

Project: Garfield County, CO
 Site: BJU M23A 496 Pad
 Well: BJU M23A FED 24D-23 496
 Wellbore: Wellbore #1
 Design: Design #1
 Latitude: 39.684403
 Longitude: -108.140099
 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 24D-23 496(0.0N, 0.0E)
 Measured Depth Reference: RKB @ 8134.0usft (30')
 Calculation Method: Minimum Curvature

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3492.0	3596.5	Wasatch
5892.0	6081.3	Wasatch G
6192.0	6391.8	Fort Union
8153.0	8410.3	Ohio Creek
8153.0	8410.3	TOG
8552.0	8809.4	William Fork
11470.0	11728.4	Cameo
11970.0	12228.5	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	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	Build 3° / 100'
700.3	15.01	95.16	694.6	-5.9	64.9	3.00	95.16	65.1	EOB @ 15.01° Inc. / 95.16° Azm
7910.1	15.01	95.16	7658.4	-173.8	1924.3	0.00	0.00	1931.7	Drop 3° / 100'
8410.3	0.00	0.00	8153.0	-179.6	1989.2	3.00	180.00	1996.8	EOD @ Vertical / Build 1.5° / 100'
8506.6	1.44	250.00	8249.2	-180.1	1988.1	1.50	250.00	1995.7	EOB @ 1.44° Inc. / 250.00° Azm
12428.6	1.44	250.00	12170.0	-213.8	1895.2	0.00	0.00	1907.3	TD @ 12428.6' MD / 12170.0' TVD

