



Ursa Operating Company, LLC

**Rockies Region
Monument Ridge
BAT 34D-18-07-95**

Wellbore #1

Plan: Design #1

Standard Planning Report

11 July, 2013



Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well BAT 34D-18-07-95
Company:	Ursa Operating Company, LLC	TVD Reference:	BAT 34D-18-07-95 @ 5461.2ft (Original Well Elev)
Project:	Rockies Region	MD Reference:	BAT 34D-18-07-95 @ 5461.2ft (Original Well Elev)
Site:	Monument Ridge	North Reference:	True
Well:	BAT 34D-18-07-95	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Project	Rockies Region		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site		Monument Ridge			
Site Position:		Northing:	1,592,015.87 ft	Latitude:	39° 25' 53.266 N
From:	Lat/Long	Easting:	2,284,550.92 ft	Longitude:	108° 1' 59.725 W
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	-1.60 °

Well	BAT 34D-18-07-95, SHL 39.431291290, -108.033250900					
Well Position	+N/-S	-62.5 ft	Northing:	1,591,953.37 ft	Latitude:	39° 25' 52.649 N
	+E/-W	1.7 ft	Easting:	2,284,550.90 ft	Longitude:	108° 1' 59.703 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	5,461.2 ft	Ground Level:	5,441.2 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	7/11/2013	10.06	65.64	52,046

Design	Design #1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	259.64

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
723.5	18.32	259.64	714.6	-14.9	-81.6	3.50	3.50	0.00	259.64	
3,874.0	18.32	259.64	3,705.4	-193.1	-1,055.9	0.00	0.00	0.00	0.00	
4,397.5	0.00	0.00	4,220.0	-208.0	-1,137.5	3.50	-3.50	0.00	180.00	BAT 34D-18-07-95 T
6,590.5	0.00	0.00	6,413.0	-208.0	-1,137.5	0.00	0.00	0.00	0.00	BAT 34D-18-07-95 T

