

Project: Rio Blanco County, CO
Site: ELU A18 495 Pad
Well: ELU A18 FED 21D-13 496
Wellbore: Wellbore #1
Design: Design #2
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 - 21D-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	
100.0	0.00	0.00	100.0	0.0	0.0	0.00	0.00	0.0	Build 3° / 100'
433.3	10.00	235.00	431.6	-16.6	-23.8	3.00	235.00	27.5	EOB @ 10.00° Inc. / 235.00° Azm / Build 3° / 100'
679.8	16.09	254.21	671.8	-38.2	-74.2	3.00	45.11	82.0	EOB @ 16.09° Inc. / 254.21° Azm
8410.6	16.09	254.21	8099.8	-621.0	-2135.6	0.00	0.00	2224.0	Drop 3° / 100'
8946.8	0.00	0.00	8629.0	-641.3	-2207.5	3.00	180.00	2298.8	EOD @ Vertical / Build 1.5° / 100'
9204.0	1.24	250.02	8711.8	-641.6	-2208.4	1.50	250.02	2299.7	EOB @ 1.24° Inc. / 250.02° Azm
12232.0	1.24	250.02	13282.0	-675.5	-2301.5	0.00	0.00	2398.6	TD @ 13600.9' MD / 13282.0' TVD

FORMATION TOP DETAILS

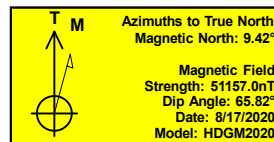
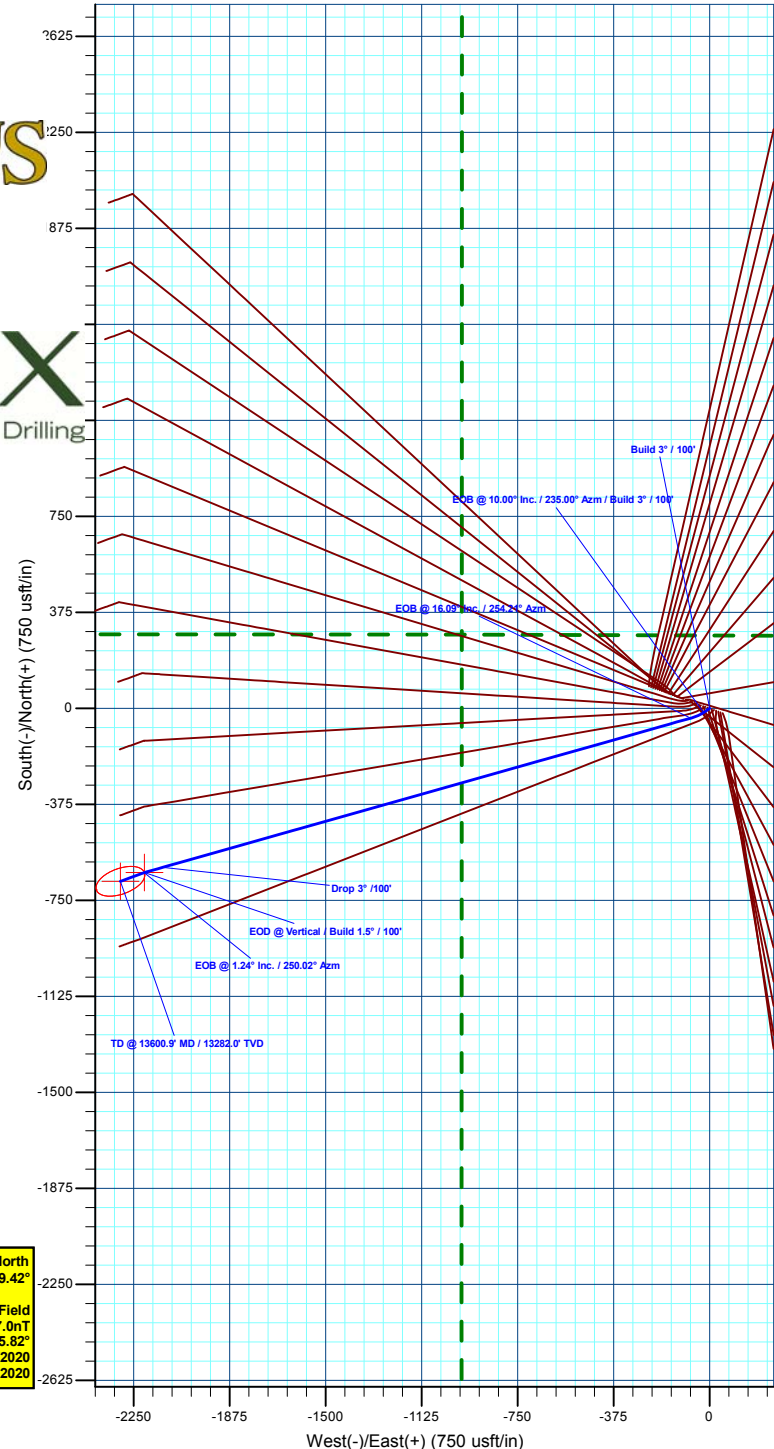
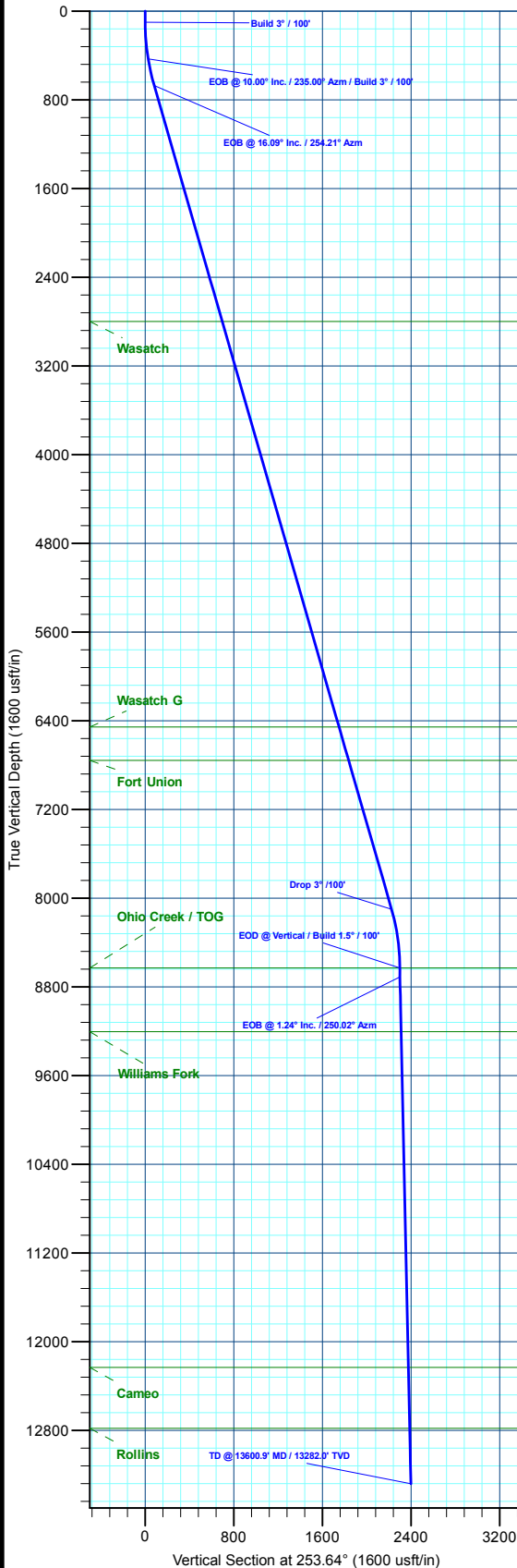
TVDPath	MDPath	Formation
2800.0	2894.8	Wasatch
6457.0	6700.8	Wasatch G
6757.0	7013.0	Fort Union
8629.0	8946.8	Ohio Creek / TOG
9204.0	9521.9	Williams Fork
12232.0	12550.6	Cameo
12782.0	13100.7	Rollins

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
21D-13 - OHCR8629.0		-641.3	-2207.5	14432500.79	2452891.03	39.707150	-108.111439
21D-13 - PBH113282.0		-675.5	-2301.5	14432463.60	2452798.20	39.707056	-108.111773

WELL DETAILS: ELU A18 FED 21D-13 496

+N/-S	+E/-W	Ground Level : 8029.0	Latitude	Longitude
0.0	0.0	Northing 14433213.09 Easting 2455076.68	39.708910	-108.103596



