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Phase I Geo-Environmental Risk Assessment

Land at Christon Bank Farm, Northumberland

May 2019

George F White

Reference: 190502.R.001

Phase I Geo-Environmental Risk Assessment

Land at Christon Bank Farm, Northumberland

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Reference: 190502.R.001

Status: Version 1.0

Date: May 2019

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EXECUTIVE SUMMARY

SCOPE

Purpose of the Report	This report has been prepared for the purpose of assisting in the evaluation of potential risk associated with contamination issues at the site which is required as part of the planning application (REF:18/02965/OUT) for the redevelopment of the site.
Future Site End-use	It is understood that it is proposed to demolish of the existing building and the land be redeveloped for use as up to five residential dwellings.

SITE INFORMATION

Grid Reference	421010, 622380
Current Site Status	The subject site, known as Land at Christon Bank Farm, comprises a parcel of land with a centrally located structure. The structure constructed of brick and steel portal frame, with corrugated metal sheet and wooden cladding roof on a concrete pad, is currently utilised for equestrian activities. The north and east of the site are covered by grassland, with a concrete slab present along the central portion of the northern boundary and a shipping container is positioned adjacent to the northern wall of the structure. The west of the site is utilised as a carpark, surfaced with a granular subbase (GSB). Waste materials including an abandoned car, trailer, industrial plastic waste bins and tyres were also present within the carpark. The following Grade II listed buildings are in close proximity to the property: • Garden Walls to South West of Christon Bank Farmhouse; • Christon Bank Farmhouse; • Farmbuilding Group to North of Christon Bank Farmhouse; • Attached Outbuilding Range to East of Christon Bank Farmhouse.
History	The historical assessment has identified that the site comprised undeveloped agricultural land until mapping dated 1975. The site was subsequentially developed with a structure located centrally and remained unchanged until present. Surrounding land has largely comprised agricultural land. Notable changes to the surrounding land include the redevelopment of Christon Bank Farm, the development of two structures 20m to the west of the site, from after 2004 and the development of a pond 48m to the south east after 2012.
Geology	A review of British Geological Survey information has identified that the site is positioned on an area of superficial deposits known as Devensian TIII. The underlying solid deposits are named as the Alston Formation comprising interbeds of limestone, sandstone, siltstone and mudstone.
Coal Mining Risk Assessment	The site is located within a Coal Mining Reporting Area; however, it is not located within a Development High Risk Area or an area of Past or Probable Shallow Coal Mine Workings. In addition, no coal seams have been identified as being present at shallow depth beneath the site. REL can therefore conclude that there is no significant risk from coal mining or coal mine related activities at the subject site.
Hydrogeology	The superficial deposits known as Devensian Till are classified as a Secondary (Undifferentiated) Aquifer. The bedrock geology comprising the Alston Formation is classified as a Secondary-A Aquifer. The subject site is not situated within a groundwater Source Protection Zone. In addition, there are no potable water abstraction licences recorded within 1km of the subject site. As such, the site location is considered to be of Low environmental sensitivity.
Hydrology	The nearest surface water feature is a pond lying 48m to the south west of the site. According to the Environment Agency's website, the subject site is located within Flood Zone 1 and is therefore outside the area at significant risk of flooding from rivers and sea.
Regulatory Consultation	A review of Northumberland County Council's online Planning Portal has identified two Planning Applications relating to the subject site. See **Section 13** for further information. We understand the site is not currently listed as Contaminated Land under the EPA 1990 and it is unlikely that the site would be investigated under the Contaminated Land Regime.

RISK ASSESSMENT (POTENTIAL POLLUTANT LINKAGES)

Hazard Identification	***Source***	No potentially significant sources of contamination have been identified at the subject site.
	Pathway	Direct contact (with humans, foundations/services and plant roots), ingestion, inhalation of dusts and/or fibres. Lateral migration of contamination to adjacent areas, direct contact and ingestion of potentially harmful concentrations of contaminants. Migration of mobile contaminants into groundwater. Lateral migration of ground gas vapours on site and to adjacent areas.
	Receptor	Site users and potential visitors and trespassers; Future construction workers and structures; Future residents; Occupants of adjacent residential properties and structures; Planting within landscaped areas and gardens; Groundwaters; Surface waters.

CONCLUSIONS

Risk Estimation	It is understood that it is proposed to redevelop the site with up to five residential dwellings. This report complies with guidance given in the National Planning Policy Framework and Paragraph 24 of PPS23. Based on the information obtained during the desk study it is concluded that the environmental risk arising from the ground condition at the subject site when taking into account the sites current status and usage is **Low.** When considering the proposed redevelopment of the site for a Residential with Home Grown Produce end use, it is concluded that the potential environmental risk to arising from the ground condition at the subject site would be **Low.** Based on the above, it is the opinion of Roberts Environmental, that **the issues identified should not preclude the future redevelopment of the site.** However, additional works are recommended.
Recommendations	As part of the proposed renovation, we recommend that the client undertakes the following actions: • Prior to significant structural/demolition works being undertaken on buildings currently occupying the site, a Refurbishment and Demolition asbestos survey should be carried out and the information provided to the contractors undertaking the work. • Prior to the commencement of any redevelopment works, the contractor shall conduct a sufficient risk assessment and as a minimum future construction/ground workers should be provided with and make use of appropriate PPE. • An intrusive ground investigation would be required to allow for the collection of geotechnical data, to be used to inform future foundation design. During any such investigation, it may be prudent to obtain environmental samples from soils to confirm the absence of a significant risk to human health or sensitive receptors.

1. Instructions

On 2 May 2019, Craig Ross on behalf of George F White ("**the Client**") instructed Roberts Environmental Limited ("**REL**") to undertake a Phase I Geo-Environmental Risk Assessment ("**the Services**") of the Land at Christon Bank Farm, Christon Bank, Northumberland ("**the Property**"). Part of the Services included the production of this document ("**the Report**").

Our approach is compliant with the National Planning Policy Framework but in the absence of further detailed guidance we have continued to maintain an approach in accordance with Planning Policy Statement 23: Annex 2, "Development on Land Affected by Contamination", (Office of the Deputy Prime Minister, 2004) for robustness. Therefore, we have provided this desk-based assessment of the likelihood of the presence of land contamination, its nature and potential risk to the proposed development, and what further measures are required to ensure the site is 'suitable for use'. This report is provided as supporting environmental information to the planning application (REF: 18/02965/OUT) submitted to Northumberland County Council.

The Services have been carried out in accordance with the Proposal dated 23 April 2019 and REL's Terms and Conditions of Engagement, (together "**the Agreement**") as accepted by the Client on 2 May 2019.

The Report

The Report has been prepared in accordance with the Agreement and is subject to all terms contained therein. The Report is addressed to and is for the sole use and reliance of the Client. REL accepts no liability for:

(a) any use of or reliance upon the Report by the Client other than in accordance with the Agreement; and

(b) any use of or reliance upon the Report by any third party who is not a party to the Agreement.

The Report, unless otherwise stated, is based upon:

1. information provided by the Client;
2. database information obtained from regulatory bodies, including but not limited to:
    a. The Environmental Agency;
    b. The Local Authority;
3. the Envirocheck Report (203067554_1_1) purchased from Landmark;
4. a site walkover undertaken by a suitably qualified engineer of REL on 10 May 2019.

Where appropriate the reports of these bodies are contained in **Appendix II**.

2. Location

The subject site is located approximately 400m to the south of Christon Bank village, within Northumberland. The site is centred on 421010, 622380 totalling 0.36 hectares. Access to the site is gained via an unclassified track joining with the B6347. The A1 runs approximately 4km to the west, which links to Berwick upon Tweed, approximately 37 km to the north west, and Newcastle, approximately 56 km to the south. Site Location and Layout plans are provided below.

Figure 1: Site Location Plan (location shown in red is indicative only)

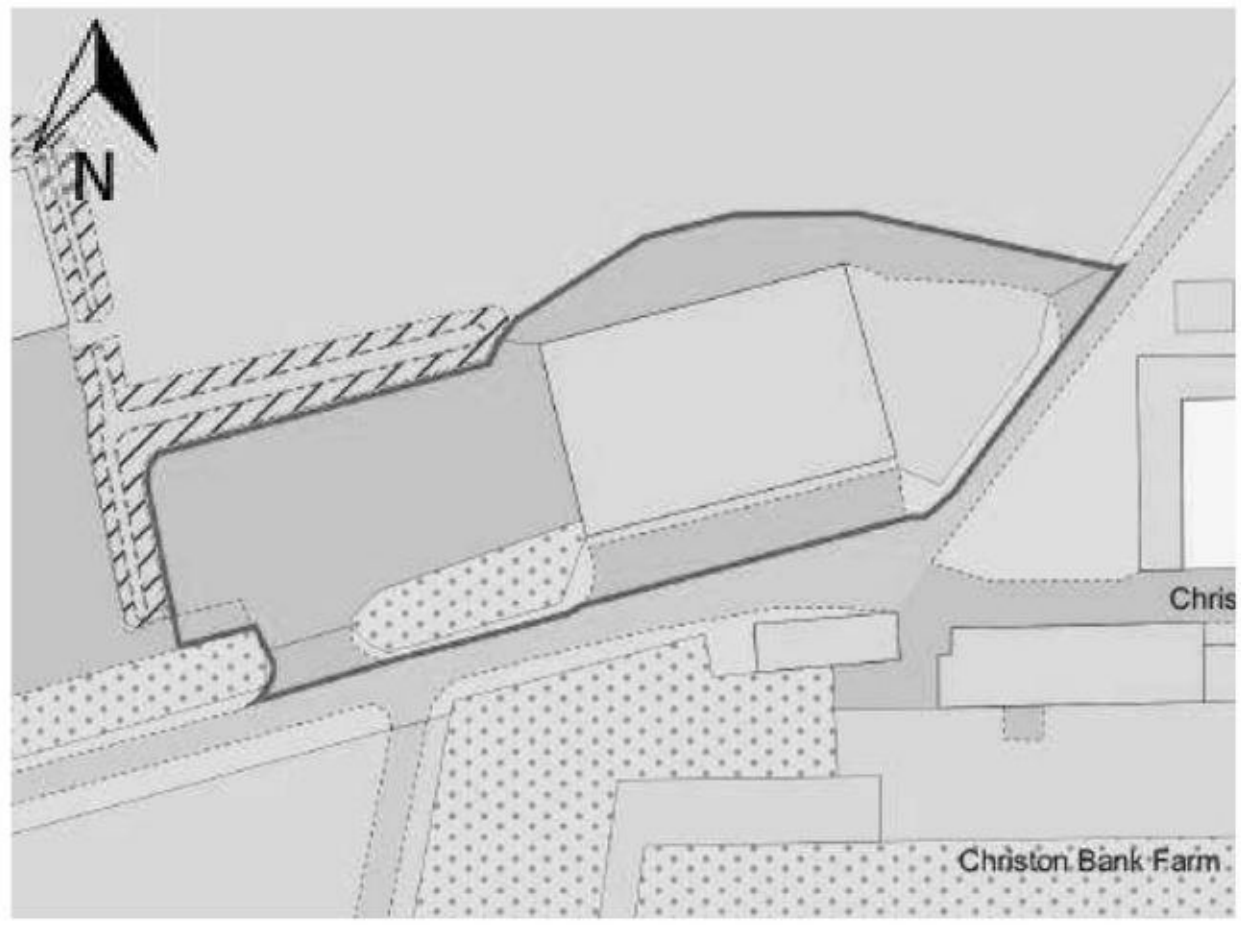


Figure 2: Site Layout Plan with boundaries shown in **red** (boundaries are indicative only)

3. Description

The following table provides a summary of site conditions.

Table 1: Site Description

Issue	Description
Site Name	Land at Christon Bank Farm
Address	Christon Bank, Northumberland, NE6 63EZ
National Grid Reference	421010, 622380
Site Areas	0.36 hectares
Tenure	Freehold
Occupancy	Operational
Site Description and Activities	The subject site, known as Land at Christon Bank Farm, comprises a parcel of land with a centrally located structure. The structure constructed of brick and steel portal frame, with corrugated metal sheet and wooden cladding roof on a concrete pad, currently utilised for equestrian activities. The north and east of the site are covered by grassland, with a small concrete slab present along the central portion of the northern boundary and a shipping container adjacent to the northern wall of the structure. The west of the site is utilised as a carpark, surfaced in GSB. Waste materials including an abandoned car, trailer, industrial plastic waste bins and tyres were also present within the carpark. Access to the site is gained via a gated entrance to the east, through an ungated entrance in the south west corner to the carpark and across the hardstanding present south of the barn. Overhead electric cables span the track leading up the southern boundary of the site. Information contained within documents relating to planning application REF:18/02965/OUT submitted to Northumberland County Council suggests that the original structure was built in the 1960's. Planning permission for the redevelopment of the building to its current layout was granted in 2010 (REF: A/2010/0283). No issues of environmental significance were noted during the site walkover associated with the current use of the site. From an environmental perspective the current site operations on site are not considered to pose a significant ground contamination risk to the continued use of the property.
Surrounding land uses	The site is located approximately 400m to the south of Christon Bank Village. The main use of land surrounding the site is for agricultural use. The following buildings are Grade II listed: • Garden Walls to South West of Christon Bank Farmhouse; • Christon Bank Farmhouse; • Farmbuilding Group to North of Christon Bank Farmhouse; • Attached Outbuilding Range to East of Christon Bank Farmhouse.
Site Gradient	The subject site and surrounding land is generally flat in nature however, localised variation in topography may be present in some areas.
Proposed Use	It is understood that the end use will include the demolition of the existing central structure within site and the development of up to five residential properties with associated private gardens, car parking and access roads.

