

Project: Garfield County, CO
 Site: BJU M23A 496 Pad
 Well: BJU M23A FED 26A-22 496
 Wellbore: Wellbore #1
 Design: Design #1
 Latitude: 39.684007
 Longitude: -108.140275
 Ground Level: 8104.0
 RKB @ 8134.0usft (30')

PROJECT DETAILS: Garfield 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 @ 8134.0usft (30')
 Section (VS) Reference: Slot - BJU M23A FED 21A-27 496(0.0N, 0.0E)
 Measured Depth Reference: RKB @ 8134.0usft (30')
 Calculation Method: Minimum Curvature

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3264.0	3470.2	Wasatch
5664.0	6068.2	Wasatch G
5964.0	6393.0	Fort Union
7934.0	8484.3	Ohio Creek
7934.0	8484.3	TOG
8322.0	8872.5	William Fork
11094.0	11645.4	Cameo
11594.0	12145.6	Rollins

SECTION DETAILS

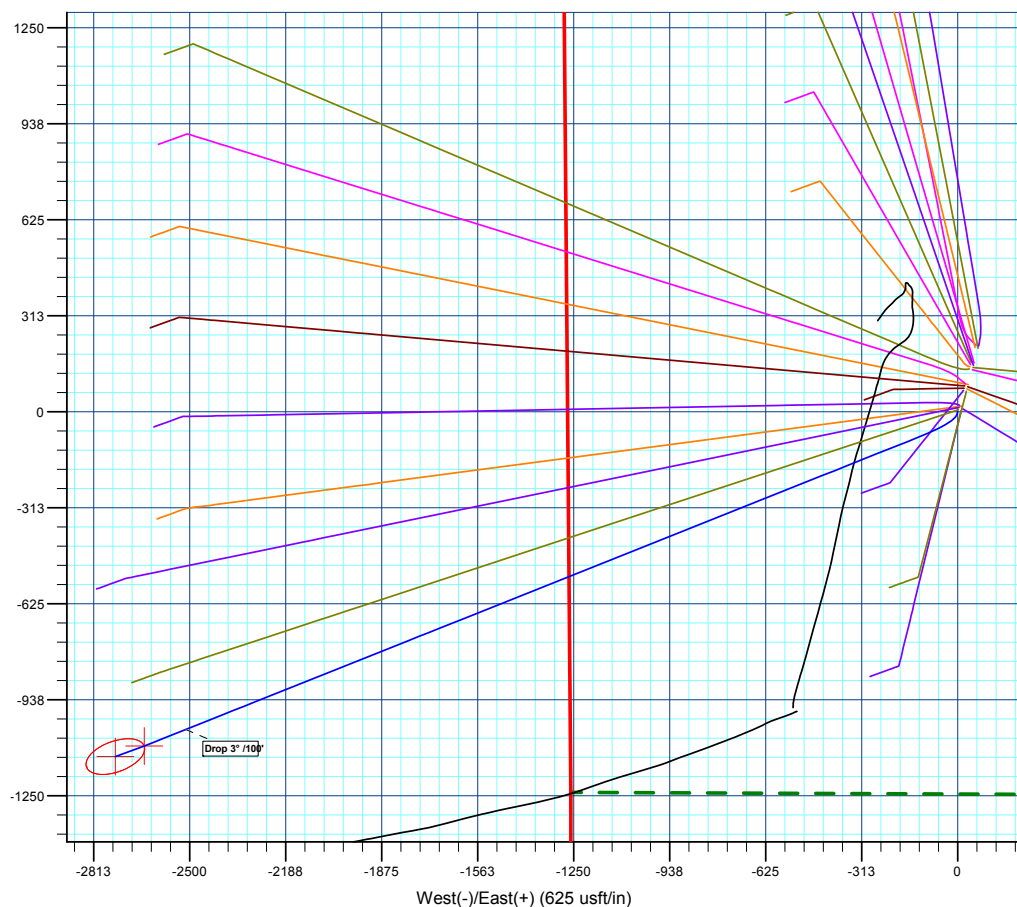
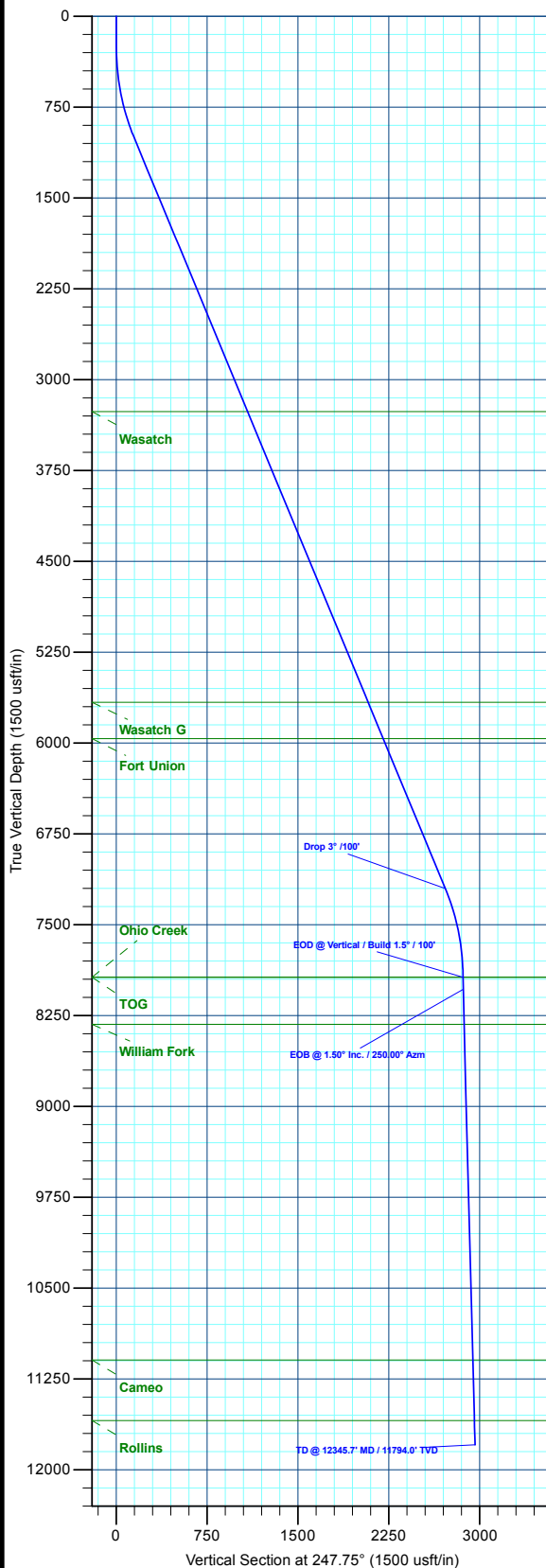
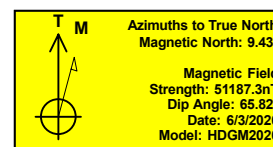
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	Build 3° / 100'
366.7	5.00	195.00	366.5	-7.0	-1.9	3.00	195.00	4.4	EOB @ 5.00° Inc. / 195.00° Azm / Build 3° / 100'
1030.3	22.51	248.25	1010.0	-82.8	-128.7	3.00	64.29	150.4	EOB @ 22.51° Inc. / 248.25° Azm
7733.9	22.51	248.25	7202.7	-1033.9	-2512.8	0.00	0.00	2717.2	Drop 3° / 100'
8484.3	0.00	0.00	7934.0	-1087.8	-2648.0	3.00	180.00	2862.7	EOD @ Vertical / Build 1.5° / 100'
8584.6	1.50	250.00	8034.2	-1088.3	-2649.2	1.50	250.00	2864.1	EOB @ 1.50° Inc. / 250.00° Azm
12345.7	1.50	250.00	11794.0	-1122.0	-2742.0	0.00	0.00	2962.7	TD @ 12345.7° MD / 11794.0° TVD

