Disinfection of a Mineral Water Well

Service area	Contract value	Project duration
Infrastructure Planning, Groundwater Management	€26,000	07/2012 - 11/2012

Project description:

Pseudomonas bacteria were identified in a new mineral water deep well during the validation phase. HPC was asked to carry out a root cause analysis.
To rule out external sources for the contamination, e.g. construction deficits or a previous earthquake, a video inspection of the whole well and a geophysical integrity test were conducted.
The well was then cleaned by brushing using disinfection agents.
Pump and rising mains were cleaned and disinfected and were reinstalled under hygienic conditions.
A new pump was inspected for its hygienic condition before installation.

Further project data:

- Mineral water well is 750 m deep
- An abandoned well is 25 m away, tapping the same aquifer system
- Installed equipment was reportedly disinfected by local staff prior to the installation

Purpose:

- Root cause analysis with the aim for a sustainable elimination of a contamination with Pseudomonas Aeruginosa bacteria

Our services:

- Planning, consulting and project management
- Development of a tiered catalog of measures and procedures for hygienic handling of well equipment
- Identification of experienced subcontractors
- Training of staff and subcontractors on site
- Supervision of the video inspection and the geophysical integrity log and interpretation of the results
- Visual inspection of pump and rising mains and wipe tests. Identification of suspicious material used by the pump manufacturer
- Assistance and supervision during the well cleaning as well as during the cleaning, disinfection and reinstallation of pump and rising mains

Client benefits:

- Optimized processes due to central coordination
- The structural integrity of the well could be confirmed
- Contamination source was identified and eliminated
- The plant learned hygienic procedures for the installation, removal and storage of their production equipment