

Project: Rio Blanco County, CO
 Site: ELU A18 495 Pad
 Well: ELU A18 FED 12D-18 495
 Wellbore: Wellbore #1
 Design: Design #2
 Latitude: 39.708902
 Longitude: -108.103566
 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 - 12D-18(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	Vsect	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
235.0	0.00	0.00	235.0	0.0	0.0	0.00	0.00	0.0	Build 3° / 100'
646.5	12.35	165.44	643.4	-42.8	11.1	3.00	165.44	44.1	EOB @ 12.35° Inc. / 165.44° Azm
8424.7	12.35	165.44	8241.6	-1652.5	429.3	0.00	0.00	1704.6	Drop 3° / 100'
8836.2	0.00	0.00	8650.0	-1695.2	440.4	3.00	180.00	1748.7	EOD @ Vertical / Build 1.5° / 100'
8916.9	1.21	250.02	8730.7	-1695.5	439.6	1.50	250.02	1748.8	EOB @ 1.21° Inc. / 250.02° Azm
13610.3	1.21	250.02	13423.0	-1729.4	346.4	0.00	0.00	1763.7	TD @ 13610.3' MD / 13423.0' TVD

FORMATION TOP DETAILS

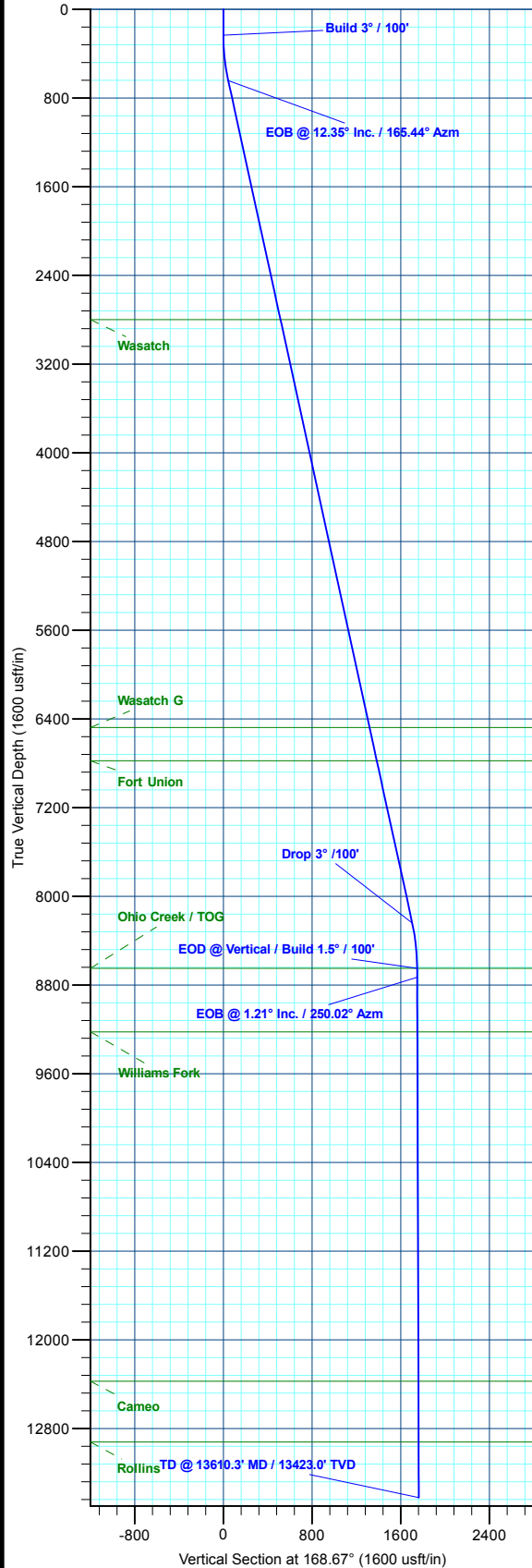
TVDPATH	MDPATH	FORMATION
2800.0	2854.2	Wasatch
6478.0	6619.3	Wasatch G
6778.0	6926.4	Fort Union
8650.0	8836.2	Ohio Creek / TOG
9224.0	9410.4	Williams Fork
12373.0	12560.1	Cameo
12923.0	13110.2	Rollins

