



DRILLING PROGRAM  
BHR Fed O23-14-397-2RH  
SW/4, SE/4 S23 T3N R97W  
Rio Blanco Co., Colorado

Surface Lat. 40.20972° Long: -108.24106°  
BH Lat. 40.234518° Long: -108.239614°  
Graded 6,023'  
CB: 25'

## 1.0 ESTIMATED FORMATION TOPS

FORMATION	TVD(KB)	MD(KB)
Wasatch	25'	
Mesaverde	1,830'	
Loss Zone 1 (in H1 Sidetrack)	3,120'	
Rollins	5,307'	5,330'
Loss Zone 2 (in H1 Sidetrack)	5,720'	
Sego-Lower	6,569'	6,608'
Castlegate	6,985'	7,028'
Mancos - Marker 6 - Condensed Section	8,324'	8,382'
Niobrara - Buck Peak	* 9,635'	9,709'
Niobrara - Tow Creek	* 10,089'	10,168'
Niobrara - Wolf Mountain	* 10,468'	10,553'
Niobrara - Hot Wolf Mtn - Rangely Bench	* 10,827'	
Top Target	* 10,866'	
Target	10,898'	11,174'
Base Target	10,936'	

## 2.0 ESTIMATED DEPTHS AT WHICH WATER, OIL, GAS, OR OTHER MINERAL BEARING FORMATIONS ARE EXPECTED TO BE ENCOUNTERED

- A. Formations marked with an asterisk (\*) in "1.0" above indicate anticipated oil or gas bearing formations.
- B. Several water zones were identified within the Mesaverde and Upper Mancos stratigraphic units between 3,300' (base of surface casing) and 6,416' MD using open hole logs from the 23-3-97 #1 vertical pilot hole (API # 05-103-11954-00) located on same pad from which the BHR Fed O23-14-397-2RH will be drilled. These porous rock units have been noted, and casing design for proposed O23-14-397-2RH well has taken these into account so that surface and intermediate casing will cover all identified zones.

## 3.0 CASING AND CEMENTING WILL BE DONE TO PROTECT POTENTIALLY PRODUCTIVE HYDROCARBONS, FRESH WATER ZONES, ABNORMAL PRESSURE ZONES, AND PROSPECTIVELY VALUABLE MINERAL DEPOSITS.

- A. Casing Head: 13-5/8" 5M x 13-3/8", With Flange at Ground Level  
Tubing Head: 13-5/8" 5M x 7-1/6" 10M
- B. Operators minimum specifications for pressure control equipment are shown on the attached BOP schematic. After running surface and intermediate casing, and prior to drilling out, all BOPE (blind rams, pipe rams, manifold, etc.) and related equipment will be pressure tested to 100% of the BOP's rated working pressure. The Annular Preventer will be tested to 70% of its rated working pressure. Thereafter, the BOPE will be checked daily for mechanical operations. Such check will be noted in the IADC drilling reports. BOPE will be tested to a low pressure of 250 psi prior to testing to the high pressures indicated above.

### 4.0a PROPOSED CASING PROGRAM

Section	Top (MD)	Bottom (MD)	Hole	Csg OD	Wt (lb/ft)	Grade	Thread	Length
Conductor:	Surface	80'	26"	20"	104	XHY	PE	80'
Surface:	Surface	3,300'	17 1/2"	13-3/8"	68.0	J55	BTC	3,300'
Intermediate:	Surface	10,100'	12 1/4"	9 5/8"	43.5	HCP110	BTC	10,100'
Production:	Surface	20,767'	8 1/2"	5 1/2"	20.0	P110	BTC	20,767'

**NOTE: All casing installed shall be NEW CONDITION**

### 4.0b CASING PROPERTIES DESIGN FACTORS

Section	Interval (MD)	Casing	ID	COLLAPSE (psi)	BURST (psi)	TENSION (k-lbs)*
Conductor:	Surface - 80'	20", 104#, XHY, PE	19.0000"	n/a	n/a	n/a
Surface:	Surface - 3,300'	13-3/8", 68#, J55, BTC	12.4150"	1,950	3,450	1,069
Intermediate:	Surface - 10,100'	9 5/8", 43.5#, HCP110, BTC	8.7550"	5,440	8,710	1,381
Production:	Surface - 20,767'	5 1/2", 20#, P110, BTC	4.7780"	11,100	12,650	641

\* Body Strength



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BHL: Lat. 40.234518° Long: -108.239614°  
Graded GL: 6,023'  
KB: 25'

CASING RATING / DESIGN SAFETY FACTORS									
Section	Interval (MD)	Casi	COLLAPSE (psi)		BURST (psi)		TENSION (k-lbs)		
Conductor:	Surface - 80'	20", 104#, XHY, PE	n/a	/	n/a	/	n/a	/	n/a
Surface:	Surface - 3,300'	13-3/8", 68#, J55, BTC	1.0	/	1.3	/	1.90	/	2.3
Intermediate:	Surface - 10,100'	9 5/8", 43.5#, HCP110, BTC	1.0	/	1.1	/	1.95	/	2.9
Production:	Surface - 20,767'	5 1/2", 20#, P110, BTC	1.0	/	1.5	/	1.3	/	2.2

## 5.0 CEMENTING PROGRAM

### 5.1 Surface Casing Cementing Program

<b>Surface Casing Set At:</b>		<b>3,300' MD(KB)</b>							
	Density (lb/gal)	Fill Up (ft)	Volume (ft³)	Excess (%)	Total Vol + % Excess		Yield (ft³/sx)		
					(bbl)	(ft³)		Sacks	
Lead:	12.0	2,800'	1,945 ft³	50%	519 bbl	2,917 ft³	2.5 ft³/sx	1166	
Tail:	12.5	500'	347 ft³	0%	62 bbl	347 ft³	2.22 ft³/sx	156	
Shoe:	12.5	43'	36 ft³	0%	6 bbl	36 ft³	2.22 ft³/sx	16	
Slurry Recipes									
Lead:	Type III + Additives								
Tail:	Type III + Additives								
Shoe Track:	Same Slurry As Tail.								

### 5.2 Intermediate Casing Cementing Program

<b>Intermediate Casing Set At:</b>		<b>10,100' MD(KB)</b>							
	Density (lb/gal)	Fill Up (ft)	Volume (ft³)	Excess (%)	Total Vol + % Excess		Yield (ft³/sx)		
					(bbl)	(ft³)		Sacks	
Lead:	12.5	5,024'	1,578 ft³	10%	308bbl	1729ft³	2.07ft³/sx	835	
Tail:	13.5	1,976'	619 ft³	10%	121 bbl	681 ft³	1.9 ft³/sx	358	
Shoe:	13.5	43'	18 ft³	0%	3 bbl	18 ft³	1.9 ft³/sx	9	
Slurry Recipes									
Lead:	Type III + Additives								
Tail:	50/50 Class G / POZ + Additives								
Shoe Track:	Same Slurry As Tail.								

