

Since 2004, researchers from the U.S. EPA National Risk Management Research Laboratory (NRMRL) have annually evaluated performance of an organic carbon-limestone permeable reactive barrier (PRB) system installed in 2003 by EPA Region 6 at the Delatte Metals Superfund site in Ponchatoula, Louisiana. Based on early results from testing of two pilot-scale PRBs, a full-scale PRB was installed adjacent to the pilot PRBs to fully intercept and treat a low-pH, heavy metal groundwater plume prior to entry into nearby surface water. As constructed, the full-scale PRB contained approximately 67% composted cow manure and 33% limestone and measured 1.8 meters wide, 4-5 meters deep, and over 300 meters long. The most recent (2011) round of hydrologic and chemical data shows sustained effective treatment of the target contaminant plume by the collective PRB system (two pilot-scale PRBs plus one full-scale PRB), but also shows signs of possible depletion of the reactive media in one of the former pilot-scale PRBs.