4. Photographic Record

Set out in Figure 3 below is a numbered plan which correlates to the photographs and descriptions presented below.

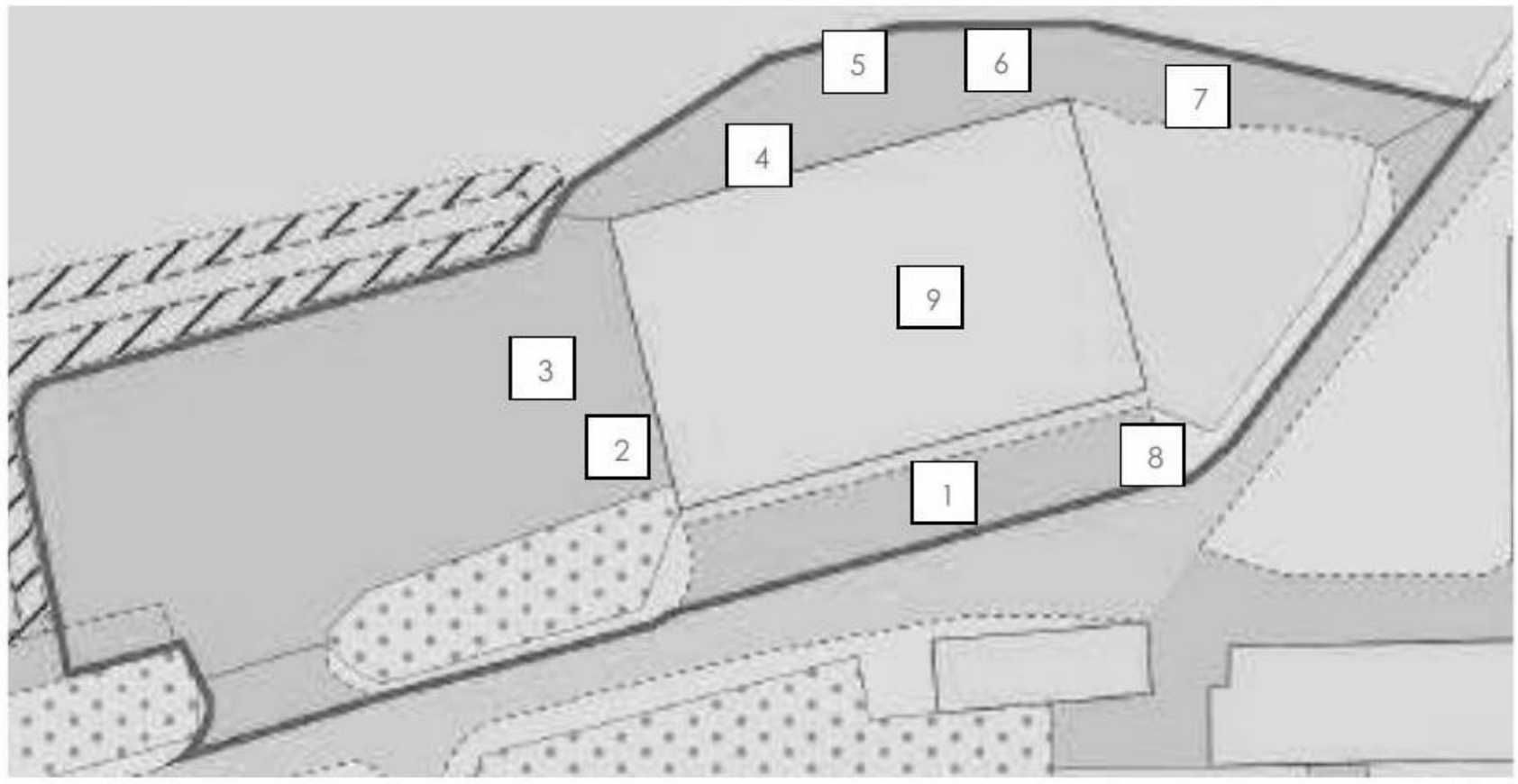


Figure 3: Numbered Site Layout Plan Corresponding with Photographic Record below

Table 2: Christon Bank Farm, Christon Bank – Site inspection Photographic Record

Photograph Number	Photograph Description	Photograph
1.	View towards the southern elevation of the structure. Concrete hard standing is present adjacent to the southern boundary. Concrete was in good condition with no significant cracking or evidence of staining present.	

Photograph Number	Photograph Description	Photograph
2.	To the south west of the structure, disused industrial plastic waste bins and a trailer is present within the soft landscaping.	
3.	To the west of the site, a car park surfaced in GSB with discrete grassed areas can be seen. The western entrance and site exit are visible centrally in the background.	
4.	Adjacent to the northern boundary of the structure, a shipping container was present, used as storage for wooden beams, metal railings and plastic bucket/bollards.	

Photograph Number	Photograph Description	Photograph
5.	A concrete slab can be seen adjacent to the northern boundary within a grassed area.	
6.	Along the northern boundary of the structure, materials associated with the equestrian nature of the site can be seen against the northern wall of the structure.	
7.	View across the grass covered eastern area of the site. The construction of the eastern elevation of the barn from brick and steel portal frame can be seen. An electricity box is present centrally on the eastern elevation.	

Photograph Number	Photograph Description	Photograph
8.	In the north east of the site, overhead electricity cables can be seen running parallel to the southern boundary.	
9.	View north inside the structure. Hardstanding can be seen in good condition with block walls separating paddocks and stalls. No visual or olfactory evidence of staining was present.	

No visual or olfactory evidence of contamination was noted during the site walkover survey.

5. Operational Issues

Deleterious Materials

The Control of Asbestos Regulations 2012 came into effect in April 2012. These repeal earlier asbestos legislation. Owners, occupiers, managers and/or those who have responsibilities for premises have a legal duty to either manage the risk of asbestos or a duty to co-operate with whoever manages that risk.

The responsible party has to identify the existence of Asbestos Containing Materials (ACM's), record their location and condition, set out a plan to manage the risk from the material and take the necessary steps to put this plan into action.

An appropriately licensed asbestos contractor should remove ACM's that are likely to be disturbed and cannot be easily protected. Reviews of this plan will have to be undertaken on an on-going basis. Details as to the location and condition of the materials must be provided to anyone who is liable to work on or disturb them.

Asbestos Survey

No asbestos survey has been presented for review as part of this assessment. In addition, no potential ACM's were identified during the site walkover. However, given the age of structure on site, i.e. constructed in 1960's, ACM's may have been present on site.

As part of the redevelopment of the site, which will involve the disturbance or demolition of the barn, it is recommended that a Refurbishment and Demolition asbestos survey is carried out and the information provided to the contractors undertaking the work.

Site Services

Specific details pertaining to the presence or nature of buried utilities/services beneath the site are not known at this stage. Prior to commencement of any groundworks, it would be prudent to undertake a utilities clearance and or mapping survey to ensure damage to utilities and other services is prevented. Such a survey would also identify current service routes and connections to aid future development plans.

Fuel and Oil Above Ground Tanks

Based on information obtained from the Envirocheck Report, regulatory enquires and during the site walkover, there are no significant above ground fuel/oil storage tanks situated on site.

Fuel and Oil Below Ground Tanks

Based on information obtained from the Envirocheck Report, regulatory enquires and during the site walkover, there are no significant below ground fuel/oil storage tanks situated on site.

Chemical Storage

No significant volumes or quantities of bulk chemicals are understood to be used or stored on site and none were identified during the walkover.

Waste Management Practices

No environmentally significant volumes/types of waste are anticipated to be produced at the site or within the surrounding farm area. No significant quantities of potentially harmful wastes were noted during the site inspection.

During the site walkover, an abandoned car, industrial plastic waste bins and tyres were identified at the site. This should be cleared up as part of good housekeeping. During site redevelopment demolition type wastes, which may include ACM's may be generated which will require disposal. Any asbestos impacted waste should be assumed to be hazardous unless proven otherwise.

Invasive Plants

The Wildlife and Countryside Act 1981 (as amended) is the principal legislation which regulates the release of non-native species. Section 14(2) prohibits the release of certain invasive non-native plants into the wild in Great Britain; it is an offence under Section 14(2) to "*plant or otherwise cause to grow in the wild*" any plants listed on Part II of Schedule 9. The most common plant species found on brownfield and urban sites include Japanese Knotweed, Giant Hogweed and Himalayan Balsam.

Although we are not qualified to undertake ecological surveys, none of these plants were considered to have been identified during the site walkover.

6. Historical Development

A review of historical maps contained within the Envirocheck Report has been undertaken. A summary of relevant information, within 250m of the site (i.e. in the planning consultation zone), is shown in chronological order in the table below with relevant maps in **Appendix I**. All distances listed below are approximate.

Table 3: Historical Development description of the subject site and surrounding land.

Source	Site	Surroundings
Pre 1867 – pre 1975	The site comprised undeveloped likely agricultural land; with woodland present along the southern site boundary.	Surrounding land use mainly comprised undeveloped likely agricultural land. Structures associated with Christon Bank Farm were present adjacent to and 150m from the eastern boundary respectively with tracks for access. A track ran adjacent to the southern boundary of the site.
Pre 1975– pre 1978	A large structure was developed centrally on the site and was in general accordance with the current layout.	Development of structures to the east of the site associated with Christon Bank Farm.
Pre 1978 – pre 2019	The site layout remains unchanged.	Christon Bank Farm was redeveloped with likely residential structures.
Pre2012 – Present	The site layout remains unchanged.	Two large structures were developed 20m west and a pond 48m to the south east of the site, leaving the surroundings denoted in their current layout.

* Potentially contaminative land uses in ***bold italic***.

Potential for Historical Contamination

The historical assessment has identified that the site comprised undeveloped agricultural land until prior to mapping dated 1975. The site was subsequently developed with a large structure located centrally and was generally denoted in its current layout.

Surrounding land use has largely been likely agricultural. Notable changes to the surrounding land include the redevelopment of Christon Bank Farm, the development of two structures with unidentified uses 20m to the west of the site and the development of a pond 48m to the south east.

7. Previous Reports

A request has been made for previous environmental reports relating to the subject site. However, at the time of writing no reports were forthcoming. As a consequence, no previous environmental reports were subject to review during the compilation of this report.

8. Geological Setting

The geology beneath the site, summarised below, has been established from the British Geological Survey 1: 50,000 scale Provisional Series, Geological Map, England and Wales, 06 (Alnwick), together with information from the BGS website.

Made Ground:-

According to published BGS data indicates the site is not mapped as having made ground materials present on or immediately adjacent to the site. Given the sites history and information obtained during the site walkover, it is likely that limited quantities of made ground may be present at the site associated with development on and in the vicinity of the site.

Drift Geology:-

A review of British Geological Survey information has identified that the site is situated within an area of superficial deposits named as Devensian Till.

Solid Geology:-

Published BGS data records, the site is shown to be underlain by solid deposits comprising the Alston Formation, formed of interbedded sandstone, limestone, siltstone and mudstone of Carboniferous age.

Economic Geology

Coal Mining Risk Assessment

According to the Coal Authority Interactive Map Viewer, the site is located within a Coal Mining Reporting Area. However, it is not located within a Development High Risk Area or an area of Past or Probable Shallow Coal Mine Workings. In addition, no mine entries are shown to be present on or within 20m of the site boundary.

On BGS Geological mapping the Acre Coal Seam subcrops to the north east, east and south west of the site. However, the seam is dipping towards the east, north east and south east respectively and therefore, is not expected to be present at shallow depths below the site.

No named coal seams are shown on BGS plans to subcrop to the west/south west within influencing distance, and which would potentially dip below the site. Therefore, no coal seams are anticipated at shallow depth below the site.

Based upon the geology underlying the site and that the Coal Authority have recorded that the property is not within a surface area which could be affected by recorded past underground mining or shallow coal mine workings, REL can conclude that there is no significant risk from coal mining or coal mine related activities at or within influencing distance of the subject site.

Ground Gas

Radon

According to BR 211 2015 the site is located in an area in which less than 1% of homes are above the radon action level. As a consequence, no radon protection measures are required in the construction of new dwellings or extensions.

