

Project: Garfield County, CO  
Site: BJU M23A 496 Pad  
Well: BJU M23A FED 14D-23 496  
Wellbore: Wellbore #1  
Design: Design #1  
Latitude: 39.684219  
Longitude: -108.140201  
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 14D-23 496(0.0N, 0.0E)  
Measured Depth Reference: RKB @ 8134.0usft (30')  
Calculation Method: Minimum Curvature

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3367.0	3369.5	Wasatch
5767.0	5771.9	Wasatch G
6087.0	6072.2	Fort Union
8087.0	8092.2	Ohio Creek
8087.0	8092.2	TOG
8454.0	8459.3	William Fork
11312.0	11318.2	Cameo
11812.0	11818.4	Rollins

SECTION DETAILS

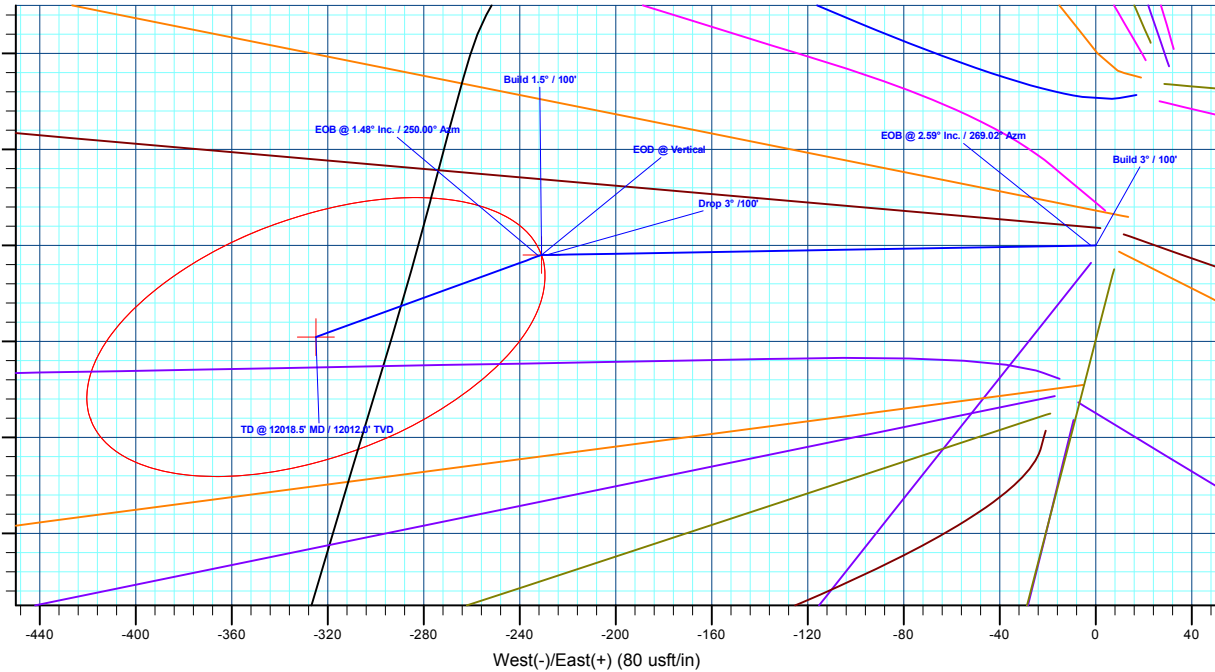
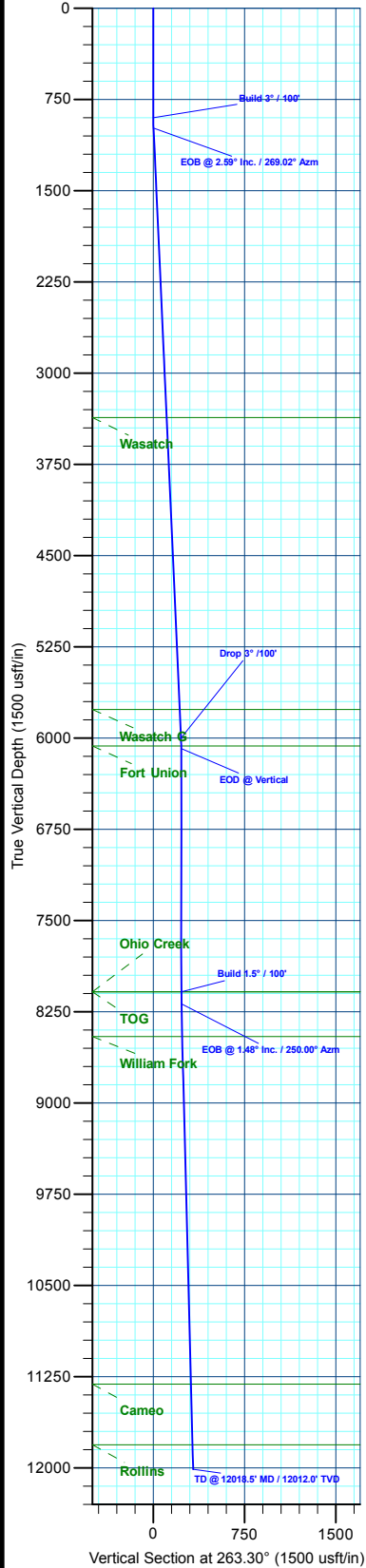
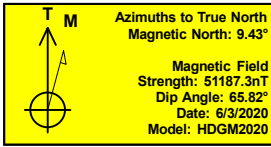
MD	Inc	Azi	TVD	+N/-S	+E/-W	Diep	TFace	VSect	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
900.0	0.00	0.00	900.0	0.0	0.0	0.00	0.00	0.0	Build 3° / 100'
986.4	2.59	269.02	986.4	0.0	-2.0	3.00	269.02	1.9	EOB @ 2.59° Inc. / 269.02° Azm
6005.8	2.59	269.02	6000.6	-3.9	-229.0	0.00	0.00	227.9	Drop 3° / 100'
6092.2	0.00	0.00	6087.0	-4.0	-230.9	3.00	180.00	229.8	EOD @ Vertical
8092.2	0.00	0.00	8087.0	-4.0	-230.9	0.00	0.00	229.8	Build 1.5° / 100'
8190.7	1.48	250.00	8185.5	-4.4	-232.1	1.50	250.00	231.0	EOB @ 1.48° Inc. / 250.00° Azm
12018.5	1.48	250.00	12012.0	-38.2	-324.9	0.00	0.00	327.1	TD @ 12018.5' MD / 12012.0' TVD

