

Project: Rio Blanco County, CO
Site: ELU A18 495 Pad
Well: ELU A18 FED 12C-18 495
Wellbore: Wellbore #1
Design: Design #4
Latitude: 39.708910
Longitude: -108.103596
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 - 12C-18(0.0N, 0.0E)
Measured Depth Reference: RKB @ 8059.0usft (30')
Calculation Method: Minimum Curvature

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3319.0	3435.0	Wasatch
6527.0	6787.6	Wasatch G
6827.0	7101.2	Fort Union
8689.0	9030.2	Ohio Creek
9268.0	9609.3	Williams Fork
12391.0	12733.0	Cameo
13127.0	13469.2	Rollins

SECTION DETAILS

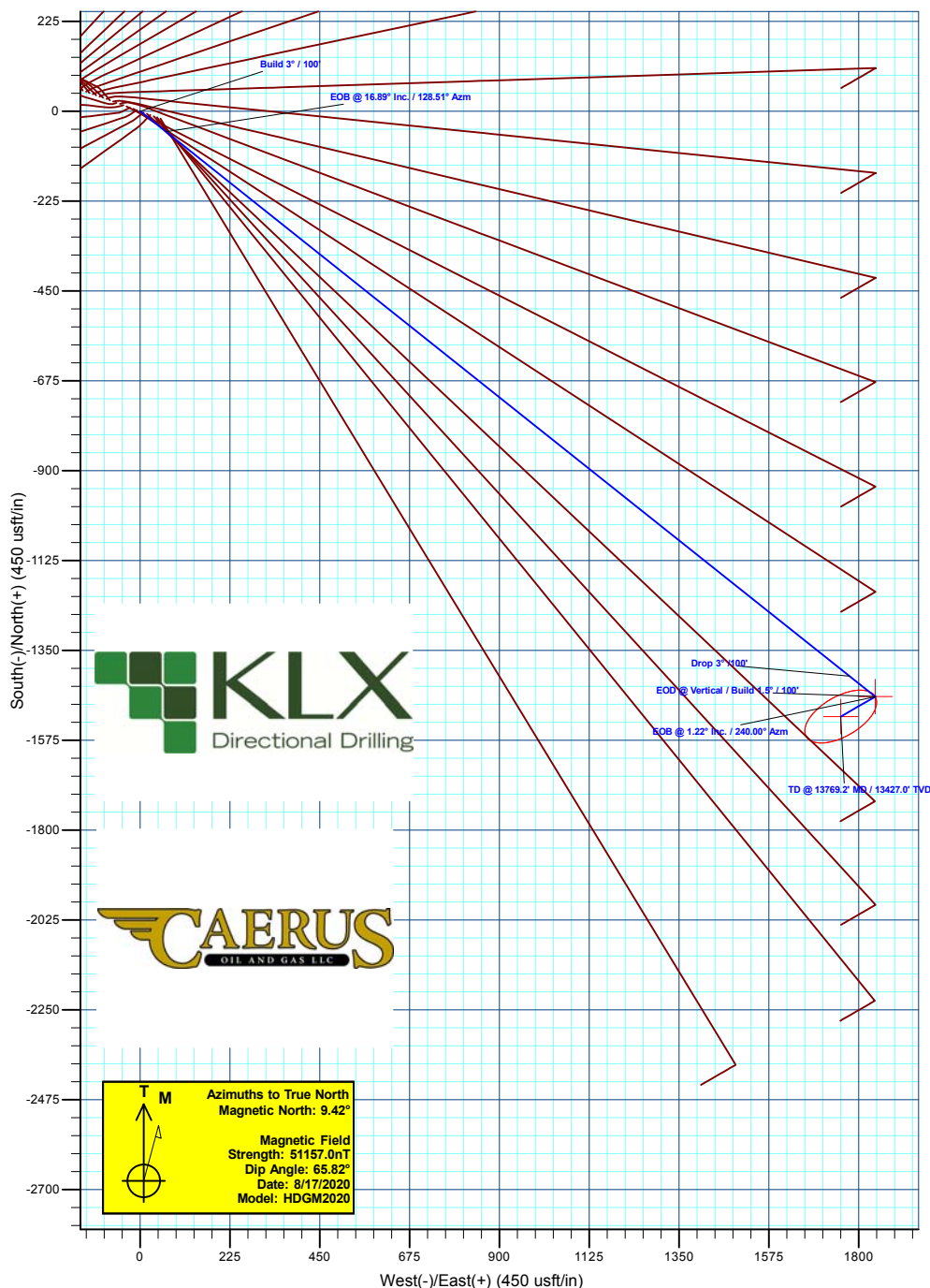
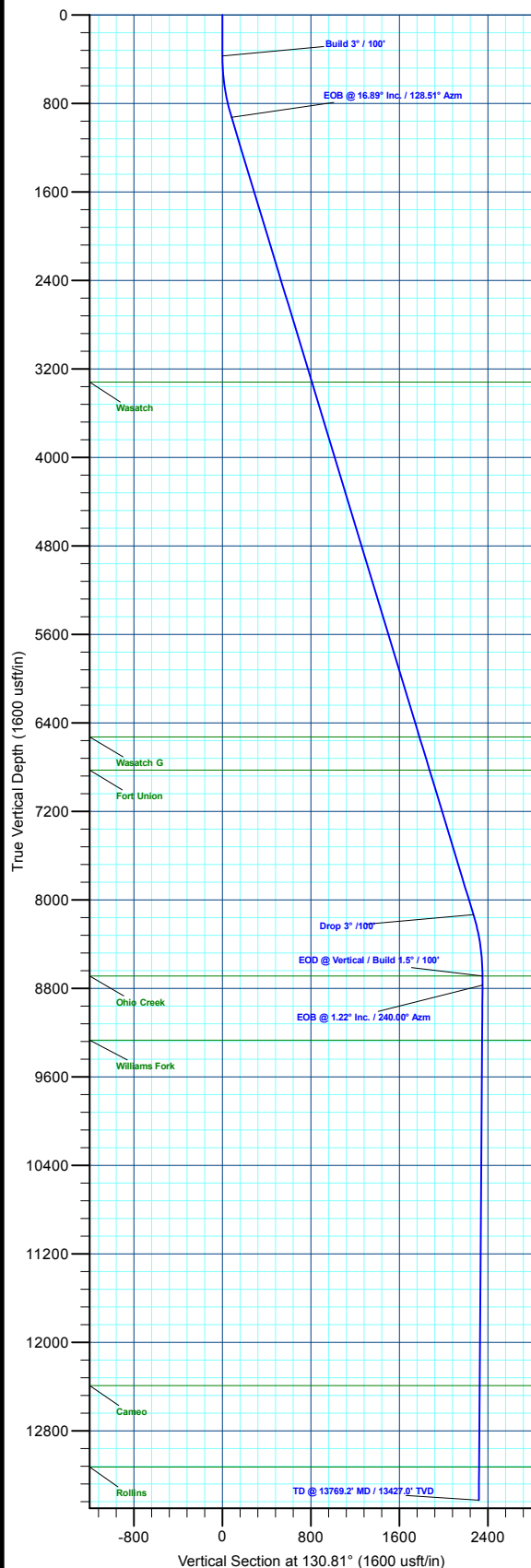
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dieg	TFace	VSec	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	Build 3° / 100'
