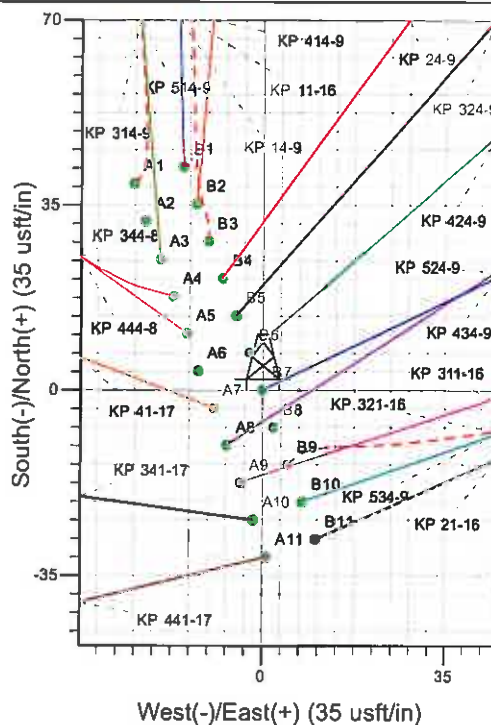
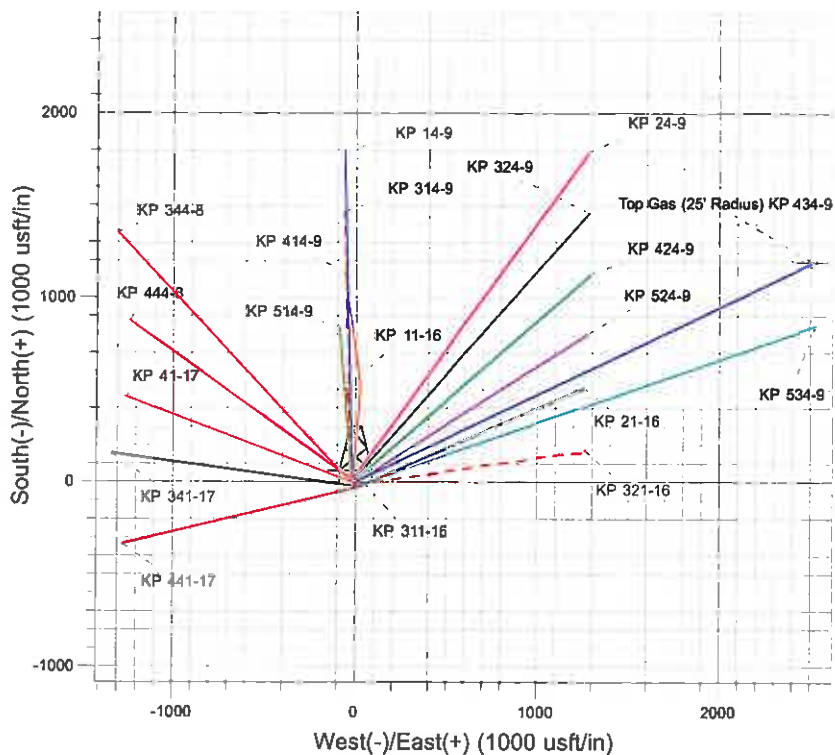
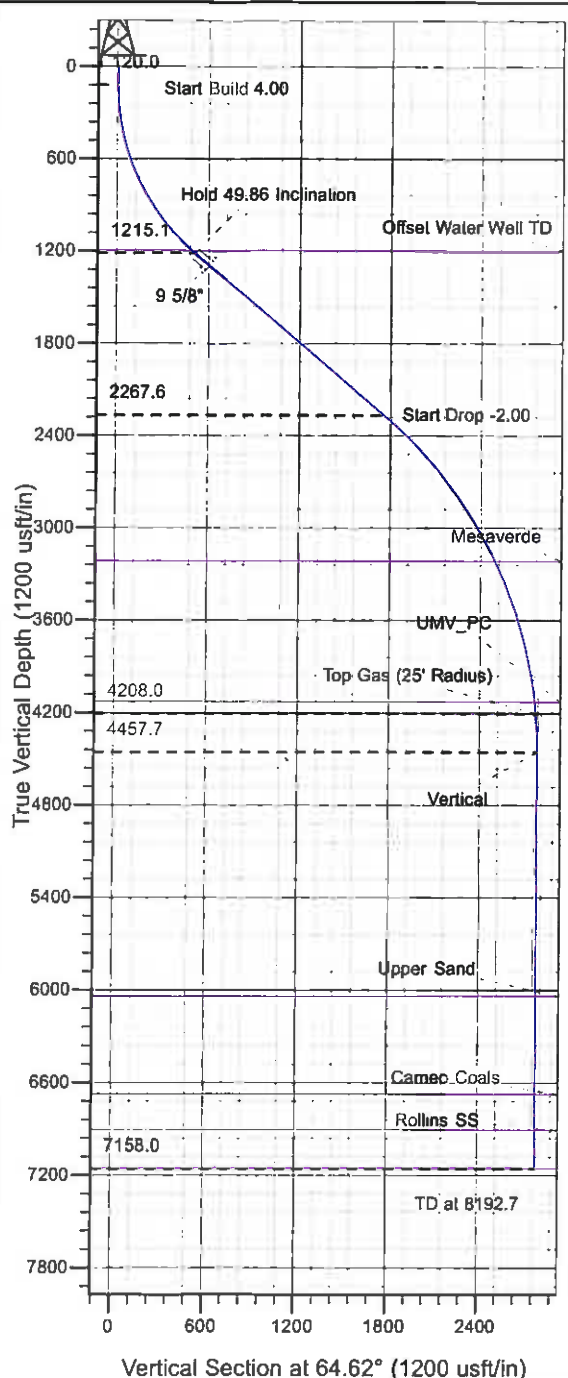




