

Project: Garfield County, CO
 Site: BJU M23A 496 Pad
 Well: BJU M23A FED 15B-23 496
 Wellbore: Wellbore #1
 Design: Design #3
 Latitude: 39.684002
 Longitude: -108.140239
 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 - 15B-23(0.0N, 0.0E)
 Measured Depth Reference: RKB @ 8134.0usft (30')
 Calculation Method: Minimum Curvature

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3318.0	3331.4	Wasatch
5718.0	5742.9	Wasatch G
6018.0	6044.3	Fort Union
8032.0	8058.8	Ohio Creek
8379.0	8405.8	Williams Fork
11265.0	11292.7	Cameo
11765.0	11792.8	Rollins

SECTION DETAILS

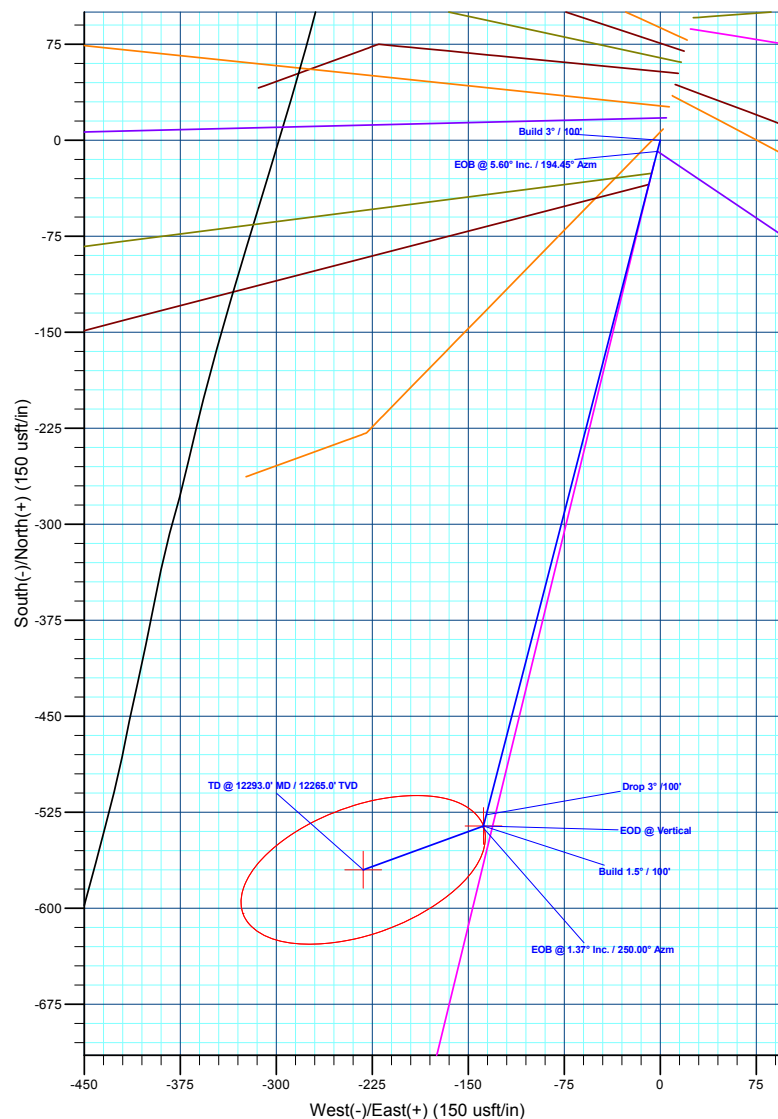
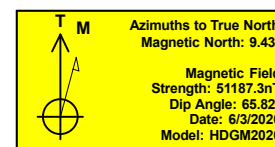
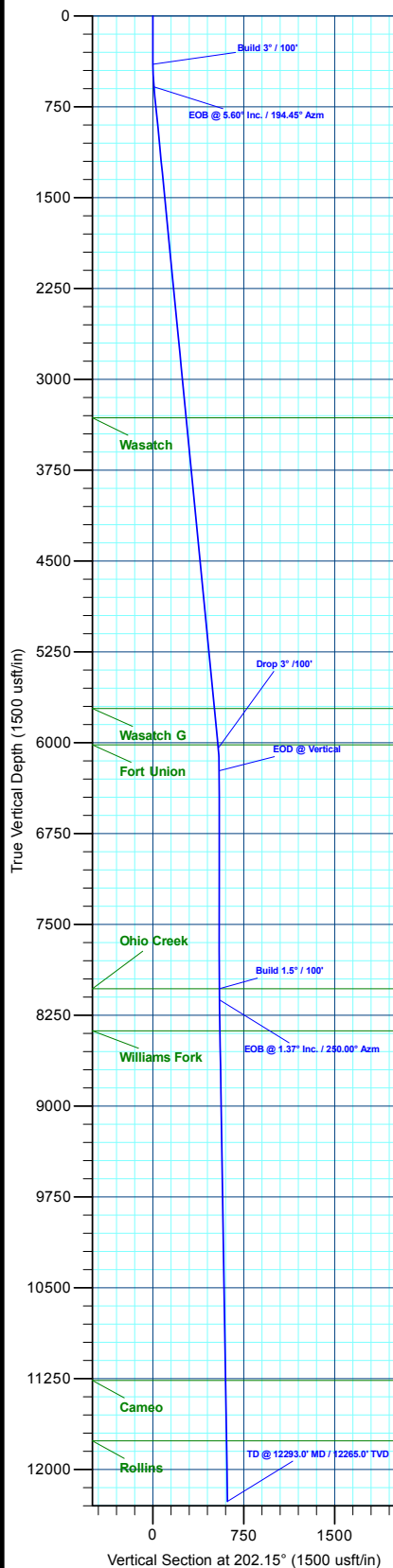
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
400.0	0.00	0.00	400.0	0.0	0.0	0.00	0.00	0.0	Build 3" / 100'
586.6	5.60	194.45	586.3	-8.8	-2.3	3.00	194.45	9.0	EOB @ 5.60" Inc. / 194.45° Azm
6072.1	5.60	194.45	6045.7	-527.1	-135.9	0.00	0.00	539.4	Drop 3" / 100'
6258.8	0.00	0.00	6232.0	-535.9	-138.1	3.00	180.00	548.4	EOD @ Vertical
8058.8	0.00	0.00	8032.0	-535.9	-138.1	0.00	0.00	548.4	Build 1.5" / 100'
8150.0	1.37	250.00	8123.2	-536.3	-139.1	1.50	250.00	549.1	EOB @ 1.37" Inc. / 250.00° Azm
12293.0	1.37	250.00	12265.0	-570.1	-232.1	0.00	0.00	615.5	TD @ 12293.0' MD / 12265.0' TVD

