

Project: Garfield County, CO
Site: BJU M23A 496 Pad
Well: BJU M23A FED 13A-23 496
Wellbore: Wellbore #1
Design: Design #2
Latitude: 39.684432
Longitude: -108.140089
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 - 13A-23(0.0N, 0.0E)
Measured Depth Reference: RKB @ 8134.0usft (30')
Calculation Method: Minimum Curvature

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3462.0	3547.5	Wasatch
5862.0	6024.5	Wasatch G
6162.0	6334.1	Fort Union
8145.0	8370.6	Ohio Creek
8145.0	8370.6	TOG
8563.0	8788.7	William Fork
11356.0	11582.5	Cameo
11856.0	12082.6	Rollins

SECTION DETAILS

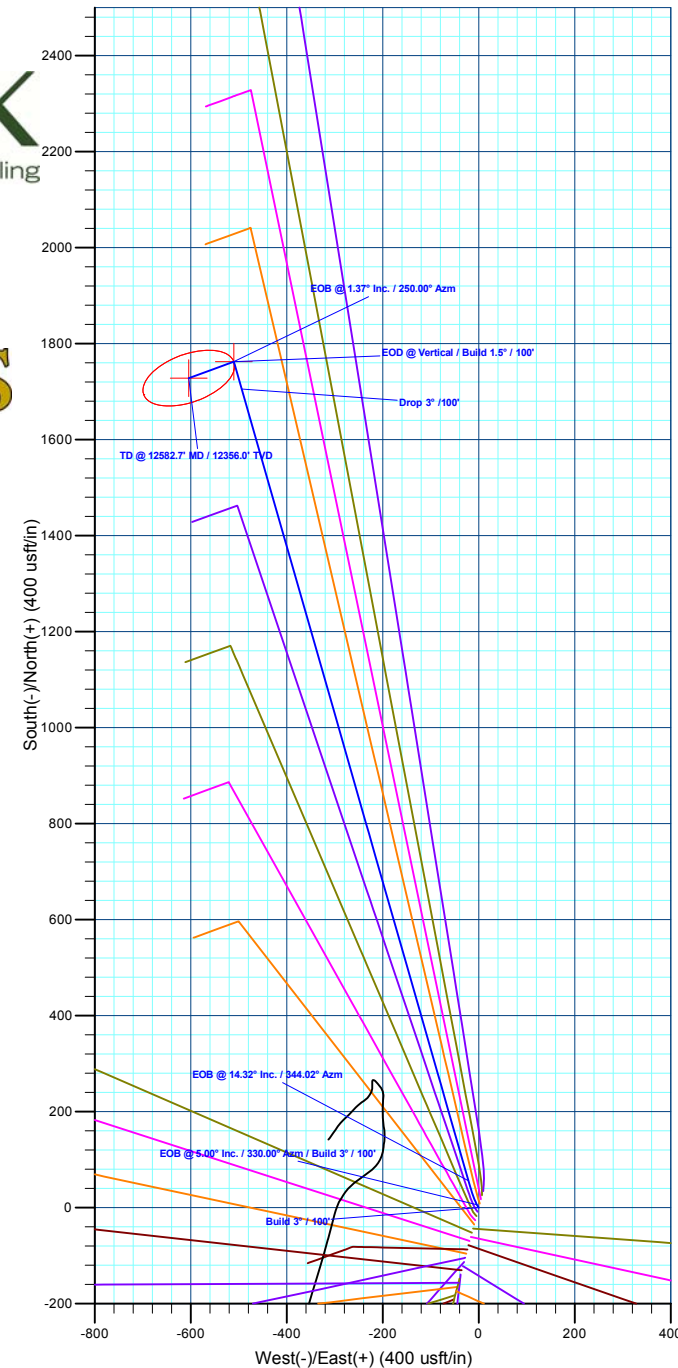
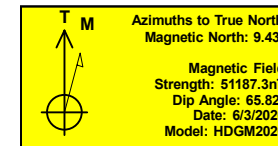
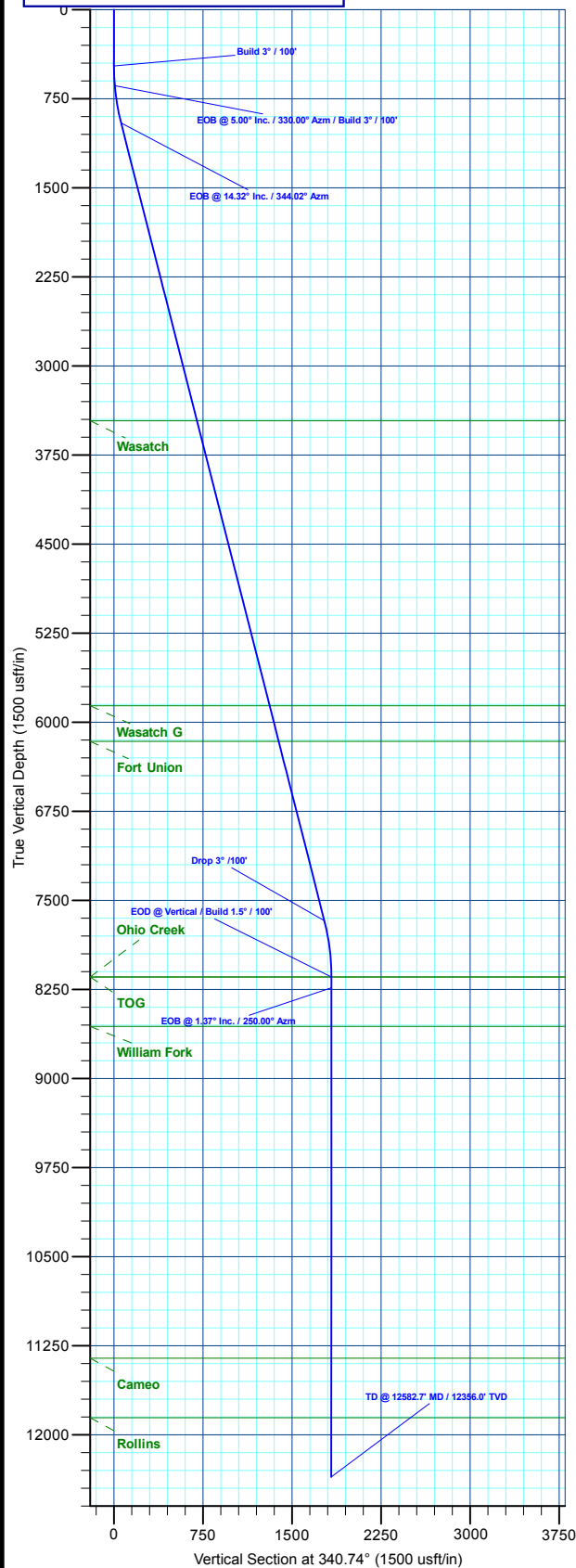
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