Well Name: KP 434-9
 Surface Location: KP 11-16 Pad
 North American Datum 1983, US State Plane 1983 Colorado Central Zone
 Ground Elevation: 6632.0
 +N/-S +E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1625789.80 2417115.50 39° 32' 0.138 N 107° 34' 0.385 W B7
 KELLY BUSHING @ 6654.0usft (Cyclone 17 (22' RKB) kjs)



Project: Sec. 16-T6S-R91W
 Site: KP 11-16 Pad
 Well: KP 434-9
 Design #1 15Aug11 kjs



Azimuths to True North
 Magnetic North: 10.11°
 Magnetic Field
 Strength: 52336.6nT
 Dip Angle: 65.86°
 Date: 8/15/2011
 Model: IGRF2005-10

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 4.00
1215.1	1366.5	49.86	64.62	218.2	459.9	509.0	509.0	Hold 49.86 Inclination
2267.6	2999.3	49.86	64.62	753.3	1587.6	1757.2	1757.2	Start Drop -2.00
4208.0	5242.4	5.00	64.62	1185.1	2497.5	2764.4	2764.4	Top Gas
4457.7	5492.4	0.00	0.00	1189.7	2507.4	2775.3	2775.3	Vertical
7158.0	8192.7	0.00	0.00	1189.7	2507.4	2775.3	2775.3	TD at 8192.7

KOKOPELLI FIELD

Sec. 16-T6S-R91W

KP 11-16 Pad

KP 434-9 - Slot B7

Wellbore #1

Plan: Design #1 15Aug11 kjs

Standard Planning Report - Geographic

13 October, 2011

Williams
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well KP 434-9 - Slot B7
Company:	KOKEPELLI FIELD	TVD Reference:	KELLY BUSHING @ 6654.0usft (Cyclone 17 (22' RKB) kjs)
Project:	Sec. 16-T6S-R91W	MD Reference:	KELLY BUSHING @ 6654.0usft (Cyclone 17 (22' RKB) kjs)
Site:	KP 11-16 Pad	North Reference:	True
Well:	KP 434-9	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 15Aug11 kjs		

Project	Sec. 16-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 11-16 Pad				
Site Position:		Northing:	1,625,762.90 usft	Latitude:	39° 31' 59.871 N
From:	Map	Easting:	2,417,113.40 usft	Longitude:	107° 34' 0.404 W
Position Uncertainty:	0.0 usft	Slot Radius:	0 "	Grid Convergence:	-1.30 °

Well	KP 434-9 - Slot B7					
Well Position	+N/-S	0.0 usft	Northing:	1,625,789.80 usft	Latitude:	39° 32' 0.138 N
	+E/-W	0.0 usft	Easting:	2,417,115.50 usft	Longitude:	107° 34' 0.385 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	6,632.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2005-10	8/15/2011	10.11	65.86	52,337

Design	Design #1 15Aug11 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	64.62

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	0.00	
120.0	0.00	0.00	120.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,366.5	49.86	64.62	1,215.1	218.2	459.9	4.00	4.00	0.00	64.62	
2,999.3	49.86	64.62	2,267.6	753.3	1,587.6	0.00	0.00	0.00	0.00	
5,242.4	5.00	64.62	4,208.0	1,185.1	2,497.5	2.00	-2.00	0.00	180.00	Top Gas (25' Radius)
5,492.4	0.00	0.00	4,457.7	1,189.7	2,507.4	2.00	-2.00	0.00	180.00	
8,192.7	0.00	0.00	7,158.0	1,189.7	2,507.4	0.00	0.00	0.00	0.00	