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
OHCR - 14D-23	8087.0	-4.0	-230.9	14423878.38	2444835.83	39.684208	-108.141021
PBHL - 14D-23	12012.0	-38.2	-324.9	14423841.20	2444743.00	39.684114	-108.141354

WELL DETAILS: BJU M23A FED 14D-23 496

+N/-S	+E/-W	Ground Level : 8104.0	Northing	Easting	Latitude	Longitude
0.0	0.0		14423889.70	2445066.50	39.684219	-108.140201



Plan: Design #1 (BJU M23A FED 14D-23 496/Wellbore #1)

Created By: Will Jircik Date: 9:38, June 05 2020



## **Caerus Oil & Gas**

**Garfield County, CO**

**BJU M23A 496 Pad**

**BJU M23A FED 14D-23 496 - Slot BJU M23A FED 14D-23 496**

**Wellbore #1**

**Plan: Design #1**

## **QES Well Planning Report**

**05 June, 2020**



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well BJU M23A FED 14D-23 496 - Slot BJU M23A FED 14D-23 496
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	RKB @ 8134.0usft (30')
<b>Project:</b>	Garfield County, CO	<b>MD Reference:</b>	RKB @ 8134.0usft (30')
<b>Site:</b>	BJU M23A 496 Pad	<b>North Reference:</b>	True
<b>Well:</b>	BJU M23A FED 14D-23 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

