

Project: Rio Blanco County, CO  
 Site: ELU O13 496 Pad  
 Well: ELU O13 FED 21D-24 496  
 Wellbore: Wellbore #1  
 Design: Design #1  
 Latitude: 39.698689  
 Longitude: -108.115246  
 Ground Level: 8118.0  
 RKB @ 8148.0usft (30')

# PROJECT DETAILS: Rio Blanco County, CO

Geodetic System: Universal Transverse Mercator (US Survey Feet)  
 Datum: NAD 1927 - Western US  
 Ellipsoid: Clarke 1866  
 Zone: Zone 12N (114 W to 108 W)  
 System Datum: Mean Sea Level

## REFERENCE INFORMATION

Vertical (TVD) Reference: RKB @ 8148.0usft (30')  
 Section (VS) Reference: Slot - ELU O13 FED 21D-24 496(0.0N, 0.0E)  
 Measured Depth Reference: RKB @ 8148.0usft (30')  
 Calculation Method: Minimum Curvature

## FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3899.0	4062.2	Wasatch
6299.0	6586.8	Wasatch G
6599.0	6902.3	Fort Union
8550.0	8933.7	Ohio Creek / TOG
9057.0	9440.9	Williams Fork
11972.0	12356.8	Cameo
12472.0	12856.9	Rollins