DESIGN TARGET DETAILS

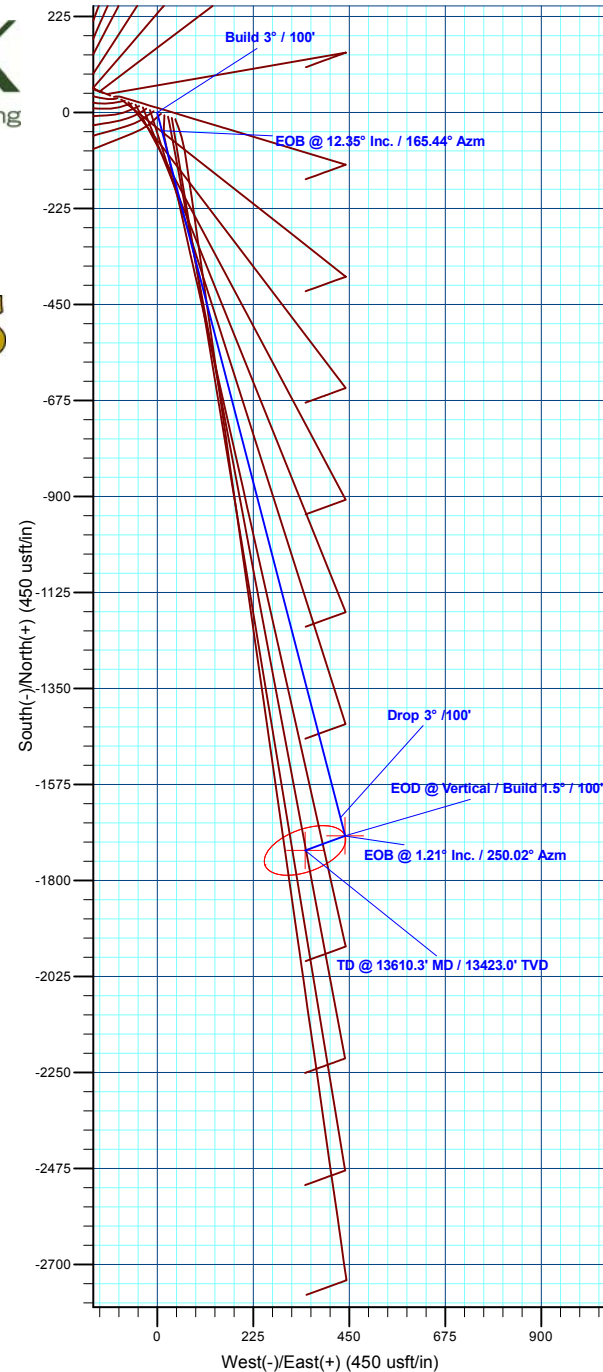
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
12D-18 - OHCR	8650.0	-1695.2	440.4	14431530.19	2455580.13	39.704250	-108.102002
12D-18 - PBHL	13423.0	-1729.4	346.4	14431493.00	2455487.30	39.704156	-108.102336

WELL DETAILS: ELU A18 FED 12D-18 495

		Ground Level : 8029.0					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude		
0.0	0.0	14433210.30	2455085.23	39.708902	-108.103566	12D-18	



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 12D-18 495/Wellbore #1)

Created By: Will Jircik

Date: 10:53, May 18 2022



Caerus Oil & Gas

Rio Blanco County, CO

ELU A18 495 Pad

ELU A18 FED 12D-18 495 - Slot 12D-18

Wellbore #1

Plan: Design #2

KLX Well Planning Report

18 May, 2022



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well ELU A18 FED 12D-18 495 - Slot 12D-18
Company:	Caerus Oil & Gas	TVD Reference:	RKB @ 8059.0usft (30')
Project:	Rio Blanco County, CO	MD Reference:	RKB @ 8059.0usft (30')
Site:	ELU A18 495 Pad	North Reference:	True
Well:	ELU A18 FED 12D-18 495	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2		

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

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

Well	ELU A18 FED 12D-18 495 - Slot 12D-18					
Well Position	+N/-S	-75.3 usft	Northing:	14,433,210.30 usft	Latitude:	39.708902
	+E/-W	178.5 usft	Easting:	2,455,085.23 usft	Longitude:	-108.103567
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	8,029.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM2020	8/17/2020	9.42	65.82	51,157.00000000