475.0	0.00	0.00	475.0	0.0	0.0	0.00	0.00	0.0	Build 3" / 100'
641.7	5.00	330.00	641.5	6.3	-3.6	3.00	330.00	7.1	EOB @ 5.00" Inc. / 330.00° Azm / Build 3" / 100'
960.0	14.32	344.02	954.9	56.3	-21.5	3.00	21.18	60.2	EOB @ 14.32" Inc. / 344.02° Azm
7893.1	14.32	344.02	7672.5	1705.4	-493.7	0.00	0.00	1772.7	Drop 3" / 100'
8370.6	0.00	0.00	8145.0	1762.4	-510.0	3.00	180.00	1832.0	EOD @ Vertical / Build 1.5" / 100'
8462.2	1.38	250.00	8236.7	1762.1	-511.1	1.50	250.00	1832.0	EOB @ 1.37" Inc. / 250.00° Azm
12582.7	1.38	250.00	12356.0	1728.2	-604.0	0.00	0.00	1830.7	TD @ 12582.7" MD / 12356.0" TVD

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
OHCR - 13A-23	8145.0	1762.4	-510.0	14425713.48	2444529.43	39.689268	-108.141901
PBHL - 13A-23	12356.0	1728.2	-604.0	14425676.30	2444436.60	39.689174	-108.142235

