

Project: Rio Blanco County, CO
 Site: ELU O13 496 Pad
 Well: ELU O13 FED 13B-13 496
 Wellbore: Wellbore #1
 Design: Design #1
 Latitude: 39.698700
 Longitude: -108.114988
 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 13B-13 496(0.0N, 0.0E)
 Measured Depth Reference: RKB @ 8148.0usft (30')
 Calculation Method: Minimum Curvature

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
4014.0	4155.2	Wasatch
6414.0	6653.3	Wasatch G
6714.0	6965.5	Fort Union
8559.0	8871.3	Ohio Creek / TOG
9141.0	9453.4	Williams Fork
11968.0	12281.3	Cameo
12468.0	12781.4	Rollins

SECTION DETAILS

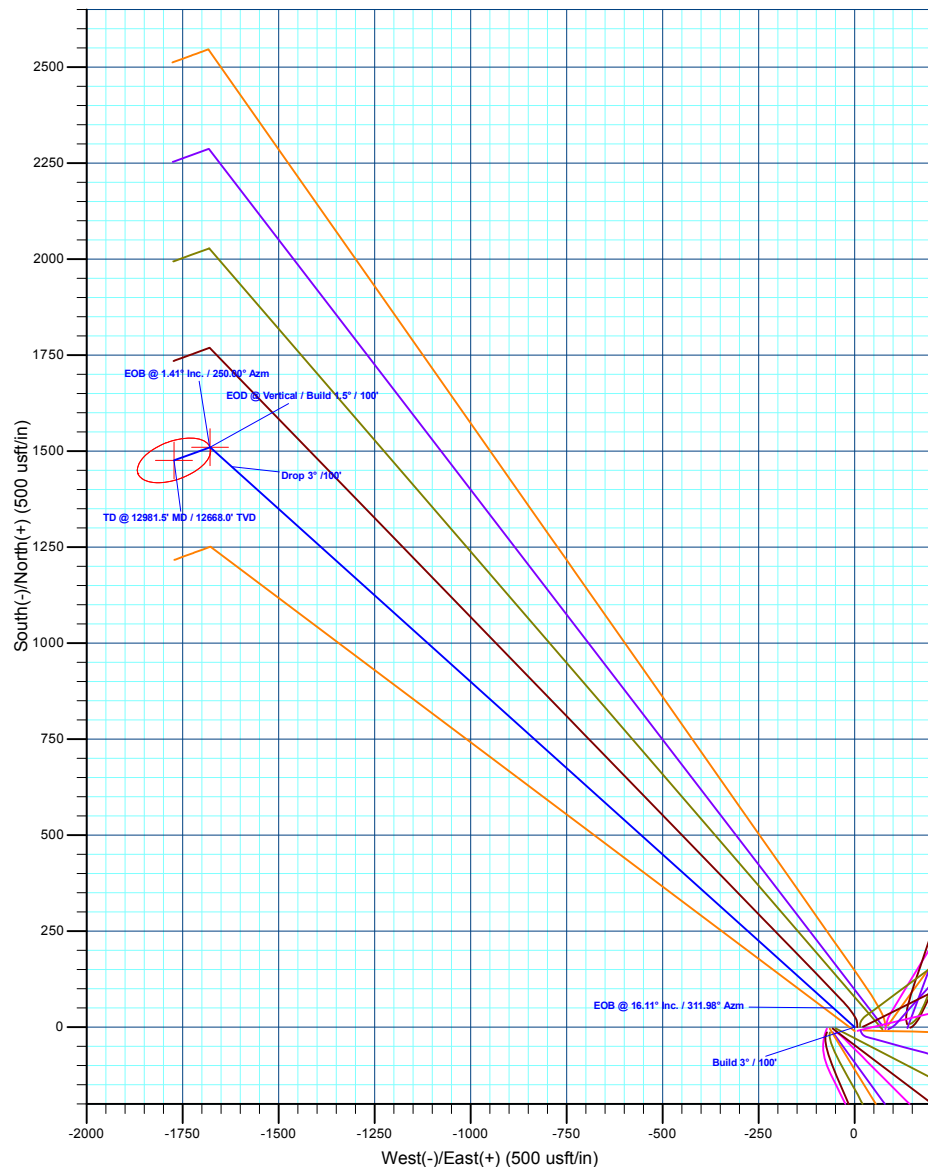