Mine Gasses

An old mine entry is located approximately 330 metres to the south, south-east of the site at Cock Law (Paddy's Mount), this is recorded as an "old coal pit" in 1866-95 and is likely to have been extracted via bell-pit techniques or equivalent. Due to the limited underground extension associated with these techniques it is not likely that workings would be extensive. As such, the risk of mine gas to the site is **Low.**

9. Hydrogeology

Aquifer Status

The superficial deposits named as Devensian Till is classified as a Secondary (Undifferentiated) Aquifer, which is assigned in cases where it has not been possible to attribute either category A or B to a rock type.

According to the Envirocheck Report and the Environment Agency website, the bedrock deposits named as the Alston Formation, sandstone, are classified as a Secondary (A) Aquifer, which comprise permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers.

Groundwater Source Protection Zone

The subject site is not located within a Groundwater Source Protection Zone.

Groundwater Abstraction Licences

Based on information presented within the Envirocheck Report, there are no groundwater abstraction licences registered within 1km of the subject site.

10. Hydrology

Surface Watercourses

The following surface water features have been identified within the vicinity of the subject site:-

Table 4: Surface water features within 1km.

Watercourse	GQA Classification	Distance & Direction (Approximate)
Unnamed River	N/A	328m to the north west
Embleton Burn	B	455m to the south
Kittycarter Burn	N/A	554 to the south west
Unnamed River	N/A	706m to the north
Unnamed River	N/A	723m to the north
Unnamed River	N/A	810m to the west

Culverted Watercourses

According the Landmark Report, there are no culverted watercourses present beneath the property. Should clarification on this point be required, it would be necessary to undertake an intrusive drainage survey to trace the location of the drainage infrastructure.

Surface Water Abstractions

Based on information presented within the Envirocheck Report, there are no surface water abstraction licences registered within 1km of the subject site.

Flood Risk

According to the Environment Agency database mapping, the site is situated within Flood Zone 1, which land assessed as having between a 1 in 1,000 annual probability of river flooding (1% – 0.1%), in any year, and is therefore not considered to be at risk from flooding.

Based on information contained within the Envirocheck Report, the site is not at risk from surface water flooding.

11. Environmental Sensitivity

The superficial deposits named Devensian Till are classified as secondary (undifferentiated), with the Solid geological deposits, named as the Alston formation, classified as a Secondary (A) Aquifer. The subject site is not situated within Groundwater Source Protection Zone and there are no potable water abstraction licences recorded within 1km of the subject site. As such, the site location is considered to be of **Low** environmental sensitivity.

12. Regulatory Databases

From a review of the Envirocheck Report, presented in **Appendix II**, no significant regulatory database entries have been identified within a 250m radius of the subject site.

Table 5. Regulatory Database review results.

Record	On site	Within 250m Radius	Details
Discharge Consents (Active)	0	0	N/A
Environmental Permits (Active)	0	0	N/A
Radioactive Substances (Active)	0	0	N/A
NIHHS	0	0	N/A
Pollution Incidents	0	0	N/A
Landfill Sites	0	0	N/A
Potentially Infilled Land (Water)	0	0	N/A
Fuel Sites	0	0	N/A
BGS Recorded Mineral Sites	0	0	N/A
Points of interest	0	2	Both points of interest relate to W Pringle Ltd, Vehicle Repair and Servicing workshops located 24m south west and 40m west of the site. These are not likely to pose a significant risk to the site.
Sensitive Land Use	No sensitive land use is recorded at the site or surrounding area.		
Radon	The site is located in an area in which less than 1% of homes are above the radon action level. As a consequence, no radon protection measures are required in the construction of new dwellings or extensions.		

13. Regulatory Enquiries

Planning

A review of the Northumberland County Council's online Planning Portal has identified three planning applications relating to the site which are summarised below:

- 18/02965/OUT. Outline application with all matters reserved for the demolition of an existing building and redevelopment with up to 5 no. residential properties. Christon Bank Farm, Christon Bank, Alnwick, Northumberland NE66 3EZ;
- A/2010/0283. Steel portal framed general purpose building. Land atChriston Bank Farm, Alnwick, Northumberland, NE66 3EZ;
- A/2007/0317.Installation of weighbridge for agricultural use. Christon Bank Farm, Christon Bank, Alnwick, Northumberland.

Documents available on the planning portal did not contain any environmentally pertinent information.

Contaminated Land

It is the opinion of Roberts Environmental that there is an absence of significant source-pathway-receptor pollutant linkages. We understand the site is not currently listed as Part 2a Contaminated Land under the EPA 1990 and it is unlikely that the site would be investigated under the Contaminated Land Regime.

14. Preliminary Conceptual Site Model

Potential Sources

No potentially *significant* sources of contamination have been identified associated with current or historical operations at the subject site.

Potential Pathways

Current

The site comprises a singular structure used for equestrian activities situated on a concrete pad, with grassed areas to the east and a GSB covered car park to the west of the site. As such, the potential for direct contact or inhalation/ingestion pathways to human health to exist is considered limited and given the current use of the site, exposure to any contaminants (if present) will be limited in duration.

Mobile contaminants (if present) have the potential to migrate vertically and laterally to underlying groundwater, adjacent properties including residential occupants.

Ground gas and vapours (where present) may have the potential to impact, on site and adjacent receptors via vertical and lateral migration through soil pores or discontinuities and ingress into proposed buildings on the site or building in adjacent areas.

During Redevelopment

Ground workers could be acutely exposed to contamination (if present) in soils and groundwater beneath the site via the direct contact or inhalation/ingestion pathways.

Intrusive works into the subsurface could result in the mobilisation of contaminants (if present) into groundwaters and to the adjacent areas.

Intrusive works into the subsurface could displace potential gases and vapours opening lateral and vertical migration routes into service runs, adjacent areas and into foundation trenches.

Post Site Development

Direct contact or inhalation/ingestion pathways could exist where gardens/landscaped areas and/or permeable surfacing is proposed at the site.

Mobile contaminants (if present) may have the potential to migrate vertically and laterally via permeable strata to underlying and adjacent controlled waters and nearby properties. Where

present, contamination may impact foundations and services placed on site via direct contact.

Ground gas and vapours (where present) may have the potential to impact on site and adjacent receptors via upward and lateral migration through soil pores or discontinuities and ingress into proposed buildings on the site or buildings in adjacent areas.

Potential Receptors

The key receptors at the site have been identified as:-

Current

- Potential site users, visitors and trespassers;
- Livestock;
- Adjacent residential properties;
- Planting within soft landscaping areas;
- Groundwaters;
- Surface waters.

During Site Development

- Potential site users, visitors and trespassers;
- Adjacent residential properties;
- Planting within soft landscaping areas;
- Construction/ground workers;
- Groundwaters;
- Surface waters.

Post Site Development

- Future residents and site users;
- Adjacent residential properties;
- Groundwaters;
- Surface waters;
- Future properties, foundations and services on site;
- Planting within landscaped areas and gardens.

Based on the findings of the Preliminary Conceptual Site Model (CSM), no significant pollutant linkages have been identified at the subject site.

15. Environmental Risk Assessment

Regulatory Regime

In order to assess the risks associated with the presence of ground contamination, the linkages between the sources and potential receptors need to be established and evaluated. This is in accordance with Part 2A of the Environmental Protection Act (EPA) 1990, which provides a statutory definition of Contaminated Land and as revised under The Contaminated Land (England) (Amendment) Regulations 2012. To fall within this definition it is necessary that, as a result of the condition of the land, substances may be present on or under the land such that:

- Significant harm is being caused or there is a significant possibility of such harm being caused; or
- Significant pollution of controlled waters is being caused, or there is a significant possibility of such pollution being caused;
- Risk from contamination is assessed by consideration of possible linkages between contaminant sources and potential receptors which could be harmed or polluted, and the potential pathways between them. A contaminant linkage must exist in relation to particular land before the land can be considered potentially to be contaminated land under Part 2A, including evidence of the actual presence of contaminants.

Risk Exposure

The risk of significant harm to human health or of pollution of controlled waters given the current and proposed future site uses has been assessed qualitatively as low, medium or high, see **Appendix III**. A risk estimation matrix for all pollutant linkages identified is shown on the following page.

Table 5. Environmental Risk Assessment.

Receptor	Potential sources	Pathways	Risk	Justification
Human Health				
Current site users	Potential contamination in soils and groundwater.	Direct contact, ingestion, inhalation of dusts and/or fibres	Low	No potentially significant sources of contamination have been identified. Exposure to residual contamination (if present) would be limited when considering the limited duration of site occupation.
	Ground gas and/or vapour generated by contaminated/ infilled land (made ground).	Passive migration of gas/vapour and build-up of harmful concentrations.	Low	No significant sources of ground gas have been identified on site or within a plausible migration distance of the site. Properties on site are largely open plan and well ventilated.
Future ground workers	Potential contamination in soils and groundwater.	Direct contact, ingestion, inhalation of dusts and/or fibres.	Low	No potentially significant sources of contamination have been identified. During excavations, construction and maintenance workers should be subject to risk assessment. Workers should use appropriate procedures to manage risk from exposure to materials on site.
	Ground gas and/or vapour generated by contaminated/ infilled land (made ground).	Passive migration/ displacement of gas/vapour and build-up of harmful concentrations.	Low	No significant sources of ground gas have been identified on site or within a plausible migration distance of the site. Development workers should be subject to risk assessment. Workers should use appropriate procedures to manage risk from exposure to materials on site.
Future residents	Potential contamination in soils and groundwater.	Direct contact, ingestion, inhalation of dusts and/or fibres.	Low	No potentially significant sources of contamination have been identified.
	Ground gas and/or vapour generated by contaminated/ infilled land (made ground).	Migration of gas and build-up of harmful concentrations.	Low	No significant sources of ground gas have been identified on site or within a plausible migration distance of the site.
Property				
Future residential property and associated services	Potential contamination in soils and groundwater.	Direct contact with foundations and services. Migration and build-up of potentially explosive concentrations of volatile contaminants.	Low	No potentially significant sources of contamination have been identified. Future geotechnical investigation should include for pH and SO4 testing to determine the concrete design classification for soils underlying the site.

Receptor	Potential sources	Pathways	Risk	Justification
	Ground gas and/or vapour generated by contaminated/ infilled land (made ground).	Migration and build-up of potentially explosive concentrations of volatile contaminants.	Low	No significant sources of ground gas have been identified on site or within a plausible migration distance of the site.
Future planting within gardens and landscaped areas	Potential phytotoxic soil, groundwater.	Direct contact with roots and plant uptake.	Low	Current on and off site vegetation appeared in good condition. Based on available information, it is considered unlikely that contamination exists at the site with the potential to cause significant harm to plants situated on site.
Controlled Waters				
Surface Waters	Potential soil and groundwater contamination.	Lateral migration of mobile contaminants via groundwater.	Low	No significant potential sources of contamination have been recorded on site. No significant surface waters have been identified within the surrounding area.
Perched waters	Potential contamination in soils and groundwater.	Migration of mobile contaminants into groundwater.	Low	No significant potential sources of contamination have been recorded on site.
Overall Risk Rating				**Low**

16. Conclusions

This report has been prepared for the purpose of assisting in the evaluation of potential risk associated with contamination issues at the site which is required as part of the planning application for the conversion of the site.

The site is currently occupied by a structure used for equestrian purposes, with associated grassed area and a carpark. It is understood that the proposed scheme is to redevelop the site with up to five residential dwellings with private gardens, car parking and access roads.

Based on the information obtained during the desk study it is concluded that the environmental risk arising from the ground conditions at the subject site when taking into account the sites current status and usage is **Low.**

When considering the proposed redevelopment of the site to include 5 No. residential units, it is concluded that the potential environmental risk to human health arising from the ground condition at the subject site would be **Low** with respect to a future '*Residential with Home Grown Produce*' end use.

Based on the above, it is the opinion of Roberts Environmental, that **the issues identified should not preclude the future redevelopment of the site.** However, additional works are recommended as presented in **Section 17**.

If the proposed site end use were to change, a revised environmental risk assessment would be required, conducted by a representative from REL.

If the proposed site end use were to change, a revised environmental risk assessment would be required, conducted by a representative from REL.

17. Recommendations

As part of the proposed redevelopment, we recommend that the client undertakes the following action:

- Prior to significant structural/demolition works being undertaken on buildings currently occupying the site, a Refurbishment and Demolition asbestos survey should be carried out and the information provided to the contractors undertaking the work.

- Prior to the commencement of any works, the contractor shall conduct a sufficient risk assessment and as a minimum future construction/ground workers should be provided with and make use of appropriate PPE.

