

Project: Rio Blanco County, CO
 Site: ELU A18 495 Pad
 Well: ELU A18 FED 13A-18 495
 Wellbore: Wellbore #1
 Design: Design #5
 Latitude: 39.708877
 Longitude: -108.103476
 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 - 13A-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	
302.0	0.00	0.00	302.0	0.0	0.0	0.00	0.00	0.0	Build 3° / 100'
940.2	19.14	137.52	928.3	-77.9	71.3	3.00	137.52	105.6	EOB @ 19.14° Inc. / 137.52° Azm
8460.4	19.14	137.52	8032.7	-1896.8	1736.9	0.00	0.00	2570.2	Drop 3° / 100'
9098.5	0.00	0.00	8659.0	-1974.7	1808.3	3.00	180.00	2675.7	EOD @ Vertical / Build 1.5° / 100'
8659.0	9098.5	0.00	9179.9	0.00	0.00	1.50	240.00	2675.6	EOB @ 1.22° Inc. / 240.00° Azm
9231.0	9670.7	0.00	9231.0	0.00	0.00	0.00	0.00	2657.7	TD @ 13831.6° MD / 13391.0° TVD

FORMATION TOP DETAILS

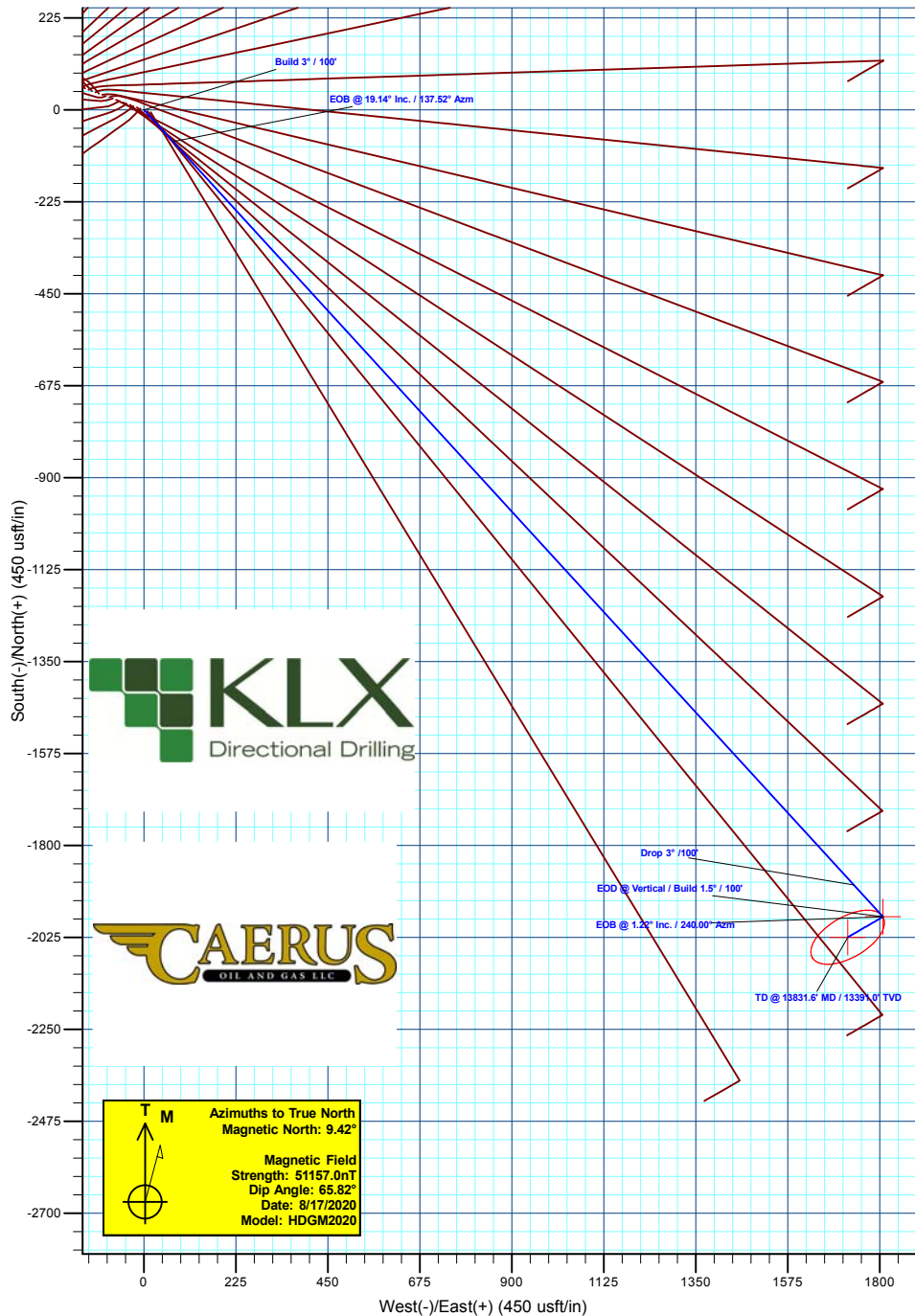
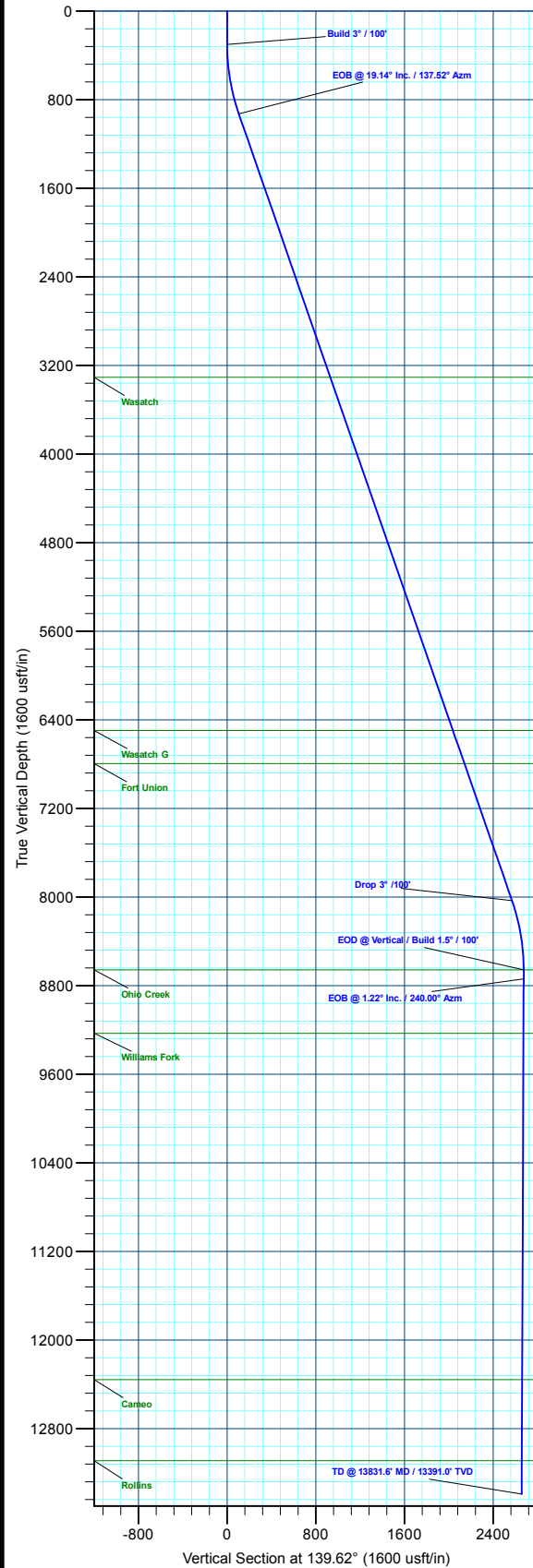
TVDPath	MDPath	Formation
3308.0	3459.1	Wasatch
6496.0	6833.8	Wasatch G
6796.0	7151.3	Fort Union
8659.0	9098.5	Ohio Creek
9231.0	9670.7	Williams Fork
12357.0	12797.4	Cameo
13091.0	13531.5	Rollins

