

Project: Rio Blanco County, CO
 Site: ELU A18 495 Pad
 Well: ELU A18 FED 21C-13 496
 Wellbore: Wellbore #1
 Design: Design #4
 Latitude: 39.708919
 Longitude: -108.103627
 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	Vsect	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
250.0	0.00	0.00	250.0	0.0	0.0	0.00	0.00	0.0	Build 3° / 100'
548.0	8.94	236.88	546.8	-12.7	-19.4	3.00	236.88	22.5	EOB @ 8.94° Inc. / 236.88° Azm / Turn 3° / 100'
625.5	8.94	251.88	623.4	-17.8	-30.2	3.00	97.30	34.4	EOT @ 8.94° Inc. / 251.88° Azm
8448.3	8.94	251.88	8351.1	-396.1	-1186.1	0.00	0.00	1250.4	Drop 3° / 100'
8746.5	0.00	0.00	8648.0	-403.3	-1208.2	3.00	180.00	1273.6	EOD @ Vertical / Build 1.5° / 100'
8829.1	1.24	240.00	8730.7	-403.8	-1209.0	1.50	240.00	1274.5	EOB @ 1.24° Inc. / 240.00° Azm
13408.6	1.24	240.00	13309.0	-453.3	-1294.8	0.00	0.00	1371.9	TD @ 13408.6' MD / 13309.0' TVD

