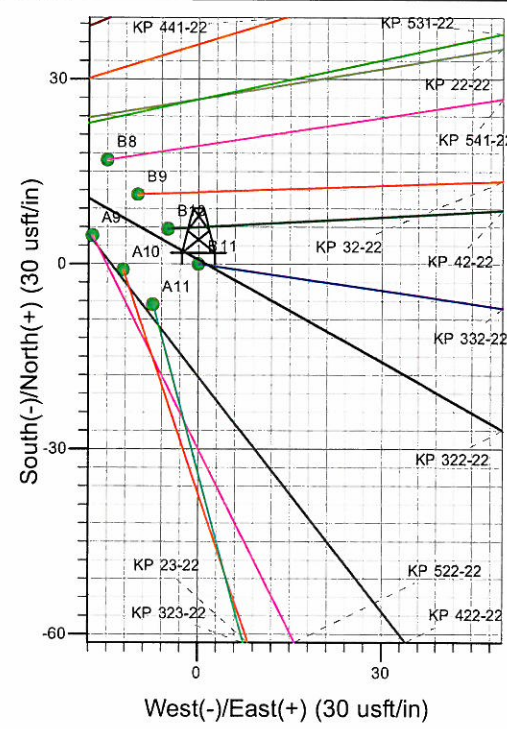
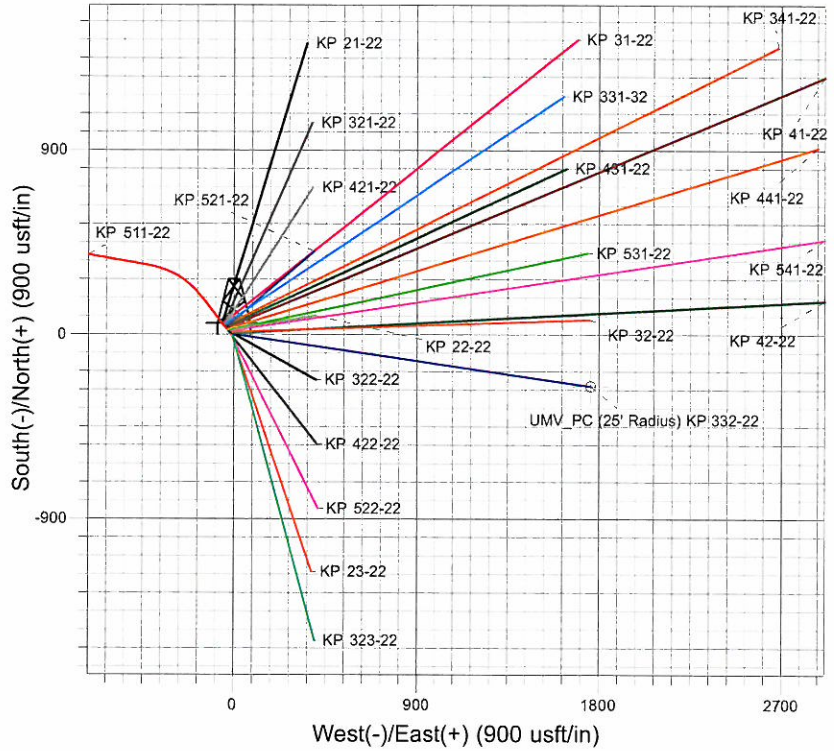
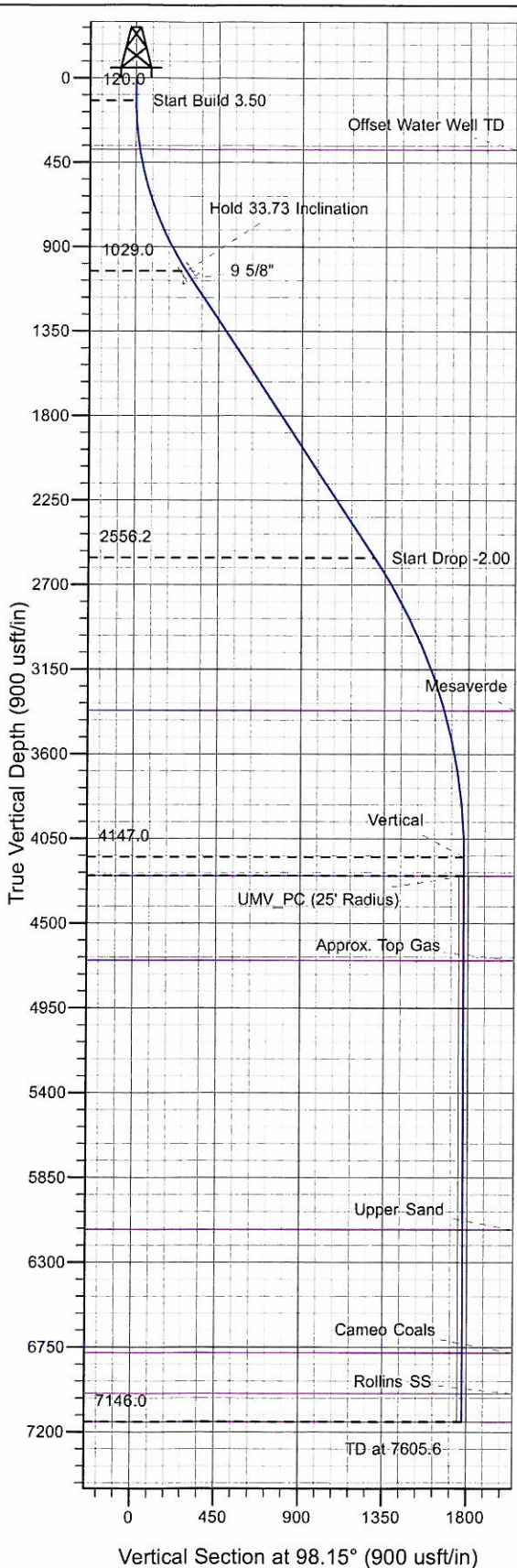