370.0	0.00	0.00	370.0	0.0	0.0	0.00	0.00	0.0	EOB @ 16.89° Inc. / 128.51° Azm
933.0	16.89	128.51	924.8	-51.3	64.5	3.00	128.51	82.3	Drop 3° / 100'
8467.2	16.89	128.51	8134.2	-1414.3	1777.1	0.00	0.00	2269.4	EOD @ Vertical / Build 1.5° / 100'
9030.2	0.00	0.00	8689.0	-1465.6	1841.6	3.00	180.00	2351.7	EOB @ 1.22° Inc. / 240.00° Azm
9111.5	1.22	240.00	8770.3	-1466.0	1840.8	1.50	240.00	2351.4	TD @ 13769.2' MD / 13427.0' TVD
13769.2	1.22	240.00	13427.0	-1515.6	1754.9	0.00	0.00	2318.8	

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
12C-18 - OHCR	8689.0	-1465.6	1841.6	14431807.77	2456964.64	39.704888	-108.097054
12C-18 - PBHL	13427.0	-1515.6	1754.9	14431755.00	2456879.70	39.704751	-108.097361

WELL DETAILS: ELU A18 FED 12C-18 495

+N/-S	+E/-W	Ground Level : 8029.0	Northing	Easting	Latitude	Longitude
0.0	0.0		14433213.10	2455076.70	39.708910	-108.103596



