This project involved looking at the risk of gas accumulating beneath an established retail outlet.

The site was over alluvium that had accumulated in a suspected pond on site.

In order to assess the risk of gas accumulating beneath the site, monitoring equipment was installed. The equipment was installed in and around the building and through the existing floor of the building. Work was carried out in such a way as to minimise disruption by close liaison with the retail general manager and his team.

Four hand dug trial pits were dug to take soil samples. Gas monitoring wells were installed in six three metre deep boreholes.

Monitoring was done on a weekly basis across the six boreholes. In addition, continuous monitoring for a period of one week per borehole was done. Specialist technology was utilised, which provided a 24/7 real time monitoring of carbon dioxide, methane and oxygen beneath the site. This enabled data to be gathered whilst no one was present on site, increasing the quantity and quality of the data captured and available for analysis.

Groundwater levels were also monitored using a dip meter.

Through the use of the continuous monitoring technology, Provectus were able to demonstrate that levels of soil gases beneath the building were at acceptable levels for a commercial property and avoid costly retrofit of impermeable membranes.