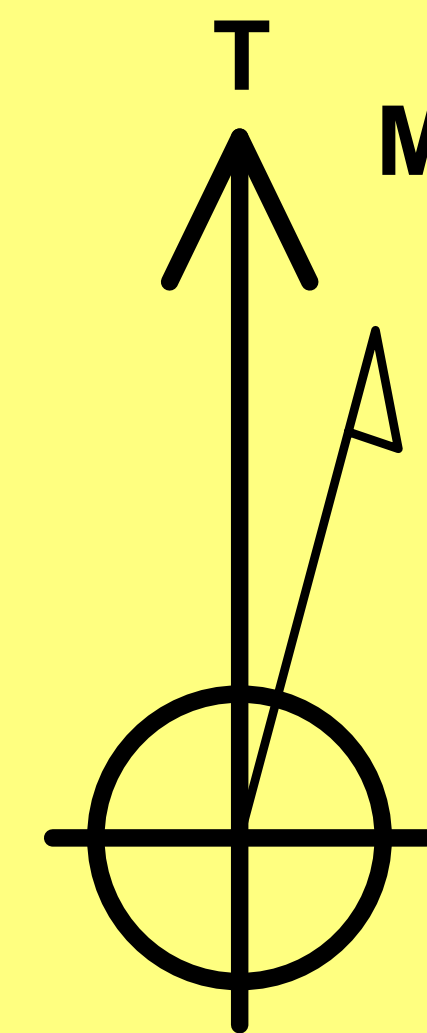


Company Name: Laramie Energy, LLC
Nichols Federal 0994-24-21E
Mesa County, CO
Rig: H&P #290
Created By: Will Jircik
Date: 5/24/2018

Geodetic System:	US State Plane 1983
Datum:	North American Datum 1983
Ellipsoid:	GRS 1980
Zone:	Colorado Central Zone
System Datum:	Mean Sea Level



Strength: 51296.5snT
Dip Angle: 65.40°
Date: 5/10/2018
Model: USER DEFINED



		Ground Level:		7212.0	
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	1529213.05	2340128.94	39.263180	-107.830853

		Ground Level:		7212.0	
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	1529213.05	2340128.94	39.263180	-107.830853

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL - Nichols Federal 0994-24-21E D#2	7371.0	-2583.9	1291.0	1526596.83	2341353.22	39.256086	-107.826294	Circle (Radius: 50.0)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL - Nichols Federal 0994-24-21E D#2	7371.0	-2583.9	1291.0	1526596.83	2341353.22	39.256086	-107.826294	Circle (Radius: 50.0)

MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.0	KOP (Build 3' / 100')
433.3	10.00	180.00	431.6	-29.0	0.0	26.0	29.0	EOB @ 10.00° Inc. / 180.00° Azm / Build 3' / 100'
956.9	24.00	153.10	931.8	-170.3	48.5	174.0	179.6	EOB @ 10.00° Inc. / 153.10° Azm
2783.0	24.00	153.10	2600.0	-832.7	384.5	916.8	922.0	Build 3' / 100'
3432.1	40.77	152.60	3070.4	-1098.1	529.9	1215.1	1220.3	EOB @ 40.77° Inc. / 152.60° Azm
4515.2	40.77	152.60	4473.9	-1725.5	243.9	1285.5	1291.3	EOB @ 40.77° Inc. / 152.60° Azm
6554.2	0.00	0.00	5721.0	-2583.9	1291.0	2888.5	2894.3	EOB @ Vertical
8204.2	0.00	0.00	7371.0	-2583.9	1291.0	2888.5	2894.3	TD @ 8204.2' MD / 7371.0' TVD

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSecDeparture	Annotation
293.0	7.00	164.10	292.3	-17.2	4.9	17.6 17.9	First MWD Survey @ 293.0' MD / 292.3' TVD
8180.0	2.29	225.99	7392.2	-2597.0	1271.0	2891.2 2918.4	TD @ 8180.0' MD / 7392.2' TVD

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSecDeparture	Annotation
293.0	7.00	164.10	292.3	-17.2	4.9	17.6 17.9	First MWD Survey @ 293.0' MD / 292.3' TVD
8180.0	2.29	225.99	7392.2	-2597.0	1271.0	2891.2 2918.4	TD @ 8180.0' MD / 7392.2' TVD

TVDPath	MDPath	Formation
2371.0	2532.4	G' Sand
4121.0	4729.3	Williams Fork
5521.0	6353.8	TOG
6421.0	7254.2	Cameo
7081.0	7914.2	Base Cameo Coal
7121.0	7954.2	Rollins

