

Project: Rio Blanco County, CO
 Site: ELU O13 496 Pad
 Well: ELU O13 FED 12C-13 496
 Wellbore: Wellbore #1
 Design: Design #1
 Latitude: 39.698711
 Longitude: -108.114731
 Ground Level: 8118.0
 RKB @ 8148.0usft (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 @ 8148.0usft (30')
 Section (VS) Reference: Slot - ELU O13 FED 12C-13 496(0.0N, 0.0E)
 Measured Depth Reference: RKB @ 8148.0usft (30')
 Calculation Method: Minimum Curvature

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
4037.0	4266.1	Wasatch
6437.0	6832.6	Wasatch G
6737.0	7153.4	Fort Union
8573.0	9084.8	Ohio Creek / TOG
9157.0	9669.0	Williams Fork
12021.0	12533.8	Cameo
12521.0	13034.0	Rollins

SECTION DETAILS

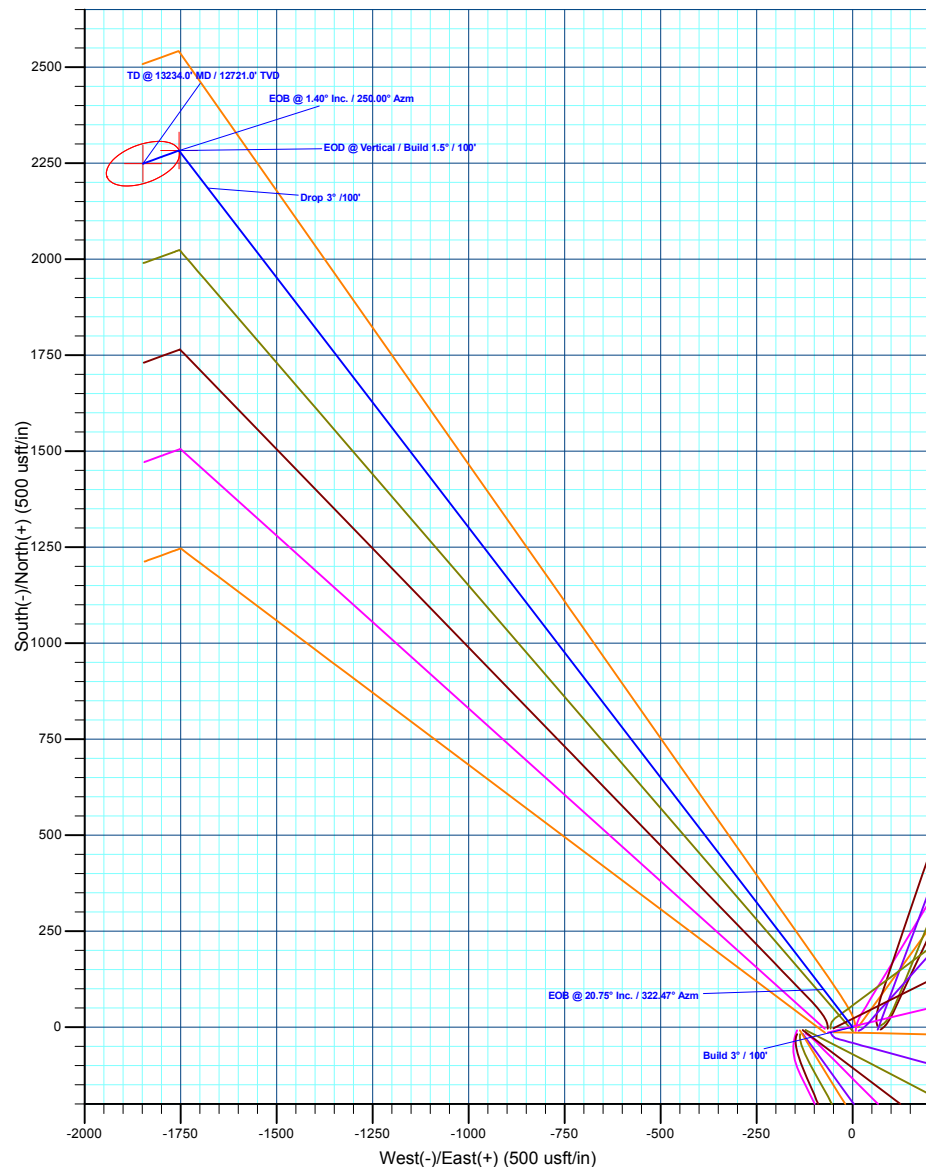