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Project:	Rockies Region	MD Reference:	BAT 34D-18-07-95 @ 5461.2ft (Original Well Elev)
Site:	Monument Ridge	North Reference:	True
Well:	BAT 34D-18-07-95	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
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	3.50	259.64	299.9	-0.5	-3.0	3.1	3.50	3.50	0.00
400.0	7.00	259.64	399.5	-2.2	-12.0	12.2	3.50	3.50	0.00
500.0	10.50	259.64	498.3	-4.9	-27.0	27.4	3.50	3.50	0.00
600.0	14.00	259.64	596.0	-8.7	-47.8	48.6	3.50	3.50	0.00
700.0	17.50	259.64	692.3	-13.6	-74.5	75.8	3.50	3.50	0.00
723.5	18.32	259.64	714.6	-14.9	-81.6	83.0	3.50	3.50	0.00
800.0	18.32	259.64	787.2	-19.3	-105.3	107.0	0.00	0.00	0.00
900.0	18.32	259.64	882.2	-24.9	-136.2	138.5	0.00	0.00	0.00
1,000.0	18.32	259.64	977.1	-30.6	-167.1	169.9	0.00	0.00	0.00
1,100.0	18.32	259.64	1,072.0	-36.2	-198.1	201.4	0.00	0.00	0.00
1,200.0	18.32	259.64	1,167.0	-41.9	-229.0	232.8	0.00	0.00	0.00
1,300.0	18.32	259.64	1,261.9	-47.5	-259.9	264.2	0.00	0.00	0.00
1,400.0	18.32	259.64	1,356.8	-53.2	-290.8	295.7	0.00	0.00	0.00
1,500.0	18.32	259.64	1,451.8	-58.8	-321.8	327.1	0.00	0.00	0.00
1,600.0	18.32	259.64	1,546.7	-64.5	-352.7	358.5	0.00	0.00	0.00
1,700.0	18.32	259.64	1,641.6	-70.2	-383.6	390.0	0.00	0.00	0.00
1,800.0	18.32	259.64	1,736.5	-75.8	-414.5	421.4	0.00	0.00	0.00
1,900.0	18.32	259.64	1,831.5	-81.5	-445.5	452.8	0.00	0.00	0.00
2,000.0	18.32	259.64	1,926.4	-87.1	-476.4	484.3	0.00	0.00	0.00
2,100.0	18.32	259.64	2,021.3	-92.8	-507.3	515.7	0.00	0.00	0.00
2,200.0	18.32	259.64	2,116.3	-98.4	-538.2	547.1	0.00	0.00	0.00
2,300.0	18.32	259.64	2,211.2	-104.1	-569.1	578.6	0.00	0.00	0.00
2,400.0	18.32	259.64	2,306.1	-109.8	-600.1	610.0	0.00	0.00	0.00
2,500.0	18.32	259.64	2,401.1	-115.4	-631.0	641.5	0.00	0.00	0.00
2,600.0	18.32	259.64	2,496.0	-121.1	-661.9	672.9	0.00	0.00	0.00
2,700.0	18.32	259.64	2,590.9	-126.7	-692.8	704.3	0.00	0.00	0.00
2,800.0	18.32	259.64	2,685.9	-132.4	-723.8	735.8	0.00	0.00	0.00
2,900.0	18.32	259.64	2,780.8	-138.0	-754.7	767.2	0.00	0.00	0.00
3,000.0	18.32	259.64	2,875.7	-143.7	-785.6	798.6	0.00	0.00	0.00
3,100.0	18.32	259.64	2,970.6	-149.3	-816.5	830.1	0.00	0.00	0.00
3,200.0	18.32	259.64	3,065.6	-155.0	-847.5	861.5	0.00	0.00	0.00
3,300.0	18.32	259.64	3,160.5	-160.7	-878.4	892.9	0.00	0.00	0.00
3,367.9	18.32	259.64	3,225.0	-164.5	-899.4	914.3	0.00	0.00	0.00
WF									
3,400.0	18.32	259.64	3,255.4	-166.3	-909.3	924.4	0.00	0.00	0.00
3,500.0	18.32	259.64	3,350.4	-172.0	-940.2	955.8	0.00	0.00	0.00
3,600.0	18.32	259.64	3,445.3	-177.6	-971.1	987.3	0.00	0.00	0.00
3,700.0	18.32	259.64	3,540.2	-183.3	-1,002.1	1,018.7	0.00	0.00	0.00
3,800.0	18.32	259.64	3,635.2	-188.9	-1,033.0	1,050.1	0.00	0.00	0.00
3,874.0	18.32	259.64	3,705.4	-193.1	-1,055.9	1,073.4	0.00	0.00	0.00
3,900.0	17.41	259.64	3,730.1	-194.6	-1,063.7	1,081.4	3.50	-3.50	0.00
4,000.0	13.91	259.64	3,826.4	-199.4	-1,090.3	1,108.4	3.50	-3.50	0.00
4,100.0	10.41	259.64	3,924.2	-203.2	-1,111.0	1,129.4	3.50	-3.50	0.00
4,200.0	6.91	259.64	4,023.0	-205.9	-1,125.8	1,144.5	3.50	-3.50	0.00
4,300.0	3.41	259.64	4,122.6	-207.5	-1,134.7	1,153.5	3.50	-3.50	0.00
4,397.5	0.00	0.00	4,220.0	-208.0	-1,137.5	1,156.4	3.50	-3.50	0.00
Top of Gas									
4,400.0	0.00	0.00	4,222.5	-208.0	-1,137.5	1,156.4	0.00	0.00	0.00
4,500.0	0.00	0.00	4,322.5	-208.0	-1,137.5	1,156.4	0.00	0.00	0.00

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Wellbore:	Wellbore #1		
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Planned Survey

