

Project: Garfield County, CO
 Site: NPM M33 496 Pad
 Well: BJU M33 FED 25A-32 496
 Wellbore: Wellbore #1
 Design: Design #2
 Latitude: 39.653368
 Longitude: -108.177813
 Ground Level: 8401.0
 RKB @ 8431.0usft (H&P #329)

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
2212.0	2260.4	Wasatch
5212.0	5375.2	Wasatch G
5504.0	5678.4	Fort Union
7362.0	7594.2	Ohio Creek
7624.0	7856.3	TOG
7624.0	7856.3	Williams Fork
10155.0	10388.3	Cameo
10802.0	11035.5	Rollins

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well BJU M33 FED 25A-32 496 - Slot BJU M33 FED 25A-32 496, True North
 Vertical (TVD) Reference: RKB @ 8431.0usft (H&P #329)
 Section (VS) Reference: Slot - BJU M33 FED 25A-32 496(0.0N, 0.0E)
 Measured Depth Reference: RKB @ 8431.0usft (H&P #329)
 Calculation Method: Minimum Curvature

WELL DETAILS: BJU M33 FED 25A-32 496

8401.0
 +N/-S 0.0 +E/-W 0.0 Northing 14412318.70 Easting 2434835.50 Latitude 39.653368 Longitude -108.177813

PROJECT DETAILS: Garfield County, CO

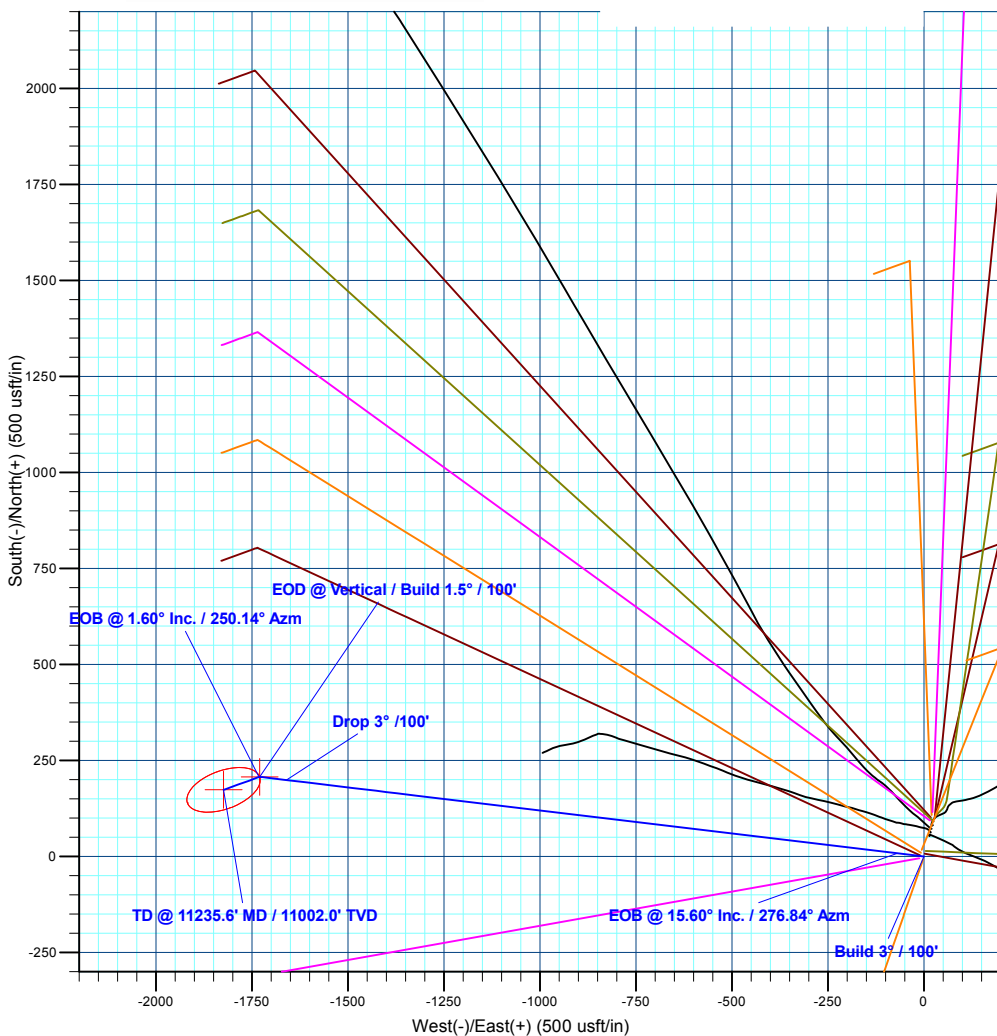
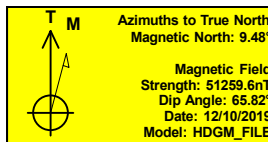
Geodetic System: Universal Transverse Mercator (US Survey Feet)
 Datum: NAD 1927 - Western US
 Ellipsoid: Clarke 1866
 Zone: Zone 12N (114 W to 108 W)
 System Datum: Mean Sea Level