DESIGN TARGET DETAILS

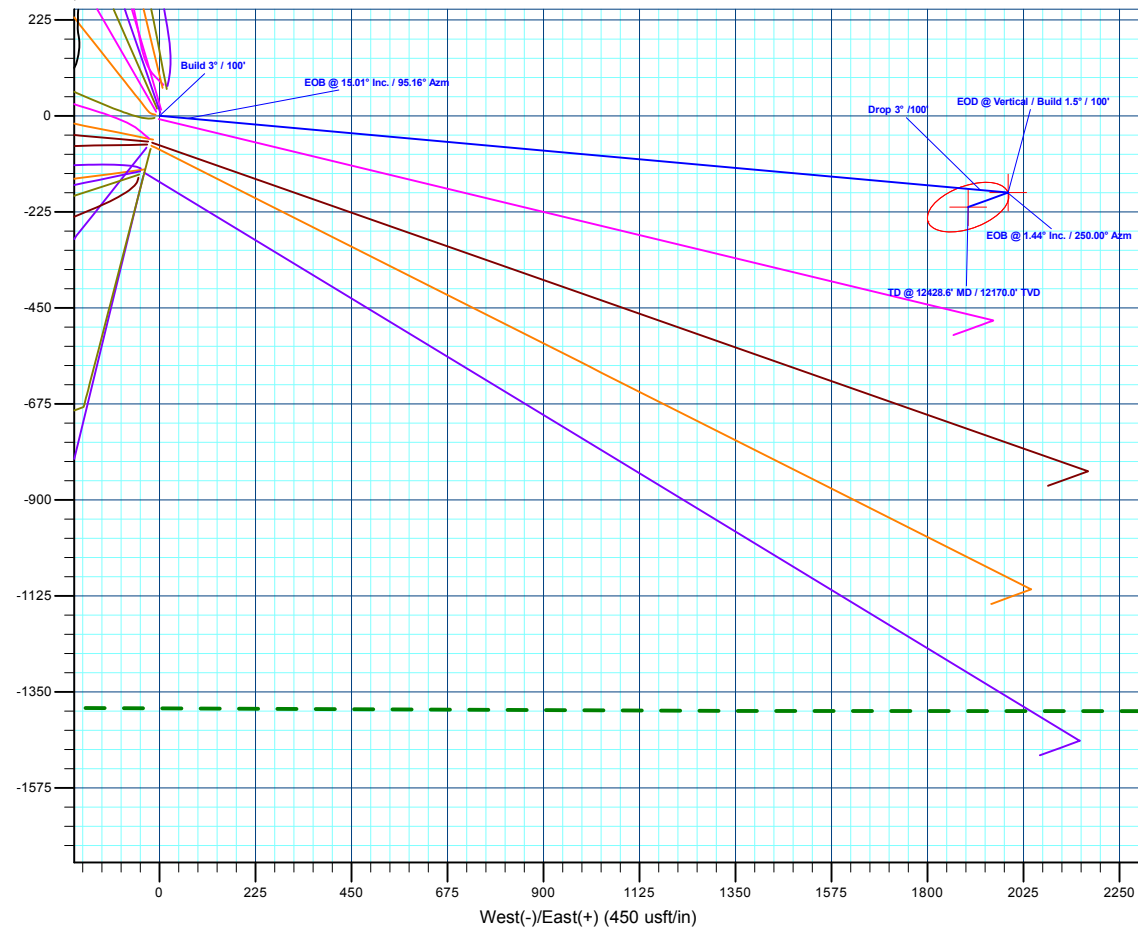
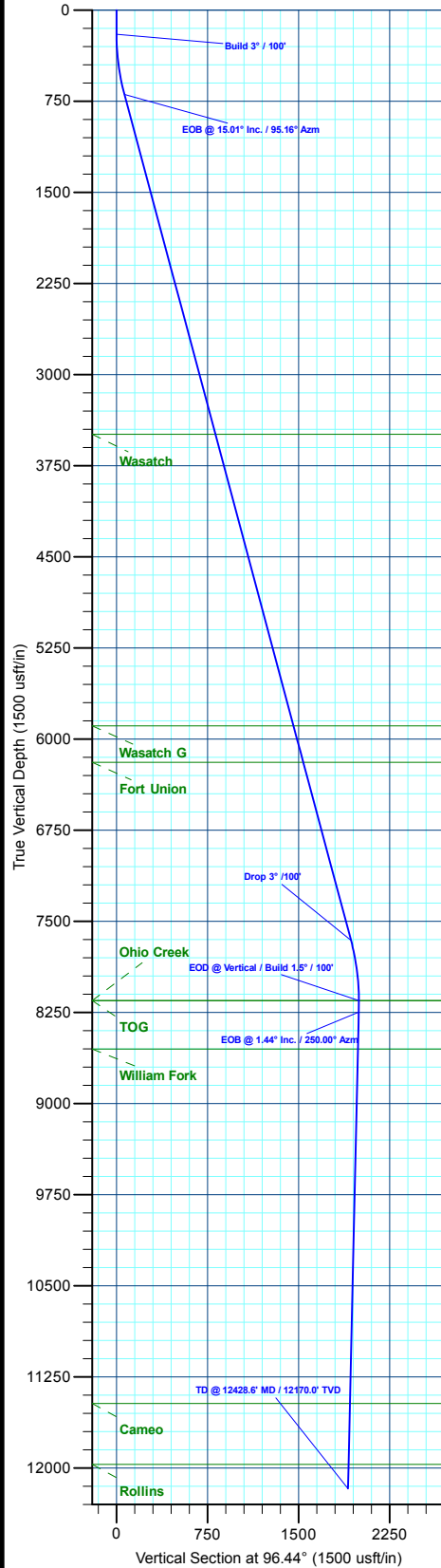
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
OHCR - 24D-23	8153.0	-179.6	1989.2	14423841.78	2447086.83	39.683910	-108.133034
PBHL - 24D-23	12170.0	-213.8	1895.2	14423804.60	2446994.00	39.683816	-108.133368

WELL DETAILS: BJU M23A FED 24D-23 496

+N/-S	+E/-W	Ground Level : 8104.0	Northing	Easting	Latitude	Longitude
0.0	0.0		14423957.90	2445092.90	39.684403	-108.140099



