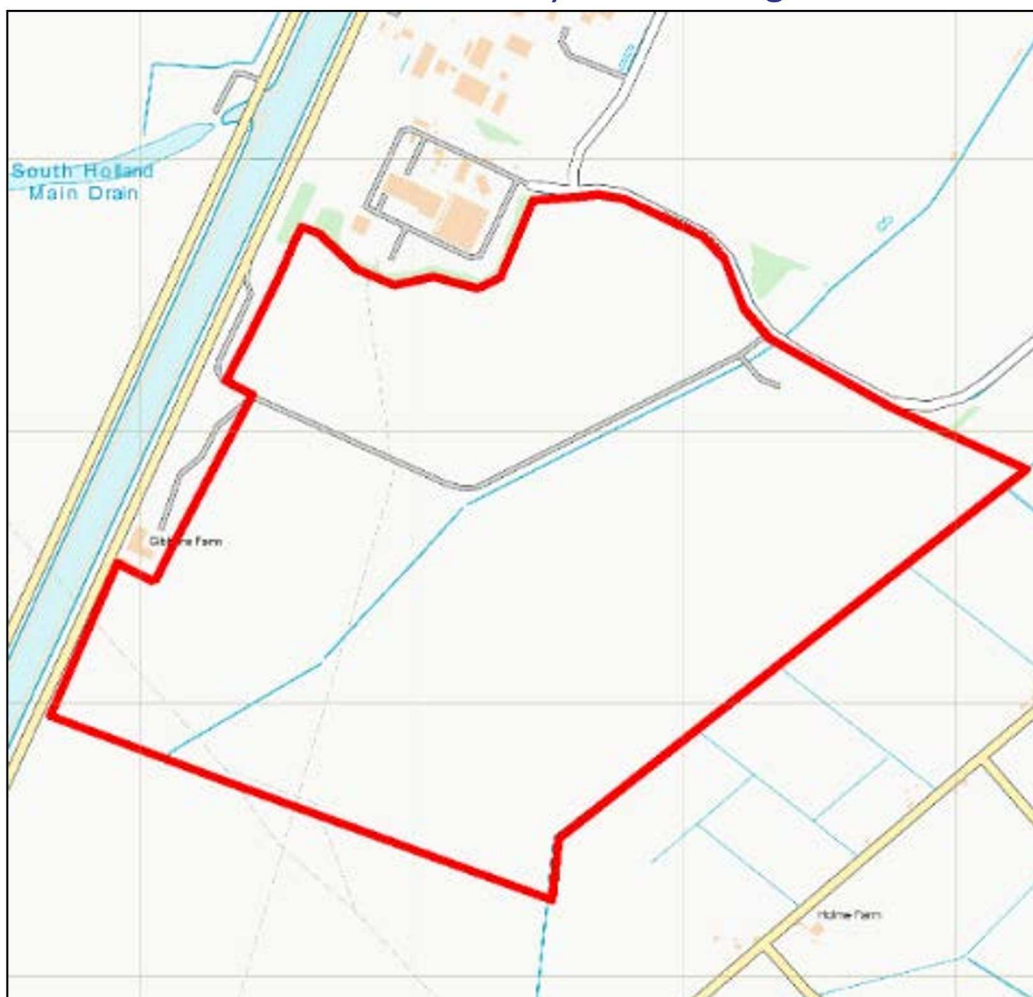


PRELIMINARY UNEXPLODED ORDNANCE (UXO) THREAT ASSESSMENT

Meeting the requirements of *CIRIA C681* 'Unexploded Ordnance (UXO) – A guide for the Construction Industry' Risk Management Framework



6 ALPHA PROJECT NUMBER	8696	ORIGINATOR	D. Barrett
LANDMARK ORDER NUMBER	272481483_1	REVIEWED BY	L. Hayes (1 st February 2021)
CLIENT REFERENCE	3630	RELEASED BY	L. Gregory (1 st February 2021)
STUDY SITE	Site at, Sutton Bridge, Lincolnshire		
RECOMMENDATION	This Study Site requires a Detailed UXO Threat and Risk Assessment		

STUDY SITE

The Study Site is described as “Site at, Sutton Bridge, Lincolnshire”, and it is centred on National Grid Reference 548180, 319300.

THREAT POTENTIAL AND RECOMMENDATIONS

The potential for a UXO hazard to occur, and more specifically, the potential for unexploded WWI and WWII ordnance to exist at this site is assessed as being **LIKELY** (Figure 2).

