1ST LINE DEFENCE
UXO Assessed, Mitigated, Managed

Unexploded Ordnance (UXO) – Non-Intrusive Survey

Survey your Greenfield site to mitigate the risk of encountering Unexploded Ordnance (UXO)

Our non-intrusive survey system is designed to detect sub-surface ferrous anomalies which have the potential to be UXO-related and the methodology is similar to that of a standard geophysical survey.

The area to be investigated is divided into boxes by the target investigation team, and each grid box is surveyed in lanes to cover the whole area.

Generally this will be a walkover survey, but for larger areas or to increase production speed, the survey can be mounted on a variety of platforms including towed arrays from vehicles. The area to be surveyed should be 'walkable' by a survey team and free from obstructions and/or vegetation.

The survey data from each day is logged and processed by our in-house geophysical team and bespoke software. A 'false colour' map of the site is then produced which will highlight any ferrous anomalies that could potentially be encountered during ground works.

We will also provide a coordinated 'target list' showing anomalies which have a similar model and appearance to buried UXO, and which targets are recommended for further investigation.

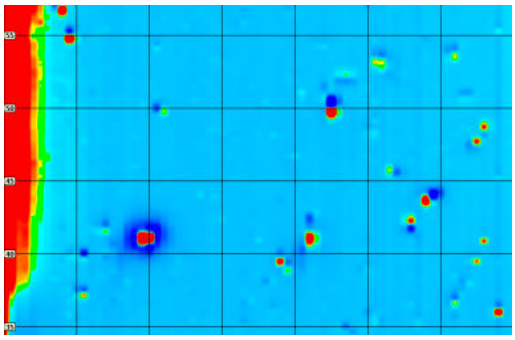
It is often not practicable to investigate every ferrous anomaly detected (as there will sometimes be too many to make this possible). In these cases, the selection process will be based on either a percentage of the total targets and/or every target above a certain modelled mass/volume (depending on the nature of the threat).

How does the target investigation process work?

The investigation of targets is the second phase of the process and is undertaken by a team of UXO clearance specialists.

Each target is located using GPS and excavated by hand and/or machine. If the target found is UXO-related, it will be identified, classified and the appropriate response procedure initiated. If the targets are found to be non-UXO related, they would be recorded and removed as required.

At the end of the process, a report is issued detailing the clearance operation, what was found and if there is any residual risk still present – and also if there are any additional UXO mitigation recommendations.



Which sites are suitable for a Non-Intrusive UXO Survey?

A Non-Intrusive UXO Survey is very effective on ground which is relatively 'clean' and which does not contain too much background ferrous contamination.

Areas with significant amounts of 'Made Ground' such as 'Brownfield' sites, which have either been previously developed or in-filled, are often too contaminated with scrap and materials such as brick, clinker, rebar and reinforced concrete – to allow any UXO-related items to be identified.

Certain surface features such as chain link fencing, vehicles and pylons can also influence the data collection process and mask potential ordnance from being identified.

In optimum ground conditions, the system can detect a buried 50kg iron bomb at a depth of around 4m below ground level (the 50kg was the most commonly dropped high explosive bomb making up approximately 60% of the total number deployed).

The survey is also effective at detecting shallower buried items of Land Service Ammunition (items such as grenades, mortars and projectiles).

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