

CASE STUDY 01 · SPILL RESPONSE

Rapid Response to a Diesel Spill

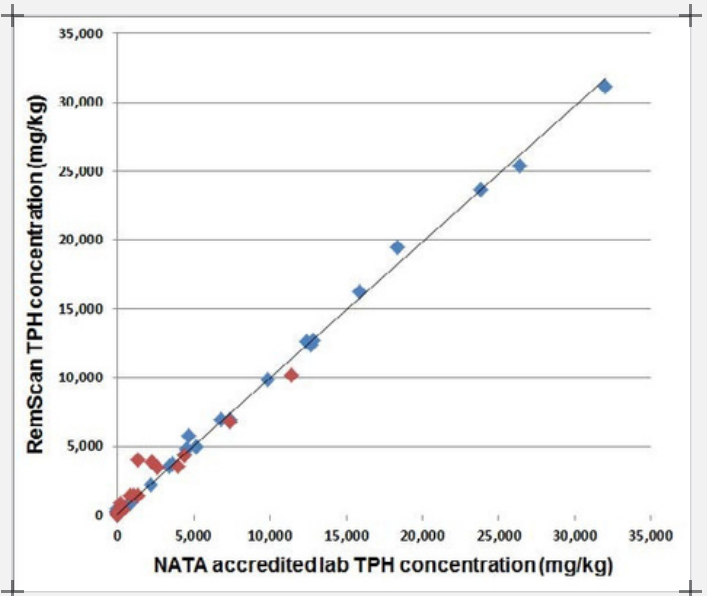
A storage facility leak in Western Australia was contained in an emergency bund. RemScan quantified the diesel on site, then validated the remediation works in under four days.

A significant amount of diesel leaked from a storage facility in Western Australia and was captured in an emergency bund area. RemScan was used to rapidly quantify the amount of diesel in the bund area, and later to validate the site remediation works.

During the emergency response, GXLab collected soil samples and built a site-specific calibration model in the instrument to allow a rapid and accurate determination of Total Petroleum Hydrocarbons (TPH) C_{10} to C_{36} .

During subsequent remediation works, RemScan was used to measure more than 200 samples per day – allowing the validation work to be completed in less than four days, without the constraints of standard laboratory turnaround times. During wet weather, samples were taken to the site hut for continuous high-throughput processing.

To independently verify the instrument's performance, 19 'blind' soil samples were sent to a NATA-accredited laboratory for analysis. A very close correlation was observed between the TPH values predicted by RemScan and the laboratory data, with an R^2 value of 0.997.



Comparison of RemScan data to laboratory data for TPH (C_{10} – C_{36}). Calibration and validation samples shown.

200+

Samples per day

R^2 0.997

Versus NATA laboratory

\$30k+

Estimated savings

OUTCOME

Without RemScan, the validation works would have been extended by several weeks. The cost savings due to accelerated project closure and reduced laboratory analysis were estimated at more than \$30,000.