Starlivia Kaska

HWRS 482

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HW2 Figures

1. **Conceptual Model**

h1 h2 h3 …………… Flux = q = -K (dh/dL) K = 1.00

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H= 15 m 25 X 25 Grid H= 10 m

Graph 1. A cross section of the predicted head gradient for the homogeneous model. At distance 0m the head is at 15 m and at distance 5m it is at 10 m. The flow direction goes from high head to low head.

1. **Flux with horizontal distance and model is steady state.**

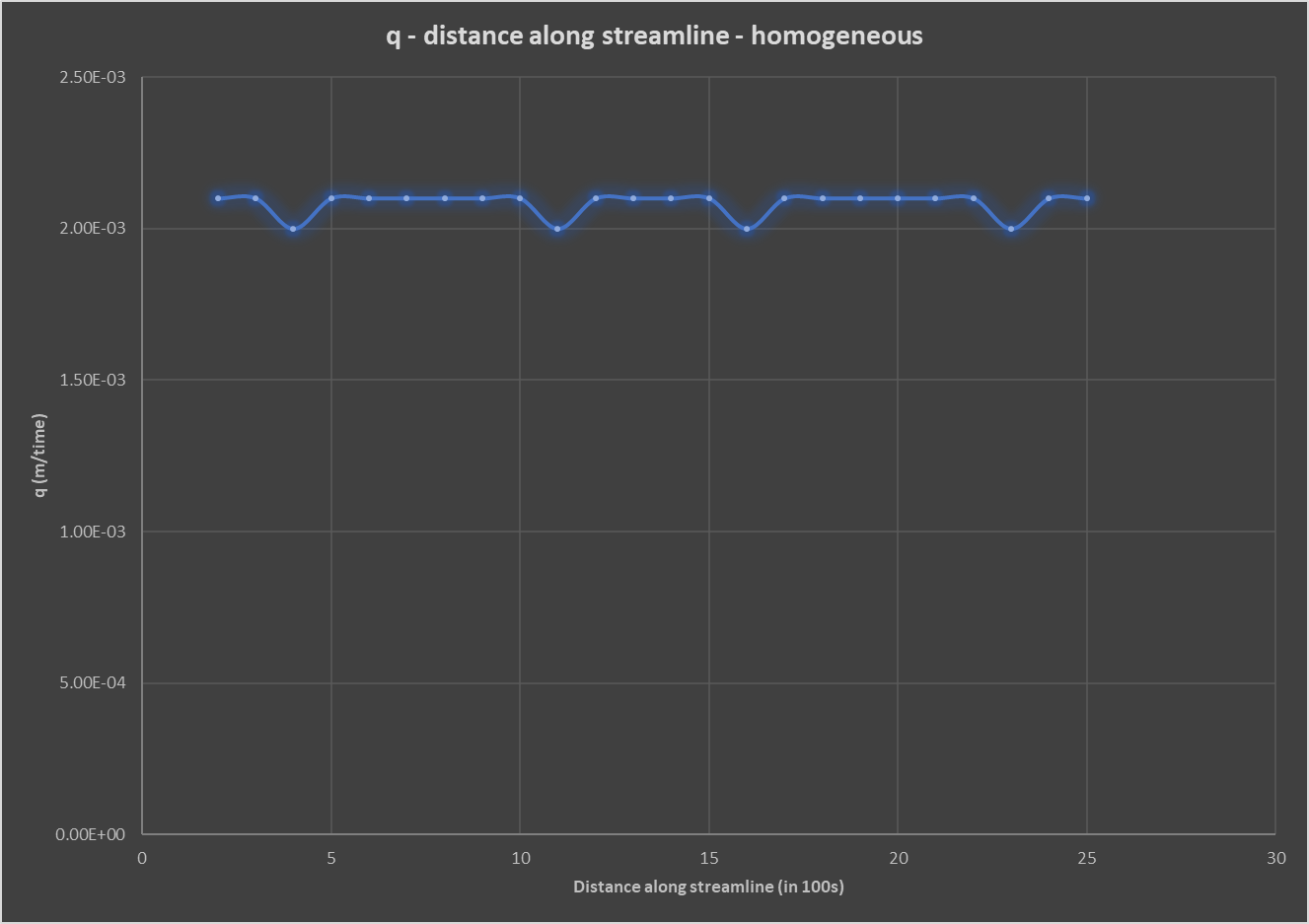


Figure 1. This figure shows the flux of a homogeneous case without the harmonic average.

