





Caerus Oil & Gas

Garfield County, CO

BJU M23A 496 Pad

BJU M23A FED 14D-23 496 - Slot 14D-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 14D-23 496 - Slot 14D-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 14D-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 14D-23 496 - Slot 14D-23		
Well Position	+N/-S	-164.1 usft	Northing: 14,423,863.10 usft
	+E/-W	-44.4 usft	Easting: 2,445,070.50 usft
Position Uncertainty	0.0 usft		Latitude: 39.684146
		Wellhead Elevation:	Longitude: -108.140190
			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	268.00	

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		
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.00	0.00	0.00	0.00		
3,066.5	5.00	275.55	3,066.3	0.7	-7.2	3.00	3.00	0.00	275.55		
5,600.5	5.00	275.55	5,590.7	22.1	-226.8	0.00	0.00	0.00	0.00		
5,767.0	0.00	0.00	5,757.0	22.8	-234.1	3.00	-3.00	0.00	180.00		
8,097.0	0.00	0.00	8,087.0	22.8	-234.1	0.00	0.00	0.00	0.00	OHCR - 14D-23	
8,188.8	1.38	250.00	8,178.7	22.4	-235.1	1.50	1.50	-119.91	250.00		
12,307.2	1.38	250.00	12,296.0	-11.4	-328.0	0.00	0.00	0.00	0.00	PBHL - 14D-23	



KLX Directional Drilling Well Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well BJU M23A FED 14D-23 496 - Slot 14D-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 14D-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
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
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
Build 3° / 100'									
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	3.00	275.55	3,000.0	0.3	-2.6	2.6	3.00	3.00	0.00
EOB @ 5.00° Inc. / 275.55° Azm									
3,066.5	5.00	275.55	3,066.3	0.7	-7.2	7.2	3.00	3.00	0.00
3,100.0	5.00	275.55	3,099.7	1.0	-10.1	10.1	0.00	0.00	0.00
3,200.0	5.00	275.55	3,199.3	1.8	-18.8	18.7	0.00	0.00	0.00
3,300.0	5.00	275.55	3,298.9	2.7	-27.5	27.3	0.00	0.00	0.00
Wasatch									
3,368.4	5.00	275.55	3,367.0	3.2	-33.4	33.2	0.00	0.00	0.00
3,400.0	5.00	275.55	3,398.5	3.5	-36.1	36.0	0.00	0.00	0.00
3,500.0	5.00	275.55	3,498.1	4.4	-44.8	44.6	0.00	0.00	0.00
3,600.0	5.00	275.55	3,597.8	5.2	-53.5	53.2	0.00	0.00	0.00
3,700.0	5.00	275.55	3,697.4	6.0	-62.1	61.9	0.00	0.00	0.00
3,800.0	5.00	275.55	3,797.0	6.9	-70.8	70.5	0.00	0.00	0.00
3,900.0	5.00	275.55	3,896.6	7.7	-79.5	79.1	0.00	0.00	0.00
4,000.0	5.00	275.55	3,996.2	8.6	-88.1	87.8	0.00	0.00	0.00
4,100.0	5.00	275.55	4,095.9	9.4	-96.8	96.4	0.00	0.00	0.00
4,200.0	5.00	275.55	4,195.5	10.3	-105.5	105.0	0.00	0.00	0.00
4,300.0	5.00	275.55	4,295.1	11.1	-114.1	113.7	0.00	0.00	0.00
4,400.0	5.00	275.55	4,394.7	11.9	-122.8	122.3	0.00	0.00	0.00
4,500.0	5.00	275.55	4,494.3	12.8	-131.5	130.9	0.00	0.00	0.00
4,600.0	5.00	275.55	4,594.0	13.6	-140.1	139.6	0.00	0.00	0.00
4,700.0	5.00	275.55	4,693.6	14.5	-148.8	148.2	0.00	0.00	0.00

