

Case study

Carlisle Park, Rotherham, South Yorkshire

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100 years of pollution

This site in Kilnhurst, South Yorkshire, had operated as a chemical works for over 100 years.

- It has acted as a bitumen processing plant, tar distillery, iron works and a forge. The site had been derelict for five years before Gleeson acquired it for development in 2012.

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Heavily contaminated site

There were three major challenges to the development of the site:

- The land was heavily contaminated with non-aqueous phase liquids (“NAPL”) of petroleum carbons, solvents including phenols, and other less mobile polycyclic aromatic hydrocarbons.
- There were numerous un-surveyed foundations and obstructions from the former chemical works.
- It was unclear what services were passing below the site as the buried services for water, gas and electric were not clearly set out.

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£8.6m spent on remediation

Gleeson has spent £8.6m remediating the site over the period of development including:

- 300,000m³ of contaminated ground was excavated, treated and stabilised.
- 25,000m³ of derelict foundation concrete was broken out, crushed, processed and reused.
- A proprietary geosynthetic clay layer, incorporating a bentonite clay layer, was placed over the whole site.
- The site was then capped with a 1.7 meter thick layer of clean material placed as a foundation above the capping layer.

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High-quality, affordable homes

As a result of the remediation we:

- Cleaned the site.
- Stabilised the contamination.
- Reused all the stabilised materials on site.
- Exported and recycled for scrap the waste metals from the structure of the chemical works.

All works were supervised by third-party consultants and approved by both the regulators of Rotherham Borough Council and the Environment Agency.