

Well name: **Campana 2 "M" State #1**
 Operator: **Devon Energy Production Company, L.P.**
 String type: **Intermediate**
 Location: **Section 2, T24S, R26E, Eddy County, NM**

Design parameters:

Collapse

Mud weight: 9.000 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: 75 °F
 Bottom hole temperature: 119 °F
 Temperature gradient: 0.80 °F/100ft
 Minimum section length: 450 ft

Burst

Max anticipated surface pressure: 3,143 psi
 Internal gradient: 0.000 psi/ft
 Calculated BHP 3,143 psi
 Annular backup: 8.80 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.

Tension is based on air weight.
 Neutral point: 4,765 ft

Estimated cost: 45,372 (\$)

Re subsequent strings:

Next setting depth: 12,000 ft
 Next mud weight: 9.600 ppg
 Next setting BHP: 5,984 psi
 Fracture mud wt: 11.000 ppg
 Fracture depth: 5,500 ft
 Injection pressure 3,143 psi

Run Seq	Segment Length (ft)	Size (in)	Norninal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
2	4700	8.625	32.00	J-55	LT&C	4700	4700	7.875	37875
1	800	8.625	32.00	HCK-55	LT&C	5500	5500	7.875	7497

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
2	2197	2493	1.13	3143	3930	1.25	176	417	2.37 J
1	2571	4130	1.61	994	3930	3.95	25.6	503.2	19.66 B

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 Oklahoma City, Oklahoma

Remarks:

Collapse is based on a vertical depth of 5500 ft, a mud weight of 9 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.