

Well name: **Reeves West #1**  
 Operator: **Devon Energy Production Company L.P.**  
 String type: **Intermediate**  
 Location: **Lea County, NM**

**Design parameters:**

**Collapse**

Mud weight: 10.500 ppg  
 Design is based on evacuated pipe.

**Minimum design factors:**

**Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Environment:**

H2S considered? No  
 Surface temperature: 85 °F  
 Bottom hole temperature: 115 °F  
 Temperature gradient: 0.80 °F/100ft  
 Minimum section length: 450 ft  
 Minimum Drift: 7.796 in

**Burst**

Max anticipated surface pressure: 0 psi  
 Internal gradient: 0.545 psi/ft  
 Calculated BHP 2,058 psi

No backup mud specified.

**Tension:**

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

Tension is based on buoyed weight.  
 Neutral point: 3,200 ft

**Directional Info - Build & Hold**

Kick-off point 1950 ft  
 Departure at shoe: 291 ft  
 Maximum dogleg: 1.5 °/100ft  
 Inclination at shoe: 11.39 °

**Re subsequent strings:**

Next setting depth: 8,224 ft  
 Next mud weight: 9.600 ppg  
 Next setting BHP: 4,101 psi  
 Fracture mud wt: 13.800 ppg  
 Fracture depth: 3,774 ft  
 Injection pressure 2,705 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	3800	8.625	32.00	J-55	LT&C	3774	3800	7.875	241.4
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
1	2058	2530	1.23	2058	3930	1.91	102	417	4.09 J

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 Oklahoma City, Oklahoma

**Remarks:**

Collapse is based on a vertical depth of 3774 ft, a mud weight of 10.5 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.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

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