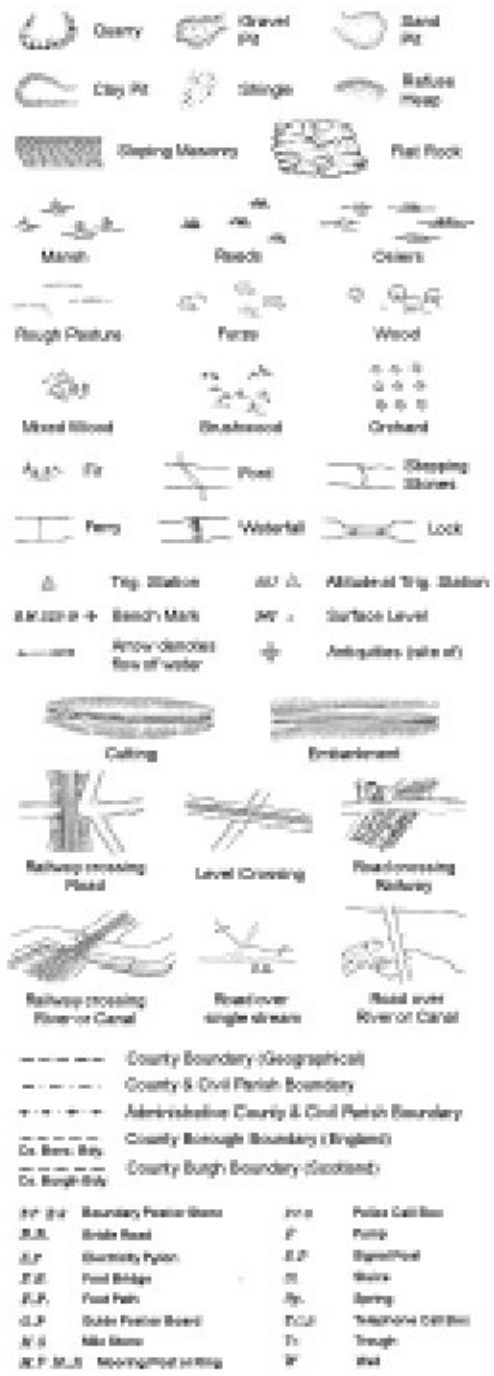
- An intrusive ground investigation would be required to allow for the collection of geotechnical data, to be used to inform future foundation design. During any such investigation, it would be prudent to obtain environmental samples from soils to confirm the absence of a significant risk to human health or sensitive receptors.

Definitions and Reservations used in this report are presented in **Appendix III.**

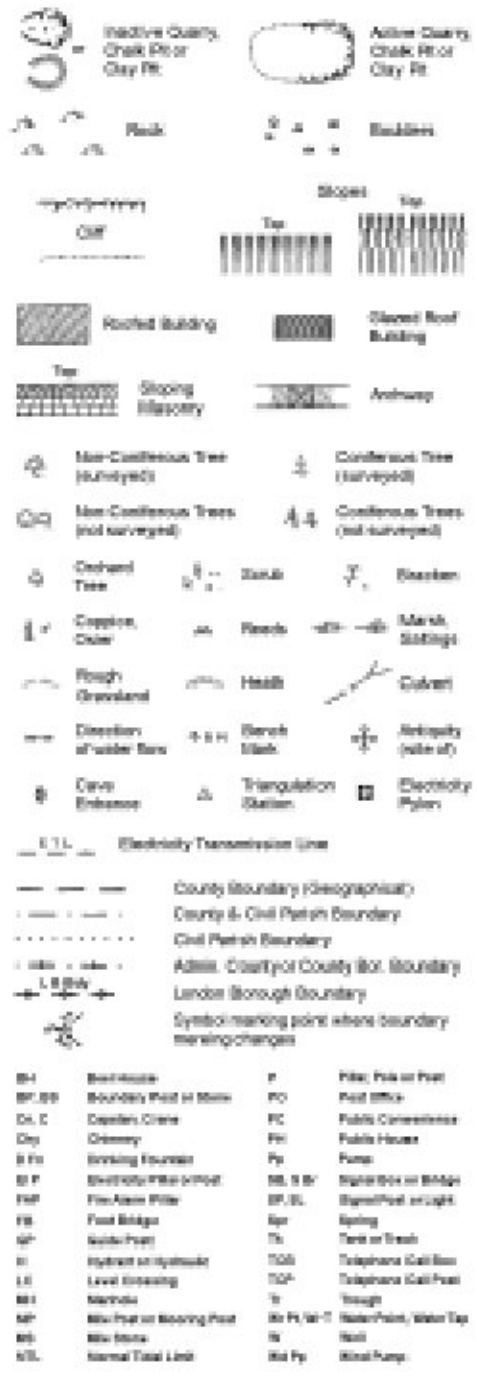
APPENDIX I HISTORICAL MAPPING

Historical Mapping Legends

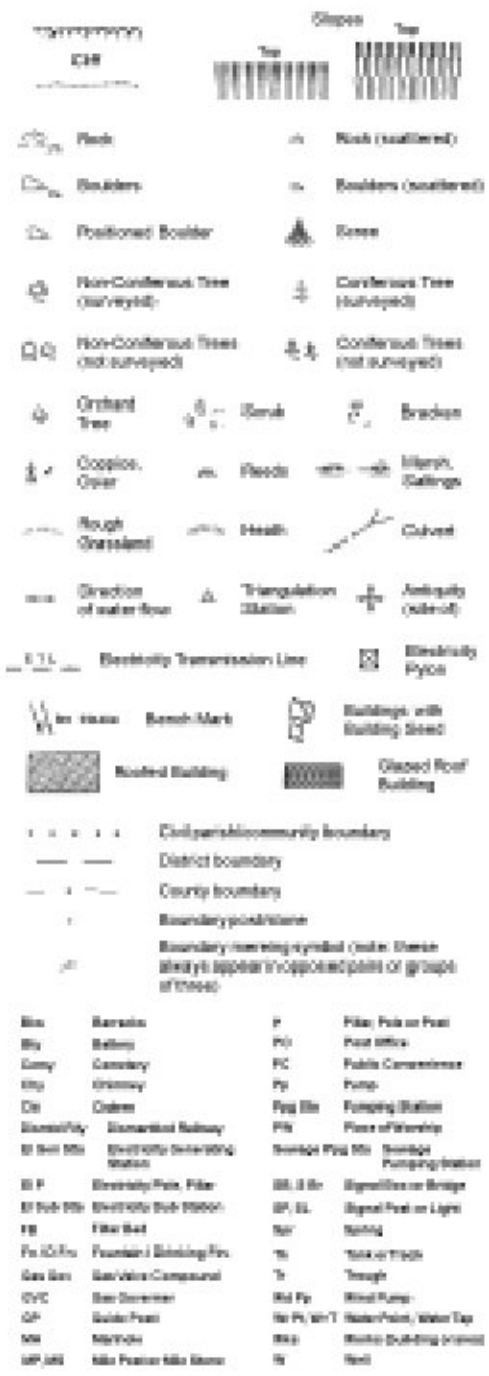
Ordnance Survey County Series and Ordnance Survey Plan 1:2,500



Ordnance Survey Plan, Additional SIMs and Supply of Unpublished Survey Information 1:2,500 and 1:1,250



Large-Scale National Grid Data 1:2,500 and 1:1,250

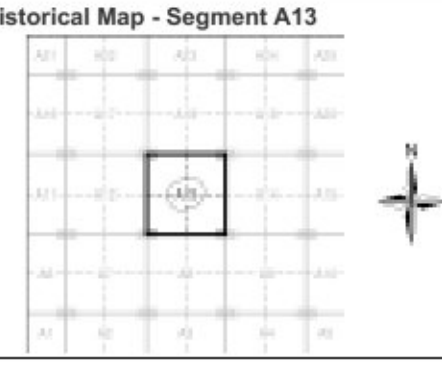


ROBERTS

Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Northumberland	1:2,500	1863 - 1879	2
Northumberland	1:2,500	1897	3
Northumberland	1:2,500	1923	4
Ordnance Survey Plan	1:2,500	1975	5
Large-Scale National Grid Data	1:2,500	1994	6
Large-Scale National Grid Data	1:2,500	1995	7
Historical Aerial Photography	1:2,500	2000	8

Historical Map - Segment A13



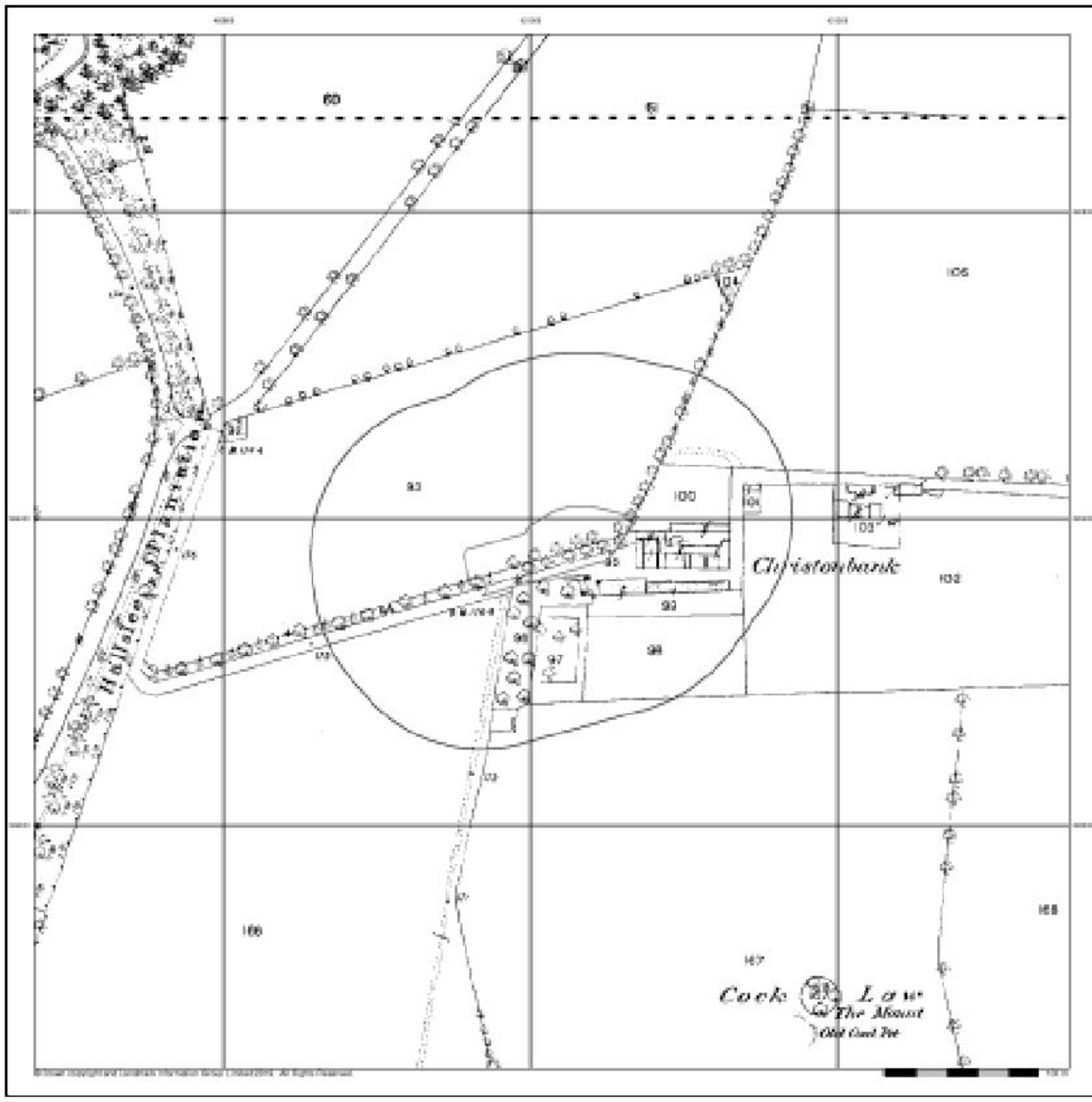
Order Details

Order Number: 203067554_1_1
Customer Ref: 190502
National Grid Reference: 421010, 622380
Slice: A
Site Area (Ha): 0.36
Search Buffer (m): 100

