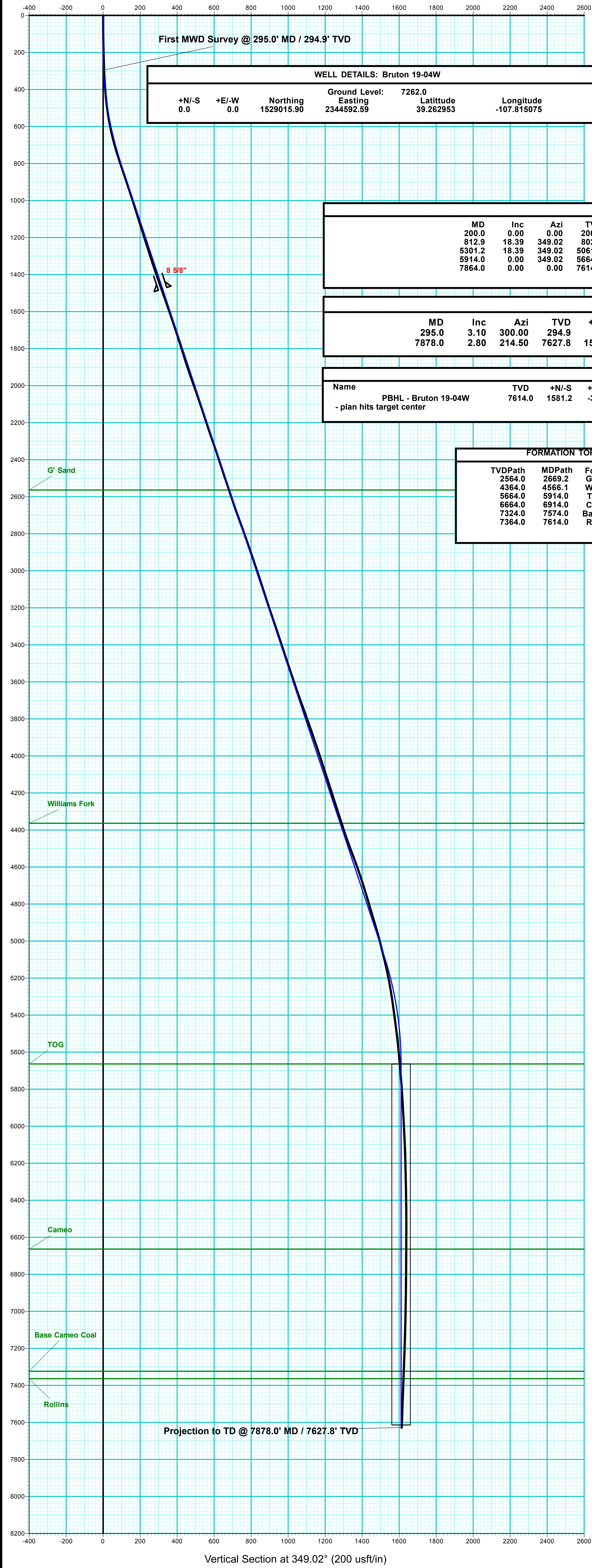


Bruton 19-04W
Mesa County, CO
Q171124 & RM-170944
Design #2

Company Name: Laramie Energy, LLC
Bruton 19-04W
Mesa County, CO
Rig: H&P #290
Created By: Will Jircik
Date: 9/8/2017

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



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M

Azimuths to True North

Magnetic North: 9.57°

Strength: 51393.5snT

Dip Angle: 65.42°

Date: 8/30/2017

Model: IGRF2015

Design #2 Annotations									
MD	Inc	Azi	TVD	+N-S	+E-W	VSec	Departure	Annotation	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.0	KOP (Build 3° / 100)	
812.9	18.39	349.02	802.4	95.7	-18.6	97.5	97.5	EOB @ 18.39° Inc. / 349.02° Azm	
5301.2	18.39	349.02	5061.6	1485.5	-288.3	1513.2	1513.2	Drop 3° / 100'	
5914.0	0.00	349.02	5664.0	1581.2	-306.9	1610.7	1610.7	EOD @ Vertical	
7864.0	0.00	0.00	7614.0	1581.2	-306.9	1610.7	1610.7	TD @ 7864' MD / 7614' TVD	
Annotations									
MD	Inc	Azi	TVD	+N-S	+E-W	VSec	Departure	Annotation	
295.0	3.10	300.00	294.9	4.0	-6.9	5.2	8.0	First MWD Survey @ 295.0' MD / 294.9' TVD	
7878.0	2.80	214.50	7627.8	1584.3	-310.0	1614.3	1681.5	Projection to TD @ 7878.0' MD / 7627.8' TVD	
Design Target Details									
Name		TVD	+N-S	+E-W	Northing	Easting	Latitude	Longitude	Shape
PBHL - Bruton 19-04W		7614.0	1581.2	-306.9	1530604.38	2344326.08	39.267294	-107.816159	Circle (Radius: 50.0)
- plan hits target center									

FORMATION TOP DETAILS			
TVDPath	MDPath	Formation	
2564.0	2669.2	G' Sand	
4364.0	4566.1	Williams Fork	
5664.0	5914.0	TOG	
6664.0	6914.0	Cameo	
7324.0	7574.0	Base Cameo Coal	
7364.0	7614.0	Rollins	

