

a) left panel showing the head at the well and right panel showing the head at the midpoint of the domain, both as functions of time over the entire simulation.

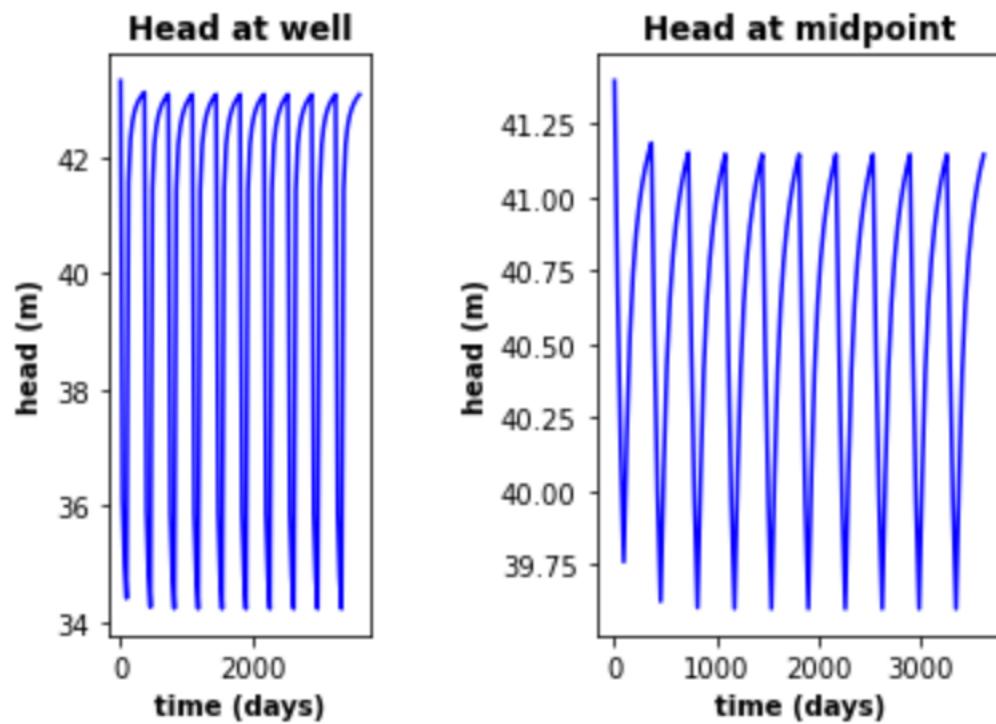


Figure 1: Head Change over time at the well and at the midpoint of the domain across the whole 10 year time period.

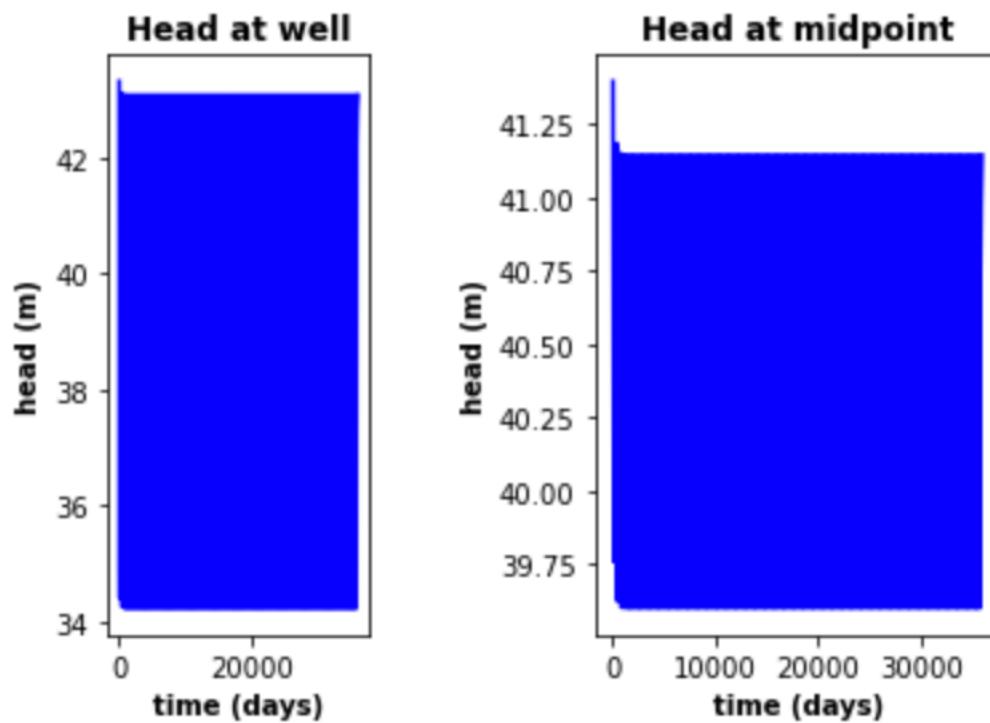


Figure 2: Head Change at well and center of domain for 100 year period

b) The head along a transect between the constant head boundaries through the well at three times: the initial steady state; the final pump-on period; and the final pump-off period.