## SECTION DETAILS

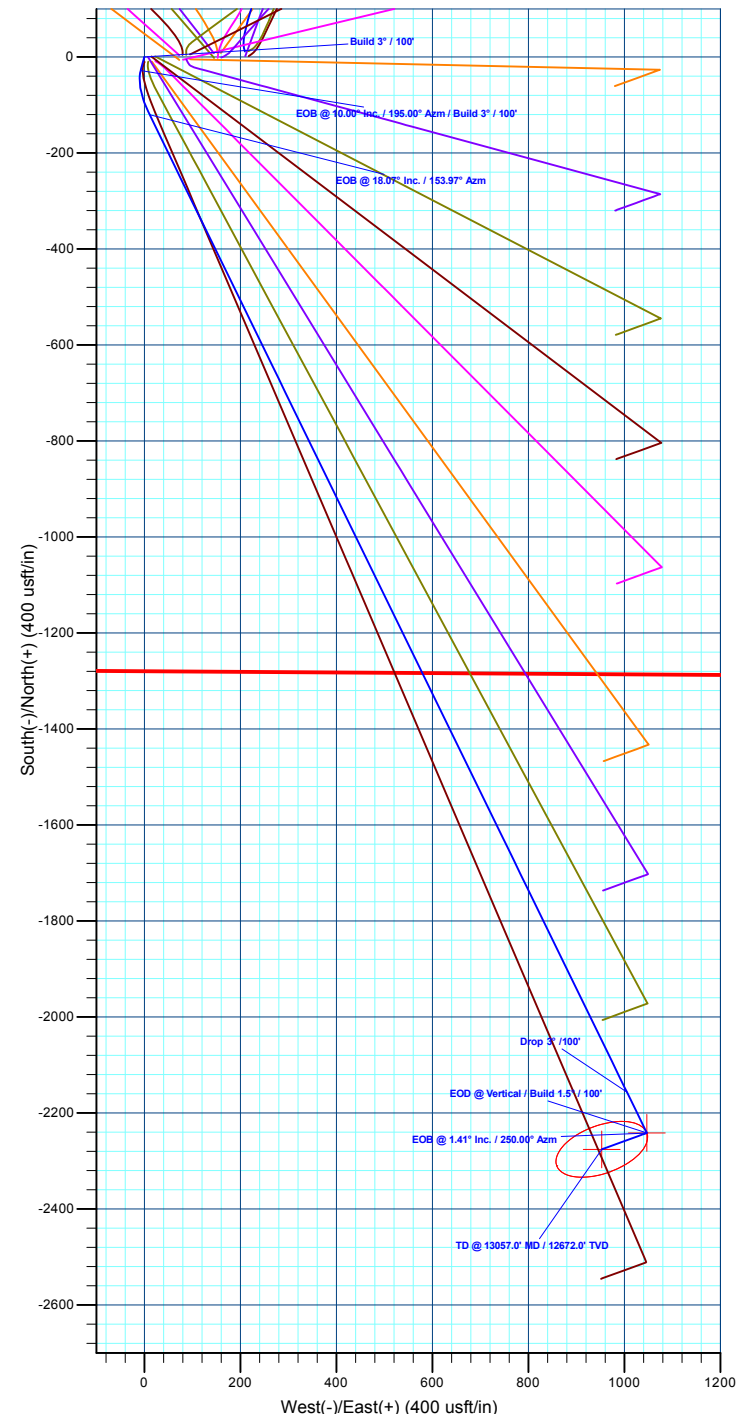
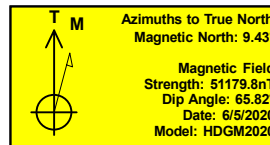
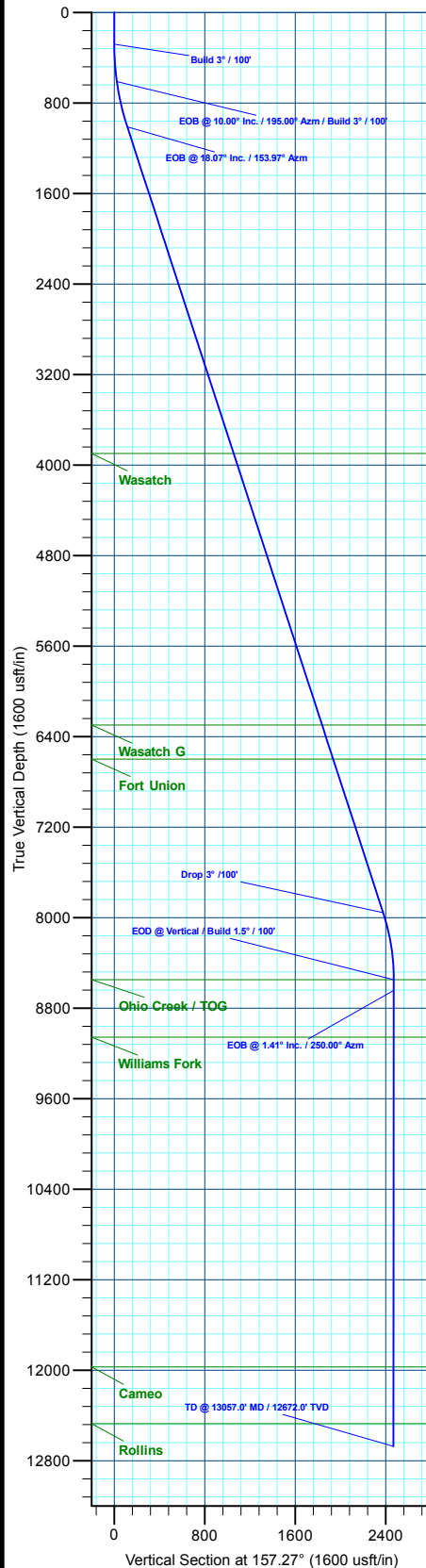
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dieg	TFace	VSect	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	Build 3° / 100'
280.0	0.00	0.00	280.0	0.0	0.0	0.00	0.00	0.0	EOB @ 10.00° Inc. / 195.00° Azm / Build 3° / 100'
613.3	10.00	195.00	611.6	-28.0	-7.5	3.00	195.00	22.9	EOB @ 18.07° Inc. / 153.97° Azm
1024.9	18.07	153.97	1011.5	-120.3	11.3	3.00	-72.20	115.3	Drop 3° / 100'
8331.4	18.07	153.97	7957.6	-2156.8	1005.8	0.00	0.00	2377.9	EOD @ Vertical / Build 1.5° / 100'
8933.7	0.00	0.00	8550.0	-2241.4	1047.1	3.00	180.00	2472.0	EOB @ 1.41° Inc. / 250.00° Azm
9027.5	1.41	250.00	8643.7	-2241.8	1046.1	1.50	250.00	2471.9	TD @ 13057.0' MD / 12672.0' TVD
13057.0	1.41	250.00	12672.0	-2275.6	953.2	0.00	0.00	2467.2	

## DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
OHCR - 21D-24	8550.0	-2241.4	1047.1	14427178.11	2453038.12	39.692538	-108.111526
PBHL - 21D-24	12672.0	-2275.6	953.2	14427140.90	2452945.30	39.692444	-108.111860

## WELL DETAILS: ELU O13 FED 21D-24 496

	+N/-S	+E/-W	Ground Level : 8118.0	Latitude	Longitude
	0.0	0.0	Northing 14429384.70 Easting 2451919.40	39.698689	-108.115246



Plan: Design #1 (ELU O13 FED 21D-24 496/Wellbore #1)

Created By: Will Jircik

Date: 11:27, June 19 2020



## **Caerus Oil & Gas**

**Rio Blanco County, CO**

**ELU O13 496 Pad**

**ELU O13 FED 21D-24 496 - Slot ELU O13 FED 21D-24 496**

**Wellbore #1**

**Plan: Design #1**

## **QES Well Planning Report**

**19 June, 2020**



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well ELU O13 FED 21D-24 496 - Slot ELU O13 FED 21D-24 496
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	RKB @ 8148.0usft (30')
<b>Project:</b>	Rio Blanco County, CO	<b>MD Reference:</b>	RKB @ 8148.0usft (30')
<b>Site:</b>	ELU O13 496 Pad	<b>North Reference:</b>	True
<b>Well:</b>	ELU O13 FED 21D-24 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

<b>Project</b>	Rio Blanco County, CO		
<b>Map System:</b>	Universal Transverse Mercator (US Survey Fee	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 - Western US		
<b>Map Zone:</b>	Zone 12N (114 W to 108 W)		

<b>Site</b>	ELU O13 496 Pad		
<b>Site Position:</b>		<b>Northing:</b>	14,429,398.00 usft
<b>From:</b>	Map	<b>Easting:</b>	2,452,071.40 usft
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	13-3/16 "
		<b>Latitude:</b>	39.698712
		<b>Longitude:</b>	-108.114705
		<b>Grid Convergence:</b>	1.84 °

<b>Well</b>	ELU O13 FED 21D-24 496 - Slot ELU O13 FED 21D-24 496		
<b>Well Position</b>	<b>+N/-S</b>	-8.4 usft	<b>Northing:</b>
	<b>+E/-W</b>	-152.3 usft	<b>Easting:</b>
<b>Position Uncertainty</b>		0.0 usft	<b>Wellhead Elevation:</b>
			<b>Latitude:</b>
			<b>Longitude:</b>
			<b>Ground Level:</b>

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	HDGM2020	6/5/2020	9.43	65.82	51,179.80000000

<b>Design</b>	Design #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	157.27

<b>Plan Sections</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	<b>TFO (°)</b>	<b>Target</b>
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
280.0	0.00	0.00	280.0	0.0	0.0	0.00	0.00	0.00	0.00	
613.3	10.00	195.00	611.6	-28.0	-7.5	3.00	3.00	0.00	195.00	
1,024.9	18.07	153.97	1,011.5	-120.3	11.3	3.00	1.96	-9.97	-72.20	
8,331.4	18.07	153.97	7,957.6	-2,156.8	1,005.8	0.00	0.00	0.00	0.00	
8,933.7	0.00	0.00	8,550.0	-2,241.4	1,047.1	3.00	-3.00	0.00	180.00	OHCR - 21D-24
9,027.5	1.41	250.00	8,643.7	-2,241.8	1,046.1	1.50	1.50	-117.38	250.00	
13,057.0	1.41	250.00	12,672.0	-2,275.6	953.2	0.00	0.00	0.00	0.00	PBHL - 21D-24

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well ELU O13 FED 21D-24 496 - Slot ELU O13 FED 21D-24 496
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	RKB @ 8148.0usft (30')
<b>Project:</b>	Rio Blanco County, CO	<b>MD Reference:</b>	RKB @ 8148.0usft (30')
<b>Site:</b>	ELU O13 496 Pad	<b>North Reference:</b>	True
<b>Well:</b>	ELU O13 FED 21D-24 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

