

Successful Remediation of Perchlorate to Low Levels from Groundwater at a Rocket and Propulsion Systems Manufacturer

Perchlorate is a chemical used in rocket fuels and other applications. California regulates perchlorate in water at a concentration of 6 partsper-billion (ppb). Perchlorate is highly soluble in water, which makes it challenging to treat.

A rocket and propulsion systems manufacturer was interested in exploring options for remediation of perchlorate on its site from years of rocket testing. Using the Microvi MNETM process for perchlorate removal, a large demonstration project treated 150 million gallons of water and confirmed perchlorate removal at an industrial scale. Moreover, the system produced virtually zero secondary waste.

The demonstration ran for several months and showed the ability of the technology to reduce an influent of 300 ppb of perchlorate to non-detect levels with a a hydraulic retention time of only five (5) minutes.

Project Details

Site Owner: Rocket and Propulsion Systems Manufacturer

Engineer: Microvi

Issue: Perchlorate-contaminated groundwater

Solution: Microvi MNE™ for Perchlorate Treatment

Key Results:

- Removed perchlorate to non-detect levels
- Simultaneous removal of nitrate
- HRT of 5 minutes
- Reliable operation to provide >150 million gallons of perchlorate-free water