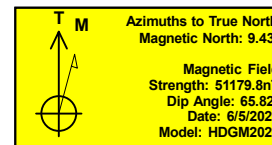
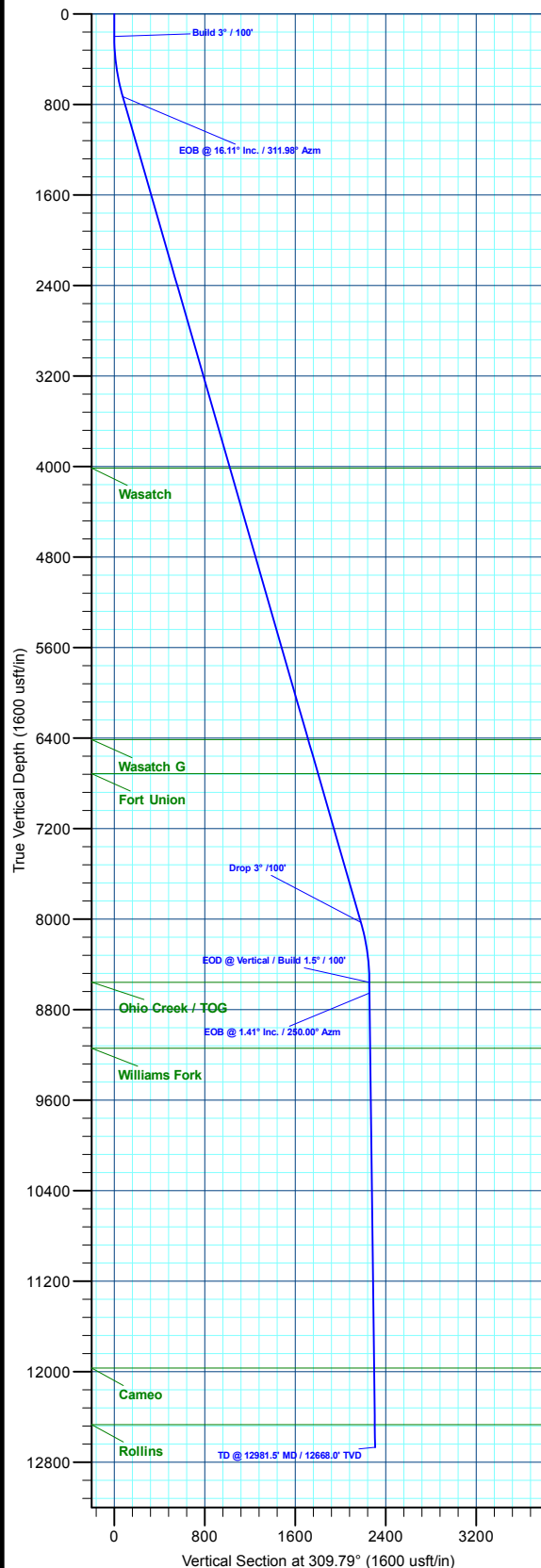
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dieg	TFace	VSect	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	Build 3° / 100'
736.9	16.11	311.98	729.8	50.1	-55.7	3.00	311.98	74.9	EOB @ 16.11° Inc. / 311.98° Azm
8334.4	16.11	311.98	8029.2	1459.9	-1622.4	0.00	0.00	2181.0	Drop 3° / 100'
8871.3	0.00	0.00	8559.0	1510.1	-1678.2	3.00	180.00	2255.9	EOD @ Vertical / Build 1.5° / 100'
8965.3	1.41	250.00	8653.0	1509.7	-1679.2	1.50	250.00	2256.5	EOB @ 1.41° Inc. / 250.00° Azm
12981.5	1.41	250.00	12668.0	1475.9	-1772.1	0.00	0.00	2306.2	TD @ 12981.5° MD / 12668.0° TVD

