

Trigger point for soil scans

CAMERON ENGLAND

Technology

PETROLEUM contamination in soil can now be measured on the spot thanks to a South Australian invention.

Thebarton company Ziltek has recently commercialised its RemScan device which allows users to detect petroleum hydrocarbons by pulling a trigger for a mere 15 seconds.

This compares to the previous need to send refrigerated soil samples for laboratory testing, which would usually take at least a week.

Ziltek managing director Dr Richard Stewart said the ability to detect contaminated soils in real time would enable much faster and more efficient remediation, with decision making greatly sped up.

The process would also approximately halve the costs involved, he said.

The RemScan device uses an infra-red signal to detect the petroleum.

"We first approached a group at CSIRO here in Adelaide. We knew that they had been doing some infra-red work looking at some other chemicals in soil and we asked them if they could detect petroleum hydro-



INNOVATIVE: Ziltek's Grant Wester, Jody Elsworth and Dr Richard Stewart.

Picture: BROOKE WHATNALL

carbons in soils. They said it had been problematic and a few groups around the world had tried and failed because of interferences in the soil."

Ziltek invested some money and, by looking at parts of the infra-red spectrum, which usually wouldn't be used in such applications, a solution was

found. "We then got an exclusive license to the technology that they'd built so far, then we patented it and took it from there and we've been

funding it ever since. Our main target markets are the petrochemical companies, refineries and anyone who handles petrochemicals," Dr Stewart said. "The mining and oil and gas industry in the remote areas – when they have a hydrocarbon spill it tends to be a pretty big one."

Such spills usually involve the containment of soil in a landfarm, which requires constant measurement as remediation work is carried out.

Relying on laboratory testing in such cases was difficult, slow and expensive, Dr Stewart said.

The entire process has taken since 2007 and the company now has a full Australian patent and is the subject of several global applications.

Ziltek will be both selling the device and offering a detection service on a contract basis.

Ziltek's lead investor and chairman is former Minélab chairman and chief executive Denis Harwood.

RemScan's development was supported through the HazWaste Fund (EPA Victoria), Bio Innovation SA and the Australian Government's Enterprise Connect Researchers in Business grant. The research was supported by CSIRO Land and Water and the Water for a Healthy Country flagship.