T M
 Azimuths to True North
 Magnetic North: 9.43°
 Magnetic Field
 Strength: 51187.3nT
 Dip Angle: 65.82°
 Date: 6/3/2020
 Model: HDGM2020



Plan: Design #1 (BJU M23A FED 24D-23 496/Wellbore #1)

Created By: Will Jircik Date: 19:24, June 04 2020



Caerus Oil & Gas

Garfield County, CO

BJU M23A 496 Pad

BJU M23A FED 24D-23 496 - Slot BJU M23A FED 24D-23 496

Wellbore #1

Plan: Design #1

QES Well Planning Report

04 June, 2020



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well BJU M23A FED 24D-23 496 - Slot BJU M23A FED 24D-23 496
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 24D-23 496	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

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

Well	BJU M23A FED 24D-23 496 - Slot BJU M23A FED 24D-23 496		
Well Position	+N/-S	-70.0 usft	Northing: 14,423,957.90 usft
	+E/-W	-18.9 usft	Easting: 2,445,092.90 usft
Position Uncertainty	0.0 usft		Wellhead Elevation: 8,104.0 usft
			Latitude: 39.684404
			Longitude: -108.140099
			Ground Level: 8,104.0 usft

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	96.44

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		
700.3	15.01	95.16	694.6	-5.9	64.9	3.00	3.00	0.00	95.16		
7,910.1	15.01	95.16	7,658.4	-173.8	1,924.3	0.00	0.00	0.00	0.00		
8,410.3	0.00	0.00	8,153.0	-179.6	1,989.2	3.00	-3.00	0.00	180.00	OHCR - 24D-23	
8,506.6	1.44	250.00	8,249.2	-180.1	1,988.1	1.50	1.50	-114.32	250.00		
12,428.6	1.44	250.00	12,170.0	-213.8	1,895.2	0.00	0.00	0.00	0.00	PBHL - 24D-23	