In accordance with CIRIA C681 Chapter 5 on managing UXO risks, 6 Alpha recommends that the next stage in the risk management framework is:

DETAILED UXO THREAT & RISK ASSESSMENT

We would be pleased to provide this service, please contact *Envirocheck* for further details:



REPORT SUMMARY

During WWII, the Study Site was situated within *East Elloe Rural District*, which recorded less than one High Explosive (HE) bomb strikes per 100 hectares; a very low level of bombing.

Luftwaffe aerial reconnaissance photography associated with the Study Site identified *RAF Sutton Bridge* (on-site) as a primary bombing target. Originally established in 1926, *RAF Sutton Bridge* was primarily a training establishment for fighter and bomber squadrons during WWII. Consequently, it is considered possible that munitions may have been stored, located and/or fired from this Study Site during WWII and may have been abandoned after the war – known as Abandoned Explosive Ordnance (AXO).

Air Raid Precaution (ARP) records were not available. Nonetheless, further research noted that *RAF Sutton Bridge* was bombed multiple times during WWII, although the exact number of bomb strikes and location of the impacts was not documented. However, it is possible bomb strikes may have occurred on-site, or else in close proximity to it.

Official bomb damage mapping was not available. An analysis of post-war mapping also did not identify any potential bomb damage on-site, however further research noted that several *Hawker Hurricanes* based at *RAF Sutton Bridge* were damaged by bombing during WWII, although the precise location that this occurred was not recorded.

Given that *RAF Sutton Bridge* was located on-site and was subjected to bombing; it would suggest that further action is warranted to address the potential for UXO encounter.

USING THIS REPORT

This Preliminary Assessment is designed to inform environmental and construction professionals of the potential threat of military related explosives and/or ordnance on, or in, the vicinity of the Study Site.

This assessment is designed to be employed as a site-screening tool to meet with the requirement of Phase One of the *CIRIA UXO Risk Management Framework*; there are two broad prospective outcomes; either the threat level requires a detailed threat & risk assessment; or no further action is required. In the former instance we can provide a report within 10 working days (or more quickly upon application).

Two figures accompany the report, the *Second World War* (WWII) High Explosive (HE) Bomb Density and the final Probability of UXO Encounter. The purpose of this approach is to demonstrate that whilst bomb density statistics give an indication for WWII bombing, they should not be relied upon exclusively to generate a holistic assessment.

For further information, please contact *Envirocheck*:

Website: <http://www.envirocheck.co.uk>

Telephone: +44 (0)844 844 9952

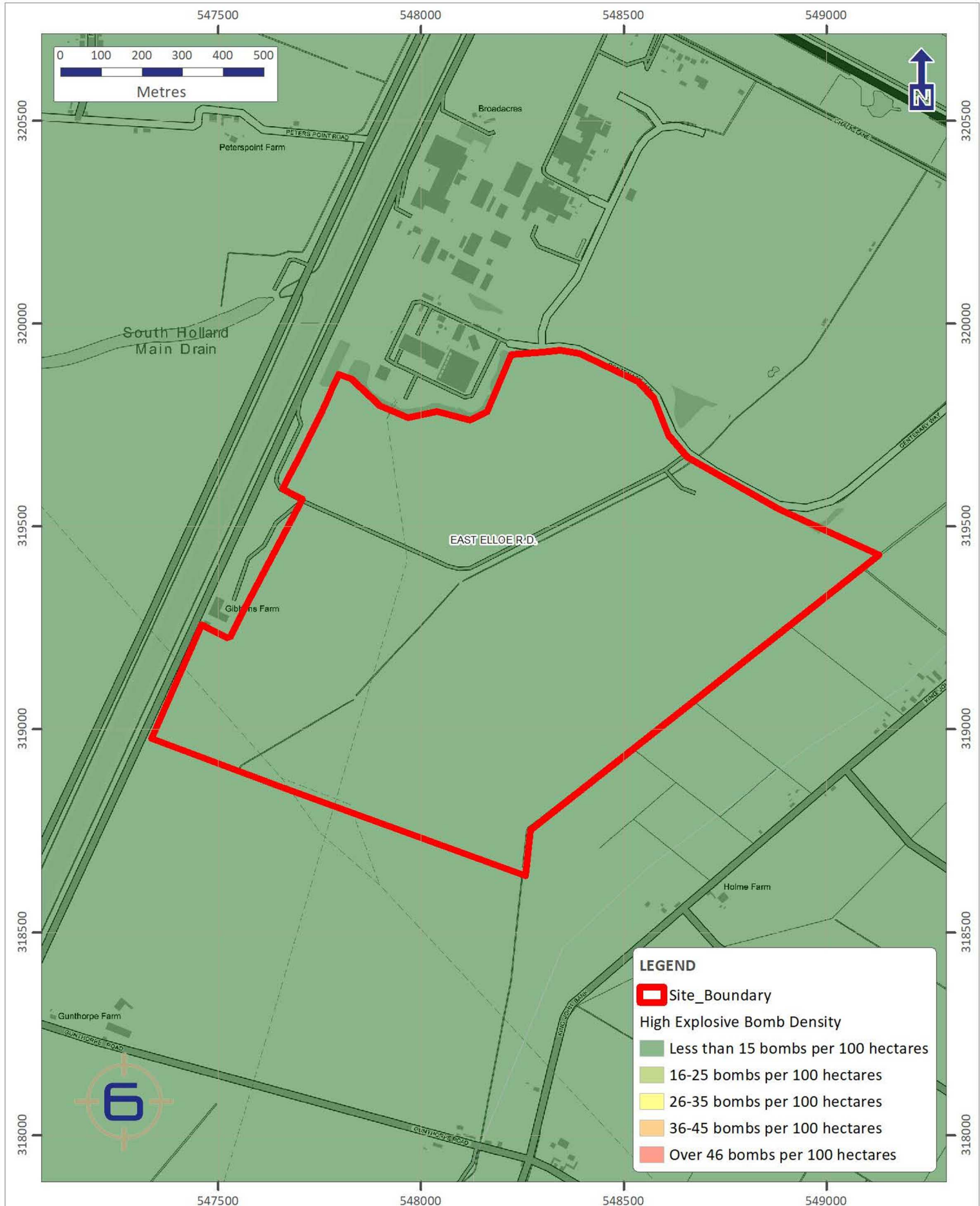
Email: customerservice@envirocheck.co.uk

