

Caliper exercise (From P. Glover Petrophysics book)

This exercise uses data from the Elysian Field:

- Well: 24-1X
- Depth Range: 2900 – 3250 m
- Lithology: Variable

The enclosed log sheet shows the results from a simple two arm caliper tool.

- Indicate where likely mud-cake occurs by shading between the caliper and the bit size curves.
- Divide the log into sections which you believe to be of the same, or approximately the same lithology.
- Indicate the possible lithologies down the right hand side of the log. Indicate the most likely lithology of those you have indicated for each lithology section.
- Indicate, if present, zones of (i) caving, (ii) sloughing, (iii) marl creep.
- What is the mean mud-cake thickness in the intervals 2980 m to 3035 m, and 3082 m to 3145 m?
- What is the approximate borehole volume in the intervals 2900 m to 3250 m in liters?
- What is the cement volume required to complete the borehole between 2900 m and 3250 with a 7-inch diameter casing liner in liters?