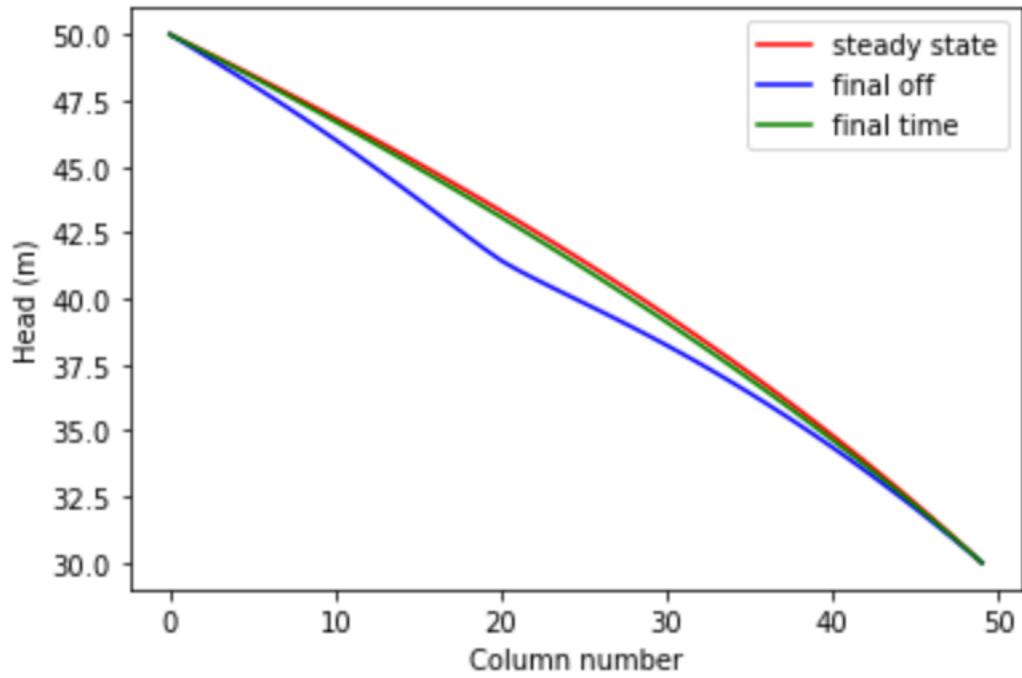


Figure 3: Head at three points along the domain. Red: Steady state (first simulation), Blue: last time the well was off, Green: At the end of the simulation