Plan: Design #4 (ELU A18 FED 12C-18 495/Wellbore #1)

Created By: Will Jircik

Date: 4:18, October 05 2023



Caerus Oil & Gas

Rio Blanco County, CO

ELU A18 495 Pad

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

Wellbore #1

Plan: Design #4

KLX Well Planning Report

04 October, 2023



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well ELU A18 FED 12C-18 495 - Slot 12C-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 12C-18 495	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #4		

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 12C-18 495 - Slot 12C-18					
Well Position	+N/-S	-72.2 usft	Northing:	14,433,213.10 usft	Latitude:	39.708910
	+E/-W	170.1 usft	Easting:	2,455,076.70 usft	Longitude:	-108.103597
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 #4			
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	130.81

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	
370.0	0.00	0.00	370.0	0.0	0.0	0.00	0.00	0.00	0.00	
933.0	16.89	128.51	924.8	-51.3	64.5	3.00	3.00	0.00	128.51	
8,467.2	16.89	128.51	8,134.2	-1,414.3	1,777.1	0.00	0.00	0.00	0.00	
9,030.2	0.00	0.00	8,689.0	-1,465.6	1,841.6	3.00	-3.00	0.00	180.00	12C-18 - OHCR
9,111.5	1.22	240.00	8,770.3	-1,466.0	1,840.8	1.50	1.50	-147.59	240.00	
13,769.2	1.22	240.00	13,427.0	-1,515.6	1,754.9	0.00	0.00	0.00	0.00	12C-18 - PBHL

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well ELU A18 FED 12C-18 495 - Slot 12C-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 12C-18 495	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #4		