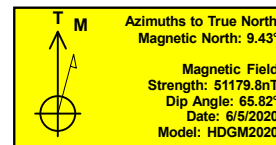
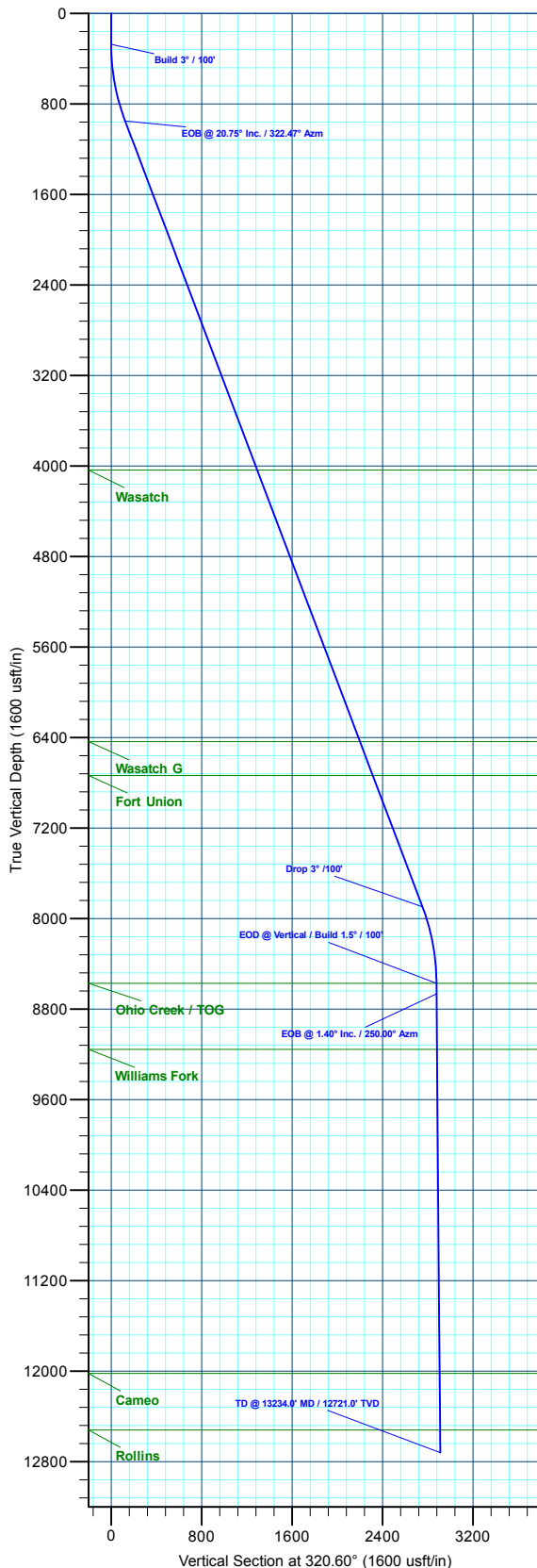
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dieg	TFace	VSect	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
275.0	0.00	0.00	275.0	0.0	0.0	0.00	0.00	0.0	Build 3° / 100'
966.7	20.75	322.47	951.7	98.3	-75.5	3.00	322.47	123.8	EOB @ 20.75° Inc. / 322.47° Azm
8393.1	20.75	322.47	7896.3	2185.1	-1678.2	0.00	0.00	2753.7	Drop 3° / 100'
9084.8	0.00	0.00	8573.0	2283.3	-1753.7	3.00	180.00	2877.5	EOD @ Vertical / Build 1.5° / 100'
9177.9	1.40	250.00	8666.1	2282.9	-1754.8	1.50	250.00	2877.9	EOB @ 1.40° Inc. / 250.00° Azm
13234.0	1.40	250.00	12721.0	2249.1	-1847.7	0.00	0.00	2910.8	TD @ 13234.0° MD / 12721.0° TVD