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

Created By: Will Jircik

Date: 13:40, May 18 2022



Caerus Oil & Gas

Rio Blanco County, CO

ELU A18 495 Pad

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

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 21D-13 496 - Slot 21D-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 21D-13 496	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 21D-13 496 - Slot 21D-13					
Well Position	+N/-S	-72.2 usft	Northing:	14,433,213.09 usft	Latitude:	39.708910
	+E/-W	170.0 usft	Easting:	2,455,076.68 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 #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	253.64	

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	
100.0	0.00	0.00	100.0	0.0	0.0	0.00	0.00	0.00	0.00	
433.3	10.00	235.00	431.6	-16.6	-23.8	3.00	3.00	0.00	235.00	
679.8	16.09	254.21	671.8	-38.2	-74.2	3.00	2.47	7.79	45.11	
8,410.6	16.09	254.21	8,099.8	-621.0	-2,135.6	0.00	0.00	0.00	0.00	
8,946.8	0.00	0.00	8,629.0	-641.3	-2,207.5	3.00	-3.00	0.00	180.00	21D-13 - OHCR
9,029.6	1.24	250.02	8,711.8	-641.6	-2,208.4	1.50	1.50	-132.80	250.02	
13,600.9	1.24	250.02	13,282.0	-675.5	-2,301.5	0.00	0.00	0.00	0.00	21D-13 - PBHL