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
OHCR - D#2 - BJ M33 25A-32 496	7362.0	207.5	-1729.9	14412471.68	2433099.95	39.653938	-108.183955
PBHL - D#2 - BJ M33 25A-32 496	11002.0	173.5	-1823.8	14412434.80	2433007.10	39.653844	-108.184289

SECTION DETAILS

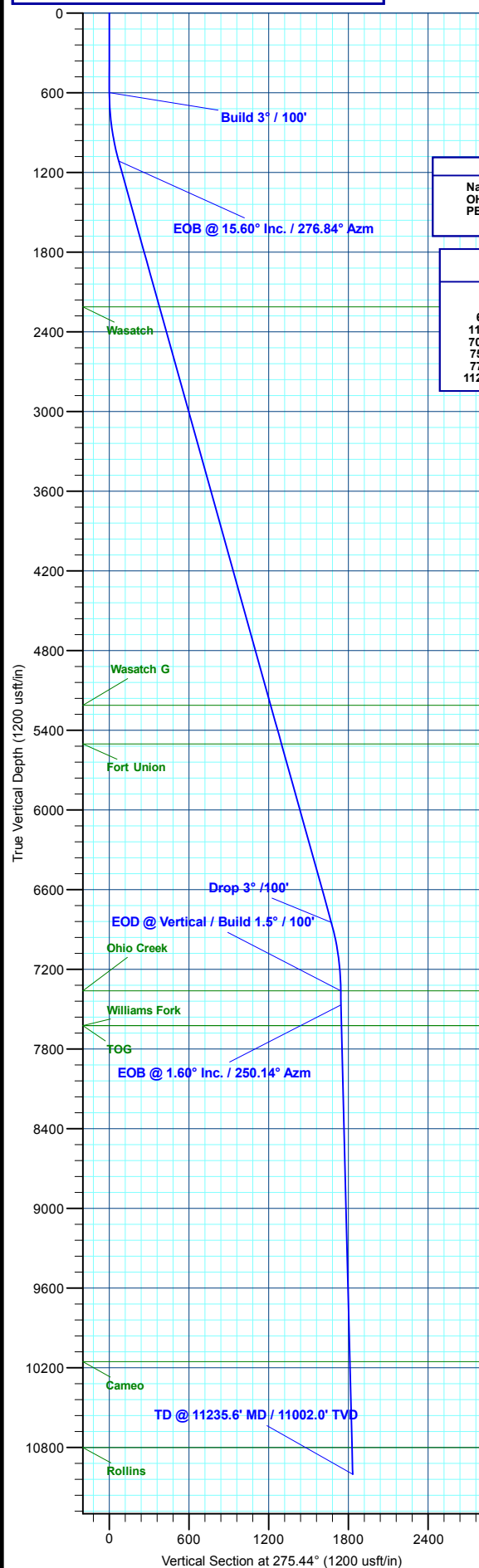
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
600.0	0.00	0.00	600.0	0.0	0.0	0.00	0.00	0.0	Build 3° / 100'
1120.1	15.60	276.84	1113.7	8.4	-69.9	3.00	276.84	70.4	EOB @ 15.60° Inc. / 276.84° Azm
7074.1	15.60	276.84	6848.3	199.1	-1660.0	0.00	0.00	1671.4	Drop 3° / 100'
7594.2	0.00	0.00	7362.0	207.5	-1729.9	3.00	180.00	1741.8	EOD @ Vertical / Build 1.5° / 100'
7700.6	1.60	250.14	7468.4	207.0	-1731.3	1.50	250.14	1743.1	EOB @ 1.60° Inc. / 250.14° Azm
11235.6	1.60	250.14	11002.0	173.5	-1823.8	0.00	0.00	1832.1	TD @ 11235.6° MD / 11002.0° TVD



