

Project: Rio Blanco County, CO  
 Site: ELU A18 495 Pad  
 Well: ELU A18 FED 21C-13 496  
 Wellbore: Wellbore #1  
 Design: Design #2  
 Latitude: 39.708927  
 Longitude: -108.103657  
 Ground Level: 8029.0  
 RKB @ 8059.0usft (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 @ 8059.0usft (30')  
 Section (VS) Reference: Slot - 21C-13(0.0N, 0.0E)  
 Measured Depth Reference: RKB @ 8059.0usft (30')  
 Calculation Method: Minimum Curvature

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	V Sect	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
130.0	0.00	0.00	130.0	0.0	0.0	0.00	0.00	0.0	Build 3° / 100'
463.3	10.00	240.00	461.6	-14.5	-25.1	3.00	240.00	27.4	EOB @ 10.00° Inc. / 240.00° Azm / Build 3° / 100'
701.3	15.63	260.36	693.7	-30.2	-74.7	3.00	48.97	79.0	EOB @ 15.63° Inc. / 260.36° Azm
8408.0	15.63	260.36	8115.3	-376.0	-2122.2	0.00	0.00	2155.6	Drop 3° / 100'
8929.2	0.00	0.00	8630.0	-389.9	-2191.9	3.00	180.00	2226.2	EOD @ Vertical / Build 1.5° / 100'
9012.0	1.24	250.02	8712.8	-390.2	-2192.7	1.50	250.02	2227.1	EOB @ 1.24° Inc. / 250.02° Azm
13584.2	1.24	250.02	13284.0	-424.0	-2285.9	0.00	0.00	2324.9	TD @ 13584.2' MD / 13284.0' TVD