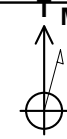
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,600.0	0.00	0.00	4,422.5	-208.0	-1,137.5	1,156.4	0.00	0.00	0.00
4,700.0	0.00	0.00	4,522.5	-208.0	-1,137.5	1,156.4	0.00	0.00	0.00
4,800.0	0.00	0.00	4,622.5	-208.0	-1,137.5	1,156.4	0.00	0.00	0.00
4,900.0	0.00	0.00	4,722.5	-208.0	-1,137.5	1,156.4	0.00	0.00	0.00
5,000.0	0.00	0.00	4,822.5	-208.0	-1,137.5	1,156.4	0.00	0.00	0.00
5,100.0	0.00	0.00	4,922.5	-208.0	-1,137.5	1,156.4	0.00	0.00	0.00
5,200.0	0.00	0.00	5,022.5	-208.0	-1,137.5	1,156.4	0.00	0.00	0.00
5,300.0	0.00	0.00	5,122.5	-208.0	-1,137.5	1,156.4	0.00	0.00	0.00
5,400.0	0.00	0.00	5,222.5	-208.0	-1,137.5	1,156.4	0.00	0.00	0.00
5,500.0	0.00	0.00	5,322.5	-208.0	-1,137.5	1,156.4	0.00	0.00	0.00
5,600.0	0.00	0.00	5,422.5	-208.0	-1,137.5	1,156.4	0.00	0.00	0.00
5,700.0	0.00	0.00	5,522.5	-208.0	-1,137.5	1,156.4	0.00	0.00	0.00
5,769.5	0.00	0.00	5,592.0	-208.0	-1,137.5	1,156.4	0.00	0.00	0.00
Cameo									
5,800.0	0.00	0.00	5,622.5	-208.0	-1,137.5	1,156.4	0.00	0.00	0.00
5,900.0	0.00	0.00	5,722.5	-208.0	-1,137.5	1,156.4	0.00	0.00	0.00
6,000.0	0.00	0.00	5,822.5	-208.0	-1,137.5	1,156.4	0.00	0.00	0.00
6,100.0	0.00	0.00	5,922.5	-208.0	-1,137.5	1,156.4	0.00	0.00	0.00
6,200.0	0.00	0.00	6,022.5	-208.0	-1,137.5	1,156.4	0.00	0.00	0.00
6,290.5	0.00	0.00	6,113.0	-208.0	-1,137.5	1,156.4	0.00	0.00	0.00
Rollins									
6,300.0	0.00	0.00	6,122.5	-208.0	-1,137.5	1,156.4	0.00	0.00	0.00
6,400.0	0.00	0.00	6,222.5	-208.0	-1,137.5	1,156.4	0.00	0.00	0.00
6,500.0	0.00	0.00	6,322.5	-208.0	-1,137.5	1,156.4	0.00	0.00	0.00
6,590.5	0.00	0.00	6,413.0	-208.0	-1,137.5	1,156.4	0.00	0.00	0.00

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,367.9	3,225.0	WF		0.00	
4,397.5	4,220.0	Top of Gas		0.00	
5,769.5	5,592.0	Cameo		0.00	
6,290.5	6,113.0	Rollins		0.00	



Well Name: BAT 34D-18-07-95
Surface Location: Monument Ridge
North American Datum 1983, US State Plane 1983, Colorado Central Zone
Ground Elevation: 5441.2
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.0 0.0 1591953.37 2284550.90 39° 25' 52.649 N 108° 1' 59.703 W
Original Well Elev BAT 34D-18-07-95 @ 5461.2ft (Original Well Elev)



Azimuths to True North
Magnetic North: 10.06°
Magnetic Field
Strength: 52046.3snT
Dip Angle: 65.64°
Date: 7/11/2013
Model: IGRF200510

Monument Ridge
BAT 34D-18-07-95
Design #1
10:03, July 11 2013

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
BAT 34D-18-07-95 TGT	4220.0	-208.0	-1137.5	1591777.12	2283408.04	39° 25' 50.592 N	108° 2' 14.201 W	Point
BAT 34D-18-07-95 TD	6413.0	-208.0	-1137.5	1591777.12	2283408.04	39° 25' 50.592 N	108° 2' 14.201 W	Point

ANNOTATIONS

TVD	MD	Annotation
200.0	200.0	Start Build 3.50
714.6	723.5	Start 3150.5 hold at 723.5 MD
3705.4	3874.0	Start Drop -3.50
4220.0	4397.5	Start 2193.0 hold at 4397.5 MD
6413.0	6590.5	TD at 6590.5

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	
3	723.5	18.32	259.64	714.6	-14.9	-81.6	3.50	259.64	83.0	
4	3874.0	18.32	259.64	3705.4	-193.1	-1055.9	0.00	0.00	1073.4	
5	4397.5	0.00	0.00	4220.0	-208.0	-1137.5	3.50	180.00	1156.4	BAT 34D-18-07-95 TGT
6	6590.5	0.00	0.00	6413.0	-208.0	-1137.5	0.00	0.00	1156.4	BAT 34D-18-07-95 TD