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
OHCR - 12C-13	8573.0	2283.3	-1753.7	14431623.01	2450237.62	39.704977	-108.120962
PBHL - 12C-13	12721.0	2249.1	-1847.7	14431585.80	2450144.80	39.704883	-108.121296

WELL DETAILS: ELU O13 FED 12C-13 496

		Ground Level : 8118.0					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude		
0.0	0.0	14429397.30	2452063.90	39.698711	-108.114731		



Plan: Design #1 (ELU O13 FED 12C-13 496/Wellbore #1)

Created By: Will Jircik

Date: 16:10, June 18 2020



Caerus Oil & Gas

Rio Blanco County, CO

ELU O13 496 Pad

ELU O13 FED 12C-13 496 - Slot ELU O13 FED 12C-13 496

Wellbore #1

Plan: Design #1

QES Well Planning Report

18 June, 2020



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well ELU O13 FED 12C-13 496 - Slot ELU O13 FED 12C-13 496
Company:	Caerus Oil & Gas	TVD Reference:	RKB @ 8148.0usft (30')
Project:	Rio Blanco County, CO	MD Reference:	RKB @ 8148.0usft (30')
Site:	ELU O13 496 Pad	North Reference:	True
Well:	ELU O13 FED 12C-13 496	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

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 O13 496 Pad		
Site Position:		Northing:	14,429,398.00 usft
From:	Map	Easting:	2,452,071.40 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	39.698712
		Longitude:	-108.114705
		Grid Convergence:	1.84 °

Well	ELU O13 FED 12C-13 496 - Slot ELU O13 FED 12C-13 496		
Well Position	+N/-S	-0.5 usft	Northing: 14,429,397.30 usft
	+E/-W	-7.5 usft	Easting: 2,452,063.90 usft
Position Uncertainty		0.0 usft	Wellhead Elevation:
			Ground Level: 8,118.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM2020	6/5/2020	9.43	65.82	51,179.80000000

Design	Design #1			
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	320.60

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	
275.0	0.00	0.00	275.0	0.0	0.0	0.00	0.00	0.00	0.00	
966.7	20.75	322.47	951.7	98.3	-75.5	3.00	3.00	0.00	322.47	
8,393.1	20.75	322.47	7,896.3	2,185.1	-1,678.2	0.00	0.00	0.00	0.00	
9,084.8	0.00	0.00	8,573.0	2,283.3	-1,753.7	3.00	-3.00	0.00	180.00	OHCR - 12C-13
9,177.9	1.40	250.00	8,666.1	2,282.9	-1,754.8	1.50	1.50	-118.14	250.00	
13,234.0	1.40	250.00	12,721.0	2,249.1	-1,847.7	0.00	0.00	0.00	0.00	PBHL - 12C-13

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well ELU O13 FED 12C-13 496 - Slot ELU O13 FED 12C-13 496
Company:	Caerus Oil & Gas	TVD Reference:	RKB @ 8148.0usft (30')
Project:	Rio Blanco County, CO	MD Reference:	RKB @ 8148.0usft (30')
Site:	ELU O13 496 Pad	North Reference:	True
Well:	ELU O13 FED 12C-13 496	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