Site Details

Christon Bank Farm, Christon Bank, Alnwick, Northumberland, NE66 3EZ

Landmark
Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



Northumberland

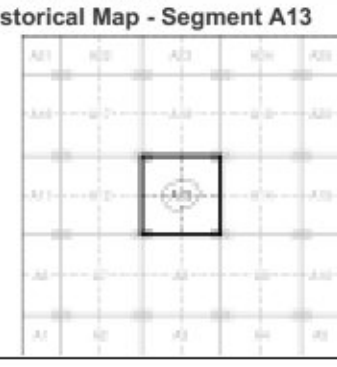
Published 1863 - 1879

Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

Historical Map - Segment A13



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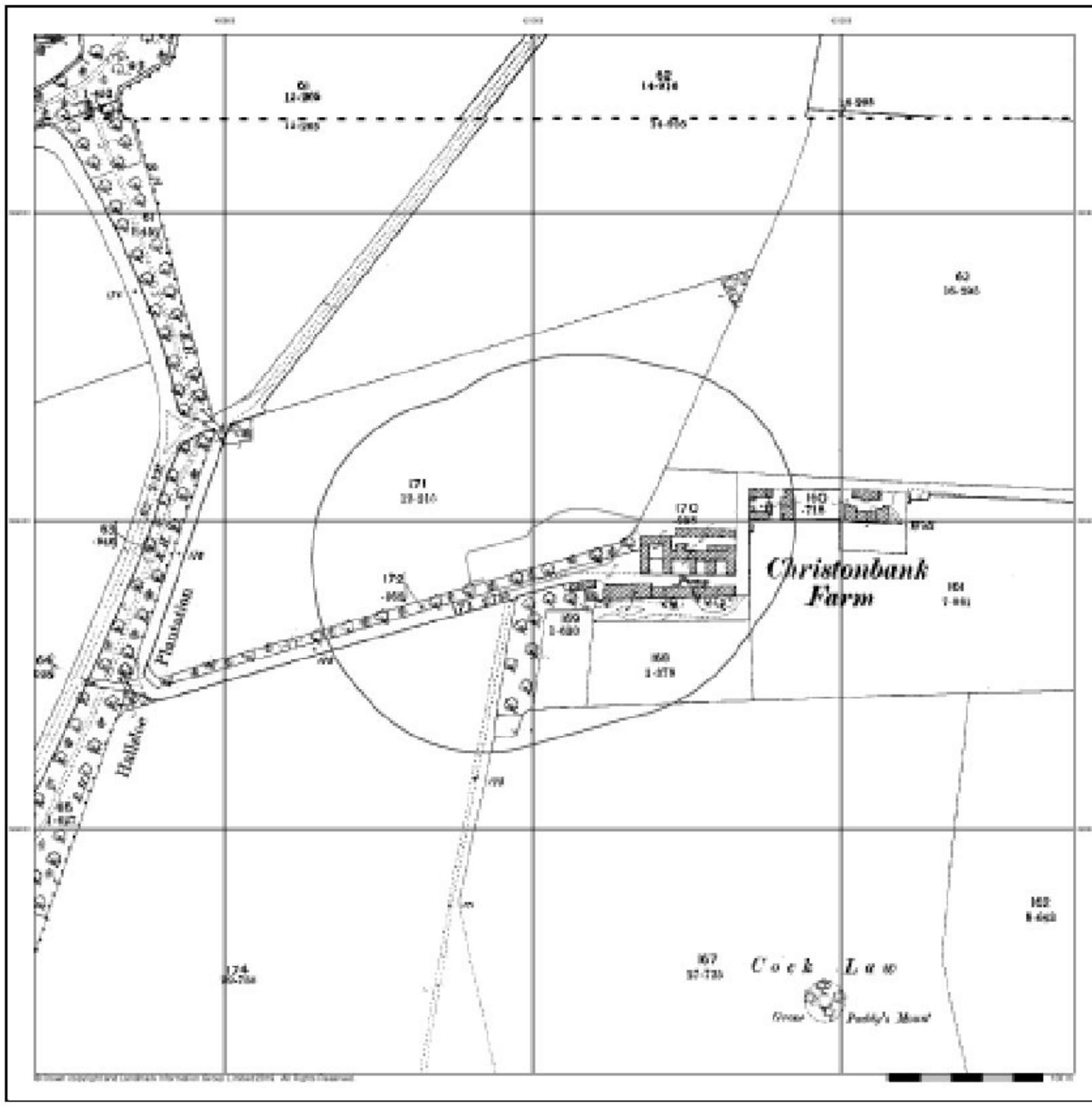

ROBERTS

Northumberland

Published 1897

Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

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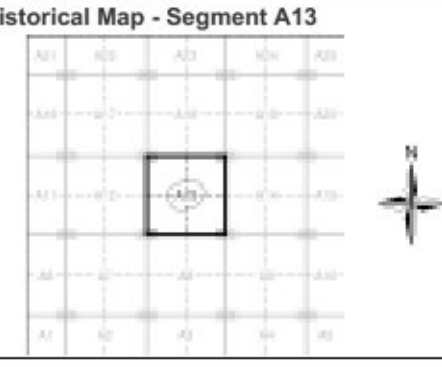

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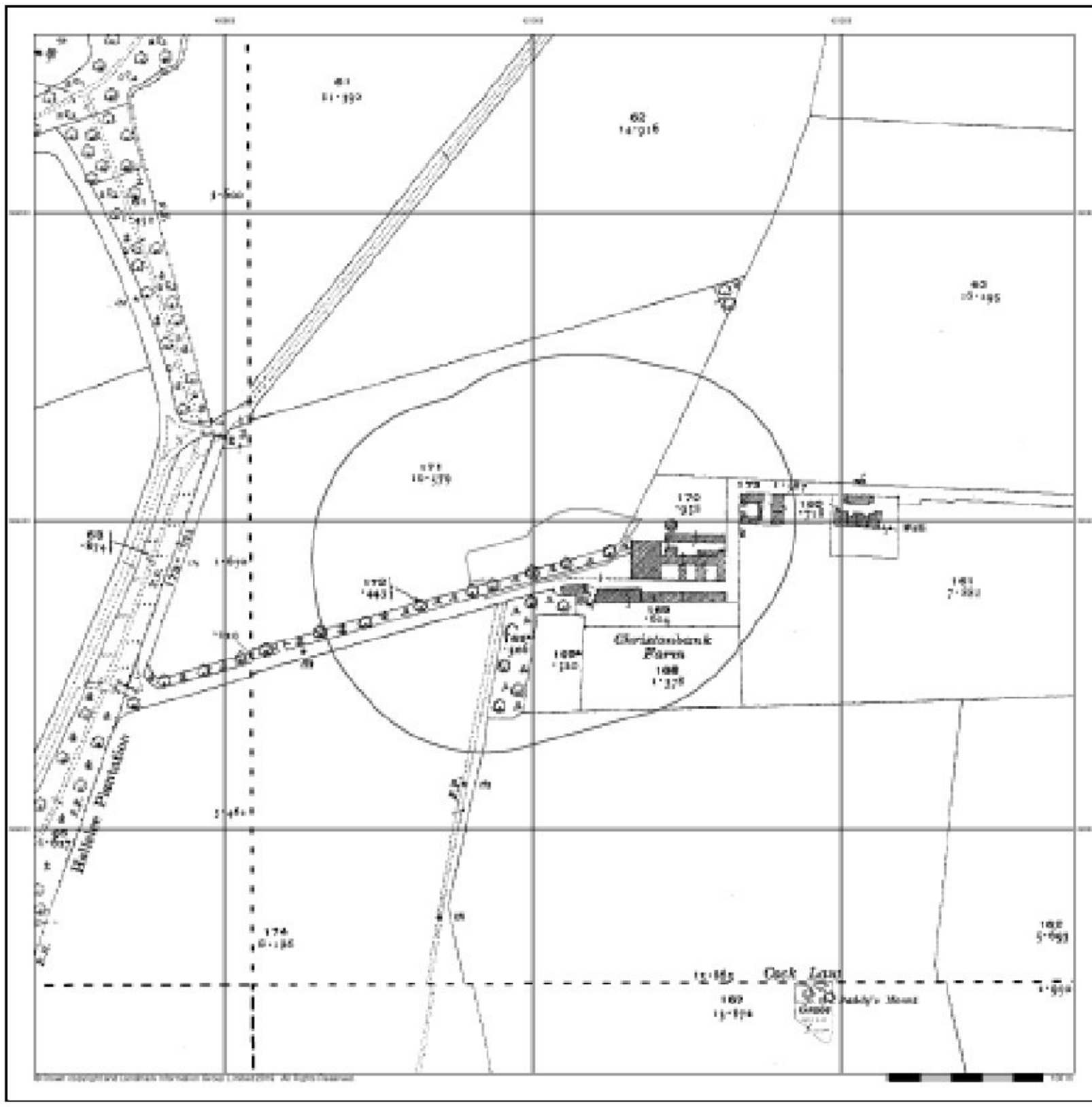

ROBERTS

Northumberland

Published 1923

Source map scale - 1:2,500

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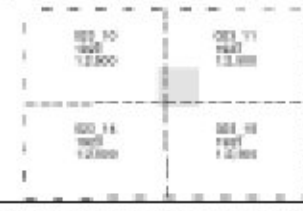

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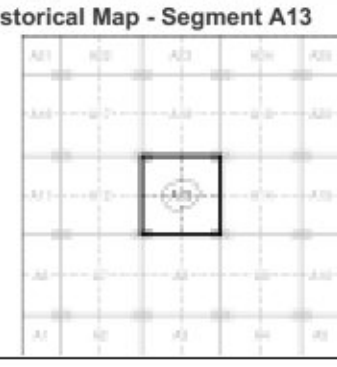

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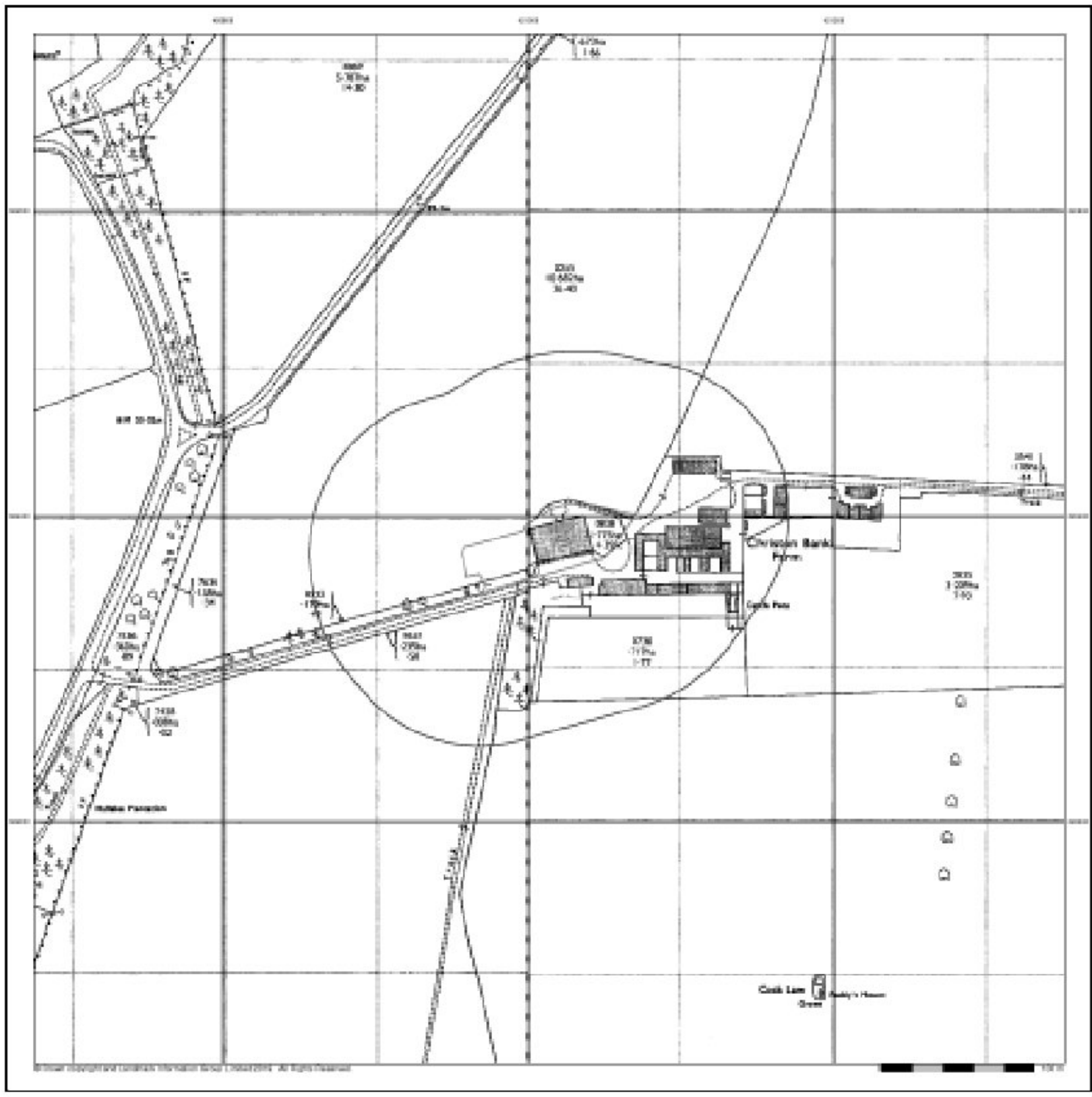

ROBERTS

Ordnance Survey Plan
Published 1975
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

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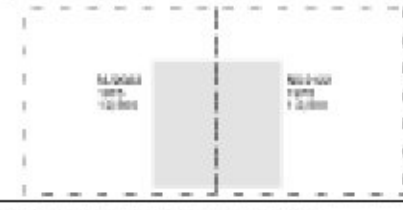
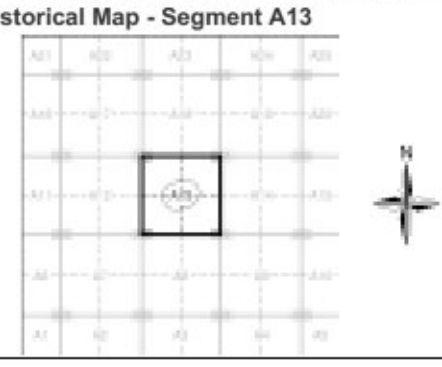