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
OHCR - 21A-27	934.0	-1087.8	-2648.0	14422640.18	2442436.13	39.681021	-108.149679
PBHL - 21A-27	1794.0	-1122.0	-2742.0	14422603.00	2442343.30	39.680927	-108.150013

WELL DETAILS: BJU M23A FED 26A-22 496

+N/-S	+E/-W	Ground Level : 8104.0	Northing	Easting	Latitude	Longitude
0.0	0.0		14423811.90	2445048.10	39.684007	-108.140275
						BJU M23A FED 21A-27 496



Plan: Design #1 (BJU M23A FED 26A-22 496/Wellbore #1)

Created By: Will Jircik Date: 14:00, June 08 2020



Caerus Oil & Gas

Garfield County, CO

BJU M23A 496 Pad

BJU M23A FED 26A-22 496 - Slot BJU M23A FED 21A-27 496

Wellbore #1

Plan: Design #1

QES Well Planning Report

08 June, 2020



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well BJU M23A FED 26A-22 496 - Slot BJU M23A FED 21A-27 496
Company:	Caerus Oil & Gas	TVD Reference:	RKB @ 8134.0usft (30')
Project:	Garfield County, CO	MD Reference:	RKB @ 8134.0usft (30')
Site:	BJU M23A 496 Pad	North Reference:	True
Well:	BJU M23A FED 26A-22 496	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Project	Garfield County, CO		
Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 - Western US		
Map Zone:	Zone 12N (114 W to 108 W)		

Site	BJU M23A 496 Pad		
Site Position:		Northing:	14,424,028.50 usft
From:	Map	Easting:	2,445,109.60 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	39.684596
		Longitude:	-108.140032
		Grid Convergence:	1.83 °

Well	BJU M23A FED 26A-22 496 - Slot BJU M23A FED 21A-27 496		
Well Position	+N/-S	-214.5 usft	Northing:
	+E/-W	-68.4 usft	Easting:
Position Uncertainty		0.0 usft	Wellhead Elevation:
			Latitude:
			Longitude:
			Ground Level:

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM2020	6/3/2020	9.43	65.82	51,187.30000000

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	247.75

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	
366.7	5.00	195.00	366.5	-7.0	-1.9	3.00	3.00	0.00	195.00	
1,030.3	22.51	248.25	1,010.0	-82.8	-128.7	3.00	2.64	8.02	64.29	
7,733.9	22.51	248.25	7,202.7	-1,033.9	-2,512.8	0.00	0.00	0.00	0.00	
8,484.3	0.00	0.00	7,934.0	-1,087.8	-2,648.0	3.00	-3.00	0.00	180.00	OHCR - 21A-27
8,584.6	1.50	250.00	8,034.2	-1,088.3	-2,649.2	1.50	1.50	-109.74	250.00	
12,345.7	1.50	250.00	11,794.0	-1,122.0	-2,742.0	0.00	0.00	0.00	0.00	PBHL - 21A-27

