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(54) **DEEP AQUIFER REMEDIATION SYSTEM**

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(57) **ABSTRACT**

A groundwater decontamination system includes a decontamination unit adapted to be lowered down through a non-pumping well into an aquifer containing contaminated water. The unit can also be raised up and out of the non-pumping well for cleaning, servicing or replacement. The decontamination unit includes a porous outer tube with a plurality of holes through which contaminated water flows, and a porous inner tube with a plurality of holes through which flows in-flowing contaminated water flowing through outer tube. A contaminant removing reactive barrier material is disposed within the inner tube for removing on contact contaminants from the in flowing water. A flow directing arrangement, preferably in the form of flow directing fins, directs in-flowing water from the holes in the outer tube to the holes in the inner tube (i.e., provider of the channeling of the ground water into the reactive barrier material). The system can monitor the contaminant removal, as well as other conditions of the groundwater.

**9 Claims, 2 Drawing Sheets**