FORMATION TOP DETAILS

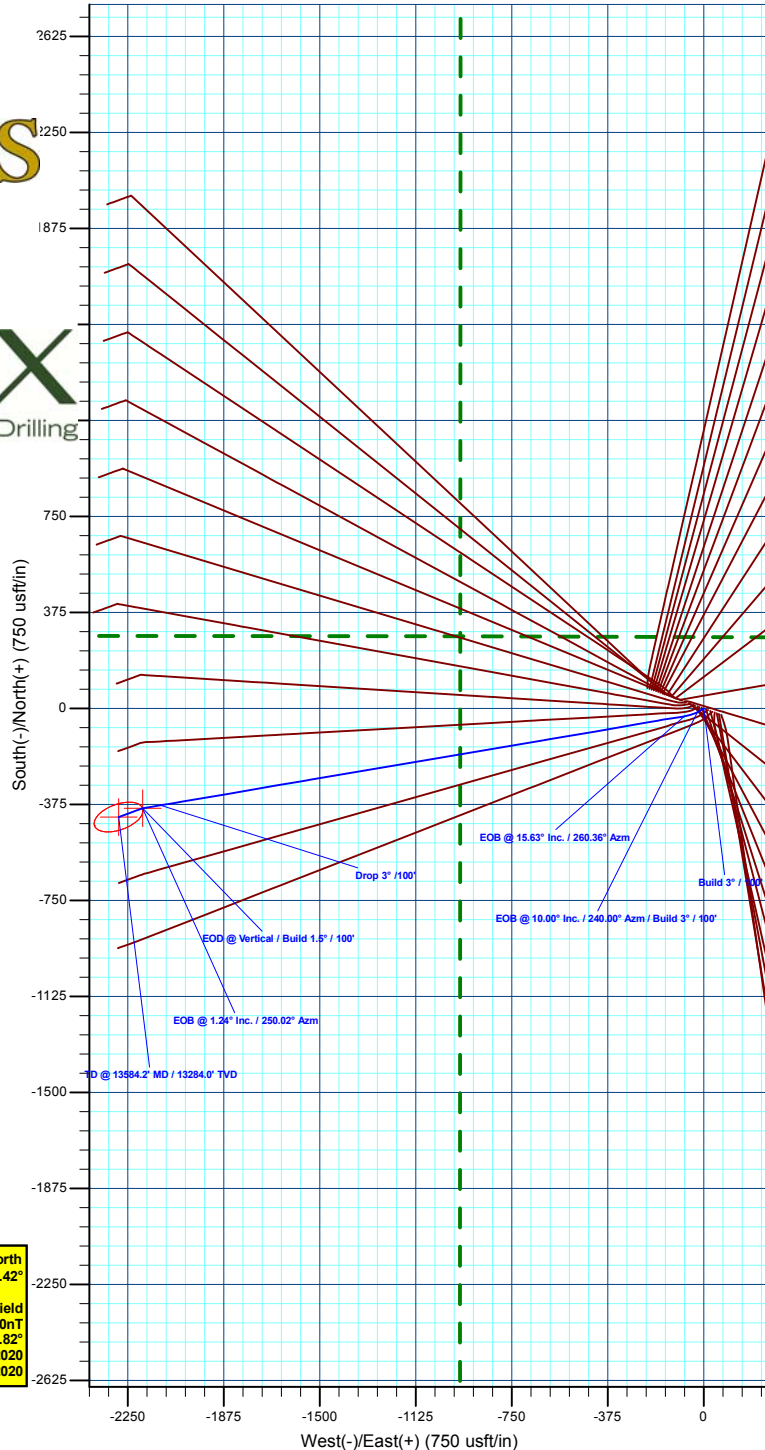
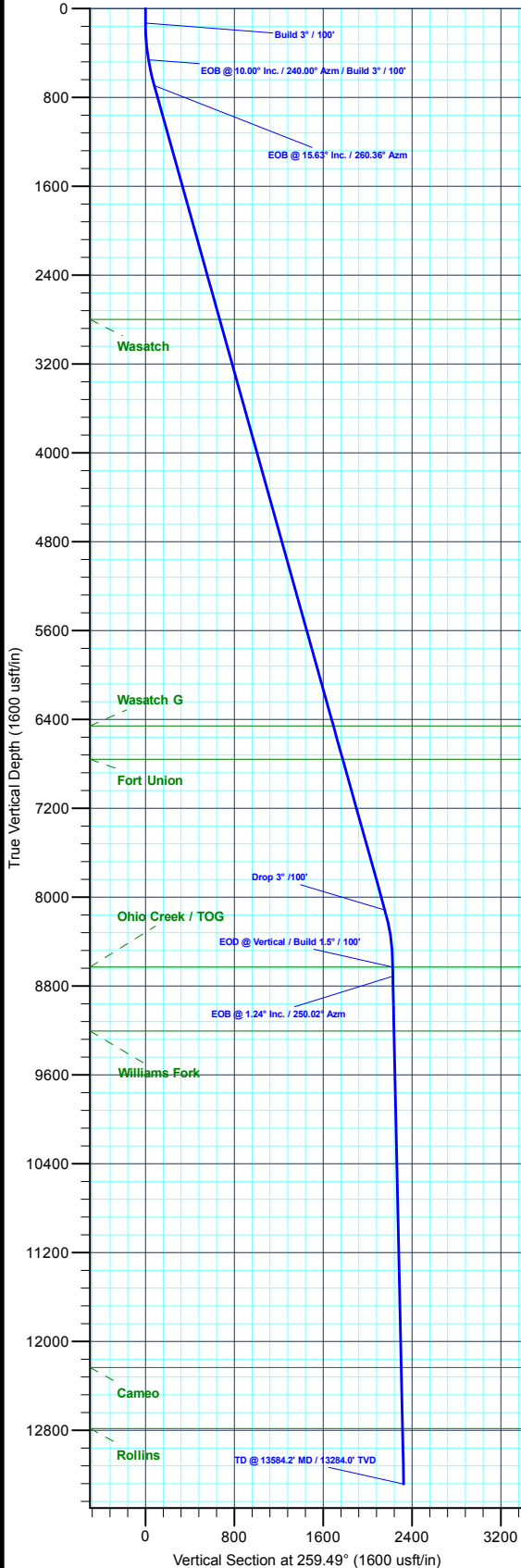
TVDPath	MDPath	Formation
2800.0	2888.5	Wasatch
6459.0	6688.1	Wasatch G
6759.0	6999.6	Fort Union
8630.0	8929.6	Ohio Creek / TOG
9205.0	9504.3	Williams Fork
12234.0	12534.0	Cameo
12784.0	13084.1	Rollins