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well ELU A18 FED 21D-13 496 - Slot 21D-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 21D-13 496	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
Build 3° / 100'									
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	3.00	235.00	200.0	-1.5	-2.1	2.5	3.00	3.00	0.00
300.0	6.00	235.00	299.6	-6.0	-8.6	9.9	3.00	3.00	0.00
400.0	9.00	235.00	398.8	-13.5	-19.3	22.3	3.00	3.00	0.00
EOB @ 10.00° Inc. / 235.00° Azm / Build 3° / 100'									
433.3	10.00	235.00	431.6	-16.6	-23.8	27.5	3.00	3.00	0.00
500.0	11.50	242.13	497.1	-23.1	-34.4	39.5	3.00	2.25	10.69
600.0	13.98	249.81	594.7	-31.9	-54.5	61.3	3.00	2.48	7.68
EOB @ 16.09° Inc. / 254.21° Azm									
679.8	16.09	254.21	671.8	-38.2	-74.2	82.0	3.00	2.64	5.52
700.0	16.09	254.21	691.2	-39.8	-79.6	87.6	0.00	0.00	0.00
800.0	16.09	254.21	787.2	-47.3	-106.3	115.3	0.00	0.00	0.00
900.0	16.09	254.21	883.3	-54.8	-132.9	143.0	0.00	0.00	0.00
1,000.0	16.09	254.21	979.4	-62.4	-159.6	170.7	0.00	0.00	0.00
1,100.0	16.09	254.21	1,075.5	-69.9	-186.3	198.4	0.00	0.00	0.00
1,200.0	16.09	254.21	1,171.6	-77.4	-212.9	226.1	0.00	0.00	0.00
1,300.0	16.09	254.21	1,267.7	-85.0	-239.6	253.8	0.00	0.00	0.00
1,400.0	16.09	254.21	1,363.7	-92.5	-266.3	281.5	0.00	0.00	0.00
1,500.0	16.09	254.21	1,459.8	-100.1	-292.9	309.2	0.00	0.00	0.00
1,600.0	16.09	254.21	1,555.9	-107.6	-319.6	337.0	0.00	0.00	0.00
1,700.0	16.09	254.21	1,652.0	-115.1	-346.3	364.7	0.00	0.00	0.00
1,800.0	16.09	254.21	1,748.1	-122.7	-372.9	392.4	0.00	0.00	0.00
1,900.0	16.09	254.21	1,844.2	-130.2	-399.6	420.1	0.00	0.00	0.00
2,000.0	16.09	254.21	1,940.3	-137.8	-426.2	447.8	0.00	0.00	0.00
2,100.0	16.09	254.21	2,036.3	-145.3	-452.9	475.5	0.00	0.00	0.00
2,200.0	16.09	254.21	2,132.4	-152.8	-479.6	503.2	0.00	0.00	0.00
2,300.0	16.09	254.21	2,228.5	-160.4	-506.2	530.9	0.00	0.00	0.00
2,400.0	16.09	254.21	2,324.6	-167.9	-532.9	558.6	0.00	0.00	0.00
2,500.0	16.09	254.21	2,420.7	-175.4	-559.6	586.3	0.00	0.00	0.00
2,600.0	16.09	254.21	2,516.8	-183.0	-586.2	614.0	0.00	0.00	0.00
2,700.0	16.09	254.21	2,612.8	-190.5	-612.9	641.7	0.00	0.00	0.00
2,800.0	16.09	254.21	2,708.9	-198.1	-639.6	669.4	0.00	0.00	0.00
Wasatch									
2,894.8	16.09	254.21	2,800.0	-205.2	-664.8	695.7	0.00	0.00	0.00
2,900.0	16.09	254.21	2,805.0	-205.6	-666.2	697.2	0.00	0.00	0.00
3,000.0	16.09	254.21	2,901.1	-213.1	-692.9	724.9	0.00	0.00	0.00
3,100.0	16.09	254.21	2,997.2	-220.7	-719.5	752.6	0.00	0.00	0.00
3,200.0	16.09	254.21	3,093.3	-228.2	-746.2	780.3	0.00	0.00	0.00
3,300.0	16.09	254.21	3,189.3	-235.7	-772.9	808.0	0.00	0.00	0.00
3,400.0	16.09	254.21	3,285.4	-243.3	-799.5	835.7	0.00	0.00	0.00
3,500.0	16.09	254.21	3,381.5	-250.8	-826.2	863.4	0.00	0.00	0.00
3,600.0	16.09	254.21	3,477.6	-258.4	-852.9	891.1	0.00	0.00	0.00
3,700.0	16.09	254.21	3,573.7	-265.9	-879.5	918.8	0.00	0.00	0.00
3,800.0	16.09	254.21	3,669.8	-273.4	-906.2	946.5	0.00	0.00	0.00
3,900.0	16.09	254.21	3,765.9	-281.0	-932.9	974.2	0.00	0.00	0.00
4,000.0	16.09	254.21	3,861.9	-288.5	-959.5	1,001.9	0.00	0.00	0.00
4,100.0	16.09	254.21	3,958.0	-296.0	-986.2	1,029.6	0.00	0.00	0.00
4,200.0	16.09	254.21	4,054.1	-303.6	-1,012.9	1,057.4	0.00	0.00	0.00
4,300.0	16.09	254.21	4,150.2	-311.1	-1,039.5	1,085.1	0.00	0.00	0.00
4,400.0	16.09	254.21	4,246.3	-318.7	-1,066.2	1,112.8	0.00	0.00	0.00
4,500.0	16.09	254.21	4,342.4	-326.2	-1,092.8	1,140.5	0.00	0.00	0.00
4,600.0	16.09	254.21	4,438.4	-333.7	-1,119.5	1,168.2	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well ELU A18 FED 21D-13 496 - Slot 21D-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 21D-13 496	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	16.09	254.21	4,534.5	-341.3	-1,146.2	1,195.9	0.00	0.00	0.00