WELL DETAILS: BJU M23A FED 13A-23 496

+N/-S	+E/-W	Ground Level : 8104.0	Northing	Easting	Latitude	Longitude
0.0	0.0		14423968.20	2445095.40	39.684432	-108.140089
						13A-23



Plan: Design #2 (BJU M23A FED 13A-23 496/Wellbore #1)

Created By: Will Jircik

Date: 13:11, July 18 2022



Caerus Oil & Gas

Garfield County, CO

BJU M23A 496 Pad

BJU M23A FED 13A-23 496 - Slot 13A-23

Wellbore #1

Plan: Design #2

KLX Well Planning Report

18 July, 2022



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well BJU M23A FED 13A-23 496 - Slot 13A-23
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 13A-23 496	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2		

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
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 13A-23 496 - Slot 13A-23		
Well Position	+N/-S	-59.8 usft	Northing: 14,423,968.20 usft
	+E/-W	-16.1 usft	Easting: 2,445,095.40 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	Latitude: 39.684432
			Longitude: -108.140089
			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 #2				
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	340.74	

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	
475.0	0.00	0.00	475.0	0.0	0.0	0.00	0.00	0.00	0.00	
641.7	5.00	330.00	641.5	6.3	-3.6	3.00	3.00	0.00	330.00	
960.0	14.32	344.02	954.9	56.3	-21.5	3.00	2.93	4.40	21.18	
7,893.1	14.32	344.02	7,672.5	1,705.4	-493.7	0.00	0.00	0.00	0.00	
8,370.6	0.00	0.00	8,145.0	1,762.4	-510.0	3.00	-3.00	0.00	180.00	OHCR - 13A-23
8,462.2	1.38	250.00	8,236.7	1,762.1	-511.1	1.50	1.50	-119.97	250.00	
12,582.7	1.38	250.00	12,356.0	1,728.2	-604.0	0.00	0.00	0.00	0.00	PBHL - 13A-23

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well BJU M23A FED 13A-23 496 - Slot 13A-23
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 13A-23 496	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2		