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
Build 3° / 100'									
370.0	0.00	0.00	370.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.90	128.51	400.0	-0.1	0.2	0.2	3.00	3.00	0.00
500.0	3.90	128.51	499.9	-2.8	3.5	4.4	3.00	3.00	0.00
600.0	6.90	128.51	599.4	-8.6	10.8	13.8	3.00	3.00	0.00
700.0	9.90	128.51	698.4	-17.7	22.3	28.4	3.00	3.00	0.00
800.0	12.90	128.51	796.4	-30.0	37.7	48.2	3.00	3.00	0.00
900.0	15.90	128.51	893.2	-45.5	57.2	73.0	3.00	3.00	0.00
EOB @ 16.89° Inc. / 128.51° Azm									
933.0	16.89	128.51	924.8	-51.3	64.5	82.3	3.00	3.00	0.00
1,000.0	16.89	128.51	989.0	-63.4	79.7	101.8	0.00	0.00	0.00
1,100.0	16.89	128.51	1,084.7	-81.5	102.4	130.8	0.00	0.00	0.00
1,200.0	16.89	128.51	1,180.4	-99.6	125.2	159.8	0.00	0.00	0.00
1,300.0	16.89	128.51	1,276.1	-117.7	147.9	188.9	0.00	0.00	0.00
1,400.0	16.89	128.51	1,371.7	-135.8	170.6	217.9	0.00	0.00	0.00
1,500.0	16.89	128.51	1,467.4	-153.9	193.3	246.9	0.00	0.00	0.00
1,600.0	16.89	128.51	1,563.1	-172.0	216.1	275.9	0.00	0.00	0.00
1,700.0	16.89	128.51	1,658.8	-190.1	238.8	305.0	0.00	0.00	0.00
1,800.0	16.89	128.51	1,754.5	-208.1	261.5	334.0	0.00	0.00	0.00
1,900.0	16.89	128.51	1,850.2	-226.2	284.3	363.0	0.00	0.00	0.00
2,000.0	16.89	128.51	1,945.9	-244.3	307.0	392.0	0.00	0.00	0.00
2,100.0	16.89	128.51	2,041.5	-262.4	329.7	421.1	0.00	0.00	0.00
2,200.0	16.89	128.51	2,137.2	-280.5	352.5	450.1	0.00	0.00	0.00
2,300.0	16.89	128.51	2,232.9	-298.6	375.2	479.1	0.00	0.00	0.00
2,400.0	16.89	128.51	2,328.6	-316.7	397.9	508.2	0.00	0.00	0.00
2,500.0	16.89	128.51	2,424.3	-334.8	420.7	537.2	0.00	0.00	0.00
2,600.0	16.89	128.51	2,520.0	-352.9	443.4	566.2	0.00	0.00	0.00
2,700.0	16.89	128.51	2,615.7	-371.0	466.1	595.2	0.00	0.00	0.00
2,800.0	16.89	128.51	2,711.4	-389.1	488.9	624.3	0.00	0.00	0.00
2,900.0	16.89	128.51	2,807.0	-407.1	511.6	653.3	0.00	0.00	0.00
3,000.0	16.89	128.51	2,902.7	-425.2	534.3	682.3	0.00	0.00	0.00
3,100.0	16.89	128.51	2,998.4	-443.3	557.1	711.4	0.00	0.00	0.00
3,200.0	16.89	128.51	3,094.1	-461.4	579.8	740.4	0.00	0.00	0.00
3,300.0	16.89	128.51	3,189.8	-479.5	602.5	769.4	0.00	0.00	0.00
3,400.0	16.89	128.51	3,285.5	-497.6	625.2	798.4	0.00	0.00	0.00
Wasatch									
3,435.0	16.89	128.51	3,319.0	-503.9	633.2	808.6	0.00	0.00	0.00
3,500.0	16.89	128.51	3,381.2	-515.7	648.0	827.5	0.00	0.00	0.00
3,600.0	16.89	128.51	3,476.9	-533.8	670.7	856.5	0.00	0.00	0.00
3,700.0	16.89	128.51	3,572.5	-551.9	693.4	885.5	0.00	0.00	0.00
3,800.0	16.89	128.51	3,668.2	-570.0	716.2	914.6	0.00	0.00	0.00
3,900.0	16.89	128.51	3,763.9	-588.1	738.9	943.6	0.00	0.00	0.00
4,000.0	16.89	128.51	3,859.6	-606.1	761.6	972.6	0.00	0.00	0.00
4,100.0	16.89	128.51	3,955.3	-624.2	784.4	1,001.6	0.00	0.00	0.00
4,200.0	16.89	128.51	4,051.0	-642.3	807.1	1,030.7	0.00	0.00	0.00
4,300.0	16.89	128.51	4,146.7	-660.4	829.8	1,059.7	0.00	0.00	0.00
4,400.0	16.89	128.51	4,242.4	-678.5	852.6	1,088.7	0.00	0.00	0.00
4,500.0	16.89	128.51	4,338.0	-696.6	875.3	1,117.8	0.00	0.00	0.00
4,600.0	16.89	128.51	4,433.7	-714.7	898.0	1,146.8	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well ELU A18 FED 12C-18 495 - Slot 12C-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 12C-18 495	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #4		

