

Figure 2: Line from the synthetic volume showing the results of the initial facies analysis of the random data. There are many violations of the geologic rules where facies appear with Gas overlying Oil or Oil overlying Sand.

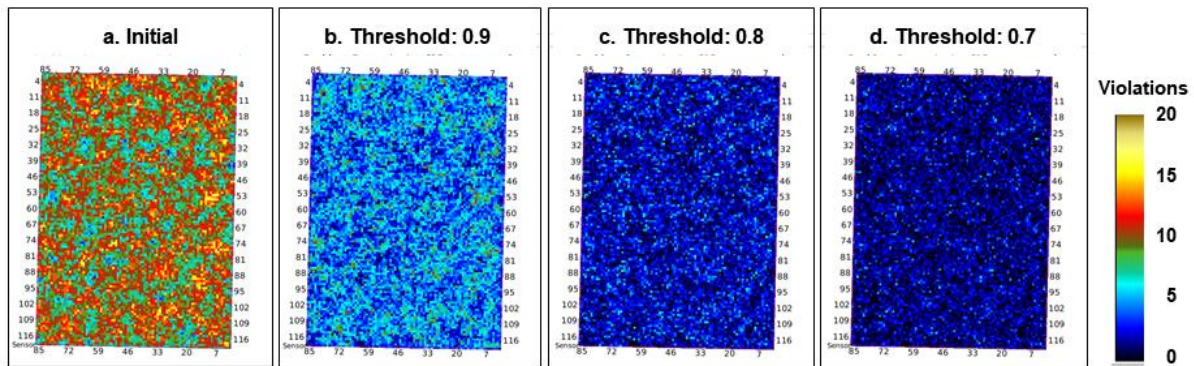


Figure 3: Maps of the cumulative number of per-trace geologic rule violations are shown for successive iterations. Figure 3a shows the initial state before application of the Dynamic Prior method. Figures 3b, 3c, and 3d are for successive iterations with probability thresholds of 0.9, 0.8 and 0.7, respectively. The number of violations is reduced in successive iterations. A final iteration to remove single isolated violators reduced that number to zero.

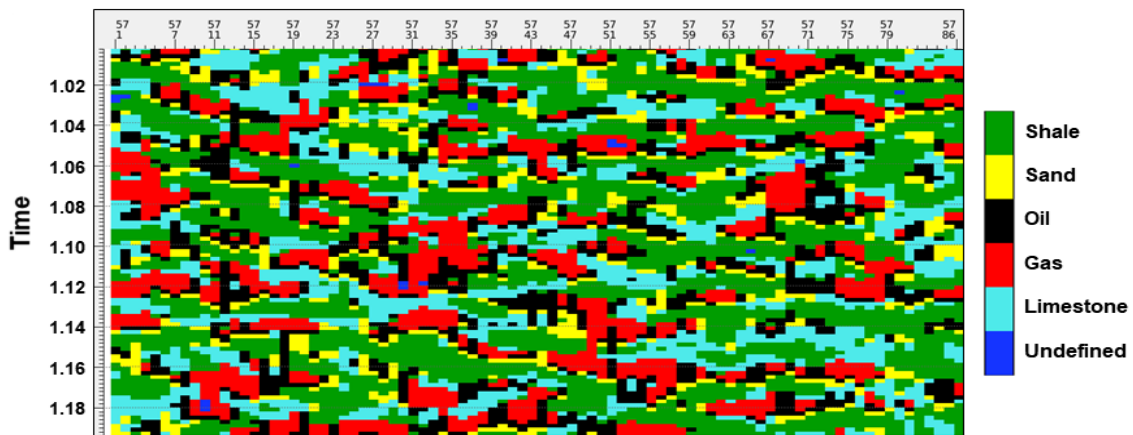


Figure 4: Final facies analysis with no rule violations.

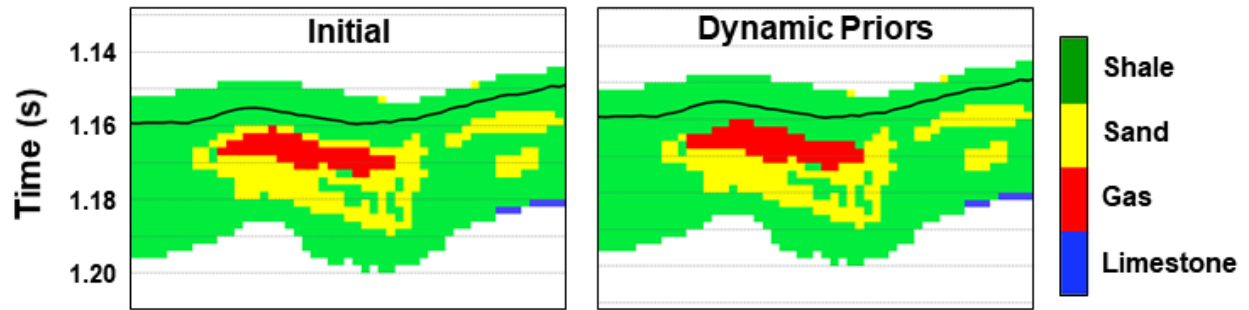


Figure 5: On the left, facies derived from a Blackfoot inversion show sand over gas in the Glauconitic due to missing high frequencies resulting in a transition phase between gas and shale. In the left figure, the application of Dynamic Priors has fixed the problem.