FORMATION TOP DETAILS

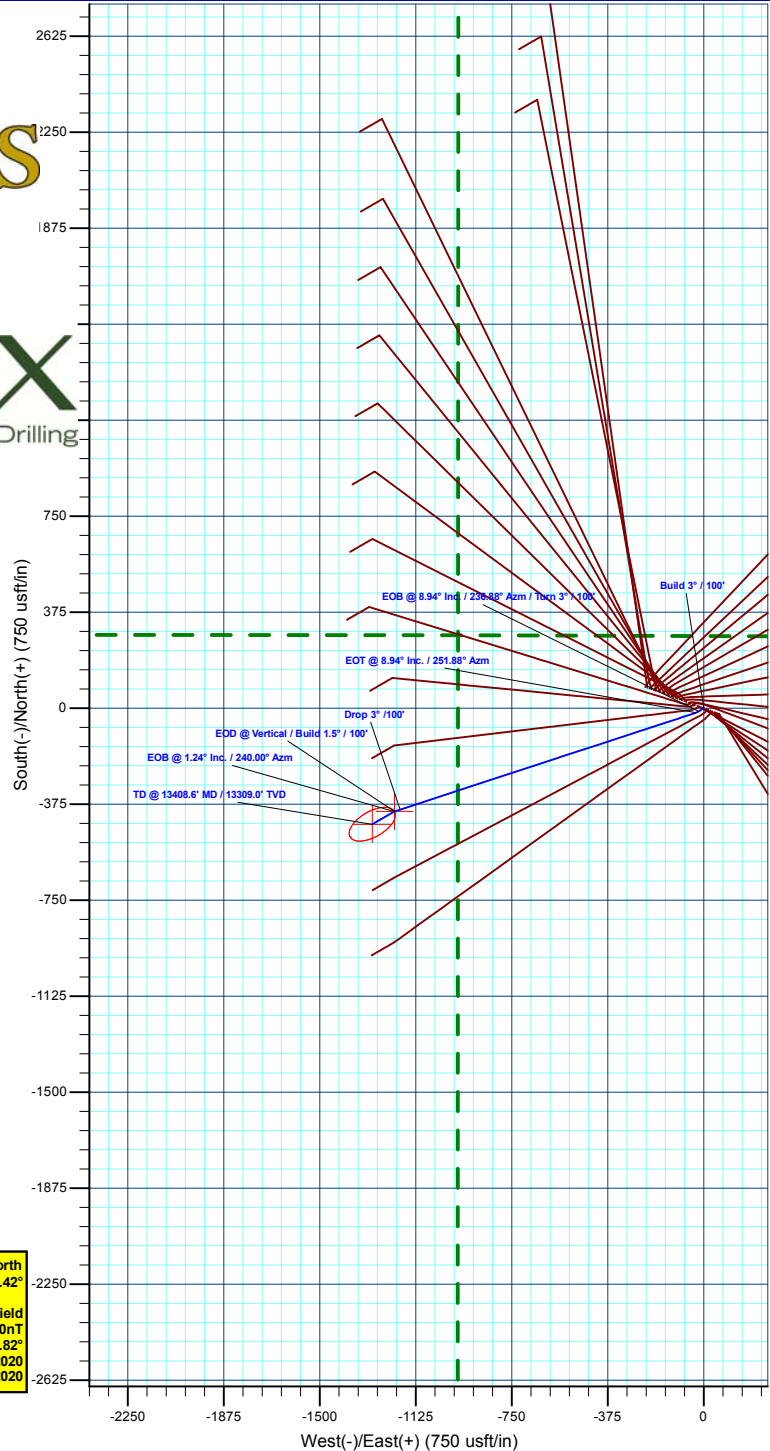
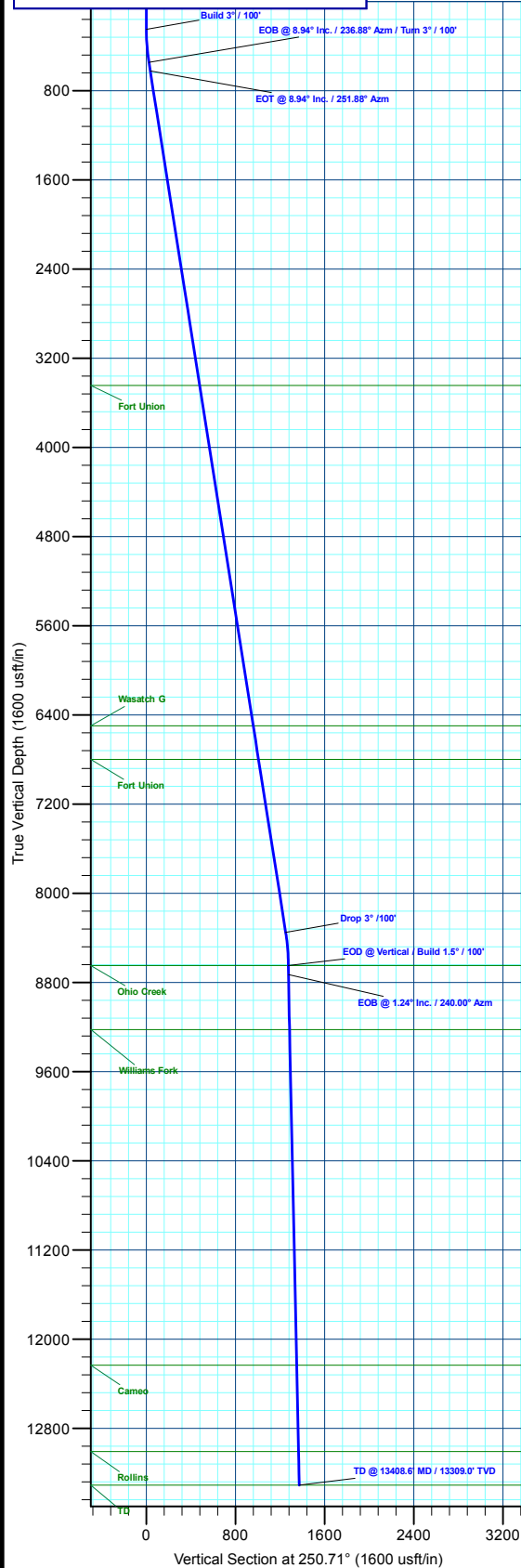
TVDPath	MDPath	Formation
3444.0	3480.9	Wasatch
6499.0	6573.5	Wasatch G
6799.0	6877.2	Fort Union
8648.0	8746.5	Ohio Creek
9223.0	9321.6	Williams Fork
12234.0	12333.3	Cameo
13009.0	13108.5	Rollins
13309.0	13408.6	TD

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
21C-13 - OHCR	8648.0	-403.3	-1208.2	14432773.77	2453873.54	39.707812	-108.107919
21C-13 - PBHL	13309.0	-453.3	-1294.8	14432721.00	2453788.80	39.707675	-108.108227

WELL DETAILS: ELU A18 FED 21C-13 496

+N/-S	+E/-W	Ground Level : 8029.0	Northing	Easting	Latitude	Longitude
0.0	0.0		14433215.90	2455068.10	39.708919	-108.103627
						21C-13