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	16.89	128.51	4,529.4	-732.8	920.8	1,175.8	0.00	0.00	0.00
4,800.0	16.89	128.51	4,625.1	-750.9	943.5	1,204.8	0.00	0.00	0.00
4,900.0	16.89	128.51	4,720.8	-769.0	966.2	1,233.9	0.00	0.00	0.00
5,000.0	16.89	128.51	4,816.5	-787.1	988.9	1,262.9	0.00	0.00	0.00
5,100.0	16.89	128.51	4,912.2	-805.1	1,011.7	1,291.9	0.00	0.00	0.00
5,200.0	16.89	128.51	5,007.8	-823.2	1,034.4	1,321.0	0.00	0.00	0.00
5,300.0	16.89	128.51	5,103.5	-841.3	1,057.1	1,350.0	0.00	0.00	0.00
5,400.0	16.89	128.51	5,199.2	-859.4	1,079.9	1,379.0	0.00	0.00	0.00
5,500.0	16.89	128.51	5,294.9	-877.5	1,102.6	1,408.0	0.00	0.00	0.00
5,600.0	16.89	128.51	5,390.6	-895.6	1,125.3	1,437.1	0.00	0.00	0.00
5,700.0	16.89	128.51	5,486.3	-913.7	1,148.1	1,466.1	0.00	0.00	0.00
5,800.0	16.89	128.51	5,582.0	-931.8	1,170.8	1,495.1	0.00	0.00	0.00
5,900.0	16.89	128.51	5,677.7	-949.9	1,193.5	1,524.1	0.00	0.00	0.00
6,000.0	16.89	128.51	5,773.3	-968.0	1,216.3	1,553.2	0.00	0.00	0.00
6,100.0	16.89	128.51	5,869.0	-986.1	1,239.0	1,582.2	0.00	0.00	0.00
6,200.0	16.89	128.51	5,964.7	-1,004.1	1,261.7	1,611.2	0.00	0.00	0.00
6,300.0	16.89	128.51	6,060.4	-1,022.2	1,284.5	1,640.3	0.00	0.00	0.00
6,400.0	16.89	128.51	6,156.1	-1,040.3	1,307.2	1,669.3	0.00	0.00	0.00
6,500.0	16.89	128.51	6,251.8	-1,058.4	1,329.9	1,698.3	0.00	0.00	0.00
6,600.0	16.89	128.51	6,347.5	-1,076.5	1,352.7	1,727.3	0.00	0.00	0.00
6,700.0	16.89	128.51	6,443.2	-1,094.6	1,375.4	1,756.4	0.00	0.00	0.00
Wasatch G									
6,787.6	16.89	128.51	6,527.0	-1,110.4	1,395.3	1,781.8	0.00	0.00	0.00
6,800.0	16.89	128.51	6,538.8	-1,112.7	1,398.1	1,785.4	0.00	0.00	0.00
6,900.0	16.89	128.51	6,634.5	-1,130.8	1,420.8	1,814.4	0.00	0.00	0.00
7,000.0	16.89	128.51	6,730.2	-1,148.9	1,443.6	1,843.5	0.00	0.00	0.00
7,100.0	16.89	128.51	6,825.9	-1,167.0	1,466.3	1,872.5	0.00	0.00	0.00
Fort Union									
7,101.2	16.89	128.51	6,827.0	-1,167.2	1,466.6	1,872.8	0.00	0.00	0.00
7,200.0	16.89	128.51	6,921.6	-1,185.1	1,489.0	1,901.5	0.00	0.00	0.00
7,300.0	16.89	128.51	7,017.3	-1,203.1	1,511.8	1,930.5	0.00	0.00	0.00
7,400.0	16.89	128.51	7,113.0	-1,221.2	1,534.5	1,959.6	0.00	0.00	0.00
7,500.0	16.89	128.51	7,208.6	-1,239.3	1,557.2	1,988.6	0.00	0.00	0.00
7,600.0	16.89	128.51	7,304.3	-1,257.4	1,580.0	2,017.6	0.00	0.00	0.00
7,700.0	16.89	128.51	7,400.0	-1,275.5	1,602.7	2,046.7	0.00	0.00	0.00
7,800.0	16.89	128.51	7,495.7	-1,293.6	1,625.4	2,075.7	0.00	0.00	0.00
7,900.0	16.89	128.51	7,591.4	-1,311.7	1,648.2	2,104.7	0.00	0.00	0.00
8,000.0	16.89	128.51	7,687.1	-1,329.8	1,670.9	2,133.7	0.00	0.00	0.00
8,100.0	16.89	128.51	7,782.8	-1,347.9	1,693.6	2,162.8	0.00	0.00	0.00
8,200.0	16.89	128.51	7,878.5	-1,366.0	1,716.4	2,191.8	0.00	0.00	0.00
8,300.0	16.89	128.51	7,974.1	-1,384.0	1,739.1	2,220.8	0.00	0.00	0.00
8,400.0	16.89	128.51	8,069.8	-1,402.1	1,761.8	2,249.9	0.00	0.00	0.00
Drop 3° /100'									
8,467.2	16.89	128.51	8,134.2	-1,414.3	1,777.1	2,269.4	0.00	0.00	0.00
8,500.0	15.91	128.51	8,165.6	-1,420.1	1,784.3	2,278.6	3.00	-3.00	0.00
8,600.0	12.91	128.51	8,262.4	-1,435.6	1,803.8	2,303.5	3.00	-3.00	0.00
8,700.0	9.91	128.51	8,360.5	-1,447.9	1,819.3	2,323.2	3.00	-3.00	0.00
8,800.0	6.91	128.51	8,459.4	-1,457.0	1,830.7	2,337.8	3.00	-3.00	0.00
8,900.0	3.91	128.51	8,558.9	-1,462.8	1,838.1	2,347.2	3.00	-3.00	0.00
9,000.0	0.91	128.51	8,658.8	-1,465.4	1,841.4	2,351.4	3.00	-3.00	0.00
EOD @ Vertical / Build 1.5° / 100' - Ohio Creek									
9,030.2	0.00	0.00	8,689.0	-1,465.6	1,841.6	2,351.7	3.00	-3.00	0.00
9,100.0	1.05	240.00	8,758.8	-1,465.9	1,841.0	2,351.5	1.50	1.50	0.00
EOB @ 1.22° Inc. / 240.00° Azm									

