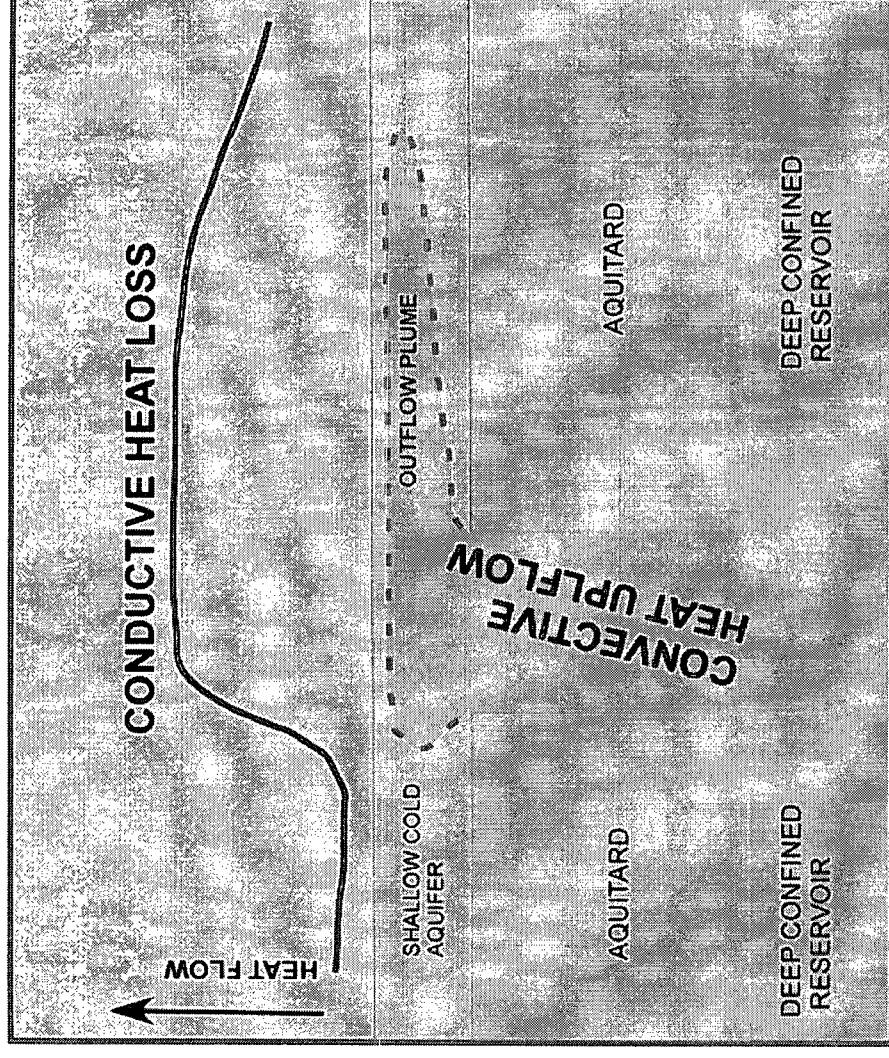


TOTAL CONDUCTIVE HEAT LOSS

- $q_z = k(dT/dz)$
 - q_z conductive heat flow (mW/m^2)
 - k thermal conductivity ($W/m^{\circ}K$)
 - dT/dz temperature gradient ($^{\circ}C/km$)
 - $k = 1.8 W/m^{\circ}K$ basin fill
 - $k = 2.2 W/m^{\circ}K$ volcanics
- $Q = \int q_z dA = \int q_b dA$
 - Q total system heat loss
 - q_b regional heat flow ($90 mW/m^2$)
 - dA area of integration (km^2)



Assumptions:

- All heat is lost by conduction over top of outflow plume.
- Estimated thermal conductivity does not introduce excessive error.
- Borehole density is adequate to characterize system.