

Nichols 0994-13-21E  
Mesa County, CO  
Q180074 & RM-180066  
Design #2

Company Name: Laramie Energy, LLC  
Nichols 0994-13-21E  
Mesa County, CO  
Rig: H&P #290  
Created By: Will Jircik  
Date: 1/23/2018

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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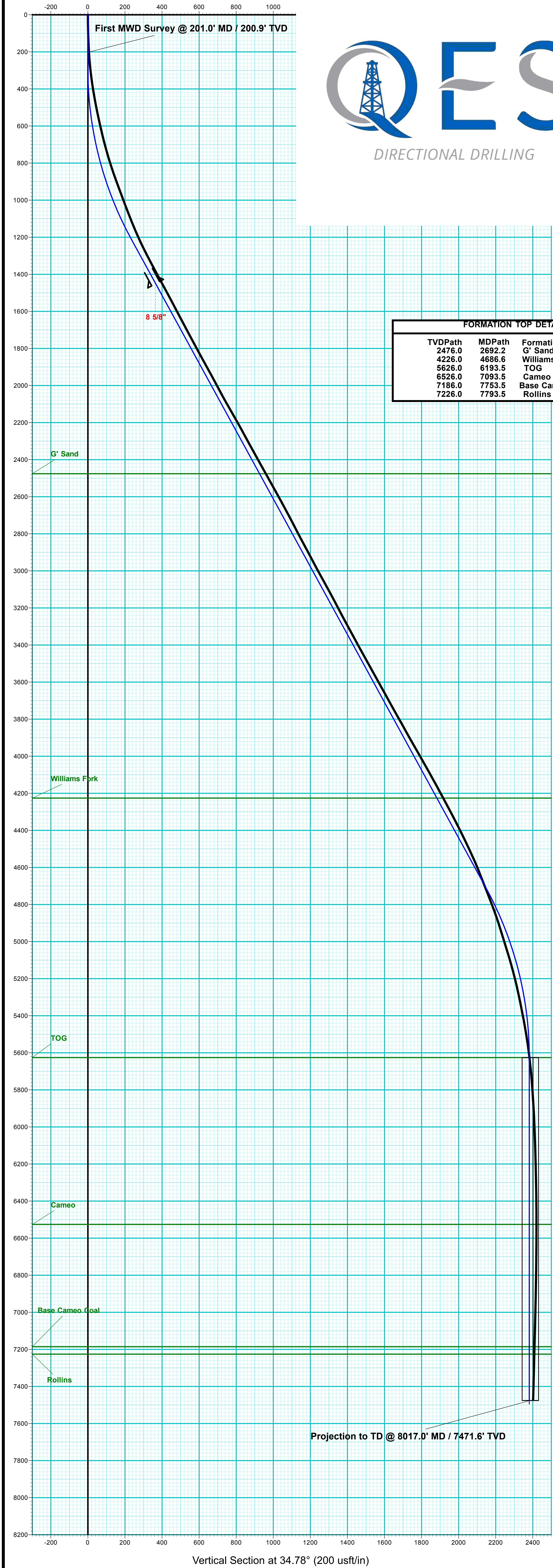
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Azimuths to True North  
Magnetic North: 9.54°

Strength: 51352.7snT  
Dip Angle: 65.42°  
Date: 1/11/2018  
Model: IGRF2015



WELL DETAILS: Nichols 0994-13-21E						
+N/-S	+E/-W	Northing	Ground Level: Easting	7137.0	Latitude	Longitude
0.0	0.0	1529764.00	2340231.95		39.264700	-107.830539



FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
2476.0	2692.2	G' Sand
4226.0	4686.6	Williams Fork
5626.0	6193.5	TOG
5626.0	7093.5	Cameo
7166.0	7753.5	Base Cameo Coal
7226.0	7793.5	Rollins

DESIGN ANNOTATIONS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	VSec	Departure	Annotation	
294.0	0.00	0.00	294.0	0.0	0.0	0.0	0.0	KOP (Build 3° / 100')	
1249.5	28.66	34.78	1210.1	192.2	133.5	234.1	234.1	EOB @ 28.66° Inc. / 34.78° Azm	
5238.1	28.66	34.78	4709.9	1763.7	1224.8	2147.3	2147.3	Drop 3° / 100'	
6193.5	0.00	0.00	5626.0	1955.9	1358.3	2381.3	2381.3	EOD @ Vertical	
8043.5	0.00	0.00	7476.0	1955.9	1358.3	2381.3	2381.3	TD @ 8043.5' MD / 7476.0' TVD	

ANNOTATIONS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	VSec	Departure	Annotation	
201.0	3.50	55.30	200.9	3.5	5.0	5.7	6.1	First MWD Survey @ 201.0' MD / 200.9' TVD	
8017.0	1.88	248.09	7471.6	1991.7	1343.2	2402.0	2457.7	Projection to TD @ 8017.0' MD / 7471.6' TVD	

DESIGN TARGET DETAILS								
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL - Nichols 0994-13-21E	476.0	1955.9	1358.3	1531684.42	2341640.02	39.270070	-107.825741	Circle (Radius: 50.0)