DATA FINDINGS

Threat Source (within 1,000m)	Detail	
	Identified	Comments
 Airfields/Military Facilities	✓	RAF Sutton Bridge was located on-site.
 Ordnance Manufacture/Storage	✓	An Armoury was recorded on official RAF Sutton Bridge site plans, approximately 385m north-north-west.
 WWII Decoy Bombing Sites	✗	None recorded within 1,000m.
 WWII Defensive Features	✓	11 Defensive Features were identified within 960m, the closest being a "pillbox" located 5m south-east.
 WWII Luftwaffe Designated Bombing Targets	✓	Luftwaffe aerial photography identified RAF Sutton Bridge (on-site) as a primary bombing target.
 WWII Bomb Strikes (Study Site Boundary)	✓	Further research identified numerous bomb strikes impacting RAF Sutton Bridge, potentially on-site.
 WWII Bomb Strikes (Wider Area)	✓	Further research identified numerous bomb strikes impacting RAF Sutton Bridge, potentially in close proximity to the Study Site.
 WWII Bomb Damage	✓	Further research identified bomb damage to aircraft stationed at RAF Sutton Bridge, potentially on or near to the Study Site.
 Abandoned Bomb Register	✗	The official abandoned bomb list did not identify any abandoned bombs on-site, or within 1,000m of the Study Site boundary.
 Potential Threat Sources	✓	The most probable UXO threat is posed by British AXO/LSA/SAA and German HE bombs. IBs and AAA projectiles pose a residual threat.
 WWII Bombing Density Per 100 Hectares	✓	The Study Site was located within East Elloe Rural District, which recorded less than one HE bomb strikes per 100 hectares.

IMPORTANT NOTES

1. The term 'Preliminary UXO Threat Assessment' has been used to describe this report, to fall in line with the CIRIA C681 guidelines. Whilst the term 'Risk' can be justifiably used at this stage, the reader should note that the 'Consequence' function of 'Risk' is not considered. Should it be required, this would be addressed in the 'Detailed UXO Threat & Risk Assessment' (Stages 2 and 3).
2. This report is accurate and up to date at the time of writing.
3. The assessment levels have been generated from historical data and third-party sources. Where possible 6 Alpha have sought to verify the accuracy of such data, but cannot be held accountable for inherent errors that may be in third party data sets (e.g. National Archives or library sources).
4. 6 Alpha have exercised all reasonable care, skill and due diligence in producing this service.
5. Whilst every effort has been used to identify all potential UXO/explosive threats, there were a number of private facilities, which may not have released privately recorded information concerning UXO/explosive threats into the public domain. It is therefore possible that some of the aforementioned sites may not be included within the database.



Probability of UXO Encounter