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
OHCR - 13B-13	8559.0	1510.1	-1678.2	14430846.31	2450265.82	39.702844	-108.120950
PBHL - 13B-13	12668.0	1475.9	-1772.1	14430809.10	2450173.00	39.702750	-108.121284

WELL DETAILS: ELU O13 FED 13B-13 496

+N/-S	+E/-W	Ground Level : 8118.0	Northing	Easting	Latitude	Longitude
0.0	0.0		14429391.00	2451991.70	39.698700	-108.114988



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

Created By: Will Jircik

Date: 16:46, June 18 2020



Caerus Oil & Gas

Rio Blanco County, CO

ELU O13 496 Pad

ELU O13 FED 13B-13 496 - Slot ELU O13 FED 13B-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 13B-13 496 - Slot ELU O13 FED 13B-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 13B-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 13B-13 496 - Slot ELU O13 FED 13B-13 496		
Well Position	+N/-S	-4.4 usft	Northing: 14,429,391.00 usft
	+E/-W	-79.9 usft	Easting: 2,451,991.70 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	309.79	

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	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
736.9	16.11	311.98	729.8	50.1	-55.7	3.00	3.00	0.00	311.98	
8,334.4	16.11	311.98	8,029.2	1,459.9	-1,622.4	0.00	0.00	0.00	0.00	
8,871.3	0.00	0.00	8,559.0	1,510.1	-1,678.2	3.00	-3.00	0.00	180.00	OHCR - 13B-13
8,965.3	1.41	250.00	8,653.0	1,509.7	-1,679.2	1.50	1.50	-117.00	250.00	
12,981.5	1.41	250.00	12,668.0	1,475.9	-1,772.1	0.00	0.00	0.00	0.00	PBHL - 13B-13