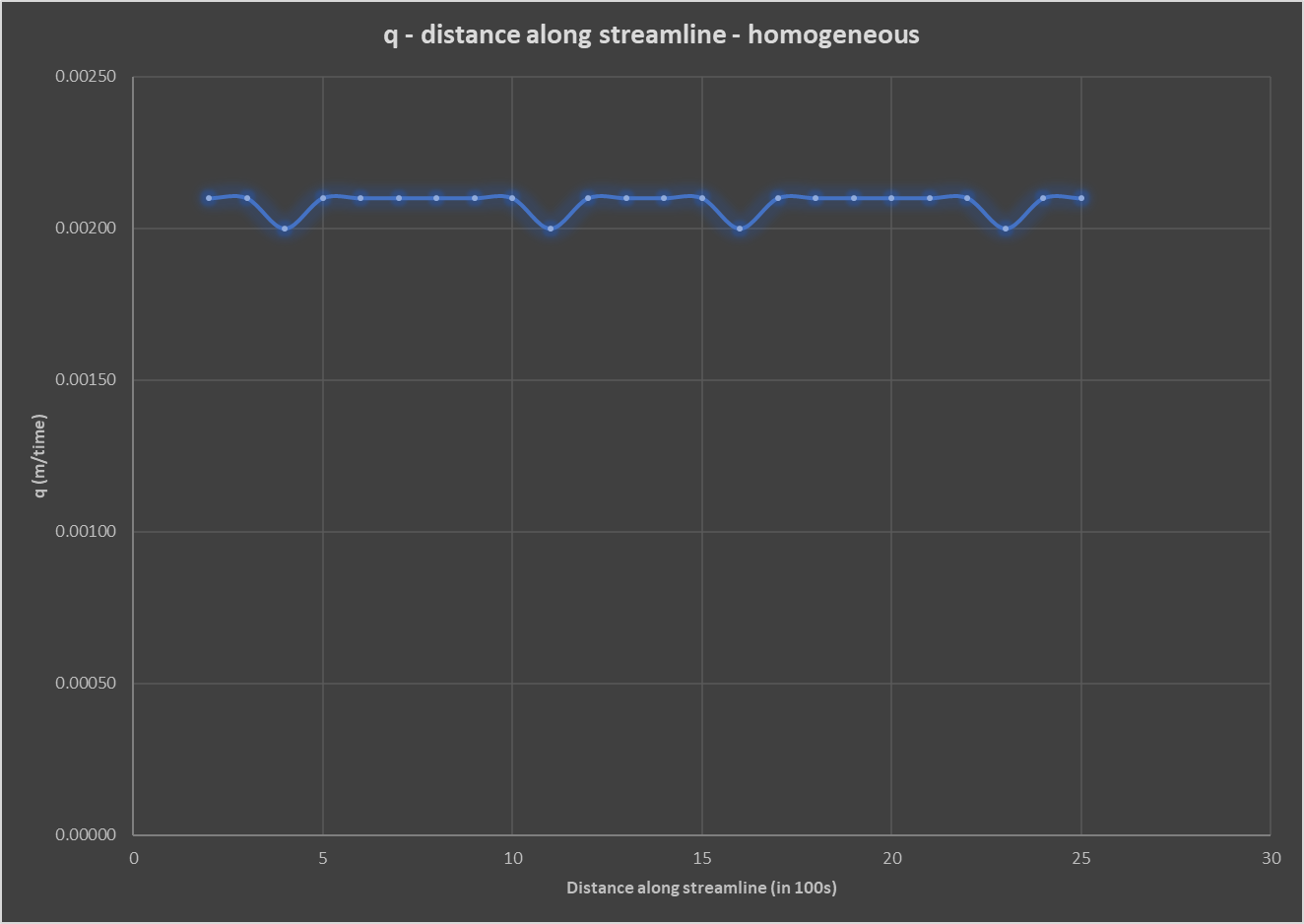


Figure 2. The flux for a homogeneous case, accounting for spatial differences in the hydraulic conductivity and taking the harmonic average

