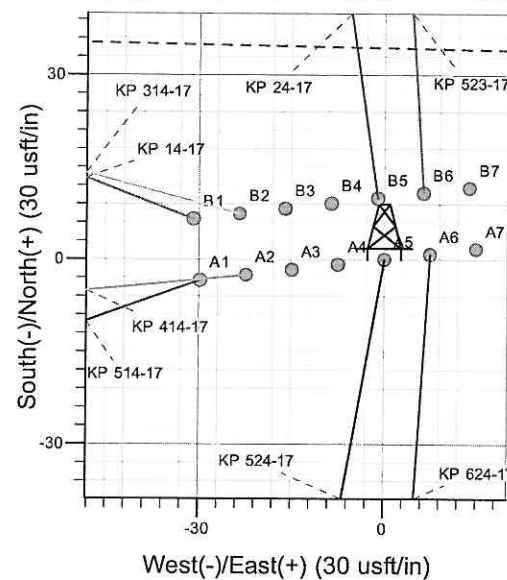
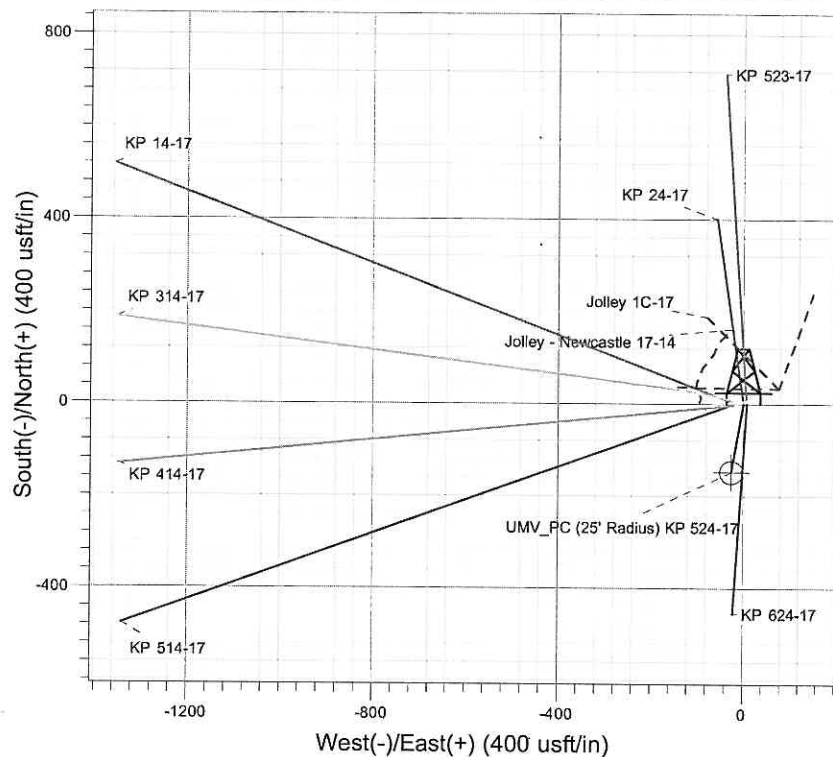
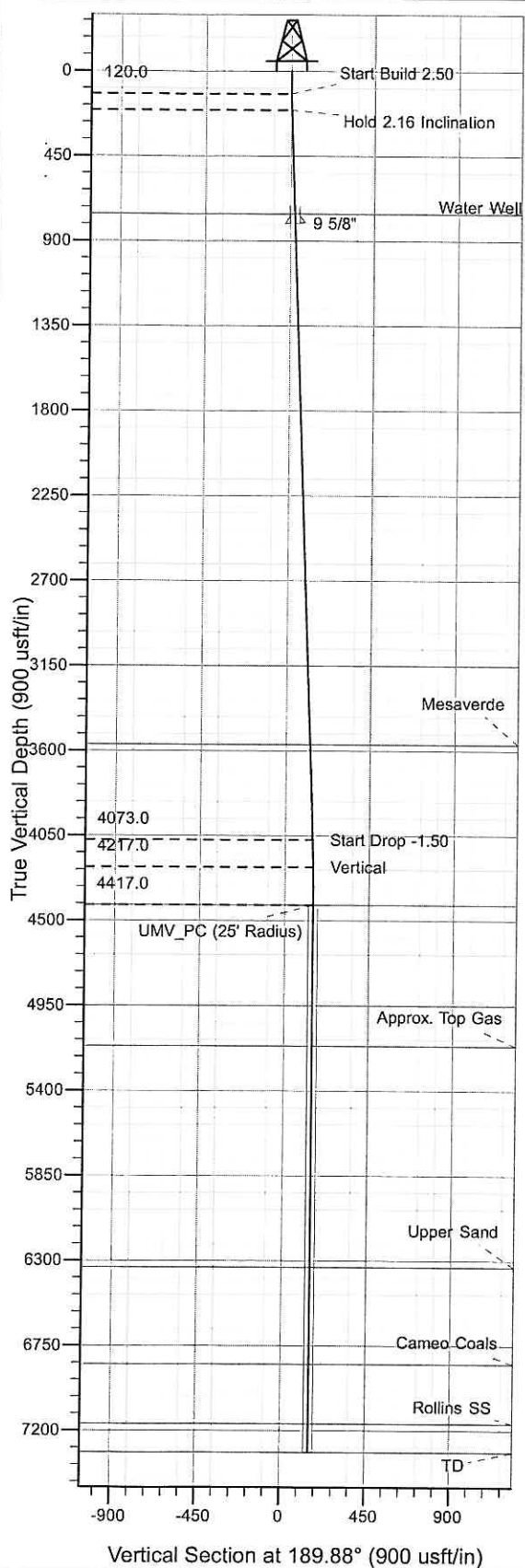