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
Build 3° / 100'									
475.0	0.00	0.00	475.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.75	330.00	500.0	0.1	-0.1	0.2	3.00	3.00	0.00
600.0	3.75	330.00	599.9	3.5	-2.0	4.0	3.00	3.00	0.00
EOB @ 5.00° Inc. / 330.00° Azm / Build 3° / 100'									
641.7	5.00	330.00	641.5	6.3	-3.6	7.1	3.00	3.00	0.00
700.0	6.66	335.46	699.5	11.6	-6.3	13.0	3.00	2.85	9.36
800.0	9.58	340.35	798.5	24.7	-11.5	27.1	3.00	2.92	4.90
900.0	12.54	342.97	896.6	42.9	-17.5	46.3	3.00	2.96	2.61
EOB @ 14.32° Inc. / 344.02° Azm									
960.0	14.32	344.02	954.9	56.3	-21.5	60.2	3.00	2.97	1.76
1,000.0	14.32	344.02	993.7	65.8	-24.2	70.1	0.00	0.00	0.00
1,100.0	14.32	344.02	1,090.6	89.6	-31.0	94.8	0.00	0.00	0.00
1,200.0	14.32	344.02	1,187.5	113.4	-37.8	119.5	0.00	0.00	0.00
1,300.0	14.32	344.02	1,284.4	137.2	-44.6	144.2	0.00	0.00	0.00
1,400.0	14.32	344.02	1,381.3	160.9	-51.4	168.9	0.00	0.00	0.00
1,500.0	14.32	344.02	1,478.2	184.7	-58.2	193.6	0.00	0.00	0.00
1,600.0	14.32	344.02	1,575.1	208.5	-65.0	218.3	0.00	0.00	0.00
1,700.0	14.32	344.02	1,672.0	232.3	-71.9	243.0	0.00	0.00	0.00
1,800.0	14.32	344.02	1,768.8	256.1	-78.7	267.7	0.00	0.00	0.00
1,900.0	14.32	344.02	1,865.7	279.9	-85.5	292.4	0.00	0.00	0.00
2,000.0	14.32	344.02	1,962.6	303.7	-92.3	317.1	0.00	0.00	0.00
2,100.0	14.32	344.02	2,059.5	327.4	-99.1	341.8	0.00	0.00	0.00
2,200.0	14.32	344.02	2,156.4	351.2	-105.9	366.5	0.00	0.00	0.00
2,300.0	14.32	344.02	2,253.3	375.0	-112.7	391.2	0.00	0.00	0.00
2,400.0	14.32	344.02	2,350.2	398.8	-119.5	415.9	0.00	0.00	0.00
2,500.0	14.32	344.02	2,447.1	422.6	-126.3	440.6	0.00	0.00	0.00
2,600.0	14.32	344.02	2,544.0	446.4	-133.2	465.3	0.00	0.00	0.00
2,700.0	14.32	344.02	2,640.9	470.2	-140.0	490.0	0.00	0.00	0.00
2,800.0	14.32	344.02	2,737.8	493.9	-146.8	514.7	0.00	0.00	0.00
2,900.0	14.32	344.02	2,834.6	517.7	-153.6	539.4	0.00	0.00	0.00
3,000.0	14.32	344.02	2,931.5	541.5	-160.4	564.1	0.00	0.00	0.00
3,100.0	14.32	344.02	3,028.4	565.3	-167.2	588.8	0.00	0.00	0.00
3,200.0	14.32	344.02	3,125.3	589.1	-174.0	613.5	0.00	0.00	0.00
3,300.0	14.32	344.02	3,222.2	612.9	-180.8	638.2	0.00	0.00	0.00
3,400.0	14.32	344.02	3,319.1	636.7	-187.6	662.9	0.00	0.00	0.00
3,500.0	14.32	344.02	3,416.0	660.4	-194.5	687.6	0.00	0.00	0.00
Wasatch									
3,547.5	14.32	344.02	3,462.0	671.7	-197.7	699.3	0.00	0.00	0.00
3,600.0	14.32	344.02	3,512.9	684.2	-201.3	712.3	0.00	0.00	0.00
3,700.0	14.32	344.02	3,609.8	708.0	-208.1	737.0	0.00	0.00	0.00
3,800.0	14.32	344.02	3,706.7	731.8	-214.9	761.7	0.00	0.00	0.00
3,900.0	14.32	344.02	3,803.6	755.6	-221.7	786.4	0.00	0.00	0.00
4,000.0	14.32	344.02	3,900.4	779.4	-228.5	811.1	0.00	0.00	0.00
4,100.0	14.32	344.02	3,997.3	803.2	-235.3	835.8	0.00	0.00	0.00
4,200.0	14.32	344.02	4,094.2	826.9	-242.1	860.5	0.00	0.00	0.00
4,300.0	14.32	344.02	4,191.1	850.7	-249.0	885.2	0.00	0.00	0.00
4,400.0	14.32	344.02	4,288.0	874.5	-255.8	909.9	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well BJU M23A FED 13A-23 496 - Slot 13A-23
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 13A-23 496	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2		

