

Case Study

Client Taylor Wimpey Developments Limited
Sussex Wharf, Shoreham UK

Project date 2005-2006
Area 3.6 Ha

Case Study date February 09
Budget £3,600,000

Project: Sussex Wharf

Redevelopment of a former tar distillery on a harbour's edge for a combined commercial and residential end use. Following several phases of site investigation and characterisation, this project included removal of grossly contaminated soils and encapsulation of remaining soils using a composite bentonite-geotextile layer, together with a detailed programme of groundwater monitoring and modeling throughout the construction phase to enable discharge of planning conditions.

Services provided

Environmental Consultants; Hydrology and Hydrogeology Consultants (Contaminated Land); Geo-Environmental Consultants; Site Supervision Consultants (Resident Engineers/Clerk of Works).

Description of project

Merebrook's role included undertaking Phase 1 and Phase 2 Geo-Environmental Investigations, together with characterisation and modeling of contamination present. A contamination risk assessment was undertaken to assist in environmental and pollution control decision-making.

The site was formerly a tar distillery and both ground

and groundwater were significantly contaminated by tar-related species including mono-aromatics (e.g. benzene, toluene), polyaromatics (e.g. naphthalene, benzo-a-pyrene), phenols (e.g. cresol) and petroleum hydrocarbons. Merebrook acted as Employers Representative for the remediation contract. The contamination risk was managed by excavation and disposal of grossly contaminated soils, ex-situ windrows and soil encapsulation using a Bentonite geotextile layer to prevent mobilisation of residual contamination by rainwater infiltration. A sheet-piled wall separated the harbour from groundwater within the site. Merebrook provided full-time supervision during all remedial works to ensure quality and value for the client.

Wherever free product was practicably recoverable it was removed for disposal. Recovery was carried out by pumping, skimming, settlement/interception or the use of adsorbent pads and booms. Recovered product and liquors were removed from site for controlled disposal.

In order to protect the remediated site against ingress of contamination from off-site sources a vertical cut off wall barrier was installed.