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well ELU A18 FED 12C-18 495 - Slot 12C-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 12C-18 495	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #4		

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)
9,111.5	1.22	240.00	8,770.3	-1,466.0	1,840.8	2,351.4	1.50	1.50	0.00
9,200.0	1.22	240.00	8,858.8	-1,467.0	1,839.2	2,350.8	0.00	0.00	0.00
9,300.0	1.22	240.00	8,958.8	-1,468.0	1,837.3	2,350.1	0.00	0.00	0.00
9,400.0	1.22	240.00	9,058.7	-1,469.1	1,835.5	2,349.4	0.00	0.00	0.00
9,500.0	1.22	240.00	9,158.7	-1,470.2	1,833.6	2,348.7	0.00	0.00	0.00
9,600.0	1.22	240.00	9,258.7	-1,471.2	1,831.8	2,348.0	0.00	0.00	0.00
Williams Fork									
9,609.3	1.22	240.00	9,268.0	-1,471.3	1,831.6	2,347.9	0.00	0.00	0.00
9,700.0	1.22	240.00	9,358.7	-1,472.3	1,830.0	2,347.3	0.00	0.00	0.00
9,800.0	1.22	240.00	9,458.7	-1,473.4	1,828.1	2,346.6	0.00	0.00	0.00
9,900.0	1.22	240.00	9,558.6	-1,474.4	1,826.3	2,345.9	0.00	0.00	0.00
10,000.0	1.22	240.00	9,658.6	-1,475.5	1,824.4	2,345.2	0.00	0.00	0.00
10,100.0	1.22	240.00	9,758.6	-1,476.5	1,822.6	2,344.5	0.00	0.00	0.00
10,200.0	1.22	240.00	9,858.6	-1,477.6	1,820.7	2,343.8	0.00	0.00	0.00
10,300.0	1.22	240.00	9,958.5	-1,478.7	1,818.9	2,343.1	0.00	0.00	0.00
10,400.0	1.22	240.00	10,058.5	-1,479.7	1,817.1	2,342.4	0.00	0.00	0.00
10,500.0	1.22	240.00	10,158.5	-1,480.8	1,815.2	2,341.7	0.00	0.00	0.00
10,600.0	1.22	240.00	10,258.5	-1,481.9	1,813.4	2,341.0	0.00	0.00	0.00
10,700.0	1.22	240.00	10,358.4	-1,482.9	1,811.5	2,340.3	0.00	0.00	0.00
10,800.0	1.22	240.00	10,458.4	-1,484.0	1,809.7	2,339.6	0.00	0.00	0.00
10,900.0	1.22	240.00	10,558.4	-1,485.1	1,807.8	2,338.9	0.00	0.00	0.00
11,000.0	1.22	240.00	10,658.4	-1,486.1	1,806.0	2,338.2	0.00	0.00	0.00
11,100.0	1.22	240.00	10,758.4	-1,487.2	1,804.1	2,337.5	0.00	0.00	0.00
11,200.0	1.22	240.00	10,858.3	-1,488.3	1,802.3	2,336.8	0.00	0.00	0.00
11,300.0	1.22	240.00	10,958.3	-1,489.3	1,800.5	2,336.1	0.00	0.00	0.00
11,400.0	1.22	240.00	11,058.3	-1,490.4	1,798.6	2,335.4	0.00	0.00	0.00
11,500.0	1.22	240.00	11,158.3	-1,491.4	1,796.8	2,334.7	0.00	0.00	0.00
11,600.0	1.22	240.00	11,258.2	-1,492.5	1,794.9	2,334.0	0.00	0.00	0.00
11,700.0	1.22	240.00	11,358.2	-1,493.6	1,793.1	2,333.3	0.00	0.00	0.00
11,800.0	1.22	240.00	11,458.2	-1,494.6	1,791.2	2,332.6	0.00	0.00	0.00
11,900.0	1.22	240.00	11,558.2	-1,495.7	1,789.4	2,331.9	0.00	0.00	0.00
12,000.0	1.22	240.00	11,658.2	-1,496.8	1,787.6	2,331.2	0.00	0.00	0.00
12,100.0	1.22	240.00	11,758.1	-1,497.8	1,785.7	2,330.5	0.00	0.00	0.00
12,200.0	1.22	240.00	11,858.1	-1,498.9	1,783.9	2,329.8	0.00	0.00	0.00
12,300.0	1.22	240.00	11,958.1	-1,500.0	1,782.0	2,329.1	0.00	0.00	0.00
12,400.0	1.22	240.00	12,058.1	-1,501.0	1,780.2	2,328.4	0.00	0.00	0.00
12,500.0	1.22	240.00	12,158.0	-1,502.1	1,778.3	2,327.7	0.00	0.00	0.00
12,600.0	1.22	240.00	12,258.0	-1,503.2	1,776.5	2,327.0	0.00	0.00	0.00
12,700.0	1.22	240.00	12,358.0	-1,504.2	1,774.7	2,326.3	0.00	0.00	0.00
Cameo									
12,733.0	1.22	240.00	12,391.0	-1,504.6	1,774.0	2,326.1	0.00	0.00	0.00
12,800.0	1.22	240.00	12,458.0	-1,505.3	1,772.8	2,325.6	0.00	0.00	0.00
12,900.0	1.22	240.00	12,557.9	-1,506.3	1,771.0	2,324.9	0.00	0.00	0.00
13,000.0	1.22	240.00	12,657.9	-1,507.4	1,769.1	2,324.2	0.00	0.00	0.00
13,100.0	1.22	240.00	12,757.9	-1,508.5	1,767.3	2,323.5	0.00	0.00	0.00
13,200.0	1.22	240.00	12,857.9	-1,509.5	1,765.4	2,322.8	0.00	0.00	0.00
13,300.0	1.22	240.00	12,957.9	-1,510.6	1,763.6	2,322.1	0.00	0.00	0.00
13,400.0	1.22	240.00	13,057.8	-1,511.7	1,761.8	2,321.4	0.00	0.00	0.00
Rollins									
13,469.2	1.22	240.00	13,127.0	-1,512.4	1,760.5	2,320.9	0.00	0.00	0.00
13,500.0	1.22	240.00	13,157.8	-1,512.7	1,759.9	2,320.7	0.00	0.00	0.00
13,600.0	1.22	240.00	13,257.8	-1,513.8	1,758.1	2,320.0	0.00	0.00	0.00
13,700.0	1.22	240.00	13,357.8	-1,514.9	1,756.2	2,319.3	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well ELU A18 FED 12C-18 495 - Slot 12C-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 12C-18 495	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #4		