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'									
275.0	0.00	0.00	275.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.75	322.47	300.0	0.1	-0.1	0.2	3.00	3.00	0.00
400.0	3.75	322.47	399.9	3.2	-2.5	4.1	3.00	3.00	0.00
500.0	6.75	322.47	499.5	10.5	-8.1	13.2	3.00	3.00	0.00
600.0	9.75	322.47	598.4	21.9	-16.8	27.6	3.00	3.00	0.00
700.0	12.75	322.47	696.5	37.3	-28.7	47.1	3.00	3.00	0.00
800.0	15.75	322.47	793.4	56.9	-43.7	71.7	3.00	3.00	0.00
900.0	18.75	322.47	888.9	80.4	-61.7	101.3	3.00	3.00	0.00
EOB @ 20.75° Inc. / 322.47° Azm									
966.7	20.75	322.47	951.7	98.3	-75.5	123.8	3.00	3.00	0.00
1,000.0	20.75	322.47	982.8	107.6	-82.7	135.6	0.00	0.00	0.00
1,100.0	20.75	322.47	1,076.3	135.7	-104.2	171.0	0.00	0.00	0.00
1,200.0	20.75	322.47	1,169.8	163.8	-125.8	206.4	0.00	0.00	0.00
1,300.0	20.75	322.47	1,263.4	191.9	-147.4	241.9	0.00	0.00	0.00
1,400.0	20.75	322.47	1,356.9	220.0	-169.0	277.3	0.00	0.00	0.00
1,500.0	20.75	322.47	1,450.4	248.1	-190.6	312.7	0.00	0.00	0.00
1,600.0	20.75	322.47	1,543.9	276.2	-212.1	348.1	0.00	0.00	0.00
1,700.0	20.75	322.47	1,637.4	304.3	-233.7	383.5	0.00	0.00	0.00
1,800.0	20.75	322.47	1,730.9	332.4	-255.3	418.9	0.00	0.00	0.00
1,900.0	20.75	322.47	1,824.4	360.5	-276.9	454.3	0.00	0.00	0.00
2,000.0	20.75	322.47	1,917.9	388.6	-298.5	489.7	0.00	0.00	0.00
2,100.0	20.75	322.47	2,011.5	416.7	-320.1	525.2	0.00	0.00	0.00
2,200.0	20.75	322.47	2,105.0	444.8	-341.6	560.6	0.00	0.00	0.00
2,300.0	20.75	322.47	2,198.5	472.9	-363.2	596.0	0.00	0.00	0.00
2,400.0	20.75	322.47	2,292.0	501.0	-384.8	631.4	0.00	0.00	0.00
2,500.0	20.75	322.47	2,385.5	529.1	-406.4	666.8	0.00	0.00	0.00
2,600.0	20.75	322.47	2,479.0	557.2	-428.0	702.2	0.00	0.00	0.00
2,700.0	20.75	322.47	2,572.5	585.3	-449.5	737.6	0.00	0.00	0.00
2,800.0	20.75	322.47	2,666.0	613.4	-471.1	773.0	0.00	0.00	0.00
2,900.0	20.75	322.47	2,759.6	641.5	-492.7	808.5	0.00	0.00	0.00
3,000.0	20.75	322.47	2,853.1	669.6	-514.3	843.9	0.00	0.00	0.00
3,100.0	20.75	322.47	2,946.6	697.7	-535.9	879.3	0.00	0.00	0.00
3,200.0	20.75	322.47	3,040.1	725.8	-557.5	914.7	0.00	0.00	0.00
3,300.0	20.75	322.47	3,133.6	753.9	-579.0	950.1	0.00	0.00	0.00
3,400.0	20.75	322.47	3,227.1	782.0	-600.6	985.5	0.00	0.00	0.00
3,500.0	20.75	322.47	3,320.6	810.1	-622.2	1,020.9	0.00	0.00	0.00
3,600.0	20.75	322.47	3,414.1	838.2	-643.8	1,056.3	0.00	0.00	0.00
3,700.0	20.75	322.47	3,507.7	866.3	-665.4	1,091.8	0.00	0.00	0.00
3,800.0	20.75	322.47	3,601.2	894.4	-687.0	1,127.2	0.00	0.00	0.00
3,900.0	20.75	322.47	3,694.7	922.5	-708.5	1,162.6	0.00	0.00	0.00
4,000.0	20.75	322.47	3,788.2	950.6	-730.1	1,198.0	0.00	0.00	0.00
4,100.0	20.75	322.47	3,881.7	978.7	-751.7	1,233.4	0.00	0.00	0.00
4,200.0	20.75	322.47	3,975.2	1,006.8	-773.3	1,268.8	0.00	0.00	0.00
Wasatch									
4,266.1	20.75	322.47	4,037.0	1,025.4	-787.5	1,292.2	0.00	0.00	0.00
4,300.0	20.75	322.47	4,068.7	1,034.9	-794.9	1,304.2	0.00	0.00	0.00
4,400.0	20.75	322.47	4,162.2	1,063.0	-816.4	1,339.6	0.00	0.00	0.00
4,500.0	20.75	322.47	4,255.8	1,091.1	-838.0	1,375.1	0.00	0.00	0.00
4,600.0	20.75	322.47	4,349.3	1,119.2	-859.6	1,410.5	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well ELU O13 FED 12C-13 496 - Slot ELU O13 FED 12C-13 496
Company:	Caerus Oil & Gas	TVD Reference:	RKB @ 8148.0usft (30')
Project:	Rio Blanco County, CO	MD Reference:	RKB @ 8148.0usft (30')
Site:	ELU O13 496 Pad	North Reference:	True
Well:	ELU O13 FED 12C-13 496	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