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well BJU M23A FED 24D-23 496 - Slot BJU M23A FED 24D-23 496
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 24D-23 496	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	95.16	300.0	-0.2	2.6	2.6	3.00	3.00	0.00
400.0	6.00	95.16	399.6	-0.9	10.4	10.5	3.00	3.00	0.00
500.0	9.00	95.16	498.8	-2.1	23.4	23.5	3.00	3.00	0.00
600.0	12.00	95.16	597.1	-3.8	41.6	41.7	3.00	3.00	0.00
EOB @ 15.01° Inc. / 95.16° Azm									
700.3	15.01	95.16	694.6	-5.9	64.9	65.1	3.00	3.00	0.00
800.0	15.01	95.16	790.9	-8.2	90.6	90.9	0.00	0.00	0.00
900.0	15.01	95.16	887.5	-10.5	116.4	116.8	0.00	0.00	0.00
1,000.0	15.01	95.16	984.1	-12.8	142.2	142.7	0.00	0.00	0.00
1,100.0	15.01	95.16	1,080.7	-15.2	168.0	168.6	0.00	0.00	0.00
1,200.0	15.01	95.16	1,177.3	-17.5	193.8	194.5	0.00	0.00	0.00
1,300.0	15.01	95.16	1,273.8	-19.8	219.6	220.4	0.00	0.00	0.00
1,400.0	15.01	95.16	1,370.4	-22.2	245.3	246.3	0.00	0.00	0.00
1,500.0	15.01	95.16	1,467.0	-24.5	271.1	272.2	0.00	0.00	0.00
1,600.0	15.01	95.16	1,563.6	-26.8	296.9	298.1	0.00	0.00	0.00
1,700.0	15.01	95.16	1,660.2	-29.1	322.7	324.0	0.00	0.00	0.00
1,800.0	15.01	95.16	1,756.8	-31.5	348.5	349.8	0.00	0.00	0.00
1,900.0	15.01	95.16	1,853.4	-33.8	374.3	375.7	0.00	0.00	0.00
2,000.0	15.01	95.16	1,950.0	-36.1	400.1	401.6	0.00	0.00	0.00
2,100.0	15.01	95.16	2,046.6	-38.5	425.9	427.5	0.00	0.00	0.00
2,200.0	15.01	95.16	2,143.1	-40.8	451.7	453.4	0.00	0.00	0.00
2,300.0	15.01	95.16	2,239.7	-43.1	477.5	479.3	0.00	0.00	0.00
2,400.0	15.01	95.16	2,336.3	-45.4	503.3	505.2	0.00	0.00	0.00
2,500.0	15.01	95.16	2,432.9	-47.8	529.0	531.1	0.00	0.00	0.00
2,600.0	15.01	95.16	2,529.5	-50.1	554.8	557.0	0.00	0.00	0.00
2,700.0	15.01	95.16	2,626.1	-52.4	580.6	582.8	0.00	0.00	0.00
2,800.0	15.01	95.16	2,722.7	-54.8	606.4	608.7	0.00	0.00	0.00
2,900.0	15.01	95.16	2,819.3	-57.1	632.2	634.6	0.00	0.00	0.00
3,000.0	15.01	95.16	2,915.9	-59.4	658.0	660.5	0.00	0.00	0.00
3,100.0	15.01	95.16	3,012.4	-61.8	683.8	686.4	0.00	0.00	0.00
3,200.0	15.01	95.16	3,109.0	-64.1	709.6	712.3	0.00	0.00	0.00
3,300.0	15.01	95.16	3,205.6	-66.4	735.4	738.2	0.00	0.00	0.00
3,400.0	15.01	95.16	3,302.2	-68.7	761.2	764.1	0.00	0.00	0.00
3,500.0	15.01	95.16	3,398.8	-71.1	786.9	790.0	0.00	0.00	0.00
Wasatch									
3,596.5	15.01	95.16	3,492.0	-73.3	811.8	814.9	0.00	0.00	0.00
3,600.0	15.01	95.16	3,495.4	-73.4	812.7	815.8	0.00	0.00	0.00
3,700.0	15.01	95.16	3,592.0	-75.7	838.5	841.7	0.00	0.00	0.00
3,800.0	15.01	95.16	3,688.6	-78.1	864.3	867.6	0.00	0.00	0.00
3,900.0	15.01	95.16	3,785.2	-80.4	890.1	893.5	0.00	0.00	0.00
4,000.0	15.01	95.16	3,881.7	-82.7	915.9	919.4	0.00	0.00	0.00
4,100.0	15.01	95.16	3,978.3	-85.0	941.7	945.3	0.00	0.00	0.00
4,200.0	15.01	95.16	4,074.9	-87.4	967.5	971.2	0.00	0.00	0.00
4,300.0	15.01	95.16	4,171.5	-89.7	993.3	997.1	0.00	0.00	0.00
4,400.0	15.01	95.16	4,268.1	-92.0	1,019.1	1,023.0	0.00	0.00	0.00
4,500.0	15.01	95.16	4,364.7	-94.4	1,044.9	1,048.8	0.00	0.00	0.00
4,600.0	15.01	95.16	4,461.3	-96.7	1,070.6	1,074.7	0.00	0.00	0.00
4,700.0	15.01	95.16	4,557.9	-99.0	1,096.4	1,100.6	0.00	0.00	0.00
4,800.0	15.01	95.16	4,654.5	-101.3	1,122.2	1,126.5	0.00	0.00	0.00