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	168.67

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	
235.0	0.00	0.00	235.0	0.0	0.0	0.00	0.00	0.00	0.00	
646.5	12.35	165.44	643.4	-42.8	11.1	3.00	3.00	0.00	165.44	
8,424.7	12.35	165.44	8,241.6	-1,652.5	429.3	0.00	0.00	0.00	0.00	
8,836.2	0.00	0.00	8,650.0	-1,695.2	440.4	3.00	-3.00	0.00	180.00	12D-18 - OHCR
8,916.9	1.21	250.02	8,730.7	-1,695.5	439.6	1.50	1.50	-136.28	250.02	
13,610.3	1.21	250.02	13,423.0	-1,729.4	346.4	0.00	0.00	0.00	0.00	12D-18 - PBHL

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well ELU A18 FED 12D-18 495 - Slot 12D-18
Company:	Caerus Oil & Gas	TVD Reference:	RKB @ 8059.0usft (30')
Project:	Rio Blanco County, CO	MD Reference:	RKB @ 8059.0usft (30')
Site:	ELU A18 495 Pad	North Reference:	True
Well:	ELU A18 FED 12D-18 495	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	
Build 3° / 100'										
235.0	0.00	0.00	235.0	0.0	0.0	0.0	0.00	0.00	0.00	
300.0	1.95	165.44	300.0	-1.1	0.3	1.1	3.00	3.00	0.00	
400.0	4.95	165.44	399.8	-6.9	1.8	7.1	3.00	3.00	0.00	
500.0	7.95	165.44	499.2	-17.8	4.6	18.3	3.00	3.00	0.00	
600.0	10.95	165.44	597.8	-33.7	8.7	34.7	3.00	3.00	0.00	
EOB @ 12.35° Inc. / 165.44° Azm										
646.5	12.35	165.44	643.4	-42.8	11.1	44.1	3.00	3.00	0.00	
700.0	12.35	165.44	695.6	-53.8	14.0	55.5	0.00	0.00	0.00	
800.0	12.35	165.44	793.3	-74.5	19.4	76.9	0.00	0.00	0.00	
900.0	12.35	165.44	891.0	-95.2	24.7	98.2	0.00	0.00	0.00	
1,000.0	12.35	165.44	988.6	-115.9	30.1	119.6	0.00	0.00	0.00	
1,100.0	12.35	165.44	1,086.3	-136.6	35.5	140.9	0.00	0.00	0.00	
1,200.0	12.35	165.44	1,184.0	-157.3	40.9	162.3	0.00	0.00	0.00	
1,300.0	12.35	165.44	1,281.7	-178.0	46.2	183.6	0.00	0.00	0.00	
1,400.0	12.35	165.44	1,379.4	-198.7	51.6	204.9	0.00	0.00	0.00	
1,500.0	12.35	165.44	1,477.1	-219.4	57.0	226.3	0.00	0.00	0.00	
1,600.0	12.35	165.44	1,574.8	-240.1	62.4	247.6	0.00	0.00	0.00	
1,700.0	12.35	165.44	1,672.5	-260.8	67.7	269.0	0.00	0.00	0.00	
1,800.0	12.35	165.44	1,770.1	-281.5	73.1	290.3	0.00	0.00	0.00	
1,900.0	12.35	165.44	1,867.8	-302.2	78.5	311.7	0.00	0.00	0.00	
2,000.0	12.35	165.44	1,965.5	-322.9	83.9	333.0	0.00	0.00	0.00	
2,100.0	12.35	165.44	2,063.2	-343.5	89.2	354.4	0.00	0.00	0.00	
2,200.0	12.35	165.44	2,160.9	-364.2	94.6	375.7	0.00	0.00	0.00	
2,300.0	12.35	165.44	2,258.6	-384.9	100.0	397.1	0.00	0.00	0.00	
2,400.0	12.35	165.44	2,356.3	-405.6	105.4	418.4	0.00	0.00	0.00	
2,500.0	12.35	165.44	2,454.0	-426.3	110.7	439.8	0.00	0.00	0.00	
2,600.0	12.35	165.44	2,551.6	-447.0	116.1	461.1	0.00	0.00	0.00	
2,700.0	12.35	165.44	2,649.3	-467.7	121.5	482.5	0.00	0.00	0.00	
2,800.0	12.35	165.44	2,747.0	-488.4	126.9	503.8	0.00	0.00	0.00	
Wasatch										
2,854.2	12.35	165.44	2,800.0	-499.6	129.8	515.4	0.00	0.00	0.00	
2,900.0	12.35	165.44	2,844.7	-509.1	132.2	525.2	0.00	0.00	0.00	
3,000.0	12.35	165.44	2,942.4	-529.8	137.6	546.5	0.00	0.00	0.00	
3,100.0	12.35	165.44	3,040.1	-550.5	143.0	567.9	0.00	0.00	0.00	
3,200.0	12.35	165.44	3,137.8	-571.2	148.4	589.2	0.00	0.00	0.00	
3,300.0	12.35	165.44	3,235.5	-591.9	153.8	610.6	0.00	0.00	0.00	
3,400.0	12.35	165.44	3,333.1	-612.6	159.1	631.9	0.00	0.00	0.00	
3,500.0	12.35	165.44	3,430.8	-633.3	164.5	653.3	0.00	0.00	0.00	
3,600.0	12.35	165.44	3,528.5	-654.0	169.9	674.6	0.00	0.00	0.00	
3,700.0	12.35	165.44	3,626.2	-674.7	175.3	696.0	0.00	0.00	0.00	
3,800.0	12.35	165.44	3,723.9	-695.4	180.6	717.3	0.00	0.00	0.00	
3,900.0	12.35	165.44	3,821.6	-716.1	186.0	738.7	0.00	0.00	0.00	
4,000.0	12.35	165.44	3,919.3	-736.8	191.4	760.0	0.00	0.00	0.00	
4,100.0	12.35	165.44	4,017.0	-757.5	196.8	781.3	0.00	0.00	0.00	
4,200.0	12.35	165.44	4,114.6	-778.2	202.1	802.7	0.00	0.00	0.00	
4,300.0	12.35	165.44	4,212.3	-798.8	207.5	824.0	0.00	0.00	0.00	
4,400.0	12.35	165.44	4,310.0	-819.5	212.9	845.4	0.00	0.00	0.00	
4,500.0	12.35	165.44	4,407.7	-840.2	218.3	866.7	0.00	0.00	0.00	
4,600.0	12.35	165.44	4,505.4	-860.9	223.6	888.1	0.00	0.00	0.00	