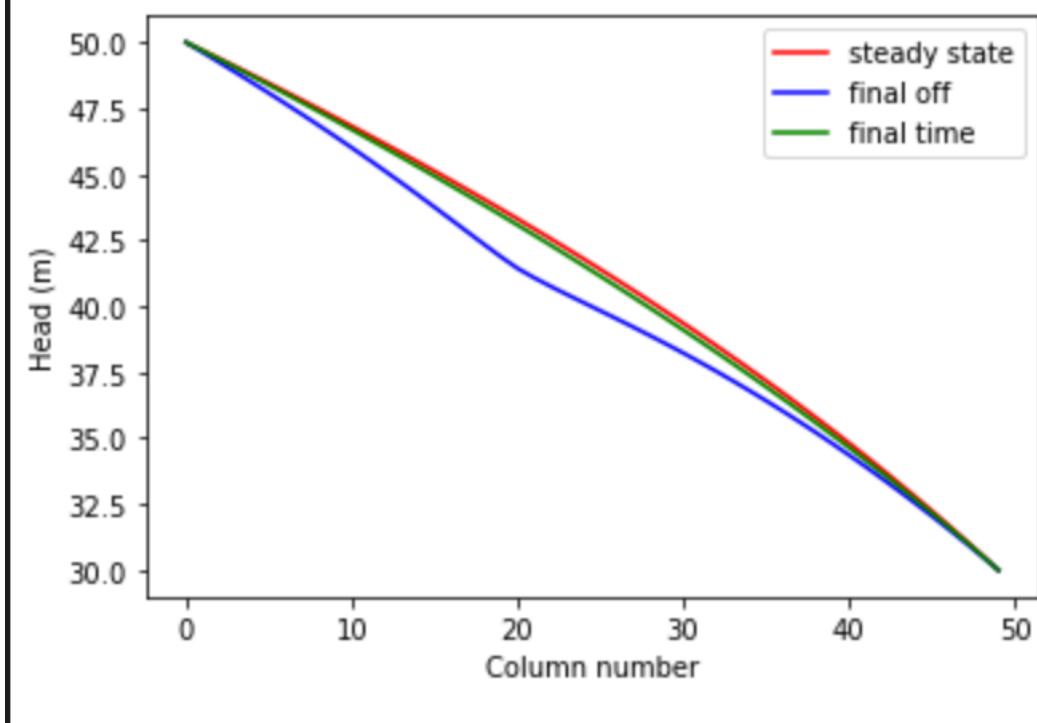


Figure 4: Heads at segments denoted in figure 3 for the 100 year transient simulation

c) A contour map with flow vectors at three times: the initial steady state; the final pump-on period; and the final pump-off period.

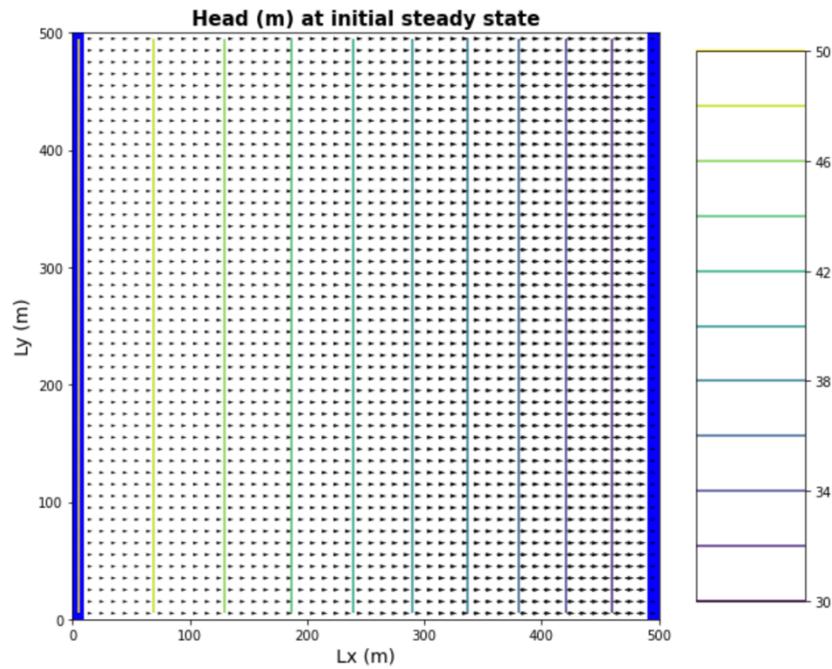


Figure 5: Contour Head Plot of the Initial Steady State Conditions for ten year period

