

Well name: **Shugart 25 Federal Com #1**
 Operator: **Devon SFS Operating, Inc.**
 String type: **Production**
 Location: **Eddy County, NM**

Design parameters:**Collapse**

Mud weight: 7.400 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: 175 °F
 Temperature gradient: 0.80 °F/100ft
 Minimum section length: 650 ft

Burst

Max anticipated surface pressure: 4,805 psi
 Internal gradient: 0.000 psi/ft
 Calculated BHP 4,805 psi
 Annular backup: 9.80 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: 11,133 ft

Estimated cost: 66,454 (\$)

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 (\$)
4	1000	5.5	17.00	N-80	Buttress	1000	1000	4.767	6026
3	3500	5.5	17.00	N-80	LT&C	4500	4500	4.767	19727
2	3500	5.5	15.50	K-55	LT&C	8000	8000	4.825	15338
1	4500	5.5	17.00	N-80	LT&C	12500	12500	4.767	25363

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
4	384	4792	12.47	4805	7740	1.61	207.2	397	1.92 B
3	1730	5425	3.14	4296	7740	1.80	190.2	348	1.83 J
2	3075	3535	1.15	2514	4810	1.91	130.7	239	1.83 J
1	4805	6290	1.31	732	7740	10.57	76.5	348	4.55 J

Prepared TRR
 by: Devon Energy

Date: September 21, 2000
 Oklahoma City, Oklahoma

Remarks:

Collapse is based on a vertical depth of 12500 ft, a mud weight of 7.4 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.