Well Name: KP 524-17  
 Surface Location: KP 24-17 Pad  
 North American Datum 1983 , US State Plane 1983, Colorado Central Zone  
 Ground Elevation: 6290.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1621786.10	2413107.05	39° 31' 19.673 N	107° 34' 50.364 W	A5

KELLY BUSHING @ 6316.0usft (SSD 574 (26' KB) kjs)



Project: Sec. 17-06S-091W  
 Site: KP 24-17 Pad  
 Well: KP 524-17  
 Plan #2 17Mar10 kjs

**T M** Azimuths to True North  
 Magnetic North: 10.38°  
 Magnetic Field  
 Strength: 52523.4nT  
 Dip Angle: 65.90°  
 Date: 8/31/2009  
 Model: IGRF2005-10

#### 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	0.0	Start Build 2.50
206.4	206.4	2.16	189.88	-1.6	-0.3	1.6	1.6	1.6	Hold 2.16 Inclination
4073.0	4075.7	2.16	189.88	-145.4	-25.3	147.5	147.5	147.5	Start Drop -1.50
4217.0	4219.8	0.00	0.00	-148.0	-25.8	150.3	150.3	150.3	Vertical
4417.0	4419.8	0.00	0.00	-148.0	-25.8	150.3	150.3	150.3	UMV_PC
7314.0	7316.8	0.00	0.00	-148.0	-25.8	150.3	150.3	150.3	TD at 7316.8

# **KOKOPELLI FIELD**

**Sec. 17-06S-091W**

**KP 24-17 Pad**

**KP 524-17 - Slot A5**

**Wellbore #1**

**Plan: Plan #2 17Mar10 kjs**

## **Standard Planning Report - Geographic**

**13 April, 2010**

**Williams**  
Planning Report - Geographic

<b>Database:</b>	Compass R5000 WIN AUTH	<b>Local Co-ordinate Reference:</b>	Well KP 524-17 - Slot A5
<b>Company:</b>	KOKOPELLI FIELD	<b>TVD Reference:</b>	KELLY BUSHING @ 6316.0usft (SSD 574 (26' KB) kjs)
<b>Project:</b>	Sec. 17-06S-091W	<b>MD Reference:</b>	KELLY BUSHING @ 6316.0usft (SSD 574 (26' KB) kjs)
<b>Site:</b>	KP 24-17 Pad	<b>North Reference:</b>	True
<b>Well:</b>	KP 524-17	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2 17Mar10 kjs		

<b>Project</b>	Sec. 17-06S-091W, Garfield County, CO		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Central Zone		

Site	KP 24-17 Pad				
Site Position:		Northing:	1,621,790.60 usft	Latitude:	39° 31' 19.729 N
From:	Map	Easting:	2,413,156.80 usft	Longitude:	107° 34' 49.730 W
Position Uncertainty:	0.0 usft	Slot Radius:	13.200 in	Grid Convergence:	-1.312 °

Well	KP 524-17 - Slot A5					
Well Position	+N/-S	0.0 usft	Northing:	1,621,786.10 usft	Latitude:	39° 31' 19.673 N
	+E/-W	0.0 usft	Easting:	2,413,107.06 usft	Longitude:	107° 34' 50.364 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	6,290.0 usft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2005-10	8/31/2009	10.376	65.898	52,523

Design	Plan #2 17Mar10 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	189.88

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	
206.4	2.16	189.88	206.4	-1.6	-0.3	2.50	2.50	0.00	189.875	
4,075.7	2.16	189.88	4,073.0	-145.4	-25.3	0.00	0.00	0.00	0.000	
4,219.8	0.00	0.00	4,217.0	-148.0	-25.8	1.50	-1.50	0.00	180.000	
4,419.8	0.00	0.00	4,417.0	-148.0	-25.8	0.00	0.00	0.00	0.000	UMV_PC (25' Radius)
7,316.8	0.00	0.00	7,314.0	-148.0	-25.8	0.00	0.00	0.00	0.000	