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	20.75	322.47	4,442.8	1,147.3	-881.2	1,445.9	0.00	0.00	0.00
4,800.0	20.75	322.47	4,536.3	1,175.4	-902.8	1,481.3	0.00	0.00	0.00
4,900.0	20.75	322.47	4,629.8	1,203.5	-924.4	1,516.7	0.00	0.00	0.00
5,000.0	20.75	322.47	4,723.3	1,231.6	-945.9	1,552.1	0.00	0.00	0.00
5,100.0	20.75	322.47	4,816.8	1,259.7	-967.5	1,587.5	0.00	0.00	0.00
5,200.0	20.75	322.47	4,910.3	1,287.8	-989.1	1,622.9	0.00	0.00	0.00
5,300.0	20.75	322.47	5,003.9	1,315.9	-1,010.7	1,658.4	0.00	0.00	0.00
5,400.0	20.75	322.47	5,097.4	1,344.0	-1,032.3	1,693.8	0.00	0.00	0.00
5,500.0	20.75	322.47	5,190.9	1,372.1	-1,053.8	1,729.2	0.00	0.00	0.00
5,600.0	20.75	322.47	5,284.4	1,400.2	-1,075.4	1,764.6	0.00	0.00	0.00
5,700.0	20.75	322.47	5,377.9	1,428.3	-1,097.0	1,800.0	0.00	0.00	0.00
5,800.0	20.75	322.47	5,471.4	1,456.4	-1,118.6	1,835.4	0.00	0.00	0.00
5,900.0	20.75	322.47	5,564.9	1,484.5	-1,140.2	1,870.8	0.00	0.00	0.00
6,000.0	20.75	322.47	5,658.4	1,512.6	-1,161.8	1,906.2	0.00	0.00	0.00
6,100.0	20.75	322.47	5,752.0	1,540.7	-1,183.3	1,941.7	0.00	0.00	0.00
6,200.0	20.75	322.47	5,845.5	1,568.8	-1,204.9	1,977.1	0.00	0.00	0.00
6,300.0	20.75	322.47	5,939.0	1,596.9	-1,226.5	2,012.5	0.00	0.00	0.00
6,400.0	20.75	322.47	6,032.5	1,625.0	-1,248.1	2,047.9	0.00	0.00	0.00
6,500.0	20.75	322.47	6,126.0	1,653.1	-1,269.7	2,083.3	0.00	0.00	0.00
6,600.0	20.75	322.47	6,219.5	1,681.2	-1,291.3	2,118.7	0.00	0.00	0.00
6,700.0	20.75	322.47	6,313.0	1,709.3	-1,312.8	2,154.1	0.00	0.00	0.00
6,800.0	20.75	322.47	6,406.6	1,737.4	-1,334.4	2,189.5	0.00	0.00	0.00
Wasatch G									
6,832.6	20.75	322.47	6,437.0	1,746.6	-1,341.4	2,201.1	0.00	0.00	0.00
6,900.0	20.75	322.47	6,500.1	1,765.5	-1,356.0	2,225.0	0.00	0.00	0.00
7,000.0	20.75	322.47	6,593.6	1,793.6	-1,377.6	2,260.4	0.00	0.00	0.00
7,100.0	20.75	322.47	6,687.1	1,821.7	-1,399.2	2,295.8	0.00	0.00	0.00
Fort Union									
7,153.4	20.75	322.47	6,737.0	1,836.7	-1,410.7	2,314.7	0.00	0.00	0.00
7,200.0	20.75	322.47	6,780.6	1,849.8	-1,420.7	2,331.2	0.00	0.00	0.00
7,300.0	20.75	322.47	6,874.1	1,877.9	-1,442.3	2,366.6	0.00	0.00	0.00
7,400.0	20.75	322.47	6,967.6	1,906.0	-1,463.9	2,402.0	0.00	0.00	0.00
7,500.0	20.75	322.47	7,061.1	1,934.1	-1,485.5	2,437.4	0.00	0.00	0.00
7,600.0	20.75	322.47	7,154.7	1,962.2	-1,507.1	2,472.8	0.00	0.00	0.00
7,700.0	20.75	322.47	7,248.2	1,990.3	-1,528.7	2,508.3	0.00	0.00	0.00
7,800.0	20.75	322.47	7,341.7	2,018.4	-1,550.2	2,543.7	0.00	0.00	0.00
7,900.0	20.75	322.47	7,435.2	2,046.5	-1,571.8	2,579.1	0.00	0.00	0.00
8,000.0	20.75	322.47	7,528.7	2,074.6	-1,593.4	2,614.5	0.00	0.00	0.00
8,100.0	20.75	322.47	7,622.2	2,102.7	-1,615.0	2,649.9	0.00	0.00	0.00
8,200.0	20.75	322.47	7,715.7	2,130.8	-1,636.6	2,685.3	0.00	0.00	0.00
8,300.0	20.75	322.47	7,809.2	2,158.9	-1,658.1	2,720.7	0.00	0.00	0.00
Drop 3° /100'									
8,393.1	20.75	322.47	7,896.3	2,185.1	-1,678.2	2,753.7	0.00	0.00	0.00
8,400.0	20.54	322.47	7,902.8	2,187.0	-1,679.7	2,756.1	3.00	-3.00	0.00
8,500.0	17.54	322.47	7,997.3	2,212.9	-1,699.6	2,788.7	3.00	-3.00	0.00
8,600.0	14.54	322.47	8,093.4	2,234.8	-1,716.4	2,816.4	3.00	-3.00	0.00
8,700.0	11.54	322.47	8,190.8	2,252.7	-1,730.2	2,838.9	3.00	-3.00	0.00
8,800.0	8.54	322.47	8,289.2	2,266.5	-1,740.8	2,856.3	3.00	-3.00	0.00
8,900.0	5.54	322.47	8,388.5	2,276.2	-1,748.3	2,868.6	3.00	-3.00	0.00
9,000.0	2.54	322.47	8,488.2	2,281.8	-1,752.6	2,875.6	3.00	-3.00	0.00
EOD @ Vertical / Build 1.5° / 100' - Ohio Creek / TOG									
9,084.8	0.00	0.00	8,573.0	2,283.3	-1,753.7	2,877.5	3.00	-3.00	44.24