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

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

<b>Well</b>	BJU M23A FED 14D-23 496 - Slot BJU M23A FED 14D-23 496		
<b>Well Position</b>	<b>+N/-S</b>	-137.4 usft	<b>Northing:</b> 14,423,889.70 usft
	<b>+E/-W</b>	-47.5 usft	<b>Easting:</b> 2,445,066.50 usft
<b>Position Uncertainty</b>	0.0 usft		<b>Latitude:</b> 39.684219
			<b>Longitude:</b> -108.140201
		<b>Wellhead Elevation:</b>	<b>Ground Level:</b> 8,104.0 usft

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

<b>Design</b>	Design #1				
<b>Audit Notes:</b>					
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0	
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.0	0.0	0.0	263.30	

<b>Plan Sections</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	<b>TFO (°)</b>	<b>Target</b>
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
900.0	0.00	0.00	900.0	0.0	0.0	0.00	0.00	0.00	0.00	
986.4	2.59	269.02	986.4	0.0	-2.0	3.00	3.00	0.00	269.02	
6,005.8	2.59	269.02	6,000.6	-3.9	-229.0	0.00	0.00	0.00	0.00	
6,092.2	0.00	0.00	6,087.0	-4.0	-230.9	3.00	-3.00	0.00	180.00	
8,092.2	0.00	0.00	8,087.0	-4.0	-230.9	0.00	0.00	0.00	0.00	OHCR - 14D-23
8,190.7	1.48	250.00	8,185.5	-4.4	-232.1	1.50	1.50	-111.64	250.00	
12,018.5	1.48	250.00	12,012.0	-38.2	-324.9	0.00	0.00	0.00	0.00	PBHL - 14D-23