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well ELU A18 FED 12D-18 495 - Slot 12D-18
Company:	Caerus Oil & Gas	TVD Reference:	RKB @ 8059.0usft (30')
Project:	Rio Blanco County, CO	MD Reference:	RKB @ 8059.0usft (30')
Site:	ELU A18 495 Pad	North Reference:	True
Well:	ELU A18 FED 12D-18 495	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)
4,700.0	12.35	165.44	4,603.1	-881.6	229.0	909.4	0.00	0.00	0.00
4,800.0	12.35	165.44	4,700.8	-902.3	234.4	930.8	0.00	0.00	0.00
4,900.0	12.35	165.44	4,798.5	-923.0	239.8	952.1	0.00	0.00	0.00
5,000.0	12.35	165.44	4,896.1	-943.7	245.1	973.5	0.00	0.00	0.00
5,100.0	12.35	165.44	4,993.8	-964.4	250.5	994.8	0.00	0.00	0.00
5,200.0	12.35	165.44	5,091.5	-985.1	255.9	1,016.2	0.00	0.00	0.00
5,300.0	12.35	165.44	5,189.2	-1,005.8	261.3	1,037.5	0.00	0.00	0.00
5,400.0	12.35	165.44	5,286.9	-1,026.5	266.6	1,058.9	0.00	0.00	0.00
5,500.0	12.35	165.44	5,384.6	-1,047.2	272.0	1,080.2	0.00	0.00	0.00
5,600.0	12.35	165.44	5,482.3	-1,067.9	277.4	1,101.6	0.00	0.00	0.00
5,700.0	12.35	165.44	5,579.9	-1,088.6	282.8	1,122.9	0.00	0.00	0.00
5,800.0	12.35	165.44	5,677.6	-1,109.3	288.1	1,144.3	0.00	0.00	0.00
5,900.0	12.35	165.44	5,775.3	-1,130.0	293.5	1,165.6	0.00	0.00	0.00
6,000.0	12.35	165.44	5,873.0	-1,150.7	298.9	1,187.0	0.00	0.00	0.00
6,100.0	12.35	165.44	5,970.7	-1,171.4	304.3	1,208.3	0.00	0.00	0.00
6,200.0	12.35	165.44	6,068.4	-1,192.1	309.7	1,229.7	0.00	0.00	0.00
6,300.0	12.35	165.44	6,166.1	-1,212.8	315.0	1,251.0	0.00	0.00	0.00
6,400.0	12.35	165.44	6,263.8	-1,233.5	320.4	1,272.4	0.00	0.00	0.00
6,500.0	12.35	165.44	6,361.4	-1,254.1	325.8	1,293.7	0.00	0.00	0.00
6,600.0	12.35	165.44	6,459.1	-1,274.8	331.2	1,315.1	0.00	0.00	0.00
Wasatch G									
6,619.3	12.35	165.44	6,478.0	-1,278.8	332.2	1,319.2	0.00	0.00	0.00
6,700.0	12.35	165.44	6,556.8	-1,295.5	336.5	1,336.4	0.00	0.00	0.00
6,800.0	12.35	165.44	6,654.5	-1,316.2	341.9	1,357.7	0.00	0.00	0.00
6,900.0	12.35	165.44	6,752.2	-1,336.9	347.3	1,379.1	0.00	0.00	0.00
Fort Union									
6,926.4	12.35	165.44	6,778.0	-1,342.4	348.7	1,384.7	0.00	0.00	0.00
7,000.0	12.35	165.44	6,849.9	-1,357.6	352.7	1,400.4	0.00	0.00	0.00
7,100.0	12.35	165.44	6,947.6	-1,378.3	358.0	1,421.8	0.00	0.00	0.00
7,200.0	12.35	165.44	7,045.3	-1,399.0	363.4	1,443.1	0.00	0.00	0.00
7,300.0	12.35	165.44	7,142.9	-1,419.7	368.8	1,464.5	0.00	0.00	0.00
7,400.0	12.35	165.44	7,240.6	-1,440.4	374.2	1,485.8	0.00	0.00	0.00
7,500.0	12.35	165.44	7,338.3	-1,461.1	379.5	1,507.2	0.00	0.00	0.00
7,600.0	12.35	165.44	7,436.0	-1,481.8	384.9	1,528.5	0.00	0.00	0.00