Plan: Design #2 (BJU M33 FED 25A-32 496/Wellbore #1)

Created By: Will Jircik

Date: 13:29, January 16 2020





Caerus Oil & Gas

Garfield County, CO

NPM M33 496 Pad

BJU M33 FED 25A-32 496 - Slot BJU M33 FED 25A-32 496

Wellbore #1

Plan: Design #2

QES Well Planning Report

16 January, 2020



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well BJU M33 FED 25A-32 496 - Slot BJU M33 FED 25A-32 496
Company:	Caerus Oil & Gas	TVD Reference:	RKB @ 8431.0usft (H&P #329)
Project:	Garfield County, CO	MD Reference:	RKB @ 8431.0usft (H&P #329)
Site:	NPM M33 496 Pad	North Reference:	True
Well:	BJU M33 FED 25A-32 496	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	NPM M33 496 Pad		
Site Position:		Northing:	14,415,354.00 usft
From:	Map	Easting:	2,447,010.80 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	39.660635
		Longitude:	-108.134267
		Grid Convergence:	1.83 °

Well	BJU M33 FED 25A-32 496 - Slot BJU M33 FED 25A-32 496		
Well Position	+N/-S	-2,644.9 usft	Northing: 14,412,318.70 usft
	+E/-W	-12,266.0 usft	Easting: 2,434,835.50 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	Latitude: 39.653368
			Longitude: -108.177814
			Ground Level: 8,401.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM_FILE	12/10/2019	9.48	65.82	51,259.60000000

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	275.44

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	
600.0	0.00	0.00	600.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,120.1	15.60	276.84	1,113.7	8.4	-69.9	3.00	3.00	0.00	276.84	
7,074.1	15.60	276.84	6,848.3	199.1	-1,660.0	0.00	0.00	0.00	0.00	
7,594.2	0.00	0.00	7,362.0	207.5	-1,729.9	3.00	-3.00	0.00	180.00	OHCR - D#2 - BJ M
7,700.6	1.60	250.14	7,468.4	207.0	-1,731.3	1.50	1.50	-103.29	250.14	
11,235.6	1.60	250.14	11,002.0	173.5	-1,823.8	0.00	0.00	0.00	0.00	PBHL - D#2 - BJ M

