



**Weatherford<sup>®</sup>**

## **Drilling Services**

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## **Proposal**

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YG-2

MONTEZUMA CO., CO

WELL FILE: **PLAN 1**

NOVEMBER 30, 2011

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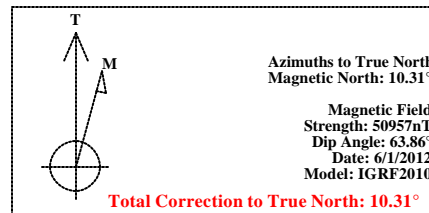
# YG-2 Montezuma Co., Colorado

SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	360.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	8008.00	0.00	360.00	8008.00	0.00	0.00	0.00	0.00	0.00	
3	8207.49	90.00	360.00	8135.00	127.00	0.00	45.11	360.00	127.00	
4	10079.49	90.00	360.00	8135.00	1999.00	0.00	0.00	0.00	1999.00	Pbhl

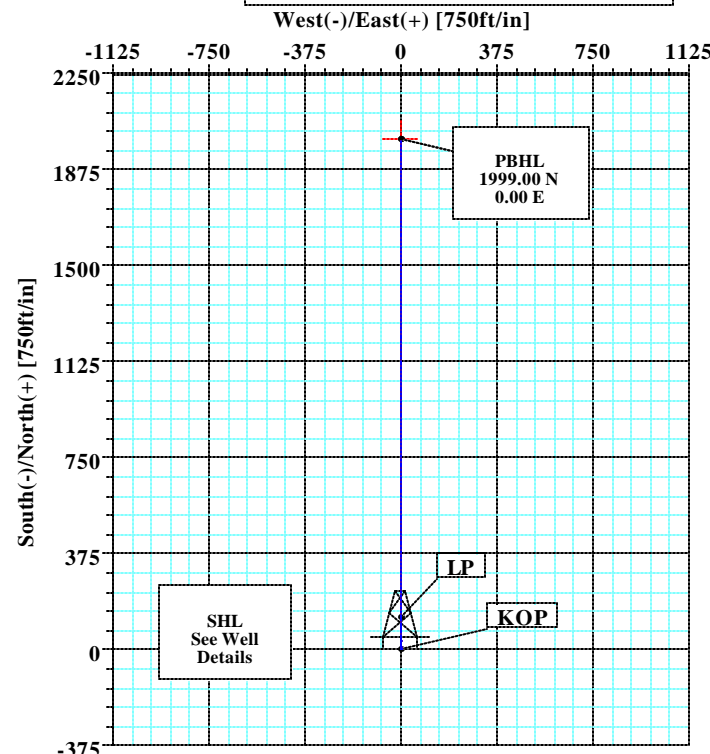
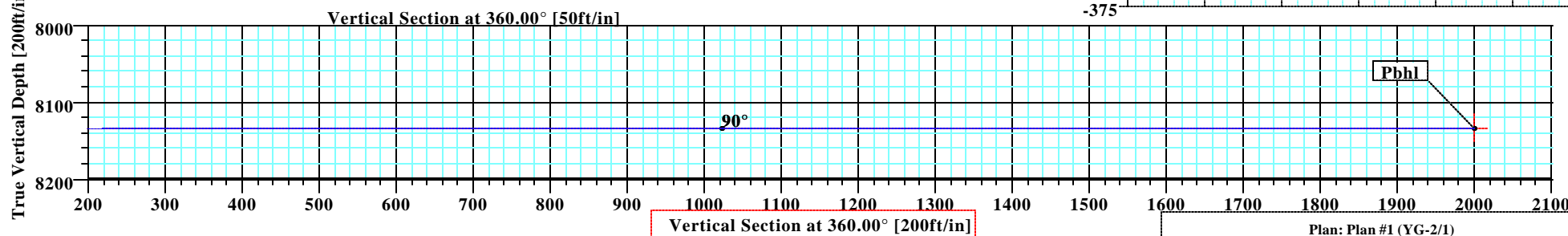
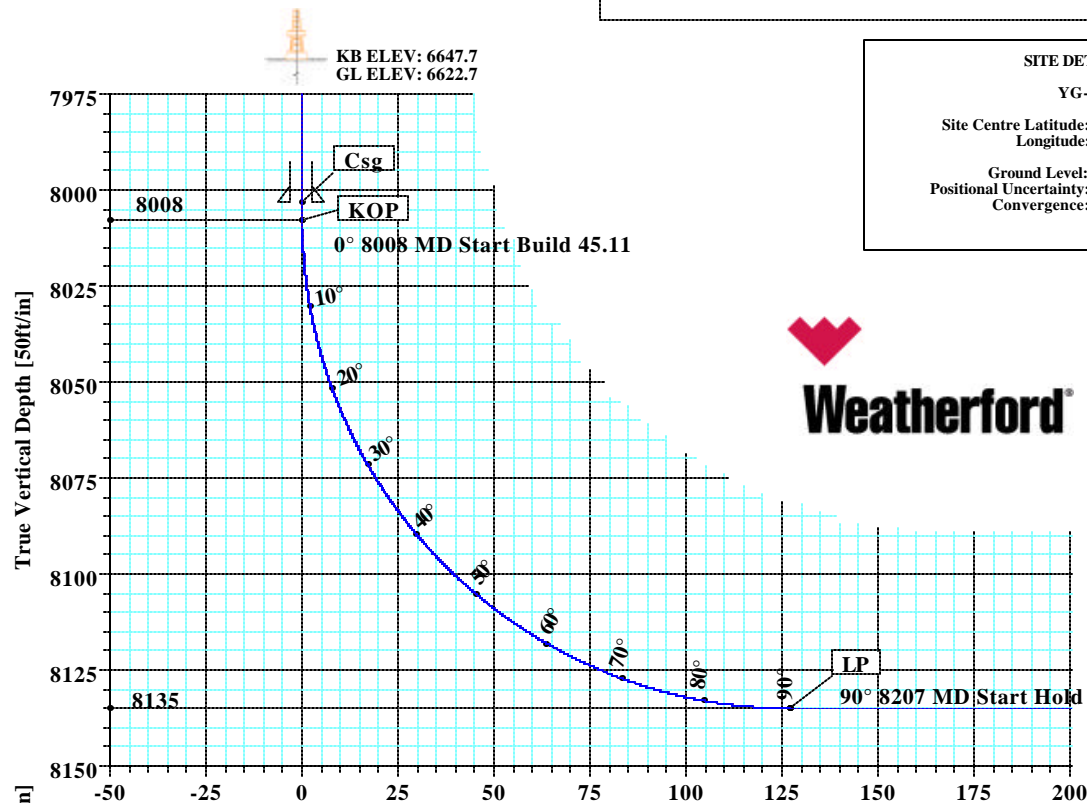
WELL DETAILS							
Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
YG-2	0.00	0.00	1306175.58	2041080.16	37°27'39.384N	108°48'16.092W	N/A

TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape	
Pbhl	8135.00	1999.00	0.00	1308173.33	2041150.86	Point	

FIELD DETAILS	
Montezuma Co., CO (NAD83) Colorado	
Geodetic System:	US State Plane Coordinate System 1983
Ellipsoid:	GRS 1980
Zone:	Colorado, Southern Zone
Magnetic Model:	IGRF2010
System Datum:	Mean Sea Level
Local North:	True North



SITE DETAILS	
YG-2	
Site Centre Latitude:	37°27'39.384N
Longitude:	108°48'16.092W
Ground Level:	6622.70
Positional Uncertainty:	0.00
Convergence:	-2.03





<b>Company:</b> Kinder Morgan <b>Field:</b> Montezuma Co., CO (NAD83) <b>Site:</b> YG-2 <b>Well:</b> YG-2 <b>Wellpath:</b> 1	<b>Date:</b> 11/30/2011 <b>Co-ordinate(NE) Reference:</b> Well: YG-2, True North <b>Vertical (TVD) Reference:</b> SITE 0.0 <b>Section (VS) Reference:</b> Well (0.00N,0.00E,360.00Azi) <b>Survey Calculation Method:</b> Minimum Curvature	<b>Time:</b> 10:41:46 <b>Page:</b> 1 <b>Db:</b> Sybase
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<b>Plan:</b> Plan #1 <b>Principal:</b> Yes	<b>Date Composed:</b> 11/30/2011 <b>Version:</b> 1 <b>Tied-to:</b> From Surface
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**Field:** Montezuma Co., CO (NAD83)  
Colorado

**Map System:** US State Plane Coordinate System 1983  
**Geo Datum:** GRS 1980  
**Sys Datum:** Mean Sea Level

**Map Zone:** Colorado, Southern Zone  
**Coordinate System:** Well Centre  
**Geomagnetic Model:** IGRF2010

**Site:** YG-2

<b>Site Position:</b>	<b>Northing:</b> 1306175.58 ft	<b>Latitude:</b> 37 27 39.384 N
<b>From:</b> Geographic	<b>Easting:</b> 2041080.16 ft	<b>Longitude:</b> 108 48 16.092 W
<b>Position Uncertainty:</b> 0.00 ft		<b>North Reference:</b> True
<b>Ground Level:</b> 6622.70 ft		<b>Grid Convergence:</b> -2.03 deg