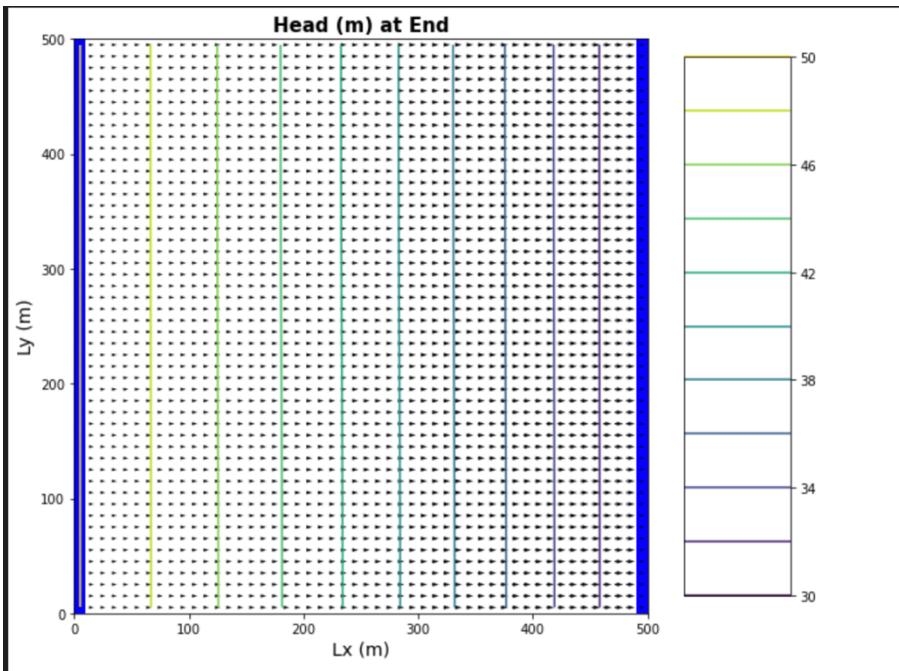


Figure 6: Contour Head Plot for the final well off time step for ten year period

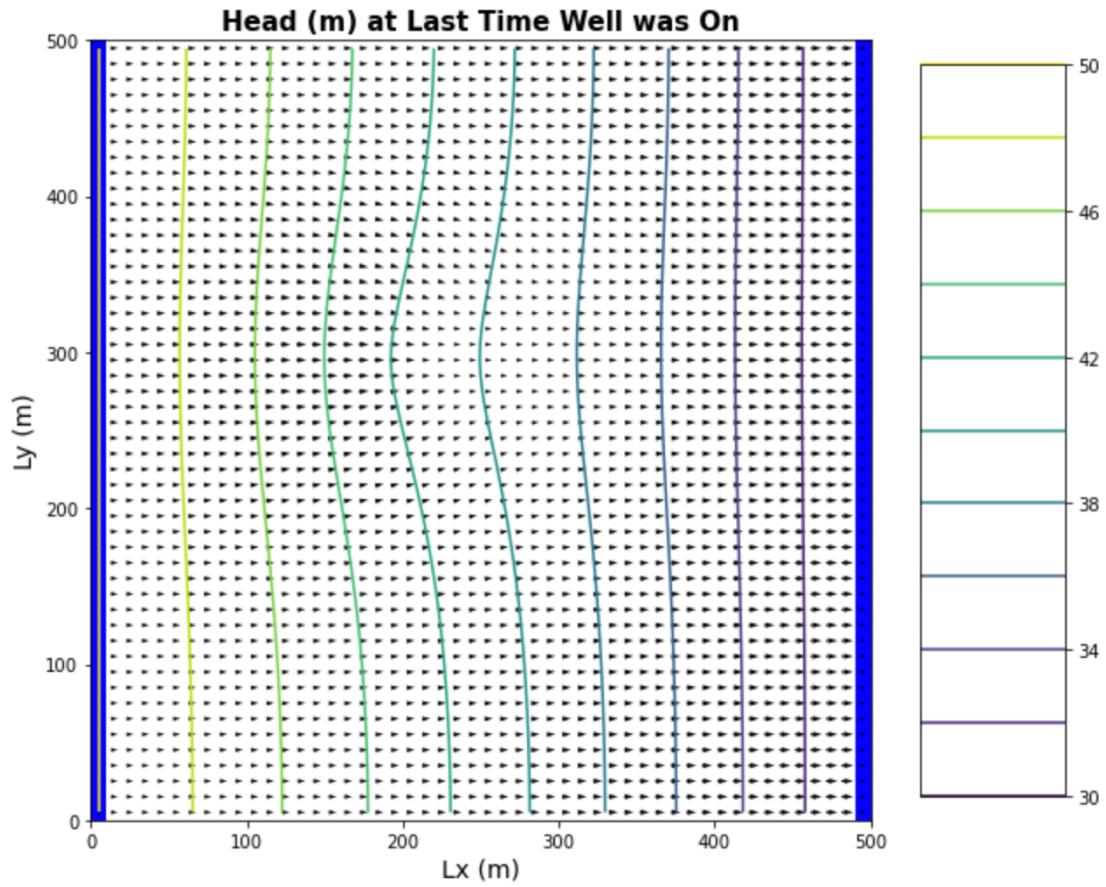