### 5.3 Production Casing Cementing Program

<b>Production Casing Set:</b>		<b>20,767' MD(KB)</b>							
	Density (lb/gal)	Fill Up (ft)	Volume (ft³)	Excess (%)	Total Vol + % Excess		Yield (ft³/sx)		
					(bbl)	(ft³)		Sacks	
Lead:	13.5	200'	51 ft³	0%	4 bbl	51 ft³	1.85 ft³/sx	27	
Tail:	13.5	10,667'	2444 ft³	10%	478 bbl	2,688 ft³	1.85 ft³/sx	1452	
Shoe:	13.5	43'	4 ft³	0%	1 bbl	5 ft³	1.85 ft³/sx	3	
Slurry Recipes									
Lead:	50/50 Class G / POZ + Additives								
Tail:	50/50 Class G / POZ + Additives								
Shoe Track:	Same Slurry As Tail								

## 6.0 DRILLING MUD PROGRAM

Hole Section	From	To	Mud Type	MW (lb/gal)	Vis (sec/q)	PV (cP)	YP (lb/100 ft²)	LGS (%)	pH	API WL	HPHT (ml)	O/W (o:w)	E	WPS (mg/l)
Surface	80'	3,300'	LSND	8.5-9.0	30-45	8-20	6-12	<6%	8.5-9.5	12-20	-	-	-	-
Intermediate	3,300'	10,100'	LSND	8.5-9.5	30-45	8-20	6-12	<6%	8.5-9.5	6-8	-	-	-	-
Production	10,100'	20,767'	OBM	11.0-12.0	40-60	12-20	6-14	<5%	-	-	10.0-20.0	80/20-75/25	500-900	250 <sup>k</sup> -350 <sup>k</sup>



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#### 7.0 BOTTOM HOLE PRESSURE AND TEMPERATURE

BHP (psi)	BHT Circ	BHT Static
7,082	240°F	260°F

#### 8.0 AUXILIARY EQUIPMENT

See attached schematic for BOP components  
Centrifuge to be used in Intermediate and Production Holes

#### 9.0 BLM AND COLORADO OIL & GAS COMMISSION NOTICES

- a) 24 Hours prior to spud
- b) 12 hours prior to running and cementing casing
- c) 12 hours prior to testing BOPs
- d) 24 hours prior to P&A of well

#### 10.0 DEVIATION & MWD SURVEYS AND OPEN HOLE LOGGING PROGRAM

##### 10.1 Deviation Surveys & MWD

Surface Hole: Please see attached directional plan  
Surface - TD: Please see attached directional plan

##### 10.2 Open Hole Logging Program

The first well drilled on the O23 Pad has been logged with an open-hole resistivity log with gamma-ray from TD into the surface casing. All subsequent wells on the pad will have a cement bond log with gamma-ray run on the production casing (or intermediate casing if production liner is run). All wells on the pad will have the horizontal portion of the wellbore logged with, at minimum, measured-while-drilling log with gamma-ray.

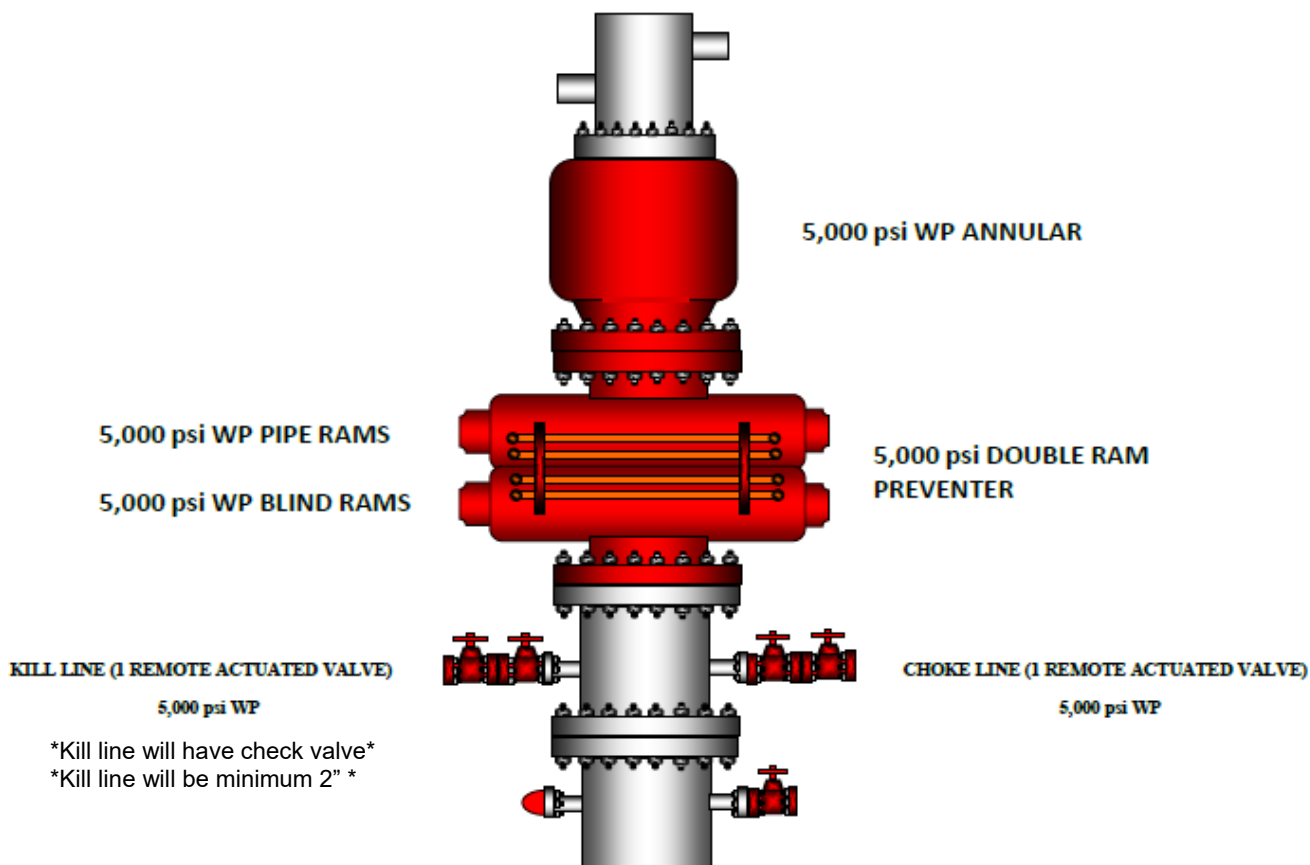


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### BOP AND PRESSURE CONTAINMENT DATA

1. BOP EQUIPMENT SHALL CONSIST OF A DOUBLE GATE, HYDRAULICALLY OPERATED ANNULAR PREVENTER WITH PIPE & BLIND RAMS OR TOW SINGLE RAM TYPE PREVENTERS. ONE EQUIPPED WITH PIPE RAMS, THE OTHER EQUIPPED WITH BLIND RAMS.
2. BOP'S ARE TO BE WELL BRACED WITH HAND CONTROLS EXTENDED CLEAR OF THE SUBSTRUCTURE.
3. ACCUMULATOR TO PROVIDE CLOSING PRESSURE IN EXCESS OF THAT REQUIRED WITH SUFFICIENT VOLUME TO OPERATE ALL COMPONENTS.
4. AUXILIARY EQUIPMENT: LOWER KELLY COCK, FULL OPENING STARBBING VALVE, 2½" CHOKE MANIFOLD.
5. ALL BOP EQUIPMENT, AUXILIARY EQUIPMENT, STAND PIPE, VALVES, AND ROTARY HOSE TO BE TESTED TO THE RATED WORKING PRESSURE OF THE BOP'S AT THE TIME OF INSTALLATION AND EVERY 30 DAYS THEREAFTER. BOT'S TO BE MECHANICALLY CHECKED DAILY.
6. MODIFICATION OF HOOK-UP OR TESTING PROCEDURE MUST BE APPROVED IN WRITING ON TOWER REPORTS BY WELLSITE SUPERVISOR.