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
21C-13 - OHCR8630.0				14432758.19	2452881.43	39.707857	-108.114444
21C-13 - PBH13284.0	-424.0		-2285.9	14432721.00	2452788.60	39.707763	-108.111778

WELL DETAILS: ELU A18 FED 21C-13 496

Ground Level : 8029.0							
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	21C-13	
0.0	0.0	14433218.67	2455059.56	39.708927	-108.103657		



**T M**  
 Azimuths to True North  
 Magnetic North: 9.42°  
 Magnetic Field  
 Strength: 51157.0nT  
 Dip Angle: 65.82°  
 Date: 8/17/2020  
 Model: HDGM2020

Plan: Design #2 (ELU A18 FED 21C-13 496/Wellbore #1)

Created By: Will Jircik

Date: 13:38, May 18 2022



## **Caerus Oil & Gas**

**Rio Blanco County, CO**

**ELU A18 495 Pad**

**ELU A18 FED 21C-13 496 - Slot 21C-13**

**Wellbore #1**

**Plan: Design #2**

## **KLX Well Planning Report**

**18 May, 2022**



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well ELU A18 FED 21C-13 496 - Slot 21C-13
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	RKB @ 8059.0usft (30')
<b>Project:</b>	Rio Blanco County, CO	<b>MD Reference:</b>	RKB @ 8059.0usft (30')
<b>Site:</b>	ELU A18 495 Pad	<b>North Reference:</b>	True
<b>Well:</b>	ELU A18 FED 21C-13 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #2		

<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 A18 495 Pad				
<b>Site Position:</b>		<b>Northing:</b>	14,433,279.80 usft	<b>Latitude:</b>	39.709109
<b>From:</b>	Map	<b>Easting:</b>	2,454,904.40 usft	<b>Longitude:</b>	-108.104201
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b>	1.85 °

<b>Well</b>	ELU A18 FED 21C-13 496 - Slot 21C-13					
<b>Well Position</b>	<b>+N/-S</b>	-66.1 usft	<b>Northing:</b>	14,433,218.67 usft	<b>Latitude:</b>	39.708927
	<b>+E/-W</b>	153.1 usft	<b>Easting:</b>	2,455,059.56 usft	<b>Longitude:</b>	-108.103657
<b>Position Uncertainty</b>		0.0 usft	<b>Wellhead Elevation:</b>		<b>Ground Level:</b>	8,029.0 usft

<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	8/17/2020	9.42	65.82	51,157.00000000

<b>Design</b>	Design #2			
<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	259.49

<b>Plan Sections</b>										
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	
130.0	0.00	0.00	130.0	0.0	0.0	0.00	0.00	0.00	0.00	
463.3	10.00	240.00	461.6	-14.5	-25.1	3.00	3.00	0.00	240.00	
701.3	15.63	260.36	693.7	-30.2	-74.7	3.00	2.37	8.56	48.97	
8,408.0	15.63	260.36	8,115.3	-378.0	-2,122.2	0.00	0.00	0.00	0.00	
8,929.2	0.00	0.00	8,630.0	-389.9	-2,191.9	3.00	-3.00	0.00	180.00	21C-13 - OHCR
9,012.0	1.24	250.02	8,712.8	-390.2	-2,192.7	1.50	1.50	-132.83	250.02	
13,584.2	1.24	250.02	13,284.0	-424.0	-2,285.9	0.00	0.00	0.00	0.00	21C-13 - PBHL

