

Sample Page

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Here in the United States, we are fairly accustomed to clean water. We have clean water to drink, clean rivers to fish, and clean lakes to swim. Perhaps we are less aware of the groundwater, which provides drinking water for a number of cities. Unfortunately, past disposal practices resulted in contamination of the groundwater at thousands of sites. Finding contaminated groundwater is understandably difficult. Traditional methods of drilling wells to look for contaminated groundwater are much like spear fishing while blindfolded.



Here at S&T, we have developed an improved method for finding contaminated groundwater – we look in trees. Trees pull groundwater up through their roots and transpire it to the atmosphere. Along with this water come contaminants, which can accumulate in the trunk. We remove a small piece of wood from the tree and measure the concentration of the contaminants. After sampling a number of trees at the site, we can identify contaminated areas.

This process is much faster than traditional methods, saving months to years of site investigation. It is also cheaper and less invasive, as we are relying on existing trees to sample the groundwater. The savings are potentially immense, thereby allowing more sites to be cleaned up, which reduces the health risk to those living around the site.