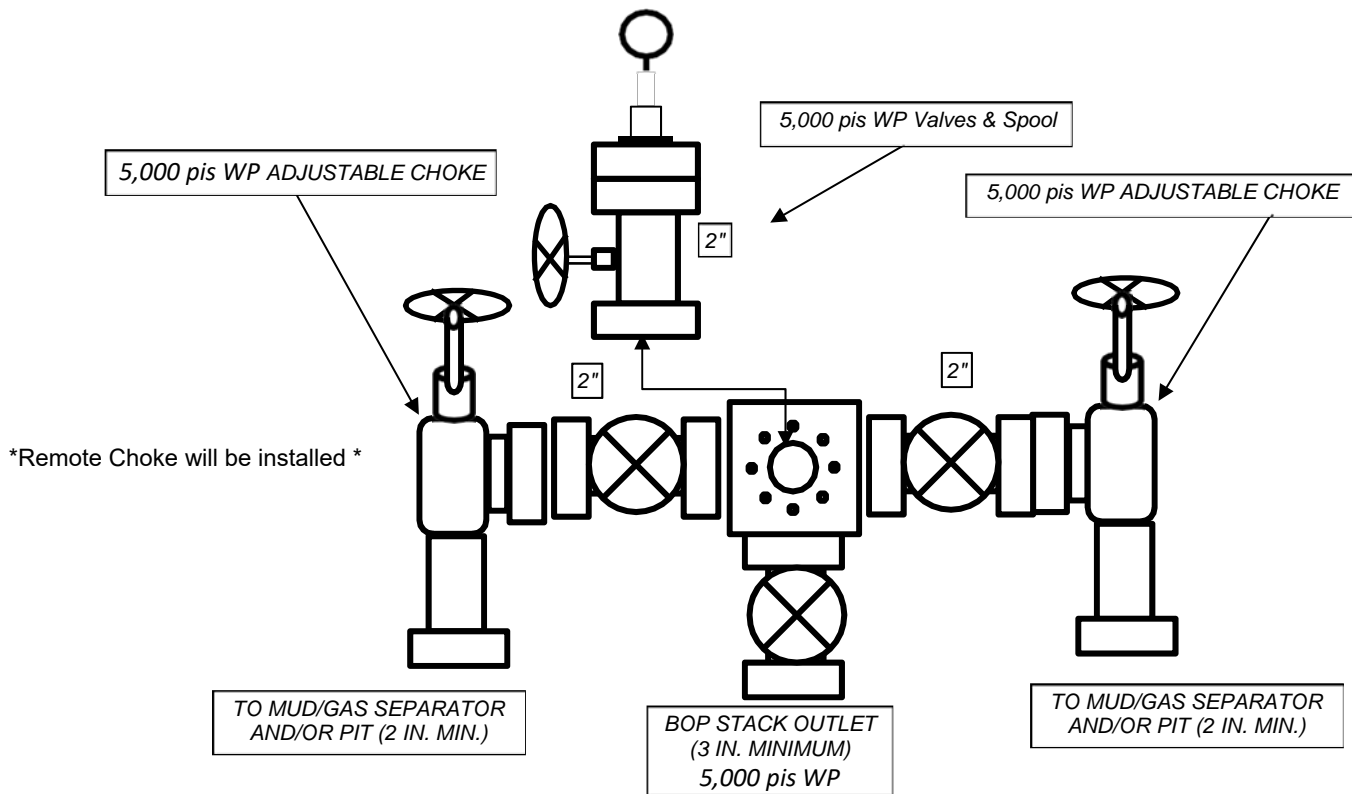


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## ATTACHMENT "B"

### PRESSURE CONTAINMENT MANIFOLD EQUIPMENT



Project: Rio Blanco County, CO  
Site: Sec 23 (Wiley 23-9-97 O Pad)  
Well: BHR Fed 023-14-397-2RH  
Wellbore: Wellbore #1  
Design: Design #2  
Latitude: 40° 12' 34.992 N  
Longitude: 108° 14' 27.816 W  
Ground Level: 6023.0  
RKB @ 6047.5usft



**PROJECT DETAILS: Rio Blanco County, CO**

Geodetic System: US State Plane 1983  
Datum: North American Datum 1983  
Ellipsoid: GRS 1980  
Zone: Colorado Northern Zone  
System Datum: Mean Sea Level

**REFERENCE INFORMATION**

Co-ordinate (N/E) Reference: Well BHR Fed 023-14-397-2RH, True North  
Vertical (TVD) Reference: RKB @ 6047.5usft  
Section (VS) Reference: Stof - (0.0N, 0.0E)  
Measured Depth Reference: RKB @ 6047.5usft  
Calculation Method: Minimum Curvature

**DESIGN TARGET DETAILS**

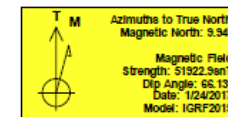
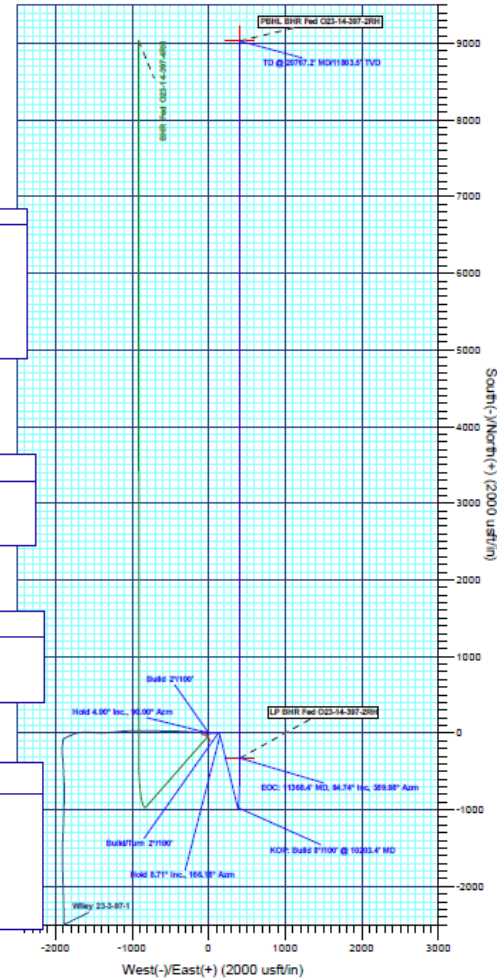
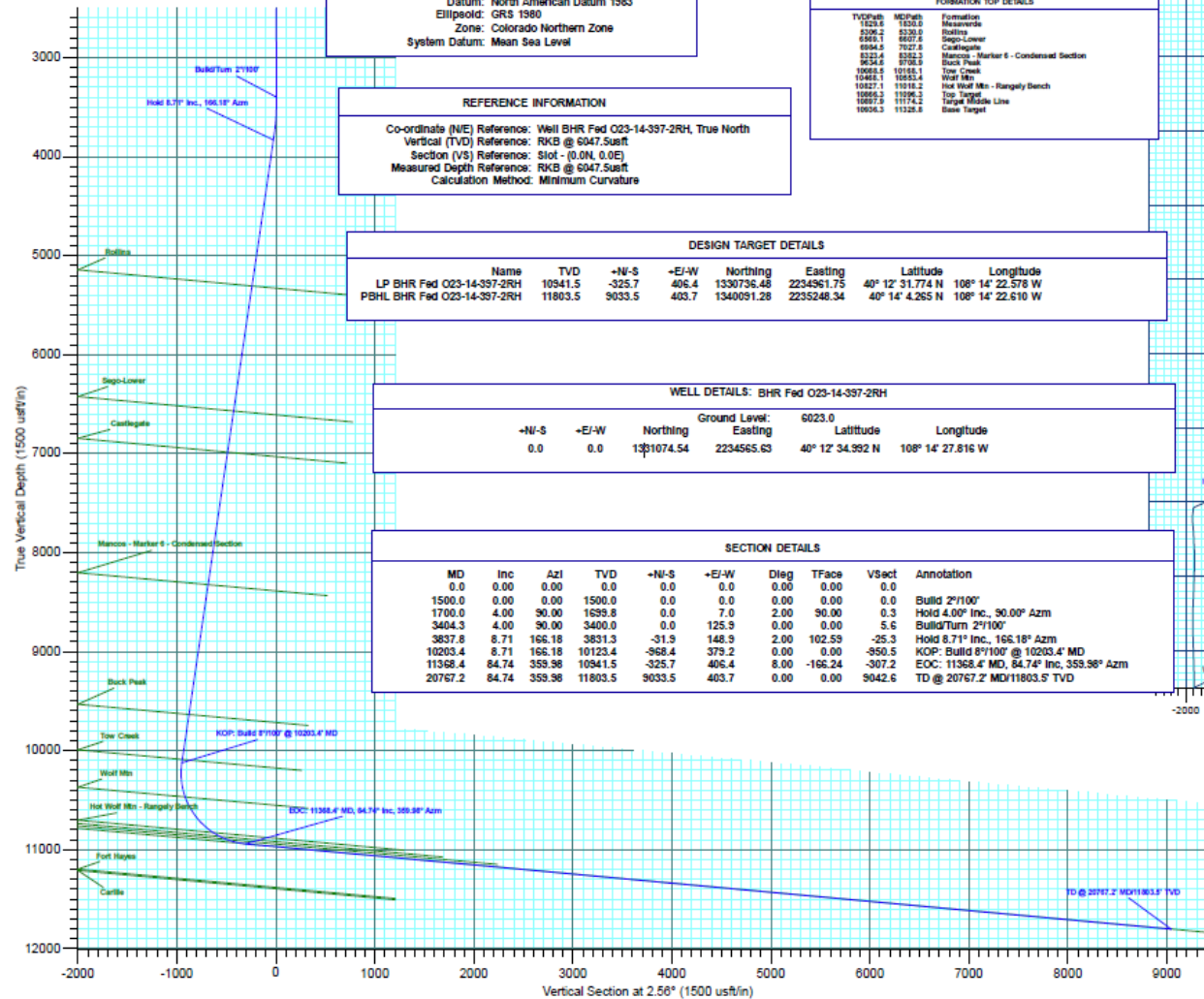
Name	TVD	+N-S	+E-W	Northing	Easting	Latitude	Longitude
LP BHR Fed 023-14-397-2RH	10941.5	-325.7	406.4	1330736.48	2234561.75	40° 12' 31.774 N	108° 14' 22.578 W
PBHL BHR Fed 023-14-397-2RH	11803.5	9033.5	403.7	1340091.28	2235248.34	40° 14' 4.265 N	108° 14' 22.610 W

