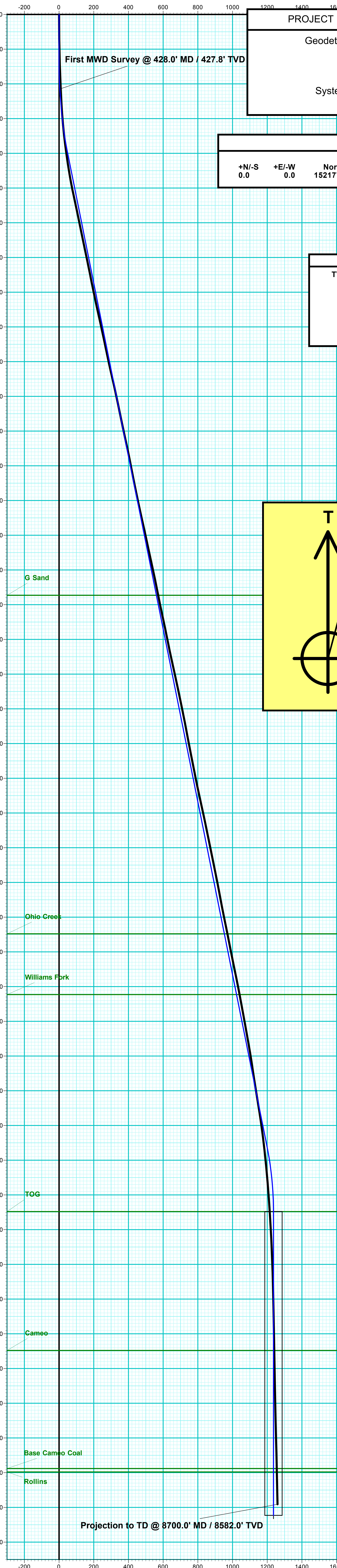


Company Name: Laramie Energy, LLC
 Sup & Shep 0993-25-07W
 Mesa County, CO
 Rig: H&P #522
 Created By: Will Jircik
 Date: 12/04/2018

Sup & Shep 0993-25-07W
 Mesa County, CO
 Q181674 & RM-181409
 Design #3

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° / 100')
466.7	5.00	0.00	466.5	7.3	0.0	7.1	7.3	EOB @ 5.00° Inc. / 0.00° Azm
566.7	5.00	0.00	566.1	16.0	0.0	15.6	16.0	Build 3° / 100'
786.1	11.36	346.96	783.1	46.6	-4.9	46.5	47.1	EOB @ 11.36° Inc. / 346.96° Azm
6637.4	11.36	346.96	6519.9	1169.1	-264.8	1198.8	1199.3	Drop 3° / 100'
7016.0	0.00	0.00	6896.0	1205.6	-273.3	1236.2	1236.7	EOD @ Vertical
8766.0	0.00	0.00	8646.0	1205.6	-273.3	1236.2	1236.7	TD @ 8766.0' MD / 8646.0' TVD



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

WELL DETAILS: Sup & Shep 0993-25-07W

+N-S	+E-W	Northing	Easting	Latitude	Longitude
0.0	0.0	1521771.11	2370380.53	39.244836	-107.723396

GL: 8078.0

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3346.0	3400.1	G Sand
5296.0	5389.0	Ohio Creek
5646.0	5746.0	Williams Fork
6896.0	7016.0	TOG
7861.0	7816.0	Cameo
8376.0	8496.0	Base Cameo Coal
8396.0	8516.0	Rollins

