



Project: Mesa County, CO  
 Site: Bruton 30-01 Pad  
 Well: Bruton 19-17W  
 Wellbore: Wellbore #1  
 Design: Design #1  
 Latitude: 39.255233  
 Longitude: -107.806219  
 Ground Level: 7425.0  
 well @ 7455.0usft (H&P #522)



#### PROJECT DETAILS: Mesa County, CO

Geodetic System: US State Plane 1983  
 Datum: North American Datum 1983  
 Ellipsoid: GRS 1980  
 Zone: Colorado Central Zone  
 System Datum: Mean Sea Level

#### REFERENCE INFORMATION

Co-ordinate (NE) Reference: Well Bruton 19-17W, True North  
 Vertical (TVD) Reference: well @ 7455.0usft (H&P #522)  
 Section (VS) Reference: Slot - (0.0N, 0.0E)  
 Measured Depth Reference: well @ 7455.0usft (H&P #522)  
 Calculation Method: Minimum Curvature

#### WELL DETAILS: Bruton 19-17W

Ground Level: 7425.0  
 Latitude: 39.255233  
 Longitude: -107.806219  
 +N-S: 0.0 +E-W: 0.0 Northing: 1526141.49 Easting: 2347037.73

#### WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

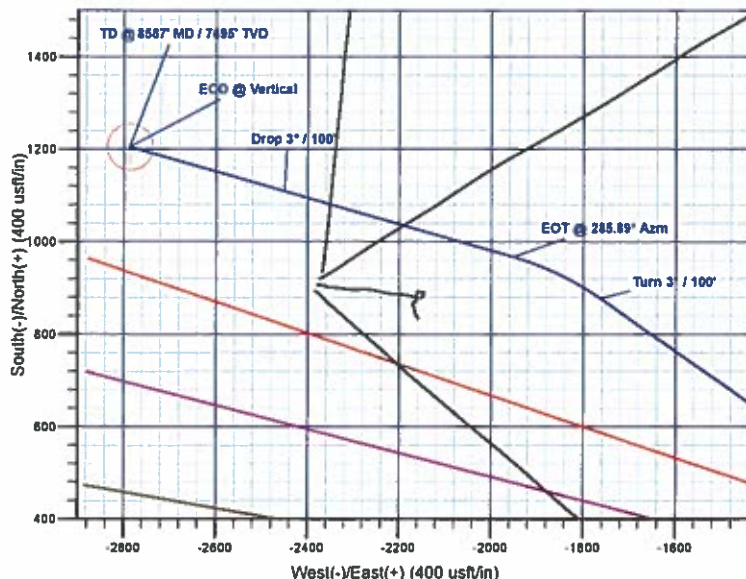
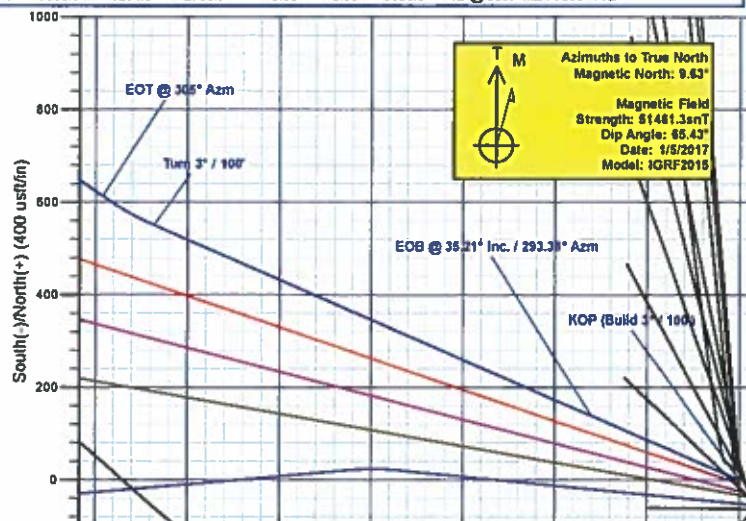
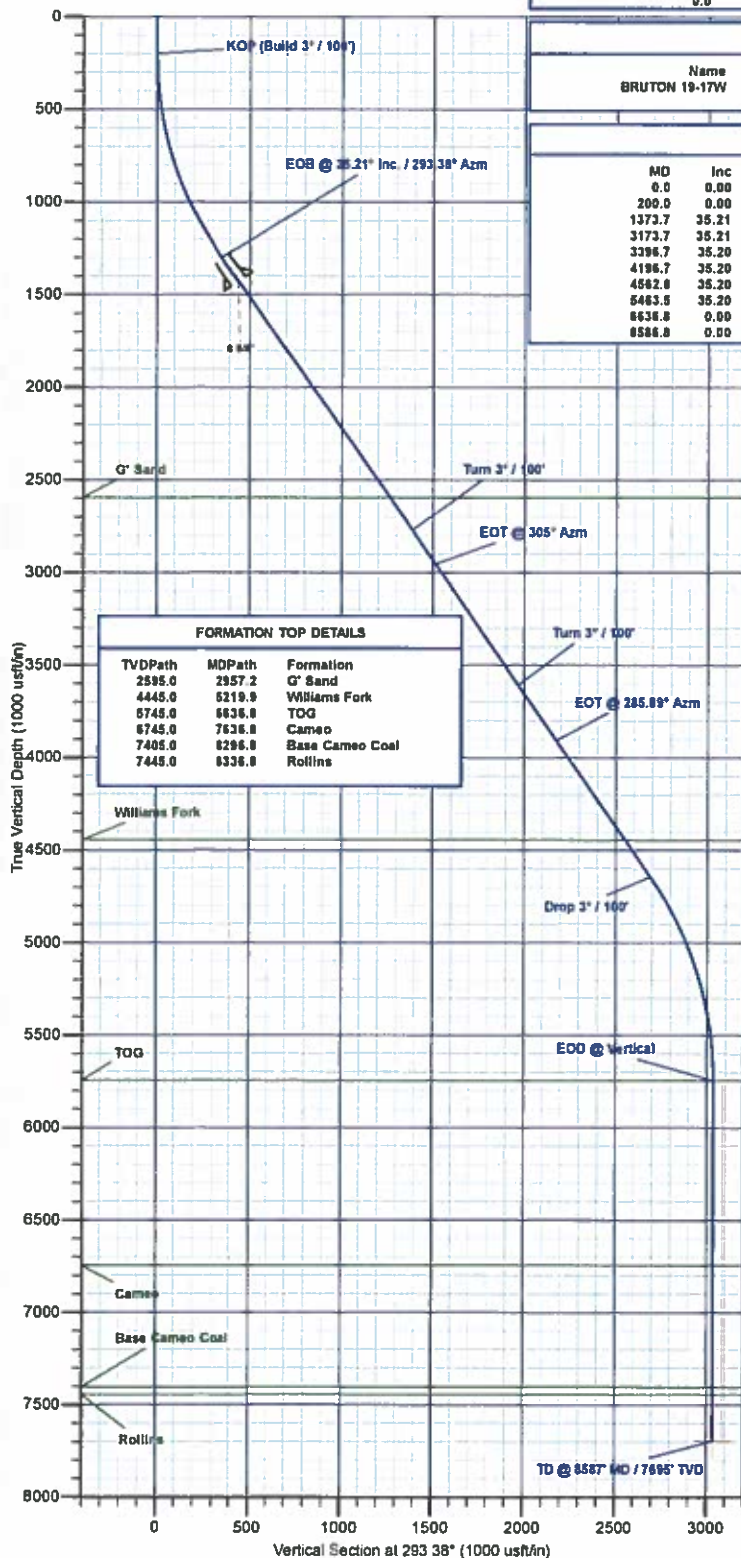
Name	TVD	+N-S	+E-W	Northing	Easting	Latitude	Longitude
BRUTON 19-17W	7695.0	1204.9	-2786.7	1527416.71	2344272.55	39.258541	-107.816061

