

Well name:

Crow Flat 20-4Operator: **Devon Energy**String type: **Production****Design parameters:****Collapse**

Mud weight: 9.600 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: 212 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 500 ft

Burst

Max anticipated surface pressure: 3,711 psi
Internal gradient: 0.120 psi/ft
Calculated BHP 4,887 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: 1.60 (B)

Non-directional string.

Tension is based on air weight.
Neutral point: 8,373 ft

Estimated cost: 47,814 (\$)

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 (\$)
3	1700	5.5	17.00	L-80	LT&C	1700	1700	4.767	10771
2	5800	5.5	17.00	J-55	LT&C	7500	7500	4.767	22470
1	2300	5.5	17.00	L-80	LT&C	9800	9800	4.767	14573

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
3	848	5359	6.32	3915	7740	1.98	166.6	338	2.03 J
2	3740	4680	1.25	4611	5320	1.15	137.7	247	1.79 J
1	4887	6290	1.29	4887	7740	1.58	39.1	338	8.64 J

Prepared Terry Henderson
by: Devon Energy

Date: September 14, 2001
Oklahoma City, Oklahoma

Remarks:

Collapse is based on a vertical depth of 9800 ft, a mud weight of 9.6 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.