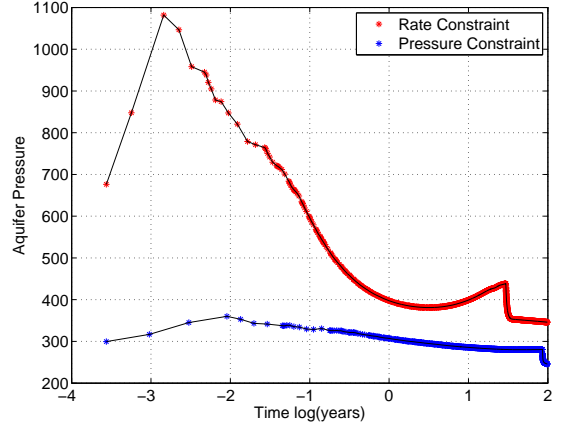
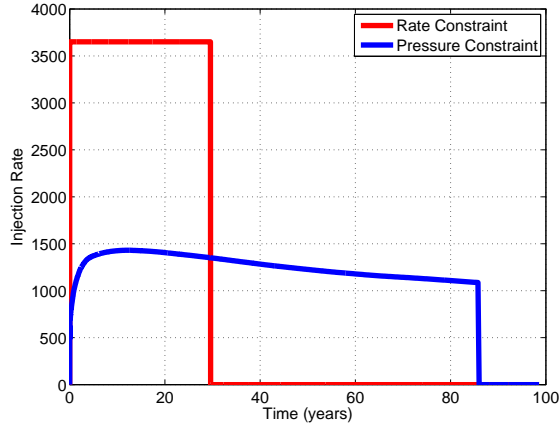


(a) Pressure in the injector versus logarithm of time.



(b) Average aquifer pressure versus logarithm of time.



(c) Volumetric injection rate.

Figure 3: Aquifer and well pressure and injection rate in different injection scenarios shown for a test case.

40MM  $\text{m}^3$  is injected into the medium. As soon as the total injected volume reaches this number, the injector will be shut from the bore-hole and no injection happens for the rest of simulation time.

## 4 Pressure analysis

We start by discussing the pressure responses we will use in our study for one particular realization. Then we do the full analysis by considering all of the 160 specified realizations, which are made by combining the geological variable levels discussed earlier<sup>1</sup>. Response plots are shown and discussed accordingly. Most of the reported results are chosen at 2.4 hours (0.1 day), i.e., at the beginning of injection. At that time, the system pressure response is higher compared to the later times when the pressure in the system drops to lower values

<sup>1</sup>Combining all the features and levels makes 162 cases. However, two cases were missing in the original data set.