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well ELU O13 FED 12C-13 496 - Slot ELU O13 FED 12C-13 496
Company:	Caerus Oil & Gas	TVD Reference:	RKB @ 8148.0usft (30')
Project:	Rio Blanco County, CO	MD Reference:	RKB @ 8148.0usft (30')
Site:	ELU O13 496 Pad	North Reference:	True
Well:	ELU O13 FED 12C-13 496	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

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	0.23	250.00	8,588.2	2,283.3	-1,753.7	2,877.5	1.50	1.50	-724.85
EOB @ 1.40° Inc. / 250.00° Azm									
9,177.9	1.40	250.00	8,666.1	2,282.9	-1,754.8	2,877.9	1.50	1.50	0.00
9,200.0	1.40	250.00	8,688.2	2,282.8	-1,755.3	2,878.1	0.00	0.00	0.00
9,300.0	1.40	250.00	8,788.1	2,281.9	-1,757.6	2,878.9	0.00	0.00	0.00
9,400.0	1.40	250.00	8,888.1	2,281.1	-1,759.9	2,879.7	0.00	0.00	0.00
9,500.0	1.40	250.00	8,988.1	2,280.3	-1,762.2	2,880.5	0.00	0.00	0.00
9,600.0	1.40	250.00	9,088.0	2,279.4	-1,764.4	2,881.3	0.00	0.00	0.00
Williams Fork									
9,669.0	1.40	250.00	9,157.0	2,278.8	-1,766.0	2,881.9	0.00	0.00	0.00
9,700.0	1.40	250.00	9,188.0	2,278.6	-1,766.7	2,882.1	0.00	0.00	0.00
9,800.0	1.40	250.00	9,288.0	2,277.8	-1,769.0	2,882.9	0.00	0.00	0.00
9,900.0	1.40	250.00	9,388.0	2,276.9	-1,771.3	2,883.8	0.00	0.00	0.00
10,000.0	1.40	250.00	9,487.9	2,276.1	-1,773.6	2,884.6	0.00	0.00	0.00
10,100.0	1.40	250.00	9,587.9	2,275.2	-1,775.9	2,885.4	0.00	0.00	0.00
10,200.0	1.40	250.00	9,687.9	2,274.4	-1,778.2	2,886.2	0.00	0.00	0.00
10,300.0	1.40	250.00	9,787.8	2,273.6	-1,780.5	2,887.0	0.00	0.00	0.00
10,400.0	1.40	250.00	9,887.8	2,272.7	-1,782.8	2,887.8	0.00	0.00	0.00
10,500.0	1.40	250.00	9,987.8	2,271.9	-1,785.1	2,888.6	0.00	0.00	0.00
10,600.0	1.40	250.00	10,087.7	2,271.1	-1,787.4	2,889.4	0.00	0.00	0.00
10,700.0	1.40	250.00	10,187.7	2,270.2	-1,789.6	2,890.2	0.00	0.00	0.00
10,800.0	1.40	250.00	10,287.7	2,269.4	-1,791.9	2,891.0	0.00	0.00	0.00
10,900.0	1.40	250.00	10,387.7	2,268.6	-1,794.2	2,891.9	0.00	0.00	0.00
11,000.0	1.40	250.00	10,487.6	2,267.7	-1,796.5	2,892.7	0.00	0.00	0.00
11,100.0	1.40	250.00	10,587.6	2,266.9	-1,798.8	2,893.5	0.00	0.00	0.00