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Site:	BJU M23A 496 Pad	North Reference:	True
Well:	BJU M23A FED 14D-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	5.00	275.55	4,793.2	15.3	-157.5	156.8	0.00	0.00	0.00
4,900.0	5.00	275.55	4,892.8	16.2	-166.1	165.5	0.00	0.00	0.00
5,000.0	5.00	275.55	4,992.4	17.0	-174.8	174.1	0.00	0.00	0.00
5,100.0	5.00	275.55	5,092.1	17.8	-183.5	182.7	0.00	0.00	0.00
5,200.0	5.00	275.55	5,191.7	18.7	-192.1	191.4	0.00	0.00	0.00
5,300.0	5.00	275.55	5,291.3	19.5	-200.8	200.0	0.00	0.00	0.00
5,400.0	5.00	275.55	5,390.9	20.4	-209.5	208.6	0.00	0.00	0.00
5,500.0	5.00	275.55	5,490.5	21.2	-218.1	217.3	0.00	0.00	0.00
Drop 3° /100'									
5,600.5	5.00	275.55	5,590.7	22.1	-226.8	225.9	0.00	0.00	0.00
5,700.0	2.01	275.55	5,690.0	22.6	-232.9	232.0	3.00	-3.00	0.00
EOD @ Vertical									
5,767.0	0.00	0.00	5,757.0	22.8	-234.1	233.1	3.00	-3.00	0.00
Wasatch G									
5,777.0	0.00	0.00	5,767.0	22.8	-234.1	233.1	0.00	0.00	0.00
5,800.0	0.00	0.00	5,790.0	22.8	-234.1	233.1	0.00	0.00	0.00
5,900.0	0.00	0.00	5,890.0	22.8	-234.1	233.1	0.00	0.00	0.00
6,000.0	0.00	0.00	5,990.0	22.8	-234.1	233.1	0.00	0.00	0.00
Fort Union									
6,077.0	0.00	0.00	6,067.0	22.8	-234.1	233.1	0.00	0.00	0.00
6,100.0	0.00	0.00	6,090.0	22.8	-234.1	233.1	0.00	0.00	0.00
6,200.0	0.00	0.00	6,190.0	22.8	-234.1	233.1	0.00	0.00	0.00
6,300.0	0.00	0.00	6,290.0	22.8	-234.1	233.1	0.00	0.00	0.00
6,400.0	0.00	0.00	6,390.0	22.8	-234.1	233.1	0.00	0.00	0.00
6,500.0	0.00	0.00	6,490.0	22.8	-234.1	233.1	0.00	0.00	0.00
6,600.0	0.00	0.00	6,590.0	22.8	-234.1	233.1	0.00	0.00	0.00
6,700.0	0.00	0.00	6,690.0	22.8	-234.1	233.1	0.00	0.00	0.00
6,800.0	0.00	0.00	6,790.0	22.8	-234.1	233.1	0.00	0.00	0.00
6,900.0	0.00	0.00	6,890.0	22.8	-234.1	233.1	0.00	0.00	0.00
7,000.0	0.00	0.00	6,990.0	22.8	-234.1	233.1	0.00	0.00	0.00
7,100.0	0.00	0.00	7,090.0	22.8	-234.1	233.1	0.00	0.00	0.00
7,200.0	0.00	0.00	7,190.0	22.8	-234.1	233.1	0.00	0.00	0.00
7,300.0	0.00	0.00	7,290.0	22.8	-234.1	233.1	0.00	0.00	0.00
7,400.0	0.00	0.00	7,390.0	22.8	-234.1	233.1	0.00	0.00	0.00
7,500.0	0.00	0.00	7,490.0	22.8	-234.1	233.1	0.00	0.00	0.00
7,600.0	0.00	0.00	7,590.0	22.8	-234.1	233.1	0.00	0.00	0.00
7,700.0	0.00	0.00	7,690.0	22.8	-234.1	233.1	0.00	0.00	0.00
7,800.0	0.00	0.00	7,790.0	22.8	-234.1	233.1	0.00	0.00	0.00
7,900.0	0.00	0.00	7,890.0	22.8	-234.1	233.1	0.00	0.00	0.00
8,000.0	0.00	0.00	7,990.0	22.8	-234.1	233.1	0.00	0.00	0.00
Build 1.5° / 100' - Ohio Creek									
8,097.0	0.00	0.00	8,087.0	22.8	-234.1	233.1	0.00	0.00	0.00
8,100.0	0.04	250.00	8,090.0	22.8	-234.1	233.1	1.50	1.50	0.00
EOB @ 1.38° Inc. / 250.00° Azm									
8,188.8	1.38	250.00	8,178.7	22.4	-235.1	234.2	1.50	1.50	0.00
8,200.0	1.38	250.00	8,189.9	22.3	-235.4	234.4	0.00	0.00	0.00
8,300.0	1.38	250.00	8,289.9	21.5	-237.6	236.7	0.00	0.00	0.00
8,400.0	1.38	250.00	8,389.9	20.6	-239.9	239.0	0.00	0.00	0.00
Williams Fork									
8,464.1	1.38	250.00	8,454.0	20.1	-241.3	240.5	0.00	0.00	0.00
8,500.0	1.38	250.00	8,489.9	19.8	-242.1	241.3	0.00	0.00	0.00
8,600.0	1.38	250.00	8,589.8	19.0	-244.4	243.6	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 14D-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)
8,700.0	1.38	250.00	8,689.8	18.2	-246.6	245.9	0.00	0.00	0.00
8,800.0	1.38	250.00	8,789.8	17.4	-248.9	248.1	0.00	0.00	0.00
8,900.0	1.38	250.00	8,889.7	16.5	-251.1	250.4	0.00	0.00	0.00
9,000.0	1.38	250.00	8,989.7	15.7	-253.4	252.7	0.00	0.00	0.00
9,100.0	1.38	250.00	9,089.7	14.9	-255.7	255.0	0.00	0.00	0.00
9,200.0	1.38	250.00	9,189.7	14.1	-257.9	257.3	0.00	0.00	0.00
9,300.0	1.38	250.00	9,289.6	13.3	-260.2	259.6	0.00	0.00	0.00
9,400.0	1.38	250.00	9,389.6	12.4	-262.4	261.8	0.00	0.00	0.00
9,500.0	1.38	250.00	9,489.6	11.6	-264.7	264.1	0.00	0.00	0.00
9,600.0	1.38	250.00	9,589.5	10.8	-266.9	266.4	0.00	0.00	0.00
9,700.0	1.38	250.00	9,689.5	10.0	-269.2	268.7	0.00	0.00	0.00
9,800.0	1.38	250.00	9,789.5	9.1	-271.5	271.0	0.00	0.00	0.00
9,900.0	1.38	250.00	9,889.5	8.3	-273.7	273.3	0.00	0.00	0.00
10,000.0	1.38	250.00	9,989.4	7.5	-276.0	275.5	0.00	0.00	0.00
10,100.0	1.38	250.00	10,089.4	6.7	-278.2	277.8	0.00	0.00	0.00
10,200.0	1.38	250.00	10,189.4	5.9	-280.5	280.1	0.00	0.00	0.00
10,300.0	1.38	250.00	10,289.3	5.0	-282.7	282.4	0.00	0.00	0.00
10,400.0	1.38	250.00	10,389.3	4.2	-285.0	284.7	0.00	0.00	0.00
10,500.0	1.38	250.00	10,489.3	3.4	-287.3	287.0	0.00	0.00	0.00
10,600.0	1.38	250.00	10,589.2	2.6	-289.5	289.2	0.00	0.00	0.00
10,700.0	1.38	250.00	10,689.2	1.8	-291.8	291.5	0.00	0.00	0.00
10,800.0	1.38	250.00	10,789.2	0.9	-294.0	293.8	0.00	0.00	0.00
10,900.0	1.38	250.00	10,889.2	0.1	-296.3	296.1	0.00	0.00	0.00
11,000.0	1.38	250.00	10,989.1	-0.7	-298.5	298.4	0.00	0.00	0.00
11,100.0	1.38	250.00	11,089.1	-1.5	-300.8	300.7	0.00	0.00	0.00
11,200.0	1.38	250.00	11,189.1	-2.4	-303.0	302.9	0.00	0.00	0.00
11,300.0	1.38	250.00	11,289.0	-3.2	-305.3	305.2	0.00	0.00	0.00
Cameo									
11,307.0	1.38	250.00	11,296.0	-3.2	-305.5	305.4	0.00	0.00	0.00
11,400.0	1.38	250.00	11,389.0	-4.0	-307.6	307.5	0.00	0.00	0.00
11,500.0	1.38	250.00	11,489.0	-4.8	-309.8	309.8	0.00	0.00	0.00
11,600.0	1.38	250.00	11,589.0	-5.6	-312.1	312.1	0.00	0.00	0.00
11,700.0	1.38	250.00	11,688.9	-6.5	-314.3	314.4	0.00	0.00	0.00
11,800.0	1.38	250.00	11,788.9	-7.3	-316.6	316.6	0.00	0.00	0.00
Rollins									
11,807.1	1.38	250.00	11,796.0	-7.3	-316.7	316.8	0.00	0.00	0.00
11,900.0	1.38	250.00	11,888.9	-8.1	-318.8	318.9	0.00	0.00	0.00
12,000.0	1.38	250.00	11,988.8	-8.9	-321.1	321.2	0.00	0.00	0.00
12,100.0	1.38	250.00	12,088.8	-9.7	-323.4	323.5	0.00	0.00	0.00
12,200.0	1.38	250.00	12,188.8	-10.6	-325.6	325.8	0.00	0.00	0.00
TD @ 12307.2' MD / 12296.0' TVD									
12,307.2	1.38	250.00	12,296.0	-11.4	-328.0	328.2	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well BJU M23A FED 14D-23 496 - Slot 14D-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 14D-23 496	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #3		

