Well name:	**Winston Gas Com. 31 Fed. #9**
Operator:	**Devon Energy Production Company L.P.**
String type:	Production
Location:	Section 31, T21S, R24E

Design parameters:

Collapse
Mud weight: 8.800 ppg
Design is based on evacuated pipe.

Burst
Max anticipated surface pressure: 3,931 psi
Internal gradient: 0.000 psi/ft
Calculated BHP 3,931 psi
Annular backup: 8.80 ppg

Minimum design factors:

Collapse:
Design factor 1.125

Burst:
Design factor 1.00

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)

Tension is based on air weight.
Neutral point: 7,462 ft

Estimated cost: 78,246 ($)

Environment:
H2S considered? Yes
Surface temperature: 75 °F
Bottom hole temperature: 144 °F
Temperature gradient: 0.80 °F/100ft
Minimum section length: 1,000 ft

Non-directional string.

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 ($)
2	7100	7	23.00	L-80	LT&C	7100	7100	6.25	63683
1	1500	7	23.00	HCL-80	LT&C	8600	8600	6.25	14563

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	3246	3758	1.16	3931	6340	1.61	197.8	435	2.20 J
1	3931	5650	1.44	686	6340	9.25	34.5	485	14.06 J

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Oklahoma City, Oklahoma

Remarks:
Collapse is based on a vertical depth of 8600 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.