Figure 7: Contour plot of last time pumping was on for 10 year period

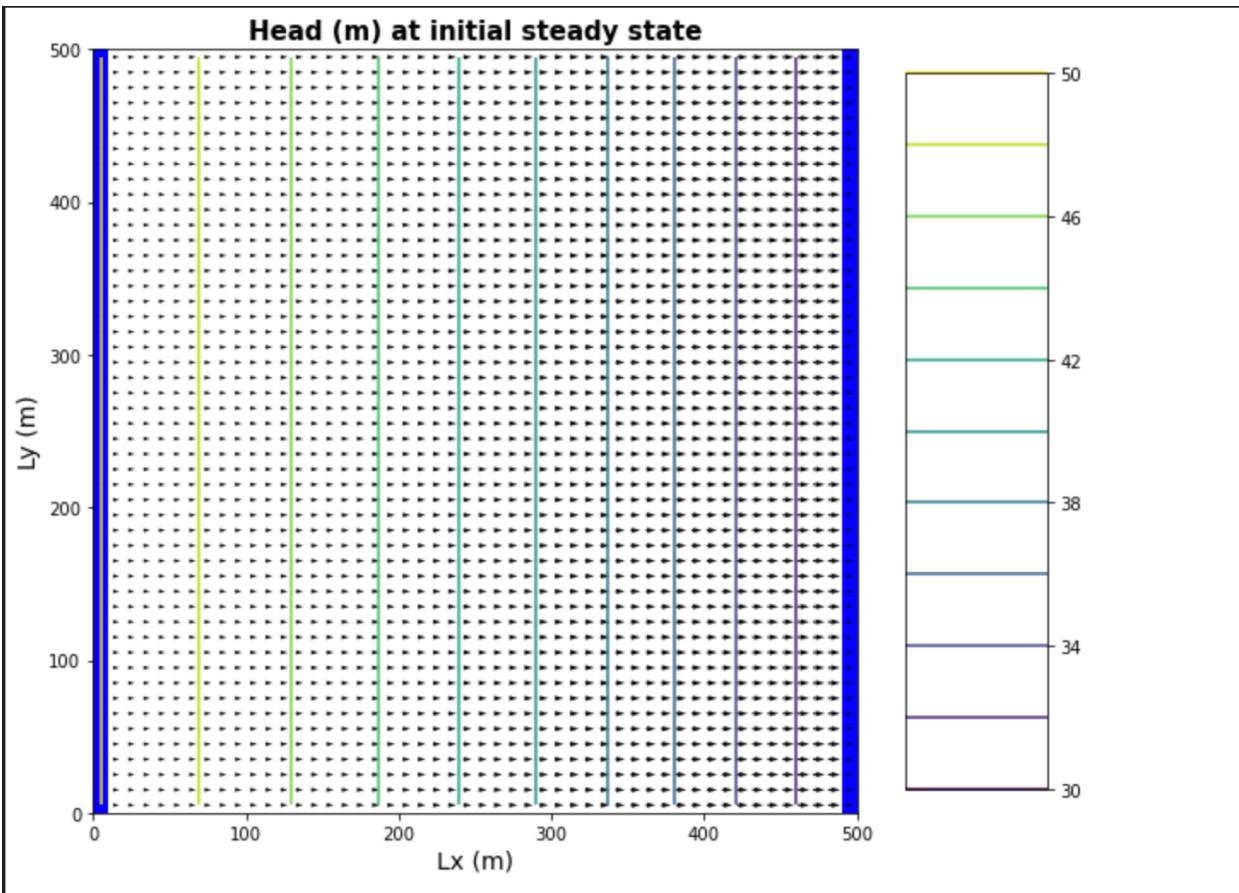


Figure 8: Initial steady state head contours for 100 year simulation

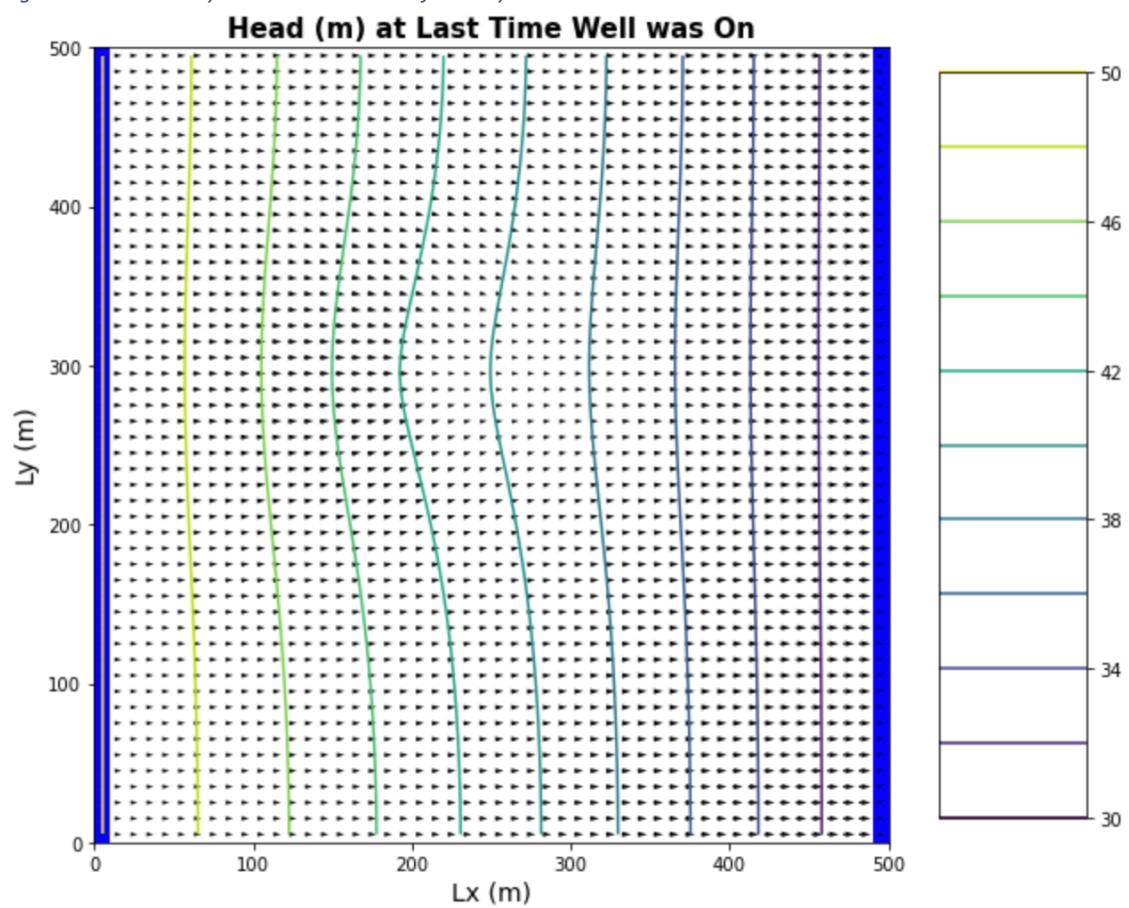