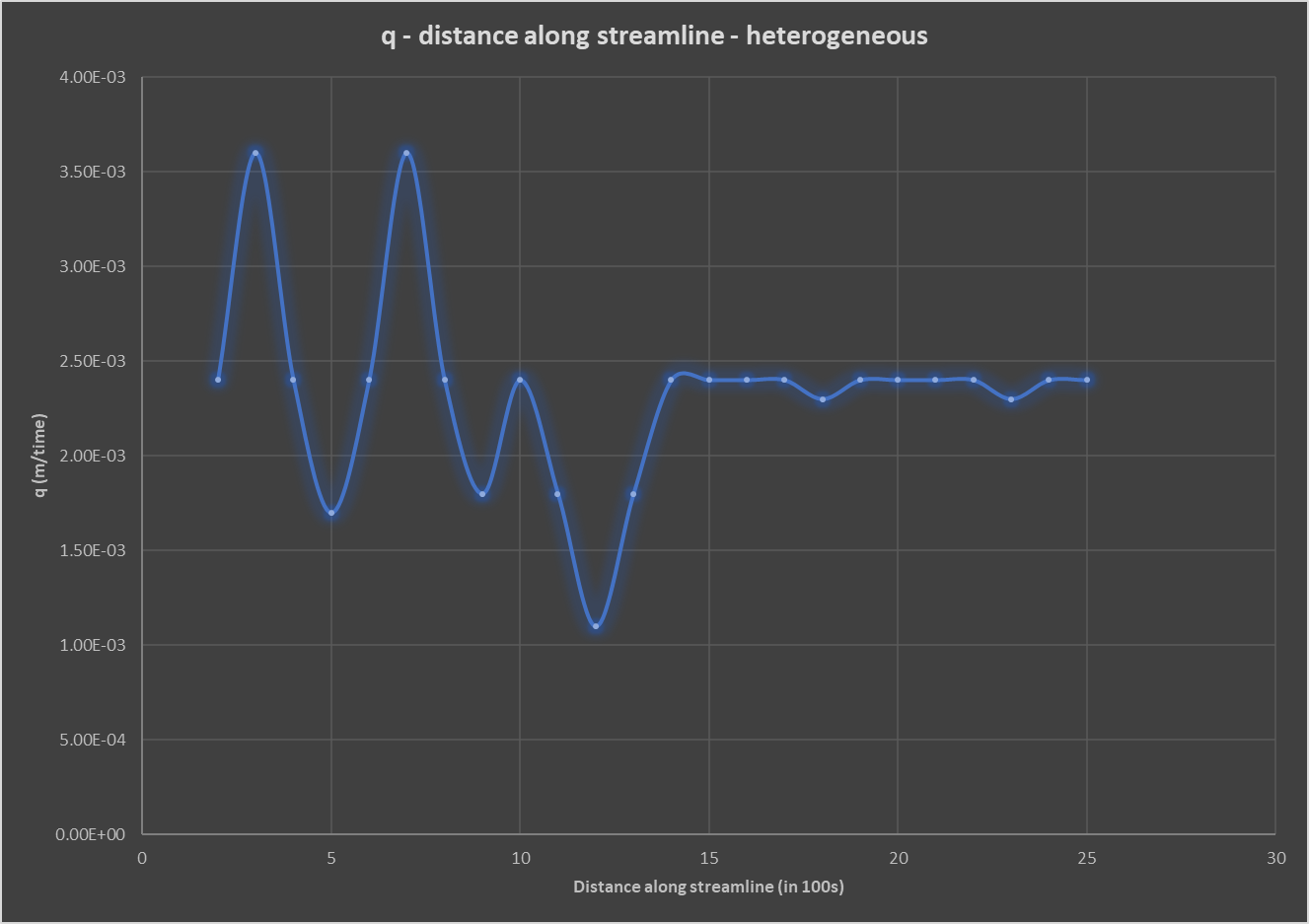


Figure 3. This figure shows the flux of a heterogeneous case without the harmonic average.

