

Well name: **WereWolf Hill 4 D Fed. #1**
 Operator: **Devon Energy Production Company L.P.**
 String type: **Production**
 Location: **860' FNL & 660' FWL, Sec. 4, T22S, R26E**

Design parameters:**Collapse**

Mud weight: 6.800 ppg
 Design is based on evacuated pipe.

Minimum design factors:**Collapse:**

Design factor 1.125

Environment:

H2S considered? No
 Surface temperature: 80 °F
 Bottom hole temperature: 171 °F
 Temperature gradient: 0.80 °F/100ft
 Minimum section length: 550 ft

Burst:

Design factor 1.00

Burst

Max anticipated surface pressure: 4,027 psi
 Internal gradient: 0.000 psi/ft
 Calculated BHP 4,027 psi
 Annular backup: 9.60 ppg

Tension:

8 Round STC: 1.80 (J)
 8 Round LTC: 1.80 (J)
 Buttress: 1.60 (J)
 Premium: 1.50 (J)
 Body yield: 1.60 (B)

Non-directional string.

Packer fluid details:
 Fluid density: 8.500 ppg
 Packer depth: 10,800 ft

Tension is based on air weight.
 Neutral point: 10,363 ft

Estimated cost: 75,035 (\$)

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
3	700	5.5	20.00	L-80	LT&C	700	700	4.653	5221
2	8900	5.5	17.00	L-80	LT&C	9600	9600	4.767	56390
1	1800	5.5	20.00	L-80	LT&C	11400	11400	4.653	13424

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
3	2247	7216	3.21	4027	9190	2.28	201.3	416	2.07 J
2	5391	6119	1.14	3987	7740	1.94	187.3	338	1.80 J
1	6027	8830	1.47	3478	9190	2.64	36	416	11.56 J

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Remarks:

Collapse is based on a vertical depth of 11400 ft, a mud weight of 6.8 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.