**Williams**  
Planning Report - Geographic

<b>Database:</b>	Compass R5000 WIN AUTH	<b>Local Co-ordinate Reference:</b>	Well KP 524-17 - Slot A5
<b>Company:</b>	KOKOPELLI FIELD	<b>TVD Reference:</b>	KELLY BUSHING @ 6316.0usft (SSD 574 (26' KB) kjs)
<b>Project:</b>	Sec. 17-06S-091W	<b>MD Reference:</b>	KELLY BUSHING @ 6316.0usft (SSD 574 (26' KB) kjs)
<b>Site:</b>	KP 24-17 Pad	<b>North Reference:</b>	True
<b>Well:</b>	KP 524-17	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2 17Mar10 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	1,621,786.10	2,413,107.06	39° 31' 19.673 N	107° 34' 50.364 W
120.0	0.00	0.00	120.0	0.0	0.0	1,621,786.10	2,413,107.06	39° 31' 19.673 N	107° 34' 50.364 W
<b>Start Build 2.50</b>									
206.4	2.16	189.88	206.4	-1.6	-0.3	1,621,784.50	2,413,106.74	39° 31' 19.657 N	107° 34' 50.367 W
<b>Hold 2.16 Inclination</b>									
756.4	2.16	189.88	756.0	-22.0	-3.8	1,621,764.15	2,413,102.72	39° 31' 19.455 N	107° 34' 50.412 W
<b>Water Well</b>									
806.4	2.16	189.88	806.0	-23.9	-4.2	1,621,762.30	2,413,102.35	39° 31' 19.437 N	107° 34' 50.417 W
<b>9 5/8"</b>									
3,569.4	2.16	189.88	3,567.0	-126.5	-22.0	1,621,660.09	2,413,082.14	39° 31' 18.423 N	107° 34' 50.645 W
<b>Mesaverde</b>									
4,075.7	2.16	189.88	4,073.0	-145.4	-25.3	1,621,641.36	2,413,078.43	39° 31' 18.237 N	107° 34' 50.686 W
<b>Start Drop -1.50</b>									
4,219.8	0.00	0.00	4,217.0	-148.0	-25.8	1,621,638.70	2,413,077.90	39° 31' 18.210 N	107° 34' 50.692 W
<b>Vertical</b>									
4,419.8	0.00	0.00	4,417.0	-148.0	-25.8	1,621,638.70	2,413,077.90	39° 31' 18.210 N	107° 34' 50.692 W
<b>UMV_PC - UMV_PC</b>									
5,166.8	0.00	0.00	5,164.0	-148.0	-25.8	1,621,638.70	2,413,077.90	39° 31' 18.210 N	107° 34' 50.692 W
<b>Approx. Top Gas</b>									
6,337.8	0.00	0.00	6,335.0	-148.0	-25.8	1,621,638.70	2,413,077.90	39° 31' 18.210 N	107° 34' 50.692 W
<b>Upper Sand</b>									
6,850.8	0.00	0.00	6,848.0	-148.0	-25.8	1,621,638.70	2,413,077.90	39° 31' 18.210 N	107° 34' 50.692 W
<b>Cameo Coals</b>									
7,166.8	0.00	0.00	7,164.0	-148.0	-25.8	1,621,638.70	2,413,077.90	39° 31' 18.210 N	107° 34' 50.692 W
<b>Rollins SS</b>									
7,316.8	0.00	0.00	7,314.0	-148.0	-25.8	1,621,638.70	2,413,077.90	39° 31' 18.210 N	107° 34' 50.692 W
<b>TD at 7316.8 - TD</b>									

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	4,417.0	-148.0	-25.8	1,621,638.70	2,413,077.90	39° 31' 18.210 N	107° 34' 50.692 W
- plan hits target center									
- Circle (radius 25.0)									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
806.4	806.0	9 5/8"	9.625	12.250	

**Williams**  
Planning Report - Geographic

<b>Database:</b>	Compass R5000 WIN AUTH	<b>Local Co-ordinate Reference:</b>	Well KP 524-17 - Slot A5
<b>Company:</b>	KOKOPELLI FIELD	<b>TVD Reference:</b>	KELLY BUSHING @ 6316.0usft (SSD 574 (26' KB) kjs)
<b>Project:</b>	Sec. 17-06S-091W	<b>MD Reference:</b>	KELLY BUSHING @ 6316.0usft (SSD 574 (26' KB) kjs)
<b>Site:</b>	KP 24-17 Pad	<b>North Reference:</b>	True
<b>Well:</b>	KP 524-17	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2 17Mar10 kjs		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
756.4	756.0	Water Well		0.000		
3,569.4	3,567.0	Mesaverde				
4,419.8	4,417.0	UMV_PC				
5,166.8	5,164.0	Approx. Top Gas				
6,337.8	6,335.0	Upper Sand				
6,850.8	6,848.0	Cameo Coals				
7,166.8	7,164.0	Rollins SS				
7,316.8	7,314.0	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 2.50	
206.4	206.4	-1.6	-0.3	Hold 2.16 Inclination	
4,075.7	4,073.0	-145.4	-25.3	Start Drop -1.50	
4,219.8	4,217.0	-148.0	-25.8	Vertical	
4,419.8	4,417.0	-148.0	-25.8	UMV_PC	
7,316.8	7,314.0	-148.0	-25.8	TD at 7316.8	