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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 24D-23 496	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)
4,900.0	15.01	95.16	4,751.0	-103.7	1,148.0	1,152.4	0.00	0.00	0.00
5,000.0	15.01	95.16	4,847.6	-106.0	1,173.8	1,178.3	0.00	0.00	0.00
5,100.0	15.01	95.16	4,944.2	-108.3	1,199.6	1,204.2	0.00	0.00	0.00
5,200.0	15.01	95.16	5,040.8	-110.7	1,225.4	1,230.1	0.00	0.00	0.00
5,300.0	15.01	95.16	5,137.4	-113.0	1,251.2	1,256.0	0.00	0.00	0.00
5,400.0	15.01	95.16	5,234.0	-115.3	1,277.0	1,281.8	0.00	0.00	0.00
5,500.0	15.01	95.16	5,330.6	-117.6	1,302.8	1,307.7	0.00	0.00	0.00
5,600.0	15.01	95.16	5,427.2	-120.0	1,328.6	1,333.6	0.00	0.00	0.00
5,700.0	15.01	95.16	5,523.8	-122.3	1,354.3	1,359.5	0.00	0.00	0.00
5,800.0	15.01	95.16	5,620.3	-124.6	1,380.1	1,385.4	0.00	0.00	0.00
5,900.0	15.01	95.16	5,716.9	-127.0	1,405.9	1,411.3	0.00	0.00	0.00
6,000.0	15.01	95.16	5,813.5	-129.3	1,431.7	1,437.2	0.00	0.00	0.00
Wasatch G									
6,081.3	15.01	95.16	5,892.0	-131.2	1,452.7	1,458.2	0.00	0.00	0.00
6,100.0	15.01	95.16	5,910.1	-131.6	1,457.5	1,463.1	0.00	0.00	0.00
6,200.0	15.01	95.16	6,006.7	-134.0	1,483.3	1,489.0	0.00	0.00	0.00
6,300.0	15.01	95.16	6,103.3	-136.3	1,509.1	1,514.9	0.00	0.00	0.00
Fort Union									
6,391.8	15.01	95.16	6,192.0	-138.4	1,532.8	1,538.6	0.00	0.00	0.00
6,400.0	15.01	95.16	6,199.9	-138.6	1,534.9	1,540.7	0.00	0.00	0.00
6,500.0	15.01	95.16	6,296.5	-140.9	1,560.7	1,566.6	0.00	0.00	0.00
6,600.0	15.01	95.16	6,393.1	-143.3	1,586.5	1,592.5	0.00	0.00	0.00
6,700.0	15.01	95.16	6,489.6	-145.6	1,612.2	1,618.4	0.00	0.00	0.00
6,800.0	15.01	95.16	6,586.2	-147.9	1,638.0	1,644.3	0.00	0.00	0.00
6,900.0	15.01	95.16	6,682.8	-150.3	1,663.8	1,670.2	0.00	0.00	0.00
7,000.0	15.01	95.16	6,779.4	-152.6	1,689.6	1,696.1	0.00	0.00	0.00
7,100.0	15.01	95.16	6,876.0	-154.9	1,715.4	1,722.0	0.00	0.00	0.00
7,200.0	15.01	95.16	6,972.6	-157.2	1,741.2	1,747.9	0.00	0.00	0.00
7,300.0	15.01	95.16	7,069.2	-159.6	1,767.0	1,773.7	0.00	0.00	0.00
7,400.0	15.01	95.16	7,165.8	-161.9	1,792.8	1,799.6	0.00	0.00	0.00
7,500.0	15.01	95.16	7,262.4	-164.2	1,818.6	1,825.5	0.00	0.00	0.00
7,600.0	15.01	95.16	7,358.9	-166.6	1,844.4	1,851.4	0.00	0.00	0.00
7,700.0	15.01	95.16	7,455.5	-168.9	1,870.2	1,877.3	0.00	0.00	0.00
7,800.0	15.01	95.16	7,552.1	-171.2	1,895.9	1,903.2	0.00	0.00	0.00
7,900.0	15.01	95.16	7,648.7	-173.5	1,921.7	1,929.1	0.00	0.00	0.00
Drop 3° /100'									
7,910.1	15.01	95.16	7,658.4	-173.8	1,924.3	1,931.7	0.00	0.00	0.00
8,000.0	12.31	95.16	7,745.8	-175.7	1,945.5	1,952.9	3.00	-3.00	0.00
8,100.0	9.31	95.16	7,844.0	-177.4	1,964.2	1,971.7	3.00	-3.00	0.00
8,200.0	6.31	95.16	7,943.1	-178.6	1,977.7	1,985.2	3.00	-3.00	0.00
8,300.0	3.31	95.16	8,042.7	-179.4	1,986.0	1,993.6	3.00	-3.00	0.00
8,400.0	0.31	95.16	8,142.7	-179.6	1,989.2	1,996.8	3.00	-3.00	0.00
EOD @ Vertical / Build 1.5° / 100' - Ohio Creek - TOG									
8,410.3	0.00	0.00	8,153.0	-179.6	1,989.2	1,996.8	3.00	-3.00	-920.87
EOB @ 1.44° Inc. / 250.00° Azm									
8,506.6	1.44	250.00	8,249.2	-180.1	1,988.1	1,995.7	1.50	1.50	-114.32
8,600.0	1.44	250.00	8,342.6	-180.9	1,985.9	1,993.6	0.00	0.00	0.00
