

## Leaching tests of soils



The Swedish Geotechnical Institute, SGI, is a governmental agency whose laboratory performs examinations of water, soil and other solid materials for itself and external customers. SGI also conducts research to introduce and develop new examination methods and bases for new standards.

A **Minipuls 3** is dedicated to their soils and ashes leaching tests. The objective is to analyze earth and waste products to determine whether they can be deposited in a dump. SGI tries to reproduce the natural leaching effect of soils by rain water.

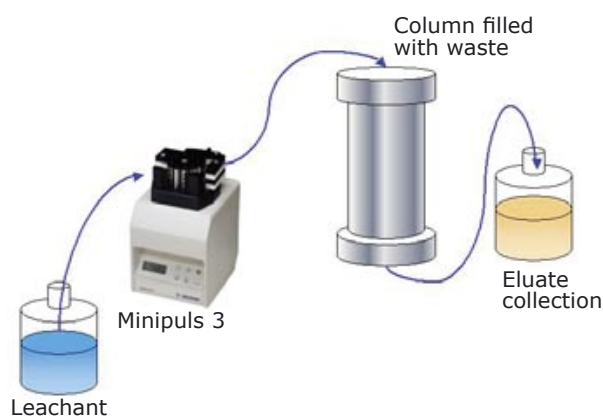
The analysis is comprised of:

- A 30 cm plastic column with an ID (Internal Diameter) of 10 cm filled with packed earth and waste.
- A **Minipuls 3** peristaltic pump fitted with up to 8 tubings.

The **Minipuls 3** pumps 20 to 40 L of water to leach out compounds. Each tubing delivers a continuous flow-rate of 3 to 10 mL/min to irrigate the soil over the column's section for a total flow-rate between 40 to 60 mL/min.

A representative sample of the eluted 20 to 40L of water is analyzed for metals and salts in accordance with the EU-directives NFS 2004:10.

According to Mrs Eva NARBRINK, laboratory Technical Manager, «the **Minipuls 3** was chosen for its high robustness and reliability. It is also easy to use and to set up and has many channels». The SGI laboratory team has had a previous good experience with Gilson strengthened by the **Minipuls 3**.



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Mrs Eva NARBRINK, laboratory Technical Manager, SGI, Sweden.

Application field	Required Minipuls 3 products	Reference
Analytical chemistry	Minipuls 3 control module	F155001
	R8, 8-channel head	F117608
Typical customers	Peristaltic tubing PVC 1.65mm ID	F117943
Environmental laboratory		
Research Laboratory		