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
OHCR - 15B-23	8032.0	-535.9	-138.1	14423270.48	2444937.13	39.682532	-108.140730
PBHL - 15B-23	12265.0	-570.1	-232.1	14423233.30	2444844.30	39.682438	-108.141064

WELL DETAILS: BJU M23A FED 15B-23 496

+N/-S	+E/-W	Ground Level : 8104.0	Northing	Easting	Latitude	Longitude
0.0	0.0		14423810.50	2445058.10	39.684002	-108.140239



Plan: Design #3 (BJU M23A FED 15B-23 496/Wellbore #1)

Created By: Will Jircik

Date: 0:24, January 05 2023



Caerus Oil & Gas

Garfield County, CO

BJU M23A 496 Pad

BJU M23A FED 15B-23 496 - Slot 15B-23

Wellbore #1

Plan: Design #3

KLX Well Planning Report

04 January, 2023



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well BJU M23A FED 15B-23 496 - Slot 15B-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 15B-23 496	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #3		

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 15B-23 496 - Slot 15B-23		
Well Position	+N/-S	-216.2 usft	Northing: 14,423,810.50 usft
	+E/-W	-58.4 usft	Easting: 2,445,058.10 usft
Position Uncertainty		0.0 usft	Wellhead Elevation:
			Latitude: 39.684002
			Longitude: -108.140240
			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 #3				
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	202.15	

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	
400.0	0.00	0.00	400.0	0.0	0.0	0.00	0.00	0.00	0.00	
586.6	5.60	194.45	586.3	-8.8	-2.3	3.00	3.00	0.00	194.45	
6,072.1	5.60	194.45	6,045.7	-527.1	-135.9	0.00	0.00	0.00	0.00	
6,258.8	0.00	0.00	6,232.0	-535.9	-138.1	3.00	-3.00	0.00	180.00	
8,058.8	0.00	0.00	8,032.0	-535.9	-138.1	0.00	0.00	0.00	0.00	OHCR - 15B-23
8,150.0	1.37	250.00	8,123.2	-536.3	-139.1	1.50	1.50	-120.61	250.00	
12,293.0	1.37	250.00	12,265.0	-570.1	-232.1	0.00	0.00	0.00	0.00	PBHL - 15B-23