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well BJU M23A FED 26A-22 496 - Slot BJU M23A FED 21A-27 496
Company:	Caerus Oil & Gas	TVD Reference:	RKB @ 8134.0usft (30')
Project:	Garfield County, CO	MD Reference:	RKB @ 8134.0usft (30')
Site:	BJU M23A 496 Pad	North Reference:	True
Well:	BJU M23A FED 26A-22 496	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	195.00	300.0	-2.5	-0.7	1.6	3.00	3.00	0.00
EOB @ 5.00° Inc. / 195.00° Azm / Build 3° / 100'									
366.7	5.00	195.00	366.5	-7.0	-1.9	4.4	3.00	3.00	0.00
400.0	5.51	204.43	399.6	-9.9	-2.9	6.4	3.00	1.52	28.29
500.0	7.64	223.23	499.0	-19.1	-9.5	16.0	3.00	2.13	18.80
600.0	10.21	233.27	597.8	-29.2	-21.1	30.6	3.00	2.57	10.05
700.0	12.97	239.20	695.7	-40.3	-37.9	50.3	3.00	2.76	5.93
800.0	15.81	243.06	792.6	-52.2	-59.6	75.0	3.00	2.84	3.85
900.0	18.70	245.75	888.1	-65.0	-86.4	104.6	3.00	2.89	2.70
1,000.0	21.63	247.75	981.9	-78.5	-118.1	139.0	3.00	2.92	1.99
EOB @ 22.51° Inc. / 248.25° Azm									
1,030.3	22.51	248.25	1,010.0	-82.8	-128.7	150.4	3.00	2.93	1.67
1,100.0	22.51	248.25	1,074.4	-92.7	-153.4	177.1	0.00	0.00	0.00
1,200.0	22.51	248.25	1,166.8	-106.9	-189.0	215.4	0.00	0.00	0.00
1,300.0	22.51	248.25	1,259.2	-121.1	-224.6	253.7	0.00	0.00	0.00
1,400.0	22.51	248.25	1,351.5	-135.3	-260.1	292.0	0.00	0.00	0.00
1,500.0	22.51	248.25	1,443.9	-149.4	-295.7	330.3	0.00	0.00	0.00
1,600.0	22.51	248.25	1,536.3	-163.6	-331.3	368.6	0.00	0.00	0.00
1,700.0	22.51	248.25	1,628.7	-177.8	-366.8	406.9	0.00	0.00	0.00
1,800.0	22.51	248.25	1,721.1	-192.0	-402.4	445.1	0.00	0.00	0.00
1,900.0	22.51	248.25	1,813.4	-206.2	-438.0	483.4	0.00	0.00	0.00
2,000.0	22.51	248.25	1,905.8	-220.4	-473.5	521.7	0.00	0.00	0.00
2,100.0	22.51	248.25	1,998.2	-234.6	-509.1	560.0	0.00	0.00	0.00
2,200.0	22.51	248.25	2,090.6	-248.8	-544.7	598.3	0.00	0.00	0.00
2,300.0	22.51	248.25	2,183.0	-262.9	-580.2	636.6	0.00	0.00	0.00
2,400.0	22.51	248.25	2,275.3	-277.1	-615.8	674.9	0.00	0.00	0.00
2,500.0	22.51	248.25	2,367.7	-291.3	-651.4	713.2	0.00	0.00	0.00
2,600.0	22.51	248.25	2,460.1	-305.5	-686.9	751.5	0.00	0.00	0.00
2,700.0	22.51	248.25	2,552.5	-319.7	-722.5	789.8	0.00	0.00	0.00
2,800.0	22.51	248.25	2,644.8	-333.9	-758.1	828.0	0.00	0.00	0.00
2,900.0	22.51	248.25	2,737.2	-348.1	-793.6	866.3	0.00	0.00	0.00
3,000.0	22.51	248.25	2,829.6	-362.3	-829.2	904.6	0.00	0.00	0.00
3,100.0	22.51	248.25	2,922.0	-376.4	-864.8	942.9	0.00	0.00	0.00
3,200.0	22.51	248.25	3,014.4	-390.6	-900.3	981.2	0.00	0.00	0.00
3,300.0	22.51	248.25	3,106.7	-404.8	-935.9	1,019.5	0.00	0.00	0.00
3,400.0	22.51	248.25	3,199.1	-419.0	-971.4	1,057.8	0.00	0.00	0.00
Wasatch									
3,470.2	22.51	248.25	3,264.0	-429.0	-996.4	1,084.7	0.00	0.00	0.00
3,500.0	22.51	248.25	3,291.5	-433.2	-1,007.0	1,096.1	0.00	0.00	0.00
3,600.0	22.51	248.25	3,383.9	-447.4	-1,042.6	1,134.4	0.00	0.00	0.00
3,700.0	22.51	248.25	3,476.3	-461.6	-1,078.1	1,172.6	0.00	0.00	0.00
3,800.0	22.51	248.25	3,568.6	-475.8	-1,113.7	1,210.9	0.00	0.00	0.00
3,900.0	22.51	248.25	3,661.0	-490.0	-1,149.3	1,249.2	0.00	0.00	0.00
4,000.0	22.51	248.25	3,753.4	-504.1	-1,184.8	1,287.5	0.00	0.00	0.00
4,100.0	22.51	248.25	3,845.8	-518.3	-1,220.4	1,325.8	0.00	0.00	0.00
4,200.0	22.51	248.25	3,938.1	-532.5	-1,256.0	1,364.1	0.00	0.00	0.00
4,300.0	22.51	248.25	4,030.5	-546.7	-1,291.5	1,402.4	0.00	0.00	0.00
4,400.0	22.51	248.25	4,122.9	-560.9	-1,327.1	1,440.7	0.00	0.00	0.00
4,500.0	22.51	248.25	4,215.3	-575.1	-1,362.7	1,479.0	0.00	0.00	0.00