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well ELU O13 FED 13B-13 496 - Slot ELU O13 FED 13B-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 13B-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
Build 3° / 100'									
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	3.00	311.98	300.0	1.8	-1.9	2.6	3.00	3.00	0.00
400.0	6.00	311.98	399.6	7.0	-7.8	10.5	3.00	3.00	0.00
500.0	9.00	311.98	498.8	15.7	-17.5	23.5	3.00	3.00	0.00
600.0	12.00	311.98	597.1	27.9	-31.0	41.7	3.00	3.00	0.00
700.0	15.00	311.98	694.3	43.5	-48.4	65.0	3.00	3.00	0.00
EOB @ 16.11° Inc. / 311.98° Azm									
736.9	16.11	311.98	729.8	50.1	-55.7	74.9	3.00	3.00	0.00
800.0	16.11	311.98	790.5	61.9	-68.7	92.4	0.00	0.00	0.00
900.0	16.11	311.98	886.6	80.4	-89.4	120.1	0.00	0.00	0.00
1,000.0	16.11	311.98	982.6	99.0	-110.0	147.8	0.00	0.00	0.00
1,100.0	16.11	311.98	1,078.7	117.5	-130.6	175.6	0.00	0.00	0.00
1,200.0	16.11	311.98	1,174.8	136.1	-151.2	203.3	0.00	0.00	0.00
1,300.0	16.11	311.98	1,270.9	154.6	-171.8	231.0	0.00	0.00	0.00
1,400.0	16.11	311.98	1,366.9	173.2	-192.5	258.7	0.00	0.00	0.00
1,500.0	16.11	311.98	1,463.0	191.7	-213.1	286.5	0.00	0.00	0.00
1,600.0	16.11	311.98	1,559.1	210.3	-233.7	314.2	0.00	0.00	0.00
1,700.0	16.11	311.98	1,655.2	228.9	-254.3	341.9	0.00	0.00	0.00
1,800.0	16.11	311.98	1,751.2	247.4	-275.0	369.6	0.00	0.00	0.00
1,900.0	16.11	311.98	1,847.3	266.0	-295.6	397.3	0.00	0.00	0.00
2,000.0	16.11	311.98	1,943.4	284.5	-316.2	425.1	0.00	0.00	0.00
2,100.0	16.11	311.98	2,039.5	303.1	-336.8	452.8	0.00	0.00	0.00
2,200.0	16.11	311.98	2,135.5	321.6	-357.4	480.5	0.00	0.00	0.00
2,300.0	16.11	311.98	2,231.6	340.2	-378.1	508.2	0.00	0.00	0.00
2,400.0	16.11	311.98	2,327.7	358.8	-398.7	535.9	0.00	0.00	0.00
2,500.0	16.11	311.98	2,423.8	377.3	-419.3	563.7	0.00	0.00	0.00
2,600.0	16.11	311.98	2,519.8	395.9	-439.9	591.4	0.00	0.00	0.00
2,700.0	16.11	311.98	2,615.9	414.4	-460.5	619.1	0.00	0.00	0.00
2,800.0	16.11	311.98	2,712.0	433.0	-481.2	646.8	0.00	0.00	0.00
2,900.0	16.11	311.98	2,808.1	451.5	-501.8	674.5	0.00	0.00	0.00
3,000.0	16.11	311.98	2,904.1	470.1	-522.4	702.3	0.00	0.00	0.00
3,100.0	16.11	311.98	3,000.2	488.6	-543.0	730.0	0.00	0.00	0.00
3,200.0	16.11	311.98	3,096.3	507.2	-563.7	757.7	0.00	0.00	0.00
3,300.0	16.11	311.98	3,192.4	525.8	-584.3	785.4	0.00	0.00	0.00
3,400.0	16.11	311.98	3,288.4	544.3	-604.9	813.1	0.00	0.00	0.00
3,500.0	16.11	311.98	3,384.5	562.9	-625.5	840.9	0.00	0.00	0.00
3,600.0	16.11	311.98	3,480.6	581.4	-646.1	868.6	0.00	0.00	0.00
3,700.0	16.11	311.98	3,576.7	600.0	-666.8	896.3	0.00	0.00	0.00
3,800.0	16.11	311.98	3,672.7	618.5	-687.4	924.0	0.00	0.00	0.00
3,900.0	16.11	311.98	3,768.8	637.1	-708.0	951.8	0.00	0.00	0.00
4,000.0	16.11	311.98	3,864.9	655.7	-728.6	979.5	0.00	0.00	0.00
4,100.0	16.11	311.98	3,961.0	674.2	-749.2	1,007.2	0.00	0.00	0.00
Wasatch									
4,155.2	16.11	311.98	4,014.0	684.5	-760.6	1,022.5	0.00	0.00	0.00