Well Name: KP 332-22
 Surface Location: KP 22-22 Pad
 North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
 Ground Elevation: 6186.0
 +N/-S +E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1619536.90 2423309.10 39° 30' 59.738 N 107° 32' 39.556 W B11
 WELL @ 6209.0usft (Original Well Elev)



Project: Sec. 22-T6S-R91W
 Site: KP 22-22 Pad
 Well: KP 332-22
 Design #1 17Nov10 kjs

Azimuths to True North
 Magnetic North: 10.20°
 Magnetic Field
 Strength: 52406.8snT
 Dip Angle: 65.87°
 Date: 11/17/2010
 Model: IGRF200510

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 3.50	
1029.0	1083.8	33.73	98.15	-39.1	272.8	275.6	275.6	Hold 33.73 Inclination	
2556.2	2920.0	33.73	98.15	-183.6	1282.2	1295.3	1295.3	Start Drop -2.00	
4147.0	4606.6	0.00	0.00	-252.0	1759.6	1777.6	1777.6	Vertical	
4247.0	4706.6	0.00	0.00	-252.0	1759.6	1777.6	1777.6	UMV_PC	
7146.0	7605.6	0.00	0.00	-252.0	1759.6	1777.6	1777.6	TD at 7605.6	

KOKOPELLI FIELD

Sec. 22-T6S-R91W

KP 22-22 Pad

KP 332-22 - Slot B11

Wellbore #1

Plan: Design #1 17Nov10 kjs

Standard Planning Report - Geographic

01 December, 2010

Williams
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well KP 332-22 - Slot B11
Company:	KOKOPELLI FIELD	TVD Reference:	WELL @ 6209.0usft (Original Well Elev)
Project:	Sec. 22-T6S-R91W	MD Reference:	WELL @ 6209.0usft (Original Well Elev)
Site:	KP 22-22 Pad	North Reference:	True
Well:	KP 332-22	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 17Nov10 kjs		

Project	Sec. 22-T6S-R91W, 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		KP 22-22 Pad			
Site Position:		Northing:	1,619,530.50 usft	Latitude:	39° 30' 59.673 N
From:	Map	Easting:	2,423,301.50 usft	Longitude:	107° 32' 39.651 W
Position Uncertainty:	0.0 usft	Slot Radius:	13.200 in	Grid Convergence:	-1.289

Well	KP 332-22 - Slot B11					
Well Position	+N/-S	0.0 usft	Northing:	1,619,536.90 usft	Latitude:	39° 30' 59.738 N
	+E/-W	0.0 usft	Easting:	2,423,309.10 usft	Longitude:	107° 32' 39.556 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	6,186.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	11/17/2010	10.198	65.868	52,407

Design	Design #1 17Nov10 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	98.15

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	
1,083.8	33.73	98.15	1,029.0	-39.1	272.8	3.50	3.50	0.00	98.149	
2,920.0	33.73	98.15	2,556.2	-183.6	1,282.2	0.00	0.00	0.00	0.000	
4,606.6	0.00	0.00	4,147.0	-252.0	1,759.6	2.00	-2.00	0.00	180.000	
4,706.6	0.00	0.00	4,247.0	-252.0	1,759.6	0.00	0.00	0.00	0.000	UMV_PC (25' Radius)
7,605.6	0.00	0.00	7,146.0	-252.0	1,759.6	0.00	0.00	0.00	0.000	