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 #4 (ELU A18 FED 21C-13 496/Wellbore #1)

Created By: Will Jircik Date: 3:36, October 05 2023



Caerus Oil & Gas

Rio Blanco County, CO

ELU A18 495 Pad

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

Wellbore #1

Plan: Design #4

KLX Well Planning Report

05 October, 2023



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well ELU A18 FED 21C-13 496 - Slot 21C-13
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 21C-13 496	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 21C-13 496 - Slot 21C-13					
Well Position	+N/-S	-69.2 usft	Northing:	14,433,215.90 usft	Latitude:	39.708919
	+E/-W	161.6 usft	Easting:	2,455,068.10 usft	Longitude:	-108.103627
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	8,029.0 usft

Wellbore	Wellbore #1				
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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			
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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	250.71

Plan Sections										
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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	
250.0	0.00	0.00	250.0	0.0	0.0	0.00	0.00	0.00	0.00	
548.0	8.94	236.88	546.8	-12.7	-19.4	3.00	3.00	0.00	236.88	
625.5	8.94	251.88	623.4	-17.8	-30.2	3.00	0.01	19.35	97.30	
8,448.3	8.94	251.88	8,351.1	-396.1	-1,186.1	0.00	0.00	0.00	0.00	
8,746.5	0.00	0.00	8,648.0	-403.3	-1,208.2	3.00	-3.00	0.00	180.00	21C-13 - OHCR
8,829.1	1.24	240.00	8,730.7	-403.8	-1,209.0	1.50	1.50	-145.15	240.00	
13,408.6	1.24	240.00	13,309.0	-453.3	-1,294.8	0.00	0.00	0.00	0.00	21C-13 - PBHL