11,200.0	1.40	250.00	10,687.6	2,266.1	-1,801.1	2,894.3	0.00	0.00	0.00
11,300.0	1.40	250.00	10,787.5	2,265.2	-1,803.4	2,895.1	0.00	0.00	0.00
11,400.0	1.40	250.00	10,887.5	2,264.4	-1,805.7	2,895.9	0.00	0.00	0.00
11,500.0	1.40	250.00	10,987.5	2,263.6	-1,808.0	2,896.7	0.00	0.00	0.00
11,600.0	1.40	250.00	11,087.4	2,262.7	-1,810.3	2,897.5	0.00	0.00	0.00
11,700.0	1.40	250.00	11,187.4	2,261.9	-1,812.5	2,898.3	0.00	0.00	0.00
11,800.0	1.40	250.00	11,287.4	2,261.1	-1,814.8	2,899.1	0.00	0.00	0.00
11,900.0	1.40	250.00	11,387.4	2,260.2	-1,817.1	2,899.9	0.00	0.00	0.00
12,000.0	1.40	250.00	11,487.3	2,259.4	-1,819.4	2,900.8	0.00	0.00	0.00
12,100.0	1.40	250.00	11,587.3	2,258.6	-1,821.7	2,901.6	0.00	0.00	0.00
12,200.0	1.40	250.00	11,687.3	2,257.7	-1,824.0	2,902.4	0.00	0.00	0.00
12,300.0	1.40	250.00	11,787.2	2,256.9	-1,826.3	2,903.2	0.00	0.00	0.00
12,400.0	1.40	250.00	11,887.2	2,256.1	-1,828.6	2,904.0	0.00	0.00	0.00
12,500.0	1.40	250.00	11,987.2	2,255.2	-1,830.9	2,904.8	0.00	0.00	0.00
Cameo									
12,533.8	1.40	250.00	12,021.0	2,255.0	-1,831.6	2,905.1	0.00	0.00	0.00
12,600.0	1.40	250.00	12,087.1	2,254.4	-1,833.2	2,905.6	0.00	0.00	0.00
12,700.0	1.40	250.00	12,187.1	2,253.6	-1,835.5	2,906.4	0.00	0.00	0.00
12,800.0	1.40	250.00	12,287.1	2,252.7	-1,837.7	2,907.2	0.00	0.00	0.00
12,900.0	1.40	250.00	12,387.1	2,251.9	-1,840.0	2,908.0	0.00	0.00	0.00
13,000.0	1.40	250.00	12,487.0	2,251.1	-1,842.3	2,908.9	0.00	0.00	0.00
Rollins									
13,034.0	1.40	250.00	12,521.0	2,250.8	-1,843.1	2,909.1	0.00	0.00	0.00
13,100.0	1.40	250.00	12,587.0	2,250.2	-1,844.6	2,909.7	0.00	0.00	0.00
13,200.0	1.40	250.00	12,687.0	2,249.4	-1,846.9	2,910.5	0.00	0.00	0.00
TD @ 13234.0' MD / 12721.0' TVD									
13,234.0	1.40	250.00	12,721.0	2,249.1	-1,847.7	2,910.8	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well ELU O13 FED 12C-13 496 - Slot ELU O13 FED 12C-13 496
Company:	Caerus Oil & Gas	TVD Reference:	RKB @ 8148.0usft (30')
Project:	Rio Blanco County, CO	MD Reference:	RKB @ 8148.0usft (30')
Site:	ELU O13 496 Pad	North Reference:	True
Well:	ELU O13 FED 12C-13 496	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