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well ELU A18 FED 21C-13 496 - Slot 21C-13
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	RKB @ 8059.0usft (30')
<b>Project:</b>	Rio Blanco County, CO	<b>MD Reference:</b>	RKB @ 8059.0usft (30')
<b>Site:</b>	ELU A18 495 Pad	<b>North Reference:</b>	True
<b>Well:</b>	ELU A18 FED 21C-13 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	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
<b>Build 3° / 100'</b>									
130.0	0.00	0.00	130.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	2.10	240.00	200.0	-0.6	-1.1	1.2	3.00	3.00	0.00
300.0	5.10	240.00	299.8	-3.8	-6.5	7.1	3.00	3.00	0.00
400.0	8.10	240.00	399.1	-9.5	-16.5	18.0	3.00	3.00	0.00
<b>EOB @ 10.00° Inc. / 240.00° Azm / Build 3° / 100'</b>									
463.3	10.00	240.00	461.6	-14.5	-25.1	27.4	3.00	3.00	0.00
500.0	10.75	244.45	497.7	-17.6	-31.0	33.7	3.00	2.06	12.14
600.0	13.06	253.81	595.6	-24.8	-50.2	53.9	3.00	2.31	9.36
<b>EOB @ 15.63° Inc. / 260.36° Azm</b>									
701.3	15.63	260.36	693.7	-30.2	-74.7	79.0	3.00	2.54	6.46
800.0	15.63	260.36	788.7	-34.7	-100.9	105.6	0.00	0.00	0.00
900.0	15.63	260.36	885.1	-39.2	-127.5	132.5	0.00	0.00	0.00
1,000.0	15.63	260.36	981.4	-43.7	-154.1	159.4	0.00	0.00	0.00
1,100.0	15.63	260.36	1,077.7	-48.2	-180.6	186.4	0.00	0.00	0.00
1,200.0	15.63	260.36	1,174.0	-52.7	-207.2	213.3	0.00	0.00	0.00
1,300.0	15.63	260.36	1,270.3	-57.2	-233.8	240.3	0.00	0.00	0.00
1,400.0	15.63	260.36	1,366.6	-61.8	-260.3	267.2	0.00	0.00	0.00
1,500.0	15.63	260.36	1,462.9	-66.3	-286.9	294.2	0.00	0.00	0.00
1,600.0	15.63	260.36	1,559.2	-70.8	-313.5	321.1	0.00	0.00	0.00
1,700.0	15.63	260.36	1,655.5	-75.3	-340.0	348.1	0.00	0.00	0.00
1,800.0	15.63	260.36	1,751.8	-79.8	-366.6	375.0	0.00	0.00	0.00
1,900.0	15.63	260.36	1,848.1	-84.3	-393.2	402.0	0.00	0.00	0.00
2,000.0	15.63	260.36	1,944.4	-88.8	-419.7	428.9	0.00	0.00	0.00
2,100.0	15.63	260.36	2,040.7	-93.4	-446.3	455.8	0.00	0.00	0.00
2,200.0	15.63	260.36	2,137.0	-97.9	-472.9	482.8	0.00	0.00	0.00
2,300.0	15.63	260.36	2,233.3	-102.4	-499.4	509.7	0.00	0.00	0.00
2,400.0	15.63	260.36	2,329.6	-106.9	-526.0	536.7	0.00	0.00	0.00
2,500.0	15.63	260.36	2,425.9	-111.4	-552.6	563.6	0.00	0.00	0.00
2,600.0	15.63	260.36	2,522.2	-115.9	-579.1	590.6	0.00	0.00	0.00
2,700.0	15.63	260.36	2,618.5	-120.4	-605.7	617.5	0.00	0.00	0.00
2,800.0	15.63	260.36	2,714.8	-124.9	-632.3	644.5	0.00	0.00	0.00
<b>Wasatch</b>									
2,888.5	15.63	260.36	2,800.0	-128.9	-655.8	668.3	0.00	0.00	0.00
2,900.0	15.63	260.36	2,811.1	-129.5	-658.8	671.4	0.00	0.00	0.00
3,000.0	15.63	260.36	2,907.4	-134.0	-685.4	698.3	0.00	0.00	0.00
3,100.0	15.63	260.36	3,003.7	-138.5	-712.0	725.3	0.00	0.00	0.00
3,200.0	15.63	260.36	3,100.0	-143.0	-738.5	752.2	0.00	0.00	0.00
3,300.0	15.63	260.36	3,196.3	-147.5	-765.1	779.2	0.00	0.00	0.00
3,400.0	15.63	260.36	3,292.6	-152.0	-791.7	806.1	0.00	0.00	0.00
3,500.0	15.63	260.36	3,388.9	-156.5	-818.3	833.1	0.00	0.00	0.00
3,600.0	15.63	260.36	3,485.2	-161.0	-844.8	860.0	0.00	0.00	0.00
3,700.0	15.63	260.36	3,581.5	-165.6	-871.4	887.0	0.00	0.00	0.00
3,800.0	15.63	260.36	3,677.8	-170.1	-898.0	913.9	0.00	0.00	0.00
3,900.0	15.63	260.36	3,774.1	-174.6	-924.5	940.9	0.00	0.00	0.00
4,000.0	15.63	260.36	3,870.4	-179.1	-951.1	967.8	0.00	0.00	0.00
4,100.0	15.63	260.36	3,966.7	-183.6	-977.7	994.7	0.00	0.00	0.00
4,200.0	15.63	260.36	4,063.0	-188.1	-1,004.2	1,021.7	0.00	0.00	0.00
4,300.0	15.63	260.36	4,159.3	-192.6	-1,030.8	1,048.6	0.00	0.00	0.00
4,400.0	15.63	260.36	4,255.6	-197.2	-1,057.4	1,075.6	0.00	0.00	0.00
4,500.0	15.63	260.36	4,351.9	-201.7	-1,083.9	1,102.5	0.00	0.00	0.00
4,600.0	15.63	260.36	4,448.2	-206.2	-1,110.5	1,129.5	0.00	0.00	0.00