Historical Map - Segment A13



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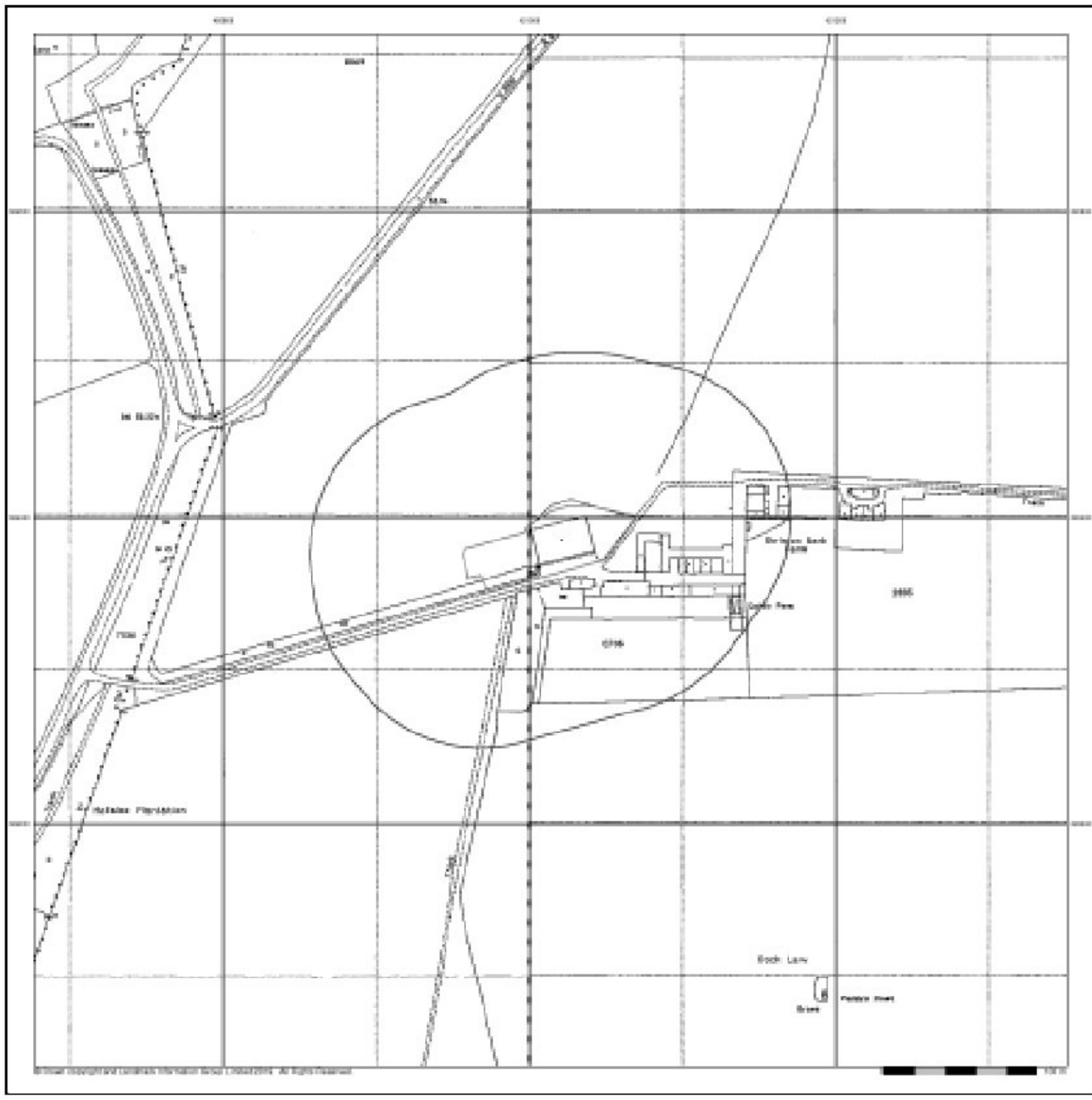


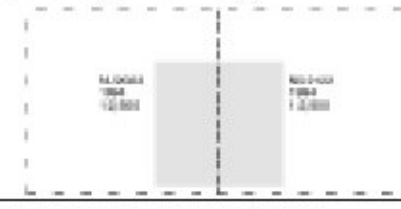
Large-Scale National Grid Data

Published 1994

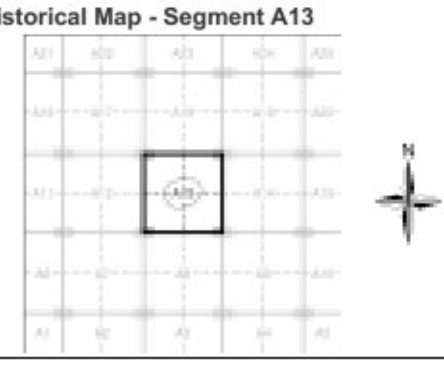
Source map scale - 1:2,500

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



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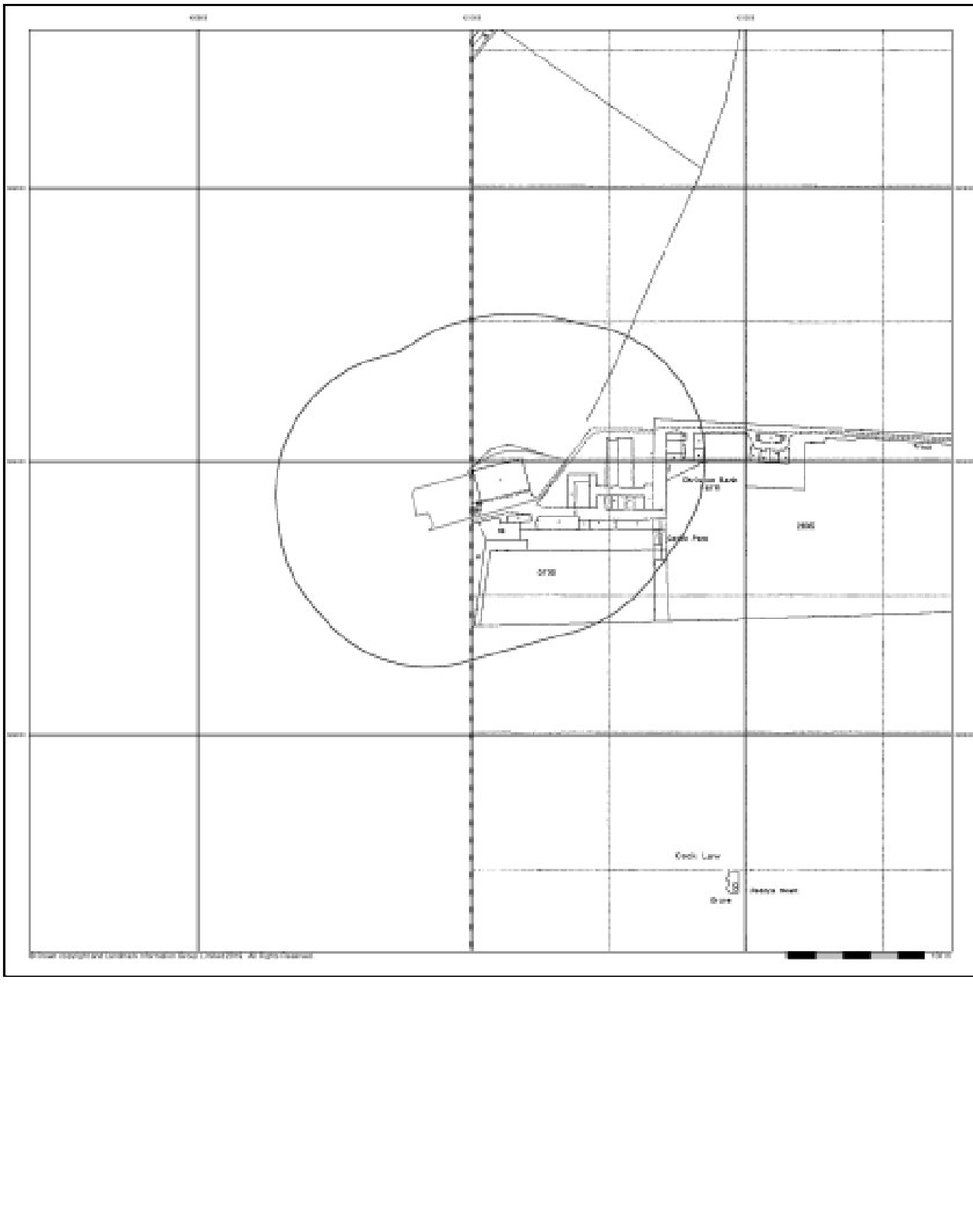


ROBERTS

Large-Scale National Grid Data

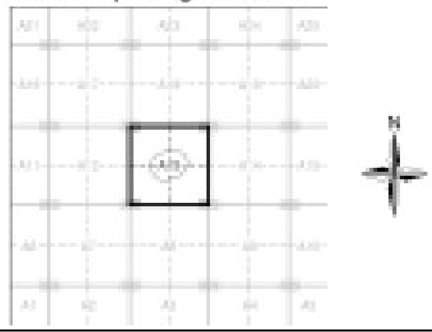
Published 1995

Source map scale - 1:2,500

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)

Historical Map - Segment A13



Order Details

Order Number: 203067554_1_1
Customer Ref: 190502
National Grid Reference: 421010, 622380
Slice: A
Site Area (Ha): 0.36
Search Buffer (m): 100

Site Details

Christon Bank Farm, Christon Bank, Alnwick, Northumberland, NE66 3EZ

Landmark INFORMATION GROUP

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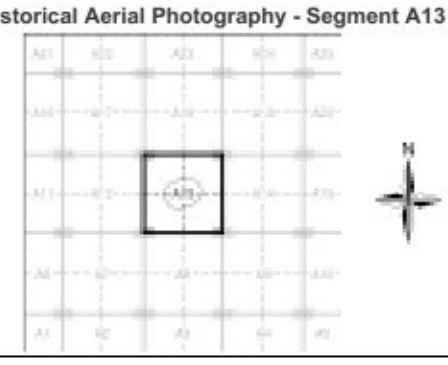
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

ROBERTS

Historical Aerial Photography
Published 2000

This aerial photography was produced by Getmapping, these vertical aerial photographs provide a seamless, full colour survey of the whole of Great Britain

Historical Aerial Photography - Segment A13



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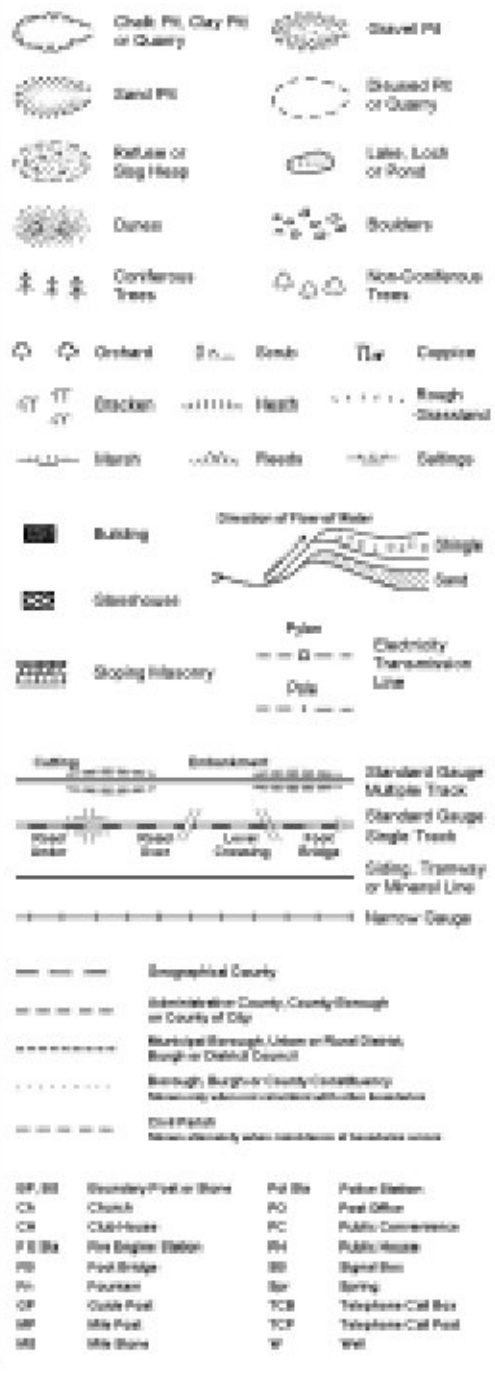
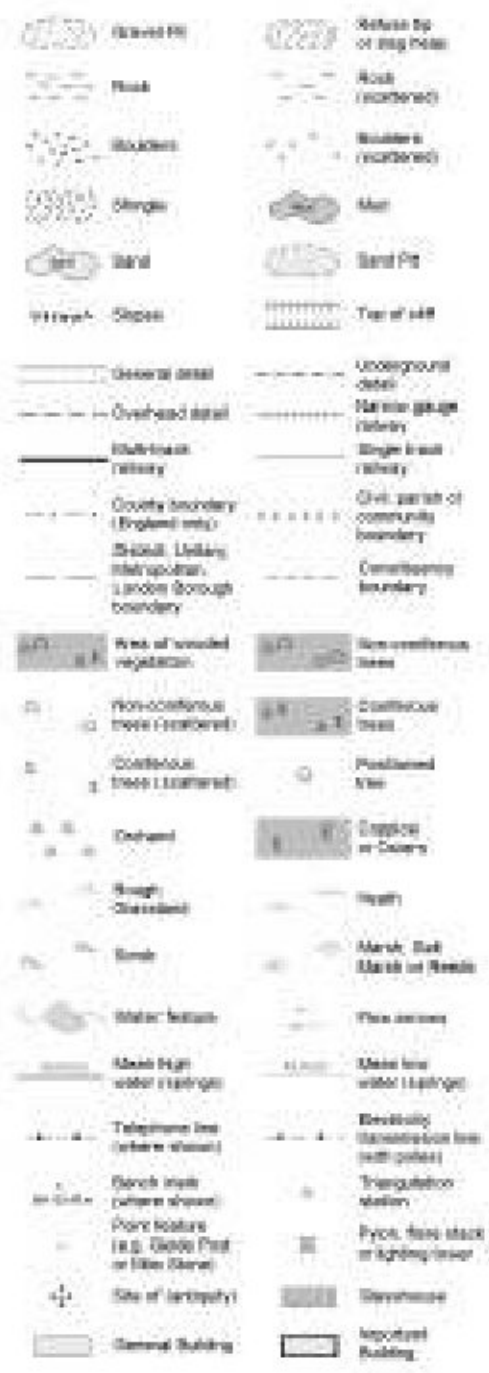
Historical Mapping Legends