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
13A-18 - OHCR	8659.0	-1974.7	1808.3	14431286.67	2456982.04	39.703457	-108.097052
13A-18 - PBHL	13391.0	-2024.7	1721.7	14431233.90	2456897.10	39.703320	-108.097360

WELL DETAILS: ELU A18 FED 13A-18 495

Ground Level : 8029.0	
+N/-S	+E/-W
0.0	0.0
14433201.90	2455110.90
39.708877	-108.103476
13A-18	



Plan: Design #5 (ELU A18 FED 13A-18 495/Wellbore #1)

Created By: Will Jircik Date: 4:13, October 05 2023



Caerus Oil & Gas

Rio Blanco County, CO

ELU A18 495 Pad

ELU A18 FED 13A-18 495 - Slot 13A-18

Wellbore #1

Plan: Design #5

KLX Well Planning Report

04 October, 2023



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well ELU A18 FED 13A-18 495 - Slot 13A-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 13A-18 495	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #5		

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 13A-18 495 - Slot 13A-18					
Well Position	+N/-S	-84.5 usft	Northing:	14,433,201.90 usft	Latitude:	39.708877
	+E/-W	203.9 usft	Easting:	2,455,110.90 usft	Longitude:	-108.103476
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 #5			
---------------	-----------	--	--	--

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	139.62

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	
302.0	0.00	0.00	302.0	0.0	0.0	0.00	0.00	0.00	0.00	
940.2	19.14	137.52	928.3	-77.9	71.3	3.00	3.00	0.00	137.52	
8,460.4	19.14	137.52	8,032.7	-1,896.8	1,736.9	0.00	0.00	0.00	0.00	
9,098.5	0.00	0.00	8,659.0	-1,974.7	1,808.3	3.00	-3.00	0.00	180.00	13A-18 - OHCR
9,179.9	1.22	240.00	8,740.4	-1,975.1	1,807.5	1.50	1.50	-147.40	240.00	
13,831.6	1.22	240.00	13,391.0	-2,024.7	1,721.7	0.00	0.00	0.00	0.00	13A-18 - PBHL

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well ELU A18 FED 13A-18 495 - Slot 13A-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 13A-18 495	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #5		

