

Bruton Federal 19-09E
Mesa County, CO
Q171272 & RM-171075
Design #2

Company Name: Laramie Energy, LLC
Bruton Federal 19-09E
Mesa County, CO
Rig: H&P #290
Created By: Will Jircik
Date: 10/15/2017

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



DIRECTIONAL DRILLING



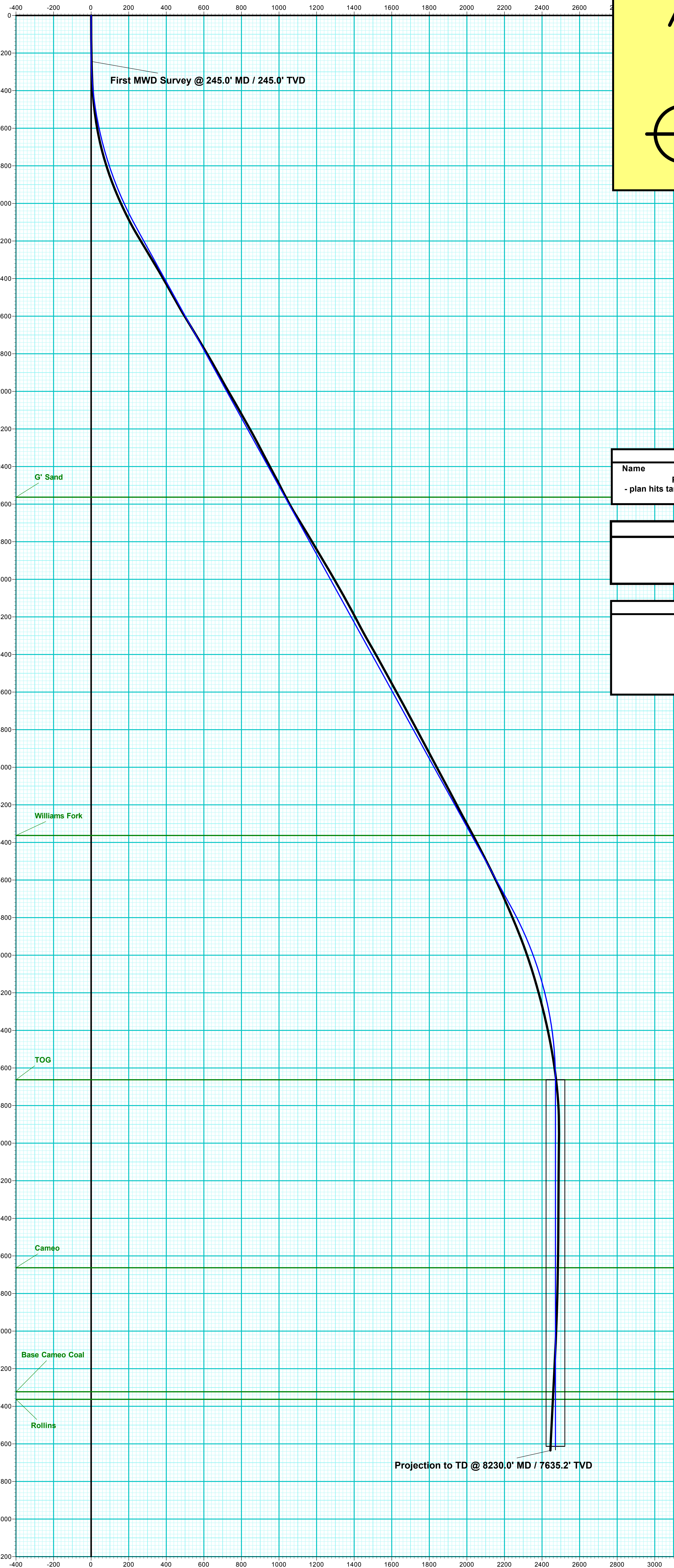
FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
2563.0	2808.0	G' Sand
4363.0	4863.9	Williams Fork
5663.0	6257.8	TOG
6663.0	7257.8	Cameo
7323.0	7917.8	Base Cameo Coal
7363.0	7957.8	Rollins

WELL DETAILS: Bruton Federal 19-09E						
+N/-S	+E/-W	Northing	Ground Level: Easting	7262.0	Latitude	Longitude
0.0	0.0	1528980.13	2344606.63		39.262856	-107.815022

DESIGN TARGET DETAILS								
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL - Bruton Federal 19-09E	7613.0	380.9	2442.1	1529298.68	2347057.61	39.263901	-107.806397	Circle (Radius: 50.0)
- plan hits target center								

ANNOTATIONS								
MD	Inc	Azi	TVD	+N/-S	+E/-W	VSecDeparture	Annotation	
245.0	1.20	96.00	245.0	-0.3	2.6	2.5	2.6	First MWD Survey @ 245.0' MD / 245.0' TVD
8230.0	3.00	226.80	7635.2	362.7	2417.6	2444.6	2551.0	Projection to TD @ 8230.0' MD / 7635.2' TVD

DESIGN ANNOTATIONS								
MD	Inc	Azi	TVD	+N/-S	+E/-W	VSecDeparture	Annotation	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.0	KOP (Build 3° / 100)
1163.0	28.89	81.13	1122.7	36.6	234.8	237.7	237.7	EOB @ 28.89° Inc. / 81.13° Azm
5294.8	28.89	81.13	4740.3	344.3	2207.2	2233.9	2233.9	Drop 3° / 100'
6257.8	0.00	81.13	5663.0	380.9	2442.1	2471.6	2471.6	EOD @ Vertical
8207.8	0.00	0.00	7613.0	380.9	2442.1	2471.6	2471.6	TD @ 8208' MD / 7613' TVD



Vertical Section at 81.13° (200 usft/in)

T

M

Azimuths to True North

Magnetic North: 9.56°

Strength: 51383.1snT

Dip Angle: 65.42°

Date: 10/3/2017

Model: IGRF2015