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well BJU M33 FED 25A-32 496 - Slot BJU M33 FED 25A-32 496
Company:	Caerus Oil & Gas	TVD Reference:	RKB @ 8431.0usft (H&P #329)
Project:	Garfield County, CO	MD Reference:	RKB @ 8431.0usft (H&P #329)
Site:	NPM M33 496 Pad	North Reference:	True
Well:	BJU M33 FED 25A-32 496	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	
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00	
Build 3° / 100'										
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00	
700.0	3.00	276.84	700.0	0.3	-2.6	2.6	3.00	3.00	0.00	
800.0	6.00	276.84	799.6	1.2	-10.4	10.5	3.00	3.00	0.00	
900.0	9.00	276.84	898.8	2.8	-23.3	23.5	3.00	3.00	0.00	
1,000.0	12.00	276.84	997.1	5.0	-41.4	41.7	3.00	3.00	0.00	
1,100.0	15.00	276.84	1,094.3	7.7	-64.6	65.1	3.00	3.00	0.00	
EOB @ 15.60° Inc. / 276.84° Azm										
1,120.1	15.60	276.84	1,113.7	8.4	-69.9	70.4	3.00	3.00	0.00	
1,200.0	15.60	276.84	1,190.7	10.9	-91.2	91.8	0.00	0.00	0.00	
1,300.0	15.60	276.84	1,287.0	14.1	-117.9	118.7	0.00	0.00	0.00	
1,400.0	15.60	276.84	1,383.3	17.3	-144.6	145.6	0.00	0.00	0.00	
1,500.0	15.60	276.84	1,479.6	20.5	-171.3	172.5	0.00	0.00	0.00	
1,600.0	15.60	276.84	1,575.9	23.8	-198.0	199.4	0.00	0.00	0.00	
1,700.0	15.60	276.84	1,672.2	27.0	-224.8	226.3	0.00	0.00	0.00	
1,800.0	15.60	276.84	1,768.5	30.2	-251.5	253.2	0.00	0.00	0.00	
1,900.0	15.60	276.84	1,864.9	33.4	-278.2	280.1	0.00	0.00	0.00	
2,000.0	15.60	276.84	1,961.2	36.6	-304.9	307.0	0.00	0.00	0.00	
2,100.0	15.60	276.84	2,057.5	39.8	-331.6	333.9	0.00	0.00	0.00	
2,200.0	15.60	276.84	2,153.8	43.0	-358.3	360.7	0.00	0.00	0.00	
Wasatch										
2,260.4	15.60	276.84	2,212.0	44.9	-374.4	377.0	0.00	0.00	0.00	
2,300.0	15.60	276.84	2,250.1	46.2	-385.0	387.6	0.00	0.00	0.00	
2,400.0	15.60	276.84	2,346.4	49.4	-411.7	414.5	0.00	0.00	0.00	
2,500.0	15.60	276.84	2,442.7	52.6	-438.4	441.4	0.00	0.00	0.00	
2,600.0	15.60	276.84	2,539.1	55.8	-465.1	468.3	0.00	0.00	0.00	
2,700.0	15.60	276.84	2,635.4	59.0	-491.8	495.2	0.00	0.00	0.00	
2,800.0	15.60	276.84	2,731.7	62.2	-518.5	522.1	0.00	0.00	0.00	
2,900.0	15.60	276.84	2,828.0	65.4	-545.2	549.0	0.00	0.00	0.00	
3,000.0	15.60	276.84	2,924.3	68.6	-571.9	575.9	0.00	0.00	0.00	
3,100.0	15.60	276.84	3,020.6	71.8	-598.6	602.8	0.00	0.00	0.00	
3,200.0	15.60	276.84	3,116.9	75.0	-625.4	629.6	0.00	0.00	0.00	
3,300.0	15.60	276.84	3,213.3	78.2	-652.1	656.5	0.00	0.00	0.00	
3,400.0	15.60	276.84	3,309.6	81.4	-678.8	683.4	0.00	0.00	0.00	
3,500.0	15.60	276.84	3,405.9	84.6	-705.5	710.3	0.00	0.00	0.00	
3,600.0	15.60	276.84	3,502.2	87.8	-732.2	737.2	0.00	0.00	0.00	
3,700.0	15.60	276.84	3,598.5	91.0	-758.9	764.1	0.00	0.00	0.00	
3,800.0	15.60	276.84	3,694.8	94.2	-785.6	791.0	0.00	0.00	0.00	
3,900.0	15.60	276.84	3,791.1	97.4	-812.3	817.9	0.00	0.00	0.00	
4,000.0	15.60	276.84	3,887.5	100.6	-839.0	844.8	0.00	0.00	0.00	
4,100.0	15.60	276.84	3,983.8	103.8	-865.7	871.7	0.00	0.00	0.00	
4,200.0	15.60	276.84	4,080.1	107.0	-892.4	898.5	0.00	0.00	0.00	
4,300.0	15.60	276.84	4,176.4	110.2	-919.1	925.4	0.00	0.00	0.00	
4,400.0	15.60	276.84	4,272.7	113.4	-945.8	952.3	0.00	0.00	0.00	
4,500.0	15.60	276.84	4,369.0	116.6	-972.5	979.2	0.00	0.00	0.00	
4,600.0	15.60	276.84	4,465.3	119.8	-999.2	1,006.1	0.00	0.00	0.00	
4,700.0	15.60	276.84	4,561.7	123.0	-1,025.9	1,033.0	0.00	0.00	0.00	