**WELL DETAILS: BHR Fed 023-14-397-2RH**

+N-S	+E-W	Northing	Easting	Latitude	Longitude
0.0	0.0	1331074.54	2234565.63	40° 12' 34.992 N	108° 14' 27.816 W

**SECTION DETAILS**

MD	Inc	Azi	TVD	+N-S	+E-W	Diag	TFace	VSec	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
1500.0	0.00	0.00	1500.0	0.0	0.0	0.00	0.00	0.0	Build 2°/100'
1700.0	4.00	30.00	1699.8	0.0	7.0	2.00	30.00	0.3	Hold 4.00° Inc., 30.00° Azm
3404.3	4.00	30.00	3400.0	0.0	125.9	0.00	0.00	5.6	Build/Turn 2°/100'
3637.8	8.71	166.18	3631.3	-31.9	148.9	2.00	102.53	-25.3	Hold 8.71° Inc., 166.18° Azm
10203.4	8.71	166.18	10123.4	-968.4	379.2	0.00	-950.5	0.0	KOP: Build 8°/100' @ 10203.4' MD
11368.4	84.74	359.98	10941.5	-325.7	406.4	8.00	-166.24	-307.2	EOC: 11368.4' MD, 84.74° Inc, 359.98° Azm
20767.2	84.74	359.98	11803.5	9033.5	403.7	0.00	0.00	5042.6	TD @ 20767.2' MD/11803.5' TVD



BHR Fed 023-14-397-2RH  
Design Name: Design #2  
Created By: Shelly C. Peterson  
Date: 21:57, January 24 2017



# **Augustus Energy Partners II, LLC**

**Rio Blanco County, CO**

**Sec 23 (Wiley 23-9-97 O Pad)**

**BHR Fed O23-14-397-2RH**

**Wellbore #1**

**Plan: Design #2**

## **QES Well Planning Report**

**24 January, 2017**



Database:	EDM5002	Local Co-ordinate Reference:	Well BHR Fed O23-14-397-2RH
Company:	Augustus Energy Partners II, LLC	TVD Reference:	RKB @ 6047.5usft
Project:	Rio Blanco County, CO	MD Reference:	RKB @ 6047.5usft
Site:	Sec 23 (Wiley 23-9-97 O Pad)	North Reference:	True
Well:	BHR Fed O23-14-397-2RH	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2		

Project	Rio Blanco County, CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site	Sec 23 (Wiley 23-9-97 O Pad)				
Site Position:		Northing:	1,331,074.55 usft	Latitude:	40° 12' 34.992 N
From:	Lat/Long	Easting:	2,234,565.63 usft	Longitude:	108° 14' 27.816 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-1.77 °

Well	BHR Fed O23-14-397-2RH					
Well Position	+N/-S	0.0 usft	Northing:	1,331,074.54 usft	Latitude:	40° 12' 34.992 N
	+E/-W	0.0 usft	Easting:	2,234,565.63 usft	Longitude:	108° 14' 27.816 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	6,023.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	1/24/2017	9.94	66.13	51,923

Design	Design #2			
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	2.56

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	
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,700.0	4.00	90.00	1,699.8	0.0	7.0	2.00	2.00	0.00	90.00	
3,404.3	4.00	90.00	3,400.0	0.0	125.9	0.00	0.00	0.00	0.00	
3,837.8	8.71	166.18	3,831.3	-31.9	148.9	2.00	1.09	17.57	102.59	
10,203.4	8.71	166.18	10,123.4	-968.4	379.2	0.00	0.00	0.00	0.00	
11,368.4	84.74	359.98	10,941.5	-325.7	406.4	8.00	6.53	-14.27	-166.24	LP BHR Fed O23-14-
20,767.2	84.74	359.98	11,803.5	9,033.5	403.7	0.00	0.00	0.00	0.00	PBHL BHR Fed O23-







