

Project: Garfield County, CO  
 Site: NPM M33 496 Pad  
 Well: BJU M33 FED 15C-33 496  
 Wellbore: Wellbore #1  
 Design: Design #1  
 Latitude: 39.653348  
 Longitude: -108.177821  
 Ground Level: 8401.0  
 RKB @ 8431.0usft (H&P #329)

FORMATION TOP DETAILS			
TVDPath	MDPath	Formation	
2302.0	2305.6	Wasatch	
5302.0	5310.9	Wasatch G	
5559.0	5568.4	Fort Union	
7413.0	7425.5	Ohio Creek	
7661.0	7673.6	TOG	
7661.0	7673.6	Williams Fork	
10251.0	10264.6	Cameo	
10872.0	10885.8	Rollins	

#### REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well BJU M33 FED 15C-33 496 - Slot BJU M33 FED 15C-33 496, True North  
 Vertical (TVD) Reference: RKB @ 8431.0usft (H&P #329)  
 Section (VS) Reference: Slot - BJU M33 FED 15C-33 496(0.0N, 0.0E)  
 Measured Depth Reference: RKB @ 8431.0usft (H&P #329)  
 Calculation Method: Minimum Curvature

#### WELL DETAILS: BJU M33 FED 15C-33 496

+N/-S 0.0 +E/-W 0.0 Northing 14412311.40 Easting 2434833.70 Latitude 39.653348 Longitude -108.177821