#### SECTION DETAILS

MD	Inc	Azi	TVD	+N-S	+E-W	Dieg	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	KOP (Build 3" / 100')
1373.7	35.21	293.38	1301.2	138.7	-320.7	3.00	293.38	349.4	EOB @ 35.21° Inc. / 293.38° Azm
3173.7	35.21	293.38	2771.9	550.5	-1273.4	0.00	0.00	1387.3	Turn 3" / 100'
3396.7	35.20	305.00	2954.3	613.0	-1385.2	3.00	94.84	1814.7	EOT @ 305° Azm
4196.7	35.20	305.00	3608.0	877.5	-1762.9	0.00	0.00	1966.4	Turn 3" / 100'
4562.0	35.20	285.89	3908.1	967.1	-1951.4	3.00	-97.83	2175.0	EOT @ 285.89° Azm
5463.5	35.20	285.89	4644.1	1109.3	-2450.8	0.00	0.00	2689.7	Drop 3" / 100'
6636.8	0.00	0.00	5745.0	1204.9	-2786.7	3.00	180.00	3036.0	EOD @ Vertical
8587.0	0.00	0.00	7695.0	1204.9	-2786.7	0.00	0.00	3036.0	TD @ 8587' MD / 7695' TVD

#### FORMATION TOP DETAILS

TVDPath	MDPath	Formation
2595.0	2957.2	G' Sand
4445.0	5219.9	Williams Fork
5745.0	5636.8	TOG
6745.0	7636.8	Cameo
7405.0	8296.8	Base Cameo Coal
7445.0	8336.8	Rollins



Plan: Design #1 (Bruton 19-17W/Wellbore #1)

Created By: Will Jircik Date: 8:33, January 10 2017



# **Laramie Energy, LLC**

**Mesa County, CO**

**Bruton 30-01 Pad**

**Bruton 19-17W**

**Wellbore #1**

**Plan: Design #1**

## **QES Well Planning Report**

**10 January, 2017**





# Well Planning Report



Database:	EDM5002	Local Co-ordinate Reference:	Well Bruton 19-17W
Company:	Laramie Energy, LLC	TVD Reference:	well @ 7455.0usft (H&P #522)
Project:	Mesa County, CO	MD Reference:	well @ 7455.0usft (H&P #522)
Site:	Bruton 30-01 Pad	North Reference:	True
Well:	Bruton 19-17W	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Project	Mesa County, CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site		Bruton 30-01 Pad			
Site Position:		Northing:	1,526,078.02 usft	Latitude:	39.255061
From:	Lat/Long	Easting:	2,347,056.81 usft	Longitude:	-107.806111
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	+1.45 "

Well	Bruton 19-17W					
Well Position	+N/-S	62.7 usft	Northing:	1,526,141.50 usft	Latitude:	39.255233
	+E/-W	-30.7 usft	Easting:	2,347,027.73 usft	Longitude:	-107.806220
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	7,425.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	1/5/2017	9.63	65.43	51,461

Design	Design #1			
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	293.38

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	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,373.7	35.21	293.38	1,301.2	138.7	-320.7	3.00	3.00	0.00	293.38	
3,173.7	35.21	293.38	2,771.9	550.5	-1,273.4	0.00	0.00	0.00	0.00	
3,396.7	35.20	305.00	2,954.3	613.0	-1,385.2	3.00	0.00	5.21	94.84	
4,196.7	35.20	305.00	3,608.0	877.5	-1,762.9	0.00	0.00	0.00	0.00	
4,562.8	35.20	285.89	3,908.1	967.1	-1,951.4	3.00	0.00	-5.22	-97.83	
5,463.5	35.20	285.89	4,644.1	1,109.3	-2,450.8	0.00	0.00	0.00	0.00	
6,636.8	0.00	0.00	5,745.0	1,204.9	-2,786.7	3.00	-3.00	0.00	180.00	
8,586.8	0.00	0.00	7,695.0	1,204.9	-2,786.7	0.00	0.00	0.00	0.00	BRUTON 19-17W