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well BJU M23A FED 15B-23 496 - Slot 15B-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 15B-23 496	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #3		

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
Build 3° / 100'									
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	3.00	194.45	500.0	-2.5	-0.7	2.6	3.00	3.00	0.00
EOB @ 5.60° Inc. / 194.45° Azm									
586.6	5.60	194.45	586.3	-8.8	-2.3	9.0	3.00	3.00	0.00
600.0	5.60	194.45	599.6	-10.1	-2.6	10.3	0.00	0.00	0.00
700.0	5.60	194.45	699.2	-19.5	-5.0	20.0	0.00	0.00	0.00
800.0	5.60	194.45	798.7	-29.0	-7.5	29.7	0.00	0.00	0.00
900.0	5.60	194.45	898.2	-38.4	-9.9	39.3	0.00	0.00	0.00
1,000.0	5.60	194.45	997.7	-47.9	-12.3	49.0	0.00	0.00	0.00
1,100.0	5.60	194.45	1,097.3	-57.3	-14.8	58.7	0.00	0.00	0.00
1,200.0	5.60	194.45	1,196.8	-66.8	-17.2	68.3	0.00	0.00	0.00
1,300.0	5.60	194.45	1,296.3	-76.2	-19.6	78.0	0.00	0.00	0.00
1,400.0	5.60	194.45	1,395.8	-85.7	-22.1	87.7	0.00	0.00	0.00
1,500.0	5.60	194.45	1,495.3	-95.1	-24.5	97.3	0.00	0.00	0.00
1,600.0	5.60	194.45	1,594.9	-104.6	-27.0	107.0	0.00	0.00	0.00
1,700.0	5.60	194.45	1,694.4	-114.0	-29.4	116.7	0.00	0.00	0.00
1,800.0	5.60	194.45	1,793.9	-123.5	-31.8	126.3	0.00	0.00	0.00
1,900.0	5.60	194.45	1,893.4	-132.9	-34.3	136.0	0.00	0.00	0.00
2,000.0	5.60	194.45	1,993.0	-142.4	-36.7	145.7	0.00	0.00	0.00
2,100.0	5.60	194.45	2,092.5	-151.8	-39.1	155.3	0.00	0.00	0.00
2,200.0	5.60	194.45	2,192.0	-161.2	-41.6	165.0	0.00	0.00	0.00
2,300.0	5.60	194.45	2,291.5	-170.7	-44.0	174.7	0.00	0.00	0.00
2,400.0	5.60	194.45	2,391.1	-180.1	-46.4	184.4	0.00	0.00	0.00
2,500.0	5.60	194.45	2,490.6	-189.6	-48.9	194.0	0.00	0.00	0.00
2,600.0	5.60	194.45	2,590.1	-199.0	-51.3	203.7	0.00	0.00	0.00
2,700.0	5.60	194.45	2,689.6	-208.5	-53.7	213.4	0.00	0.00	0.00
2,800.0	5.60	194.45	2,789.1	-217.9	-56.2	223.0	0.00	0.00	0.00
2,900.0	5.60	194.45	2,888.7	-227.4	-58.6	232.7	0.00	0.00	0.00
3,000.0	5.60	194.45	2,988.2	-236.8	-61.0	242.4	0.00	0.00	0.00
3,100.0	5.60	194.45	3,087.7	-246.3	-63.5	252.0	0.00	0.00	0.00
3,200.0	5.60	194.45	3,187.2	-255.7	-65.9	261.7	0.00	0.00	0.00
3,300.0	5.60	194.45	3,286.8	-265.2	-68.3	271.4	0.00	0.00	0.00
Wasatch									
3,331.4	5.60	194.45	3,318.0	-268.1	-69.1	274.4	0.00	0.00	0.00
3,400.0	5.60	194.45	3,386.3	-274.6	-70.8	281.0	0.00	0.00	0.00
3,500.0	5.60	194.45	3,485.8	-284.1	-73.2	290.7	0.00	0.00	0.00
3,600.0	5.60	194.45	3,585.3	-293.5	-75.7	300.4	0.00	0.00	0.00
3,700.0	5.60	194.45	3,684.9	-303.0	-78.1	310.0	0.00	0.00	0.00
3,800.0	5.60	194.45	3,784.4	-312.4	-80.5	319.7	0.00	0.00	0.00
3,900.0	5.60	194.45	3,883.9	-321.9	-83.0	329.4	0.00	0.00	0.00
4,000.0	5.60	194.45	3,983.4	-331.3	-85.4	339.0	0.00	0.00	0.00
4,100.0	5.60	194.45	4,082.9	-340.7	-87.8	348.7	0.00	0.00	0.00
4,200.0	5.60	194.45	4,182.5	-350.2	-90.3	358.4	0.00	0.00	0.00
4,300.0	5.60	194.45	4,282.0	-359.6	-92.7	368.0	0.00	0.00	0.00
4,400.0	5.60	194.45	4,381.5	-369.1	-95.1	377.7	0.00	0.00	0.00
4,500.0	5.60	194.45	4,481.0	-378.5	-97.6	387.4	0.00	0.00	0.00
4,600.0	5.60	194.45	4,580.6	-388.0	-100.0	397.1	0.00	0.00	0.00
4,700.0	5.60	194.45	4,680.1	-397.4	-102.4	406.7	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well BJU M23A FED 15B-23 496 - Slot 15B-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 15B-23 496	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #3		

