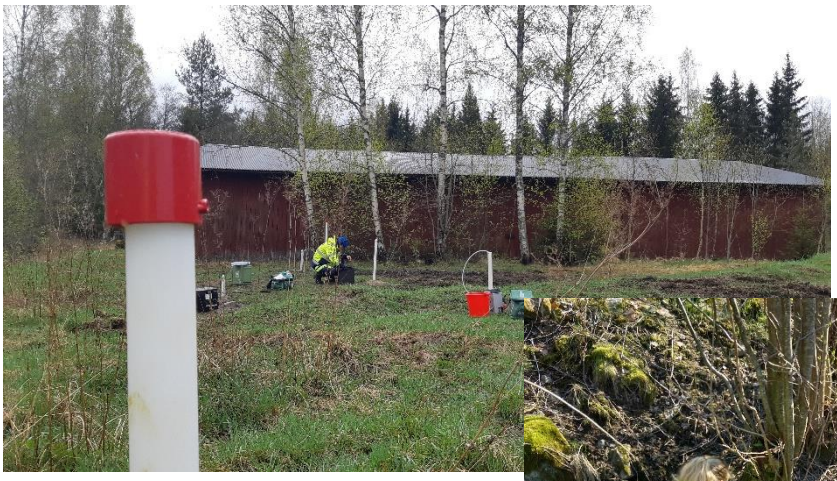
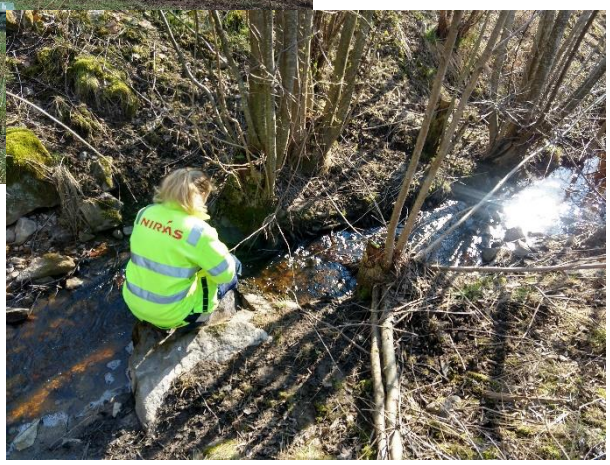
Reference sheet
Research project
STOP-PFAS





Time of assignment

2019-2023

Collaborative partners

SGI, SGU, SLU and RGS Nordic

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STOP-PFAS (CVA Arboga)

NIRAS participated in a Tuffo-funded research project aimed at innovative solutions for contaminated areas through containment and immobilization (StopPFAS). Within this project, a pilot-scale field experiment was conducted at a PFAS-contaminated, former fire drill site in Arboga to investigate the injection of Colloidial Activated Carbon (CAC) for in-situ fixation and stabilization of PFAS. A CAC/Plumestop™ barrier was constructed by injecting with a “direct-push” technique into a small sub-area of the PFAS plume in groundwater and the downstream effects were examined. The main objective of this study was to investigate how effectively the injection of CAC could limit the transport of PFAS in the contaminated groundwater plume and to evaluate the shortcomings and uncertainties of the technique, especially for a hydrogeologically complex site like this.

The results from the various parts of the project collectively show that treatment with CAC can result in significant retardation of PFAS, especially those with a long fluorinated carbon chain, and thus limit their transport in groundwater. Although CAC treatment is not expected to have a lasting effect, i.e. CAC will need to be replenished or regenerated when the sorption capacity is saturated over time, it represents a promising option for stabilization/fixation of PFAS.

Read more in the research report