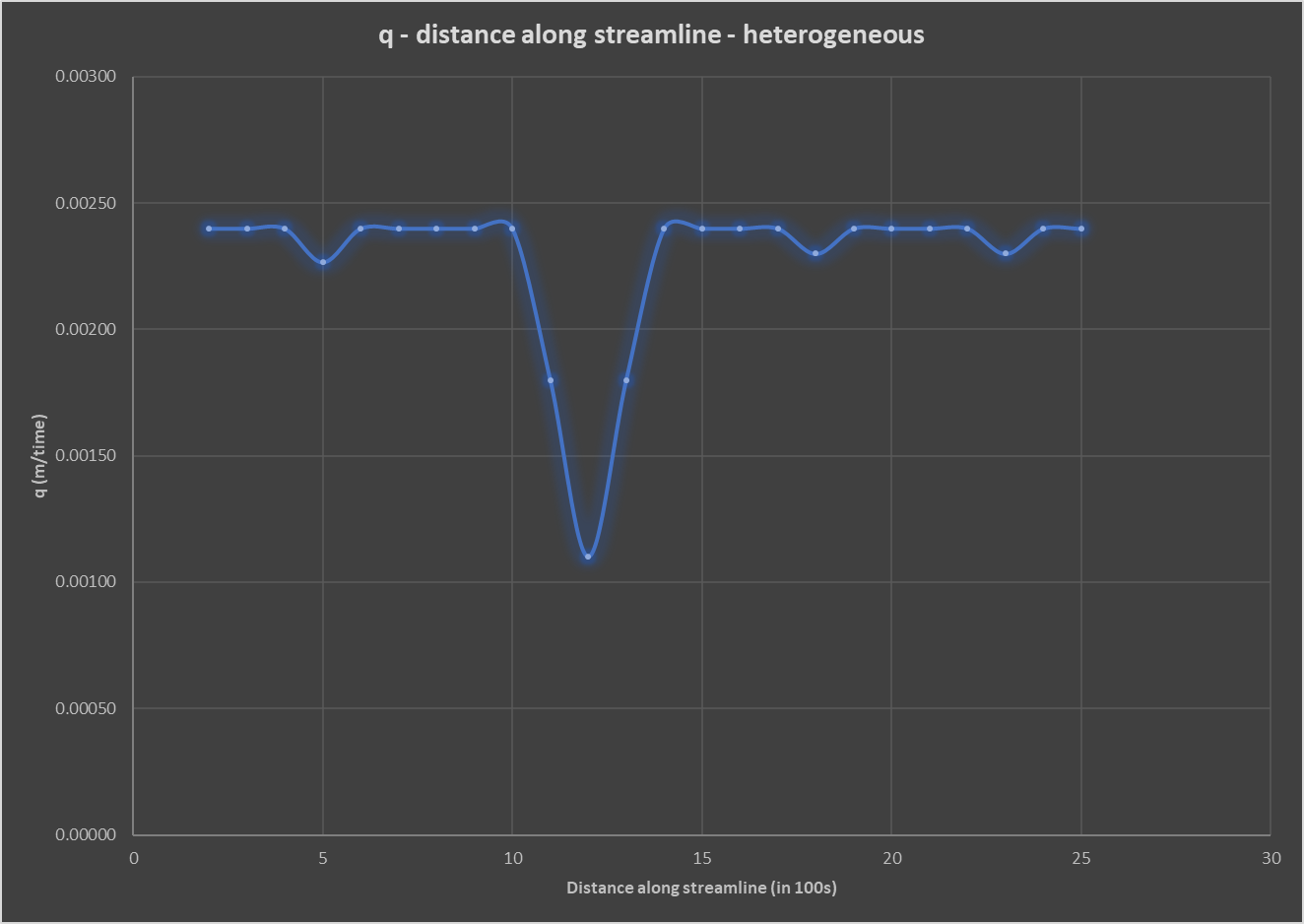


Figure 4. The flux for a heterogeneous case, accounting for spatial differences in the hydraulic conductivity and taking the harmonic average