8,700.0	1.44	250.00	8,442.6	-181.7	1,983.5	1,991.4	0.00	0.00	0.00
8,800.0	1.44	250.00	8,542.6	-182.6	1,981.1	1,989.1	0.00	0.00	0.00
William Fork									
8,809.4	1.44	250.00	8,552.0	-182.7	1,980.9	1,988.9	0.00	0.00	0.00
8,900.0	1.44	250.00	8,642.5	-183.4	1,978.8	1,986.9	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 24D-23 496	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	1.44	250.00	8,742.5	-184.3	1,976.4	1,984.6	0.00	0.00	0.00	
9,100.0	1.44	250.00	8,842.5	-185.2	1,974.0	1,982.3	0.00	0.00	0.00	
9,200.0	1.44	250.00	8,942.4	-186.0	1,971.7	1,980.1	0.00	0.00	0.00	
9,300.0	1.44	250.00	9,042.4	-186.9	1,969.3	1,977.8	0.00	0.00	0.00	
9,400.0	1.44	250.00	9,142.4	-187.8	1,966.9	1,975.6	0.00	0.00	0.00	
9,500.0	1.44	250.00	9,242.3	-188.6	1,964.6	1,973.3	0.00	0.00	0.00	
9,600.0	1.44	250.00	9,342.3	-189.5	1,962.2	1,971.1	0.00	0.00	0.00	
9,700.0	1.44	250.00	9,442.3	-190.3	1,959.8	1,968.8	0.00	0.00	0.00	
9,800.0	1.44	250.00	9,542.2	-191.2	1,957.5	1,966.6	0.00	0.00	0.00	
9,900.0	1.44	250.00	9,642.2	-192.1	1,955.1	1,964.3	0.00	0.00	0.00	
10,000.0	1.44	250.00	9,742.2	-192.9	1,952.7	1,962.0	0.00	0.00	0.00	
10,100.0	1.44	250.00	9,842.2	-193.8	1,950.4	1,959.8	0.00	0.00	0.00	
10,200.0	1.44	250.00	9,942.1	-194.6	1,948.0	1,957.5	0.00	0.00	0.00	
10,300.0	1.44	250.00	10,042.1	-195.5	1,945.6	1,955.3	0.00	0.00	0.00	
10,400.0	1.44	250.00	10,142.1	-196.4	1,943.3	1,953.0	0.00	0.00	0.00	
10,500.0	1.44	250.00	10,242.0	-197.2	1,940.9	1,950.8	0.00	0.00	0.00	
10,600.0	1.44	250.00	10,342.0	-198.1	1,938.5	1,948.5	0.00	0.00	0.00	
10,700.0	1.44	250.00	10,442.0	-198.9	1,936.2	1,946.3	0.00	0.00	0.00	
10,800.0	1.44	250.00	10,541.9	-199.8	1,933.8	1,944.0	0.00	0.00	0.00	
10,900.0	1.44	250.00	10,641.9	-200.7	1,931.4	1,941.7	0.00	0.00	0.00	
11,000.0	1.44	250.00	10,741.9	-201.5	1,929.1	1,939.5	0.00	0.00	0.00	
11,100.0	1.44	250.00	10,841.8	-202.4	1,926.7	1,937.2	0.00	0.00	0.00	
11,200.0	1.44	250.00	10,941.8	-203.3	1,924.3	1,935.0	0.00	0.00	0.00	
11,300.0	1.44	250.00	11,041.8	-204.1	1,922.0	1,932.7	0.00	0.00	0.00	
11,400.0	1.44	250.00	11,141.7	-205.0	1,919.6	1,930.5	0.00	0.00	0.00	
11,500.0	1.44	250.00	11,241.7	-205.8	1,917.2	1,928.2	0.00	0.00	0.00	
11,600.0	1.44	250.00	11,341.7	-206.7	1,914.9	1,926.0	0.00	0.00	0.00	
11,700.0	1.44	250.00	11,441.6	-207.6	1,912.5	1,923.7	0.00	0.00	0.00	
Cameo										
11,728.4	1.44	250.00	11,470.0	-207.8	1,911.8	1,923.1	0.00	0.00	0.00	
11,800.0	1.44	250.00	11,541.6	-208.4	1,910.1	1,921.4	0.00	0.00	0.00	
11,900.0	1.44	250.00	11,641.6	-209.3	1,907.8	1,919.2	0.00	0.00	0.00	
12,000.0	1.44	250.00	11,741.5	-210.1	1,905.4	1,916.9	0.00	0.00	0.00	
12,100.0	1.44	250.00	11,841.5	-211.0	1,903.0	1,914.7	0.00	0.00	0.00	
12,200.0	1.44	250.00	11,941.5	-211.9	1,900.7	1,912.4	0.00	0.00	0.00	
Rollins										
12,228.5	1.44	250.00	11,970.0	-212.1	1,900.0	1,911.8	0.00	0.00	0.00	
12,300.0	1.44	250.00	12,041.5	-212.7	1,898.3	1,910.2	0.00	0.00	0.00	
12,400.0	1.44	250.00	12,141.4	-213.6	1,895.9	1,907.9	0.00	0.00	0.00	
TD @ 12428.6' MD / 12170.0' TVD										
12,428.6	1.44	250.00	12,170.0	-213.8	1,895.2	1,907.3	0.00	0.00	0.00	

