

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

**Design parameters:**
**Collapse**

Mud weight: 8.500 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: 75 °F  
Bottom hole temperature: 79 °F  
Temperature gradient: 0.85 °F/100ft  
Minimum section length: 450 ft  
Minimum Drift: 2.715 in

**Burst**

Max anticipated surface pressure: 260 psi  
Internal gradient: 0.000 psi/ft  
Calculated BHP 260 psi  
  
Annular backup: 8.50 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: 438 ft

**Re subsequent strings:**

Next setting depth: 1,800 ft  
Next mud weight: 8.800 ppg  
Next setting BHP: 823 psi  
Fracture mud wt: 10.000 ppg  
Fracture depth: 500 ft  
Injection pressure 260 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	500	13.375	48.00	H-40	ST&C	500	500	12.59	6201

  

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	221	740	3.35	260	1730	6.66	21	322	15.32 J

Prepared W. M. Frank  
by: Devon Energy

Phone: (405) 552-4595  
FAX: (405) 552-4621

Date: July 6, 2001  
Oklahoma City, Oklahoma

**Remarks:**

Collapse is based on a vertical depth of 500 ft, a mud weight of 8.5 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.

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