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well ELU A18 FED 21C-13 496 - Slot 21C-13
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 21C-13 496	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
Build 3° / 100'									
250.0	0.00	0.00	250.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	1.50	236.88	300.0	-0.4	-0.5	0.6	3.00	3.00	0.00
400.0	4.50	236.88	399.8	-3.2	-4.9	5.7	3.00	3.00	0.00
500.0	7.50	236.88	499.3	-8.9	-13.7	15.9	3.00	3.00	0.00
EOB @ 8.94° Inc. / 236.88° Azm / Turn 3° / 100'									
548.0	8.94	236.88	546.8	-12.7	-19.4	22.5	3.00	3.00	0.00
600.0	8.88	246.96	598.2	-16.5	-26.5	30.5	3.00	-0.12	19.38
EOT @ 8.94° Inc. / 251.88° Azm									
625.5	8.94	251.88	623.4	-17.8	-30.2	34.4	3.00	0.27	19.30
700.0	8.94	251.88	697.0	-21.4	-41.2	46.0	0.00	0.00	0.00
800.0	8.94	251.88	795.7	-26.3	-56.0	61.5	0.00	0.00	0.00
900.0	8.94	251.88	894.5	-31.1	-70.8	77.1	0.00	0.00	0.00
1,000.0	8.94	251.88	993.3	-35.9	-85.5	92.6	0.00	0.00	0.00
1,100.0	8.94	251.88	1,092.1	-40.8	-100.3	108.2	0.00	0.00	0.00
1,200.0	8.94	251.88	1,190.9	-45.6	-115.1	123.7	0.00	0.00	0.00
1,300.0	8.94	251.88	1,289.7	-50.5	-129.9	139.2	0.00	0.00	0.00
1,400.0	8.94	251.88	1,388.4	-55.3	-144.6	154.8	0.00	0.00	0.00
1,500.0	8.94	251.88	1,487.2	-60.1	-159.4	170.3	0.00	0.00	0.00
1,600.0	8.94	251.88	1,586.0	-65.0	-174.2	185.9	0.00	0.00	0.00
1,700.0	8.94	251.88	1,684.8	-69.8	-189.0	201.4	0.00	0.00	0.00
1,800.0	8.94	251.88	1,783.6	-74.6	-203.8	217.0	0.00	0.00	0.00
1,900.0	8.94	251.88	1,882.4	-79.5	-218.5	232.5	0.00	0.00	0.00
2,000.0	8.94	251.88	1,981.1	-84.3	-233.3	248.1	0.00	0.00	0.00
2,100.0	8.94	251.88	2,079.9	-89.1	-248.1	263.6	0.00	0.00	0.00
2,200.0	8.94	251.88	2,178.7	-94.0	-262.9	279.1	0.00	0.00	0.00
2,300.0	8.94	251.88	2,277.5	-98.8	-277.6	294.7	0.00	0.00	0.00
2,400.0	8.94	251.88	2,376.3	-103.6	-292.4	310.2	0.00	0.00	0.00
2,500.0	8.94	251.88	2,475.1	-108.5	-307.2	325.8	0.00	0.00	0.00
2,600.0	8.94	251.88	2,573.9	-113.3	-322.0	341.3	0.00	0.00	0.00
2,700.0	8.94	251.88	2,672.6	-118.1	-336.7	356.9	0.00	0.00	0.00
2,800.0	8.94	251.88	2,771.4	-123.0	-351.5	372.4	0.00	0.00	0.00
2,900.0	8.94	251.88	2,870.2	-127.8	-366.3	388.0	0.00	0.00	0.00
3,000.0	8.94	251.88	2,969.0	-132.7	-381.1	403.5	0.00	0.00	0.00
3,100.0	8.94	251.88	3,067.8	-137.5	-395.8	419.0	0.00	0.00	0.00
3,200.0	8.94	251.88	3,166.6	-142.3	-410.6	434.6	0.00	0.00	0.00
3,300.0	8.94	251.88	3,265.3	-147.2	-425.4	450.1	0.00	0.00	0.00
3,400.0	8.94	251.88	3,364.1	-152.0	-440.2	465.7	0.00	0.00	0.00
Wasatch									
3,480.9	8.94	251.88	3,444.0	-155.9	-452.1	478.2	0.00	0.00	0.00
3,500.0	8.94	251.88	3,462.9	-156.8	-455.0	481.2	0.00	0.00	0.00
3,600.0	8.94	251.88	3,561.7	-161.7	-469.7	496.8	0.00	0.00	0.00
3,700.0	8.94	251.88	3,660.5	-166.5	-484.5	512.3	0.00	0.00	0.00
3,800.0	8.94	251.88	3,759.3	-171.3	-499.3	527.9	0.00	0.00	0.00
3,900.0	8.94	251.88	3,858.0	-176.2	-514.1	543.4	0.00	0.00	0.00
4,000.0	8.94	251.88	3,956.8	-181.0	-528.8	558.9	0.00	0.00	0.00
4,100.0	8.94	251.88	4,055.6	-185.8	-543.6	574.5	0.00	0.00	0.00
4,200.0	8.94	251.88	4,154.4	-190.7	-558.4	590.0	0.00	0.00	0.00
4,300.0	8.94	251.88	4,253.2	-195.5	-573.2	605.6	0.00	0.00	0.00
4,400.0	8.94	251.88	4,352.0	-200.3	-587.9	621.1	0.00	0.00	0.00
4,500.0	8.94	251.88	4,450.7	-205.2	-602.7	636.7	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well ELU A18 FED 21C-13 496 - Slot 21C-13
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 21C-13 496	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)
4,600.0	8.94	251.88	4,549.5	-210.0	-617.5	652.2	0.00	0.00	0.00