4,200.0	16.11	311.98	4,057.0	692.8	-769.9	1,034.9	0.00	0.00	0.00
4,300.0	16.11	311.98	4,153.1	711.3	-790.5	1,062.6	0.00	0.00	0.00
4,400.0	16.11	311.98	4,249.2	729.9	-811.1	1,090.4	0.00	0.00	0.00
4,500.0	16.11	311.98	4,345.3	748.4	-831.7	1,118.1	0.00	0.00	0.00
4,600.0	16.11	311.98	4,441.3	767.0	-852.4	1,145.8	0.00	0.00	0.00
4,700.0	16.11	311.98	4,537.4	785.5	-873.0	1,173.5	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well ELU O13 FED 13B-13 496 - Slot ELU O13 FED 13B-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 13B-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)
4,800.0	16.11	311.98	4,633.5	804.1	-893.6	1,201.2	0.00	0.00	0.00
4,900.0	16.11	311.98	4,729.6	822.7	-914.2	1,229.0	0.00	0.00	0.00
5,000.0	16.11	311.98	4,825.6	841.2	-934.8	1,256.7	0.00	0.00	0.00
5,100.0	16.11	311.98	4,921.7	859.8	-955.5	1,284.4	0.00	0.00	0.00
5,200.0	16.11	311.98	5,017.8	878.3	-976.1	1,312.1	0.00	0.00	0.00
5,300.0	16.11	311.98	5,113.9	896.9	-996.7	1,339.8	0.00	0.00	0.00
5,400.0	16.11	311.98	5,209.9	915.4	-1,017.3	1,367.6	0.00	0.00	0.00
5,500.0	16.11	311.98	5,306.0	934.0	-1,037.9	1,395.3	0.00	0.00	0.00
5,600.0	16.11	311.98	5,402.1	952.5	-1,058.6	1,423.0	0.00	0.00	0.00
5,700.0	16.11	311.98	5,498.2	971.1	-1,079.2	1,450.7	0.00	0.00	0.00
5,800.0	16.11	311.98	5,594.2	989.7	-1,099.8	1,478.4	0.00	0.00	0.00
5,900.0	16.11	311.98	5,690.3	1,008.2	-1,120.4	1,506.2	0.00	0.00	0.00
6,000.0	16.11	311.98	5,786.4	1,026.8	-1,141.1	1,533.9	0.00	0.00	0.00
6,100.0	16.11	311.98	5,882.5	1,045.3	-1,161.7	1,561.6	0.00	0.00	0.00
6,200.0	16.11	311.98	5,978.5	1,063.9	-1,182.3	1,589.3	0.00	0.00	0.00
6,300.0	16.11	311.98	6,074.6	1,082.4	-1,202.9	1,617.0	0.00	0.00	0.00
6,400.0	16.11	311.98	6,170.7	1,101.0	-1,223.5	1,644.8	0.00	0.00	0.00
6,500.0	16.11	311.98	6,266.8	1,119.6	-1,244.2	1,672.5	0.00	0.00	0.00
6,600.0	16.11	311.98	6,362.8	1,138.1	-1,264.8	1,700.2	0.00	0.00	0.00
Wasatch G									
6,653.3	16.11	311.98	6,414.0	1,148.0	-1,275.8	1,715.0	0.00	0.00	0.00
6,700.0	16.11	311.98	6,458.9	1,156.7	-1,285.4	1,727.9	0.00	0.00	0.00
6,800.0	16.11	311.98	6,555.0	1,175.2	-1,306.0	1,755.7	0.00	0.00	0.00
6,900.0	16.11	311.98	6,651.1	1,193.8	-1,326.6	1,783.4	0.00	0.00	0.00
Fort Union									
6,965.5	16.11	311.98	6,714.0	1,205.9	-1,340.2	1,801.5	0.00	0.00	0.00
7,000.0	16.11	311.98	6,747.1	1,212.3	-1,347.3	1,811.1	0.00	0.00	0.00
7,100.0	16.11	311.98	6,843.2	1,230.9	-1,367.9	1,838.8	0.00	0.00	0.00
7,200.0	16.11	311.98	6,939.3	1,249.4	-1,388.5	1,866.5	0.00	0.00	0.00
7,300.0	16.11	311.98	7,035.4	1,268.0	-1,409.1	1,894.3	0.00	0.00	0.00
7,400.0	16.11	311.98	7,131.4	1,286.6	-1,429.7	1,922.0	0.00	0.00	0.00
7,500.0	16.11	311.98	7,227.5	1,305.1	-1,450.4	1,949.7	0.00	0.00	0.00
7,600.0	16.11	311.98	7,323.6	1,323.7	-1,471.0	1,977.4	0.00	0.00	0.00
7,700.0	16.11	311.98	7,419.7	1,342.2	-1,491.6	2,005.1	0.00	0.00	0.00