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	0.00
100.0	0.00	0.00	100.0	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	0.0	0.00	0.00	0.00	0.00
Build 3° / 100'										
302.0	0.00	0.00	302.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
400.0	2.94	137.52	400.0	-1.9	1.7	2.5	3.00	3.00	3.00	0.00
500.0	5.94	137.52	499.6	-7.6	6.9	10.2	3.00	3.00	3.00	0.00
600.0	8.94	137.52	598.8	-17.1	15.7	23.2	3.00	3.00	3.00	0.00
700.0	11.94	137.52	697.1	-30.5	27.9	41.3	3.00	3.00	3.00	0.00
800.0	14.94	137.52	794.4	-47.6	43.6	64.5	3.00	3.00	3.00	0.00
900.0	17.94	137.52	890.3	-68.5	62.7	92.8	3.00	3.00	3.00	0.00
EOB @ 19.14° Inc. / 137.52° Azm										
940.2	19.14	137.52	928.3	-77.9	71.3	105.6	3.00	3.00	3.00	0.00
1,000.0	19.14	137.52	984.9	-92.4	84.6	125.2	0.00	0.00	0.00	0.00
1,100.0	19.14	137.52	1,079.4	-116.6	106.7	157.9	0.00	0.00	0.00	0.00
1,200.0	19.14	137.52	1,173.8	-140.7	128.9	190.7	0.00	0.00	0.00	0.00
1,300.0	19.14	137.52	1,268.3	-164.9	151.0	223.5	0.00	0.00	0.00	0.00
1,400.0	19.14	137.52	1,362.8	-189.1	173.2	256.3	0.00	0.00	0.00	0.00
1,500.0	19.14	137.52	1,457.2	-213.3	195.3	289.0	0.00	0.00	0.00	0.00
1,600.0	19.14	137.52	1,551.7	-237.5	217.5	321.8	0.00	0.00	0.00	0.00
1,700.0	19.14	137.52	1,646.2	-261.7	239.6	354.6	0.00	0.00	0.00	0.00
1,800.0	19.14	137.52	1,740.6	-285.9	261.8	387.4	0.00	0.00	0.00	0.00
1,900.0	19.14	137.52	1,835.1	-310.1	283.9	420.1	0.00	0.00	0.00	0.00
2,000.0	19.14	137.52	1,929.6	-334.2	306.1	452.9	0.00	0.00	0.00	0.00
2,100.0	19.14	137.52	2,024.0	-358.4	328.2	485.7	0.00	0.00	0.00	0.00
2,200.0	19.14	137.52	2,118.5	-382.6	350.4	518.4	0.00	0.00	0.00	0.00
2,300.0	19.14	137.52	2,213.0	-406.8	372.5	551.2	0.00	0.00	0.00	0.00
2,400.0	19.14	137.52	2,307.5	-431.0	394.7	584.0	0.00	0.00	0.00	0.00
2,500.0	19.14	137.52	2,401.9	-455.2	416.8	616.8	0.00	0.00	0.00	0.00
2,600.0	19.14	137.52	2,496.4	-479.4	439.0	649.5	0.00	0.00	0.00	0.00
2,700.0	19.14	137.52	2,590.9	-503.5	461.1	682.3	0.00	0.00	0.00	0.00
2,800.0	19.14	137.52	2,685.3	-527.7	483.3	715.1	0.00	0.00	0.00	0.00
2,900.0	19.14	137.52	2,779.8	-551.9	505.4	747.9	0.00	0.00	0.00	0.00
3,000.0	19.14	137.52	2,874.3	-576.1	527.6	780.6	0.00	0.00	0.00	0.00
3,100.0	19.14	137.52	2,968.7	-600.3	549.7	813.4	0.00	0.00	0.00	0.00
3,200.0	19.14	137.52	3,063.2	-624.5	571.9	846.2	0.00	0.00	0.00	0.00
3,300.0	19.14	137.52	3,157.7	-648.7	594.0	879.0	0.00	0.00	0.00	0.00
3,400.0	19.14	137.52	3,252.1	-672.9	616.2	911.7	0.00	0.00	0.00	0.00
Wasatch										
3,459.1	19.14	137.52	3,308.0	-687.2	629.2	931.1	0.00	0.00	0.00	0.00
3,500.0	19.14	137.52	3,346.6	-697.0	638.3	944.5	0.00	0.00	0.00	0.00
3,600.0	19.14	137.52	3,441.1	-721.2	660.4	977.3	0.00	0.00	0.00	0.00
3,700.0	19.14	137.52	3,535.6	-745.4	682.6	1,010.1	0.00	0.00	0.00	0.00
3,800.0	19.14	137.52	3,630.0	-769.6	704.7	1,042.8	0.00	0.00	0.00	0.00
3,900.0	19.14	137.52	3,724.5	-793.8	726.9	1,075.6	0.00	0.00	0.00	0.00
4,000.0	19.14	137.52	3,819.0	-818.0	749.0	1,108.4	0.00	0.00	0.00	0.00
4,100.0	19.14	137.52	3,913.4	-842.2	771.2	1,141.1	0.00	0.00	0.00	0.00
4,200.0	19.14	137.52	4,007.9	-866.3	793.3	1,173.9	0.00	0.00	0.00	0.00
4,300.0	19.14	137.52	4,102.4	-890.5	815.5	1,206.7	0.00	0.00	0.00	0.00
4,400.0	19.14	137.52	4,196.8	-914.7	837.6	1,239.5	0.00	0.00	0.00	0.00
4,500.0	19.14	137.52	4,291.3	-938.9	859.8	1,272.2	0.00	0.00	0.00	0.00
4,600.0	19.14	137.52	4,385.8	-963.1	881.9	1,305.0	0.00	0.00	0.00	0.00
4,700.0	19.14	137.52	4,480.2	-987.3	904.1	1,337.8	0.00	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well ELU A18 FED 13A-18 495 - Slot 13A-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 13A-18 495	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #5		

