

Figure 6: Average aquifer pressure for all cases in the rate-constrained scenario.

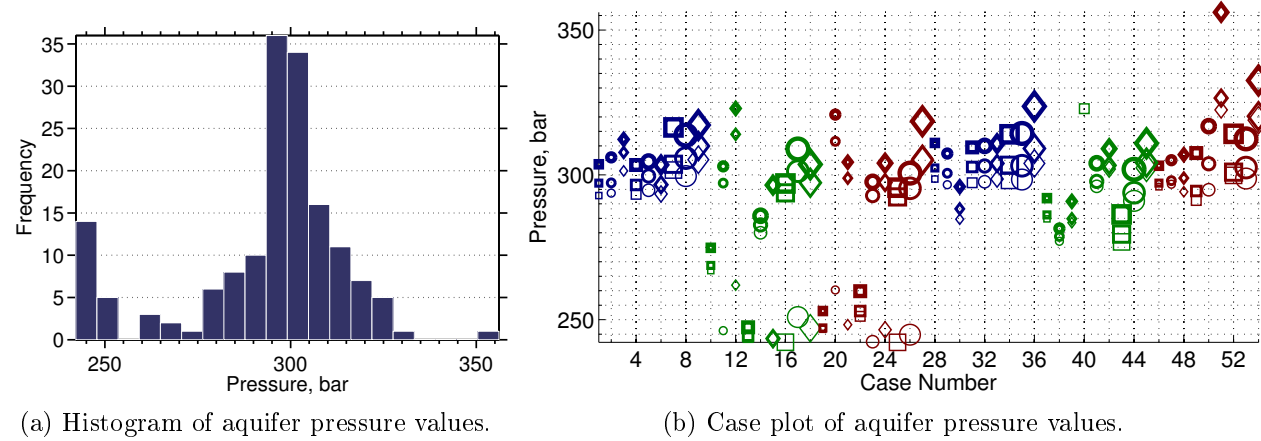


Figure 7: Aquifer average pressure for all cases in the pressure-constrained scenario.

time. Progradation effects are apparent on the higher aggradation cases: for some of the cases colored green and red in the second half of the plot in Figure 5, injection takes longer than the corresponding cases in the first half, which satisfy the targeted injection. This means that down-dip progradation, independent of aggradation angle level, can result in lower injectivity.

4.2 Well and aquifer pressure

To see the overpressure caused by different heterogeneities, we compare cases for their average pressure and well pressure drop. Histograms of average aquifer pressure are shown in Figures 6a and 7a for different injection scenarios and average aquifer pressure at 2.4 hours after the start of injection is plotted for all cases in Figures 6b and 7b. In the rate-constrained scenario, high ranges of average pressure are observed (Figure 6b). Effects of aggradation angle, progradation and faulting are visible in the plot. Three clusters can be identified in the histogram of Figure 6a with medium, high and extreme pressure values. In Figure 7a,