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
<b>Build 3° / 100'</b>									
280.0	0.00	0.00	280.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.60	195.00	300.0	-0.1	0.0	0.1	3.00	3.00	0.00
400.0	3.60	195.00	399.9	-3.6	-1.0	3.0	3.00	3.00	0.00
500.0	6.60	195.00	499.5	-12.2	-3.3	10.0	3.00	3.00	0.00
600.0	9.60	195.00	598.5	-25.8	-6.9	21.2	3.00	3.00	0.00
<b>EOB @ 10.00° Inc. / 195.00° Azm / Build 3° / 100'</b>									
613.3	10.00	195.00	611.6	-28.0	-7.5	22.9	3.00	3.00	0.00
700.0	11.07	182.00	696.9	-43.6	-9.7	36.5	3.00	1.24	-15.00
800.0	12.86	170.32	794.7	-64.2	-8.2	56.0	3.00	1.78	-11.68
900.0	15.03	161.69	891.8	-87.5	-2.3	79.8	3.00	2.17	-8.63
1,000.0	17.44	155.30	987.8	-113.4	8.1	107.7	3.00	2.41	-6.39
<b>EOB @ 18.07° Inc. / 153.97° Azm</b>									
1,024.9	18.07	153.97	1,011.5	-120.3	11.3	115.3	3.00	2.52	-5.34
1,100.0	18.07	153.97	1,082.9	-141.2	21.5	138.5	0.00	0.00	0.00
1,200.0	18.07	153.97	1,177.9	-169.1	35.2	169.5	0.00	0.00	0.00
1,300.0	18.07	153.97	1,273.0	-196.9	48.8	200.5	0.00	0.00	0.00
1,400.0	18.07	153.97	1,368.1	-224.8	62.4	231.5	0.00	0.00	0.00
1,500.0	18.07	153.97	1,463.1	-252.7	76.0	262.4	0.00	0.00	0.00
1,600.0	18.07	153.97	1,558.2	-280.6	89.6	293.4	0.00	0.00	0.00
1,700.0	18.07	153.97	1,653.3	-308.4	103.2	324.4	0.00	0.00	0.00
1,800.0	18.07	153.97	1,748.4	-336.3	116.8	355.3	0.00	0.00	0.00
1,900.0	18.07	153.97	1,843.4	-364.2	130.4	386.3	0.00	0.00	0.00
2,000.0	18.07	153.97	1,938.5	-392.0	144.0	417.3	0.00	0.00	0.00
2,100.0	18.07	153.97	2,033.6	-419.9	157.7	448.2	0.00	0.00	0.00
2,200.0	18.07	153.97	2,128.6	-447.8	171.3	479.2	0.00	0.00	0.00
2,300.0	18.07	153.97	2,223.7	-475.7	184.9	510.2	0.00	0.00	0.00
2,400.0	18.07	153.97	2,318.8	-503.5	198.5	541.1	0.00	0.00	0.00
2,500.0	18.07	153.97	2,413.8	-531.4	212.1	572.1	0.00	0.00	0.00
2,600.0	18.07	153.97	2,508.9	-559.3	225.7	603.1	0.00	0.00	0.00
2,700.0	18.07	153.97	2,604.0	-587.2	239.3	634.0	0.00	0.00	0.00
2,800.0	18.07	153.97	2,699.0	-615.0	252.9	665.0	0.00	0.00	0.00
2,900.0	18.07	153.97	2,794.1	-642.9	266.5	696.0	0.00	0.00	0.00
3,000.0	18.07	153.97	2,889.2	-670.8	280.2	726.9	0.00	0.00	0.00
3,100.0	18.07	153.97	2,984.2	-698.6	293.8	757.9	0.00	0.00	0.00
3,200.0	18.07	153.97	3,079.3	-726.5	307.4	788.9	0.00	0.00	0.00
3,300.0	18.07	153.97	3,174.4	-754.4	321.0	819.8	0.00	0.00	0.00
3,400.0	18.07	153.97	3,269.4	-782.3	334.6	850.8	0.00	0.00	0.00
3,500.0	18.07	153.97	3,364.5	-810.1	348.2	881.8	0.00	0.00	0.00
3,600.0	18.07	153.97	3,459.6	-838.0	361.8	912.7	0.00	0.00	0.00
3,700.0	18.07	153.97	3,554.6	-865.9	375.4	943.7	0.00	0.00	0.00
3,800.0	18.07	153.97	3,649.7	-893.8	389.0	974.7	0.00	0.00	0.00
3,900.0	18.07	153.97	3,744.8	-921.6	402.7	1,005.6	0.00	0.00	0.00
4,000.0	18.07	153.97	3,839.8	-949.5	416.3	1,036.6	0.00	0.00	0.00
<b>Wasatch</b>									
4,062.2	18.07	153.97	3,899.0	-966.8	424.7	1,055.9	0.00	0.00	0.00
4,100.0	18.07	153.97	3,934.9	-977.4	429.9	1,067.6	0.00	0.00	0.00
4,200.0	18.07	153.97	4,030.0	-1,005.2	443.5	1,098.5	0.00	0.00	0.00
4,300.0	18.07	153.97	4,125.0	-1,033.1	457.1	1,129.5	0.00	0.00	0.00
4,400.0	18.07	153.97	4,220.1	-1,061.0	470.7	1,160.5	0.00	0.00	0.00