7,800.0	16.11	311.98	7,515.7	1,360.8	-1,512.2	2,032.9	0.00	0.00	0.00
7,900.0	16.11	311.98	7,611.8	1,379.3	-1,532.9	2,060.6	0.00	0.00	0.00
8,000.0	16.11	311.98	7,707.9	1,397.9	-1,553.5	2,088.3	0.00	0.00	0.00
8,100.0	16.11	311.98	7,804.0	1,416.4	-1,574.1	2,116.0	0.00	0.00	0.00
8,200.0	16.11	311.98	7,900.0	1,435.0	-1,594.7	2,143.7	0.00	0.00	0.00
8,300.0	16.11	311.98	7,996.1	1,453.6	-1,615.3	2,171.5	0.00	0.00	0.00
Drop 3° /100'									
8,334.4	16.11	311.98	8,029.2	1,459.9	-1,622.4	2,181.0	0.00	0.00	0.00
8,400.0	14.14	311.98	8,092.5	1,471.4	-1,635.2	2,198.1	3.00	-3.00	0.00
8,500.0	11.14	311.98	8,190.1	1,486.0	-1,651.4	2,220.0	3.00	-3.00	0.00
8,600.0	8.14	311.98	8,288.6	1,497.2	-1,663.9	2,236.7	3.00	-3.00	0.00
8,700.0	5.14	311.98	8,388.0	1,505.0	-1,672.5	2,248.2	3.00	-3.00	0.00
8,800.0	2.14	311.98	8,487.7	1,509.2	-1,677.2	2,254.6	3.00	-3.00	0.00
EOD @ Vertical / Build 1.5° / 100' - Ohio Creek / TOG									
8,871.3	0.00	0.00	8,559.0	1,510.1	-1,678.2	2,255.9	3.00	-3.00	0.00
8,900.0	0.43	250.00	8,587.7	1,510.1	-1,678.3	2,256.0	1.50	1.50	0.00
EOB @ 1.41° Inc. / 250.00° Azm									
8,965.3	1.41	250.00	8,653.0	1,509.7	-1,679.2	2,256.5	1.50	1.50	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well ELU O13 FED 13B-13 496 - Slot ELU O13 FED 13B-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 13B-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)
9,000.0	1.41	250.00	8,687.7	1,509.4	-1,680.1	2,256.9	0.00	0.00	0.00
9,100.0	1.41	250.00	8,787.7	1,508.6	-1,682.4	2,258.2	0.00	0.00	0.00
9,200.0	1.41	250.00	8,887.6	1,507.7	-1,684.7	2,259.4	0.00	0.00	0.00
9,300.0	1.41	250.00	8,987.6	1,506.9	-1,687.0	2,260.6	0.00	0.00	0.00
9,400.0	1.41	250.00	9,087.6	1,506.0	-1,689.3	2,261.9	0.00	0.00	0.00
Williams Fork									
9,453.4	1.41	250.00	9,141.0	1,505.6	-1,690.5	2,262.5	0.00	0.00	0.00
9,500.0	1.41	250.00	9,187.6	1,505.2	-1,691.6	2,263.1	0.00	0.00	0.00
9,600.0	1.41	250.00	9,287.5	1,504.3	-1,693.9	2,264.4	0.00	0.00	0.00
9,700.0	1.41	250.00	9,387.5	1,503.5	-1,696.2	2,265.6	0.00	0.00	0.00
9,800.0	1.41	250.00	9,487.5	1,502.7	-1,698.6	2,266.8	0.00	0.00	0.00
9,900.0	1.41	250.00	9,587.4	1,501.8	-1,700.9	2,268.1	0.00	0.00	0.00
10,000.0	1.41	250.00	9,687.4	1,501.0	-1,703.2	2,269.3	0.00	0.00	0.00
10,100.0	1.41	250.00	9,787.4	1,500.1	-1,705.5	2,270.5	0.00	0.00	0.00
10,200.0	1.41	250.00	9,887.3	1,499.3	-1,707.8	2,271.8	0.00	0.00	0.00
10,300.0	1.41	250.00	9,987.3	1,498.5	-1,710.1	2,273.0	0.00	0.00	0.00
10,400.0	1.41	250.00	10,087.3	1,497.6	-1,712.4	2,274.3	0.00	0.00	0.00
10,500.0	1.41	250.00	10,187.2	1,496.8	-1,714.7	2,275.5	0.00	0.00	0.00
10,600.0	1.41	250.00	10,287.2	1,495.9	-1,717.1	2,276.7	0.00	0.00	0.00
10,700.0	1.41	250.00	10,387.2	1,495.1	-1,719.4	2,278.0	0.00	0.00	0.00
10,800.0	1.41	250.00	10,487.2	1,494.2	-1,721.7	2,279.2	0.00	0.00	0.00
10,900.0	1.41	250.00	10,587.1	1,493.4	-1,724.0	2,280.4	0.00	0.00	0.00