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Project:	Garfield County, CO	MD Reference:	RKB @ 8134.0usft (30')
Site:	BJU M23A 496 Pad	North Reference:	True
Well:	BJU M23A FED 26A-22 496	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)	
4,600.0	22.51	248.25	4,307.7	-589.3	-1,398.2	1,517.2	0.00	0.00	0.00	
4,700.0	22.51	248.25	4,400.0	-603.5	-1,433.8	1,555.5	0.00	0.00	0.00	
4,800.0	22.51	248.25	4,492.4	-617.6	-1,469.4	1,593.8	0.00	0.00	0.00	
4,900.0	22.51	248.25	4,584.8	-631.8	-1,504.9	1,632.1	0.00	0.00	0.00	
5,000.0	22.51	248.25	4,677.2	-646.0	-1,540.5	1,670.4	0.00	0.00	0.00	
5,100.0	22.51	248.25	4,769.6	-660.2	-1,576.1	1,708.7	0.00	0.00	0.00	
5,200.0	22.51	248.25	4,861.9	-674.4	-1,611.6	1,747.0	0.00	0.00	0.00	
5,300.0	22.51	248.25	4,954.3	-688.6	-1,647.2	1,785.3	0.00	0.00	0.00	
5,400.0	22.51	248.25	5,046.7	-702.8	-1,682.8	1,823.6	0.00	0.00	0.00	
5,500.0	22.51	248.25	5,139.1	-717.0	-1,718.3	1,861.9	0.00	0.00	0.00	
5,600.0	22.51	248.25	5,231.4	-731.2	-1,753.9	1,900.1	0.00	0.00	0.00	
5,700.0	22.51	248.25	5,323.8	-745.3	-1,789.4	1,938.4	0.00	0.00	0.00	
5,800.0	22.51	248.25	5,416.2	-759.5	-1,825.0	1,976.7	0.00	0.00	0.00	
5,900.0	22.51	248.25	5,508.6	-773.7	-1,860.6	2,015.0	0.00	0.00	0.00	
6,000.0	22.51	248.25	5,601.0	-787.9	-1,896.1	2,053.3	0.00	0.00	0.00	
Wasatch G										
6,068.2	22.51	248.25	5,664.0	-797.6	-1,920.4	2,079.4	0.00	0.00	0.00	
6,100.0	22.51	248.25	5,693.3	-802.1	-1,931.7	2,091.6	0.00	0.00	0.00	
6,200.0	22.51	248.25	5,785.7	-816.3	-1,967.3	2,129.9	0.00	0.00	0.00	
6,300.0	22.51	248.25	5,878.1	-830.5	-2,002.8	2,168.2	0.00	0.00	0.00	
Fort Union										
6,393.0	22.51	248.25	5,964.0	-843.7	-2,035.9	2,203.8	0.00	0.00	0.00	
6,400.0	22.51	248.25	5,970.5	-844.7	-2,038.4	2,206.5	0.00	0.00	0.00	
6,500.0	22.51	248.25	6,062.9	-858.8	-2,074.0	2,244.7	0.00	0.00	0.00	
6,600.0	22.51	248.25	6,155.2	-873.0	-2,109.5	2,283.0	0.00	0.00	0.00	