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well BJU M23A FED 14D-23 496 - Slot BJU M23A FED 14D-23 496
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	RKB @ 8134.0usft (30')
<b>Project:</b>	Garfield County, CO	<b>MD Reference:</b>	RKB @ 8134.0usft (30')
<b>Site:</b>	BJU M23A 496 Pad	<b>North Reference:</b>	True
<b>Well:</b>	BJU M23A FED 14D-23 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	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	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00	
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00	
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00	
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00	
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00	
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00	
Build 3° / 100'										
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00	
EOB @ 2.59° Inc. / 269.02° Azm										
986.4	2.59	269.02	986.4	0.0	-2.0	1.9	3.00	3.00	0.00	
1,000.0	2.59	269.02	1,000.0	0.0	-2.6	2.6	0.00	0.00	0.00	
1,100.0	2.59	269.02	1,099.9	-0.1	-7.1	7.1	0.00	0.00	0.00	
1,200.0	2.59	269.02	1,199.8	-0.2	-11.6	11.6	0.00	0.00	0.00	
1,300.0	2.59	269.02	1,299.6	-0.3	-16.1	16.1	0.00	0.00	0.00	
1,400.0	2.59	269.02	1,399.5	-0.4	-20.7	20.6	0.00	0.00	0.00	
1,500.0	2.59	269.02	1,499.4	-0.4	-25.2	25.1	0.00	0.00	0.00	
1,600.0	2.59	269.02	1,599.3	-0.5	-29.7	29.6	0.00	0.00	0.00	
1,700.0	2.59	269.02	1,699.2	-0.6	-34.2	34.1	0.00	0.00	0.00	
1,800.0	2.59	269.02	1,799.1	-0.7	-38.7	38.6	0.00	0.00	0.00	
1,900.0	2.59	269.02	1,899.0	-0.7	-43.3	43.1	0.00	0.00	0.00	
2,000.0	2.59	269.02	1,998.9	-0.8	-47.8	47.6	0.00	0.00	0.00	
2,100.0	2.59	269.02	2,098.8	-0.9	-52.3	52.1	0.00	0.00	0.00	
2,200.0	2.59	269.02	2,198.7	-1.0	-56.8	56.6	0.00	0.00	0.00	
2,300.0	2.59	269.02	2,298.6	-1.1	-61.4	61.1	0.00	0.00	0.00	
2,400.0	2.59	269.02	2,398.5	-1.1	-65.9	65.6	0.00	0.00	0.00	
2,500.0	2.59	269.02	2,498.4	-1.2	-70.4	70.1	0.00	0.00	0.00	
2,600.0	2.59	269.02	2,598.3	-1.3	-74.9	74.6	0.00	0.00	0.00	
2,700.0	2.59	269.02	2,698.2	-1.4	-79.5	79.1	0.00	0.00	0.00	
2,800.0	2.59	269.02	2,798.1	-1.4	-84.0	83.6	0.00	0.00	0.00	
2,900.0	2.59	269.02	2,898.0	-1.5	-88.5	88.1	0.00	0.00	0.00	
3,000.0	2.59	269.02	2,997.9	-1.6	-93.0	92.6	0.00	0.00	0.00	
3,100.0	2.59	269.02	3,097.8	-1.7	-97.5	97.1	0.00	0.00	0.00	
3,200.0	2.59	269.02	3,197.7	-1.8	-102.1	101.6	0.00	0.00	0.00	
3,300.0	2.59	269.02	3,297.6	-1.8	-106.6	106.1	0.00	0.00	0.00	
Wasatch										
3,369.5	2.59	269.02	3,367.0	-1.9	-109.7	109.2	0.00	0.00	0.00	
3,400.0	2.59	269.02	3,397.5	-1.9	-111.1	110.6	0.00	0.00	0.00	
3,500.0	2.59	269.02	3,497.4	-2.0	-115.6	115.1	0.00	0.00	0.00	
3,600.0	2.59	269.02	3,597.3	-2.1	-120.2	119.6	0.00	0.00	0.00	
3,700.0	2.59	269.02	3,697.2	-2.1	-124.7	124.1	0.00	0.00	0.00	
3,800.0	2.59	269.02	3,797.1	-2.2	-129.2	128.6	0.00	0.00	0.00	
3,900.0	2.59	269.02	3,897.0	-2.3	-133.7	133.1	0.00	0.00	0.00	
4,000.0	2.59	269.02	3,996.9	-2.4	-138.2	137.6	0.00	0.00	0.00	
4,100.0	2.59	269.02	4,096.8	-2.4	-142.8	142.1	0.00	0.00	0.00	
4,200.0	2.59	269.02	4,196.7	-2.5	-147.3	146.6	0.00	0.00	0.00	
4,300.0	2.59	269.02	4,296.6	-2.6	-151.8	151.1	0.00	0.00	0.00	
4,400.0	2.59	269.02	4,396.5	-2.7	-156.3	155.6	0.00	0.00	0.00	
4,500.0	2.59	269.02	4,496.4	-2.8	-160.9	160.1	0.00	0.00	0.00	
4,600.0	2.59	269.02	4,596.3	-2.8	-165.4	164.6	0.00	0.00	0.00	
4,700.0	2.59	269.02	4,696.2	-2.9	-169.9	169.1	0.00	0.00	0.00	

