

Project Name

Goebel Hydrogeological Investigation

Client

Goebel Art, GmbH

Services Provided

- Site Investigation
- Soil and Groundwater Investigations
- Downhole Camera and Geophysical Survey of Supply Well

Project Description

Although limited to import and distribution warehousing since the mid-1980s, operations at Goebel Art, GmbH's Pennington, New Jersey facility, had historically included small-scale manufacturing of porcelain figurines. Elevated levels of chlorinated volatile organic compounds (VOCs) were detected in the facility's 296-foot-deep potable supply well in 1986. The NJDEP sampled other potable wells in the area surrounding the site and detected the same compounds in several of those wells. SAI was retained to assess the groundwater contamination and the extent to which Goebel was affected by, or may have contributed to, the contamination.

Approach

SAI prepared a site description inventory, including dates of the historic uses and activities at the site; evaluated potential areas of concern on the property; and performed an assessment of potential off-site sources. Field investigation consisted of the installation and sampling of groundwater monitoring wells and the collection of soil samples. Sample locations were chosen to delineate potential areas of environmental concern, such as the existing and former septic fields, and to determine the direction of groundwater flow. Also included in the investigation was the performance of a downhole camera and geophysical survey of the supply well. Two site investigation reports detailing the performance and results of the site investigations were prepared and submitted to the NJDEP for its review.

The results of this investigation failed to uncover any evidence of a source of the contaminants on the property. Ultimately, NJDEP concurred with SAI's conclusion that the groundwater contamination was from an off-site source, although the highly complex hydrogeology of the fractured bedrock in which the supply well was installed made it technically infeasible to pinpoint the actual source of the contamination.

However, the regulations regarding environmental investigations have changed significantly since the late 1980s-early 1990s, when the original site investigation was performed. At the request of a potential purchaser of the property, a new site investigation was therefore performed in conformance with the Technical Requirements for Site Remediation. This updated investigation again found no source of contamination on the subject property, but did find evidence supporting the conclusion that the contamination was from an off-site source.



[Project Impact](#)

As a direct result of the second Site Investigation, a Response Action Outcome (RAO) for the property was issued by a SAI LSRP in January 2010. This was one of the first RAO documents submitted to NJDEP since the issuance of the new rules in November 2009.