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well ELU O13 FED 21D-24 496 - Slot ELU O13 FED 21D-24 496
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	RKB @ 8148.0usft (30')
<b>Project:</b>	Rio Blanco County, CO	<b>MD Reference:</b>	RKB @ 8148.0usft (30')
<b>Site:</b>	ELU O13 496 Pad	<b>North Reference:</b>	True
<b>Well:</b>	ELU O13 FED 21D-24 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

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)
4,500.0	18.07	153.97	4,315.2	-1,088.9	484.3	1,191.4	0.00	0.00	0.00
4,600.0	18.07	153.97	4,410.2	-1,116.7	497.9	1,222.4	0.00	0.00	0.00
4,700.0	18.07	153.97	4,505.3	-1,144.6	511.5	1,253.4	0.00	0.00	0.00
4,800.0	18.07	153.97	4,600.4	-1,172.5	525.2	1,284.3	0.00	0.00	0.00
4,900.0	18.07	153.97	4,695.4	-1,200.4	538.8	1,315.3	0.00	0.00	0.00
5,000.0	18.07	153.97	4,790.5	-1,228.2	552.4	1,346.3	0.00	0.00	0.00
5,100.0	18.07	153.97	4,885.6	-1,256.1	566.0	1,377.2	0.00	0.00	0.00
5,200.0	18.07	153.97	4,980.6	-1,284.0	579.6	1,408.2	0.00	0.00	0.00
5,300.0	18.07	153.97	5,075.7	-1,311.9	593.2	1,439.2	0.00	0.00	0.00
5,400.0	18.07	153.97	5,170.8	-1,339.7	606.8	1,470.1	0.00	0.00	0.00
5,500.0	18.07	153.97	5,265.9	-1,367.6	620.4	1,501.1	0.00	0.00	0.00
5,600.0	18.07	153.97	5,360.9	-1,395.5	634.0	1,532.1	0.00	0.00	0.00
5,700.0	18.07	153.97	5,456.0	-1,423.3	647.7	1,563.0	0.00	0.00	0.00
5,800.0	18.07	153.97	5,551.1	-1,451.2	661.3	1,594.0	0.00	0.00	0.00
5,900.0	18.07	153.97	5,646.1	-1,479.1	674.9	1,625.0	0.00	0.00	0.00
6,000.0	18.07	153.97	5,741.2	-1,507.0	688.5	1,655.9	0.00	0.00	0.00
6,100.0	18.07	153.97	5,836.3	-1,534.8	702.1	1,686.9	0.00	0.00	0.00
6,200.0	18.07	153.97	5,931.3	-1,562.7	715.7	1,717.9	0.00	0.00	0.00
6,300.0	18.07	153.97	6,026.4	-1,590.6	729.3	1,748.8	0.00	0.00	0.00
6,400.0	18.07	153.97	6,121.5	-1,618.5	742.9	1,779.8	0.00	0.00	0.00
6,500.0	18.07	153.97	6,216.5	-1,646.3	756.5	1,810.8	0.00	0.00	0.00
<b>Wasatch G</b>									
6,586.8	18.07	153.97	6,299.0	-1,670.5	768.3	1,837.6	0.00	0.00	0.00
6,600.0	18.07	153.97	6,311.6	-1,674.2	770.2	1,841.7	0.00	0.00	0.00
6,700.0	18.07	153.97	6,406.7	-1,702.1	783.8	1,872.7	0.00	0.00	0.00