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)	
4,800.0	19.14	137.52	4,574.7	-1,011.5	926.2	1,370.6	0.00	0.00	0.00	
4,900.0	19.14	137.52	4,669.2	-1,035.7	948.4	1,403.3	0.00	0.00	0.00	
5,000.0	19.14	137.52	4,763.7	-1,059.8	970.5	1,436.1	0.00	0.00	0.00	
5,100.0	19.14	137.52	4,858.1	-1,084.0	992.7	1,468.9	0.00	0.00	0.00	
5,200.0	19.14	137.52	4,952.6	-1,108.2	1,014.8	1,501.7	0.00	0.00	0.00	
5,300.0	19.14	137.52	5,047.1	-1,132.4	1,037.0	1,534.4	0.00	0.00	0.00	
5,400.0	19.14	137.52	5,141.5	-1,156.6	1,059.1	1,567.2	0.00	0.00	0.00	
5,500.0	19.14	137.52	5,236.0	-1,180.8	1,081.3	1,600.0	0.00	0.00	0.00	
5,600.0	19.14	137.52	5,330.5	-1,205.0	1,103.4	1,632.7	0.00	0.00	0.00	
5,700.0	19.14	137.52	5,424.9	-1,229.1	1,125.6	1,665.5	0.00	0.00	0.00	
5,800.0	19.14	137.52	5,519.4	-1,253.3	1,147.7	1,698.3	0.00	0.00	0.00	
5,900.0	19.14	137.52	5,613.9	-1,277.5	1,169.9	1,731.1	0.00	0.00	0.00	
6,000.0	19.14	137.52	5,708.3	-1,301.7	1,192.0	1,763.8	0.00	0.00	0.00	
6,100.0	19.14	137.52	5,802.8	-1,325.9	1,214.2	1,796.6	0.00	0.00	0.00	
6,200.0	19.14	137.52	5,897.3	-1,350.1	1,236.3	1,829.4	0.00	0.00	0.00	
6,300.0	19.14	137.52	5,991.8	-1,374.3	1,258.5	1,862.2	0.00	0.00	0.00	
6,400.0	19.14	137.52	6,086.2	-1,398.5	1,280.6	1,894.9	0.00	0.00	0.00	
6,500.0	19.14	137.52	6,180.7	-1,422.6	1,302.8	1,927.7	0.00	0.00	0.00	
6,600.0	19.14	137.52	6,275.2	-1,446.8	1,324.9	1,960.5	0.00	0.00	0.00	
6,700.0	19.14	137.52	6,369.6	-1,471.0	1,347.1	1,993.3	0.00	0.00	0.00	
6,800.0	19.14	137.52	6,464.1	-1,495.2	1,369.2	2,026.0	0.00	0.00	0.00	
Wasatch G										
6,833.8	19.14	137.52	6,496.0	-1,503.4	1,376.7	2,037.1	0.00	0.00	0.00	
6,900.0	19.14	137.52	6,558.6	-1,519.4	1,391.3	2,058.8	0.00	0.00	0.00	
7,000.0	19.14	137.52	6,653.0	-1,543.6	1,413.5	2,091.6	0.00	0.00	0.00	
7,100.0	19.14	137.52	6,747.5	-1,567.8	1,435.6	2,124.3	0.00	0.00	0.00	
Fort Union										
7,151.3	19.14	137.52	6,796.0	-1,580.2	1,447.0	2,141.2	0.00	0.00	0.00	
7,200.0	19.14	137.52	6,842.0	-1,591.9	1,457.8	2,157.1	0.00	0.00	0.00	
7,300.0	19.14	137.52	6,936.4	-1,616.1	1,479.9	2,189.9	0.00	0.00	0.00	
7,400.0	19.14	137.52	7,030.9	-1,640.3	1,502.1	2,222.7	0.00	0.00	0.00	
7,500.0	19.14	137.52	7,125.4	-1,664.5	1,524.2	2,255.4	0.00	0.00	0.00	
7,600.0	19.14	137.52	7,219.9	-1,688.7	1,546.4	2,288.2	0.00	0.00	0.00	
7,700.0	19.14	137.52	7,314.3	-1,712.9	1,568.5	2,321.0	0.00	0.00	0.00	
7,800.0	19.14	137.52	7,408.8	-1,737.1	1,590.7	2,353.8	0.00	0.00	0.00	
7,900.0	19.14	137.52	7,503.3	-1,761.3	1,612.8	2,386.5	0.00	0.00	0.00	
8,000.0	19.14	137.52	7,597.7	-1,785.4	1,635.0	2,419.3	0.00	0.00	0.00	
8,100.0	19.14	137.52	7,692.2	-1,809.6	1,657.1	2,452.1	0.00	0.00	0.00	
8,200.0	19.14	137.52	7,786.7	-1,833.8	1,679.3	2,484.9	0.00	0.00	0.00	
8,300.0	19.14	137.52	7,881.1	-1,858.0	1,701.4	2,517.6	0.00	0.00	0.00	
8,400.0	19.14	137.52	7,975.6	-1,882.2	1,723.6	2,550.4	0.00	0.00	0.00	
Drop 3° /100'										
8,460.4	19.14	137.52	8,032.7	-1,896.8	1,736.9	2,570.2	0.00	0.00	0.00	
8,500.0	17.96	137.52	8,070.2	-1,906.1	1,745.5	2,582.8	3.00	-3.00	0.00	
8,600.0	14.96	137.52	8,166.1	-1,927.0	1,764.6	2,611.1	3.00	-3.00	0.00	
8,700.0	11.96	137.52	8,263.3	-1,944.1	1,780.3	2,634.3	3.00	-3.00	0.00	
8,800.0	8.96	137.52	8,361.7	-1,957.5	1,792.6	2,652.5	3.00	-3.00	0.00	
8,900.0	5.96	137.52	8,460.8	-1,967.1	1,801.3	2,665.4	3.00	-3.00	0.00	
9,000.0	2.96	137.52	8,560.5	-1,972.8	1,806.6	2,673.2	3.00	-3.00	0.00	
EOD @ Vertical / Build 1.5° / 100' - Ohio Creek										
9,098.5	0.00	0.00	8,659.0	-1,974.7	1,808.3	2,675.7	3.00	-3.00	0.00	
9,100.0	0.02	240.00	8,660.5	-1,974.7	1,808.3	2,675.7	1.50	1.50	0.00	
EOB @ 1.22° Inc. / 240.00° Azm										
9,179.9	1.22	240.00	8,740.4	-1,975.1	1,807.5	2,675.6	1.50	1.50	0.00	

