

# Remediate Heavy Metals with Sulfides

An alternative to traditional chemistries

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Several variations of phosphate, iron, and lime-based treatment chemistries are commonly used to treat heavy metals in soil and groundwater. Though these chemistries are still viable options, an alternate approach using sulfides may provide even more robust treatment of metals at a lower cost.

## Applications

Sulfide chemistries should be considered for sites with:

- Multiple heavy metals in soil and/or groundwater
- Rigorous regulatory treatment goals
- The potential for on-site reuse of treated materials

## How it works

The use of sulfide technology is well documented for its ability to drive metals leachability well below stringent remediation goals, and forms even less soluble compounds than phosphate and iron-based chemistries. Sulfide technologies exist in the marketplace, though concerns are often raised with worker exposure issues through the generation of hydrogen sulfide gases in low pH settings.

Recent research suggests that sulfides can be generated on-site for stabilizing heavy metals, while controlling pH concerns through site-specific treatment formulations. This approach reduces worker exposure issues and the solubility of multiple heavy metals.

## Benefits

Site-specific sulfide chemistries allow you to:

- Treat multiple heavy metals to *achieve even lower remediation targets* than traditional remedies
- *Reduce treatment costs* with lower-cost reagents and the potential to reuse treated materials on-site
- *Protect workers* from hydrogen sulfide gas generation

## About ReResolution Partners, LLC

ReResolution Partners delivers at-risk environmental solutions designed to meet our client's objectives. Our staff combines cost-effective environmental strategies with customized remedies to alleviate environmental liabilities.

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