**Well:** YG-2

**Slot Name:**

<b>Well Position:</b>	<b>Northing:</b> 1306175.58 ft	<b>Latitude:</b> 37 27 39.384 N
<b>+N/-S</b> 0.00 ft	<b>Easting :</b> 2041080.16 ft	<b>Longitude:</b> 108 48 16.092 W
<b>+E/-W</b> 0.00 ft		
<b>Position Uncertainty:</b> 0.00 ft		

**Wellpath:** 1

<b>Current Datum:</b> SITE	<b>Height</b> 0.00 ft	<b>Drilled From:</b> Surface
<b>Magnetic Data:</b> 6/1/2012		<b>Tie-on Depth:</b> 0.00 ft
<b>Field Strength:</b> 50957 nT		<b>Above System Datum:</b> Mean Sea Level
<b>Vertical Section:</b> Depth From (TVD)	<b>+N/-S</b> ft	<b>Declination:</b> 10.31 deg
		<b>Mag Dip Angle:</b> 63.86 deg
		<b>+E/-W</b> ft
		<b>Direction</b> deg
0.00	0.00	0.00 360.00

**Plan Section Information**

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	Target
0.00	0.00	360.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
8008.00	0.00	360.00	8008.00	0.00	0.00	0.00	0.00	0.00	0.00	
8207.49	90.00	360.00	8135.00	127.00	0.00	45.11	45.11	0.00	360.00	
10079.49	90.00	360.00	8135.00	1999.00	0.00	0.00	0.00	0.00	0.00	Pbhl

**Survey**

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	MapN ft	MapE ft	Comment
8003.00	0.00	360.00	8003.00	0.00	0.00	0.00	0.00	1306175.58	2041080.16	Csg KOP
8008.00	0.00	360.00	8008.00	0.00	0.00	0.00	0.00	1306175.58	2041080.16	
8010.00	0.90	360.00	8010.00	0.02	0.00	0.02	45.11	1306175.60	2041080.16	
8020.00	5.41	360.00	8019.98	0.57	0.00	0.57	45.11	1306176.15	2041080.18	
8030.00	9.93	360.00	8029.89	1.90	0.00	1.90	45.11	1306177.48	2041080.23	
8040.00	14.44	360.00	8039.66	4.01	0.00	4.01	45.11	1306179.59	2041080.30	
8050.00	18.95	360.00	8049.24	6.88	0.00	6.88	45.11	1306182.46	2041080.40	
8060.00	23.46	360.00	8058.56	10.50	0.00	10.50	45.11	1306186.07	2041080.53	
8070.00	27.97	360.00	8067.57	14.84	0.00	14.84	45.11	1306190.41	2041080.68	
8080.00	32.48	360.00	8076.20	19.87	0.00	19.87	45.11	1306195.44	2041080.86	
8090.00	36.99	360.00	8084.42	25.57	0.00	25.57	45.11	1306201.13	2041081.06	
8100.00	41.51	360.00	8092.16	31.89	0.00	31.89	45.11	1306207.45	2041081.29	
8110.00	46.02	360.00	8099.38	38.81	0.00	38.81	45.11	1306214.36	2041081.53	
8120.00	50.53	360.00	8106.04	46.27	0.00	46.27	45.11	1306221.82	2041081.80	
8130.00	55.04	360.00	8112.08	54.23	0.00	54.23	45.11	1306229.78	2041082.08	
8140.00	59.55	360.00	8117.48	62.64	0.00	62.64	45.11	1306238.18	2041082.38	
8150.00	64.06	360.00	8122.21	71.45	0.00	71.45	45.11	1306246.99	2041082.69	



<b>Company:</b> Kinder Morgan	<b>Date:</b> 11/30/2011	<b>Time:</b> 10:41:46	<b>Page:</b> 2
<b>Field:</b> Montezuma Co., CO (NAD83)	<b>Co-ordinate(NE) Reference:</b> Well: YG-2, True North		
<b>Site:</b> YG-2	<b>Vertical (TVD) Reference:</b> SITE 0.0		
<b>Well:</b> YG-2	<b>Section (VS) Reference:</b> Well (0.00N,0.00E,360.00Azi)		
<b>Wellpath:</b> 1	<b>Survey Calculation Method:</b> Minimum Curvature	<b>Db:</b> Sybase	

### Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	MapN ft	MapE ft	Comment
8160.00	68.57	360.00	8126.22	80.61	0.00	80.61	45.11	1306256.14	2041083.01	
8170.00	73.09	360.00	8129.51	90.05	0.00	90.05	45.11	1306265.58	2041083.34	
8180.00	77.60	360.00	8132.04	99.72	0.00	99.72	45.11	1306275.24	2041083.69	
8190.00	82.11	360.00	8133.80	109.56	0.00	109.56	45.11	1306285.08	2041084.03	
8200.00	86.62	360.00	8134.78	119.51	0.00	119.51	45.11	1306295.02	2041084.39	
8207.49	90.00	360.00	8135.00	127.00	0.00	127.00	45.11	1306302.50	2041084.65	LP
8300.00	90.00	360.00	8135.00	219.51	0.00	219.51	0.00	1306394.95	2041087.92	
8400.00	90.00	360.00	8135.00	319.51	0.00	319.51	0.00	1306494.89	2041091.46	
8500.00	90.00	360.00	8135.00	419.51	0.00	419.51	0.00	1306594.83	2041095.00	
8600.00	90.00	360.00	8135.00	519.51	0.00	519.51	0.00	1306694.77	2041098.53	
8700.00	90.00	360.00	8135.00	619.51	0.00	619.51	0.00	1306794.70	2041102.07	
8800.00	90.00	360.00	8135.00	719.51	0.00	719.51	0.00	1306894.64	2041105.61	
8900.00	90.00	360.00	8135.00	819.51	0.00	819.51	0.00	1306994.58	2041109.14	
9000.00	90.00	360.00	8135.00	919.51	0.00	919.51	0.00	1307094.52	2041112.68	
9100.00	90.00	360.00	8135.00	1019.51	0.00	1019.51	0.00	1307194.45	2041116.22	
9200.00	90.00	360.00	8135.00	1119.51	0.00	1119.51	0.00	1307294.39	2041119.75	
9300.00	90.00	360.00	8135.00	1219.51	0.00	1219.51	0.00	1307394.33	2041123.29	
9400.00	90.00	360.00	8135.00	1319.51	0.00	1319.51	0.00	1307494.26	2041126.83	
9500.00	90.00	360.00	8135.00	1419.51	0.00	1419.51	0.00	1307594.20	2041130.37	
9600.00	90.00	360.00	8135.00	1519.51	0.00	1519.51	0.00	1307694.14	2041133.90	
9700.00	90.00	360.00	8135.00	1619.51	0.00	1619.51	0.00	1307794.08	2041137.44	
9800.00	90.00	360.00	8135.00	1719.51	0.00	1719.51	0.00	1307894.01	2041140.98	
9900.00	90.00	360.00	8135.00	1819.51	0.00	1819.51	0.00	1307993.95	2041144.51	
10000.00	90.00	360.00	8135.00	1919.51	0.00	1919.51	0.00	1308093.89	2041148.05	
10079.49	90.00	360.00	8135.00	1999.00	0.00	1999.00	0.00	1308173.33	2041150.86	Pbhl

### Targets

Name	Description Dip.	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<--- Latitude ---> Deg Min Sec	<--- Longitude ---> Deg Min Sec
Pbhl			8135.00	1999.00	0.00	1308173.33	2041150.86	37 27 59.148 N	108 48 16.092 W

### Casing Points

MD ft	TVD ft	Diameter in	Hole Size in	Name
8003.00	8003.00	7.000	0.000	Csg

### Annotation

MD ft	TVD ft	
8008.00	8008.00	KOP
8207.49	8135.00	LP
10079.48	8135.00	Pbhl

### Formations

MD	TVD	Formations	Lithology	Dip Angle	Dip Direction

**Weatherford®****Weatherford Drilling Services**

GeoDec v5.03

Report Date: November 30, 2011

Job Number: \_\_\_\_\_

Customer: Kinder Morgan

Well Name: YG-2

API Number: \_\_\_\_\_

Rig Name: \_\_\_\_\_

Location: Montezuma Co., CO

Block: \_\_\_\_\_

Engineer: Patrick Rudolph

Geodetic Latitude / Longitude

System: Latitude / Longitude

Projection: Geodetic Latitude and Longitude

Datum: North American Datum 1983

Ellipsoid: GRS 1980

Latitude 37.4609400 DEG

Longitude -108.8044700 DEG

Geodetic Latitude / Longitude

System: Latitude / Longitude

Projection: Geodetic Latitude and Longitude

Datum: North American Datum 1983

Ellipsoid: GRS 1980

Latitude 37 27 39.3840000 DMS

Longitude -108 48 16.0920000 DMS

Geodetic Location WGS84

Elevation = 0.0 Meters

Latitude = 37.46094° N 37° 27 min 39.384 sec

Longitude = 108.80447° W 108° 48 min 16.092 sec

Magnetic Declination = 10.31° [True North Offset]

Local Gravity = .9993 g CheckSum = 7473

Local Field Strength = 50953 nT Magnetic Vector X = 22088 nT

Magnetic Dip = 63.86° Magnetic Vector Y = 4018 nT

Magnetic Model = IGRF-2010g11 Magnetic Vector Z = 45740 nT

Spud Date = Jun 01, 2012 Magnetic Vector H = 22451 nT

Signed: \_\_\_\_\_

Date: \_\_\_\_\_