1. **Steady state head contours in plan view.**

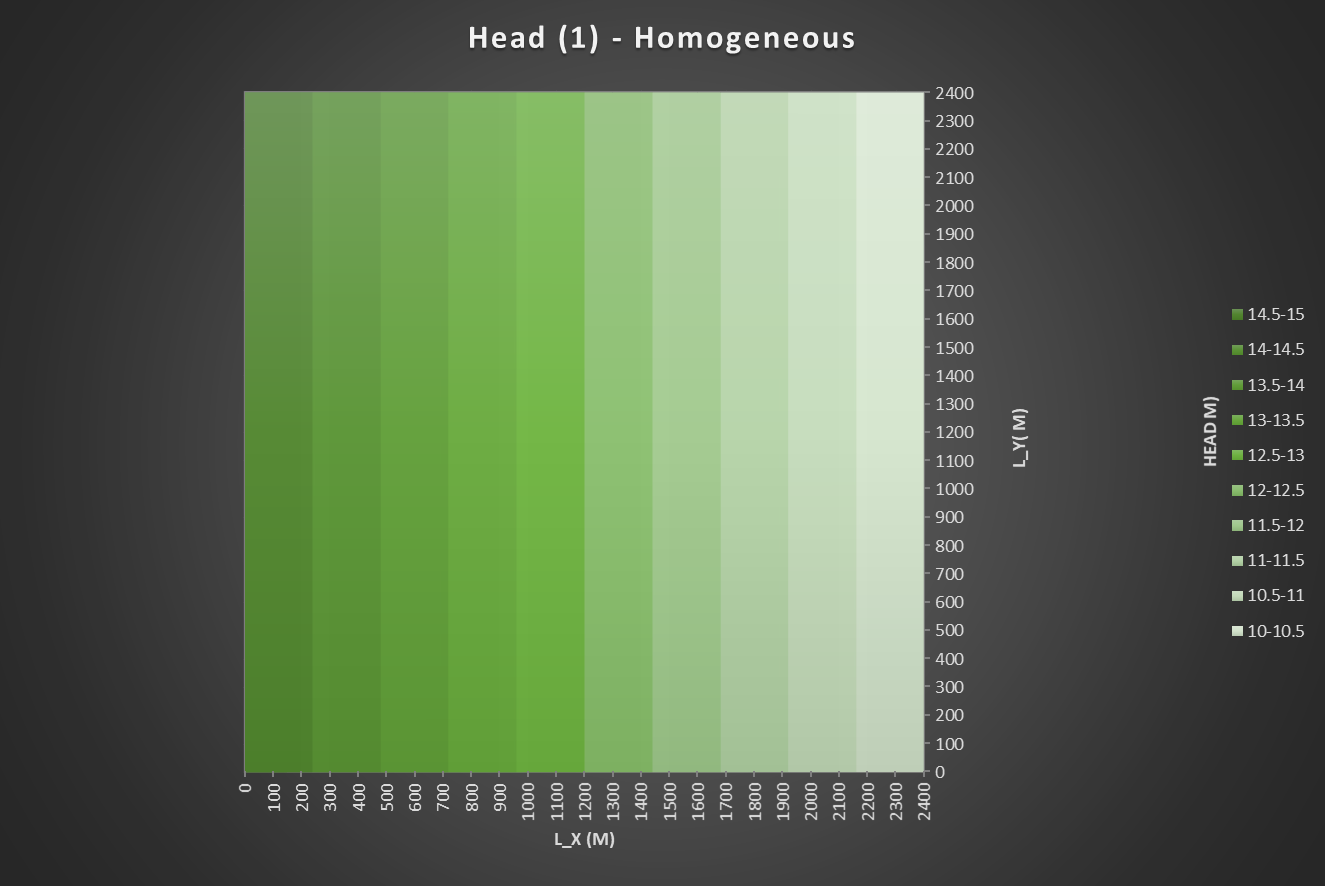


Figure 5. Homogeneous case with K values of 1.00 in each cell of the grid.

