

Gas Analysis | pQA/HPR-40
Application Note AN-10038

Volcanic Gas, Water and Sediment Analysis



Pinatubo Volcano Eruption

Volcanoes represent a danger in many places in the world, with eruptions occurring every month. Monitoring and research of volcanoes can utilise analysis of gas, liquid and soil samples and can provide vital information about the levels of the rare earth gas isotopes including argon, neon and helium, and other gases, H₂S, and SO₂ for example

Hidden Gas Analysis systems are used by volcanologists around the world for real-time gas and liquid analysis. The gas analysis systems can be used to analyse soil/sediment gas, with the measurement of the main volcanic gases and isotopes typically being possible to PPB levels, and even to PPT levels for certain species. The pQA analyser is designed specifically for field work and is a compact, portable analyser in a ruggedized case.



Hidden Analytical pQA

Hidden systems are designed for both direct real time analysis of gases, water and sediments in the field (pQA) or for discreet sample analysis of collected samples in the laboratory (HPR-40).

Direct gas sampling is ideally suited for long-term surveillance of volcanic systems because it produces a detailed chemical analysis of specific fumaroles (an opening in the earth's crust which emits gases) and vents. Volcanic gas samples are typically collected by inserting a chemically inert and durable tube into a hot fumarole. After allowing the tube to heat until condensation in the tube reaches

