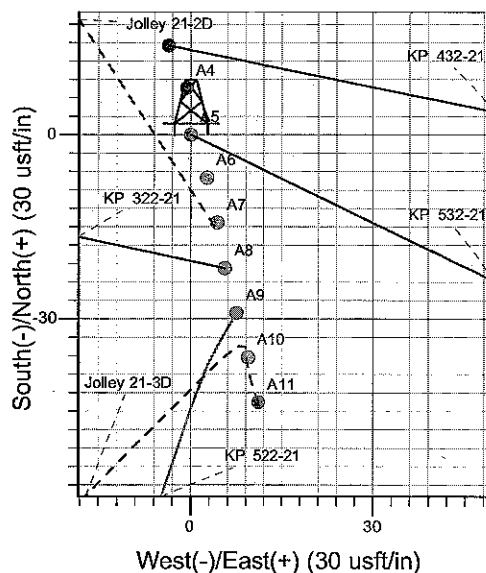
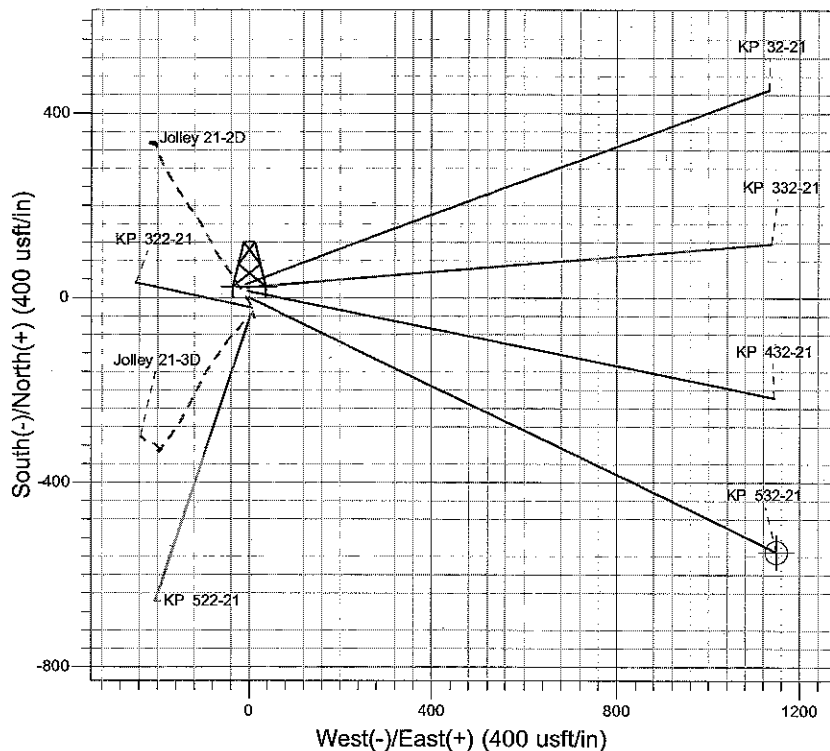
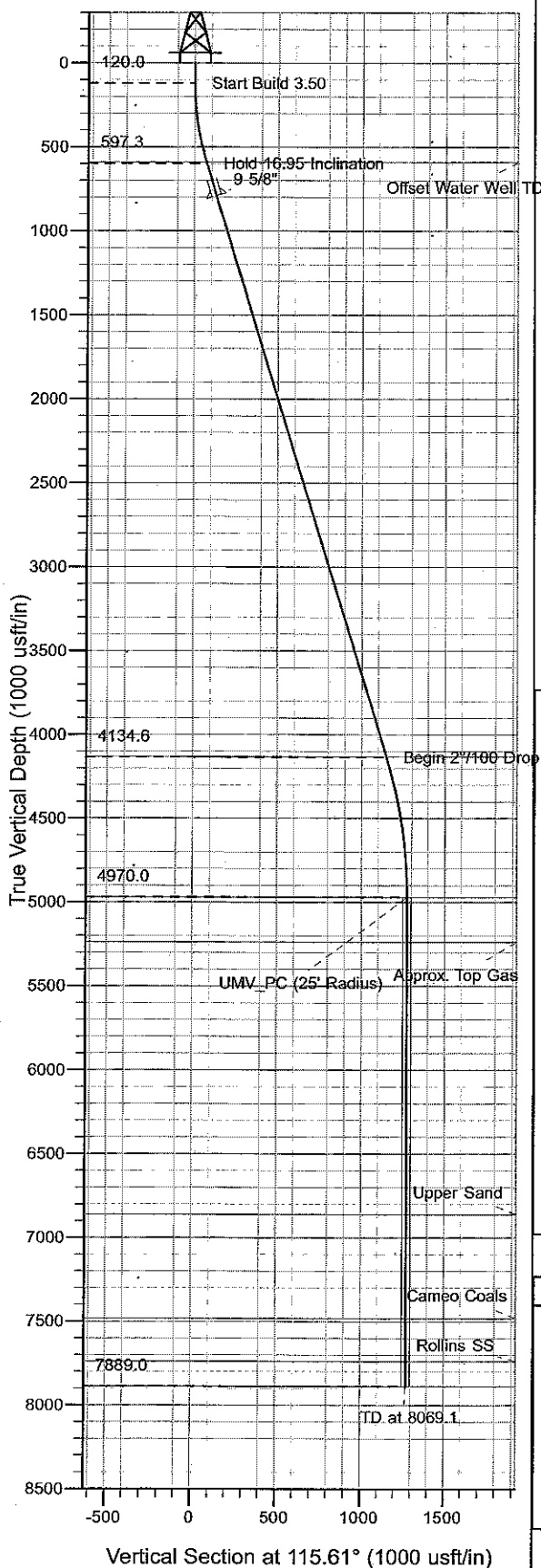