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well ELU A18 FED 13A-18 495 - Slot 13A-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 13A-18 495	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #5		

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)	
9,200.0	1.22	240.00	8,760.5	-1,975.3	1,807.2	2,675.5	0.00	0.00	0.00	
9,300.0	1.22	240.00	8,860.4	-1,976.4	1,805.3	2,675.1	0.00	0.00	0.00	
9,400.0	1.22	240.00	8,960.4	-1,977.5	1,803.5	2,674.7	0.00	0.00	0.00	
9,500.0	1.22	240.00	9,060.4	-1,978.5	1,801.6	2,674.4	0.00	0.00	0.00	
9,600.0	1.22	240.00	9,160.4	-1,979.6	1,799.8	2,674.0	0.00	0.00	0.00	
Williams Fork										
9,670.7	1.22	240.00	9,231.0	-1,980.4	1,798.5	2,673.7	0.00	0.00	0.00	
9,700.0	1.22	240.00	9,260.3	-1,980.7	1,797.9	2,673.6	0.00	0.00	0.00	
9,800.0	1.22	240.00	9,360.3	-1,981.7	1,796.1	2,673.2	0.00	0.00	0.00	
9,900.0	1.22	240.00	9,460.3	-1,982.8	1,794.2	2,672.8	0.00	0.00	0.00	
10,000.0	1.22	240.00	9,560.3	-1,983.9	1,792.4	2,672.4	0.00	0.00	0.00	
10,100.0	1.22	240.00	9,660.2	-1,984.9	1,790.6	2,672.1	0.00	0.00	0.00	
10,200.0	1.22	240.00	9,760.2	-1,986.0	1,788.7	2,671.7	0.00	0.00	0.00	
10,300.0	1.22	240.00	9,860.2	-1,987.1	1,786.9	2,671.3	0.00	0.00	0.00	
10,400.0	1.22	240.00	9,960.2	-1,988.1	1,785.0	2,670.9	0.00	0.00	0.00	
10,500.0	1.22	240.00	10,060.2	-1,989.2	1,783.2	2,670.5	0.00	0.00	0.00	
10,600.0	1.22	240.00	10,160.1	-1,990.3	1,781.3	2,670.1	0.00	0.00	0.00	
10,700.0	1.22	240.00	10,260.1	-1,991.3	1,779.5	2,669.8	0.00	0.00	0.00	
10,800.0	1.22	240.00	10,360.1	-1,992.4	1,777.6	2,669.4	0.00	0.00	0.00	
10,900.0	1.22	240.00	10,460.1	-1,993.4	1,775.8	2,669.0	0.00	0.00	0.00	
11,000.0	1.22	240.00	10,560.0	-1,994.5	1,773.9	2,668.6	0.00	0.00	0.00	
11,100.0	1.22	240.00	10,660.0	-1,995.6	1,772.1	2,668.2	0.00	0.00	0.00	
11,200.0	1.22	240.00	10,760.0	-1,996.6	1,770.2	2,667.8	0.00	0.00	0.00	
11,300.0	1.22	240.00	10,860.0	-1,997.7	1,768.4	2,667.4	0.00	0.00	0.00	