7,700.0	12.35	165.44	7,533.7	-1,502.5	390.3	1,549.9	0.00	0.00	0.00
7,800.0	12.35	165.44	7,631.4	-1,523.2	395.7	1,571.2	0.00	0.00	0.00
7,900.0	12.35	165.44	7,729.1	-1,543.9	401.0	1,592.6	0.00	0.00	0.00
8,000.0	12.35	165.44	7,826.8	-1,564.6	406.4	1,613.9	0.00	0.00	0.00
8,100.0	12.35	165.44	7,924.4	-1,585.3	411.8	1,635.3	0.00	0.00	0.00
8,200.0	12.35	165.44	8,022.1	-1,606.0	417.2	1,656.6	0.00	0.00	0.00
8,300.0	12.35	165.44	8,119.8	-1,626.7	422.5	1,678.0	0.00	0.00	0.00
8,400.0	12.35	165.44	8,217.5	-1,647.4	427.9	1,699.3	0.00	0.00	0.00
Drop 3° /100'									
8,424.7	12.35	165.44	8,241.6	-1,652.5	429.3	1,704.6	0.00	0.00	0.00
8,500.0	10.09	165.44	8,315.5	-1,666.6	432.9	1,719.2	3.00	-3.00	0.00
8,600.0	7.09	165.44	8,414.4	-1,681.1	436.7	1,734.1	3.00	-3.00	0.00
8,700.0	4.09	165.44	8,513.9	-1,690.5	439.1	1,743.8	3.00	-3.00	0.00
8,800.0	1.09	165.44	8,613.8	-1,694.9	440.3	1,748.3	3.00	-3.00	0.00
EOD @ Vertical / Build 1.5° / 100' - Ohio Creek / TOG									
8,836.2	0.00	0.00	8,650.0	-1,695.2	440.4	1,748.7	3.00	-3.00	0.00
8,900.0	0.96	250.02	8,713.8	-1,695.4	439.9	1,748.8	1.50	1.50	0.00
EOB @ 1.21° Inc. / 250.02° Azm									
8,916.9	1.21	250.02	8,730.7	-1,695.5	439.6	1,748.8	1.50	1.50	0.00
9,000.0	1.21	250.02	8,813.7	-1,696.1	437.9	1,749.1	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well ELU A18 FED 12D-18 495 - Slot 12D-18
Company:	Caerus Oil & Gas	TVD Reference:	RKB @ 8059.0usft (30')
Project:	Rio Blanco County, CO	MD Reference:	RKB @ 8059.0usft (30')
Site:	ELU A18 495 Pad	North Reference:	True
Well:	ELU A18 FED 12D-18 495	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)	
9,100.0	1.21	250.02	8,913.7	-1,696.8	435.9	1,749.4	0.00	0.00	0.00	
9,200.0	1.21	250.02	9,013.7	-1,697.6	433.9	1,749.7	0.00	0.00	0.00	
9,300.0	1.21	250.02	9,113.7	-1,698.3	431.9	1,750.0	0.00	0.00	0.00	
9,400.0	1.21	250.02	9,213.6	-1,699.0	430.0	1,750.4	0.00	0.00	0.00	
Williams Fork										
9,410.4	1.21	250.02	9,224.0	-1,699.1	429.8	1,750.4	0.00	0.00	0.00	
9,500.0	1.21	250.02	9,313.6	-1,699.7	428.0	1,750.7	0.00	0.00	0.00	
9,600.0	1.21	250.02	9,413.6	-1,700.4	426.0	1,751.0	0.00	0.00	0.00	
9,700.0	1.21	250.02	9,513.6	-1,701.2	424.0	1,751.3	0.00	0.00	0.00	
9,800.0	1.21	250.02	9,613.6	-1,701.9	422.0	1,751.6	0.00	0.00	0.00	
9,900.0	1.21	250.02	9,713.5	-1,702.6	420.0	1,751.9	0.00	0.00	0.00	
10,000.0	1.21	250.02	9,813.5	-1,703.3	418.1	1,752.3	0.00	0.00	0.00	
10,100.0	1.21	250.02	9,913.5	-1,704.1	416.1	1,752.6	0.00	0.00	0.00	
10,200.0	1.21	250.02	10,013.5	-1,704.8	414.1	1,752.9	0.00	0.00	0.00	
10,300.0	1.21	250.02	10,113.4	-1,705.5	412.1	1,753.2	0.00	0.00	0.00	