4,800.0	16.09	254.21	4,630.6	-348.8	-1,172.8	1,223.6	0.00	0.00	0.00
4,900.0	16.09	254.21	4,726.7	-356.3	-1,199.5	1,251.3	0.00	0.00	0.00
5,000.0	16.09	254.21	4,822.8	-363.9	-1,226.2	1,279.0	0.00	0.00	0.00
5,100.0	16.09	254.21	4,918.9	-371.4	-1,252.8	1,306.7	0.00	0.00	0.00
5,200.0	16.09	254.21	5,015.0	-379.0	-1,279.5	1,334.4	0.00	0.00	0.00
5,300.0	16.09	254.21	5,111.0	-386.5	-1,306.2	1,362.1	0.00	0.00	0.00
5,400.0	16.09	254.21	5,207.1	-394.0	-1,332.8	1,389.8	0.00	0.00	0.00
5,500.0	16.09	254.21	5,303.2	-401.6	-1,359.5	1,417.6	0.00	0.00	0.00
5,600.0	16.09	254.21	5,399.3	-409.1	-1,386.2	1,445.3	0.00	0.00	0.00
5,700.0	16.09	254.21	5,495.4	-416.6	-1,412.8	1,473.0	0.00	0.00	0.00
5,800.0	16.09	254.21	5,591.5	-424.2	-1,439.5	1,500.7	0.00	0.00	0.00
5,900.0	16.09	254.21	5,687.5	-431.7	-1,466.1	1,528.4	0.00	0.00	0.00
6,000.0	16.09	254.21	5,783.6	-439.3	-1,492.8	1,556.1	0.00	0.00	0.00
6,100.0	16.09	254.21	5,879.7	-446.8	-1,519.5	1,583.8	0.00	0.00	0.00
6,200.0	16.09	254.21	5,975.8	-454.3	-1,546.1	1,611.5	0.00	0.00	0.00
6,300.0	16.09	254.21	6,071.9	-461.9	-1,572.8	1,639.2	0.00	0.00	0.00
6,400.0	16.09	254.21	6,168.0	-469.4	-1,599.5	1,666.9	0.00	0.00	0.00
6,500.0	16.09	254.21	6,264.0	-477.0	-1,626.1	1,694.6	0.00	0.00	0.00
6,600.0	16.09	254.21	6,360.1	-484.5	-1,652.8	1,722.3	0.00	0.00	0.00
6,700.0	16.09	254.21	6,456.2	-492.0	-1,679.5	1,750.0	0.00	0.00	0.00
Wasatch G									
6,700.8	16.09	254.21	6,457.0	-492.1	-1,679.7	1,750.3	0.00	0.00	0.00
6,800.0	16.09	254.21	6,552.3	-499.6	-1,706.1	1,777.8	0.00	0.00	0.00
6,900.0	16.09	254.21	6,648.4	-507.1	-1,732.8	1,805.5	0.00	0.00	0.00
7,000.0	16.09	254.21	6,744.5	-514.6	-1,759.4	1,833.2	0.00	0.00	0.00
Fort Union									
7,013.0	16.09	254.21	6,757.0	-515.6	-1,762.9	1,836.8	0.00	0.00	0.00
7,100.0	16.09	254.21	6,840.6	-522.2	-1,786.1	1,860.9	0.00	0.00	0.00
7,200.0	16.09	254.21	6,936.6	-529.7	-1,812.8	1,888.6	0.00	0.00	0.00
7,300.0	16.09	254.21	7,032.7	-537.3	-1,839.4	1,916.3	0.00	0.00	0.00
7,400.0	16.09	254.21	7,128.8	-544.8	-1,866.1	1,944.0	0.00	0.00	0.00
7,500.0	16.09	254.21	7,224.9	-552.3	-1,892.8	1,971.7	0.00	0.00	0.00
7,600.0	16.09	254.21	7,321.0	-559.9	-1,919.4	1,999.4	0.00	0.00	0.00
7,700.0	16.09	254.21	7,417.1	-567.4	-1,946.1	2,027.1	0.00	0.00	0.00
7,800.0	16.09	254.21	7,513.1	-574.9	-1,972.8	2,054.8	0.00	0.00	0.00
7,900.0	16.09	254.21	7,609.2	-582.5	-1,999.4	2,082.5	0.00	0.00	0.00
8,000.0	16.09	254.21	7,705.3	-590.0	-2,026.1	2,110.2	0.00	0.00	0.00
8,100.0	16.09	254.21	7,801.4	-597.6	-2,052.8	2,138.0	0.00	0.00	0.00
8,200.0	16.09	254.21	7,897.5	-605.1	-2,079.4	2,165.7	0.00	0.00	0.00
8,300.0	16.09	254.21	7,993.6	-612.6	-2,106.1	2,193.4	0.00	0.00	0.00
8,400.0	16.09	254.21	8,089.7	-620.2	-2,132.7	2,221.1	0.00	0.00	0.00
Drop 3° /100'									
8,410.6	16.09	254.21	8,099.8	-621.0	-2,135.6	2,224.0	0.00	0.00	0.00
8,500.0	13.40	254.21	8,186.3	-627.2	-2,157.5	2,246.8	3.00	-3.00	0.00
8,600.0	10.40	254.21	8,284.1	-632.8	-2,177.3	2,267.4	3.00	-3.00	0.00
8,700.0	7.40	254.21	8,382.9	-637.0	-2,192.2	2,282.9	3.00	-3.00	0.00
8,800.0	4.40	254.21	8,482.4	-639.8	-2,202.1	2,293.1	3.00	-3.00	0.00
8,900.0	1.40	254.21	8,582.2	-641.2	-2,207.0	2,298.2	3.00	-3.00	0.00
EOD @ Vertical / Build 1.5° / 100' - Ohio Creek / TOG									
8,946.8	0.00	0.00	8,629.0	-641.3	-2,207.5	2,298.8	3.00	-3.00	0.00
9,000.0	0.80	250.02	8,682.2	-641.4	-2,207.9	2,299.2	1.50	1.50	0.00
EOB @ 1.24° Inc. / 250.02° Azm									