Figure 9: Head contours for last time well was on for 100 year simulation

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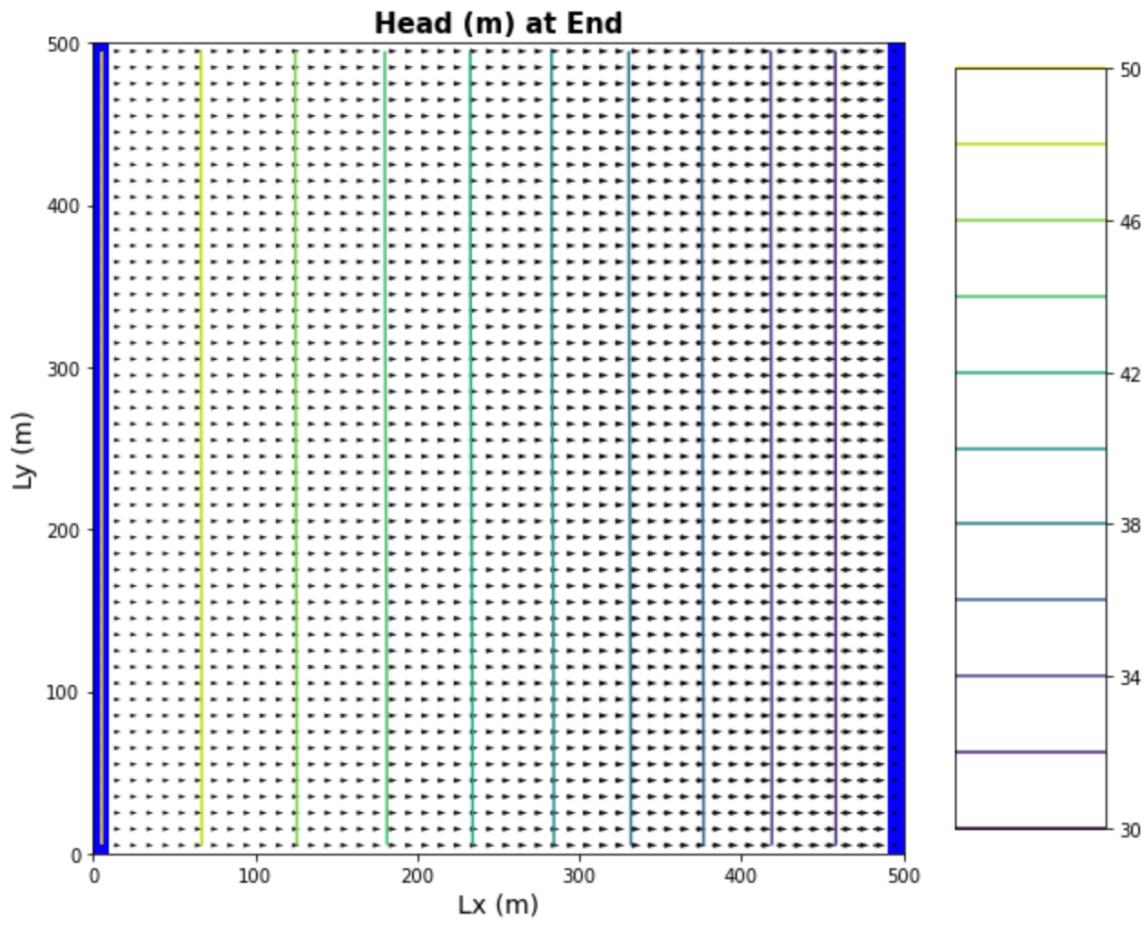


