

Well name:	Big Cactus #3
Operator:	Devon Energy Corporation (Nevada)
String type:	Intermediate
Location:	Section 9, T21S, R26E, Eddy County, NM

Design parameters:
Collapse

Mud weight: 8.800 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: 92 °F
Temperature gradient: 0.85 °F/100ft
Minimum section length: 450 ft
Minimum Drift: 8.750 in

Burst

Max anticipated surface pressure: 1,039 psi
Internal gradient: 0.000 psi/ft
Calculated BHP: 1,039 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 buoyed weight.
Neutral point: 1,740 ft

Re subsequent strings:

Next setting depth: 11,150 ft
Next mud weight: 9.300 ppg
Next setting BHP: 5,387 psi
Fracture mud wt: 10.000 ppg
Fracture depth: 2,000 ft
Injection pressure: 1,039 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)	Est. Cost (\$)
1	2000	9.625	36.00	J-55	LT&C	2000	2000	8.796	16355

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	914	2020	2.21	1039	3520	3.39	62.6	453	7.23 J

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Oklahoma City, Oklahoma

Remarks:

Collapse is based on a vertical depth of 2000 ft, a mud weight of 8.8 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.