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well ELU A18 FED 21D-13 496 - Slot 21D-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 21D-13 496	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)
9,029.6	1.24	250.02	8,711.8	-641.6	-2,208.4	2,299.7	1.50	1.50	0.00
9,100.0	1.24	250.02	8,782.2	-642.1	-2,209.8	2,301.2	0.00	0.00	0.00
9,200.0	1.24	250.02	8,882.2	-642.9	-2,211.8	2,303.4	0.00	0.00	0.00
9,300.0	1.24	250.02	8,982.2	-643.6	-2,213.9	2,305.5	0.00	0.00	0.00
9,400.0	1.24	250.02	9,082.1	-644.4	-2,215.9	2,307.7	0.00	0.00	0.00
9,500.0	1.24	250.02	9,182.1	-645.1	-2,218.0	2,309.9	0.00	0.00	0.00
Williams Fork									
9,521.9	1.24	250.02	9,204.0	-645.3	-2,218.4	2,310.3	0.00	0.00	0.00
9,600.0	1.24	250.02	9,282.1	-645.8	-2,220.0	2,312.0	0.00	0.00	0.00
9,700.0	1.24	250.02	9,382.1	-646.6	-2,222.0	2,314.2	0.00	0.00	0.00
9,800.0	1.24	250.02	9,482.0	-647.3	-2,224.1	2,316.3	0.00	0.00	0.00
9,900.0	1.24	250.02	9,582.0	-648.1	-2,226.1	2,318.5	0.00	0.00	0.00
10,000.0	1.24	250.02	9,682.0	-648.8	-2,228.1	2,320.7	0.00	0.00	0.00
10,100.0	1.24	250.02	9,782.0	-649.5	-2,230.2	2,322.8	0.00	0.00	0.00
10,200.0	1.24	250.02	9,881.9	-650.3	-2,232.2	2,325.0	0.00	0.00	0.00
10,300.0	1.24	250.02	9,981.9	-651.0	-2,234.3	2,327.2	0.00	0.00	0.00
10,400.0	1.24	250.02	10,081.9	-651.8	-2,236.3	2,329.3	0.00	0.00	0.00
10,500.0	1.24	250.02	10,181.9	-652.5	-2,238.3	2,331.5	0.00	0.00	0.00
10,600.0	1.24	250.02	10,281.8	-653.3	-2,240.4	2,333.7	0.00	0.00	0.00
10,700.0	1.24	250.02	10,381.8	-654.0	-2,242.4	2,335.8	0.00	0.00	0.00
10,800.0	1.24	250.02	10,481.8	-654.7	-2,244.4	2,338.0	0.00	0.00	0.00
10,900.0	1.24	250.02	10,581.8	-655.5	-2,246.5	2,340.1	0.00	0.00	0.00
11,000.0	1.24	250.02	10,681.8	-656.2	-2,248.5	2,342.3	0.00	0.00	0.00
11,100.0	1.24	250.02	10,781.7	-657.0	-2,250.6	2,344.5	0.00	0.00	0.00
11,200.0	1.24	250.02	10,881.7	-657.7	-2,252.6	2,346.6	0.00	0.00	0.00
11,300.0	1.24	250.02	10,981.7	-658.4	-2,254.6	2,348.8	0.00	0.00	0.00
11,400.0	1.24	250.02	11,081.7	-659.2	-2,256.7	2,351.0	0.00	0.00	0.00
11,500.0	1.24	250.02	11,181.6	-659.9	-2,258.7	2,353.1	0.00	0.00	0.00
11,600.0	1.24	250.02	11,281.6	-660.7	-2,260.7	2,355.3	0.00	0.00	0.00
11,700.0	1.24	250.02	11,381.6	-661.4	-2,262.8	2,357.5	0.00	0.00	0.00
11,800.0	1.24	250.02	11,481.6	-662.1	-2,264.8	2,359.6	0.00	0.00	0.00
11,900.0	1.24	250.02	11,581.5	-662.9	-2,266.9	2,361.8	0.00	0.00	0.00
12,000.0	1.24	250.02	11,681.5	-663.6	-2,268.9	2,363.9	0.00	0.00	0.00
12,100.0	1.24	250.02	11,781.5	-664.4	-2,270.9	2,366.1	0.00	0.00	0.00
12,200.0	1.24	250.02	11,881.5	-665.1	-2,273.0	2,368.3	0.00	0.00	0.00
12,300.0	1.24	250.02	11,981.4	-665.8	-2,275.0	2,370.4	0.00	0.00	0.00
12,400.0	1.24	250.02	12,081.4	-666.6	-2,277.0	2,372.6	0.00	0.00	0.00
12,500.0	1.24	250.02	12,181.4	-667.3	-2,279.1	2,374.8	0.00	0.00	0.00
Cameo									
12,550.6	1.24	250.02	12,232.0	-667.7	-2,280.1	2,375.9	0.00	0.00	0.00
12,600.0	1.24	250.02	12,281.4	-668.1	-2,281.1	2,376.9	0.00	0.00	0.00
12,700.0	1.24	250.02	12,381.4	-668.8	-2,283.2	2,379.1	0.00	0.00	0.00
12,800.0	1.24	250.02	12,481.3	-669.5	-2,285.2	2,381.3	0.00	0.00	0.00
12,900.0	1.24	250.02	12,581.3	-670.3	-2,287.2	2,383.4	0.00	0.00	0.00
13,000.0	1.24	250.02	12,681.3	-671.0	-2,289.3	2,385.6	0.00	0.00	0.00
13,100.0	1.24	250.02	12,781.3	-671.8	-2,291.3	2,387.7	0.00	0.00	0.00
Rollins									
13,100.7	1.24	250.02	12,782.0	-671.8	-2,291.3	2,387.8	0.00	0.00	0.00
13,200.0	1.24	250.02	12,881.2	-672.5	-2,293.3	2,389.9	0.00	0.00	0.00
13,300.0	1.24	250.02	12,981.2	-673.3	-2,295.4	2,392.1	0.00	0.00	0.00
13,400.0	1.24	250.02	13,081.2	-674.0	-2,297.4	2,394.2	0.00	0.00	0.00
13,500.0	1.24	250.02	13,181.2	-674.7	-2,299.5	2,396.4	0.00	0.00	0.00
TD @ 13600.9' MD / 13282.0' TVD									