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 - 14D-23	0.00	0.00	8,087.0	22.8	-234.1	14,423,878.38	2,444,835.83	39.684208	-108.141021
- plan hits target center									
- Point									
PBHL - 14D-23	0.00	0.00	12,296.0	-11.4	-328.0	14,423,841.20	2,444,743.00	39.684114	-108.141355
- 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 (°)
3,368.4	3,367.0	Wasatch			
5,777.0	5,767.0	Wasatch G			
6,077.0	6,067.0	Fort Union			
8,097.0	8,087.0	Ohio Creek			
8,464.1	8,454.0	Williams Fork			
11,307.0	11,296.0	Cameo			
11,807.1	11,796.0	Rollins			

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment
2,900.0	2,900.0	0.0	0.0	Build 3° / 100'
3,066.5	3,066.3	0.7	-7.2	EOB @ 5.00° Inc. / 275.55° Azm
5,600.5	5,590.7	22.1	-226.8	Drop 3° / 100'
5,767.0	5,757.0	22.8	-234.1	EOD @ Vertical
8,097.0	8,087.0	22.8	-234.1	Build 1.5° / 100'
8,188.8	8,178.7	22.4	-235.1	EOB @ 1.38° Inc. / 250.00° Azm
12,307.2	12,296.0	-11.4	-328.0	TD @ 12307.2' MD / 12296.0' TVD