Biostimulated reductive dechlorination of ground water CHC plume

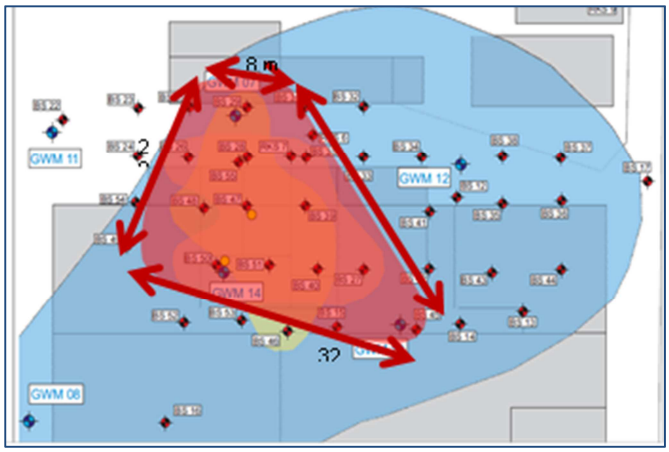
Dynamic pressurized injections | Circulation cells | In-situ redox monitoring

Project description

At the premises of a large electronics company in Schleswig-Holstein, CHC contamination of the ground water was detected. The contaminated plume was located underneath the building and extended into the saturation zone of the soil. The geological structure of the site consisted of a complex combination of sand and silty structures.

For best results, biological stimulation and reductive dechlorination were the technologies selected for the remediation of this contaminated site.

To achieve this, a system consisting of multilevel injection lances coupled with temporary vertical and horizontal circulation cells for the distribution of remediation biococktails were designed and installed. After only 15 months of system operation, nearly 99% of the ground water plume was eliminated and remediation was successfully completed.



Project data

- Type of contaminants
  CHC with concentration levels over 10,000 µg/L
- Size of plume
  Approximately 5,000 m^3 of contaminated ground water

Services rendered

- Participation in the remediation concept
- Dynamic pressurized injections
- Injection lance design
- Construction of ground water circulation cells
- Preparation of technical documents

Customer expectations

- Effective and fast remediation technology
- No waste disposal cost
- Remediation completed within 15 months
- Significant cost reduction when compared to other traditional disposal procedures

Customer
Industrial customer

Project value
Approx. 140,000 Euro

Project timing
May 2013 – September 2014

Project areas
Injection lance design, sensor technology, mobile injection technology, bioprocess management.

Contact: Sascha Winkler, Licensed Engineer
E-Mail: s.winkler@sensatec.de

Sensatec GmbH
Friedrichsorter Straße 32
24159 Kiel, Germany

Phone: +49431-38 90 09 10
Fax: +49431-38 90 09 19
E-Mail: info@sensatec.de

Contact:
Sascha Winkler
Phone: +49431-38 90 09 23

Web
www.sensatec.de