Well Name: KP 532-21
 Surface Location: KP 22-21 Pad
 North American Datum 1983 , US State Plane 1983, Colorado Central Zone
 Ground Elevation: 6889.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1619254.10	2418607.90	39° 30' 55.894 N	107° 33' 39.449 W	A5

KELLY BUSHING @ 6912.0usft (Cyclone 30 23'KB JMS)



Project: Sec. 21-T6S-R91W
 Site: KP 22-21 Pad
 Well: KP 532-21
 Design #1 15Mar10 kjs



Azimuths to True North
 Magnetic North: 10.32°
 Magnetic Field
 Strength: 52437.1snT
 Dip Angle: 65.87°
 Date: 3/15/2010
 Model: IGRF2010

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	Vsect	Departure	Annotation
120.0	120.0	0.09	0.00	0.0	0.0	0.0	0.0	Start Build 3.50
597.3	604.4	16.95	115.61	-30.8	64.2	71.1	71.1	Hold 16.95 Inclination
4134.6	4302.4	16.95	115.61	-496.9	1036.5	1149.5	1149.5	Begin 2°/100 Drop
4970.0	5150.1	0.00	0.00	-550.7	1148.8	1274.0	1274.0	UMV_PC
7889.0	8069.1	0.00	0.00	-550.7	1148.8	1274.0	1274.0	TD at 8069.1

KOKOPELLI FIELD

Sec. 21-T6S-R91W

KP 22-21 Pad

KP 532-21 - Slot A5

Wellbore #1

Plan: Design #1 15Mar10 kjs

Standard Planning Report - Geographic

03 May, 2010

Williams

Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well KP 532-21 - Slot A5
Company:	KOKOPELLI FIELD	TVD Reference:	KELLY BUSHING @ 6912.0usft (Cyclone 30 23'KB JMS)
Project:	Sec. 21-T6S-R91W	MD Reference:	KELLY BUSHING @ 6912.0usft (Cyclone 30 23'KB JMS)
Site:	KP 22-21 Pad	North Reference:	True
Well:	KP 532-21	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 15Mar10 kjs		

Project	Sec. 21-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 22-21 Pad			
Site Position:		Northing:	1,619,210.30 usft	Latitude: 39° 30' 55.463 N
From:	Map	Easting:	2,418,618.00 usft	Longitude: 107° 33' 39.307 W
Position Uncertainty:	0.0 usft	Slot Radius:	13.200 in	Grid Convergence: -1.300 °

Well	KP 532-21 - Slot A5			
Well Position	+N/-S	0.0 usft	Northing: 1,619,254.10 usft	Latitude: 39° 30' 55.894 N
	+E/-W	0.0 usft	Easting: 2,418,607.90 usft	Longitude: 107° 33' 39.449 W
Position Uncertainty	0.0 usft	Wellhead Elevation:		Ground Level: 6,889.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	3/15/2010	10.319	65.871	52,437

Design	Design #1 15Mar10 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	115.61

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	
604.4	16.95	115.61	597.3	-30.8	64.2	3.50	3.50	0.00	115.611	
4,302.4	16.95	115.61	4,134.6	-496.9	1,036.5	0.00	0.00	0.00	0.000	
5,150.1	0.00	0.00	4,970.0	-550.7	1,148.8	2.00	-2.00	0.00	180.000	UMV_PC (25' Radius)
8,069.1	0.00	0.00	7,889.0	-550.7	1,148.8	0.00	0.00	0.00	0.000	