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)
4,500.0	14.32	344.02	4,384.9	898.3	-262.6	934.6	0.00	0.00	0.00
4,600.0	14.32	344.02	4,481.8	922.1	-269.4	959.3	0.00	0.00	0.00
4,700.0	14.32	344.02	4,578.7	945.9	-276.2	984.0	0.00	0.00	0.00
4,800.0	14.32	344.02	4,675.6	969.7	-283.0	1,008.7	0.00	0.00	0.00
4,900.0	14.32	344.02	4,772.5	993.4	-289.8	1,033.4	0.00	0.00	0.00
5,000.0	14.32	344.02	4,869.4	1,017.2	-296.6	1,058.1	0.00	0.00	0.00
5,100.0	14.32	344.02	4,966.2	1,041.0	-303.4	1,082.8	0.00	0.00	0.00
5,200.0	14.32	344.02	5,063.1	1,064.8	-310.3	1,107.5	0.00	0.00	0.00
5,300.0	14.32	344.02	5,160.0	1,088.6	-317.1	1,132.2	0.00	0.00	0.00
5,400.0	14.32	344.02	5,256.9	1,112.4	-323.9	1,156.9	0.00	0.00	0.00
5,500.0	14.32	344.02	5,353.8	1,136.2	-330.7	1,181.6	0.00	0.00	0.00
5,600.0	14.32	344.02	5,450.7	1,159.9	-337.5	1,206.3	0.00	0.00	0.00
5,700.0	14.32	344.02	5,547.6	1,183.7	-344.3	1,231.0	0.00	0.00	0.00
5,800.0	14.32	344.02	5,644.5	1,207.5	-351.1	1,255.7	0.00	0.00	0.00
5,900.0	14.32	344.02	5,741.4	1,231.3	-357.9	1,280.4	0.00	0.00	0.00
6,000.0	14.32	344.02	5,838.3	1,255.1	-364.7	1,305.1	0.00	0.00	0.00
Wasatch G									
6,024.5	14.32	344.02	5,862.0	1,260.9	-366.4	1,311.2	0.00	0.00	0.00
6,100.0	14.32	344.02	5,935.2	1,278.9	-371.6	1,329.8	0.00	0.00	0.00
6,200.0	14.32	344.02	6,032.0	1,302.6	-378.4	1,354.5	0.00	0.00	0.00
6,300.0	14.32	344.02	6,128.9	1,326.4	-385.2	1,379.2	0.00	0.00	0.00
Fort Union									
6,334.1	14.32	344.02	6,162.0	1,334.6	-387.5	1,387.7	0.00	0.00	0.00
6,400.0	14.32	344.02	6,225.8	1,350.2	-392.0	1,403.9	0.00	0.00	0.00
6,500.0	14.32	344.02	6,322.7	1,374.0	-398.8	1,428.6	0.00	0.00	0.00
6,600.0	14.32	344.02	6,419.6	1,397.8	-405.6	1,453.3	0.00	0.00	0.00
6,700.0	14.32	344.02	6,516.5	1,421.6	-412.4	1,478.0	0.00	0.00	0.00
6,800.0	14.32	344.02	6,613.4	1,445.4	-419.2	1,502.7	0.00	0.00	0.00
6,900.0	14.32	344.02	6,710.3	1,469.1	-426.0	1,527.4	0.00	0.00	0.00
7,000.0	14.32	344.02	6,807.2	1,492.9	-432.9	1,552.2	0.00	0.00	0.00
7,100.0	14.32	344.02	6,904.1	1,516.7	-439.7	1,576.9	0.00	0.00	0.00
7,200.0	14.32	344.02	7,001.0	1,540.5	-446.5	1,601.6	0.00	0.00	0.00
7,300.0	14.32	344.02	7,097.8	1,564.3	-453.3	1,626.3	0.00	0.00	0.00
7,400.0	14.32	344.02	7,194.7	1,588.1	-460.1	1,651.0	0.00	0.00	0.00
7,500.0	14.32	344.02	7,291.6	1,611.9	-466.9	1,675.7	0.00	0.00	0.00
7,600.0	14.32	344.02	7,388.5	1,635.6	-473.7	1,700.4	0.00	0.00	0.00
7,700.0	14.32	344.02	7,485.4	1,659.4	-480.5	1,725.1	0.00	0.00	0.00
7,800.0	14.32	344.02	7,582.3	1,683.2	-487.3	1,749.8	0.00	0.00	0.00
Drop 3° /100'									
7,893.1	14.32	344.02	7,672.5	1,705.4	-493.7	1,772.7	0.00	0.00	0.00
7,900.0	14.12	344.02	7,679.2	1,707.0	-494.2	1,774.4	3.00	-3.00	0.00
8,000.0	11.12	344.02	7,776.8	1,728.0	-500.2	1,796.3	3.00	-3.00	0.00
8,100.0	8.12	344.02	7,875.4	1,744.0	-504.8	1,812.9	3.00	-3.00	0.00
8,200.0	5.12	344.02	7,974.7	1,755.1	-507.9	1,824.4	3.00	-3.00	0.00
8,300.0	2.12	344.02	8,074.5	1,761.2	-509.7	1,830.7	3.00	-3.00	0.00
EOD @ Vertical / Build 1.5° / 100' - Ohio Creek - TOG									
8,370.6	0.00	0.00	8,145.0	1,762.4	-510.0	1,832.0	3.00	-3.00	0.00
8,400.0	0.44	250.00	8,174.4	1,762.4	-510.1	1,832.0	1.50	1.50	0.00
EOB @ 1.37° Inc. / 250.00° Azm									
8,462.2	1.38	250.00	8,236.7	1,762.1	-511.1	1,832.0	1.50	1.50	0.00
8,500.0	1.38	250.00	8,274.4	1,761.8	-511.9	1,832.0	0.00	0.00	0.00
8,600.0	1.38	250.00	8,374.4	1,760.9	-514.2	1,832.0	0.00	0.00	0.00

