

EXPERIENCES WITH PILOT APPLICATION OF COMBINED METHOD LACTATE - NANOIRON

ZKUŠENOSTI S PILOTNÍ APLIKACÍ KOMBINOVANÉ METODY LAKTÁT-NANOŽELEZO

Lenka Lacinová 1), Jaroslav Hrabal 2), Petr Kvapil 3), Miroslav Černík 1,3)

*1) Technical University of Liberec, Faculty of Mechatronics, Informatics and Interdisciplinary Studies,
Studentská 2, 460 17 Liberec, Czech Republic, e-mail: lenka.lacinova@tul.cz*

2) MEGA a.s., Drahojlova 1452/54, Praha, pracoviště Stráž pod Ralskem, Czech Republic

3) AQUATEST a.s. Praha, Geologická 4, 152 00 Praha 5, Czech Republic

Abstract:

Microbial dehalogenation supported by organic substrate (lactate) application and chemical reduction using zero valent nanoiron are the most used method for chlorinated ethenes removing from groundwater. The method combined both method was suggested and tested in laboratory. Synergic effect of combination was confirmed and recommendation for site application was formulated.

In previous 3 year was carried out pilot applications of combined method in two sites: Kurivody and Horice. Some results and conclusions are presented in this article.

Keywords:

lactate, zero valent nano iron, combined method, chlorinated ethenes, Kurivody, Horice