11,400.0	1.22	240.00	10,960.0	-1,998.8	1,766.6	2,667.1	0.00	0.00	0.00	
11,500.0	1.22	240.00	11,059.9	-1,999.8	1,764.7	2,666.7	0.00	0.00	0.00	
11,600.0	1.22	240.00	11,159.9	-2,000.9	1,762.9	2,666.3	0.00	0.00	0.00	
11,700.0	1.22	240.00	11,259.9	-2,002.0	1,761.0	2,665.9	0.00	0.00	0.00	
11,800.0	1.22	240.00	11,359.9	-2,003.0	1,759.2	2,665.5	0.00	0.00	0.00	
11,900.0	1.22	240.00	11,459.8	-2,004.1	1,757.3	2,665.1	0.00	0.00	0.00	
12,000.0	1.22	240.00	11,559.8	-2,005.2	1,755.5	2,664.8	0.00	0.00	0.00	
12,100.0	1.22	240.00	11,659.8	-2,006.2	1,753.6	2,664.4	0.00	0.00	0.00	
12,200.0	1.22	240.00	11,759.8	-2,007.3	1,751.8	2,664.0	0.00	0.00	0.00	
12,300.0	1.22	240.00	11,859.7	-2,008.4	1,749.9	2,663.6	0.00	0.00	0.00	
12,400.0	1.22	240.00	11,959.7	-2,009.4	1,748.1	2,663.2	0.00	0.00	0.00	
12,500.0	1.22	240.00	12,059.7	-2,010.5	1,746.3	2,662.8	0.00	0.00	0.00	
12,600.0	1.22	240.00	12,159.7	-2,011.6	1,744.4	2,662.5	0.00	0.00	0.00	
12,700.0	1.22	240.00	12,259.7	-2,012.6	1,742.6	2,662.1	0.00	0.00	0.00	
Cameo										
12,797.4	1.22	240.00	12,357.0	-2,013.7	1,740.8	2,661.7	0.00	0.00	0.00	
12,800.0	1.22	240.00	12,359.6	-2,013.7	1,740.7	2,661.7	0.00	0.00	0.00	
12,900.0	1.22	240.00	12,459.6	-2,014.8	1,738.9	2,661.3	0.00	0.00	0.00	
13,000.0	1.22	240.00	12,559.6	-2,015.8	1,737.0	2,660.9	0.00	0.00	0.00	
13,100.0	1.22	240.00	12,659.6	-2,016.9	1,735.2	2,660.5	0.00	0.00	0.00	
13,200.0	1.22	240.00	12,759.5	-2,018.0	1,733.3	2,660.2	0.00	0.00	0.00	
13,300.0	1.22	240.00	12,859.5	-2,019.0	1,731.5	2,659.8	0.00	0.00	0.00	
13,400.0	1.22	240.00	12,959.5	-2,020.1	1,729.6	2,659.4	0.00	0.00	0.00	
13,500.0	1.22	240.00	13,059.5	-2,021.2	1,727.8	2,659.0	0.00	0.00	0.00	
Rollins										
13,531.5	1.22	240.00	13,091.0	-2,021.5	1,727.2	2,658.9	0.00	0.00	0.00	
13,600.0	1.22	240.00	13,159.5	-2,022.2	1,726.0	2,658.6	0.00	0.00	0.00	
13,700.0	1.22	240.00	13,259.4	-2,023.3	1,724.1	2,658.2	0.00	0.00	0.00	
13,800.0	1.22	240.00	13,359.4	-2,024.3	1,722.3	2,657.9	0.00	0.00	0.00	

