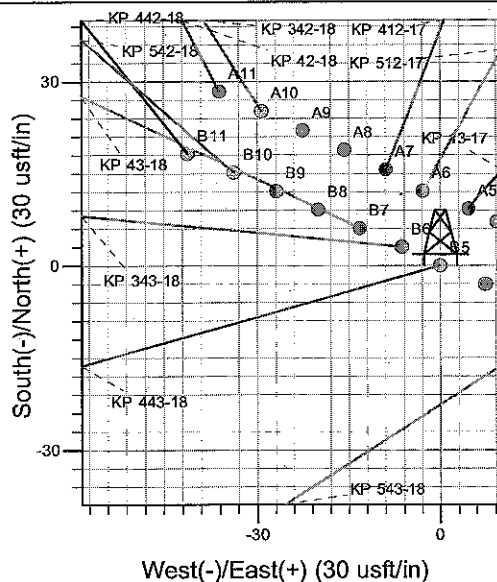
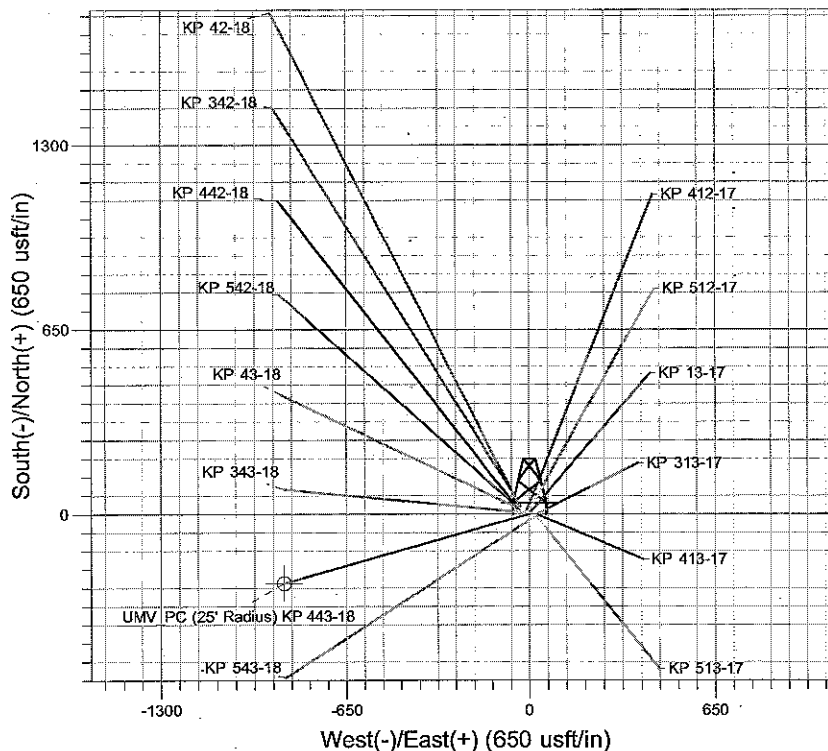
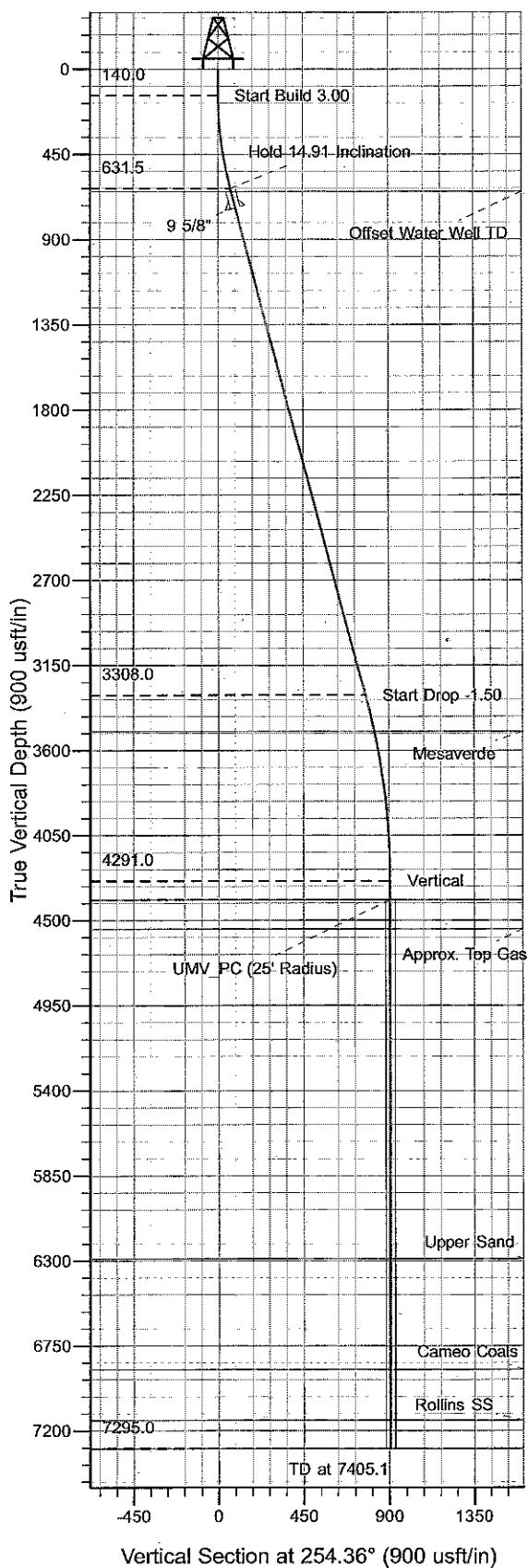