#### PROJECT DETAILS: Garfield County, CO

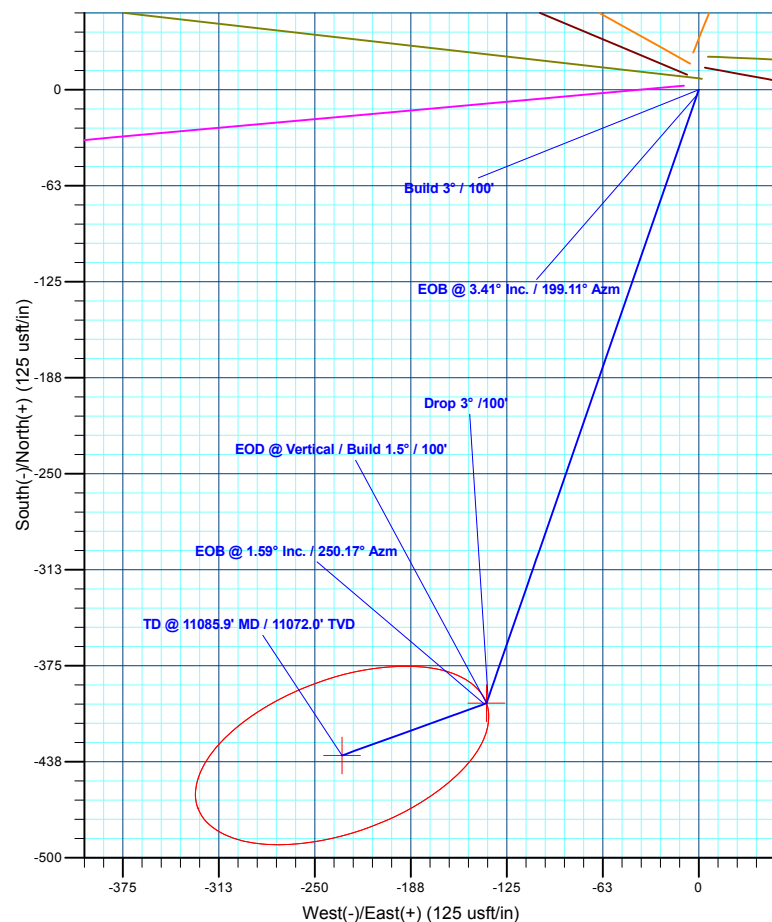
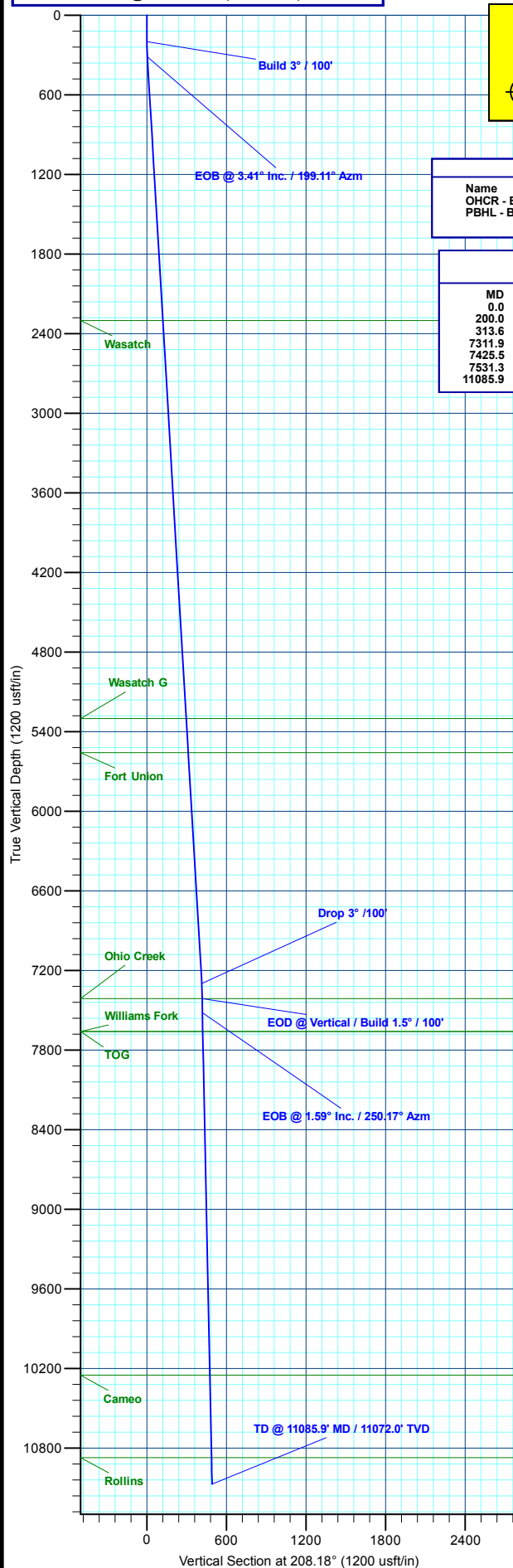
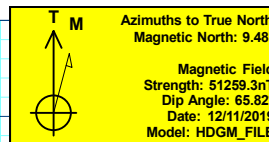
Geodetic System: Universal Transverse Mercator (US Survey Feet)  
 Datum: NAD 1927 - Western US  
 Ellipsoid: Clarke 1866  
 Zone: Zone 12N (114 W to 108 W)  
 System Datum: Mean Sea Level

#### DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
OHCR - BJU M33 FED 15C-33 496	7413.0	-399.4	-138.2	14411907.88	2434708.15	39.652252	-108.178311
PBHL - BJU M33 FED 15C-33 496	11072.0	-433.3	-232.1	14411871.00	2434615.30	39.652159	-108.178645

#### 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	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	Build 3° / 100'
313.6	3.41	199.08	313.5	-3.2	-1.1	3.00	199.08	3.3	EOB @ 3.41° Inc. / 199.11° Azm
7311.9	3.41	199.08	7299.5	-396.2	-137.1	0.00	0.00	414.0	Drop 3° / 100'
7425.5	0.00	0.00	7413.0	-399.4	-138.2	3.00	180.00	417.3	EOD @ Vertical / Build 1.5° / 100'
7531.3	1.59	250.14	7518.8	-399.9	-139.6	1.50	250.14	418.4	EOB @ 1.59° Inc. / 250.17° Azm
11085.9	1.59	250.14	11072.0	-433.3	-232.1	0.00	0.00	491.6	TD @ 11085.9° MD / 11072.0° TVD



Plan: Design #1 (BJU M33 FED 15C-33 496/Wellbore #1)