10,400.0	1.21	250.02	10,213.4	-1,706.2	410.1	1,753.5	0.00	0.00	0.00	
10,500.0	1.21	250.02	10,313.4	-1,706.9	408.1	1,753.9	0.00	0.00	0.00	
10,600.0	1.21	250.02	10,413.4	-1,707.7	406.1	1,754.2	0.00	0.00	0.00	
10,700.0	1.21	250.02	10,513.4	-1,708.4	404.2	1,754.5	0.00	0.00	0.00	
10,800.0	1.21	250.02	10,613.3	-1,709.1	402.2	1,754.8	0.00	0.00	0.00	
10,900.0	1.21	250.02	10,713.3	-1,709.8	400.2	1,755.1	0.00	0.00	0.00	
11,000.0	1.21	250.02	10,813.3	-1,710.6	398.2	1,755.4	0.00	0.00	0.00	
11,100.0	1.21	250.02	10,913.3	-1,711.3	396.2	1,755.8	0.00	0.00	0.00	
11,200.0	1.21	250.02	11,013.2	-1,712.0	394.2	1,756.1	0.00	0.00	0.00	
11,300.0	1.21	250.02	11,113.2	-1,712.7	392.2	1,756.4	0.00	0.00	0.00	
11,400.0	1.21	250.02	11,213.2	-1,713.4	390.3	1,756.7	0.00	0.00	0.00	
11,500.0	1.21	250.02	11,313.2	-1,714.2	388.3	1,757.0	0.00	0.00	0.00	
11,600.0	1.21	250.02	11,413.2	-1,714.9	386.3	1,757.3	0.00	0.00	0.00	
11,700.0	1.21	250.02	11,513.1	-1,715.6	384.3	1,757.7	0.00	0.00	0.00	
11,800.0	1.21	250.02	11,613.1	-1,716.3	382.3	1,758.0	0.00	0.00	0.00	
11,900.0	1.21	250.02	11,713.1	-1,717.0	380.3	1,758.3	0.00	0.00	0.00	
12,000.0	1.21	250.02	11,813.1	-1,717.8	378.3	1,758.6	0.00	0.00	0.00	
12,100.0	1.21	250.02	11,913.0	-1,718.5	376.4	1,758.9	0.00	0.00	0.00	
12,200.0	1.21	250.02	12,013.0	-1,719.2	374.4	1,759.3	0.00	0.00	0.00	
12,300.0	1.21	250.02	12,113.0	-1,719.9	372.4	1,759.6	0.00	0.00	0.00	
12,400.0	1.21	250.02	12,213.0	-1,720.7	370.4	1,759.9	0.00	0.00	0.00	
12,500.0	1.21	250.02	12,313.0	-1,721.4	368.4	1,760.2	0.00	0.00	0.00	
Cameo										
12,560.1	1.21	250.02	12,373.0	-1,721.8	367.2	1,760.4	0.00	0.00	0.00	
12,600.0	1.21	250.02	12,412.9	-1,722.1	366.4	1,760.5	0.00	0.00	0.00	
12,700.0	1.21	250.02	12,512.9	-1,722.8	364.4	1,760.8	0.00	0.00	0.00	
12,800.0	1.21	250.02	12,612.9	-1,723.5	362.5	1,761.2	0.00	0.00	0.00	
12,900.0	1.21	250.02	12,712.9	-1,724.3	360.5	1,761.5	0.00	0.00	0.00	
13,000.0	1.21	250.02	12,812.8	-1,725.0	358.5	1,761.8	0.00	0.00	0.00	
13,100.0	1.21	250.02	12,912.8	-1,725.7	356.5	1,762.1	0.00	0.00	0.00	
Rollins										
13,110.2	1.21	250.02	12,923.0	-1,725.8	356.3	1,762.2	0.00	0.00	0.00	
13,200.0	1.21	250.02	13,012.8	-1,726.4	354.5	1,762.4	0.00	0.00	0.00	
13,300.0	1.21	250.02	13,112.8	-1,727.2	352.5	1,762.8	0.00	0.00	0.00	
13,400.0	1.21	250.02	13,212.7	-1,727.9	350.5	1,763.1	0.00	0.00	0.00	
13,500.0	1.21	250.02	13,312.7	-1,728.6	348.6	1,763.4	0.00	0.00	0.00	
13,600.0	1.21	250.02	13,412.7	-1,729.3	346.6	1,763.7	0.00	0.00	0.00	
TD @ 13610.3' MD / 13423.0' TVD										

