

CC Federal 0697-04-01E  
Garfield County, CO  
Q191105 & RM-190960  
Design #4

Company Name: Laramie Energy, LLC  
CC Federal 0697-04-01E  
Garfield County, CO  
Rig: RKB 30'  
Created By: Will Jircik  
Date: 17:39, June 29 2019

PROJECT DETAILS: Garfield 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: CC Federal 0697-04-01E

+N/-S 0.0	+E/-W 0.0	Northing 1639471.68	Easting 2233550.80	8609.0 Latitude 39.557649	Longitude -108.218761
--------------	--------------	------------------------	-----------------------	---------------------------------	--------------------------

FORMATION TOP DETAILS

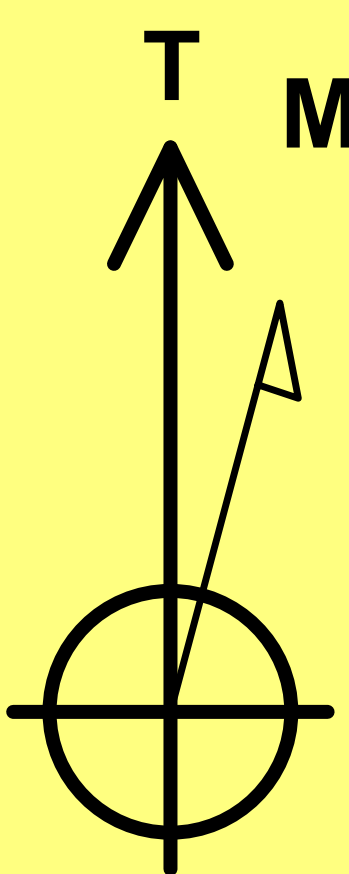
TVDPath	MDPath	Formation
606.0	606.1	Mahogany
4814.0	4962.6	Wasatch 'G' Sand
6514.0	6726.7	Ohio Creek
6664.0	6882.4	Williams Fork
7464.0	7699.6	TOG
9114.0	9349.6	Cameo
9344.0	9579.6	Base Cameo Coal
9364.0	9599.6	Rollins

DESIGN ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect Departure	Annotation
200.0	0.00	0.00	200.0	0.0	0.0	0.0	KOP ( Build 3' / 100'
266.7	2.00	90.00	266.7	0.0	1.2	-0.3	1.2 EOB @ 2.00° Inc. / 90.00° Azm
366.6	2.00	90.00	366.6	0.0	4.7	-1.0	4.7 Drop 3' / 100'
433.3	0.00	0.00	433.3	0.0	5.8	-1.3	5.8 EOD @ Vertical
533.3	0.00	0.00	533.2	0.0	5.8	-1.3	5.8 Build 3' / 100'
1050.0	15.50	0.00	1043.6	69.5	5.8	66.5	75.3 EOB @ 15.50° Inc. / 0.00° Azm
1550.0	15.50	0.00	1525.4	203.1	5.8	196.9	208.9 Turn 3° / 100'
1679.4	15.50	345.44	1650.2	237.1	1.5	231.1	243.3 EOT @ 345.44° Azm
7183.0	15.50	345.44	6953.7	1660.4	-368.2	1700.8	1713.9 Drop 3' / 100'
7699.6	0.00	0.00	7464.0	1727.6	-365.7	1770.2	1783.3 EOD @ Vertical
9849.6	0.00	0.00	9614.0	1727.6	-365.7	1770.2	1783.3 TD @ 9849.6' MD / 9614.0' TVD

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL - CC Federal 0697-04-01E	9614.0	1727.6	-385.7	1641210.09	2233216.99	39.562392	-108.220129



Azimuths to True North  
Magnetic North: 9.57°

Strength: 51425.7snT  
Dip Angle: 65.80°  
Date: 6/24/2019  
Model: HDGM

Projection to TD @ 9817.0' MD / 9569.7' TVD

Vertical Section at 347.42° (200 usft/in)

BHL  
LAT: 39.562359  
LONG: -108.220270  
FNL FEL FSL FWL  
168' 1349' 6435' 3918'

Projection to TD @ 9817.0' MD / 9569.7' TVD

CC Federal 0697-04-02E/Wellbore #1

CC Federal 0697-04-03E/Wellbore #1

CC Federal 0697-04-04E/Wellbore #1

CC Federal 0697-04-05E/Wellbore #1

CC 0697-04-06E/Wellbore #1

CC 0697-04-07E/Wellbore #1

First MWD Survey @ 145.0' MD / 145.0' TVD

SHL  
LAT: 39.557649  
LONG: -108.218761  
FNL: 1885'  
FEL: 925'

CC 0697-03-09W/Design #2

CC 0697-03-10W/Design #3

CC 0697-04-09E/Wellbore #1

CC 0697-04-10E/Wellbore #1

CC 0697-03-11W/Design #4

CC 0697-03-12W/Design #5