Hydrogeology of Diabase Dikes

For water wells in the Triassic basin, a preferred drilling target is a steeply dipping diabase dike. Yields of 10 to 20 gpm are common for wells in diabase, while wells in sedimentary rock seldom exceed 2 gpm, and many are dry holes. The mechanism by which groundwater utilizes the dikes is not well understood.

Abundance & Spacing of Diabase Dikes

Geologic mapping at the 1:24,000 scale fails to reveal most diabase dikes. Only detailed mapping, aided by geophysical prospecting, gives a complete picture. Knowledge of the location of all dikes would be valuable to developers, drillers, government agencies, and environmental professionals.