Database:	EDM5002	Local Co-ordinate Reference:	Well BHR Fed O23-14-397-2RH
Company:	Augustus Energy Partners II, LLC	TVD Reference:	RKB @ 6047.5usft
Project:	Rio Blanco County, CO	MD Reference:	RKB @ 6047.5usft
Site:	Sec 23 (Wiley 23-9-97 O Pad)	North Reference:	True
Well:	BHR Fed O23-14-397-2RH	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
Build 2°/100'									
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	2.00	90.00	1,600.0	0.0	1.7	0.1	2.00	2.00	0.00
Hold 4.00° Inc., 90.00° Azm									
1,700.0	4.00	90.00	1,699.8	0.0	7.0	0.3	2.00	2.00	0.00
1,800.0	4.00	90.00	1,799.6	0.0	14.0	0.6	0.00	0.00	0.00
Mesaverde									
1,830.0	4.00	90.00	1,829.6	0.0	16.0	0.7	0.00	0.00	0.00
1,900.0	4.00	90.00	1,899.4	0.0	20.9	0.9	0.00	0.00	0.00
2,000.0	4.00	90.00	1,999.1	0.0	27.9	1.2	0.00	0.00	0.00
2,100.0	4.00	90.00	2,098.9	0.0	34.9	1.6	0.00	0.00	0.00
2,200.0	4.00	90.00	2,198.6	0.0	41.9	1.9	0.00	0.00	0.00
2,300.0	4.00	90.00	2,298.4	0.0	48.8	2.2	0.00	0.00	0.00
2,400.0	4.00	90.00	2,398.1	0.0	55.8	2.5	0.00	0.00	0.00
2,500.0	4.00	90.00	2,497.9	0.0	62.8	2.8	0.00	0.00	0.00
2,600.0	4.00	90.00	2,597.6	0.0	69.8	3.1	0.00	0.00	0.00
2,700.0	4.00	90.00	2,697.4	0.0	76.7	3.4	0.00	0.00	0.00
2,800.0	4.00	90.00	2,797.2	0.0	83.7	3.7	0.00	0.00	0.00
2,900.0	4.00	90.00	2,896.9	0.0	90.7	4.0	0.00	0.00	0.00
3,000.0	4.00	90.00	2,996.7	0.0	97.7	4.4	0.00	0.00	0.00
3,100.0	4.00	90.00	3,096.4	0.0	104.6	4.7	0.00	0.00	0.00
3,200.0	4.00	90.00	3,196.2	0.0	111.6	5.0	0.00	0.00	0.00
3,300.0	4.00	90.00	3,295.9	0.0	118.6	5.3	0.00	0.00	0.00
Build/Turn 2°/100'									
3,404.3	4.00	90.00	3,400.0	0.0	125.9	5.6	0.00	0.00	0.00
3,500.0	4.04	117.56	3,496.5	-1.6	132.2	4.3	2.00	0.04	28.80
3,600.0	4.95	140.58	3,595.2	-6.5	138.1	-0.4	2.00	0.91	23.02
3,700.0	6.37	154.96	3,694.7	-14.9	143.1	-8.5	2.00	1.43	14.37
3,800.0	8.05	163.75	3,793.9	-26.6	147.4	-20.0	2.00	1.67	8.80
Hold 8.71° Inc., 166.18° Azm									
3,837.8	8.71	166.18	3,831.3	-31.9	148.9	-25.3	2.00	1.77	6.42
3,900.0	8.71	166.18	3,892.8	-41.1	151.1	-34.3	0.00	0.00	0.00
4,000.0	8.71	166.18	3,991.6	-55.8	154.7	-48.8	0.00	0.00	0.00
4,100.0	8.71	166.18	4,090.5	-70.5	158.4	-63.4	0.00	0.00	0.00
4,200.0	8.71	166.18	4,189.3	-85.2	162.0	-77.9	0.00	0.00	0.00
4,300.0	8.71	166.18	4,288.1	-99.9	165.6	-92.5	0.00	0.00	0.00
4,400.0	8.71	166.18	4,387.0	-114.7	169.2	-107.0	0.00	0.00	0.00
4,500.0	8.71	166.18	4,485.8	-129.4	172.8	-121.5	0.00	0.00	0.00
4,600.0	8.71	166.18	4,584.7	-144.1	176.4	-136.1	0.00	0.00	0.00



**Database:** EDM5002  
**Company:** Augustus Energy Partners II, LLC  
**Project:** Rio Blanco County, CO  
**Site:** Sec 23 (Wiley 23-9-97 O Pad)  
**Well:** BHR Fed 023-14-397-2RH  
**Wellbore:** Wellbore #1  
**Design:** Design #2

**Local Co-ordinate Reference:** Well BHR Fed 023-14-397-2RH  
**TVD Reference:** RKB @ 6047.5usft  
**MD Reference:** RKB @ 6047.5usft  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,700.0	8.71	166.18	4,683.5	-158.8	180.1	-150.6	0.00	0.00	0.00
4,800.0	8.71	166.18	4,782.4	-173.5	183.7	-165.1	0.00	0.00	0.00
4,900.0	8.71	166.18	4,881.2	-188.2	187.3	-179.7	0.00	0.00	0.00
5,000.0	8.71	166.18	4,980.1	-202.9	190.9	-194.2	0.00	0.00	0.00
5,100.0	8.71	166.18	5,078.9	-217.6	194.5	-208.7	0.00	0.00	0.00
5,200.0	8.71	166.18	5,177.8	-232.3	198.2	-223.3	0.00	0.00	0.00
5,300.0	8.71	166.18	5,276.6	-247.1	201.8	-237.8	0.00	0.00	0.00
Rollins									
5,330.0	8.71	166.18	5,306.2	-251.5	202.9	-242.2	0.00	0.00	0.00
5,400.0	8.71	166.18	5,375.4	-261.8	205.4	-252.3	0.00	0.00	0.00
5,500.0	8.71	166.18	5,474.3	-276.5	209.0	-266.9	0.00	0.00	0.00
5,600.0	8.71	166.18	5,573.1	-291.2	212.6	-281.4	0.00	0.00	0.00
5,700.0	8.71	166.18	5,672.0	-305.9	216.2	-295.9	0.00	0.00	0.00
5,800.0	8.71	166.18	5,770.8	-320.6	219.9	-310.5	0.00	0.00	0.00
5,900.0	8.71	166.18	5,869.7	-335.3	223.5	-325.0	0.00	0.00	0.00
6,000.0	8.71	166.18	5,968.5	-350.0	227.1	-339.6	0.00	0.00	0.00
6,100.0	8.71	166.18	6,067.4	-364.8	230.7	-354.1	0.00	0.00	0.00
6,200.0	8.71	166.18	6,166.2	-379.5	234.3	-368.6	0.00	0.00	0.00
6,300.0	8.71	166.18	6,265.1	-394.2	238.0	-383.2	0.00	0.00	0.00
6,400.0	8.71	166.18	6,363.9	-408.9	241.6	-397.7	0.00	0.00	0.00
6,500.0	8.71	166.18	6,462.8	-423.6	245.2	-412.2	0.00	0.00	0.00
6,600.0	8.71	166.18	6,561.6	-438.3	248.8	-426.8	0.00	0.00	0.00
Sego-Lower									
6,607.6	8.71	166.18	6,569.1	-439.4	249.1	-427.9	0.00	0.00	0.00
6,700.0	8.71	166.18	6,660.4	-453.0	252.4	-441.3	0.00	0.00	0.00
6,800.0	8.71	166.18	6,759.3	-467.7	256.0	-455.8	0.00	0.00	0.00
6,900.0	8.71	166.18	6,858.1	-482.4	259.7	-470.4	0.00	0.00	0.00
7,000.0	8.71	166.18	6,957.0	-497.2	263.3	-484.9	0.00	0.00	0.00
Castlegate									
7,027.8	8.71	166.18	6,984.5	-501.2	264.3	-488.9	0.00	0.00	0.00
7,100.0	8.71	166.18	7,055.8	-511.9	266.9	-499.4	0.00	0.00	0.00
7,200.0	8.71	166.18	7,154.7	-526.6	270.5	-514.0	0.00	0.00	0.00
7,300.0	8.71	166.18	7,253.5	-541.3	274.1	-528.5	0.00	0.00	0.00
7,400.0	8.71	166.18	7,352.4	-556.0	277.8	-543.0	0.00	0.00	0.00
7,500.0	8.71	166.18	7,451.2	-570.7	281.4	-557.6	0.00	0.00	0.00
7,600.0	8.71	166.18	7,550.1	-585.4	285.0	-572.1	0.00	0.00	0.00
7,700.0	8.71	166.18	7,648.9	-600.1	288.6	-586.7	0.00	0.00	0.00
7,800.0	8.71	166.18	7,747.7	-614.8	292.2	-601.2	0.00	0.00	0.00
7,900.0	8.71	166.18	7,846.6	-629.6	295.8	-615.7	0.00	0.00	0.00
8,000.0	8.71	166.18	7,945.4	-644.3	299.5	-630.3	0.00	0.00	0.00
8,100.0	8.71	166.18	8,044.3	-659.0	303.1	-644.8	0.00	0.00	0.00
8,200.0	8.71	166.18	8,143.1	-673.7	306.7	-659.3	0.00	0.00	0.00
8,300.0	8.71	166.18	8,242.0	-688.4	310.3	-673.9	0.00	0.00	0.00
Mancos - Marker 6 - Condensed Section									
8,382.3	8.71	166.18	8,323.4	-700.5	313.3	-688.8	0.00	0.00	0.00
8,400.0	8.71	166.18	8,340.8	-703.1	313.9	-688.4	0.00	0.00	0.00
8,500.0	8.71	166.18	8,439.7	-717.8	317.6	-702.9	0.00	0.00	0.00
8,600.0	8.71	166.18	8,538.5	-732.5	321.2	-717.5	0.00	0.00	0.00
8,700.0	8.71	166.18	8,637.4	-747.3	324.8	-732.0	0.00	0.00	0.00
8,800.0	8.71	166.18	8,736.2	-762.0	328.4	-746.5	0.00	0.00	0.00
8,900.0	8.71	166.18	8,835.0	-776.7	332.0	-761.1	0.00	0.00	0.00
9,000.0	8.71	166.18	8,933.9	-791.4	335.6	-775.6	0.00	0.00	0.00
9,100.0	8.71	166.18	9,032.7	-806.1	339.3	-790.1	0.00	0.00	0.00



