Groundwater & vapor extraction for gasoline cleanup (Los Angeles, California)

Lindmark Engineering carried out site investigations of soil and groundwater conditions and designed and specified a remediation system at a school construction site where releases from an old underground storage tank had contaminated soil and groundwater. The work was complicated by time constraints of the new school construction at the site.

To properly capture the contamination plume, we specified a 150-foot-long collection trench for groundwater extraction, combined with vapor extraction to mitigate the soil contamination in the vadose zone and the capillary fringe. In order to minimize installation costs and maintain stability of the trench during excavation, we specified biodegradable guar gum, which degraded to a nonhazardous, thin, pumpable liquid after the 35-foot-deep trench was completed.

We designed a carbon adsorption system for treatment of contaminated groundwater and gasoline vapors. We operated this system for four years, reaching a point where soil contamination was fully mitigated and groundwater contamination was reduced to trace levels. The action of groundwater pumping also prevented any significant off-site migration of the plume. The California Regional Water Quality Control Board approved closure for the site, and the school has been in full operation for a number of years.
Client: Los Angeles Unified School District

For more information on this project, please contact Lindmark Engineering at (818) 707-6100 or ulf.lindmark@efiglobal.com.