



Feb-13-2019  
EMM-2015 [2000.0-2020.0] Dip: 66.26 deg Field: 51918.8 nT  
Lat: N39 57 12.0780 Long: W104 54 6.9048 Elev: 5239.60 ft  
Magnetic North is 8.14 deg East of TRUE North  
To correct azimuth from Magnetic to TRUE add 8.14 deg

# Great Western Operating Company, LLC

**Location** Colorado  
**Field** Wattenburg  
**Installation** Tower  
**Slot** N03 - Tower LD 19-022HN  
**Well** Tower LD 19-022HN  
**Wellbore** Tower LD 19-022HN (PWB)

Created by admin  
Date plotted 14-Feb-2019

Plot reference is Tower LD 19-022HN (PWB).  
Ref wellpath is Tower LD 19-022HN (PWP#1).  
Coordinates are in Feet reference N03 - Tower LD 19-022HN.  
True Vertical Depths are reference Rig Datum.  
Measured Depths are reference Rig Datum.  
Rig Datum: Planned Datum #1  
Rig Datum to Mean Sea Level: 5259.60 ft.  
Plot North is aligned to TRUE North.

Scale 1 cm = 400 ft

East (Feet) ->

-12000 -11200 -10400 -9600 -8800 -8000 -7200 -6400 -5600 -4800 -4000 -3200 -2400 -1600 -800 0 800 1600

BHL - 17,951 / 7788 MD/TVD, 476.47 FNL, 370 FWL Sec 19

Btm Perf - 17,851 / 7788 MD/TVD, 476.47 FNL, 470 FWL Sec 19

TPZ - 8384 / 7788 MD/TVD, 476.47 FNL, 460 FEL Sec 20

2400

1600

800

0

-800

-1600

-2400

-3200

-4000

-4800

-5600

-6400

<- North(Feet)

Scale 1 cm = 400 ft

9 5/8in Surface Casing

TPZ - 8384 / 7788 MD/TVD, 476.47 FNL, 460 FEL Sec 20

5 1/2in Production Casing

Btm Perf - 17,851 / 7788 MD/TVD, 476.47 FNL, 470 FWL Sec 19

BHL - 17,951 / 7788 MD/TVD, 476.47 FNL, 370 FWL Sec 19

Sec 19, T1S, R67W

Sec 20, T1S, R67W

Sec 21, T1S, R67W

<- True Vertical Depth (Feet)

Scale 1 cm = 800 ft

-3200 -1600 0 1600 3200 4800 6400 8000 9600 11200 12800 14400 16000

Scale 1 cm = 800 ft

Vertical Section (Feet) ->

Azimuth 275.46 with reference 0.00 N, 0.00 E from N03 - Tower LD 19-022HN

## WELL PROFILE DATA

Point	MD	Inc	Azi	TVD	North	East	deg/100ft	V. Sect
Tie on	0.00	0.00	0.00	0.00	S 0.00	W 0.00		0.00
KOP	5346.00	0.00	341.39	5346.00	S 0.00	W 0.00	0.00	0.00
End of Build	6346.05	30.00	341.39	6300.97	N 242.51	W 81.68	3.00	104.36
End of Hold	7573.91	30.00	341.39	7364.31	N 824.36	W 277.64	0.00	354.76
Target TPZ - ...Sec 20	8383.78	90.00	269.64	7788.00	N 1053.16	W 844.95	10.00	941.26
Target Btm Pe...Sec 19	17851.14	90.00	269.64	7788.00	N 994.45	W 10312.13	0.00	10359.97
End of Turn	17855.01	90.00	270.03	7788.00	N 994.44	W 10316.00	10.00	10363.82
T.D. & Target BHL.... 19	17951.22	90.00	270.03	7788.00	N 994.49	W 10412.22	0.00	10459.60