Well Name: KP 443-18
 Surface Location: KP 13-17 Pad
 North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
 Ground Elevation: 6203.0
 +N/-S +E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1623229.80 2411336.80 39° 31' 33.537 N 107° 35' 13.372 W B5
 KELLY BUSHING @ 6229.0usft (Nabors 574 (26' RKB) kjs)



Project: Sec. 17-06S-091W
 Site: KP 13-17 Pad
 Well: KP 443-18
 Design #1 07Jun10 kjs

Asimuths to True North
 Magnetic North: 10.30°
 Magnetic Field
 Strength: 52421.6snT
 Dip Angle: 65.87°
 Date: 6/7/2010
 Model: IGRF2010

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSec	Departure	Annotation
140.0	140.0	0.00	0.00	0.0	0.0	0.0	0.0	Start Build 3.00
631.5	637.1	14.91	254.36	-17.3	-61.9	64.3	64.3	Hold 14.91 Inclination
3308.0	3406.9	14.91	254.36	-209.5	-748.3	777.1	777.1	Start Drop -1.50
4291.0	4401.1	0.00	0.00	-244.2	-872.2	905.8	905.8	Vertical
4391.0	4501.1	0.00	0.00	-244.2	-872.2	905.8	905.8	UMW_PC
7295.0	7405.1	0.00	0.00	-244.2	-872.2	905.8	905.8	TD at 7405.1

KOKOPELLI FIELD

Sec. 17-06S-091W

KP 13-17 Pad

KP 443-18 - Slot B5

Wellbore #1

Plan: Design #1 07Jun10 kjs

Standard Planning Report - Geographic

04 August, 2010

Williams
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well KP 443-18 - Slot B5
Company:	KOKOPELLI FIELD	TVD Reference:	KELLY BUSHING @ 6229.0usft (Nabors 574 (26' RKB) kjs)
Project:	Sec. 17-06S-091W	MD Reference:	KELLY BUSHING @ 6229.0usft (Nabors 574 (26' RKB) kjs)
Site:	KP 13-17 Pad	North Reference:	True
Well:	KP 443-18	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 07Jun10 kjs		

Project	Sec. 17-06S-091W, 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 13-17 Pad		
Site Position:		Northing:	1,623,236.70 usft
From:	Map	Easting:	2,411,346.10 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13.200 in
		Latitude:	39° 31' 33.607 N
		Longitude:	107° 35' 13.255 W
		Grid Convergence:	-1.316 °

Well	KP 443-18 - Slot B5		
Well Position	+N/-S	0.0 usft	Northing: 1,623,229.80 usft
	+E/-W	0.0 usft	Easting: 2,411,336.80 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	Latitude: 39° 31' 33.537 N
			Longitude: 107° 35' 13.372 W
			Ground Level: 6,203.0 usft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination
	IGRF2010	6/7/2010	(°)
			10.303
			Dip Angle
			(°)
			65.868
			Field Strength
			(nT)
			52,422

Design	Design #1 07Jun10 kjs		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction
			(°)
			254.36

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	
140.0	0.00	0.00	140.0	0.0	0.0	0.00	0.00	0.00	0.000	
637.1	14.91	254.36	631.5	-17.3	-61.9	3.00	3.00	0.00	254.359	
3,406.9	14.91	254.36	3,308.0	-209.5	-748.3	0.00	0.00	0.00	0.000	
4,401.1	0.00	0.00	4,291.0	-244.2	-872.2	1.50	-1.50	0.00	180.000	
4,501.1	0.00	0.00	4,391.0	-244.2	-872.2	0.00	0.00	0.00	0.000	UMV_PC (25' Radius)
7,405.1	0.00	0.00	7,295.0	-244.2	-872.2	0.00	0.00	0.00	0.000	