6,800.0	18.07	153.97	6,501.7	-1,729.9	797.4	1,903.7	0.00	0.00	0.00
6,900.0	18.07	153.97	6,596.8	-1,757.8	811.0	1,934.7	0.00	0.00	0.00
<b>Fort Union</b>									
6,902.3	18.07	153.97	6,599.0	-1,758.5	811.3	1,935.4	0.00	0.00	0.00
7,000.0	18.07	153.97	6,691.9	-1,785.7	824.6	1,965.6	0.00	0.00	0.00
7,100.0	18.07	153.97	6,786.9	-1,813.6	838.2	1,996.6	0.00	0.00	0.00
7,200.0	18.07	153.97	6,882.0	-1,841.4	851.8	2,027.6	0.00	0.00	0.00
7,300.0	18.07	153.97	6,977.1	-1,869.3	865.4	2,058.5	0.00	0.00	0.00
7,400.0	18.07	153.97	7,072.1	-1,897.2	879.0	2,089.5	0.00	0.00	0.00
7,500.0	18.07	153.97	7,167.2	-1,925.1	892.7	2,120.5	0.00	0.00	0.00
7,600.0	18.07	153.97	7,262.3	-1,952.9	906.3	2,151.4	0.00	0.00	0.00
7,700.0	18.07	153.97	7,357.3	-1,980.8	919.9	2,182.4	0.00	0.00	0.00
7,800.0	18.07	153.97	7,452.4	-2,008.7	933.5	2,213.4	0.00	0.00	0.00
7,900.0	18.07	153.97	7,547.5	-2,036.5	947.1	2,244.3	0.00	0.00	0.00
8,000.0	18.07	153.97	7,642.5	-2,064.4	960.7	2,275.3	0.00	0.00	0.00
8,100.0	18.07	153.97	7,737.6	-2,092.3	974.3	2,306.3	0.00	0.00	0.00
8,200.0	18.07	153.97	7,832.7	-2,120.2	987.9	2,337.2	0.00	0.00	0.00
8,300.0	18.07	153.97	7,927.7	-2,148.0	1,001.5	2,368.2	0.00	0.00	0.00
<b>Drop 3° /100'</b>									
8,331.4	18.07	153.97	7,957.6	-2,156.8	1,005.8	2,377.9	0.00	0.00	0.00
8,400.0	16.01	153.97	8,023.2	-2,174.9	1,014.6	2,398.0	3.00	-3.00	0.00
8,500.0	13.01	153.97	8,120.0	-2,197.4	1,025.6	2,423.0	3.00	-3.00	0.00
8,600.0	10.01	153.97	8,218.0	-2,215.3	1,034.4	2,442.9	3.00	-3.00	0.00
8,700.0	7.01	153.97	8,316.8	-2,228.6	1,040.9	2,457.7	3.00	-3.00	0.00
8,800.0	4.01	153.97	8,416.4	-2,237.2	1,045.1	2,467.3	3.00	-3.00	0.00
8,900.0	1.01	153.97	8,516.3	-2,241.2	1,047.0	2,471.7	3.00	-3.00	0.00
<b>EOD @ Vertical / Build 1.5° / 100' - Ohio Creek / TOG</b>									

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well ELU O13 FED 21D-24 496 - Slot ELU O13 FED 21D-24 496
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	RKB @ 8148.0usft (30')
<b>Project:</b>	Rio Blanco County, CO	<b>MD Reference:</b>	RKB @ 8148.0usft (30')
<b>Site:</b>	ELU O13 496 Pad	<b>North Reference:</b>	True
<b>Well:</b>	ELU O13 FED 21D-24 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