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)
TD @ 13769.2' MD / 13427.0' TVD									
13,769.2	1.22	240.00	13,427.0	-1,515.6	1,754.9	2,318.8	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
- hit/miss target									
- Shape									
12C-18 - OHCR	0.00	0.00	8,689.0	-1,465.6	1,841.6	14,431,807.77	2,456,964.65	39.704888	-108.097054
- plan hits target center									
- Point									
12C-18 - PBHL	0.00	0.00	13,427.0	-1,515.6	1,754.9	14,431,755.00	2,456,879.70	39.704751	-108.097362
- plan hits target center									
- Ellipse (radii L100.0 W50.0 on 240.00 azi)									

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,435.0	3,319.0	Wasatch				
6,787.6	6,527.0	Wasatch G				
7,101.2	6,827.0	Fort Union				
9,030.2	8,689.0	Ohio Creek				
9,609.3	9,268.0	Williams Fork				
12,733.0	12,391.0	Cameo				
13,469.2	13,127.0	Rollins				

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment
370.0	370.0	0.0	0.0	Build 3° / 100'
933.0	924.8	-51.3	64.5	EOB @ 16.89° Inc. / 128.51° Azm
8,467.2	8,134.2	-1,414.3	1,777.1	Drop 3° / 100'
9,030.2	8,689.0	-1,465.6	1,841.6	EOD @ Vertical / Build 1.5° / 100'
9,111.5	8,770.3	-1,466.0	1,840.8	EOB @ 1.22° Inc. / 240.00° Azm
13,769.2	13,427.0	-1,515.6	1,754.9	TD @ 13769.2' MD / 13427.0' TVD