298	Survey Calculation Method:	Minimum Curvature
Wellbore:	Federal RG 411-14-298		
Design:	Plan #2 21Mar10 kjs		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
762.3	756.0	Green River Fm				
915.1	906.0	A Groove				
1,103.5	1,091.0	B Groove				
1,419.2	1,401.0	Dissolution Surface				
2,172.8	2,141.0	Garden Gulch				
2,356.1	2,321.0	Orange Marker				
2,564.9	2,526.0	Wasatch				
4,545.6	4,471.0	G' Sand				
4,820.6	4,741.0	Ft. Union				
6,163.9	6,061.0	Ohio Creek				
6,685.5	6,581.0	Mesaverde				
7,605.5	7,501.0	Top Gas				
9,555.5	9,451.0	Cameo Coals				
9,955.5	9,851.0	Rollins SS				
10,085.5	9,981.0	Cozzette				
10,305.5	10,201.0	Corcoran				
10,660.5	10,556.0	Upper Sego				
10,905.5	10,801.0	Lower Sego				
11,155.5	11,051.0	TD		0.000		

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
556.1	553.5	40.2	9.9	Hold 10.9 Inc
5,958.7	5,858.5	1,032.2	254.8	Start Drop -1.50
6,685.5	6,581.0	1,099.2	271.3	Vertical
11,155.5	11,051.0	1,099.2	271.3	TD at 11156