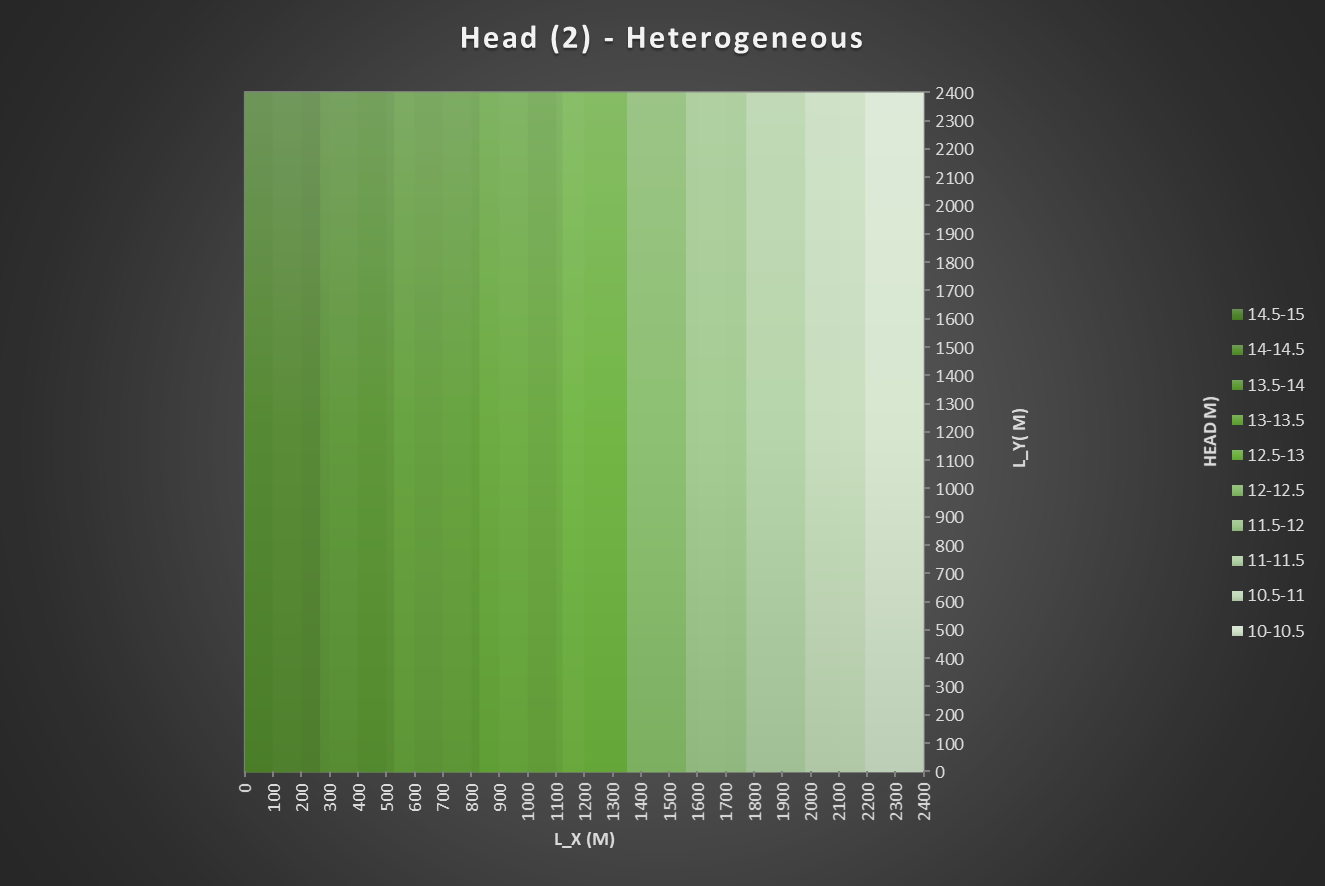


Figure 6**.** Heterogeneous case with K values of 1.00 and 2.00 in series (only a few of the columns in the grid were changed to 2.00).