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well ELU A18 FED 21D-13 496 - Slot 21D-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 21D-13 496	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)	
13,600.9	1.24	250.02	13,282.0	-675.5	-2,301.5	2,398.6	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	
21D-13 - OHCR	0.00	0.00	8,629.0	-641.3	-2,207.5	14,432,500.79	2,452,891.03	39.707150	-108.111440	
- hit/miss target										
- plan hits target center										
- Point										
21D-13 - PBHL	0.00	0.00	13,282.0	-675.5	-2,301.5	14,432,463.60	2,452,798.20	39.707056	-108.111774	
- plan hits target center										
- Ellipse (radii L100.0 W50.0 on 250.00 azi)										

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
2,894.8	2,800.0	Wasatch				
6,700.8	6,457.0	Wasatch G				
7,013.0	6,757.0	Fort Union				
8,946.8	8,629.0	Ohio Creek / TOG				
9,521.9	9,204.0	Williams Fork				
12,550.6	12,232.0	Cameo				
13,100.7	12,782.0	Rollins				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment	
100.0	100.0	0.0	0.0	Build 3° / 100'	
433.3	431.6	-16.6	-23.8	EOB @ 10.00° Inc. / 235.00° Azm / Build 3° / 100'	
679.8	671.8	-38.2	-74.2	EOB @ 16.09° Inc. / 254.21° Azm	
8,410.6	8,099.8	-621.0	-2,135.6	Drop 3° / 100'	
8,946.8	8,629.0	-641.3	-2,207.5	EOD @ Vertical / Build 1.5° / 100'	
9,029.6	8,711.8	-641.6	-2,208.4	EOB @ 1.24° Inc. / 250.02° Azm	
13,600.9	13,282.0	-675.5	-2,301.5	TD @ 13600.9' MD / 13282.0' TVD	