Solvent extraction (also known as chemical extraction) is a cleanup method that uses solvents to extract or remove harmful chemicals from polluted materials. Chemicals like PCBs, oil, and grease do not dissolve in water. Instead, they tend to stick or sorb to soil, sediment, and sludge, making it hard to clean them up. Solvents are chemicals that can dissolve sorbed chemicals and remove them from polluted materials.

**What is solvent extraction?**

Before using solvent extraction, the soil must be dug from the polluted area to be treated. The soil is sifted to remove large objects like rocks and debris. The sifted soil is then placed in a machine called an extractor where it is mixed with a solvent. The type of solvent will depend on the harmful chemicals present and the material being treated.

**How does it work?**

Before using solvent extraction, the soil must be dug from the polluted area to be treated. The soil is sifted to remove large objects like rocks and debris. The sifted soil is then placed in a machine called an extractor where it is mixed with a solvent. The type of solvent will depend on the harmful chemicals present and the material being treated.
Solvent extraction can clean up to 125 tons of soil at a site per day. The time it takes to clean up a site depends on several factors:

- amount of polluted soil
- type of soil and conditions present (Is it wet or dry? Does it contain a lot of debris?)
- type and amounts of harmful chemicals present

Cleanup usually takes less than a year, depending on the site.

### Why use solvent extraction?

Solvent extraction is used to clean up many chemicals that are difficult to remove from soil. Cleanup using solvent extraction is generally quicker than methods that treat the soil in place. It can be done at the site to avoid trucking polluted soil to cleanup facilities offsite. This saves money on transport and disposal of the soil. In addition, the solvents can often be recycled and reused. Solvent extraction is being used at four Superfund sites and at other sites across the country.

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