1. **Square region of lower K in the middle of the domain.**

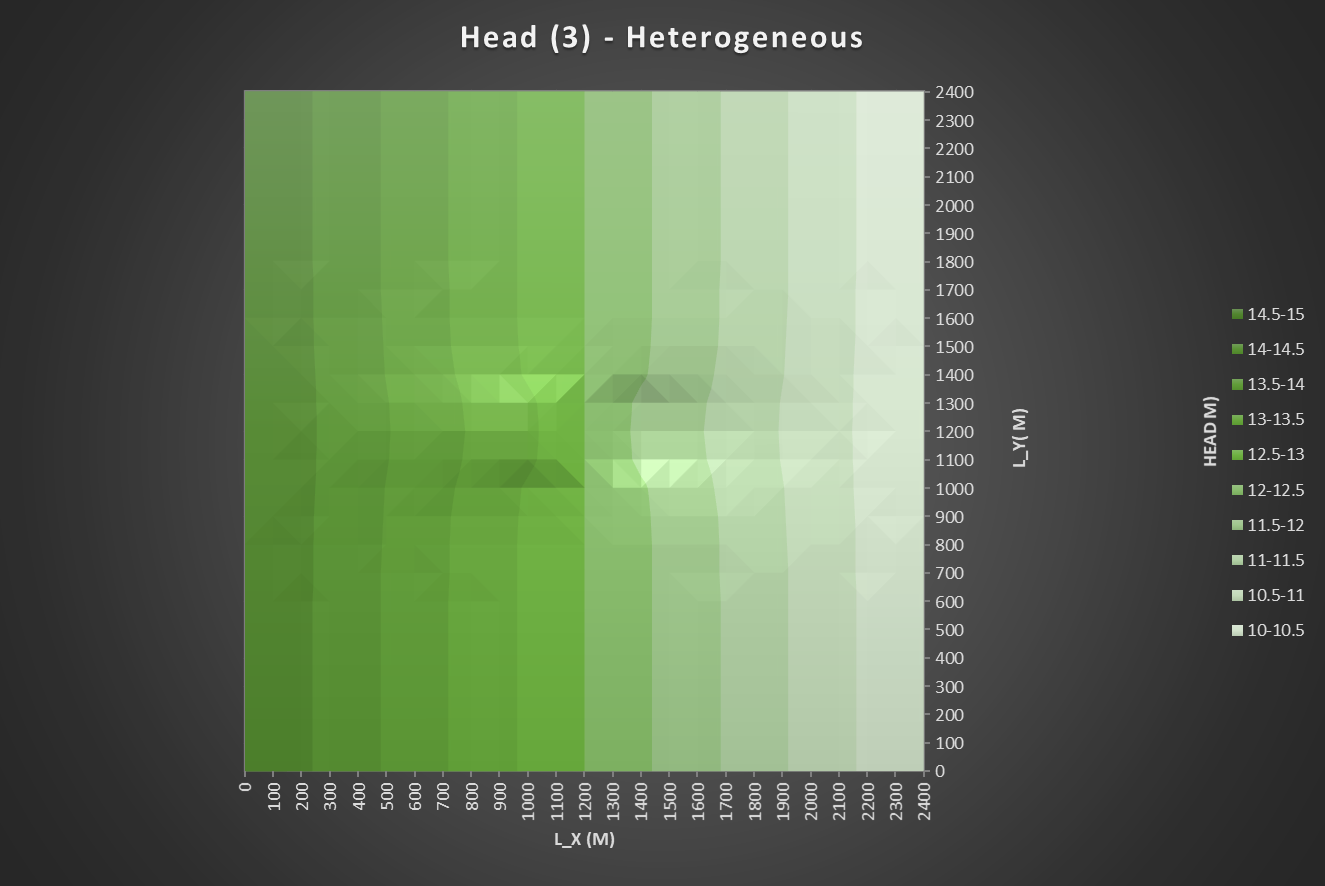


Figure 7. Heterogeneous head contour of center with a lower K value. Region in the center was 3x3 with K values of 0.5 in all 9 cells.