Williams
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well KP 332-22 - Slot B11
Company:	KOKOPELLI FIELD	TVD Reference:	WELL @ 6209.0usft (Original Well Elev)
Project:	Sec. 22-T6S-R91W	MD Reference:	WELL @ 6209.0usft (Original Well Elev)
Site:	KP 22-22 Pad	North Reference:	True
Well:	KP 332-22	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 17Nov10 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	1,619,536.90	2,423,309.10	39° 30' 59.738 N	107° 32' 39.556 W	
120.0	0.00	0.00	120.0	0.0	0.0	1,619,536.90	2,423,309.10	39° 30' 59.738 N	107° 32' 39.556 W	
Start Build 3.50										
382.1	9.17	98.15	381.0	-3.0	20.7	1,619,533.46	2,423,329.76	39° 30' 59.709 N	107° 32' 39.291 W	
Offset Water Well TD										
1,083.8	33.73	98.15	1,029.0	-39.1	272.8	1,619,491.70	2,423,580.96	39° 30' 59.352 N	107° 32' 36.075 W	
Hold 33.73 Inclination										
1,133.0	33.73	98.15	1,070.0	-42.9	299.9	1,619,487.22	2,423,607.94	39° 30' 59.313 N	107° 32' 35.729 W	
9 5/8"										
2,920.0	33.73	98.15	2,556.2	-183.6	1,282.2	1,619,324.49	2,424,586.85	39° 30' 57.923 N	107° 32' 23.194 W	
Start Drop -2.00										
3,818.7	15.76	98.15	3,369.0	-236.7	1,653.0	1,619,263.05	2,424,956.40	39° 30' 57.398 N	107° 32' 18.462 W	
Mesaverde										
4,606.6	0.00	0.00	4,147.0	-252.0	1,759.6	1,619,245.40	2,425,062.60	39° 30' 57.247 N	107° 32' 17.102 W	
Vertical										
4,706.6	0.00	0.00	4,247.0	-252.0	1,759.6	1,619,245.40	2,425,062.60	39° 30' 57.247 N	107° 32' 17.102 W	
UMV_PC - UMV_PC										
5,155.6	0.00	0.00	4,696.0	-252.0	1,759.6	1,619,245.40	2,425,062.60	39° 30' 57.247 N	107° 32' 17.102 W	
Approx. Top Gas										
6,585.6	0.00	0.00	6,126.0	-252.0	1,759.6	1,619,245.40	2,425,062.60	39° 30' 57.247 N	107° 32' 17.102 W	
Upper Sand										
7,239.6	0.00	0.00	6,780.0	-252.0	1,759.6	1,619,245.40	2,425,062.60	39° 30' 57.247 N	107° 32' 17.102 W	
Cameo Coals										
7,455.6	0.00	0.00	6,996.0	-252.0	1,759.6	1,619,245.40	2,425,062.60	39° 30' 57.247 N	107° 32' 17.102 W	
Rollins SS										
7,605.6	0.00	0.00	7,146.0	-252.0	1,759.6	1,619,245.40	2,425,062.60	39° 30' 57.247 N	107° 32' 17.102 W	
TD at 7605.6 - TD										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
UMV_PC (25' Radius) K	0.00	0.00	4,247.0	-252.0	1,759.6	1,619,245.40	2,425,062.60	39° 30' 57.247 N	107° 32' 17.102 W	
- hit/miss target										
- Shape										
- plan hits target center										
- Circle (radius 25.0)										

Casing Points							Casing Diameter (in)	Hole Diameter (in)
Measured Depth (usft)	Vertical Depth (usft)	Name						
1,133.0	1,070.0	9 5/8"					9.625	12.250

Williams

Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well KP 332-22 - Slot B11
Company:	KOKOPELLI FIELD	TVD Reference:	WELL @ 6209.0usft (Original Well Elev)
Project:	Sec. 22-T6S-R91W	MD Reference:	WELL @ 6209.0usft (Original Well Elev)
Site:	KP 22-22 Pad	North Reference:	True
Well:	KP 332-22	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 17Nov10 kjs		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
382.1	381.0	Offset Water Well TD				
3,818.7	3,369.0	Mesaverde				
4,706.6	4,247.0	UMV_PC				
5,155.6	4,696.0	Approx. Top Gas				
6,585.6	6,126.0	Upper Sand				
7,239.6	6,780.0	Cameo Coals				
7,455.6	6,996.0	Rollins SS				
7,605.6	7,146.0	TD				

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 3.50	
1,083.8	1,029.0	-39.1	272.8	Hold 33.73 Inclination	
2,920.0	2,556.2	-183.6	1,282.2	Start Drop -2.00	
4,606.6	4,147.0	-252.0	1,759.6	Vertical	
4,706.6	4,247.0	-252.0	1,759.6	UMV_PC	
7,605.6	7,146.0	-252.0	1,759.6	TD at 7605.6	