

Introduction to detectORE™



What is detectORE™?

The detectORE™ process overcomes the limitations of pXRF by leaching the gold from the sample using a lixiviant (GLIX-20™) and a Collector Device (CD).

The CD selectively concentrates dissolved gold, allowing a pXRF to measure it.

Due to the selectivity of the process interferences are greatly reduced (As, Se, Zn, W, Pb).



The detectORE™ system.

detectORE™ comprises Hardware, Software and Consumables that are designed and manufactured in-house at our headquarters in Perth, Western Australia.



Consumables kits in different configurations include the GLIX-20™ lixiviant, Collector Devices, sample pouches and QC Reference Materials.

Primary hardware comprises our Maxi or Mini mixers and kits.

These kits include a range of equipment designed to provide everything necessary to prepare, record, process and analyse your samples.



With all orders you'll also receive a subscription to pLIMS, our purpose built application that manages your samples through the whole detectORE™ process and provides data reports.

The detectORE™ Process.

The detectORE™ system is designed for field deployment, anywhere.

The process is simple, requiring minimal personnel and resources. A single field technician can set up, process and analyse samples to provide results as fast as same day.

1

Sort



The first step is to gather, check, catalogue, and prepare your samples. A <1mm sieved sample is recommended for most applications and all sample details are recorded and tracked in pLIMS.

2

Weigh



Once samples are prepared, a Collector Device is added to each pouch and the mass of each sample is recorded in pLIMS.

3

Dose



Each sample is then dosed with a set amount of GLIX-20™ lixiviant. The pump supplied with our Maxi kit will dispense an accurate volume at the press of a button.

4

Process



Once all samples are loaded into one of our mixers, a recommended mixing time of 12 hours begins. Mixing time may vary and our Leach Time Optimisation kits provide you with the data you need to obtain the best results.

5

Wash



After mixing, the Collector Devices are recovered, washed and dried in preparation for measuring with your pXRF.

The lixiviant and sample material can now be discarded.

6

Analyse



Once dried, the Collector Devices are measured with your pXRF. We have worked with the major pXRF manufacturers to develop methods unique to the detectORE™ system. Your pXRF device will need to have these methods installed prior to use.



Results can now be viewed and reported from pLIMS and when saving to the cloud, those reports are available to your team wherever they are.

Next Steps

The range of SciAps portable XRF analysers have now been optimised for detectORE™.



Brand	Model	Compatible
SciAps	X505/X555	Yes

Talk to your pXRF instrument provider about the process for installing the detectORE™ methods.

Site Requirements



You will need a supply of water to mix the lixiviant. Your water does not need to be filtered or potable, though high salinity will affect your results.

You will also need clean water to wash your processed Collector Devices and decontaminate equipment.



Our mixers are available for 240v and 110v.

You may also need to power a dosing pump, small dehydrator/dryer, balance and power your laptop to run pLIMS.



Waste should always be disposed of in a way that considers the environment and in accordance with your local guidelines and procedures.