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	5.60	194.45	4,779.6	-406.9	-104.9	416.4	0.00	0.00	0.00
4,900.0	5.60	194.45	4,879.1	-416.3	-107.3	426.1	0.00	0.00	0.00
5,000.0	5.60	194.45	4,978.6	-425.8	-109.7	435.7	0.00	0.00	0.00
5,100.0	5.60	194.45	5,078.2	-435.2	-112.2	445.4	0.00	0.00	0.00
5,200.0	5.60	194.45	5,177.7	-444.7	-114.6	455.1	0.00	0.00	0.00
5,300.0	5.60	194.45	5,277.2	-454.1	-117.1	464.7	0.00	0.00	0.00
5,400.0	5.60	194.45	5,376.7	-463.6	-119.5	474.4	0.00	0.00	0.00
5,500.0	5.60	194.45	5,476.3	-473.0	-121.9	484.1	0.00	0.00	0.00
5,600.0	5.60	194.45	5,575.8	-482.5	-124.4	493.7	0.00	0.00	0.00
5,700.0	5.60	194.45	5,675.3	-491.9	-126.8	503.4	0.00	0.00	0.00
Wasatch G									
5,742.9	5.60	194.45	5,718.0	-496.0	-127.8	507.6	0.00	0.00	0.00
5,800.0	5.60	194.45	5,774.8	-501.4	-129.2	513.1	0.00	0.00	0.00
5,900.0	5.60	194.45	5,874.4	-510.8	-131.7	522.7	0.00	0.00	0.00
6,000.0	5.60	194.45	5,973.9	-520.3	-134.1	532.4	0.00	0.00	0.00
Fort Union									
6,044.3	5.60	194.45	6,018.0	-524.4	-135.2	536.7	0.00	0.00	0.00
Drop 3° /100'									
6,072.1	5.60	194.45	6,045.7	-527.1	-135.9	539.4	0.00	0.00	0.00
6,100.0	4.76	194.45	6,073.4	-529.5	-136.5	541.9	3.00	-3.00	0.00
6,200.0	1.76	194.45	6,173.2	-535.0	-137.9	547.5	3.00	-3.00	0.00
EOD @ Vertical									
6,258.8	0.00	0.00	6,232.0	-535.9	-138.1	548.4	3.00	-3.00	0.00
6,300.0	0.00	0.00	6,273.2	-535.9	-138.1	548.4	0.00	0.00	0.00
6,400.0	0.00	0.00	6,373.2	-535.9	-138.1	548.4	0.00	0.00	0.00
6,500.0	0.00	0.00	6,473.2	-535.9	-138.1	548.4	0.00	0.00	0.00
6,600.0	0.00	0.00	6,573.2	-535.9	-138.1	548.4	0.00	0.00	0.00
6,700.0	0.00	0.00	6,673.2	-535.9	-138.1	548.4	0.00	0.00	0.00
6,800.0	0.00	0.00	6,773.2	-535.9	-138.1	548.4	0.00	0.00	0.00
6,900.0	0.00	0.00	6,873.2	-535.9	-138.1	548.4	0.00	0.00	0.00
7,000.0	0.00	0.00	6,973.2	-535.9	-138.1	548.4	0.00	0.00	0.00
7,100.0	0.00	0.00	7,073.2	-535.9	-138.1	548.4	0.00	0.00	0.00
7,200.0	0.00	0.00	7,173.2	-535.9	-138.1	548.4	0.00	0.00	0.00
7,300.0	0.00	0.00	7,273.2	-535.9	-138.1	548.4	0.00	0.00	0.00
7,400.0	0.00	0.00	7,373.2	-535.9	-138.1	548.4	0.00	0.00	0.00
7,500.0	0.00	0.00	7,473.2	-535.9	-138.1	548.4	0.00	0.00	0.00
7,600.0	0.00	0.00	7,573.2	-535.9	-138.1	548.4	0.00	0.00	0.00
7,700.0	0.00	0.00	7,673.2	-535.9	-138.1	548.4	0.00	0.00	0.00
7,800.0	0.00	0.00	7,773.2	-535.9	-138.1	548.4	0.00	0.00	0.00
7,900.0	0.00	0.00	7,873.2	-535.9	-138.1	548.4	0.00	0.00	0.00
8,000.0	0.00	0.00	7,973.2	-535.9	-138.1	548.4	0.00	0.00	0.00
Build 1.5° / 100' - Ohio Creek									
8,058.8	0.00	0.00	8,032.0	-535.9	-138.1	548.4	0.00	0.00	0.00
8,100.0	0.62	250.00	8,073.2	-536.0	-138.3	548.6	1.50	1.50	0.00
EOB @ 1.37° Inc. / 250.00° Azm									
8,150.0	1.37	250.00	8,123.2	-536.3	-139.1	549.1	1.50	1.50	0.00
8,200.0	1.37	250.00	8,173.2	-536.7	-140.3	549.9	0.00	0.00	0.00
8,300.0	1.37	250.00	8,273.2	-537.5	-142.5	551.5	0.00	0.00	0.00
8,400.0	1.37	250.00	8,373.2	-538.3	-144.8	553.2	0.00	0.00	0.00
Williams Fork									
8,405.8	1.37	250.00	8,379.0	-538.4	-144.9	553.2	0.00	0.00	0.00
8,500.0	1.37	250.00	8,473.1	-539.1	-147.0	554.8	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 15B-23 496	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #3		