## 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)
8,933.7	0.00	0.00	8,550.0	-2,241.4	1,047.1	2,472.0	3.00	-3.00	0.00
9,000.0	0.99	250.00	8,616.3	-2,241.6	1,046.6	2,471.9	1.50	1.50	0.00
<b>EOB @ 1.41° Inc. / 250.00° Azm</b>									
9,027.5	1.41	250.00	8,643.7	-2,241.8	1,046.1	2,471.9	1.50	1.50	0.00
9,100.0	1.41	250.00	8,716.2	-2,242.4	1,044.4	2,471.8	0.00	0.00	0.00
9,200.0	1.41	250.00	8,816.2	-2,243.3	1,042.1	2,471.7	0.00	0.00	0.00
9,300.0	1.41	250.00	8,916.2	-2,244.1	1,039.8	2,471.6	0.00	0.00	0.00
9,400.0	1.41	250.00	9,016.1	-2,245.0	1,037.5	2,471.5	0.00	0.00	0.00
<b>Williams Fork</b>									
9,440.9	1.41	250.00	9,057.0	-2,245.3	1,036.5	2,471.4	0.00	0.00	0.00
9,500.0	1.41	250.00	9,116.1	-2,245.8	1,035.2	2,471.4	0.00	0.00	0.00
9,600.0	1.41	250.00	9,216.1	-2,246.6	1,032.9	2,471.2	0.00	0.00	0.00
9,700.0	1.41	250.00	9,316.0	-2,247.5	1,030.6	2,471.1	0.00	0.00	0.00
9,800.0	1.41	250.00	9,416.0	-2,248.3	1,028.3	2,471.0	0.00	0.00	0.00
9,900.0	1.41	250.00	9,516.0	-2,249.2	1,026.0	2,470.9	0.00	0.00	0.00
10,000.0	1.41	250.00	9,616.0	-2,250.0	1,023.6	2,470.8	0.00	0.00	0.00
10,100.0	1.41	250.00	9,715.9	-2,250.8	1,021.3	2,470.7	0.00	0.00	0.00
10,200.0	1.41	250.00	9,815.9	-2,251.7	1,019.0	2,470.5	0.00	0.00	0.00
10,300.0	1.41	250.00	9,915.9	-2,252.5	1,016.7	2,470.4	0.00	0.00	0.00
10,400.0	1.41	250.00	10,015.8	-2,253.4	1,014.4	2,470.3	0.00	0.00	0.00
10,500.0	1.41	250.00	10,115.8	-2,254.2	1,012.1	2,470.2	0.00	0.00	0.00
10,600.0	1.41	250.00	10,215.8	-2,255.0	1,009.8	2,470.1	0.00	0.00	0.00
10,700.0	1.41	250.00	10,315.7	-2,255.9	1,007.5	2,470.0	0.00	0.00	0.00
10,800.0	1.41	250.00	10,415.7	-2,256.7	1,005.2	2,469.8	0.00	0.00	0.00
10,900.0	1.41	250.00	10,515.7	-2,257.5	1,002.9	2,469.7	0.00	0.00	0.00
11,000.0	1.41	250.00	10,615.7	-2,258.4	1,000.6	2,469.6	0.00	0.00	0.00
11,100.0	1.41	250.00	10,715.6	-2,259.2	998.3	2,469.5	0.00	0.00	0.00
11,200.0	1.41	250.00	10,815.6	-2,260.1	996.0	2,469.4	0.00	0.00	0.00
11,300.0	1.41	250.00	10,915.6	-2,260.9	993.7	2,469.3	0.00	0.00	0.00
11,400.0	1.41	250.00	11,015.5	-2,261.7	991.4	2,469.1	0.00	0.00	0.00
11,500.0	1.41	250.00	11,115.5	-2,262.6	989.1	2,469.0	0.00	0.00	0.00
11,600.0	1.41	250.00	11,215.5	-2,263.4	986.8	2,468.9	0.00	0.00	0.00
11,700.0	1.41	250.00	11,315.4	-2,264.3	984.5	2,468.8	0.00	0.00	0.00
11,800.0	1.41	250.00	11,415.4	-2,265.1	982.2	2,468.7	0.00	0.00	0.00
11,900.0	1.41	250.00	11,515.4	-2,265.9	979.9	2,468.6	0.00	0.00	0.00
12,000.0	1.41	250.00	11,615.4	-2,266.8	977.5	2,468.4	0.00	0.00	0.00
12,100.0	1.41	250.00	11,715.3	-2,267.6	975.2	2,468.3	0.00	0.00	0.00
12,200.0	1.41	250.00	11,815.3	-2,268.5	972.9	2,468.2	0.00	0.00	0.00
12,300.0	1.41	250.00	11,915.3	-2,269.3	970.6	2,468.1	0.00	0.00	0.00
<b>Cameo</b>									
12,356.8	1.41	250.00	11,972.0	-2,269.8	969.3	2,468.0	0.00	0.00	0.00
12,400.0	1.41	250.00	12,015.2	-2,270.1	968.3	2,468.0	0.00	0.00	0.00
12,500.0	1.41	250.00	12,115.2	-2,271.0	966.0	2,467.9	0.00	0.00	0.00
12,600.0	1.41	250.00	12,215.2	-2,271.8	963.7	2,467.7	0.00	0.00	0.00
12,700.0	1.41	250.00	12,315.1	-2,272.6	961.4	2,467.6	0.00	0.00	0.00
12,800.0	1.41	250.00	12,415.1	-2,273.5	959.1	2,467.5	0.00	0.00	0.00
<b>Rollins</b>									
12,856.9	1.41	250.00	12,472.0	-2,274.0	957.8	2,467.4	0.00	0.00	0.00
12,900.0	1.41	250.00	12,515.1	-2,274.3	956.8	2,467.4	0.00	0.00	0.00
13,000.0	1.41	250.00	12,615.1	-2,275.2	954.5	2,467.3	0.00	0.00	0.00
<b>TD @ 13057.0' MD / 12672.0' TVD</b>									
13,057.0	1.41	250.00	12,672.0	-2,275.6	953.2	2,467.2	0.00	0.00	0.00