## Well Planning Report



<b>Database:</b>	EDM5002	<b>Local Co-ordinate Reference:</b>	Well Bruton 19-17W
<b>Company:</b>	Laramie Energy, LLC	<b>TVD Reference:</b>	well @ 7455.0usft (H&P #522)
<b>Project:</b>	Mesa County, CO	<b>MD Reference:</b>	well @ 7455.0usft (H&P #522)
<b>Site:</b>	Bruton 30-01 Pad	<b>North Reference:</b>	True
<b>Well:</b>	Bruton 19-17W	<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>KOP (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	293.38	300.0	1.0	-2.4	2.6	3.00	3.00	0.00
400.0	6.00	293.38	399.6	4.2	-9.6	10.5	3.00	3.00	0.00
500.0	9.00	293.38	498.8	9.3	-21.6	23.5	3.00	3.00	0.00
600.0	12.00	293.38	597.1	16.6	-38.3	41.7	3.00	3.00	0.00
700.0	15.00	293.38	694.3	25.8	-59.7	65.1	3.00	3.00	0.00
800.0	18.00	293.38	790.2	37.1	-85.8	93.5	3.00	3.00	0.00
900.0	21.00	293.38	884.4	50.3	-116.4	126.9	3.00	3.00	0.00
1,000.0	24.00	293.38	976.8	65.5	-151.6	165.1	3.00	3.00	0.00
1,100.0	27.00	293.38	1,067.1	82.6	-191.1	208.2	3.00	3.00	0.00
1,200.0	30.00	293.38	1,154.9	101.5	-234.9	255.9	3.00	3.00	0.00
1,300.0	33.00	293.38	1,240.2	122.3	-282.8	308.1	3.00	3.00	0.00
<b>EOB @ 35.21° Inc. / 293.38° Azm</b>									
1,373.7	35.21	293.38	1,301.2	138.7	-320.7	349.4	3.00	3.00	0.00
1,400.0	35.21	293.38	1,322.7	144.7	-334.7	364.6	0.00	0.00	0.00
1,500.0	35.21	293.38	1,404.4	167.6	-387.6	422.3	0.00	0.00	0.00
<b>8 5/8"</b>									
1,530.0	35.21	293.38	1,428.9	174.4	-403.5	439.6	0.00	0.00	0.00
1,600.0	35.21	293.38	1,486.1	190.4	-440.5	479.9	0.00	0.00	0.00
1,700.0	35.21	293.38	1,567.8	213.3	-493.4	537.6	0.00	0.00	0.00
1,800.0	35.21	293.38	1,649.5	236.2	-546.4	595.2	0.00	0.00	0.00
1,900.0	35.21	293.38	1,731.2	259.1	-599.3	652.9	0.00	0.00	0.00
2,000.0	35.21	293.38	1,812.9	282.0	-652.2	710.5	0.00	0.00	0.00
2,100.0	35.21	293.38	1,894.6	304.8	-705.1	768.2	0.00	0.00	0.00
2,200.0	35.21	293.38	1,976.3	327.7	-758.1	825.9	0.00	0.00	0.00
2,300.0	35.21	293.38	2,058.0	350.6	-811.0	883.5	0.00	0.00	0.00
2,400.0	35.21	293.38	2,139.7	373.5	-863.9	941.2	0.00	0.00	0.00
2,500.0	35.21	293.38	2,221.4	396.4	-916.8	998.8	0.00	0.00	0.00
2,600.0	35.21	293.38	2,303.1	419.2	-969.7	1,056.5	0.00	0.00	0.00
2,700.0	35.21	293.38	2,384.9	442.1	-1,022.7	1,114.2	0.00	0.00	0.00
2,800.0	35.21	293.38	2,466.6	465.0	-1,075.6	1,171.8	0.00	0.00	0.00
2,900.0	35.21	293.38	2,548.3	487.9	-1,128.5	1,229.5	0.00	0.00	0.00
<b>G' Sand</b>									
2,957.2	35.21	293.38	2,595.0	501.0	-1,158.8	1,262.4	0.00	0.00	0.00
3,000.0	35.21	293.38	2,630.0	510.8	-1,181.4	1,287.1	0.00	0.00	0.00
3,100.0	35.21	293.38	2,711.7	533.6	-1,234.4	1,344.8	0.00	0.00	0.00
<b>Turn 3° / 100'</b>									
3,173.7	35.21	293.38	2,771.9	550.5	-1,273.4	1,387.3	0.00	0.00	0.00
3,200.0	35.15	294.75	2,793.4	556.7	-1,287.2	1,402.4	3.00	-0.22	5.19
3,300.0	35.07	299.98	2,875.2	583.1	-1,338.2	1,459.8	3.00	-0.08	5.22
<b>EOT @ 305° Azm</b>									
3,396.7	35.20	305.00	2,954.3	613.0	-1,385.2	1,514.7	3.00	0.14	5.21
3,400.0	35.20	305.00	2,957.0	614.0	-1,386.7	1,516.5	0.00	0.00	0.00
3,500.0	35.20	305.00	3,038.7	647.1	-1,433.9	1,573.0	0.00	0.00	0.00
3,600.0	35.20	305.00	3,120.4	680.2	-1,481.1	1,629.4	0.00	0.00	0.00
3,700.0	35.20	305.00	3,202.1	713.2	-1,528.4	1,685.9	0.00	0.00	0.00
3,800.0	35.20	305.00	3,283.9	746.3	-1,575.6	1,742.4	0.00	0.00	0.00
3,900.0	35.20	305.00	3,365.6	779.4	-1,622.8	1,798.8	0.00	0.00	0.00
4,000.0	35.20	305.00	3,447.3	812.4	-1,670.0	1,855.3	0.00	0.00	0.00
4,100.0	35.20	305.00	3,529.0	845.5	-1,717.2	1,911.8	0.00	0.00	0.00