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well BJU M23A FED 24D-23 496 - Slot BJU M23A FED 24D-23 496
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 24D-23 496	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 - 24D-23 - plan hits target center - Point	0.00	0.00	8,153.0	-179.6	1,989.2	14,423,841.78	2,447,086.83	39.683910	-108.133034
PBHL - 24D-23 - plan hits target center - Ellipse (radii L100.0 W50.0 on 250.00 azi)	0.00	0.00	12,170.0	-213.8	1,895.2	14,423,804.60	2,446,994.00	39.683817	-108.133368

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,596.5	3,492.0	Wasatch			
6,081.3	5,892.0	Wasatch G			
6,391.8	6,192.0	Fort Union			
8,410.3	8,153.0	Ohio Creek			
8,410.3	8,153.0	TOG			
8,809.4	8,552.0	William Fork			
11,728.4	11,470.0	Cameo			
12,228.5	11,970.0	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'
700.3	694.6	-5.9	64.9	EOB @ 15.01° Inc. / 95.16° Azm
7,910.1	7,658.4	-173.8	1,924.3	Drop 3° / 100'
8,410.3	8,153.0	-179.6	1,989.2	EOD @ Vertical / Build 1.5° / 100'
8,506.6	8,249.2	-180.1	1,988.1	EOB @ 1.44° Inc. / 250.00° Azm
12,428.6	12,170.0	-213.8	1,895.2	TD @ 12428.6' MD / 12170.0' TVD