Created By: Will Jircik

Date: 16:44, December 16 2019



## **Caerus Oil & Gas**

**Garfield County, CO**

**NPM M33 496 Pad**

**BJU M33 FED 15C-33 496 - Slot BJU M33 FED 15C-33 496**

**Wellbore #1**

**Plan: Design #1**

## **QES Well Planning Report**

**16 December, 2019**



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well BJU M33 FED 15C-33 496 - Slot BJU M33 FED 15C-33 496
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	RKB @ 8431.0usft (H&P #329)
<b>Project:</b>	Garfield County, CO	<b>MD Reference:</b>	RKB @ 8431.0usft (H&P #329)
<b>Site:</b>	NPM M33 496 Pad	<b>North Reference:</b>	True
<b>Well:</b>	BJU M33 FED 15C-33 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

<b>Project</b>	Garfield County, CO		
<b>Map System:</b>	Universal Transverse Mercator (US Survey Fee	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 - Western US		
<b>Map Zone:</b>	Zone 12N (114 W to 108 W)		

<b>Site</b>	NPM M33 496 Pad		
<b>Site Position:</b>		<b>Northing:</b>	14,415,354.00 usft
<b>From:</b>	Map	<b>Easting:</b>	2,447,010.80 usft
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	13-3/16 "
		<b>Latitude:</b>	39.660635
		<b>Longitude:</b>	-108.134267
		<b>Grid Convergence:</b>	1.83 °

<b>Well</b>	BJU M33 FED 15C-33 496 - Slot BJU M33 FED 15C-33 496		
<b>Well Position</b>	<b>+N/-S</b>	-2,652.2 usft	<b>Northing:</b> 14,412,311.40 usft
	<b>+E/-W</b>	-12,268.1 usft	<b>Easting:</b> 2,434,833.70 usft
<b>Position Uncertainty</b>	0.0 usft	<b>Wellhead Elevation:</b>	<b>Latitude:</b> 39.653349
			<b>Longitude:</b> -108.177821
			<b>Ground Level:</b> 8,401.0 usft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	HDGM_FILE	12/11/2019	9.48	65.82	51,259.30000000

<b>Design</b>	Design #1				
<b>Audit Notes:</b>					
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0	
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.0	0.0	0.0	208.18	

<b>Plan Sections</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	<b>TFO (°)</b>	<b>Target</b>
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	
313.6	3.41	199.08	313.5	-3.2	-1.1	3.00	3.00	0.00	199.08	
7,311.9	3.41	199.08	7,299.5	-396.2	-137.1	0.00	0.00	0.00	0.00	
7,425.5	0.00	0.00	7,413.0	-399.4	-138.2	3.00	-3.00	0.00	180.00	OHCR - BJU M33 F
7,531.3	1.59	250.14	7,518.8	-399.9	-139.6	1.50	1.50	-103.84	250.14	
11,085.9	1.59	250.14	11,072.0	-433.3	-232.1	0.00	0.00	0.00	0.00	PBHL - BJU M33 FI