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well ELU A18 FED 21C-13 496 - Slot 21C-13
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	RKB @ 8059.0usft (30')
<b>Project:</b>	Rio Blanco County, CO	<b>MD Reference:</b>	RKB @ 8059.0usft (30')
<b>Site:</b>	ELU A18 495 Pad	<b>North Reference:</b>	True
<b>Well:</b>	ELU A18 FED 21C-13 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	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)
4,700.0	15.63	260.36	4,544.5	-210.7	-1,137.1	1,156.4	0.00	0.00	0.00
4,800.0	15.63	260.36	4,640.8	-215.2	-1,163.6	1,183.4	0.00	0.00	0.00
4,900.0	15.63	260.36	4,737.1	-219.7	-1,190.2	1,210.3	0.00	0.00	0.00
5,000.0	15.63	260.36	4,833.4	-224.2	-1,216.8	1,237.3	0.00	0.00	0.00
5,100.0	15.63	260.36	4,929.7	-228.7	-1,243.3	1,264.2	0.00	0.00	0.00
5,200.0	15.63	260.36	5,026.0	-233.3	-1,269.9	1,291.1	0.00	0.00	0.00
5,300.0	15.63	260.36	5,122.3	-237.8	-1,296.5	1,318.1	0.00	0.00	0.00
5,400.0	15.63	260.36	5,218.6	-242.3	-1,323.0	1,345.0	0.00	0.00	0.00
5,500.0	15.63	260.36	5,314.9	-246.8	-1,349.6	1,372.0	0.00	0.00	0.00
5,600.0	15.63	260.36	5,411.2	-251.3	-1,376.2	1,398.9	0.00	0.00	0.00
5,700.0	15.63	260.36	5,507.5	-255.8	-1,402.7	1,425.9	0.00	0.00	0.00
5,800.0	15.63	260.36	5,603.8	-260.3	-1,429.3	1,452.8	0.00	0.00	0.00
5,900.0	15.63	260.36	5,700.1	-264.8	-1,455.9	1,479.8	0.00	0.00	0.00
6,000.0	15.63	260.36	5,796.4	-269.4	-1,482.4	1,506.7	0.00	0.00	0.00
6,100.0	15.63	260.36	5,892.7	-273.9	-1,509.0	1,533.7	0.00	0.00	0.00
6,200.0	15.63	260.36	5,989.0	-278.4	-1,535.6	1,560.6	0.00	0.00	0.00
6,300.0	15.63	260.36	6,085.3	-282.9	-1,562.2	1,587.5	0.00	0.00	0.00
6,400.0	15.63	260.36	6,181.6	-287.4	-1,588.7	1,614.5	0.00	0.00	0.00
6,500.0	15.63	260.36	6,277.9	-291.9	-1,615.3	1,641.4	0.00	0.00	0.00
6,600.0	15.63	260.36	6,374.2	-296.4	-1,641.9	1,668.4	0.00	0.00	0.00
<b>Wasatch G</b>									
6,688.1	15.63	260.36	6,459.0	-300.4	-1,665.3	1,692.1	0.00	0.00	0.00
6,700.0	15.63	260.36	6,470.5	-301.0	-1,668.4	1,695.3	0.00	0.00	0.00
6,800.0	15.63	260.36	6,566.8	-305.5	-1,695.0	1,722.3	0.00	0.00	0.00
6,900.0	15.63	260.36	6,663.1	-310.0	-1,721.6	1,749.2	0.00	0.00	0.00
<b>Fort Union</b>									
6,999.6	15.63	260.36	6,759.0	-314.5	-1,748.0	1,776.1	0.00	0.00	0.00
7,000.0	15.63	260.36	6,759.4	-314.5	-1,748.1	1,776.2	0.00	0.00	0.00
7,100.0	15.63	260.36	6,855.7	-319.0	-1,774.7	1,803.1	0.00	0.00	0.00
7,200.0	15.63	260.36	6,952.0	-323.5	-1,801.3	1,830.1	0.00	0.00	0.00
7,300.0	15.63	260.36	7,048.3	-328.0	-1,827.8	1,857.0	0.00	0.00	0.00
7,400.0	15.63	260.36	7,144.6	-332.5	-1,854.4	1,883.9	0.00	0.00	0.00
7,500.0	15.63	260.36	7,240.9	-337.1	-1,881.0	1,910.9	0.00	0.00	0.00
7,600.0	15.63	260.36	7,337.2	-341.6	-1,907.5	1,937.8	0.00	0.00	0.00
7,700.0	15.63	260.36	7,433.5	-346.1	-1,934.1	1,964.8	0.00	0.00	0.00
7,800.0	15.63	260.36	7,529.8	-350.6	-1,960.7	1,991.7	0.00	0.00	0.00
7,900.0	15.63	260.36	7,626.1	-355.1	-1,987.2	2,018.7	0.00	0.00	0.00
8,000.0	15.63	260.36	7,722.4	-359.6	-2,013.8	2,045.6	0.00	0.00	0.00
8,100.0	15.63	260.36	7,818.7	-364.1	-2,040.4	2,072.6	0.00	0.00	0.00
8,200.0	15.63	260.36	7,915.0	-368.6	-2,066.9	2,099.5	0.00	0.00	0.00
8,300.0	15.63	260.36	8,011.3	-373.2	-2,093.5	2,126.5	0.00	0.00	0.00
<b>Drop 3° /100'</b>									
8,408.0	15.63	260.36	8,115.3	-378.0	-2,122.2	2,155.6	0.00	0.00	0.00
8,500.0	12.87	260.36	8,204.4	-381.8	-2,144.5	2,178.2	3.00	-3.00	0.00
8,600.0	9.87	260.36	8,302.5	-385.1	-2,164.0	2,197.9	3.00	-3.00	0.00
8,700.0	6.87	260.36	8,401.4	-387.6	-2,178.3	2,212.5	3.00	-3.00	0.00
8,800.0	3.87	260.36	8,500.9	-389.1	-2,187.6	2,221.8	3.00	-3.00	0.00
8,900.0	0.87	260.36	8,600.8	-389.8	-2,191.7	2,226.0	3.00	-3.00	0.00
<b>EOD @ Vertical / Build 1.5° / 100' - Ohio Creek / TOG</b>									
8,929.2	0.00	0.00	8,630.0	-389.9	-2,191.9	2,226.2	3.00	-3.00	0.00
9,000.0	1.06	250.02	8,700.8	-390.1	-2,192.5	2,226.9	1.50	1.50	0.00
<b>EOB @ 1.24° Inc. / 250.02° Azm</b>									
9,012.0	1.24	250.02	8,712.8	-390.2	-2,192.7	2,227.1	1.50	1.50	0.00

