



Project: Mesa County, CO
 Site: Gunderson 20-03 Pad
 Well: Gunderson 20-09W
 Wellbore: Wellbore #1
 Design: Design #2
 Latitude: 39.266700
 Longitude: -107.795317
 Ground Level: 7146.0
 well @ 7176.0usft (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 (N/E) Reference: Well Gunderson 20-09W, True North
 Vertical (TVD) Reference: well @ 7176.0usft (H&P # 522)
 Section (VS) Reference: Slot - (0.0N, 0.0E)
 Measured Depth Reference: well @ 7176.0usft (H&P # 522)
 Calculation Method: Minimum Curvature

WELL DETAILS: Gunderson 20-09W

Ground Level: 7146.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	1530238.35	2350219.45	39.266700	-107.795317

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

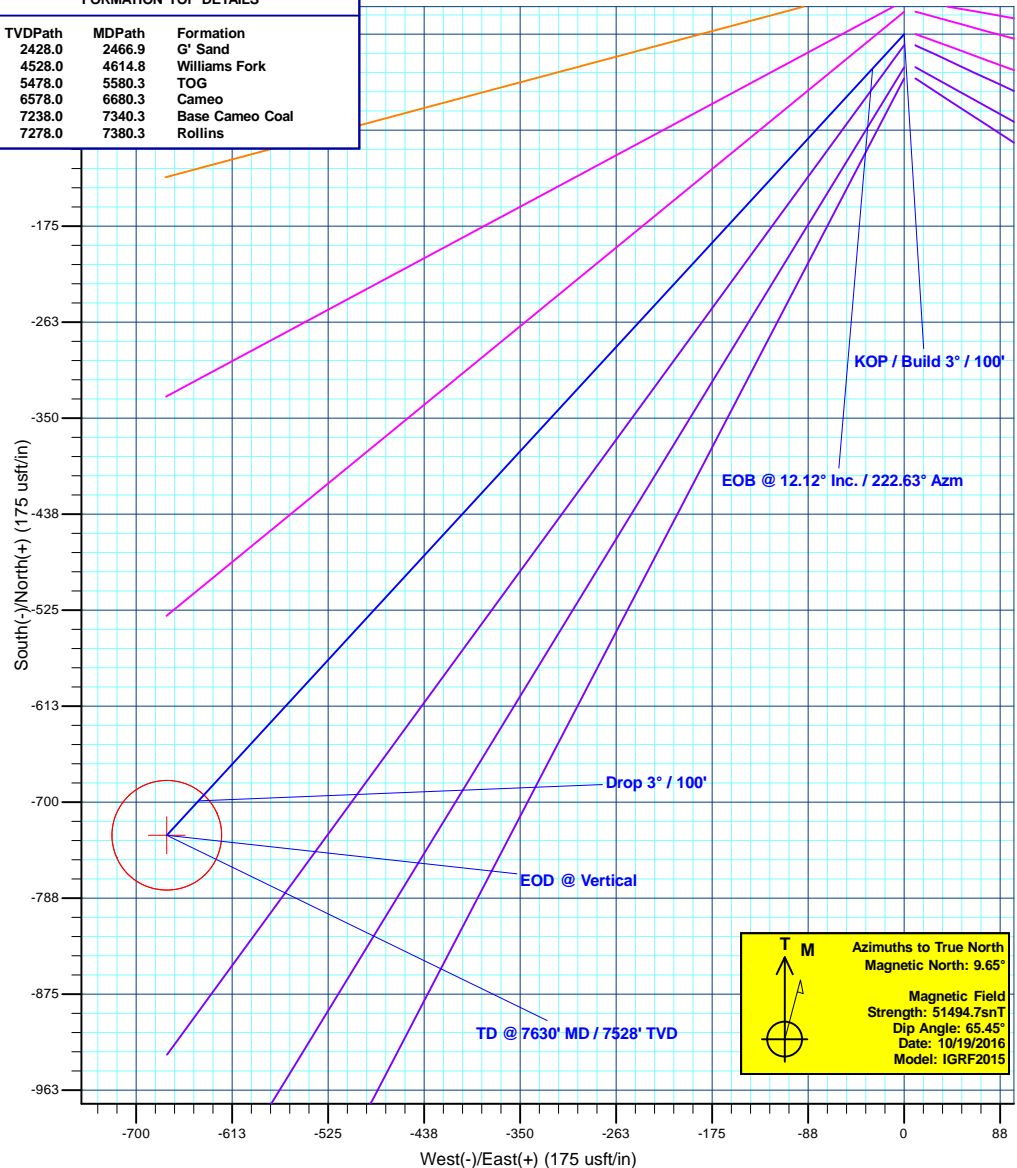
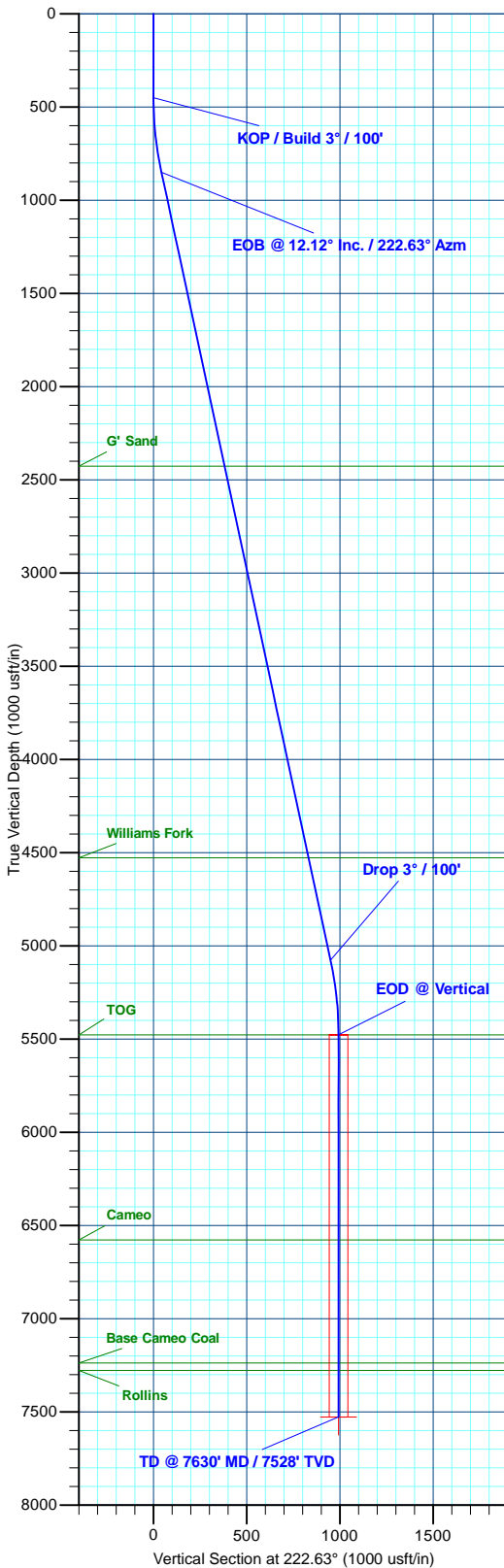
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL - Gunderson 20-09W	7528.0	-730.2	-672.1	1529525.32	2349529.07	39.264695	-107.797691

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
450.0	0.00	0.00	450.0	0.0	0.0	0.00	0.00	0.0	KOP / Build 3° / 100'
853.9	12.12	222.63	850.9	-31.3	-28.8	3.00	222.63	42.6	EOB @ 12.12° Inc. / 222.63° Azm
5176.4	12.12	222.63	5077.1	-698.9	-643.3	0.00	0.00	949.9	Drop 3° / 100'
5580.3	0.00	0.00	5478.0	-730.2	-672.1	3.00	180.00	992.5	EOD @ Vertical
7630.3	0.00	0.00	7528.0	-730.2	-672.1	0.00	0.00	992.5	TD @ 7630' MD / 7528' TVD

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
2428.0	2466.9	G' Sand
4528.0	4614.8	Williams Fork
5478.0	5580.3	TOG
6578.0	6680.3	Cameo
7238.0	7340.3	Base Cameo Coal
7278.0	7380.3	Rollins



Plan: Design #2 (Gunderson 20-09W/Wellbore #1)

Created By: Will Jircik Date: 14:51, November 15 2016