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well BJU M23A FED 14D-23 496 - Slot BJU M23A FED 14D-23 496
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<b>Project:</b>	Garfield County, CO	<b>MD Reference:</b>	RKB @ 8134.0usft (30')
<b>Site:</b>	BJU M23A 496 Pad	<b>North Reference:</b>	True
<b>Well:</b>	BJU M23A FED 14D-23 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	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	2.59	269.02	4,796.1	-3.0	-174.4	173.6	0.00	0.00	0.00
4,900.0	2.59	269.02	4,896.0	-3.1	-178.9	178.1	0.00	0.00	0.00
5,000.0	2.59	269.02	4,995.9	-3.1	-183.5	182.6	0.00	0.00	0.00
5,100.0	2.59	269.02	5,095.8	-3.2	-188.0	187.1	0.00	0.00	0.00
5,200.0	2.59	269.02	5,195.7	-3.3	-192.5	191.6	0.00	0.00	0.00
5,300.0	2.59	269.02	5,295.6	-3.4	-197.0	196.1	0.00	0.00	0.00
5,400.0	2.59	269.02	5,395.5	-3.5	-201.6	200.6	0.00	0.00	0.00
5,500.0	2.59	269.02	5,495.4	-3.5	-206.1	205.1	0.00	0.00	0.00
5,600.0	2.59	269.02	5,595.2	-3.6	-210.6	209.6	0.00	0.00	0.00
5,700.0	2.59	269.02	5,695.1	-3.7	-215.1	214.1	0.00	0.00	0.00
<b>Wasatch G</b>									
5,771.9	2.59	269.02	5,767.0	-3.7	-218.4	217.3	0.00	0.00	0.00
5,800.0	2.59	269.02	5,795.0	-3.8	-219.7	218.6	0.00	0.00	0.00
5,900.0	2.59	269.02	5,894.9	-3.8	-224.2	223.1	0.00	0.00	0.00
<b>Drop 3° /100'</b>									
6,005.8	2.59	269.02	6,000.6	-3.9	-229.0	227.9	0.00	0.00	0.00
<b>Fort Union</b>									
6,072.2	0.60	269.02	6,067.0	-4.0	-230.8	229.7	3.00	-3.00	0.00
<b>EOD @ Vertical</b>									
6,092.2	0.00	0.00	6,087.0	-4.0	-230.9	229.8	3.00	-3.00	0.00
6,100.0	0.00	0.00	6,094.8	-4.0	-230.9	229.8	0.00	0.00	0.00
6,200.0	0.00	0.00	6,194.8	-4.0	-230.9	229.8	0.00	0.00	0.00
6,300.0	0.00	0.00	6,294.8	-4.0	-230.9	229.8	0.00	0.00	0.00
6,400.0	0.00	0.00	6,394.8	-4.0	-230.9	229.8	0.00	0.00	0.00
6,500.0	0.00	0.00	6,494.8	-4.0	-230.9	229.8	0.00	0.00	0.00
6,600.0	0.00	0.00	6,594.8	-4.0	-230.9	229.8	0.00	0.00	0.00
6,700.0	0.00	0.00	6,694.8	-4.0	-230.9	229.8	0.00	0.00	0.00
6,800.0	0.00	0.00	6,794.8	-4.0	-230.9	229.8	0.00	0.00	0.00
6,900.0	0.00	0.00	6,894.8	-4.0	-230.9	229.8	0.00	0.00	0.00
7,000.0	0.00	0.00	6,994.8	-4.0	-230.9	229.8	0.00	0.00	0.00
7,100.0	0.00	0.00	7,094.8	-4.0	-230.9	229.8	0.00	0.00	0.00
7,200.0	0.00	0.00	7,194.8	-4.0	-230.9	229.8	0.00	0.00	0.00
7,300.0	0.00	0.00	7,294.8	-4.0	-230.9	229.8	0.00	0.00	0.00
7,400.0	0.00	0.00	7,394.8	-4.0	-230.9	229.8	0.00	0.00	0.00
7,500.0	0.00	0.00	7,494.8	-4.0	-230.9	229.8	0.00	0.00	0.00
7,600.0	0.00	0.00	7,594.8	-4.0	-230.9	229.8	0.00	0.00	0.00
7,700.0	0.00	0.00	7,694.8	-4.0	-230.9	229.8	0.00	0.00	0.00
7,800.0	0.00	0.00	7,794.8	-4.0	-230.9	229.8	0.00	0.00	0.00
7,900.0	0.00	0.00	7,894.8	-4.0	-230.9	229.8	0.00	0.00	0.00
8,000.0	0.00	0.00	7,994.8	-4.0	-230.9	229.8	0.00	0.00	0.00
<b>Build 1.5° / 100' - Ohio Creek - TOG</b>									
8,092.2	0.00	0.00	8,087.0	-4.0	-230.9	229.8	0.00	0.00	0.00
8,100.0	0.12	250.00	8,094.8	-4.0	-230.9	229.8	1.50	1.50	0.00
<b>EOB @ 1.48° Inc. / 250.00° Azm</b>									
8,190.7	1.48	250.00	8,185.5	-4.4	-232.1	231.0	1.50	1.50	0.00
8,200.0	1.48	250.00	8,194.8	-4.5	-232.3	231.3	0.00	0.00	0.00
8,300.0	1.48	250.00	8,294.8	-5.4	-234.8	233.8	0.00	0.00	0.00
8,400.0	1.48	250.00	8,394.7	-6.2	-237.2	236.3	0.00	0.00	0.00
<b>William Fork</b>									
8,459.3	1.48	250.00	8,454.0	-6.8	-238.6	237.8	0.00	0.00	0.00
8,500.0	1.48	250.00	8,494.7	-7.1	-239.6	238.8	0.00	0.00	0.00
8,600.0	1.48	250.00	8,594.7	-8.0	-242.0	241.3	0.00	0.00	0.00

