



# Unlocking the site of a former Royal Ordnance Facility

Hooton, Ellesmere Port

**Client:** Stewart Milne Homes

**Site area:** 15ha

**Timeframe:** 6 months

**End use:** 265 new homes

## Challenge

Remediation and enabling works to unlock this heavily zinc-contaminated site (zinc up to 52,000mg/kg), ready for a development of 265 new homes.

The site had been derelict for five years, largely due to lack of site investigation data, resulting in a limited remediation options appraisal.

## Solution

Early involvement was key to making this site viable for development. A lack of site investigation data around key risk areas had led to a limited remediation options appraisal.

Our team conducted additional site investigations, quantifying contamination issues, and establishing practical, cost-effective remediation technologies.

We took a technology-led approach, using our intelligent equipment and engineering capabilities to conduct precise sampling and **reduce the predicted contamination zone by 50%.**

The site was delineated using a computer-generated grid, which was then uploaded onto a digital terrain model of the site.

The grid and model were viewable on the in-cab display of our 3D GPS-enabled excavators. This clearly marked out zinc-hotspot locations and depths for machine operators.

Zinc-contaminated soils were then stabilised to a 125ug/l leachate target, enabling **safe reuse of 29,439m<sup>2</sup> material.**

Our 3DMC excavators recorded each material movement in real-time, providing detailed records for verification.

## RESULTS

- Designed and delivered a cost-effective, compliant methodology that unlocked the site for development
- Reused 99.88% of material that would otherwise have gone to landfill
- Received a Brownfield Award in the 'Best Re-Use of Materials' category
- Named 'Best New Contractor' at Stewart Milne's supplier awards
- Steve Daniel, Technical Manager at Stewart Milne Homes, said: *"We found the entire McAuliffe team to be very professional and always looking to offer alternative solutions which would benefit us."*