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well ELU A18 FED 21C-13 496 - Slot 21C-13
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	RKB @ 8059.0usft (30')
<b>Project:</b>	Rio Blanco County, CO	<b>MD Reference:</b>	RKB @ 8059.0usft (30')
<b>Site:</b>	ELU A18 495 Pad	<b>North Reference:</b>	True
<b>Well:</b>	ELU A18 FED 21C-13 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	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)	
9,100.0	1.24	250.02	8,800.8	-390.8	-2,194.5	2,229.0	0.00	0.00	0.00	
9,200.0	1.24	250.02	8,900.8	-391.6	-2,196.5	2,231.1	0.00	0.00	0.00	
9,300.0	1.24	250.02	9,000.8	-392.3	-2,198.6	2,233.3	0.00	0.00	0.00	
9,400.0	1.24	250.02	9,100.7	-393.0	-2,200.6	2,235.4	0.00	0.00	0.00	
9,500.0	1.24	250.02	9,200.7	-393.8	-2,202.7	2,237.5	0.00	0.00	0.00	
<b>Williams Fork</b>										
9,504.3	1.24	250.02	9,205.0	-393.8	-2,202.7	2,237.6	0.00	0.00	0.00	
9,600.0	1.24	250.02	9,300.7	-394.5	-2,204.7	2,239.7	0.00	0.00	0.00	
9,700.0	1.24	250.02	9,400.7	-395.3	-2,206.7	2,241.8	0.00	0.00	0.00	
9,800.0	1.24	250.02	9,500.7	-396.0	-2,208.8	2,243.9	0.00	0.00	0.00	
9,900.0	1.24	250.02	9,600.6	-396.8	-2,210.8	2,246.1	0.00	0.00	0.00	
10,000.0	1.24	250.02	9,700.6	-397.5	-2,212.8	2,248.2	0.00	0.00	0.00	
10,100.0	1.24	250.02	9,800.6	-398.2	-2,214.9	2,250.4	0.00	0.00	0.00	
10,200.0	1.24	250.02	9,900.6	-399.0	-2,216.9	2,252.5	0.00	0.00	0.00	
10,300.0	1.24	250.02	10,000.5	-399.7	-2,219.0	2,254.6	0.00	0.00	0.00	
10,400.0	1.24	250.02	10,100.5	-400.5	-2,221.0	2,256.8	0.00	0.00	0.00	
10,500.0	1.24	250.02	10,200.5	-401.2	-2,223.0	2,258.9	0.00	0.00	0.00	
10,600.0	1.24	250.02	10,300.5	-401.9	-2,225.1	2,261.1	0.00	0.00	0.00	
10,700.0	1.24	250.02	10,400.4	-402.7	-2,227.1	2,263.2	0.00	0.00	0.00	
10,800.0	1.24	250.02	10,500.4	-403.4	-2,229.1	2,265.3	0.00	0.00	0.00	
10,900.0	1.24	250.02	10,600.4	-404.2	-2,231.2	2,267.5	0.00	0.00	0.00	
11,000.0	1.24	250.02	10,700.4	-404.9	-2,233.2	2,269.6	0.00	0.00	0.00	
11,100.0	1.24	250.02	10,800.3	-405.6	-2,235.2	2,271.7	0.00	0.00	0.00	
