

Felixstowe South Redevelopment

Our Services

- Desk Study
- Ground Investigation
- Source Pathway/Receptor Relationship
- Detailed Qualitative Risk Assessment
- Geoenvironmental Interpretative Report



Geoenvironmental Investigation

Felixstowe south redevelopment by Felixstowe Dock and Railway Company (FDRC) is a large scale project to extend and redevelop the existing dock.

CGL was appointed to undertake an investigation of a part of the redevelopment site, an area which was a tank farm from the 1950s until 2008. This area is to be used as a container storage facility.

The tank farm was situated on made ground and reworked alluvium consisting of imported soils used to make up the level of the historical salt marsh, with a layer of industrial origin made ground at surface level. Beneath the alluvium, lies gravels and the aquifer, at depths of greater than 6m bgl.

Results from earlier trial pitting, window sampling and boreholes across the site were used in a preliminary desk study and site investigation, alongside those of 11 trial pits dug exclusively on the tank farm area to determine current ground conditions in this area, and further work needed.

This further work included a further 12 trial pits across the tank farm and the area west of this and the installation of 12 boreholes, 10 into the shallow

soils to a maximum depth of 6m bgl and 2 into the deeper gravels to a maximum depth of 10m. These were monitored for gas and groundwater over a period of 3 months.

All results were then collated and used to produce a geo-environmental interpretive report and Detailed Qualitative Risk Assessment (DQRA) to assess the risks posed by the site contamination.

Significant hydrocarbon contamination and some heavy metal contamination was encountered in the shallow ground and waters, which is consistent with the former site use. The deeper soils (>6mbgl) and aquifer waters showed no hydrocarbon contamination and therefore remediation options will relate to a maximum of 6m depth bgl. Remediation options are put forward and analysed, providing a balanced review of the options in view of the future site use and long term cost efficiency.

Client: Costain