4,700.0	8.94	251.88	4,648.3	-214.8	-632.3	667.7	0.00	0.00	0.00
4,800.0	8.94	251.88	4,747.1	-219.7	-647.0	683.3	0.00	0.00	0.00
4,900.0	8.94	251.88	4,845.9	-224.5	-661.8	698.8	0.00	0.00	0.00
5,000.0	8.94	251.88	4,944.7	-229.4	-676.6	714.4	0.00	0.00	0.00
5,100.0	8.94	251.88	5,043.5	-234.2	-691.4	729.9	0.00	0.00	0.00
5,200.0	8.94	251.88	5,142.2	-239.0	-706.2	745.5	0.00	0.00	0.00
5,300.0	8.94	251.88	5,241.0	-243.9	-720.9	761.0	0.00	0.00	0.00
5,400.0	8.94	251.88	5,339.8	-248.7	-735.7	776.6	0.00	0.00	0.00
5,500.0	8.94	251.88	5,438.6	-253.5	-750.5	792.1	0.00	0.00	0.00
5,600.0	8.94	251.88	5,537.4	-258.4	-765.3	807.6	0.00	0.00	0.00
5,700.0	8.94	251.88	5,636.2	-263.2	-780.0	823.2	0.00	0.00	0.00
5,800.0	8.94	251.88	5,734.9	-268.0	-794.8	838.7	0.00	0.00	0.00
5,900.0	8.94	251.88	5,833.7	-272.9	-809.6	854.3	0.00	0.00	0.00
6,000.0	8.94	251.88	5,932.5	-277.7	-824.4	869.8	0.00	0.00	0.00
6,100.0	8.94	251.88	6,031.3	-282.5	-839.1	885.4	0.00	0.00	0.00
6,200.0	8.94	251.88	6,130.1	-287.4	-853.9	900.9	0.00	0.00	0.00
6,300.0	8.94	251.88	6,228.9	-292.2	-868.7	916.5	0.00	0.00	0.00
6,400.0	8.94	251.88	6,327.6	-297.0	-883.5	932.0	0.00	0.00	0.00
6,500.0	8.94	251.88	6,426.4	-301.9	-898.3	947.5	0.00	0.00	0.00
Wasatch G									
6,573.5	8.94	251.88	6,499.0	-305.4	-909.1	959.0	0.00	0.00	0.00
6,600.0	8.94	251.88	6,525.2	-306.7	-913.0	963.1	0.00	0.00	0.00
6,700.0	8.94	251.88	6,624.0	-311.5	-927.8	978.6	0.00	0.00	0.00
6,800.0	8.94	251.88	6,722.8	-316.4	-942.6	994.2	0.00	0.00	0.00
Fort Union									
6,877.2	8.94	251.88	6,799.0	-320.1	-954.0	1,006.2	0.00	0.00	0.00
6,900.0	8.94	251.88	6,821.6	-321.2	-957.4	1,009.7	0.00	0.00	0.00
7,000.0	8.94	251.88	6,920.3	-326.1	-972.1	1,025.3	0.00	0.00	0.00
7,100.0	8.94	251.88	7,019.1	-330.9	-986.9	1,040.8	0.00	0.00	0.00
7,200.0	8.94	251.88	7,117.9	-335.7	-1,001.7	1,056.4	0.00	0.00	0.00
7,300.0	8.94	251.88	7,216.7	-340.6	-1,016.5	1,071.9	0.00	0.00	0.00
7,400.0	8.94	251.88	7,315.5	-345.4	-1,031.2	1,087.4	0.00	0.00	0.00
7,500.0	8.94	251.88	7,414.3	-350.2	-1,046.0	1,103.0	0.00	0.00	0.00
7,600.0	8.94	251.88	7,513.0	-355.1	-1,060.8	1,118.5	0.00	0.00	0.00
7,700.0	8.94	251.88	7,611.8	-359.9	-1,075.6	1,134.1	0.00	0.00	0.00
7,800.0	8.94	251.88	7,710.6	-364.7	-1,090.3	1,149.6	0.00	0.00	0.00
7,900.0	8.94	251.88	7,809.4	-369.6	-1,105.1	1,165.2	0.00	0.00	0.00
8,000.0	8.94	251.88	7,908.2	-374.4	-1,119.9	1,180.7	0.00	0.00	0.00
8,100.0	8.94	251.88	8,007.0	-379.2	-1,134.7	1,196.3	0.00	0.00	0.00
8,200.0	8.94	251.88	8,105.8	-384.1	-1,149.5	1,211.8	0.00	0.00	0.00
8,300.0	8.94	251.88	8,204.5	-388.9	-1,164.2	1,227.3	0.00	0.00	0.00
8,400.0	8.94	251.88	8,303.3	-393.7	-1,179.0	1,242.9	0.00	0.00	0.00
Drop 3° /100'									
8,448.3	8.94	251.88	8,351.1	-396.1	-1,186.1	1,250.4	0.00	0.00	0.00
8,500.0	7.39	251.88	8,402.2	-398.4	-1,193.1	1,257.7	3.00	-3.00	0.00
8,600.0	4.39	251.88	8,501.7	-401.6	-1,202.9	1,268.0	3.00	-3.00	0.00
8,700.0	1.39	251.88	8,601.5	-403.1	-1,207.7	1,273.1	3.00	-3.00	0.00
EOD @ Vertical / Build 1.5° / 100' - Ohio Creek									
8,746.5	0.00	0.00	8,648.0	-403.3	-1,208.2	1,273.6	3.00	-3.00	0.00
8,800.0	0.80	240.00	8,701.5	-403.5	-1,208.5	1,274.0	1.50	1.50	0.00
EOB @ 1.24° Inc. / 240.00° Azm									
8,829.1	1.24	240.00	8,730.7	-403.8	-1,209.0	1,274.5	1.50	1.50	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well ELU A18 FED 21C-13 496 - Slot 21C-13
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 21C-13 496	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)	
8,900.0	1.24	240.00	8,801.5	-404.5	-1,210.3	1,276.0	0.00	0.00	0.00	