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well ELU A18 FED 13A-18 495 - Slot 13A-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 13A-18 495	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #5		

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 @ 13831.6' MD / 13391.0' TVD										
13,831.6	1.22	240.00	13,391.0	-2,024.7	1,721.7	2,657.7	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	
13A-18 - OHCR - hit/miss target - Shape - Point	0.00	0.00	8,659.0	-1,974.7	1,808.3	14,431,286.67	2,456,982.05	39.703457	-108.097052	
13A-18 - PBHL - plan hits target center - Ellipse (radii L100.0 W50.0 on 240.00 azi)	0.00	0.00	13,391.0	-2,024.7	1,721.7	14,431,233.90	2,456,897.10	39.703320	-108.097360	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,459.1	3,308.0	Wasatch				
6,833.8	6,496.0	Wasatch G				
7,151.3	6,796.0	Fort Union				
9,098.5	8,659.0	Ohio Creek				
9,670.7	9,231.0	Williams Fork				
12,797.4	12,357.0	Cameo				
13,531.5	13,091.0	Rollins				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment	
302.0	302.0	0.0	0.0	Build 3° / 100'	
940.2	928.3	-77.9	71.3	EOB @ 19.14° Inc. / 137.52° Azm	
8,460.4	8,032.7	-1,896.8	1,736.9	Drop 3° / 100'	
9,098.5	8,659.0	-1,974.7	1,808.3	EOD @ Vertical / Build 1.5° / 100'	
9,179.9	8,740.4	-1,975.1	1,807.5	EOB @ 1.22° Inc. / 240.00° Azm	
13,831.6	13,391.0	-2,024.7	1,721.7	TD @ 13831.6' MD / 13391.0' TVD	