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Project:	Garfield County, CO	MD Reference:	RKB @ 8431.0usft (H&P #329)
Site:	NPM M33 496 Pad	North Reference:	True
Well:	BJU M33 FED 25A-32 496	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)
4,800.0	15.60	276.84	4,658.0	126.3	-1,052.7	1,059.9	0.00	0.00	0.00
4,900.0	15.60	276.84	4,754.3	129.5	-1,079.4	1,086.8	0.00	0.00	0.00
5,000.0	15.60	276.84	4,850.6	132.7	-1,106.1	1,113.7	0.00	0.00	0.00
5,100.0	15.60	276.84	4,946.9	135.9	-1,132.8	1,140.6	0.00	0.00	0.00
5,200.0	15.60	276.84	5,043.2	139.1	-1,159.5	1,167.4	0.00	0.00	0.00
5,300.0	15.60	276.84	5,139.5	142.3	-1,186.2	1,194.3	0.00	0.00	0.00
Wasatch G									
5,375.2	15.60	276.84	5,212.0	144.7	-1,206.3	1,214.6	0.00	0.00	0.00
5,400.0	15.60	276.84	5,235.9	145.5	-1,212.9	1,221.2	0.00	0.00	0.00
5,500.0	15.60	276.84	5,332.2	148.7	-1,239.6	1,248.1	0.00	0.00	0.00
5,600.0	15.60	276.84	5,428.5	151.9	-1,266.3	1,275.0	0.00	0.00	0.00
Fort Union									
5,678.4	15.60	276.84	5,504.0	154.4	-1,287.2	1,296.1	0.00	0.00	0.00
5,700.0	15.60	276.84	5,524.8	155.1	-1,293.0	1,301.9	0.00	0.00	0.00
5,800.0	15.60	276.84	5,621.1	158.3	-1,319.7	1,328.8	0.00	0.00	0.00
5,900.0	15.60	276.84	5,717.4	161.5	-1,346.4	1,355.7	0.00	0.00	0.00
6,000.0	15.60	276.84	5,813.8	164.7	-1,373.1	1,382.6	0.00	0.00	0.00
6,100.0	15.60	276.84	5,910.1	167.9	-1,399.8	1,409.5	0.00	0.00	0.00
6,200.0	15.60	276.84	6,006.4	171.1	-1,426.5	1,436.3	0.00	0.00	0.00
6,300.0	15.60	276.84	6,102.7	174.3	-1,453.3	1,463.2	0.00	0.00	0.00
6,400.0	15.60	276.84	6,199.0	177.5	-1,480.0	1,490.1	0.00	0.00	0.00
6,500.0	15.60	276.84	6,295.3	180.7	-1,506.7	1,517.0	0.00	0.00	0.00
6,600.0	15.60	276.84	6,391.6	183.9	-1,533.4	1,543.9	0.00	0.00	0.00
6,700.0	15.60	276.84	6,488.0	187.1	-1,560.1	1,570.8	0.00	0.00	0.00
6,800.0	15.60	276.84	6,584.3	190.3	-1,586.8	1,597.7	0.00	0.00	0.00
6,900.0	15.60	276.84	6,680.6	193.5	-1,613.5	1,624.6	0.00	0.00	0.00
7,000.0	15.60	276.84	6,776.9	196.7	-1,640.2	1,651.5	0.00	0.00	0.00
Drop 3° /100'									
7,074.1	15.60	276.84	6,848.3	199.1	-1,660.0	1,671.4	0.00	0.00	0.00
7,100.0	14.83	276.84	6,873.3	199.9	-1,666.7	1,678.2	3.00	-3.00	0.00
7,200.0	11.83	276.84	6,970.6	202.6	-1,689.6	1,701.2	3.00	-3.00	0.00
7,300.0	8.83	276.84	7,068.9	204.8	-1,707.4	1,719.1	3.00	-3.00	0.00
7,400.0	5.83	276.84	7,168.1	206.3	-1,720.1	1,731.9	3.00	-3.00	0.00
7,500.0	2.83	276.84	7,267.8	207.2	-1,727.6	1,739.4	3.00	-3.00	0.00
EOD @ Vertical / Build 1.5° / 100' - Ohio Creek									
7,594.2	0.00	0.00	7,362.0	207.5	-1,729.9	1,741.8	3.00	-3.00	0.00
7,600.0	0.09	250.14	7,367.8	207.5	-1,729.9	1,741.8	1.50	1.50	0.00
EOB @ 1.60° Inc. / 250.14° Azm									
7,700.6	1.60	250.14	7,468.4	207.0	-1,731.3	1,743.1	1.50	1.50	0.00
7,800.0	1.60	250.14	7,567.7	206.0	-1,733.9	1,745.6	0.00	0.00	0.00
Williams Fork - TOG									
7,856.3	1.60	250.14	7,624.0	205.5	-1,735.4	1,747.0	0.00	0.00	0.00
7,900.0	1.60	250.14	7,667.7	205.1	-1,736.5	1,748.1	0.00	0.00	0.00