9,000.0	1.24	240.00	8,901.5	-405.6	-1,212.2	1,278.1	0.00	0.00	0.00	
9,100.0	1.24	240.00	9,001.5	-406.7	-1,214.1	1,280.3	0.00	0.00	0.00	
9,200.0	1.24	240.00	9,101.4	-407.8	-1,215.9	1,282.4	0.00	0.00	0.00	
9,300.0	1.24	240.00	9,201.4	-408.8	-1,217.8	1,284.5	0.00	0.00	0.00	
Williams Fork										
9,321.6	1.24	240.00	9,223.0	-409.1	-1,218.2	1,285.0	0.00	0.00	0.00	
9,400.0	1.24	240.00	9,301.4	-409.9	-1,219.7	1,286.6	0.00	0.00	0.00	
9,500.0	1.24	240.00	9,401.4	-411.0	-1,221.6	1,288.8	0.00	0.00	0.00	
9,600.0	1.24	240.00	9,501.3	-412.1	-1,223.4	1,290.9	0.00	0.00	0.00	
9,700.0	1.24	240.00	9,601.3	-413.2	-1,225.3	1,293.0	0.00	0.00	0.00	
9,800.0	1.24	240.00	9,701.3	-414.3	-1,227.2	1,295.1	0.00	0.00	0.00	
9,900.0	1.24	240.00	9,801.3	-415.3	-1,229.1	1,297.3	0.00	0.00	0.00	
10,000.0	1.24	240.00	9,901.2	-416.4	-1,230.9	1,299.4	0.00	0.00	0.00	
10,100.0	1.24	240.00	10,001.2	-417.5	-1,232.8	1,301.5	0.00	0.00	0.00	
10,200.0	1.24	240.00	10,101.2	-418.6	-1,234.7	1,303.6	0.00	0.00	0.00	
10,300.0	1.24	240.00	10,201.2	-419.7	-1,236.6	1,305.8	0.00	0.00	0.00	
10,400.0	1.24	240.00	10,301.2	-420.7	-1,238.4	1,307.9	0.00	0.00	0.00	
10,500.0	1.24	240.00	10,401.1	-421.8	-1,240.3	1,310.0	0.00	0.00	0.00	
10,600.0	1.24	240.00	10,501.1	-422.9	-1,242.2	1,312.2	0.00	0.00	0.00	
10,700.0	1.24	240.00	10,601.1	-424.0	-1,244.1	1,314.3	0.00	0.00	0.00	
10,800.0	1.24	240.00	10,701.1	-425.1	-1,245.9	1,316.4	0.00	0.00	0.00	
10,900.0	1.24	240.00	10,801.0	-426.2	-1,247.8	1,318.5	0.00	0.00	0.00	
11,000.0	1.24	240.00	10,901.0	-427.2	-1,249.7	1,320.7	0.00	0.00	0.00	
11,100.0	1.24	240.00	11,001.0	-428.3	-1,251.6	1,322.8	0.00	0.00	0.00	
11,200.0	1.24	240.00	11,101.0	-429.4	-1,253.4	1,324.9	0.00	0.00	0.00	
11,300.0	1.24	240.00	11,200.9	-430.5	-1,255.3	1,327.0	0.00	0.00	0.00	
11,400.0	1.24	240.00	11,300.9	-431.6	-1,257.2	1,329.2	0.00	0.00	0.00	
11,500.0	1.24	240.00	11,400.9	-432.7	-1,259.1	1,331.3	0.00	0.00	0.00	
11,600.0	1.24	240.00	11,500.9	-433.7	-1,260.9	1,333.4	0.00	0.00	0.00	
11,700.0	1.24	240.00	11,600.8	-434.8	-1,262.8	1,335.5	0.00	0.00	0.00	
11,800.0	1.24	240.00	11,700.8	-435.9	-1,264.7	1,337.7	0.00	0.00	0.00	
11,900.0	1.24	240.00	11,800.8	-437.0	-1,266.5	1,339.8	0.00	0.00	0.00	
12,000.0	1.24	240.00	11,900.8	-438.1	-1,268.4	1,341.9	0.00	0.00	0.00	
12,100.0	1.24	240.00	12,000.8	-439.1	-1,270.3	1,344.1	0.00	0.00	0.00	
12,200.0	1.24	240.00	12,100.7	-440.2	-1,272.2	1,346.2	0.00	0.00	0.00	
12,300.0	1.24	240.00	12,200.7	-441.3	-1,274.0	1,348.3	0.00	0.00	0.00	
Cameo										
12,333.3	1.24	240.00	12,234.0	-441.7	-1,274.7	1,349.0	0.00	0.00	0.00	
12,400.0	1.24	240.00	12,300.7	-442.4	-1,275.9	1,350.4	0.00	0.00	0.00	
12,500.0	1.24	240.00	12,400.7	-443.5	-1,277.8	1,352.6	0.00	0.00	0.00	
12,600.0	1.24	240.00	12,500.6	-444.6	-1,279.7	1,354.7	0.00	0.00	0.00	
12,700.0	1.24	240.00	12,600.6	-445.6	-1,281.5	1,356.8	0.00	0.00	0.00	
12,800.0	1.24	240.00	12,700.6	-446.7	-1,283.4	1,358.9	0.00	0.00	0.00	
12,900.0	1.24	240.00	12,800.6	-447.8	-1,285.3	1,361.1	0.00	0.00	0.00	
13,000.0	1.24	240.00	12,900.5	-448.9	-1,287.2	1,363.2	0.00	0.00	0.00	
13,100.0	1.24	240.00	13,000.5	-450.0	-1,289.0	1,365.3	0.00	0.00	0.00	
Rollins										
13,108.5	1.24	240.00	13,009.0	-450.1	-1,289.2	1,365.5	0.00	0.00	0.00	
13,200.0	1.24	240.00	13,100.5	-451.0	-1,290.9	1,367.4	0.00	0.00	0.00	
13,300.0	1.24	240.00	13,200.5	-452.1	-1,292.8	1,369.6	0.00	0.00	0.00	
TD @ 13408.6' MD / 13309.0' TVD - TD										
13,408.6	1.24	240.00	13,309.0	-453.3	-1,294.8	1,371.9	0.00	0.00	0.00	

