

Basic thoughts about wireline logs II: Correlation

Shales, as quiet-water deposits in floodplains and shelves, have layers with greater lateral extent than other sediments deposited in more localized settings, such as channels, bars, shoals, reefs. Thus shaley intervals, and the variability within them, are more useful for bed-by-bed correlation. This page is an attempt to illustrate that thought.

The five logs below represent five boreholes through shale-rich sedimentary strata. Six log intervals numbered 1 to 6 represent non-shale strata. If we only looked crudely and saw only “non-shale” and “shale”, we might correlate Non-shale 2 with either Nonshale 3 or Nonshale 4 (as suggested on Page IIa of this series. Similarly, if

we were asked correlate any one of the left five logs with Log E, we would have no idea of the correct correlation with our crude “shale vs. non-shale” approach. However, if we look within the shale intervals, correlation is straightforward, as suggested by the dashed colored lines.