## Well Planning Report



<b>Database:</b>	EDM5002	<b>Local Co-ordinate Reference:</b>	Well Bruton 19-17W
<b>Company:</b>	Laramie Energy, LLC	<b>TVD Reference:</b>	well @ 7455 0usft (H&P #522)
<b>Project:</b>	Mesa County, CO	<b>MD Reference:</b>	well @ 7455 0usft (H&P #522)
<b>Site:</b>	Bruton 30-01 Pad	<b>North Reference:</b>	True
<b>Well:</b>	Bruton 19-17W	<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)
<b>Turn 3° / 100'</b>									
4,196.7	35.20	305.00	3,608.0	877.5	-1,762.9	1,966.4	0.00	0.00	0.00
4,200.0	35.19	304.83	3,610.7	878.5	-1,764.5	1,968.2	3.00	-0.41	-5.16
4,300.0	34.90	299.63	3,692.6	909.2	-1,813.0	2,024.9	3.00	-0.29	-5.20
4,400.0	34.83	294.38	3,774.7	935.1	-1,863.9	2,081.9	3.00	-0.07	-5.25
4,500.0	34.99	289.14	3,856.7	956.3	-1,917.0	2,139.1	3.00	0.16	-5.24
<b>EOT @ 285.89° Azm</b>									
4,562.8	35.20	285.89	3,908.1	967.1	-1,951.4	2,175.0	3.00	0.34	-5.19
4,600.0	35.20	285.89	3,938.5	973.0	-1,972.0	2,196.2	0.00	0.00	0.00
4,700.0	35.20	285.89	4,020.2	988.8	-2,027.5	2,253.4	0.00	0.00	0.00
4,800.0	35.20	285.89	4,101.9	1,004.6	-2,082.9	2,310.5	0.00	0.00	0.00
4,900.0	35.20	285.89	4,183.6	1,020.4	-2,138.4	2,367.7	0.00	0.00	0.00
5,000.0	35.20	285.89	4,265.3	1,036.1	-2,193.8	2,424.8	0.00	0.00	0.00
5,100.0	35.20	285.89	4,347.1	1,051.9	-2,249.2	2,482.0	0.00	0.00	0.00
5,200.0	35.20	285.89	4,428.8	1,067.7	-2,304.7	2,539.1	0.00	0.00	0.00
<b>Williams Fork</b>									
5,219.9	35.20	285.89	4,445.0	1,070.8	-2,315.7	2,550.5	0.00	0.00	0.00
5,300.0	35.20	285.89	4,510.5	1,083.5	-2,360.1	2,596.3	0.00	0.00	0.00
5,400.0	35.20	285.89	4,592.2	1,099.3	-2,415.6	2,653.4	0.00	0.00	0.00
<b>Drop 3° / 100'</b>									
5,463.5	35.20	285.89	4,644.1	1,109.3	-2,450.8	2,689.7	0.00	0.00	0.00
5,500.0	34.11	285.89	4,674.1	1,115.0	-2,470.7	2,710.3	3.00	-3.00	0.00
5,600.0	31.11	285.89	4,758.3	1,129.7	-2,522.6	2,763.7	3.00	-3.00	0.00
5,700.0	28.11	285.89	4,845.3	1,143.2	-2,570.1	2,812.7	3.00	-3.00	0.00