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)
8,600.0	1.37	250.00	8,573.1	-539.9	-149.2	556.4	0.00	0.00	0.00
8,700.0	1.37	250.00	8,673.1	-540.8	-151.5	558.0	0.00	0.00	0.00
8,800.0	1.37	250.00	8,773.0	-541.6	-153.7	559.6	0.00	0.00	0.00
8,900.0	1.37	250.00	8,873.0	-542.4	-156.0	561.2	0.00	0.00	0.00
9,000.0	1.37	250.00	8,973.0	-543.2	-158.2	562.8	0.00	0.00	0.00
9,100.0	1.37	250.00	9,073.0	-544.0	-160.5	564.4	0.00	0.00	0.00
9,200.0	1.37	250.00	9,172.9	-544.8	-162.7	566.0	0.00	0.00	0.00
9,300.0	1.37	250.00	9,272.9	-545.7	-164.9	567.6	0.00	0.00	0.00
9,400.0	1.37	250.00	9,372.9	-546.5	-167.2	569.2	0.00	0.00	0.00
9,500.0	1.37	250.00	9,472.8	-547.3	-169.4	570.8	0.00	0.00	0.00
9,600.0	1.37	250.00	9,572.8	-548.1	-171.7	572.4	0.00	0.00	0.00
9,700.0	1.37	250.00	9,672.8	-548.9	-173.9	574.0	0.00	0.00	0.00
9,800.0	1.37	250.00	9,772.8	-549.7	-176.2	575.6	0.00	0.00	0.00
9,900.0	1.37	250.00	9,872.7	-550.6	-178.4	577.2	0.00	0.00	0.00
10,000.0	1.37	250.00	9,972.7	-551.4	-180.7	578.8	0.00	0.00	0.00
10,100.0	1.37	250.00	10,072.7	-552.2	-182.9	580.4	0.00	0.00	0.00
10,200.0	1.37	250.00	10,172.6	-553.0	-185.1	582.0	0.00	0.00	0.00
10,300.0	1.37	250.00	10,272.6	-553.8	-187.4	583.6	0.00	0.00	0.00
10,400.0	1.37	250.00	10,372.6	-554.6	-189.6	585.2	0.00	0.00	0.00
10,500.0	1.37	250.00	10,472.6	-555.4	-191.9	586.8	0.00	0.00	0.00
10,600.0	1.37	250.00	10,572.5	-556.3	-194.1	588.4	0.00	0.00	0.00
10,700.0	1.37	250.00	10,672.5	-557.1	-196.4	590.0	0.00	0.00	0.00
10,800.0	1.37	250.00	10,772.5	-557.9	-198.6	591.6	0.00	0.00	0.00
10,900.0	1.37	250.00	10,872.4	-558.7	-200.8	593.2	0.00	0.00	0.00
11,000.0	1.37	250.00	10,972.4	-559.5	-203.1	594.8	0.00	0.00	0.00
11,100.0	1.37	250.00	11,072.4	-560.3	-205.3	596.4	0.00	0.00	0.00
11,200.0	1.37	250.00	11,172.4	-561.2	-207.6	598.0	0.00	0.00	0.00
Cameo									
11,292.7	1.37	250.00	11,265.0	-561.9	-209.7	599.5	0.00	0.00	0.00
11,300.0	1.37	250.00	11,272.3	-562.0	-209.8	599.6	0.00	0.00	0.00
11,400.0	1.37	250.00	11,372.3	-562.8	-212.1	601.2	0.00	0.00	0.00
11,500.0	1.37	250.00	11,472.3	-563.6	-214.3	602.8	0.00	0.00	0.00
11,600.0	1.37	250.00	11,572.2	-564.4	-216.5	604.4	0.00	0.00	0.00
11,700.0	1.37	250.00	11,672.2	-565.2	-218.8	606.0	0.00	0.00	0.00
Rollins									
11,792.8	1.37	250.00	11,765.0	-566.0	-220.9	607.5	0.00	0.00	0.00
11,800.0	1.37	250.00	11,772.2	-566.1	-221.0	607.6	0.00	0.00	0.00
11,900.0	1.37	250.00	11,872.2	-566.9	-223.3	609.2	0.00	0.00	0.00
12,000.0	1.37	250.00	11,972.1	-567.7	-225.5	610.8	0.00	0.00	0.00
12,100.0	1.37	250.00	12,072.1	-568.5	-227.8	612.4	0.00	0.00	0.00
12,200.0	1.37	250.00	12,172.1	-569.3	-230.0	614.0	0.00	0.00	0.00
TD @ 12293.0' MD / 12265.0' TVD									
12,293.0	1.37	250.00	12,265.0	-570.1	-232.1	615.5	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well BJU M23A FED 15B-23 496 - Slot 15B-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 15B-23 496	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #3		