Williams
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well KP 443-18 - Slot B5
Company:	KOKOPELLI FIELD	TVD Reference:	KELLY BUSHING @ 6229.0usft (Nabors 574 (26' RKB) kjs)
Project:	Sec. 17-06S-091W	MD Reference:	KELLY BUSHING @ 6229.0usft (Nabors 574 (26' RKB) kjs)
Site:	KP 13-17 Pad	North Reference:	True
Well:	KP 443-18	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 07Jun10 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	1,623,229.80	2,411,336.80	39° 31' 33.537 N	107° 35' 13.372 W
140.0	0.00	0.00	140.0	0.0	0.0	1,623,229.80	2,411,336.80	39° 31' 33.537 N	107° 35' 13.372 W
Start Build 3.00									
637.1	14.91	254.36	631.5	-17.3	-61.9	1,623,213.88	2,411,274.48	39° 31' 33.366 N	107° 35' 14.163 W
Hold 14.91 Inclination									
653.1	14.91	254.36	647.0	-18.5	-65.9	1,623,212.86	2,411,270.48	39° 31' 33.355 N	107° 35' 14.213 W
Offset Water Well TD									
741.0	14.91	254.36	731.9	-24.6	-87.7	1,623,207.27	2,411,248.57	39° 31' 33.294 N	107° 35' 14.491 W
9 5/8"									
3,406.9	14.91	254.36	3,308.0	-209.5	-748.3	1,623,037.53	2,410,583.85	39° 31' 31.466 N	107° 35' 22.923 W
Start Drop -1.50									
3,604.3	11.95	254.36	3,500.0	-221.9	-792.5	1,623,026.18	2,410,539.43	39° 31' 31.344 N	107° 35' 23.486 W
Mesaverde									
4,401.1	0.00	0.00	4,291.0	-244.2	-872.2	1,623,005.70	2,410,459.20	39° 31' 31.123 N	107° 35' 24.504 W
Vertical									
4,501.1	0.00	0.00	4,391.0	-244.2	-872.2	1,623,005.70	2,410,459.20	39° 31' 31.123 N	107° 35' 24.504 W
UMV_PC - UMV_PC									
4,655.1	0.00	0.00	4,545.0	-244.2	-872.2	1,623,005.70	2,410,459.20	39° 31' 31.123 N	107° 35' 24.504 W
Approx. Top Gas									
6,399.1	0.00	0.00	6,289.0	-244.2	-872.2	1,623,005.70	2,410,459.20	39° 31' 31.123 N	107° 35' 24.504 W
Upper Sand									
6,986.1	0.00	0.00	6,876.0	-244.2	-872.2	1,623,005.70	2,410,459.20	39° 31' 31.123 N	107° 35' 24.504 W
Cameo Coals									
7,255.1	0.00	0.00	7,145.0	-244.2	-872.2	1,623,005.70	2,410,459.20	39° 31' 31.123 N	107° 35' 24.504 W
Rollins SS									
7,405.1	0.00	0.00	7,295.0	-244.2	-872.2	1,623,005.70	2,410,459.20	39° 31' 31.123 N	107° 35' 24.504 W
TD at 7405.1 - 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	4,391.0	-244.2	-872.2	1,623,005.70	2,410,459.20	39° 31' 31.123 N	107° 35' 24.504 W
- hit/miss target									
- Shape									
- plan hits target center									
- Circle (radius 25.0)									

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)
741.0	731.9	9 5/8"	9.625	12.250

Williams

Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well KP 443-18 - Slot B5
Company:	KOKOPELLI FIELD	TVD Reference:	KELLY BUSHING @ 6229.0usft (Nabors 574 (26" RKB) kjs)
Project:	Sec. 17-06S-091W	MD Reference:	KELLY BUSHING @ 6229.0usft (Nabors 574 (26" RKB) kjs)
Site:	KP 13-17 Pad	North Reference:	True
Well:	KP 443-18	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 07Jun10 kjs		

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
653.1	647.0	Offset Water Well TD			
3,604.3	3,500.0	Mesaverde			
4,501.1	4,391.0	UMV_PC			
4,655.1	4,545.0	Approx. Top Gas			
6,399.1	6,289.0	Upper Sand			
6,986.1	6,876.0	Cameo Coals			
7,255.1	7,145.0	Rollins SS			
7,405.1	7,295.0	TD			

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
140.0	140.0	0.0	0.0	Start Build 3.00
637.1	631.5	-17.3	-61.9	Hold 14.91 Inclination
3,406.9	3,308.0	-209.5	-748.3	Start Drop -1.50
4,401.1	4,291.0	-244.2	-872.2	Vertical
4,501.1	4,391.0	-244.2	-872.2	UMV_PC
7,405.1	7,295.0	-244.2	-872.2	TD at 7405.1