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well BJU M33 FED 15C-33 496 - Slot BJU M33 FED 15C-33 496
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	RKB @ 8431.0usft (H&P #329)
<b>Project:</b>	Garfield County, CO	<b>MD Reference:</b>	RKB @ 8431.0usft (H&P #329)
<b>Site:</b>	NPM M33 496 Pad	<b>North Reference:</b>	True
<b>Well:</b>	BJU M33 FED 15C-33 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	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
<b>Build 3° / 100'</b>									
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	3.00	199.08	300.0	-2.5	-0.9	2.6	3.00	3.00	0.00
<b>EOB @ 3.41° Inc. / 199.11° Azm</b>									
313.6	3.41	199.08	313.5	-3.2	-1.1	3.3	3.00	3.00	0.00
400.0	3.41	199.08	399.8	-8.0	-2.8	8.4	0.00	0.00	0.00
500.0	3.41	199.08	499.6	-13.7	-4.7	14.3	0.00	0.00	0.00
600.0	3.41	199.08	599.4	-19.3	-6.7	20.1	0.00	0.00	0.00
700.0	3.41	199.08	699.3	-24.9	-8.6	26.0	0.00	0.00	0.00
800.0	3.41	199.08	799.1	-30.5	-10.6	31.9	0.00	0.00	0.00
900.0	3.41	199.08	898.9	-36.1	-12.5	37.7	0.00	0.00	0.00
1,000.0	3.41	199.08	998.7	-41.7	-14.4	43.6	0.00	0.00	0.00
1,100.0	3.41	199.08	1,098.5	-47.4	-16.4	49.5	0.00	0.00	0.00
1,200.0	3.41	199.08	1,198.4	-53.0	-18.3	55.3	0.00	0.00	0.00
1,300.0	3.41	199.08	1,298.2	-58.6	-20.3	61.2	0.00	0.00	0.00
1,400.0	3.41	199.08	1,398.0	-64.2	-22.2	67.1	0.00	0.00	0.00
1,500.0	3.41	199.08	1,497.8	-69.8	-24.2	72.9	0.00	0.00	0.00
1,600.0	3.41	199.08	1,597.7	-75.4	-26.1	78.8	0.00	0.00	0.00
1,700.0	3.41	199.08	1,697.5	-81.0	-28.0	84.7	0.00	0.00	0.00
1,800.0	3.41	199.08	1,797.3	-86.7	-30.0	90.5	0.00	0.00	0.00
1,900.0	3.41	199.08	1,897.1	-92.3	-31.9	96.4	0.00	0.00	0.00
2,000.0	3.41	199.08	1,997.0	-97.9	-33.9	102.3	0.00	0.00	0.00
2,100.0	3.41	199.08	2,096.8	-103.5	-35.8	108.2	0.00	0.00	0.00
2,200.0	3.41	199.08	2,196.6	-109.1	-37.8	114.0	0.00	0.00	0.00
2,300.0	3.41	199.08	2,296.4	-114.7	-39.7	119.9	0.00	0.00	0.00
<b>Wasatch</b>									
2,305.6	3.41	199.08	2,302.0	-115.1	-39.8	120.2	0.00	0.00	0.00
2,400.0	3.41	199.08	2,396.2	-120.4	-41.6	125.8	0.00	0.00	0.00
2,500.0	3.41	199.08	2,496.1	-126.0	-43.6	131.6	0.00	0.00	0.00
2,600.0	3.41	199.08	2,595.9	-131.6	-45.5	137.5	0.00	0.00	0.00
2,700.0	3.41	199.08	2,695.7	-137.2	-47.5	143.4	0.00	0.00	0.00
2,800.0	3.41	199.08	2,795.5	-142.8	-49.4	149.2	0.00	0.00	0.00
2,900.0	3.41	199.08	2,895.4	-148.4	-51.4	155.1	0.00	0.00	0.00
3,000.0	3.41	199.08	2,995.2	-154.0	-53.3	161.0	0.00	0.00	0.00
3,100.0	3.41	199.08	3,095.0	-159.7	-55.2	166.8	0.00	0.00	0.00
3,200.0	3.41	199.08	3,194.8	-165.3	-57.2	172.7	0.00	0.00	0.00
3,300.0	3.41	199.08	3,294.7	-170.9	-59.1	178.6	0.00	0.00	0.00
3,400.0	3.41	199.08	3,394.5	-176.5	-61.1	184.4	0.00	0.00	0.00
3,500.0	3.41	199.08	3,494.3	-182.1	-63.0	190.3	0.00	0.00	0.00
3,600.0	3.41	199.08	3,594.1	-187.7	-65.0	196.2	0.00	0.00	0.00
3,700.0	3.41	199.08	3,693.9	-193.4	-66.9	202.0	0.00	0.00	0.00
3,800.0	3.41	199.08	3,793.8	-199.0	-68.8	207.9	0.00	0.00	0.00
3,900.0	3.41	199.08	3,893.6	-204.6	-70.8	213.8	0.00	0.00	0.00
4,000.0	3.41	199.08	3,993.4	-210.2	-72.7	219.6	0.00	0.00	0.00
4,100.0	3.41	199.08	4,093.2	-215.8	-74.7	225.5	0.00	0.00	0.00
4,200.0	3.41	199.08	4,193.1	-221.4	-76.6	231.4	0.00	0.00	0.00
4,300.0	3.41	199.08	4,292.9	-227.0	-78.6	237.2	0.00	0.00	0.00
4,400.0	3.41	199.08	4,392.7	-232.7	-80.5	243.1	0.00	0.00	0.00
4,500.0	3.41	199.08	4,492.5	-238.3	-82.4	249.0	0.00	0.00	0.00
4,600.0	3.41	199.08	4,592.4	-243.9	-84.4	254.8	0.00	0.00	0.00
4,700.0	3.41	199.08	4,692.2	-249.5	-86.3	260.7	0.00	0.00	0.00

