

Project: **Concrete corrosion and odor nuisance influenced by high H₂S concentrations in the combined sewer networks of “Abwasserzweckverband Bodenniederung”**

Client: Abwasserzweckverband Bodenniederung
Bahnhofstraße 1b
39435 Hecklingen - OT Groß Börnecke
Germany

Project value: -

Date: 2006 - 2007



Project description:

Due to the large distance (25 km) in the combined sewerage network of “Abwasserzweckverband Bodenniederung” long flow times occur which cause a reduction of O₂. This is the reason of a very high H₂S production with peak concentrations of more than 200 ppm. The aggressive gas causes a high demolition mainly at the manholes which were not protected against “biological H₂S corrosion”. The core works were to find solutions decreasing the H₂S concentrations to a maintainable niveau for each sewer line.



Beside structural measures in the networks chemical proceedings were discussed and evaluated. As an economical alternative a method was proposed to extract the aggressive H₂S gas by evacuating. This method was successfully tested, as shown in the Figure below