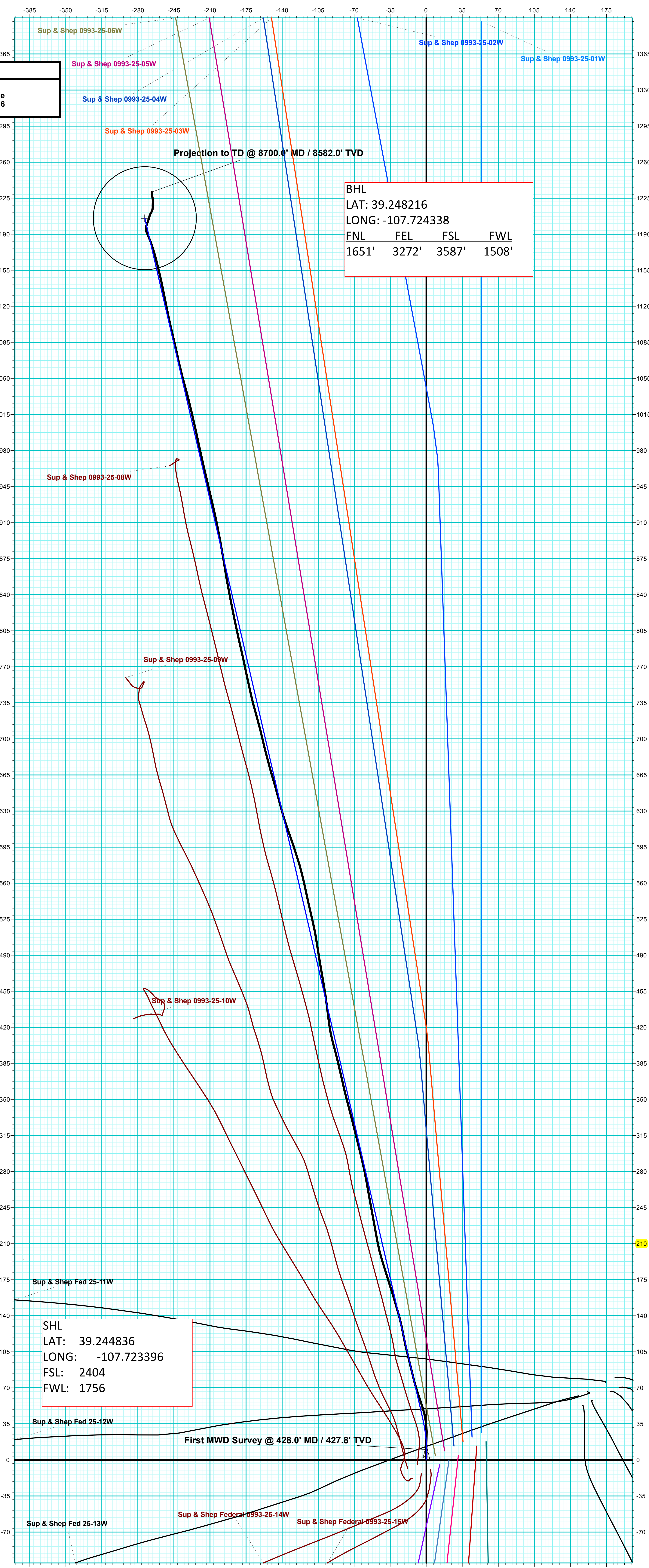
T Azimuths to True North
M Azimuths to Magnetic North: 9.33°

Strength: 51238.9snT
 Dip Angle: 65.37°
 Date: 11/24/2018
 Model: USER DEFINED



DESIGN TARGET DETAILS

Name	TVD	+N-S	+E-W	Northing	Easting	Latitude	Longitude	Shape
PBHL - SUP & SHEP 0993-25-07W	8646.0	1205.6	-273.3	1522983.02	2370136.84	39.248146	-107.724361	Circle (Radius: 50.0)



BHL
 LAT: 39.248216
 LONG: -107.724338
 FNL FEL FSL FWL
 1651' 3272' 3587' 1508'

SHL
 LAT: 39.244836
 LONG: -107.723396
 FSL: 2404
 FWL: 1756

Projection to TD @ 8700.0' MD / 8582.0' TVD

Vertical Section at 347.23° (200 usft/in)