11,200.0	1.24	250.02	10,900.3	-406.4	-2,237.3	2,273.9	0.00	0.00	0.00	
11,300.0	1.24	250.02	11,000.3	-407.1	-2,239.3	2,276.0	0.00	0.00	0.00	
11,400.0	1.24	250.02	11,100.3	-407.9	-2,241.4	2,278.2	0.00	0.00	0.00	
11,500.0	1.24	250.02	11,200.3	-408.6	-2,243.4	2,280.3	0.00	0.00	0.00	
11,600.0	1.24	250.02	11,300.2	-409.3	-2,245.4	2,282.4	0.00	0.00	0.00	
11,700.0	1.24	250.02	11,400.2	-410.1	-2,247.5	2,284.6	0.00	0.00	0.00	
11,800.0	1.24	250.02	11,500.2	-410.8	-2,249.5	2,286.7	0.00	0.00	0.00	
11,900.0	1.24	250.02	11,600.2	-411.6	-2,251.5	2,288.8	0.00	0.00	0.00	
12,000.0	1.24	250.02	11,700.1	-412.3	-2,253.6	2,291.0	0.00	0.00	0.00	
12,100.0	1.24	250.02	11,800.1	-413.0	-2,255.6	2,293.1	0.00	0.00	0.00	
12,200.0	1.24	250.02	11,900.1	-413.8	-2,257.7	2,295.3	0.00	0.00	0.00	
12,300.0	1.24	250.02	12,000.1	-414.5	-2,259.7	2,297.4	0.00	0.00	0.00	
12,400.0	1.24	250.02	12,100.0	-415.3	-2,261.7	2,299.5	0.00	0.00	0.00	
12,500.0	1.24	250.02	12,200.0	-416.0	-2,263.8	2,301.7	0.00	0.00	0.00	
<b>Cameo</b>										
12,534.0	1.24	250.02	12,234.0	-416.3	-2,264.5	2,302.4	0.00	0.00	0.00	
12,600.0	1.24	250.02	12,300.0	-416.7	-2,265.8	2,303.8	0.00	0.00	0.00	
12,700.0	1.24	250.02	12,400.0	-417.5	-2,267.8	2,305.9	0.00	0.00	0.00	
12,800.0	1.24	250.02	12,499.9	-418.2	-2,269.9	2,308.1	0.00	0.00	0.00	
12,900.0	1.24	250.02	12,599.9	-419.0	-2,271.9	2,310.2	0.00	0.00	0.00	
13,000.0	1.24	250.02	12,699.9	-419.7	-2,274.0	2,312.4	0.00	0.00	0.00	
<b>Rollins</b>										
13,084.1	1.24	250.02	12,784.0	-420.3	-2,275.7	2,314.2	0.00	0.00	0.00	
13,100.0	1.24	250.02	12,799.9	-420.5	-2,276.0	2,314.5	0.00	0.00	0.00	
13,200.0	1.24	250.02	12,899.9	-421.2	-2,278.0	2,316.6	0.00	0.00	0.00	
13,300.0	1.24	250.02	12,999.8	-421.9	-2,280.1	2,318.8	0.00	0.00	0.00	
13,400.0	1.24	250.02	13,099.8	-422.7	-2,282.1	2,320.9	0.00	0.00	0.00	
13,500.0	1.24	250.02	13,199.8	-423.4	-2,284.1	2,323.1	0.00	0.00	0.00	
<b>TD @ 13584.2' MD / 13284.0' TVD</b>										
13,584.2	1.24	250.02	13,284.0	-424.0	-2,285.9	2,324.9	0.00	0.00	0.00	