8,000.0	1.60	250.14	7,767.6	204.1	-1,739.1	1,750.6	0.00	0.00	0.00
8,100.0	1.60	250.14	7,867.6	203.2	-1,741.7	1,753.1	0.00	0.00	0.00
8,200.0	1.60	250.14	7,967.6	202.3	-1,744.4	1,755.7	0.00	0.00	0.00
8,300.0	1.60	250.14	8,067.5	201.3	-1,747.0	1,758.2	0.00	0.00	0.00
8,400.0	1.60	250.14	8,167.5	200.4	-1,749.6	1,760.7	0.00	0.00	0.00
8,500.0	1.60	250.14	8,267.4	199.4	-1,752.2	1,763.2	0.00	0.00	0.00
8,600.0	1.60	250.14	8,367.4	198.5	-1,754.8	1,765.7	0.00	0.00	0.00
8,700.0	1.60	250.14	8,467.4	197.5	-1,757.4	1,768.3	0.00	0.00	0.00
8,800.0	1.60	250.14	8,567.3	196.6	-1,760.1	1,770.8	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well BJU M33 FED 25A-32 496 - Slot BJU M33 FED 25A-32 496
Company:	Caerus Oil & Gas	TVD Reference:	RKB @ 8431.0usft (H&P #329)
Project:	Garfield County, CO	MD Reference:	RKB @ 8431.0usft (H&P #329)
Site:	NPM M33 496 Pad	North Reference:	True
Well:	BJU M33 FED 25A-32 496	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)	
8,900.0	1.60	250.14	8,667.3	195.6	-1,762.7	1,773.3	0.00	0.00	0.00	
9,000.0	1.60	250.14	8,767.2	194.7	-1,765.3	1,775.8	0.00	0.00	0.00	
9,100.0	1.60	250.14	8,867.2	193.7	-1,767.9	1,778.3	0.00	0.00	0.00	
9,200.0	1.60	250.14	8,967.2	192.8	-1,770.5	1,780.8	0.00	0.00	0.00	
9,300.0	1.60	250.14	9,067.1	191.8	-1,773.2	1,783.4	0.00	0.00	0.00	
9,400.0	1.60	250.14	9,167.1	190.9	-1,775.8	1,785.9	0.00	0.00	0.00	
9,500.0	1.60	250.14	9,267.0	190.0	-1,778.4	1,788.4	0.00	0.00	0.00	
9,600.0	1.60	250.14	9,367.0	189.0	-1,781.0	1,790.9	0.00	0.00	0.00	
9,700.0	1.60	250.14	9,467.0	188.1	-1,783.6	1,793.4	0.00	0.00	0.00	
9,800.0	1.60	250.14	9,566.9	187.1	-1,786.3	1,795.9	0.00	0.00	0.00	
9,900.0	1.60	250.14	9,666.9	186.2	-1,788.9	1,798.5	0.00	0.00	0.00	
10,000.0	1.60	250.14	9,766.9	185.2	-1,791.5	1,801.0	0.00	0.00	0.00	
10,100.0	1.60	250.14	9,866.8	184.3	-1,794.1	1,803.5	0.00	0.00	0.00	
10,200.0	1.60	250.14	9,966.8	183.3	-1,796.7	1,806.0	0.00	0.00	0.00	
10,300.0	1.60	250.14	10,066.7	182.4	-1,799.3	1,808.5	0.00	0.00	0.00	
Cameo										
10,388.3	1.60	250.14	10,155.0	181.6	-1,801.7	1,810.8	0.00	0.00	0.00	
10,400.0	1.60	250.14	10,166.7	181.4	-1,802.0	1,811.0	0.00	0.00	0.00	
10,500.0	1.60	250.14	10,266.7	180.5	-1,804.6	1,813.6	0.00	0.00	0.00	
10,600.0	1.60	250.14	10,366.6	179.5	-1,807.2	1,816.1	0.00	0.00	0.00	
10,700.0	1.60	250.14	10,466.6	178.6	-1,809.8	1,818.6	0.00	0.00	0.00	
10,800.0	1.60	250.14	10,566.5	177.7	-1,812.4	1,821.1	0.00	0.00	0.00	
10,900.0	1.60	250.14	10,666.5	176.7	-1,815.1	1,823.6	0.00	0.00	0.00	
11,000.0	1.60	250.14	10,766.5	175.8	-1,817.7	1,826.2	0.00	0.00	0.00	
Rollins										
11,035.5	1.60	250.14	10,802.0	175.4	-1,818.6	1,827.0	0.00	0.00	0.00	
11,100.0	1.60	250.14	10,866.4	174.8	-1,820.3	1,828.7	0.00	0.00	0.00	
11,200.0	1.60	250.14	10,966.4	173.9	-1,822.9	1,831.2	0.00	0.00	0.00	
TD @ 11235.6' MD / 11002.0' TVD										
11,235.6	1.60	250.14	11,002.0	173.5	-1,823.8	1,832.1	0.00	0.00	0.00	