Database: EDM5002  
 Company: Augustus Energy Partners II, LLC  
 Project: Rio Blanco County, CO  
 Site: Sec 23 (Wiley 23-9-97 O Pad)  
 Well: BHR Fed 023-14-397-2RH  
 Wellbore: Wellbore #1  
 Design: Design #2

Local Co-ordinate Reference: Well BHR Fed 023-14-397-2RH  
 TVD Reference: RKB @ 6047.5usft  
 MD Reference: RKB @ 6047.5usft  
 North Reference: True  
 Survey Calculation Method: Minimum Curvature

#### Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Bulld Rate (°/100usft)	Turn Rate (°/100usft)
9,200.0	8.71	166.18	9,131.6	-820.8	342.9	-804.7	0.00	0.00	0.00
9,300.0	8.71	166.18	9,230.4	-835.5	346.5	-819.2	0.00	0.00	0.00
9,400.0	8.71	166.18	9,329.3	-850.2	350.1	-833.8	0.00	0.00	0.00
9,500.0	8.71	166.18	9,428.1	-864.9	353.7	-848.3	0.00	0.00	0.00
9,600.0	8.71	166.18	9,527.0	-879.7	357.4	-862.8	0.00	0.00	0.00
9,700.0	8.71	166.18	9,625.8	-894.4	361.0	-877.4	0.00	0.00	0.00
<b>Buck Peak</b>									
9,708.9	8.71	166.18	9,634.6	-895.7	361.3	-878.7	0.00	0.00	0.00
9,800.0	8.71	166.18	9,724.7	-909.1	364.6	-891.9	0.00	0.00	0.00
9,900.0	8.71	166.18	9,823.5	-923.8	368.2	-906.4	0.00	0.00	0.00
10,000.0	8.71	166.18	9,922.4	-938.5	371.8	-921.0	0.00	0.00	0.00
10,100.0	8.71	166.18	10,021.2	-953.2	375.4	-935.5	0.00	0.00	0.00
<b>Tow Creek</b>									
10,168.1	8.71	166.18	10,088.5	-963.2	377.9	-945.4	0.00	0.00	0.00
<b>KOP: Bulld 8°/100' @ 10203.4' MD</b>									
10,203.4	8.71	166.18	10,123.4	-968.4	379.2	-950.5	0.00	0.00	0.00
10,250.0	5.17	155.30	10,169.7	-973.8	380.9	-955.8	8.00	-7.61	-21.22
10,300.0	2.19	109.49	10,219.6	-976.2	382.7	-958.1	8.00	-5.95	-93.62
10,350.0	3.86	32.11	10,269.5	-975.1	384.5	-956.9	8.00	3.33	-154.75
10,400.0	7.55	15.59	10,319.2	-970.5	386.3	-952.2	8.00	7.38	-33.04
10,450.0	11.45	10.05	10,368.6	-962.4	388.0	-944.1	8.00	7.80	-11.07
10,500.0	15.40	7.32	10,417.2	-950.9	389.7	-932.6	8.00	7.90	-5.47
10,550.0	19.37	5.68	10,464.9	-936.1	391.4	-917.7	8.00	7.94	-3.27
<b>Wolf Mtn</b>									
10,553.4	19.64	5.59	10,468.1	-935.0	391.5	-916.5	8.00	7.95	-2.59
10,600.0	23.35	4.59	10,511.4	-918.0	393.0	-899.5	8.00	7.96	-2.16
10,650.0	27.33	3.79	10,556.6	-896.6	394.6	-878.1	8.00	7.97	-1.58
10,700.0	31.32	3.19	10,600.2	-872.2	396.0	-853.6	8.00	7.98	-1.21
10,750.0	35.31	2.71	10,642.0	-844.8	397.4	-826.2	8.00	7.98	-0.96
10,800.0	39.31	2.32	10,681.7	-814.5	398.8	-795.9	8.00	7.99	-0.79
10,850.0	43.30	1.99	10,719.3	-781.5	400.0	-762.9	8.00	7.99	-0.66
10,900.0	47.30	1.70	10,754.5	-746.0	401.1	-727.4	8.00	7.99	-0.57
10,950.0	51.29	1.45	10,787.1	-708.1	402.2	-689.5	8.00	7.99	-0.50
11,000.0	55.29	1.23	10,816.9	-668.1	403.1	-649.4	8.00	7.99	-0.45
<b>Hot Wolf Mtn - Rangely Bench</b>									
11,018.2	56.74	1.15	10,827.1	-653.0	403.4	-634.3	8.00	7.99	-0.42
11,050.0	59.28	1.02	10,844.0	-626.0	403.9	-607.4	8.00	7.99	-0.40
<b>Top Target</b>									
11,096.3	62.99	0.85	10,866.3	-585.5	404.6	-566.8	8.00	7.99	-0.38
11,100.0	63.28	0.83	10,868.0	-582.2	404.6	-563.5	8.00	7.99	-0.36
11,150.0	67.28	0.66	10,888.9	-536.8	405.2	-518.1	8.00	7.99	-0.35
<b>Target Middle Line</b>									
11,174.2	69.21	0.58	10,897.9	-514.3	405.5	-495.7	8.00	7.99	-0.33
11,200.0	71.27	0.49	10,906.6	-490.0	405.7	-471.4	8.00	7.99	-0.33
11,250.0	75.27	0.34	10,921.0	-442.1	406.1	-423.6	8.00	7.99	-0.31
11,300.0	79.27	0.19	10,932.0	-393.4	406.3	-374.9	8.00	7.99	-0.30
<b>Base Target</b>									
11,325.8	81.33	0.11	10,936.3	-368.0	406.3	-349.5	8.00	7.99	-0.30
11,350.0	83.27	0.04	10,939.6	-344.0	406.4	-325.5	8.00	7.99	-0.29
<b>EOC: 11368.4' MD, 84.74° Inc, 359.98° Azm</b>									
11,368.4	84.74	359.98	10,941.5	-325.7	406.4	-307.2	8.00	7.99	-0.29
11,400.0	84.74	359.98	10,944.4	-294.2	406.4	-275.8	0.00	0.00	0.00
11,500.0	84.74	359.98	10,953.6	-194.6	406.3	-176.3	0.00	0.00	0.00