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
OHCR - 12C-13 - plan hits target center - Point	0.00	0.00	8,573.0	2,283.3	-1,753.7	14,431,623.01	2,450,237.62	39.704977	-108.120962
PBHL - 12C-13 - plan hits target center - Ellipse (radii L100.0 W50.0 on 250.00 azi)	0.00	0.00	12,721.0	2,249.1	-1,847.7	14,431,585.80	2,450,144.80	39.704883	-108.121296

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,266.1	4,037.0	Wasatch			
6,832.6	6,437.0	Wasatch G			
7,153.4	6,737.0	Fort Union			
9,084.8	8,573.0	Ohio Creek / TOG			
9,669.0	9,157.0	Williams Fork			
12,533.8	12,021.0	Cameo			
13,034.0	12,521.0	Rollins			

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
275.0	275.0	0.0	0.0	Build 3° / 100'
966.7	951.7	98.3	-75.5	EOB @ 20.75° Inc. / 322.47° Azm
8,393.1	7,896.3	2,185.1	-1,678.2	Drop 3° / 100'
9,084.8	8,573.0	2,283.3	-1,753.7	EOD @ Vertical / Build 1.5° / 100'
9,177.9	8,666.1	2,282.9	-1,754.8	EOB @ 1.40° Inc. / 250.00° Azm
13,234.0	12,721.0	2,249.1	-1,847.7	TD @ 13234.0' MD / 12721.0' TVD