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well ELU O13 FED 21D-24 496 - Slot ELU O13 FED 21D-24 496
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	RKB @ 8148.0usft (30')
<b>Project:</b>	Rio Blanco County, CO	<b>MD Reference:</b>	RKB @ 8148.0usft (30')
<b>Site:</b>	ELU O13 496 Pad	<b>North Reference:</b>	True
<b>Well:</b>	ELU O13 FED 21D-24 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

#### Design Targets

##### Target Name

- hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
OHCR - 21D-24 - plan hits target center - Point	0.00	0.00	8,550.0	-2,241.4	1,047.1	14,427,178.11	2,453,038.12	39.692538	-108.111527
PBHL - 21D-24 - plan hits target center - Ellipse (radii L100.0 W50.0 on 250.00 azi)	0.00	0.00	12,672.0	-2,275.6	953.2	14,427,140.90	2,452,945.30	39.692444	-108.111860

#### Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,062.2	3,899.0	Wasatch			
6,586.8	6,299.0	Wasatch G			
6,902.3	6,599.0	Fort Union			
8,933.7	8,550.0	Ohio Creek / TOG			
9,440.9	9,057.0	Williams Fork			
12,356.8	11,972.0	Cameo			
12,856.9	12,472.0	Rollins			

#### Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
280.0	280.0	0.0	0.0	Build 3° / 100'
613.3	611.6	-28.0	-7.5	EOB @ 10.00° Inc. / 195.00° Azm / Build 3° / 100'
1,024.9	1,011.5	-120.3	11.3	EOB @ 18.07° Inc. / 153.97° Azm
8,331.4	7,957.6	-2,156.8	1,005.8	Drop 3° / 100'
8,933.7	8,550.0	-2,241.4	1,047.1	EOD @ Vertical / Build 1.5° / 100'
9,027.5	8,643.7	-2,241.8	1,046.1	EOB @ 1.41° Inc. / 250.00° Azm
13,057.0	12,672.0	-2,275.6	953.2	TD @ 13057.0' MD / 12672.0' TVD