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Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well KP 532-21 - Slot A5
Company:	KOKOPELLI FIELD	TVD Reference:	KELLY BUSHING @ 6912.0usft (Cyclone 30 23'KB JMS)
Project:	Sec. 21-T6S-R91W	MD Reference:	KELLY BUSHING @ 6912.0usft (Cyclone 30 23'KB JMS)
Site:	KP 22-21 Pad	North Reference:	True
Well:	KP 532-21	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 15Mar10 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	1,619,254.10	2,418,607.90	39° 30' 55.894 N	107° 33' 39.449 W
120.0	0.00	0.00	120.0	0.0	0.0	1,619,254.10	2,418,607.90	39° 30' 55.894 N	107° 33' 39.449 W
Start Build 3.50									
598.8	16.76	115.61	592.0	-30.1	62.7	1,619,222.63	2,418,669.90	39° 30' 55.597 N	107° 33' 38.649 W
Offset Water Well TD									
604.4	16.95	115.61	597.3	-30.8	64.2	1,619,221.90	2,418,671.34	39° 30' 55.590 N	107° 33' 38.630 W
Hold 16.95 Inclination									
807.0	16.95	115.61	791.2	-56.3	117.4	1,619,195.16	2,418,724.03	39° 30' 55.337 N	107° 33' 37.950 W
9 5/8"									
4,299.6	16.95	115.61	4,132.0	-496.5	1,035.8	1,618,734.21	2,419,632.17	39° 30' 50.986 N	107° 33' 26.232 W
Mesaverde									
4,302.4	16.95	115.61	4,134.6	-496.9	1,036.5	1,618,733.84	2,419,632.89	39° 30' 50.983 N	107° 33' 26.223 W
Begin 2"/100 Drop									
5,150.1	0.00	0.00	4,970.0	-550.7	1,148.8	1,618,677.50	2,419,743.90	39° 30' 50.451 N	107° 33' 24.790 W
UMV_PC - UMV_PC									
5,419.1	0.00	0.00	5,239.0	-550.7	1,148.8	1,618,677.50	2,419,743.90	39° 30' 50.451 N	107° 33' 24.790 W
Approx. Top Gas									
7,041.1	0.00	0.00	6,861.0	-550.7	1,148.8	1,618,677.50	2,419,743.90	39° 30' 50.451 N	107° 33' 24.790 W
Upper Sand									
7,663.1	0.00	0.00	7,483.0	-550.7	1,148.8	1,618,677.50	2,419,743.90	39° 30' 50.451 N	107° 33' 24.790 W
Cameo Coals									
7,919.1	0.00	0.00	7,739.0	-550.7	1,148.8	1,618,677.50	2,419,743.90	39° 30' 50.451 N	107° 33' 24.790 W
Rollins SS									
8,069.1	0.00	0.00	7,889.0	-550.7	1,148.8	1,618,677.50	2,419,743.90	39° 30' 50.451 N	107° 33' 24.790 W
TD at 8069.1 - TD									

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									
UMV_PC (25' Radius) K	0.00	0.00	4,970.0	-550.7	1,148.8	1,618,677.50	2,419,743.90	39° 30' 50.451 N	107° 33' 24.790 W
- plan hits target center									
- Circle (radius 25.0)									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
807.0	791.2	9 5/8"	9.625	12.250	

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Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well KP 532-21 - Slot A5
Company:	KOKOPELLI FIELD	TVD Reference:	KELLY BUSHING @ 6912.0usft (Cyclone 30 23'KB JMS)
Project:	Sec. 21-T6S-R91W	MD Reference:	KELLY BUSHING @ 6912.0usft (Cyclone 30 23'KB JMS)
Site:	KP 22-21 Pad	North Reference:	True
Well:	KP 532-21	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 15Mar10 kjs		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
598.8	592.0	Offset Water Well TD				
4,299.6	4,132.0	Mesaverde				
5,150.1	4,970.0	UMV_PC				
5,419.1	5,239.0	Approx. Top Gas				
7,041.1	6,861.0	Upper Sand				
7,663.1	7,483.0	Cameo Coals				
7,919.1	7,739.0	Rollins SS				
8,069.1	7,889.0	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	
604.4	597.3	-30.8	64.2	Hold 16.95 Inclination	
4,302.4	4,134.6	-496.9	1,036.5	Begin 2°/100 Drop	
5,150.1	4,970.0	-550.7	1,148.8	UMV_PC	
8,069.1	7,889.0	-550.7	1,148.8	TD at 8069.1	