6,700.0	22.51	248.25	6,247.6	-887.2	-2,145.1	2,321.3	0.00	0.00	0.00	
6,800.0	22.51	248.25	6,340.0	-901.4	-2,180.7	2,359.6	0.00	0.00	0.00	
6,900.0	22.51	248.25	6,432.4	-915.6	-2,216.2	2,397.9	0.00	0.00	0.00	
7,000.0	22.51	248.25	6,524.8	-929.8	-2,251.8	2,436.2	0.00	0.00	0.00	
7,100.0	22.51	248.25	6,617.1	-944.0	-2,287.4	2,474.5	0.00	0.00	0.00	
7,200.0	22.51	248.25	6,709.5	-958.2	-2,322.9	2,512.8	0.00	0.00	0.00	
7,300.0	22.51	248.25	6,801.9	-972.4	-2,358.5	2,551.1	0.00	0.00	0.00	
7,400.0	22.51	248.25	6,894.3	-986.5	-2,394.1	2,589.4	0.00	0.00	0.00	
7,500.0	22.51	248.25	6,986.6	-1,000.7	-2,429.6	2,627.6	0.00	0.00	0.00	
7,600.0	22.51	248.25	7,079.0	-1,014.9	-2,465.2	2,665.9	0.00	0.00	0.00	
7,700.0	22.51	248.25	7,171.4	-1,029.1	-2,500.8	2,704.2	0.00	0.00	0.00	
Drop 3° / 100'										
7,733.9	22.51	248.25	7,202.7	-1,033.9	-2,512.8	2,717.2	0.00	0.00	0.00	
7,800.0	20.53	248.25	7,264.2	-1,042.9	-2,535.3	2,741.4	3.00	-3.00	0.00	
7,900.0	17.53	248.25	7,358.7	-1,055.0	-2,565.6	2,774.0	3.00	-3.00	0.00	
8,000.0	14.53	248.25	7,454.8	-1,065.2	-2,591.3	2,801.7	3.00	-3.00	0.00	
8,100.0	11.53	248.25	7,552.2	-1,073.6	-2,612.2	2,824.2	3.00	-3.00	0.00	
8,200.0	8.53	248.25	7,650.7	-1,080.0	-2,628.4	2,841.6	3.00	-3.00	0.00	
8,300.0	5.53	248.25	7,749.9	-1,084.6	-2,639.7	2,853.9	3.00	-3.00	0.00	
8,400.0	2.53	248.25	7,849.7	-1,087.2	-2,646.3	2,860.9	3.00	-3.00	0.00	
EOD @ Vertical / Build 1.5° / 100' - Ohio Creek - TOG										
8,484.3	0.00	0.00	7,934.0	-1,087.8	-2,648.0	2,862.7	3.00	-3.00	0.00	
8,500.0	0.23	250.00	7,949.7	-1,087.9	-2,648.0	2,862.8	1.50	1.50	0.00	
EOB @ 1.50° Inc. / 250.00° Azm										
8,584.6	1.50	250.00	8,034.2	-1,088.3	-2,649.2	2,864.1	1.50	1.50	0.00	
8,600.0	1.50	250.00	8,049.6	-1,088.4	-2,649.6	2,864.5	0.00	0.00	0.00	
8,700.0	1.50	250.00	8,149.6	-1,089.3	-2,652.1	2,867.1	0.00	0.00	0.00	