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 - D#2 - BJ M33	0.00	0.00	7,362.0	207.5	-1,729.9	14,412,471.68	2,433,099.95	39.653938		-108.183955
- plan hits target center										
- Point										
PBHL - D#2 - BJ M33	0.00	0.00	11,002.0	173.5	-1,823.8	14,412,434.80	2,433,007.10	39.653844		-108.184289
- plan hits target center										
- Ellipse (radii L100.0 W50.0 on 250.00 azi)										

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well BJU M33 FED 25A-32 496 - Slot BJU M33 FED 25A-32 496
Company:	Caerus Oil & Gas	TVD Reference:	RKB @ 8431.0usft (H&P #329)
Project:	Garfield County, CO	MD Reference:	RKB @ 8431.0usft (H&P #329)
Site:	NPM M33 496 Pad	North Reference:	True
Well:	BJU M33 FED 25A-32 496	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2		

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,260.4	2,212.0	Wasatch			
5,375.2	5,212.0	Wasatch G			
5,678.4	5,504.0	Fort Union			
7,594.2	7,362.0	Ohio Creek			
7,856.3	7,624.0	Williams Fork			
7,856.3	7,624.0	TOG			
10,388.3	10,155.0	Cameo			
11,035.5	10,802.0	Rollins			

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
600.0	600.0	0.0	0.0	Build 3° / 100'
1,120.1	1,113.7	8.4	-69.9	EOB @ 15.60° Inc. / 276.84° Azm
7,074.1	6,848.3	199.1	-1,660.0	Drop 3° / 100'
7,594.2	7,362.0	207.5	-1,729.9	EOD @ Vertical / Build 1.5° / 100'
7,700.6	7,468.4	207.0	-1,731.3	EOB @ 1.60° Inc. / 250.14° Azm
11,235.6	11,002.0	173.5	-1,823.8	TD @ 11235.6' MD / 11002.0' TVD