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 - 15B-23 - plan hits target center - Point	0.00	0.00	8,032.0	-535.9	-138.1	14,423,270.48	2,444,937.13	39.682532	-108.140730
PBHL - 15B-23 - plan hits target center - Ellipse (radii L100.0 W50.0 on 250.00 azi)	0.00	0.00	12,265.0	-570.1	-232.1	14,423,233.30	2,444,844.30	39.682438	-108.141064

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,331.4	3,318.0	Wasatch			
5,742.9	5,718.0	Wasatch G			
6,044.3	6,018.0	Fort Union			
8,058.8	8,032.0	Ohio Creek			
8,405.8	8,379.0	Williams Fork			
11,292.7	11,265.0	Cameo			
11,792.8	11,765.0	Rollins			

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
400.0	400.0	0.0	0.0	Build 3° / 100'
586.6	586.3	-8.8	-2.3	EOB @ 5.60° Inc. / 194.45° Azm
6,072.1	6,045.7	-527.1	-135.9	Drop 3° / 100'
6,258.8	6,232.0	-535.9	-138.1	EOD @ Vertical
8,058.8	8,032.0	-535.9	-138.1	Build 1.5° / 100'
8,150.0	8,123.2	-536.3	-139.1	EOB @ 1.37° Inc. / 250.00° Azm
12,293.0	12,265.0	-570.1	-232.1	TD @ 12293.0' MD / 12265.0' TVD