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well BJU M23A FED 14D-23 496 - Slot BJU M23A FED 14D-23 496
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	RKB @ 8134.0usft (30')
<b>Project:</b>	Garfield County, CO	<b>MD Reference:</b>	RKB @ 8134.0usft (30')
<b>Site:</b>	BJU M23A 496 Pad	<b>North Reference:</b>	True
<b>Well:</b>	BJU M23A FED 14D-23 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	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)
8,700.0	1.48	250.00	8,694.6	-8.9	-244.5	243.8	0.00	0.00	0.00
8,800.0	1.48	250.00	8,794.6	-9.8	-246.9	246.3	0.00	0.00	0.00
8,900.0	1.48	250.00	8,894.6	-10.7	-249.3	248.8	0.00	0.00	0.00
9,000.0	1.48	250.00	8,994.5	-11.5	-251.7	251.3	0.00	0.00	0.00
9,100.0	1.48	250.00	9,094.5	-12.4	-254.1	253.9	0.00	0.00	0.00
9,200.0	1.48	250.00	9,194.5	-13.3	-256.6	256.4	0.00	0.00	0.00
9,300.0	1.48	250.00	9,294.4	-14.2	-259.0	258.9	0.00	0.00	0.00
9,400.0	1.48	250.00	9,394.4	-15.1	-261.4	261.4	0.00	0.00	0.00
9,500.0	1.48	250.00	9,494.4	-15.9	-263.8	263.9	0.00	0.00	0.00
9,600.0	1.48	250.00	9,594.3	-16.8	-266.3	266.4	0.00	0.00	0.00
9,700.0	1.48	250.00	9,694.3	-17.7	-268.7	268.9	0.00	0.00	0.00
9,800.0	1.48	250.00	9,794.3	-18.6	-271.1	271.4	0.00	0.00	0.00
9,900.0	1.48	250.00	9,894.2	-19.5	-273.5	273.9	0.00	0.00	0.00
10,000.0	1.48	250.00	9,994.2	-20.4	-276.0	276.4	0.00	0.00	0.00
10,100.0	1.48	250.00	10,094.2	-21.2	-278.4	279.0	0.00	0.00	0.00
10,200.0	1.48	250.00	10,194.1	-22.1	-280.8	281.5	0.00	0.00	0.00
10,300.0	1.48	250.00	10,294.1	-23.0	-283.2	284.0	0.00	0.00	0.00
10,400.0	1.48	250.00	10,394.1	-23.9	-285.7	286.5	0.00	0.00	0.00
10,500.0	1.48	250.00	10,494.0	-24.8	-288.1	289.0	0.00	0.00	0.00
10,600.0	1.48	250.00	10,594.0	-25.6	-290.5	291.5	0.00	0.00	0.00
10,700.0	1.48	250.00	10,694.0	-26.5	-292.9	294.0	0.00	0.00	0.00
10,800.0	1.48	250.00	10,793.9	-27.4	-295.3	296.5	0.00	0.00	0.00
10,900.0	1.48	250.00	10,893.9	-28.3	-297.8	299.0	0.00	0.00	0.00
11,000.0	1.48	250.00	10,993.9	-29.2	-300.2	301.6	0.00	0.00	0.00
11,100.0	1.48	250.00	11,093.8	-30.1	-302.6	304.1	0.00	0.00	0.00
11,200.0	1.48	250.00	11,193.8	-30.9	-305.0	306.6	0.00	0.00	0.00
11,300.0	1.48	250.00	11,293.8	-31.8	-307.5	309.1	0.00	0.00	0.00
<b>Cameo</b>									
11,318.2	1.48	250.00	11,312.0	-32.0	-307.9	309.5	0.00	0.00	0.00
11,400.0	1.48	250.00	11,393.7	-32.7	-309.9	311.6	0.00	0.00	0.00
11,500.0	1.48	250.00	11,493.7	-33.6	-312.3	314.1	0.00	0.00	0.00
11,600.0	1.48	250.00	11,593.7	-34.5	-314.7	316.6	0.00	0.00	0.00
11,700.0	1.48	250.00	11,693.6	-35.4	-317.2	319.1	0.00	0.00	0.00
11,800.0	1.48	250.00	11,793.6	-36.2	-319.6	321.6	0.00	0.00	0.00
<b>Rollins</b>									
11,818.4	1.48	250.00	11,812.0	-36.4	-320.0	322.1	0.00	0.00	0.00
11,900.0	1.48	250.00	11,893.6	-37.1	-322.0	324.1	0.00	0.00	0.00
12,000.0	1.48	250.00	11,993.5	-38.0	-324.4	326.7	0.00	0.00	0.00
<b>TD @ 12018.5' MD / 12012.0' TVD</b>									
12,018.5	1.48	250.00	12,012.0	-38.2	-324.9	327.1	0.00	0.00	0.00