Williams
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well KP 434-9 - Slot B7
Company:	KOKOPELLI FIELD	TVD Reference:	KELLY BUSHING @ 6654.0usft (Cyclone 17 (22' RKB) kjs)
Project:	Sec. 16-T6S-R91W	MD Reference:	KELLY BUSHING @ 6654.0usft (Cyclone 17 (22' RKB) kjs)
Site:	KP 11-16 Pad	North Reference:	True
Well:	KP 434-9	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 15Aug11 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	1,625,789.80	2,417,115.50	39° 32' 0.138 N	107° 34' 0.385 W
120.0	0.00	0.00	120.0	0.0	0.0	1,625,789.80	2,417,115.50	39° 32' 0.138 N	107° 34' 0.385 W
Start Build 4.00									
1,337.3	48.69	64.62	1,196.0	208.7	439.9	1,625,988.46	2,417,560.02	39° 32' 2.201 N	107° 33' 54.770 W
Offset Water Well TD									
1,366.5	49.86	64.62	1,215.1	218.2	459.9	1,625,997.49	2,417,580.23	39° 32' 2.294 N	107° 33' 54.515 W
Hold 49.86 Inclination									
1,492.1	49.86	64.62	1,296.0	259.4	546.6	1,626,036.66	2,417,667.87	39° 32' 2.701 N	107° 33' 53.408 W
9 5/8"									
2,999.3	49.86	64.62	2,267.6	753.3	1,587.6	1,626,506.79	2,418,719.82	39° 32' 7.583 N	107° 33' 40.121 W
Start Drop -2.00									
4,209.2	25.66	64.62	3,217.0	1,068.6	2,252.0	1,626,806.88	2,419,391.27	39° 32' 10.698 N	107° 33' 31.639 W
Mesaverde									
5,165.0	6.55	64.62	4,131.0	1,181.7	2,490.5	1,626,914.56	2,419,632.21	39° 32' 11.816 N	107° 33' 28.596 W
UMV_PC									
5,242.4	5.00	64.62	4,208.0	1,185.1	2,497.5	1,626,917.74	2,419,639.32	39° 32' 11.849 N	107° 33' 28.506 W
Top Gas - Approx. Top Gas									
5,243.1	4.99	64.62	4,208.7	1,185.1	2,497.6	1,626,917.76	2,419,639.38	39° 32' 11.849 N	107° 33' 28.505 W
Top Gas (25' Radius) KP 434-9									
5,492.4	0.00	0.00	4,457.7	1,189.7	2,507.4	1,626,922.19	2,419,649.27	39° 32' 11.895 N	107° 33' 28.380 W
Vertical									
7,074.7	0.00	0.00	6,040.0	1,189.7	2,507.4	1,626,922.19	2,419,649.27	39° 32' 11.895 N	107° 33' 28.380 W
Upper Sand									
7,711.7	0.00	0.00	6,677.0	1,189.7	2,507.4	1,626,922.19	2,419,649.27	39° 32' 11.895 N	107° 33' 28.380 W
Cameo Coals									
7,942.7	0.00	0.00	6,908.0	1,189.7	2,507.4	1,626,922.19	2,419,649.27	39° 32' 11.895 N	107° 33' 28.380 W
Rollins SS									
8,192.7	0.00	0.00	7,158.0	1,189.7	2,507.4	1,626,922.19	2,419,649.27	39° 32' 11.895 N	107° 33' 28.380 W
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									
Top Gas (25' Radius) KF	0.00	0.00	4,208.0	1,193.1	2,512.7	1,626,925.40	2,419,654.70	39° 32' 11.928 N	107° 33' 28.312 W
- plan misses target center by 17.1usft at 5243.1usft MD (4208.7 TVD, 1185.1 N, 2497.6 E)									
- Circle (radius 25.0)									

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
1,492.1	1,296.0	9 5/8"	9-5/8	12-1/4

Williams
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well KP 434-9 - Stal B7
Company:	KOKOPELLI FIELD	TVD Reference:	KELLY BUSHING @ 6654.0usft (Cyclone 17 (22' RKB) kjs)
Project:	Sec. 16-T6S-R91W	MD Reference:	KELLY BUSHING @ 6654.0usft (Cyclone 17 (22' RKB) kjs)
Site:	KP 11-16 Pad	North Reference:	True
Well:	KP 434-9	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 15Aug11 kjs		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (")	Dip Direction (")	
1,337.3	1,196.0	Offset Water Well TD				
4,209.2	3,217.0	Mesaverde				
5,165.0	4,131.0	UMV_PC				
5,242.4	4,208.0	Approx. Top Gas				
7,074.7	6,040.0	Upper Sand				
7,711.7	6,677.0	Cameo Coals				
7,942.7	6,908.0	Rollins SS				
8,192.7	7,158.0	TD				

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 4.00
1,366.5	1,215.1	218.2	459.9	Hold 49.86 Inclination
2,999.3	2,267.6	753.3	1,587.6	Start Drop -2.00
5,242.4	4,208.0	1,185.1	2,497.5	Top Gas
5,492.4	4,457.7	1,189.7	2,507.4	Vertical
8,192.7	7,158.0	1,189.7	2,507.4	TD at 8192.7