11,000.0	1.41	250.00	10,687.1	1,492.6	-1,726.3	2,281.7	0.00	0.00	0.00
11,100.0	1.41	250.00	10,787.1	1,491.7	-1,728.6	2,282.9	0.00	0.00	0.00
11,200.0	1.41	250.00	10,887.0	1,490.9	-1,730.9	2,284.2	0.00	0.00	0.00
11,300.0	1.41	250.00	10,987.0	1,490.0	-1,733.2	2,285.4	0.00	0.00	0.00
11,400.0	1.41	250.00	11,087.0	1,489.2	-1,735.6	2,286.6	0.00	0.00	0.00
11,500.0	1.41	250.00	11,186.9	1,488.4	-1,737.9	2,287.9	0.00	0.00	0.00
11,600.0	1.41	250.00	11,286.9	1,487.5	-1,740.2	2,289.1	0.00	0.00	0.00
11,700.0	1.41	250.00	11,386.9	1,486.7	-1,742.5	2,290.4	0.00	0.00	0.00
11,800.0	1.41	250.00	11,486.9	1,485.8	-1,744.8	2,291.6	0.00	0.00	0.00
11,900.0	1.41	250.00	11,586.8	1,485.0	-1,747.1	2,292.8	0.00	0.00	0.00
12,000.0	1.41	250.00	11,686.8	1,484.1	-1,749.4	2,294.1	0.00	0.00	0.00
12,100.0	1.41	250.00	11,786.8	1,483.3	-1,751.7	2,295.3	0.00	0.00	0.00
12,200.0	1.41	250.00	11,886.7	1,482.5	-1,754.1	2,296.5	0.00	0.00	0.00
Cameo									
12,281.3	1.41	250.00	11,968.0	1,481.8	-1,755.9	2,297.6	0.00	0.00	0.00
12,300.0	1.41	250.00	11,986.7	1,481.6	-1,756.4	2,297.8	0.00	0.00	0.00
12,400.0	1.41	250.00	12,086.7	1,480.8	-1,758.7	2,299.0	0.00	0.00	0.00
12,500.0	1.41	250.00	12,186.6	1,479.9	-1,761.0	2,300.3	0.00	0.00	0.00
12,600.0	1.41	250.00	12,286.6	1,479.1	-1,763.3	2,301.5	0.00	0.00	0.00
12,700.0	1.41	250.00	12,386.6	1,478.3	-1,765.6	2,302.7	0.00	0.00	0.00
Rollins									
12,781.4	1.41	250.00	12,468.0	1,477.6	-1,767.5	2,303.7	0.00	0.00	0.00
12,800.0	1.41	250.00	12,486.6	1,477.4	-1,767.9	2,304.0	0.00	0.00	0.00
12,900.0	1.41	250.00	12,586.5	1,476.6	-1,770.2	2,305.2	0.00	0.00	0.00
TD @ 12981.5' MD / 12668.0' TVD									
12,981.5	1.41	250.00	12,668.0	1,475.9	-1,772.1	2,306.2	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well ELU O13 FED 13B-13 496 - Slot ELU O13 FED 13B-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 13B-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 - 13B-13 - plan hits target center - Point	0.00	0.00	8,559.0	1,510.1	-1,678.2	14,430,846.31	2,450,265.82	39.702844	-108.120951
PBHL - 13B-13 - plan hits target center - Ellipse (radii L100.0 W50.0 on 250.00 azi)	0.00	0.00	12,668.0	1,475.9	-1,772.1	14,430,809.10	2,450,173.00	39.702750	-108.121284

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,155.2	4,014.0	Wasatch			
6,653.3	6,414.0	Wasatch G			
6,965.5	6,714.0	Fort Union			
8,871.3	8,559.0	Ohio Creek / TOG			
9,453.4	9,141.0	Williams Fork			
12,281.3	11,968.0	Cameo			
12,781.4	12,468.0	Rollins			

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
200.0	200.0	0.0	0.0	Build 3° / 100'
736.9	729.8	50.1	-55.7	EOB @ 16.11° Inc. / 311.98° Azm
8,334.4	8,029.2	1,459.9	-1,622.4	Drop 3° / 100'
8,871.3	8,559.0	1,510.1	-1,678.2	EOD @ Vertical / Build 1.5° / 100'
8,965.3	8,653.0	1,509.7	-1,679.2	EOB @ 1.41° Inc. / 250.00° Azm
12,981.5	12,668.0	1,475.9	-1,772.1	TD @ 12981.5' MD / 12668.0' TVD