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well BJU M23A FED 26A-22 496 - Slot BJU M23A FED 21A-27 496
Company:	Caerus Oil & Gas	TVD Reference:	RKB @ 8134.0usft (30')
Project:	Garfield County, CO	MD Reference:	RKB @ 8134.0usft (30')
Site:	BJU M23A 496 Pad	North Reference:	True
Well:	BJU M23A FED 26A-22 496	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)	
8,800.0	1.50	250.00	8,249.6	-1,090.2	-2,654.5	2,869.7	0.00	0.00	0.00	
William Fork										
8,872.5	1.50	250.00	8,322.0	-1,090.9	-2,656.3	2,871.6	0.00	0.00	0.00	
8,900.0	1.50	250.00	8,349.5	-1,091.1	-2,657.0	2,872.3	0.00	0.00	0.00	
9,000.0	1.50	250.00	8,449.5	-1,092.0	-2,659.5	2,874.9	0.00	0.00	0.00	
9,100.0	1.50	250.00	8,549.5	-1,092.9	-2,661.9	2,877.6	0.00	0.00	0.00	
9,200.0	1.50	250.00	8,649.4	-1,093.8	-2,664.4	2,880.2	0.00	0.00	0.00	
9,300.0	1.50	250.00	8,749.4	-1,094.7	-2,666.9	2,882.8	0.00	0.00	0.00	
9,400.0	1.50	250.00	8,849.4	-1,095.6	-2,669.3	2,885.4	0.00	0.00	0.00	
9,500.0	1.50	250.00	8,949.3	-1,096.5	-2,671.8	2,888.1	0.00	0.00	0.00	
9,600.0	1.50	250.00	9,049.3	-1,097.4	-2,674.3	2,890.7	0.00	0.00	0.00	
9,700.0	1.50	250.00	9,149.3	-1,098.3	-2,676.7	2,893.3	0.00	0.00	0.00	
9,800.0	1.50	250.00	9,249.2	-1,099.2	-2,679.2	2,895.9	0.00	0.00	0.00	
9,900.0	1.50	250.00	9,349.2	-1,100.1	-2,681.7	2,898.5	0.00	0.00	0.00	
10,000.0	1.50	250.00	9,449.2	-1,101.0	-2,684.1	2,901.2	0.00	0.00	0.00	
10,100.0	1.50	250.00	9,549.1	-1,101.9	-2,686.6	2,903.8	0.00	0.00	0.00	
10,200.0	1.50	250.00	9,649.1	-1,102.8	-2,689.1	2,906.4	0.00	0.00	0.00	
10,300.0	1.50	250.00	9,749.1	-1,103.7	-2,691.5	2,909.0	0.00	0.00	0.00	
10,400.0	1.50	250.00	9,849.0	-1,104.6	-2,694.0	2,911.7	0.00	0.00	0.00	
10,500.0	1.50	250.00	9,949.0	-1,105.5	-2,696.5	2,914.3	0.00	0.00	0.00	
10,600.0	1.50	250.00	10,048.9	-1,106.4	-2,698.9	2,916.9	0.00	0.00	0.00	
10,700.0	1.50	250.00	10,148.9	-1,107.3	-2,701.4	2,919.5	0.00	0.00	0.00	
10,800.0	1.50	250.00	10,248.9	-1,108.2	-2,703.9	2,922.1	0.00	0.00	0.00	
10,900.0	1.50	250.00	10,348.8	-1,109.1	-2,706.3	2,924.8	0.00	0.00	0.00	
11,000.0	1.50	250.00	10,448.8	-1,110.0	-2,708.8	2,927.4	0.00	0.00	0.00	
11,100.0	1.50	250.00	10,548.8	-1,110.9	-2,711.3	2,930.0	0.00	0.00	0.00	
11,200.0	1.50	250.00	10,648.7	-1,111.8	-2,713.7	2,932.6	0.00	0.00	0.00	
11,300.0	1.50	250.00	10,748.7	-1,112.7	-2,716.2	2,935.2	0.00	0.00	0.00	
11,400.0	1.50	250.00	10,848.7	-1,113.6	-2,718.7	2,937.9	0.00	0.00	0.00	
11,500.0	1.50	250.00	10,948.6	-1,114.5	-2,721.1	2,940.5	0.00	0.00	0.00	
11,600.0	1.50	250.00	11,048.6	-1,115.4	-2,723.6	2,943.1	0.00	0.00	0.00	
Cameo										
11,645.4	1.50	250.00	11,094.0	-1,115.8	-2,724.7	2,944.3	0.00	0.00	0.00	
11,700.0	1.50	250.00	11,148.6	-1,116.3	-2,726.0	2,945.7	0.00	0.00	0.00	
11,800.0	1.50	250.00	11,248.5	-1,117.1	-2,728.5	2,948.4	0.00	0.00	0.00	
11,900.0	1.50	250.00	11,348.5	-1,118.0	-2,731.0	2,951.0	0.00	0.00	0.00	
12,000.0	1.50	250.00	11,448.5	-1,118.9	-2,733.4	2,953.6	0.00	0.00	0.00	
12,100.0	1.50	250.00	11,548.4	-1,119.8	-2,735.9	2,956.2	0.00	0.00	0.00	
Rollins										
12,145.6	1.50	250.00	11,594.0	-1,120.3	-2,737.0	2,957.4	0.00	0.00	0.00	
12,200.0	1.50	250.00	11,648.4	-1,120.7	-2,738.4	2,958.8	0.00	0.00	0.00	
12,300.0	1.50	250.00	11,748.4	-1,121.6	-2,740.8	2,961.5	0.00	0.00	0.00	
TD @ 12345.7' MD / 11794.0' TVD										
12,345.7	1.50	250.00	11,794.0	-1,122.0	-2,742.0	2,962.7	0.00	0.00	0.00	

