

Company Name: Laramie Energy, LLC  
BCU 0993-21-02W  
Mesa County, CO  
Rig: H&P #522  
Created By: Will Jircik  
Date: 10/22/2018

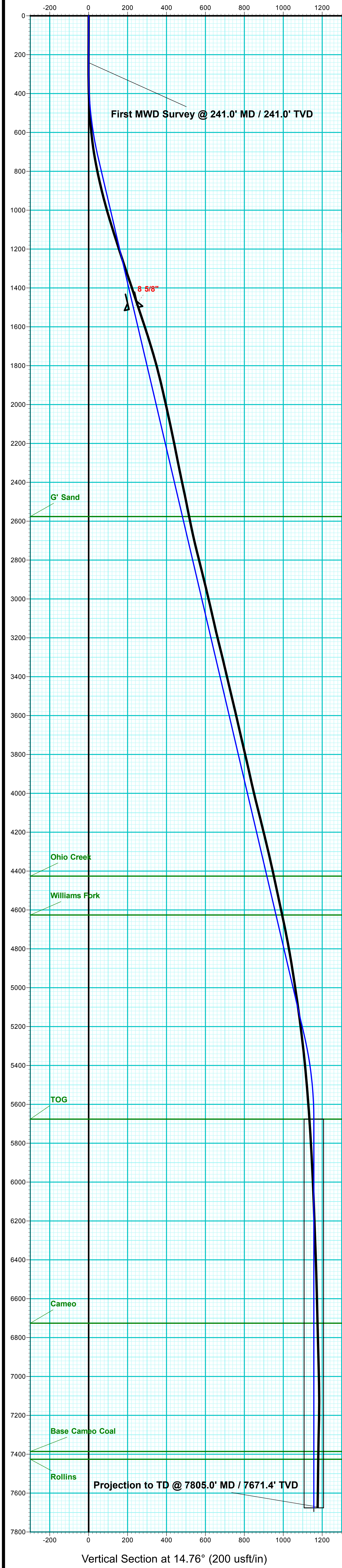
BCU 0993-21-02W  
Mesa County, CO  
Q181361 & RM-181144  
Design #2

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

| DESIGN ANNOTATIONS |       |       |        |        |       |        |           |                               |  |
|--------------------|-------|-------|--------|--------|-------|--------|-----------|-------------------------------|--|
| MD                 | Inc   | Azi   | TVD    | +N/-S  | +E/-W | VSect  | Departure | Annotation                    |  |
| 300.0              | 0.00  | 0.00  | 300.0  | 0.0    | 0.0   | 0.0    | 0.0       | KOP/ (Build 3.00°/100')       |  |
| 739.9              | 13.20 | 14.76 | 736.0  | 48.8   | 12.8  | 50.4   | 50.4      | EOB @ 13.20° Inc / 14.76° Azm |  |
| 5366.0             | 13.20 | 14.76 | 5240.0 | 1070.1 | 281.9 | 1106.6 | 1106.6    | Drop @ 3.00°/100'             |  |
| 5805.9             | 0.00  | 0.00  | 5676.0 | 1118.9 | 294.7 | 1157.1 | 1157.1    | EOD @ Vertical                |  |
| 7805.9             | 0.00  | 0.00  | 7676.0 | 1118.9 | 294.7 | 1157.1 | 1157.1    | TD @ 7805.9' MD / 7676.0' TVD |  |

| DESIGN TARGET DETAILS  |        |        |       |            |            |                       |             |
|------------------------|--------|--------|-------|------------|------------|-----------------------|-------------|
| Name                   | TVD    | +N/-S  | +E/-W | Northing   | Easting    | Latitude              | Longitude   |
| PBHL - BCU 0993-21-02W | 7676.0 | 1118.9 | 294.7 | 1530799.06 | 2354820.37 | 39.268557             | -107.779121 |
|                        |        |        |       |            |            | Shape                 |             |
|                        |        |        |       |            |            | Circle (Radius: 50.0) |             |



| WELL DETAILS: BCU 0993-21-02W |       |            |            |        |           |             |
|-------------------------------|-------|------------|------------|--------|-----------|-------------|
| +N/-S                         | +E/-W | Northing   | Easting    | 7257.0 | Latitude  | Longitude   |
| 0.0                           | 0.0   | 1529687.91 | 2354497.66 |        | 39.265485 | -107.780162 |

| ANNOTATIONS |      |        |        |        |       |        |           |   |  |
|-------------|------|--------|--------|--------|-------|--------|-----------|---|--|
| MD          | Inc  | Azi    | TVD    | +N/-S  | +E/-W | VSec   | Departure | Annotation                                  |  |
| 241.0       | 1.60 | 274.00 | 241.0  | 0.2    | -3.4  | -0.6   | 3.4       | First MWD Survey @ 241.0' MD / 241.0' TVD   |  |
| 7805.0      | 0.80 | 212.40 | 7671.4 | 1143.3 | 279.1 | 1176.9 | 1208.1    | Projection to TD @ 7805.0' MD / 7671.4' TVD |  |

| FORMATION TOP DETAILS |        |                 |
|-----------------------|--------|-----------------|
| TVDPath               | MDPath | Formation       |
| 2576.0                | 2629.8 | G' Sand         |
| 4426.0                | 4530.0 | Ohio Creek      |
| 4626.0                | 4735.4 | Williams Fork   |
| 5676.0                | 5805.9 | TOG             |
| 6726.0                | 6855.9 | Cameo           |
| 7386.0                | 7515.9 | Base Cameo Coal |
| 7426.0                | 7555.9 | Rollins         |

T

M

Azimuths to True North  
Magnetic North: 9.37°

Strength: 51267.2snT  
Dip Angle: 65.39°  
Date: 10/3/2018  
Model: USER DEFINED