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well BJU M33 FED 15C-33 496 - Slot BJU M33 FED 15C-33 496
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	RKB @ 8431.0usft (H&P #329)
<b>Project:</b>	Garfield County, CO	<b>MD Reference:</b>	RKB @ 8431.0usft (H&P #329)
<b>Site:</b>	NPM M33 496 Pad	<b>North Reference:</b>	True
<b>Well:</b>	BJU M33 FED 15C-33 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	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)
4,800.0	3.41	199.08	4,792.0	-255.1	-88.3	266.6	0.00	0.00	0.00
4,900.0	3.41	199.08	4,891.8	-260.7	-90.2	272.4	0.00	0.00	0.00
5,000.0	3.41	199.08	4,991.7	-266.4	-92.2	278.3	0.00	0.00	0.00
5,100.0	3.41	199.08	5,091.5	-272.0	-94.1	284.2	0.00	0.00	0.00
5,200.0	3.41	199.08	5,191.3	-277.6	-96.0	290.0	0.00	0.00	0.00
5,300.0	3.41	199.08	5,291.1	-283.2	-98.0	295.9	0.00	0.00	0.00
<b>Wasatch G</b>									
5,310.9	3.41	199.08	5,302.0	-283.8	-98.2	296.5	0.00	0.00	0.00
5,400.0	3.41	199.08	5,390.9	-288.8	-99.9	301.8	0.00	0.00	0.00
5,500.0	3.41	199.08	5,490.8	-294.4	-101.9	307.6	0.00	0.00	0.00
<b>Fort Union</b>									
5,568.4	3.41	199.08	5,559.0	-298.3	-103.2	311.7	0.00	0.00	0.00
5,600.0	3.41	199.08	5,590.6	-300.0	-103.8	313.5	0.00	0.00	0.00
5,700.0	3.41	199.08	5,690.4	-305.7	-105.8	319.4	0.00	0.00	0.00
5,800.0	3.41	199.08	5,790.2	-311.3	-107.7	325.2	0.00	0.00	0.00
5,900.0	3.41	199.08	5,890.1	-316.9	-109.6	331.1	0.00	0.00	0.00
6,000.0	3.41	199.08	5,989.9	-322.5	-111.6	337.0	0.00	0.00	0.00
6,100.0	3.41	199.08	6,089.7	-328.1	-113.5	342.8	0.00	0.00	0.00
6,200.0	3.41	199.08	6,189.5	-333.7	-115.5	348.7	0.00	0.00	0.00
6,300.0	3.41	199.08	6,289.4	-339.4	-117.4	354.6	0.00	0.00	0.00
6,400.0	3.41	199.08	6,389.2	-345.0	-119.4	360.4	0.00	0.00	0.00
6,500.0	3.41	199.08	6,489.0	-350.6	-121.3	366.3	0.00	0.00	0.00
6,600.0	3.41	199.08	6,588.8	-356.2	-123.2	372.2	0.00	0.00	0.00
6,700.0	3.41	199.08	6,688.6	-361.8	-125.2	378.1	0.00	0.00	0.00
6,800.0	3.41	199.08	6,788.5	-367.4	-127.1	383.9	0.00	0.00	0.00
6,900.0	3.41	199.08	6,888.3	-373.1	-129.1	389.8	0.00	0.00	0.00
7,000.0	3.41	199.08	6,988.1	-378.7	-131.0	395.7	0.00	0.00	0.00
7,100.0	3.41	199.08	7,087.9	-384.3	-133.0	401.5	0.00	0.00	0.00
7,200.0	3.41	199.08	7,187.8	-389.9	-134.9	407.4	0.00	0.00	0.00
7,300.0	3.41	199.08	7,287.6	-395.5	-136.8	413.3	0.00	0.00	0.00
<b>Drop 3° /100'</b>									
7,311.9	3.41	199.08	7,299.5	-396.2	-137.1	414.0	0.00	0.00	0.00
7,400.0	0.76	199.08	7,387.5	-399.2	-138.1	417.1	3.00	-3.00	0.00
<b>EOD @ Vertical / Build 1.5° / 100' - Ohio Creek</b>									
7,425.5	0.00	0.00	7,413.0	-399.4	-138.2	417.3	3.00	-3.00	0.00
7,500.0	1.12	250.14	7,487.5	-399.6	-138.9	417.8	1.50	1.50	0.00
<b>EOB @ 1.59° Inc. / 250.17° Azm</b>									
7,531.3	1.59	250.14	7,518.8	-399.9	-139.6	418.4	1.50	1.50	0.00
7,600.0	1.59	250.14	7,587.5	-400.5	-141.3	419.8	0.00	0.00	0.00
<b>Williams Fork - TOG</b>									
7,673.6	1.59	250.14	7,661.0	-401.2	-143.3	421.3	0.00	0.00	0.00
7,700.0	1.59	250.14	7,687.4	-401.5	-143.9	421.9	0.00	0.00	0.00
7,800.0	1.59	250.14	7,787.4	-402.4	-146.6	423.9	0.00	0.00	0.00
7,900.0	1.59	250.14	7,887.3	-403.3	-149.2	426.0	0.00	0.00	0.00
8,000.0	1.59	250.14	7,987.3	-404.3	-151.8	428.0	0.00	0.00	0.00
8,100.0	1.59	250.14	8,087.3	-405.2	-154.4	430.1	0.00	0.00	0.00
8,200.0	1.59	250.14	8,187.2	-406.2	-157.0	432.1	0.00	0.00	0.00
8,300.0	1.59	250.14	8,287.2	-407.1	-159.6	434.2	0.00	0.00	0.00
8,400.0	1.59	250.14	8,387.2	-408.0	-162.2	436.3	0.00	0.00	0.00
8,500.0	1.59	250.14	8,487.1	-409.0	-164.8	438.3	0.00	0.00	0.00
8,600.0	1.59	250.14	8,587.1	-409.9	-167.4	440.4	0.00	0.00	0.00
8,700.0	1.59	250.14	8,687.0	-410.9	-170.0	442.4	0.00	0.00	0.00