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well BJU M23A FED 26A-22 496 - Slot BJU M23A FED 21A-27 496
Company:	Caerus Oil & Gas	TVD Reference:	RKB @ 8134.0usft (30')
Project:	Garfield County, CO	MD Reference:	RKB @ 8134.0usft (30')
Site:	BJU M23A 496 Pad	North Reference:	True
Well:	BJU M23A FED 26A-22 496	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
OHCR - 21A-27	0.00	0.00	7,934.0	-1,087.8	-2,648.0	14,422,640.18	2,442,436.13	39.681021	-108.149680
- plan hits target center									
- Point									
PBHL - 21A-27	0.00	0.00	11,794.0	-1,122.0	-2,742.0	14,422,603.00	2,442,343.30	39.680927	-108.150013
- 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 (°)	
3,470.2	3,264.0	Wasatch				
6,068.2	5,664.0	Wasatch G				
6,393.0	5,964.0	Fort Union				
8,484.3	7,934.0	Ohio Creek				
8,484.3	7,934.0	TOG				
8,872.5	8,322.0	William Fork				
11,645.4	11,094.0	Cameo				
12,145.6	11,594.0	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'
366.7	366.5	-7.0	-1.9	EOB @ 5.00° Inc. / 195.00° Azm / Build 3° / 100'
1,030.3	1,010.0	-82.8	-128.7	EOB @ 22.51° Inc. / 248.25° Azm
7,733.9	7,202.7	-1,033.9	-2,512.8	Drop 3° /100'
8,484.3	7,934.0	-1,087.8	-2,648.0	EOD @ Vertical / Build 1.5° / 100'
8,584.6	8,034.2	-1,088.3	-2,649.2	EOB @ 1.50° Inc. / 250.00° Azm
12,345.7	11,794.0	-1,122.0	-2,742.0	TD @ 12345.7' MD / 11794.0' TVD