Figure 10: Head contour for the last time step over the 100 year period

- d) A contour map of the drawdown calculated for two periods: between the initial steady state and the final simulation time and between the final pump-on period and the final pump-off period.

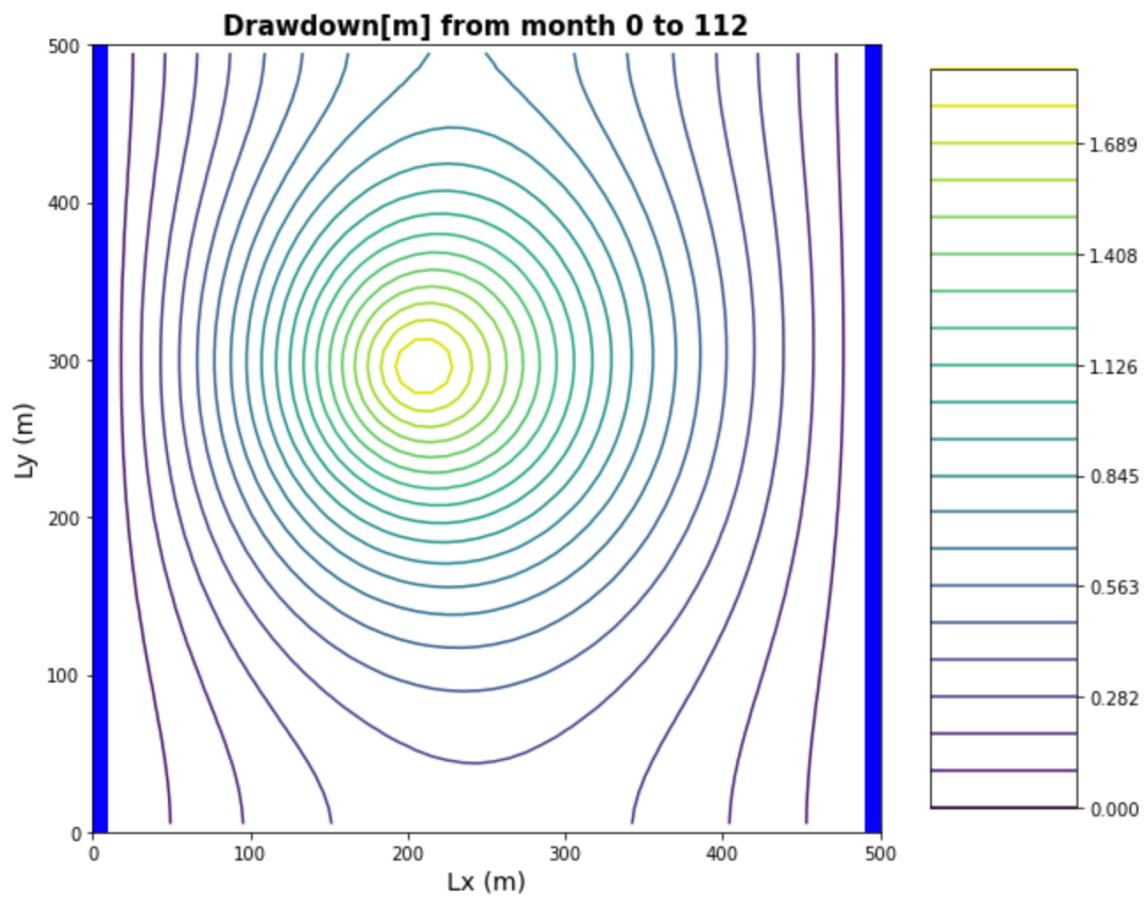


Figure 11: Contour Plot of drawdown for the pumping across the whole period over the ten year time step