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well BJU M33 FED 15C-33 496 - Slot BJU M33 FED 15C-33 496
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	RKB @ 8431.0usft (H&P #329)
<b>Project:</b>	Garfield County, CO	<b>MD Reference:</b>	RKB @ 8431.0usft (H&P #329)
<b>Site:</b>	NPM M33 496 Pad	<b>North Reference:</b>	True
<b>Well:</b>	BJU M33 FED 15C-33 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	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)
8,800.0	1.59	250.14	8,787.0	-411.8	-172.6	444.5	0.00	0.00	0.00
8,900.0	1.59	250.14	8,887.0	-412.7	-175.2	446.6	0.00	0.00	0.00
9,000.0	1.59	250.14	8,986.9	-413.7	-177.8	448.6	0.00	0.00	0.00
9,100.0	1.59	250.14	9,086.9	-414.6	-180.4	450.7	0.00	0.00	0.00
9,200.0	1.59	250.14	9,186.8	-415.6	-183.0	452.7	0.00	0.00	0.00
9,300.0	1.59	250.14	9,286.8	-416.5	-185.6	454.8	0.00	0.00	0.00
9,400.0	1.59	250.14	9,386.8	-417.5	-188.2	456.9	0.00	0.00	0.00
9,500.0	1.59	250.14	9,486.7	-418.4	-190.8	458.9	0.00	0.00	0.00
9,600.0	1.59	250.14	9,586.7	-419.3	-193.4	461.0	0.00	0.00	0.00
9,700.0	1.59	250.14	9,686.7	-420.3	-196.0	463.0	0.00	0.00	0.00
9,800.0	1.59	250.14	9,786.6	-421.2	-198.6	465.1	0.00	0.00	0.00
9,900.0	1.59	250.14	9,886.6	-422.2	-201.3	467.2	0.00	0.00	0.00
10,000.0	1.59	250.14	9,986.5	-423.1	-203.9	469.2	0.00	0.00	0.00
10,100.0	1.59	250.14	10,086.5	-424.0	-206.5	471.3	0.00	0.00	0.00
10,200.0	1.59	250.14	10,186.5	-425.0	-209.1	473.3	0.00	0.00	0.00
<b>Cameo</b>									
10,264.6	1.59	250.14	10,251.0	-425.6	-210.7	474.7	0.00	0.00	0.00
10,300.0	1.59	250.14	10,286.4	-425.9	-211.7	475.4	0.00	0.00	0.00
10,400.0	1.59	250.14	10,386.4	-426.9	-214.3	477.5	0.00	0.00	0.00
10,500.0	1.59	250.14	10,486.3	-427.8	-216.9	479.5	0.00	0.00	0.00
10,600.0	1.59	250.14	10,586.3	-428.7	-219.5	481.6	0.00	0.00	0.00
10,700.0	1.59	250.14	10,686.3	-429.7	-222.1	483.6	0.00	0.00	0.00
10,800.0	1.59	250.14	10,786.2	-430.6	-224.7	485.7	0.00	0.00	0.00
<b>Rollins</b>									
10,885.8	1.59	250.14	10,872.0	-431.4	-226.9	487.5	0.00	0.00	0.00
10,900.0	1.59	250.14	10,886.2	-431.6	-227.3	487.8	0.00	0.00	0.00
11,000.0	1.59	250.14	10,986.2	-432.5	-229.9	489.8	0.00	0.00	0.00
<b>TD @ 11085.9' MD / 11072.0' TVD</b>									
11,085.9	1.59	250.14	11,072.0	-433.3	-232.1	491.6	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 - BJU M33 FEI	0.00	0.00	7,413.0	-399.4	-138.2	14,411,907.88	2,434,708.15	39.652252	-108.178311
- plan hits target center									
- Point									
PBHL - BJU M33 FEC	0.00	0.00	11,072.0	-433.3	-232.1	14,411,871.00	2,434,615.30	39.652159	-108.178645
- plan hits target center									
- Ellipse (radii L100.0 W50.0 on 250.00 azi)									

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<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	RKB @ 8431.0usft (H&P #329)
<b>Project:</b>	Garfield County, CO	<b>MD Reference:</b>	RKB @ 8431.0usft (H&P #329)
<b>Site:</b>	NPM M33 496 Pad	<b>North Reference:</b>	True
<b>Well:</b>	BJU M33 FED 15C-33 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

#### Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,305.6	2,302.0	Wasatch			
5,310.9	5,302.0	Wasatch G			
5,568.4	5,559.0	Fort Union			
7,425.5	7,413.0	Ohio Creek			
7,673.6	7,661.0	Williams Fork			
7,673.6	7,661.0	TOG			
10,264.6	10,251.0	Cameo			
10,885.8	10,872.0	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'
313.6	313.5	-3.2	-1.1	EOB @ 3.41° Inc. / 199.11° Azm
7,311.9	7,299.5	-396.2	-137.1	Drop 3° / 100'
7,425.5	7,413.0	-399.4	-138.2	EOD @ Vertical / Build 1.5° / 100'
7,531.3	7,518.8	-399.9	-139.6	EOB @ 1.59° Inc. / 250.17° Azm
11,085.9	11,072.0	-433.3	-232.1	TD @ 11085.9' MD / 11072.0' TVD