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well ELU A18 FED 12D-18 495 - Slot 12D-18
Company:	Caerus Oil & Gas	TVD Reference:	RKB @ 8059.0usft (30')
Project:	Rio Blanco County, CO	MD Reference:	RKB @ 8059.0usft (30')
Site:	ELU A18 495 Pad	North Reference:	True
Well:	ELU A18 FED 12D-18 495	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)
13,610.3	1.21	250.02	13,423.0	-1,729.4	346.4	1,763.7	0.00	0.00	0.00

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
12D-18 - OHCR - hit/miss target - Shape - Point	0.00	0.00	8,650.0	-1,695.2	440.4	14,431,530.19	2,455,580.13	39.704250	-108.102002
12D-18 - PBHL - plan hits target center - Ellipse (radii L100.0 W50.0 on 250.00 azi)	0.00	0.00	13,423.0	-1,729.4	346.4	14,431,493.00	2,455,487.30	39.704156	-108.102336

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
2,854.2	2,800.0	Wasatch				
6,619.3	6,478.0	Wasatch G				
6,926.4	6,778.0	Fort Union				
8,836.2	8,650.0	Ohio Creek / TOG				
9,410.4	9,224.0	Williams Fork				
12,560.1	12,373.0	Cameo				
13,110.2	12,923.0	Rollins				

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment
235.0	235.0	0.0	0.0	Build 3° / 100'
646.5	643.4	-42.8	11.1	EOB @ 12.35° Inc. / 165.44° Azm
8,424.7	8,241.6	-1,652.5	429.3	Drop 3° / 100'
8,836.2	8,650.0	-1,695.2	440.4	EOD @ Vertical / Build 1.5° / 100'
8,916.9	8,730.7	-1,695.5	439.6	EOB @ 1.21° Inc. / 250.02° Azm
13,610.3	13,423.0	-1,729.4	346.4	TD @ 13610.3' MD / 13423.0' TVD