Database:	EDM5002	Local Co-ordinate Reference:	Well BHR Fed O23-14-397-2RH
Company:	Augustus Energy Partners II, LLC	TVD Reference:	RKB @ 6047.5usft
Project:	Rio Blanco County, CO	MD Reference:	RKB @ 6047.5usft
Site:	Sec 23 (Wiley 23-9-97 O Pad)	North Reference:	True
Well:	BHR Fed O23-14-397-2RH	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Bulld Rate (°/100usft)	Turn Rate (°/100usft)	
11,600.0	84.74	359.98	10,962.7	-95.1	406.3	-76.8	0.00	0.00	0.00	
11,700.0	84.74	359.98	10,971.9	4.5	406.3	22.7	0.00	0.00	0.00	
11,800.0	84.74	359.98	10,981.1	104.1	406.3	122.1	0.00	0.00	0.00	
11,900.0	84.74	359.98	10,990.3	203.7	406.2	221.6	0.00	0.00	0.00	
12,000.0	84.74	359.98	10,999.4	303.3	406.2	321.1	0.00	0.00	0.00	
12,100.0	84.74	359.98	11,008.6	402.8	406.2	420.6	0.00	0.00	0.00	
12,200.0	84.74	359.98	11,017.8	502.4	406.1	520.1	0.00	0.00	0.00	
12,300.0	84.74	359.98	11,026.9	602.0	406.1	619.5	0.00	0.00	0.00	
12,400.0	84.74	359.98	11,036.1	701.6	406.1	719.0	0.00	0.00	0.00	
12,500.0	84.74	359.98	11,045.3	801.2	406.1	818.5	0.00	0.00	0.00	
12,600.0	84.74	359.98	11,054.5	900.7	406.0	918.0	0.00	0.00	0.00	
12,700.0	84.74	359.98	11,063.6	1,000.3	406.0	1,017.4	0.00	0.00	0.00	
12,800.0	84.74	359.98	11,072.8	1,099.9	406.0	1,116.9	0.00	0.00	0.00	
12,900.0	84.74	359.98	11,082.0	1,199.5	405.9	1,216.4	0.00	0.00	0.00	
13,000.0	84.74	359.98	11,091.1	1,299.0	405.9	1,315.9	0.00	0.00	0.00	
13,100.0	84.74	359.98	11,100.3	1,398.6	405.9	1,415.4	0.00	0.00	0.00	
13,200.0	84.74	359.98	11,109.5	1,498.2	405.9	1,514.8	0.00	0.00	0.00	
13,300.0	84.74	359.98	11,118.7	1,597.8	405.8	1,614.3	0.00	0.00	0.00	
13,400.0	84.74	359.98	11,127.8	1,697.4	405.8	1,713.8	0.00	0.00	0.00	
13,500.0	84.74	359.98	11,137.0	1,796.9	405.8	1,813.3	0.00	0.00	0.00	
13,600.0	84.74	359.98	11,146.2	1,896.5	405.7	1,912.7	0.00	0.00	0.00	
13,700.0	84.74	359.98	11,155.3	1,996.1	405.7	2,012.2	0.00	0.00	0.00	
13,800.0	84.74	359.98	11,164.5	2,095.7	405.7	2,111.7	0.00	0.00	0.00	
13,900.0	84.74	359.98	11,173.7	2,195.3	405.7	2,211.2	0.00	0.00	0.00	
14,000.0	84.74	359.98	11,182.9	2,294.8	405.6	2,310.7	0.00	0.00	0.00	
14,100.0	84.74	359.98	11,192.0	2,394.4	405.6	2,410.1	0.00	0.00	0.00	
14,200.0	84.74	359.98	11,201.2	2,494.0	405.6	2,509.6	0.00	0.00	0.00	
14,300.0	84.74	359.98	11,210.4	2,593.6	405.5	2,609.1	0.00	0.00	0.00	
14,400.0	84.74	359.98	11,219.5	2,693.1	405.5	2,708.6	0.00	0.00	0.00	
14,500.0	84.74	359.98	11,228.7	2,792.7	405.5	2,808.0	0.00	0.00	0.00	
14,600.0	84.74	359.98	11,237.9	2,892.3	405.5	2,907.5	0.00	0.00	0.00	
14,700.0	84.74	359.98	11,247.1	2,991.9	405.4	3,007.0	0.00	0.00	0.00	
14,800.0	84.74	359.98	11,256.2	3,091.5	405.4	3,106.5	0.00	0.00	0.00	
14,900.0	84.74	359.98	11,265.4	3,191.0	405.4	3,206.0	0.00	0.00	0.00	
15,000.0	84.74	359.98	11,274.6	3,290.6	405.3	3,305.4	0.00	0.00	0.00	
15,100.0	84.74	359.98	11,283.7	3,390.2	405.3	3,404.9	0.00	0.00	0.00	
15,200.0	84.74	359.98	11,292.9	3,489.8	405.3	3,504.4	0.00	0.00	0.00	
15,300.0	84.74	359.98	11,302.1	3,589.4	405.3	3,603.9	0.00	0.00	0.00	
15,400.0	84.74	359.98	11,311.3	3,688.9	405.2	3,703.3	0.00	0.00	0.00	
15,500.0	84.74	359.98	11,320.4	3,788.5	405.2	3,802.8	0.00	0.00	0.00	
15,600.0	84.74	359.98	11,329.6	3,888.1	405.2	3,902.3	0.00	0.00	0.00	
15,700.0	84.74	359.98	11,338.8	3,987.7	405.1	4,001.8	0.00	0.00	0.00	
15,800.0	84.74	359.98	11,347.9	4,087.2	405.1	4,101.3	0.00	0.00	0.00	
15,900.0	84.74	359.98	11,357.1	4,186.8	405.1	4,200.7	0.00	0.00	0.00	
16,000.0	84.74	359.98	11,366.3	4,286.4	405.1	4,300.2	0.00	0.00	0.00	
16,100.0	84.74	359.98	11,375.5	4,386.0	405.0	4,399.7	0.00	0.00	0.00	
16,200.0	84.74	359.98	11,384.6	4,485.6	405.0	4,499.2	0.00	0.00	0.00	
16,300.0	84.74	359.98	11,393.8	4,585.1	405.0	4,598.6	0.00	0.00	0.00	
16,400.0	84.74	359.98	11,403.0	4,684.7	404.9	4,698.1	0.00	0.00	0.00	
16,500.0	84.74	359.98	11,412.1	4,784.3	404.9	4,797.6	0.00	0.00	0.00	
16,600.0	84.74	359.98	11,421.3	4,883.9	404.9	4,897.1	0.00	0.00	0.00	
16,700.0	84.74	359.98	11,430.5	4,983.5	404.9	4,996.6	0.00	0.00	0.00	
16,800.0	84.74	359.98	11,439.7	5,083.0	404.8	5,096.0	0.00	0.00	0.00	
16,900.0	84.74	359.98	11,448.8	5,182.6	404.8	5,195.5	0.00	0.00	0.00	