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<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	RKB @ 8134.0usft (30')
<b>Project:</b>	Garfield County, CO	<b>MD Reference:</b>	RKB @ 8134.0usft (30')
<b>Site:</b>	BJU M23A 496 Pad	<b>North Reference:</b>	True
<b>Well:</b>	BJU M23A FED 14D-23 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	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 - 14D-23 - plan hits target center - Point	0.00	0.00	8,087.0	-4.0	-230.9	14,423,878.38	2,444,835.83	39.684208	-108.141021
PBHL - 14D-23 - plan hits target center - Ellipse (radii L100.0 W50.0 on 250.00 azi)	0.00	0.00	12,012.0	-38.2	-324.9	14,423,841.20	2,444,743.00	39.684114	-108.141355

#### Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,369.5	3,367.0	Wasatch			
5,771.9	5,767.0	Wasatch G			
6,072.2	6,067.0	Fort Union			
8,092.2	8,087.0	Ohio Creek			
8,092.2	8,087.0	TOG			
8,459.3	8,454.0	William Fork			
11,318.2	11,312.0	Cameo			
11,818.4	11,812.0	Rollins			

#### Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
900.0	900.0	0.0	0.0	Build 3° / 100'
986.4	986.4	0.0	-2.0	EOB @ 2.59° Inc. / 269.02° Azm
6,005.8	6,000.6	-3.9	-229.0	Drop 3° / 100'
6,092.2	6,087.0	-4.0	-230.9	EOD @ Vertical
8,092.2	8,087.0	-4.0	-230.9	Build 1.5° / 100'
8,190.7	8,185.5	-4.4	-232.1	EOB @ 1.48° Inc. / 250.00° Azm
12,018.5	12,012.0	-38.2	-324.9	TD @ 12018.5' MD / 12012.0' TVD