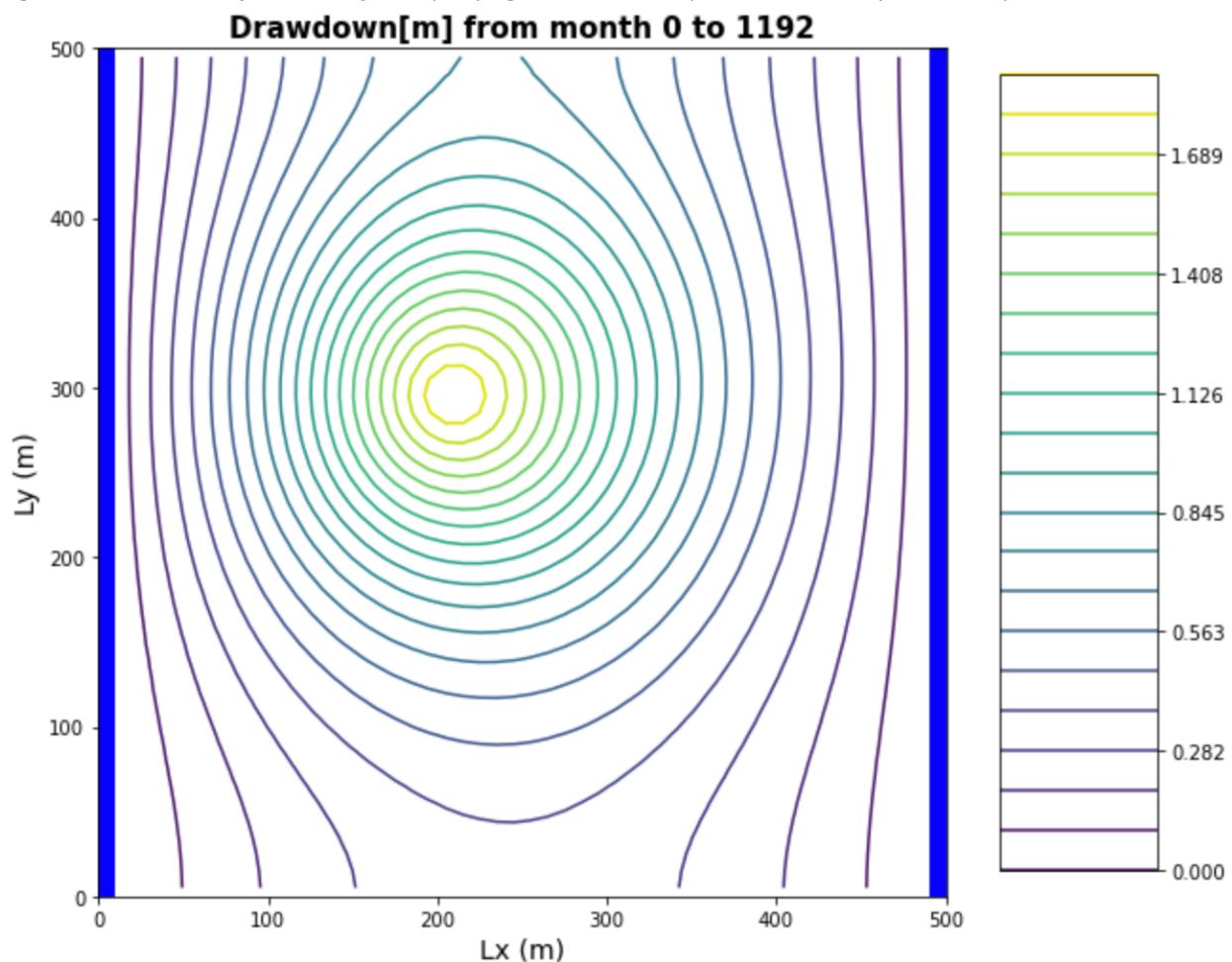


Figure 12: Drawdown across the full 100 year period of transient simulations