Database:	EDM5002	Local Co-ordinate Reference:	Well BHR Fed O23-14-397-2RH
Company:	Augustus Energy Partners II, LLC	TVD Reference:	RKB @ 6047.5usft
Project:	Rio Blanco County, CO	MD Reference:	RKB @ 6047.5usft
Site:	Sec 23 (Wiley 23-9-97 O Pad)	North Reference:	True
Well:	BHR Fed O23-14-397-2RH	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
17,000.0	84.74	359.98	11,458.0	5,282.2	404.8	5,295.0	0.00	0.00	0.00	
17,100.0	84.74	359.98	11,467.2	5,381.8	404.7	5,394.5	0.00	0.00	0.00	
17,200.0	84.74	359.98	11,476.3	5,481.3	404.7	5,493.9	0.00	0.00	0.00	
17,300.0	84.74	359.98	11,485.5	5,580.9	404.7	5,593.4	0.00	0.00	0.00	
17,400.0	84.74	359.98	11,494.7	5,680.5	404.7	5,692.9	0.00	0.00	0.00	
17,500.0	84.74	359.98	11,503.9	5,780.1	404.6	5,792.4	0.00	0.00	0.00	
17,600.0	84.74	359.98	11,513.0	5,879.7	404.6	5,891.9	0.00	0.00	0.00	
17,700.0	84.74	359.98	11,522.2	5,979.2	404.6	5,991.3	0.00	0.00	0.00	
17,800.0	84.74	359.98	11,531.4	6,078.8	404.6	6,090.8	0.00	0.00	0.00	
17,900.0	84.74	359.98	11,540.5	6,178.4	404.5	6,190.3	0.00	0.00	0.00	
18,000.0	84.74	359.98	11,549.7	6,278.0	404.5	6,289.8	0.00	0.00	0.00	
18,100.0	84.74	359.98	11,558.9	6,377.6	404.5	6,389.3	0.00	0.00	0.00	
18,200.0	84.74	359.98	11,568.0	6,477.1	404.4	6,488.7	0.00	0.00	0.00	
18,300.0	84.74	359.98	11,577.2	6,576.7	404.4	6,588.2	0.00	0.00	0.00	
18,400.0	84.74	359.98	11,586.4	6,676.3	404.4	6,687.7	0.00	0.00	0.00	
18,500.0	84.74	359.98	11,595.6	6,775.9	404.4	6,787.2	0.00	0.00	0.00	
18,600.0	84.74	359.98	11,604.7	6,875.4	404.3	6,886.6	0.00	0.00	0.00	
18,700.0	84.74	359.98	11,613.9	6,975.0	404.3	6,986.1	0.00	0.00	0.00	
18,800.0	84.74	359.98	11,623.1	7,074.6	404.3	7,085.6	0.00	0.00	0.00	
18,900.0	84.74	359.98	11,632.2	7,174.2	404.2	7,185.1	0.00	0.00	0.00	
19,000.0	84.74	359.98	11,641.4	7,273.8	404.2	7,284.6	0.00	0.00	0.00	
19,100.0	84.74	359.98	11,650.6	7,373.3	404.2	7,384.0	0.00	0.00	0.00	
19,200.0	84.74	359.98	11,659.8	7,472.9	404.2	7,483.5	0.00	0.00	0.00	
19,300.0	84.74	359.98	11,668.9	7,572.5	404.1	7,583.0	0.00	0.00	0.00	
19,400.0	84.74	359.98	11,678.1	7,672.1	404.1	7,682.5	0.00	0.00	0.00	
19,500.0	84.74	359.98	11,687.3	7,771.7	404.1	7,781.9	0.00	0.00	0.00	
19,600.0	84.74	359.98	11,696.4	7,871.2	404.0	7,881.4	0.00	0.00	0.00	
19,700.0	84.74	359.98	11,705.6	7,970.8	404.0	7,980.9	0.00	0.00	0.00	
19,800.0	84.74	359.98	11,714.8	8,070.4	404.0	8,080.4	0.00	0.00	0.00	
19,900.0	84.74	359.98	11,724.0	8,170.0	404.0	8,179.9	0.00	0.00	0.00	
20,000.0	84.74	359.98	11,733.1	8,269.5	403.9	8,279.3	0.00	0.00	0.00	
20,100.0	84.74	359.98	11,742.3	8,369.1	403.9	8,378.8	0.00	0.00	0.00	
20,200.0	84.74	359.98	11,751.5	8,468.7	403.9	8,478.3	0.00	0.00	0.00	
20,300.0	84.74	359.98	11,760.6	8,568.3	403.8	8,577.8	0.00	0.00	0.00	
20,400.0	84.74	359.98	11,769.8	8,667.9	403.8	8,677.2	0.00	0.00	0.00	
20,500.0	84.74	359.98	11,779.0	8,767.4	403.8	8,776.7	0.00	0.00	0.00	
20,600.0	84.74	359.98	11,788.2	8,867.0	403.8	8,876.2	0.00	0.00	0.00	
20,700.0	84.74	359.98	11,797.3	8,966.6	403.7	8,975.7	0.00	0.00	0.00	
TD @ 20767.2' MD/11803.5' TVD										
20,767.1	84.74	359.98	11,803.5	9,033.4	403.7	9,042.5	0.00	0.00	0.00	
20,767.2	84.74	359.98	11,803.5	9,033.5	403.7	9,042.6	0.00	0.00	0.00	



Database:	EDM5002	Local Co-ordinate Reference:	Well BHR Fed O23-14-397-2RH
Company:	Augustus Energy Partners II, LLC	TVD Reference:	RKB @ 6047.5usft
Project:	Rio Blanco County, CO	MD Reference:	RKB @ 6047.5usft
Site:	Sec 23 (Wiley 23-9-97 O Pad)	North Reference:	True
Well:	BHR Fed O23-14-397-2RH	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2		

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
LP BHR Fed O23-14-39' - plan hits target center - Point	0.00	0.00	10,941.5	-325.7	406.4	1,330,736.48	2,234,961.75	40° 12' 31.774 N	108° 14' 22.578 W
PBHL BHR Fed O23-14- - plan hits target center - Point	0.00	0.00	11,803.5	9,033.5	403.7	1,340,091.28	2,235,248.34	40° 14' 4.265 N	108° 14' 22.610 W

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(usft)	(usft)			(°)	(°)	
1,830.0	1,829.6	Mesaverde		5.26	2.56	
5,330.0	5,306.2	Rollins		5.26	2.56	
6,607.6	6,569.1	Sego-Lower		5.26	2.56	
7,027.8	6,984.5	Castlegate		5.26	2.56	
8,382.3	8,323.4	Mancos - Marker 6 - Condensed Section		5.26	2.56	
9,708.9	9,634.6	Buck Peak		5.26	2.56	
10,168.1	10,088.5	Tow Creek		5.26	2.56	
10,553.4	10,468.1	Wolf Mtn		5.26	2.56	
11,018.2	10,827.1	Hot Wolf Mtn - Rangely Bench		5.26	2.56	
11,096.3	10,866.3	Top Target		5.26	2.56	
11,174.2	10,897.9	Target Middle Line		5.26	2.56	
11,325.8	10,936.3	Base Target		5.26	2.56	

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(usft)	(usft)	+N/-S (usft)	+E/-W (usft)	
1,500.0	1,500.0	0.0	0.0	Bulld 2"/100'
1,700.0	1,699.8	0.0	7.0	Hold 4.00" Inc., 90.00° Azm
3,404.3	3,400.0	0.0	125.9	Bulld/Turn 2"/100'
3,837.8	3,831.3	-31.9	148.9	Hold 8.71" Inc., 166.18° Azm
10,203.4	10,123.4	-968.4	379.2	KOP: Bulld 8"/100' @ 10203.4' MD
11,368.4	10,941.5	-325.7	406.4	EOC: 11368.4' MD, 84.74° Inc, 359.96° Azm
20,767.1	11,803.5	9,033.4	403.7	TD @ 20767.2' MD/11803.5' TVD