Ordnance Survey County Series 1:10,560

Ordnance Survey Plan 1:10,000



1:10,000 Raster Mapping

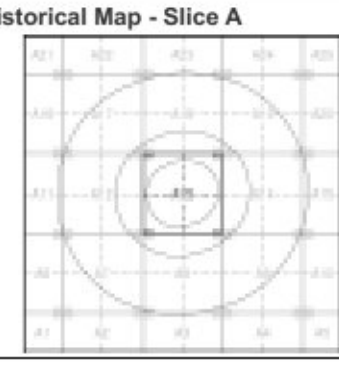


ROBERTS

Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Northumberland	1:10,560	1867	2
Northumberland	1:10,560	1899	3
Northumberland	1:10,560	1925 - 1926	4
Ordnance Survey Plan	1:10,000	1957	5
Ordnance Survey Plan	1:10,000	1978	6
10K Raster Mapping	1:10,000	2000	7
10K Raster Mapping	1:10,000	2006	8
VectorMap Local	1:10,000	2019	9

Historical Map - Slice A

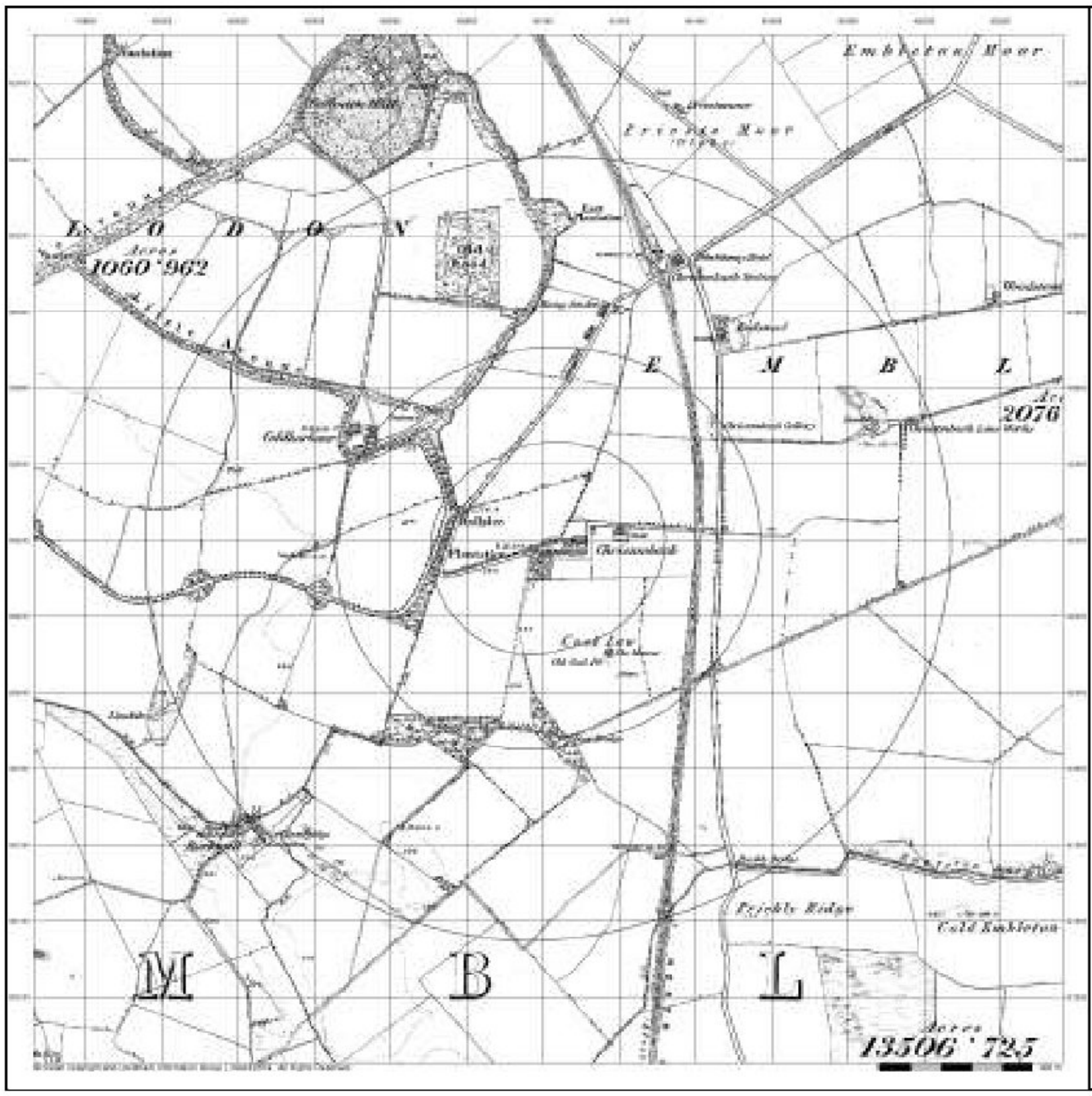


Order Details

Order Number: 203067554_1_1
Customer Ref: 190502
National Grid Reference: 421010, 622380
Slice: A
Site Area (Ha): 0.36
Search Buffer (m): 1000

Site Details

Christon Bank Farm, Christon Bank, Alnwick, Northumberland, NE66 3EZ



ROBERTS

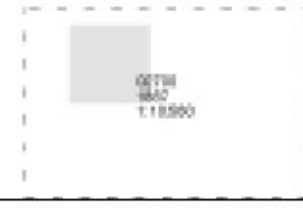
Northumberland

Published 1867

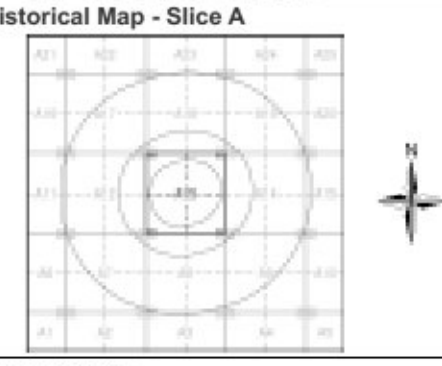
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number:	203067554_1_1
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Site Area (Ha):	0.36
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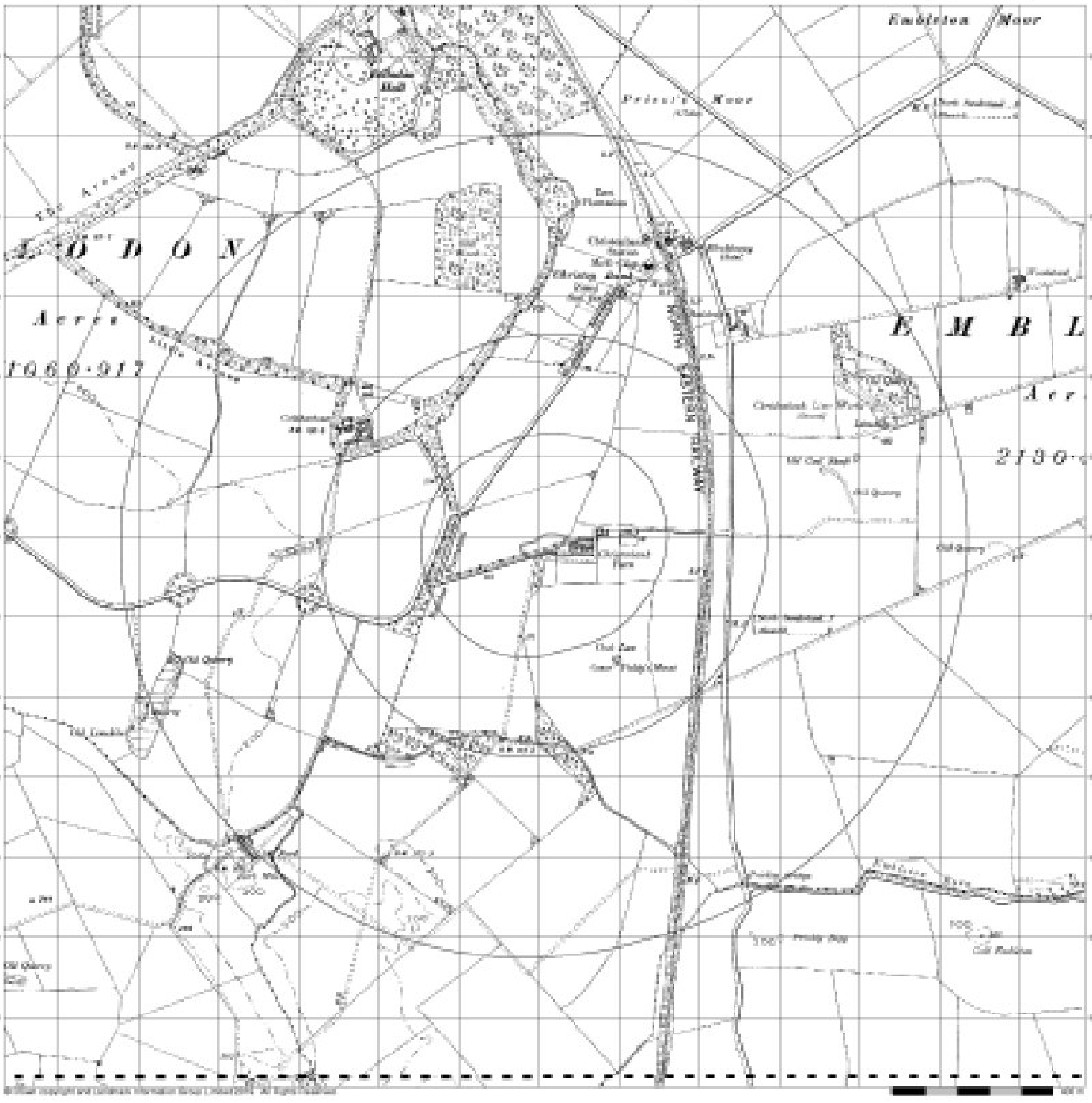