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Site:	BJU M23A 496 Pad	North Reference:	True
Well:	BJU M23A FED 13A-23 496	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2		

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	1.38	250.00	8,474.4	1,760.1	-516.4	1,831.9	0.00	0.00	0.00
William Fork									
8,788.7	1.38	250.00	8,563.0	1,759.4	-518.4	1,831.9	0.00	0.00	0.00
8,800.0	1.38	250.00	8,574.3	1,759.3	-518.7	1,831.9	0.00	0.00	0.00
8,900.0	1.38	250.00	8,674.3	1,758.5	-520.9	1,831.9	0.00	0.00	0.00
9,000.0	1.38	250.00	8,774.3	1,757.6	-523.2	1,831.8	0.00	0.00	0.00
9,100.0	1.38	250.00	8,874.3	1,756.8	-525.5	1,831.8	0.00	0.00	0.00
9,200.0	1.38	250.00	8,974.2	1,756.0	-527.7	1,831.8	0.00	0.00	0.00
9,300.0	1.38	250.00	9,074.2	1,755.2	-530.0	1,831.8	0.00	0.00	0.00
9,400.0	1.38	250.00	9,174.2	1,754.4	-532.2	1,831.7	0.00	0.00	0.00
9,500.0	1.38	250.00	9,274.1	1,753.5	-534.5	1,831.7	0.00	0.00	0.00
9,600.0	1.38	250.00	9,374.1	1,752.7	-536.7	1,831.7	0.00	0.00	0.00
9,700.0	1.38	250.00	9,474.1	1,751.9	-539.0	1,831.6	0.00	0.00	0.00
9,800.0	1.38	250.00	9,574.1	1,751.1	-541.2	1,831.6	0.00	0.00	0.00
9,900.0	1.38	250.00	9,674.0	1,750.3	-543.5	1,831.6	0.00	0.00	0.00
10,000.0	1.38	250.00	9,774.0	1,749.4	-545.7	1,831.5	0.00	0.00	0.00
10,100.0	1.38	250.00	9,874.0	1,748.6	-548.0	1,831.5	0.00	0.00	0.00
10,200.0	1.38	250.00	9,973.9	1,747.8	-550.3	1,831.5	0.00	0.00	0.00
10,300.0	1.38	250.00	10,073.9	1,747.0	-552.5	1,831.4	0.00	0.00	0.00
10,400.0	1.38	250.00	10,173.9	1,746.2	-554.8	1,831.4	0.00	0.00	0.00
10,500.0	1.38	250.00	10,273.9	1,745.3	-557.0	1,831.4	0.00	0.00	0.00
10,600.0	1.38	250.00	10,373.8	1,744.5	-559.3	1,831.4	0.00	0.00	0.00
10,700.0	1.38	250.00	10,473.8	1,743.7	-561.5	1,831.3	0.00	0.00	0.00
10,800.0	1.38	250.00	10,573.8	1,742.9	-563.8	1,831.3	0.00	0.00	0.00
10,900.0	1.38	250.00	10,673.7	1,742.1	-566.0	1,831.3	0.00	0.00	0.00
11,000.0	1.38	250.00	10,773.7	1,741.2	-568.3	1,831.2	0.00	0.00	0.00
11,100.0	1.38	250.00	10,873.7	1,740.4	-570.6	1,831.2	0.00	0.00	0.00
11,200.0	1.38	250.00	10,973.6	1,739.6	-572.8	1,831.2	0.00	0.00	0.00
11,300.0	1.38	250.00	11,073.6	1,738.8	-575.1	1,831.1	0.00	0.00	0.00
11,400.0	1.38	250.00	11,173.6	1,737.9	-577.3	1,831.1	0.00	0.00	0.00
11,500.0	1.38	250.00	11,273.6	1,737.1	-579.6	1,831.1	0.00	0.00	0.00
Cameo									
11,582.5	1.38	250.00	11,356.0	1,736.4	-581.4	1,831.1	0.00	0.00	0.00
11,600.0	1.38	250.00	11,373.5	1,736.3	-581.8	1,831.0	0.00	0.00	0.00
11,700.0	1.38	250.00	11,473.5	1,735.5	-584.1	1,831.0	0.00	0.00	0.00
11,800.0	1.38	250.00	11,573.5	1,734.7	-586.3	1,831.0	0.00	0.00	0.00
11,900.0	1.38	250.00	11,673.4	1,733.8	-588.6	1,831.0	0.00	0.00	0.00
12,000.0	1.38	250.00	11,773.4	1,733.0	-590.9	1,830.9	0.00	0.00	0.00
Rollins									
12,082.6	1.38	250.00	11,856.0	1,732.3	-592.7	1,830.9	0.00	0.00	0.00
12,100.0	1.38	250.00	11,873.4	1,732.2	-593.1	1,830.9	0.00	0.00	0.00
12,200.0	1.38	250.00	11,973.4	1,731.4	-595.4	1,830.9	0.00	0.00	0.00
12,300.0	1.38	250.00	12,073.3	1,730.6	-597.6	1,830.8	0.00	0.00	0.00
12,400.0	1.38	250.00	12,173.3	1,729.7	-599.9	1,830.8	0.00	0.00	0.00
12,500.0	1.38	250.00	12,273.3	1,728.9	-602.1	1,830.8	0.00	0.00	0.00
TD @ 12582.7' MD / 12356.0' TVD									
12,582.7	1.38	250.00	12,356.0	1,728.2	-604.0	1,830.7	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well BJU M23A FED 13A-23 496 - Slot 13A-23
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 13A-23 496	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2		