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well ELU A18 FED 21C-13 496 - Slot 21C-13
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	RKB @ 8059.0usft (30')
<b>Project:</b>	Rio Blanco County, CO	<b>MD Reference:</b>	RKB @ 8059.0usft (30')
<b>Site:</b>	ELU A18 495 Pad	<b>North Reference:</b>	True
<b>Well:</b>	ELU A18 FED 21C-13 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #2		

**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
21C-13 - OHCR - plan hits target center - Point	0.00	0.00	8,630.0	-389.9	-2,191.9	14,432,758.19	2,452,881.43	39.707857	-108.111444
21C-13 - PBHL - plan hits target center - Ellipse (radii L100.0 W50.0 on 250.00 azi)	0.00	0.00	13,284.0	-424.0	-2,285.9	14,432,721.00	2,452,788.60	39.707763	-108.111778

**Formations**

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,888.5	2,800.0	Wasatch			
6,688.1	6,459.0	Wasatch G			
6,999.6	6,759.0	Fort Union			
8,929.2	8,630.0	Ohio Creek / TOG			
9,504.3	9,205.0	Williams Fork			
12,534.0	12,234.0	Cameo			
13,084.1	12,784.0	Rollins			

**Plan Annotations**

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
130.0	130.0	0.0	0.0	Build 3° / 100'
463.3	461.6	-14.5	-25.1	EOB @ 10.00° Inc. / 240.00° Azm / Build 3° / 100'
701.3	693.7	-30.2	-74.7	EOB @ 15.63° Inc. / 260.36° Azm
8,408.0	8,115.3	-378.0	-2,122.2	Drop 3° / 100'
8,929.2	8,630.0	-389.9	-2,191.9	EOD @ Vertical / Build 1.5° / 100'
9,012.0	8,712.8	-390.2	-2,192.7	EOB @ 1.24° Inc. / 250.02° Azm
13,584.2	13,284.0	-424.0	-2,285.9	TD @ 13584.2' MD / 13284.0' TVD