5,800.0	25.11	285.89	4,934.7	1,155.5	-2,613.1	2,857.1	3.00	-3.00	0.00
5,900.0	22.11	285.89	5,026.3	1,166.4	-2,651.6	2,896.8	3.00	-3.00	0.00
6,000.0	19.11	285.89	5,119.9	1,176.1	-2,685.5	2,931.7	3.00	-3.00	0.00
6,100.0	16.11	285.89	5,215.2	1,184.4	-2,714.6	2,961.7	3.00	-3.00	0.00
6,200.0	13.11	285.89	5,312.0	1,191.3	-2,738.8	2,986.7	3.00	-3.00	0.00
6,300.0	10.11	285.89	5,409.9	1,196.8	-2,758.2	3,006.6	3.00	-3.00	0.00
6,400.0	7.11	285.89	5,508.8	1,200.9	-2,772.6	3,021.4	3.00	-3.00	0.00
6,500.0	4.11	285.89	5,608.3	1,203.5	-2,781.9	3,031.1	3.00	-3.00	0.00
6,600.0	1.11	285.89	5,708.2	1,204.8	-2,786.3	3,035.6	3.00	-3.00	0.00
<b>EOD @ Vertical - TOG</b>									
6,636.8	0.00	0.00	5,745.0	1,204.9	-2,786.7	3,036.0	3.00	-3.00	0.00
6,700.0	0.00	0.00	5,808.2	1,204.9	-2,786.7	3,036.0	0.00	0.00	0.00
6,800.0	0.00	0.00	5,908.2	1,204.9	-2,786.7	3,036.0	0.00	0.00	0.00
6,900.0	0.00	0.00	6,008.2	1,204.9	-2,786.7	3,036.0	0.00	0.00	0.00
7,000.0	0.00	0.00	6,108.2	1,204.9	-2,786.7	3,036.0	0.00	0.00	0.00
7,100.0	0.00	0.00	6,208.2	1,204.9	-2,786.7	3,036.0	0.00	0.00	0.00
7,200.0	0.00	0.00	6,308.2	1,204.9	-2,786.7	3,036.0	0.00	0.00	0.00
7,300.0	0.00	0.00	6,408.2	1,204.9	-2,786.7	3,036.0	0.00	0.00	0.00
7,400.0	0.00	0.00	6,508.2	1,204.9	-2,786.7	3,036.0	0.00	0.00	0.00
7,500.0	0.00	0.00	6,608.2	1,204.9	-2,786.7	3,036.0	0.00	0.00	0.00
7,600.0	0.00	0.00	6,708.2	1,204.9	-2,786.7	3,036.0	0.00	0.00	0.00
<b>Cameo</b>									
7,636.8	0.00	0.00	6,745.0	1,204.9	-2,786.7	3,036.0	0.00	0.00	0.00
7,700.0	0.00	0.00	6,808.2	1,204.9	-2,786.7	3,036.0	0.00	0.00	0.00
7,800.0	0.00	0.00	6,908.2	1,204.9	-2,786.7	3,036.0	0.00	0.00	0.00
7,900.0	0.00	0.00	7,008.2	1,204.9	-2,786.7	3,036.0	0.00	0.00	0.00
8,000.0	0.00	0.00	7,108.2	1,204.9	-2,786.7	3,036.0	0.00	0.00	0.00
8,100.0	0.00	0.00	7,208.2	1,204.9	-2,786.7	3,036.0	0.00	0.00	0.00
8,200.0	0.00	0.00	7,308.2	1,204.9	-2,786.7	3,036.0	0.00	0.00	0.00