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 - 13A-23 - plan hits target center - Point	0.00	0.00	8,145.0	1,762.4	-510.0	14,425,713.48	2,444,529.43	39.689268	-108.141901
PBHL - 13A-23 - plan hits target center - Ellipse (radii L100.0 W50.0 on 250.00 azi)	0.00	0.00	12,356.0	1,728.2	-604.0	14,425,676.30	2,444,436.60	39.689174	-108.142235

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,547.5	3,462.0	Wasatch			
6,024.5	5,862.0	Wasatch G			
6,334.1	6,162.0	Fort Union			
8,370.6	8,145.0	Ohio Creek			
8,370.6	8,145.0	TOG			
8,788.7	8,563.0	William Fork			
11,582.5	11,356.0	Cameo			
12,082.6	11,856.0	Rollins			

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
475.0	475.0	0.0	0.0	Build 3° / 100'
641.7	641.5	6.3	-3.6	EOB @ 5.00° Inc. / 330.00° Azm / Build 3° / 100'
960.0	954.9	56.3	-21.5	EOB @ 14.32° Inc. / 344.02° Azm
7,893.1	7,672.5	1,705.4	-493.7	Drop 3° / 100'
8,370.6	8,145.0	1,762.4	-510.0	EOD @ Vertical / Build 1.5° / 100'
8,462.2	8,236.7	1,762.1	-511.1	EOB @ 1.37° Inc. / 250.00° Azm
12,582.7	12,356.0	1,728.2	-604.0	TD @ 12582.7' MD / 12356.0' TVD