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well ELU A18 FED 21C-13 496 - Slot 21C-13
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 21C-13 496	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #4		

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	8,648.0	-403.3	-1,208.2	14,432,773.77	2,453,873.55	39.707812	-108.107919
21C-13 - PBHL - plan hits target center - Ellipse (radii L100.0 W50.0 on 240.00 azi)	0.00	0.00	13,309.0	-453.3	-1,294.8	14,432,721.00	2,453,788.60	39.707675	-108.108227

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,480.9	3,444.0	Wasatch			
6,573.5	6,499.0	Wasatch G			
6,877.2	6,799.0	Fort Union			
8,746.5	8,648.0	Ohio Creek			
9,321.6	9,223.0	Williams Fork			
12,333.3	12,234.0	Cameo			
13,108.5	13,009.0	Rollins			
13,408.6	13,309.0	TD			

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
250.0	250.0	0.0	0.0	Build 3° / 100'
548.0	546.8	-12.7	-19.4	EOB @ 8.94° Inc. / 236.88° Azm / Turn 3° / 100'
625.5	623.4	-17.8	-30.2	EOT @ 8.94° Inc. / 251.88° Azm
8,448.3	8,351.1	-396.1	-1,186.1	Drop 3° / 100'
8,746.5	8,648.0	-403.3	-1,208.2	EOD @ Vertical / Build 1.5° / 100'
8,829.1	8,730.7	-403.8	-1,209.0	EOB @ 1.24° Inc. / 240.00° Azm
13,408.6	13,309.0	-453.3	-1,294.8	TD @ 13408.6' MD / 13309.0' TVD