## Well Planning Report



<b>Database:</b>	EDM5002	<b>Local Co-ordinate Reference:</b>	Well Bruton 19-17W
<b>Company:</b>	Laramie Energy, LLC	<b>TVD Reference:</b>	well @ 7455.0usft (H&P #522)
<b>Project:</b>	Mesa County, CO	<b>MD Reference:</b>	well @ 7455.0usft (H&P #522)
<b>Site:</b>	Bruton 30-01 Pad	<b>North Reference:</b>	True
<b>Well:</b>	Bruton 19-17W	<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)
<b>Base Cameo Coal</b>									
8,296.8	0.00	0.00	7,405.0	1,204.9	-2,786.7	3,036.0	0.00	0.00	0.00
8,300.0	0.00	0.00	7,408.2	1,204.9	-2,786.7	3,036.0	0.00	0.00	0.00
<b>Rollins</b>									
8,336.8	0.00	0.00	7,445.0	1,204.9	-2,786.7	3,036.0	0.00	0.00	0.00
8,400.0	0.00	0.00	7,508.2	1,204.9	-2,786.7	3,036.0	0.00	0.00	0.00
8,500.0	0.00	0.00	7,608.2	1,204.9	-2,786.7	3,036.0	0.00	0.00	0.00
<b>TD @ 8587' MD / 7695' TVD</b>									
8,586.8	0.00	0.00	7,695.0	1,204.9	-2,786.7	3,036.0	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									
BRUTON 19-17W	0.00	0.00	7,695.0	1,204.9	-2,786.7	1,527,416.71	2,344,272.55	39.258541	-107.816061
- plan hits target center									
- Circle (radius 50.0)									

## Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
1,530.0	1,428.9	8 5/8"	8-5/8	11

## Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,957.2	2,595.0	G' Sand			
5,219.9	4,445.0	Williams Fork			
6,636.8	5,745.0	TOG			
7,636.8	6,745.0	Cameo			
8,296.8	7,405.0	Base Cameo Coal			
8,336.8	7,445.0	Rollins			



# Well Planning Report



<b>Database:</b>	EDM5002	<b>Local Co-ordinate Reference:</b>	Well Bruton 19-17W
<b>Company:</b>	Laramie Energy, LLC	<b>TVD Reference:</b>	well @ 7455 0usft (H&P #522)
<b>Project:</b>	Mesa County, CO	<b>MD Reference:</b>	well @ 7455 0usft (H&P #522)
<b>Site:</b>	Bruton 30-01 Pad	<b>North Reference:</b>	True
<b>Well:</b>	Bruton 19-17W	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

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	KOP (Build 3" / 100')
1,373.7	1,301.2	138.7	-320.7	EOB @ 35.21° Inc / 293.38° Azm
3,173.7	2,771.9	550.5	-1,273.4	Turn 3" / 100'
3,396.7	2,954.3	613.0	-1,385.2	EOT @ 305° Azm
4,196.7	3,608.0	877.5	-1,762.9	Turn 3" / 100'
4,562.8	3,908.1	967.1	-1,951.4	EOT @ 285.89° Azm
5,463.5	4,644.1	1,109.3	-2,450.8	Drop 3" / 100'
6,636.8	5,745.0	1,204.9	-2,786.7	EOD @ Vertical
8,586.8	7,695.0	1,204.9	-2,786.7	TD @ 8587' MD / 7695' TVD