Northumberland

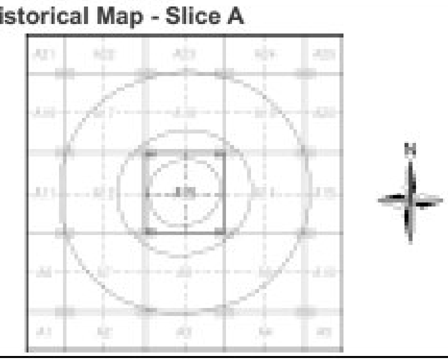
Published 1899

Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

Historical Map - Slice A



Order Details

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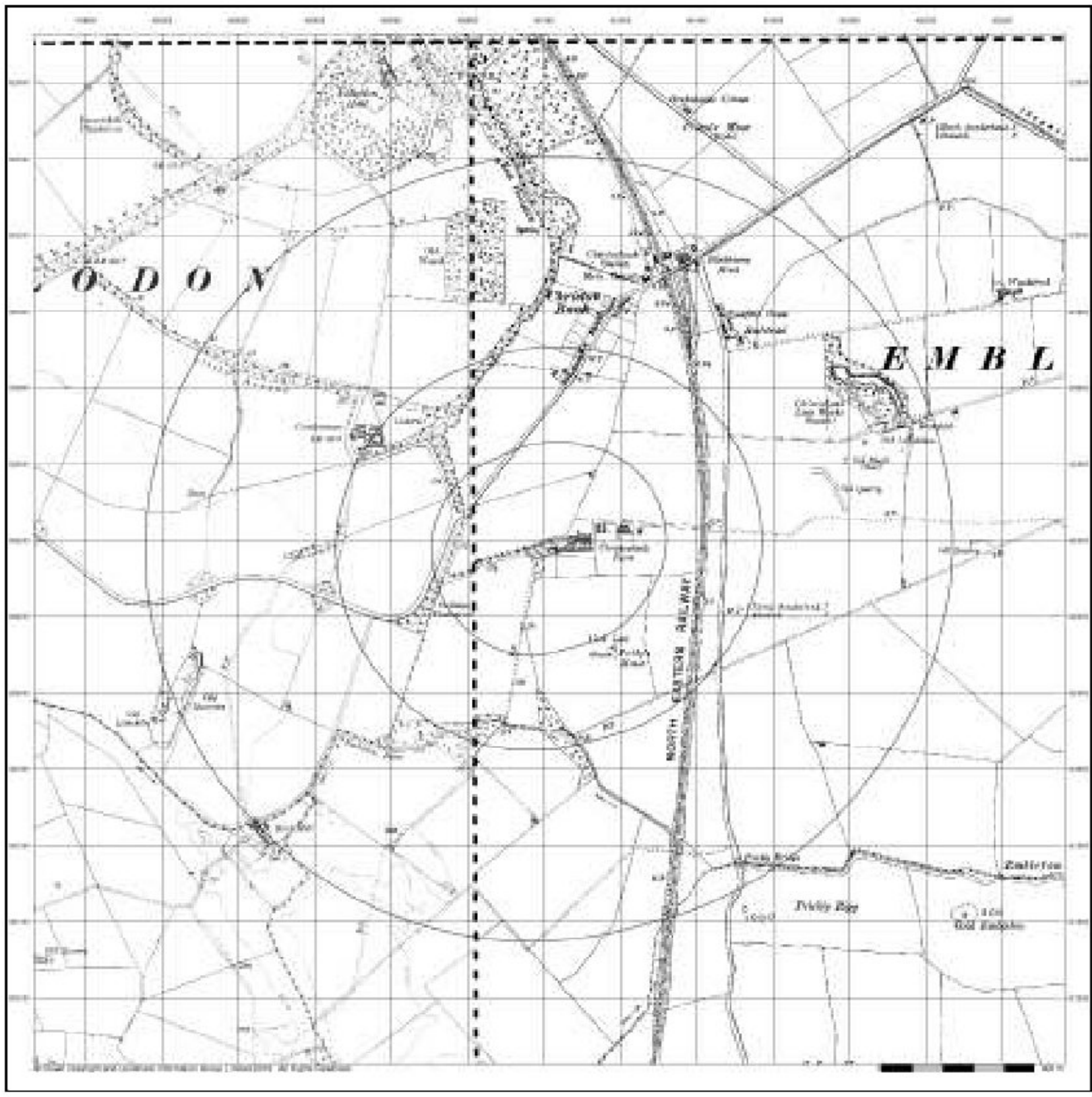

ROBERTS

Northumberland

Published 1925 - 1926

Source map scale - 1:10,560

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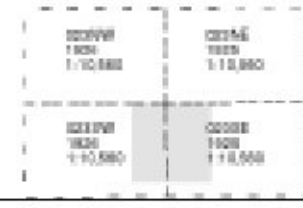
Map Name(s) and Date(s)



Historical Map - Slice A

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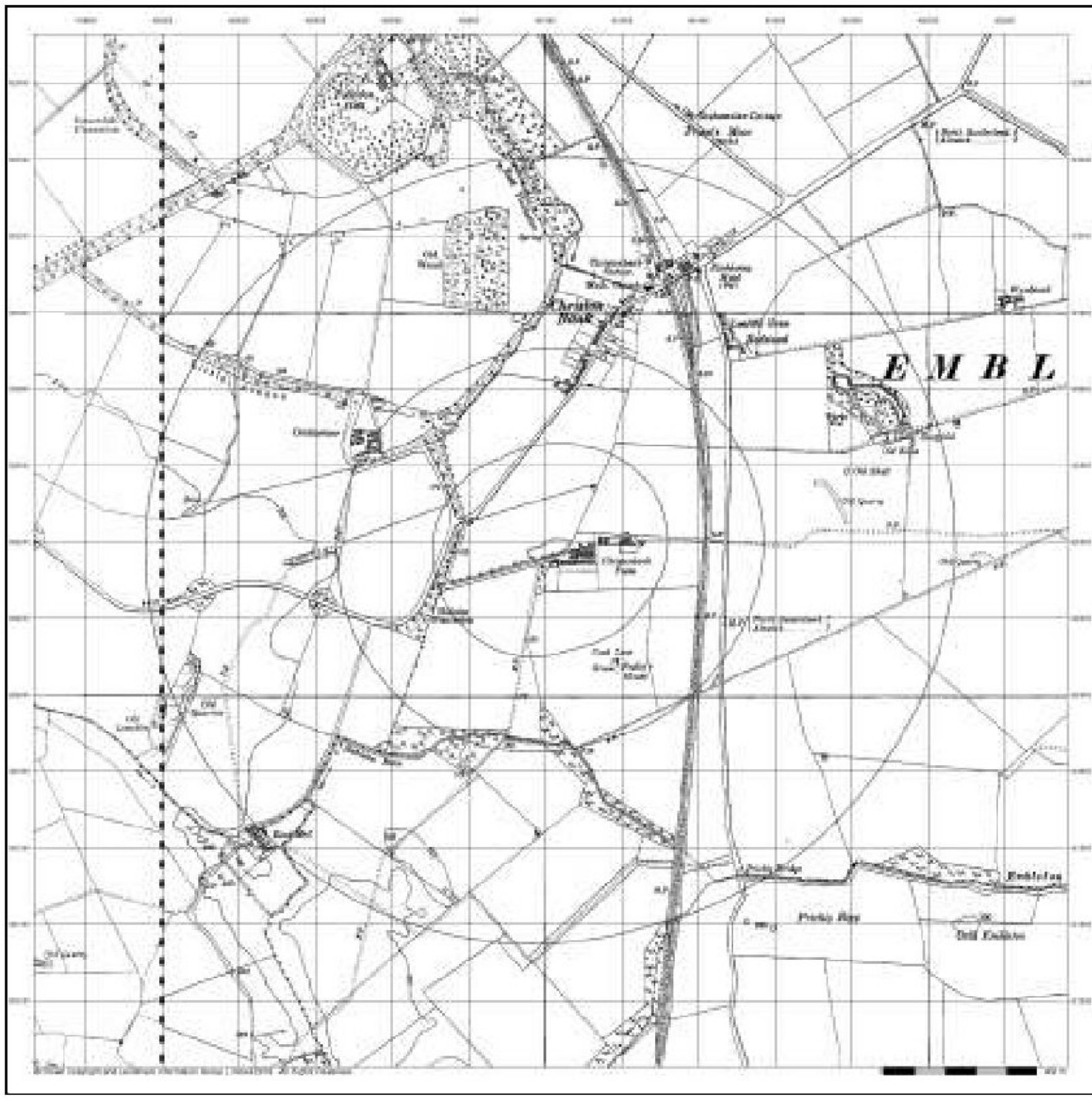
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

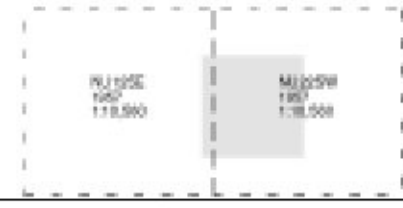


ROBERTS

Ordnance Survey Plan
Published 1957
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A

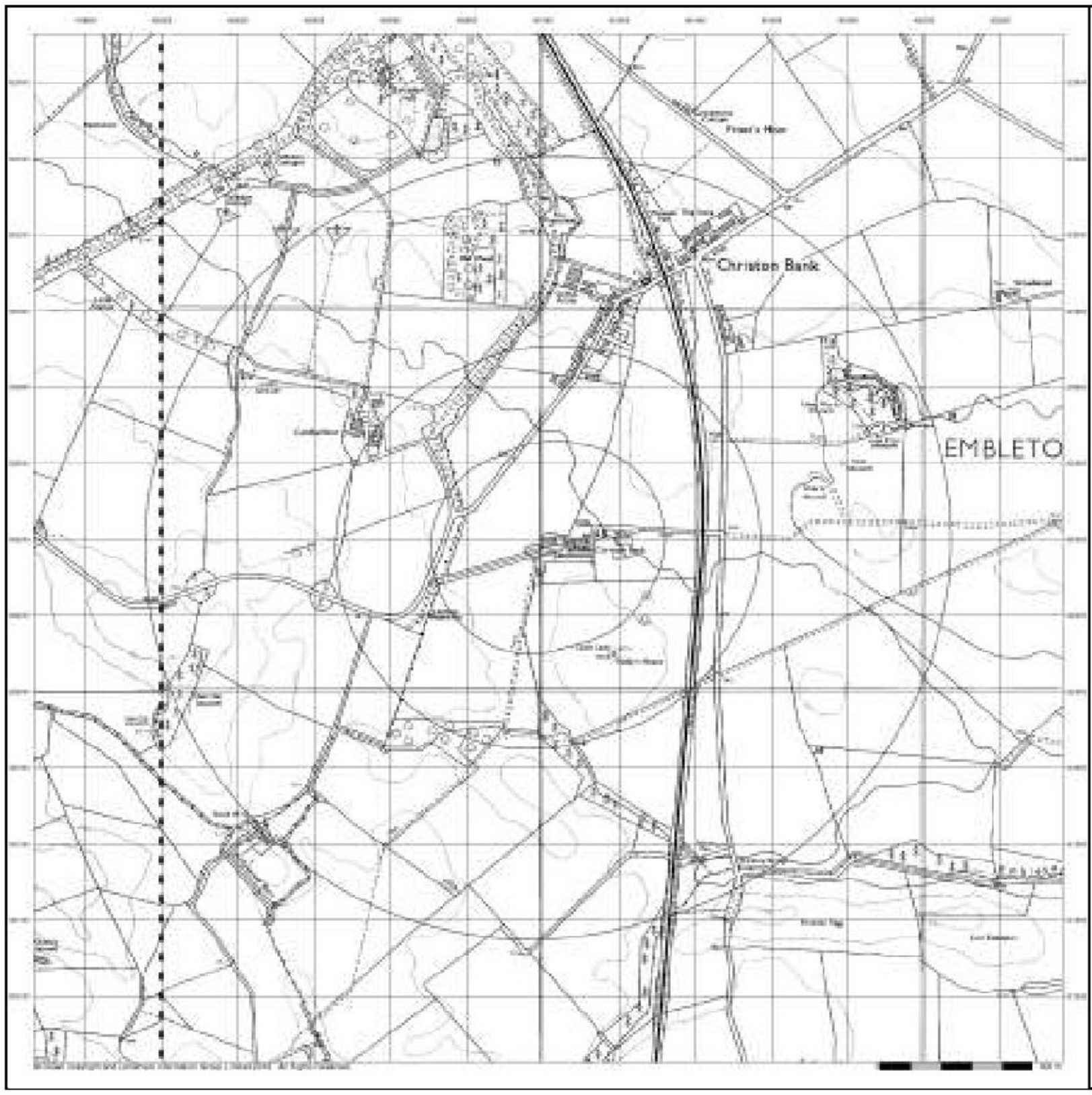
Order Details

Order Number:	203067554_1_1
Customer Ref:	190502
National Grid Reference:	421010, 622380
Slice:	A
Site Area (Ha):	0.36
Search Buffer (m):	1000

Site Details

Christon Bank Farm, Christon Bank, Alnwick, Northumberland, NE66 3EZ

Landmark
Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



ROBERTS

Ordnance Survey Plan
Published 1978
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

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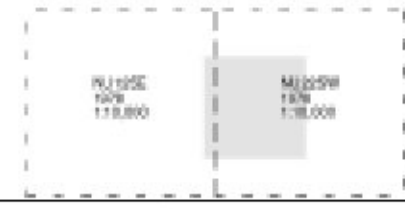
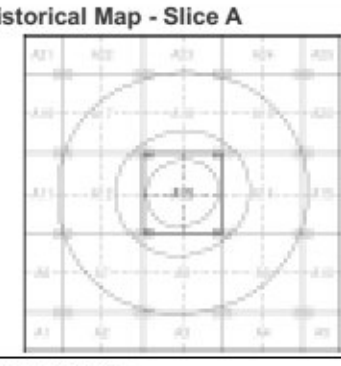


Historical Map - Slice A



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National Grid Reference:	421010, 622380
Slice:	A
Site Area (Ha):	0.36
Search Buffer (m):	1000

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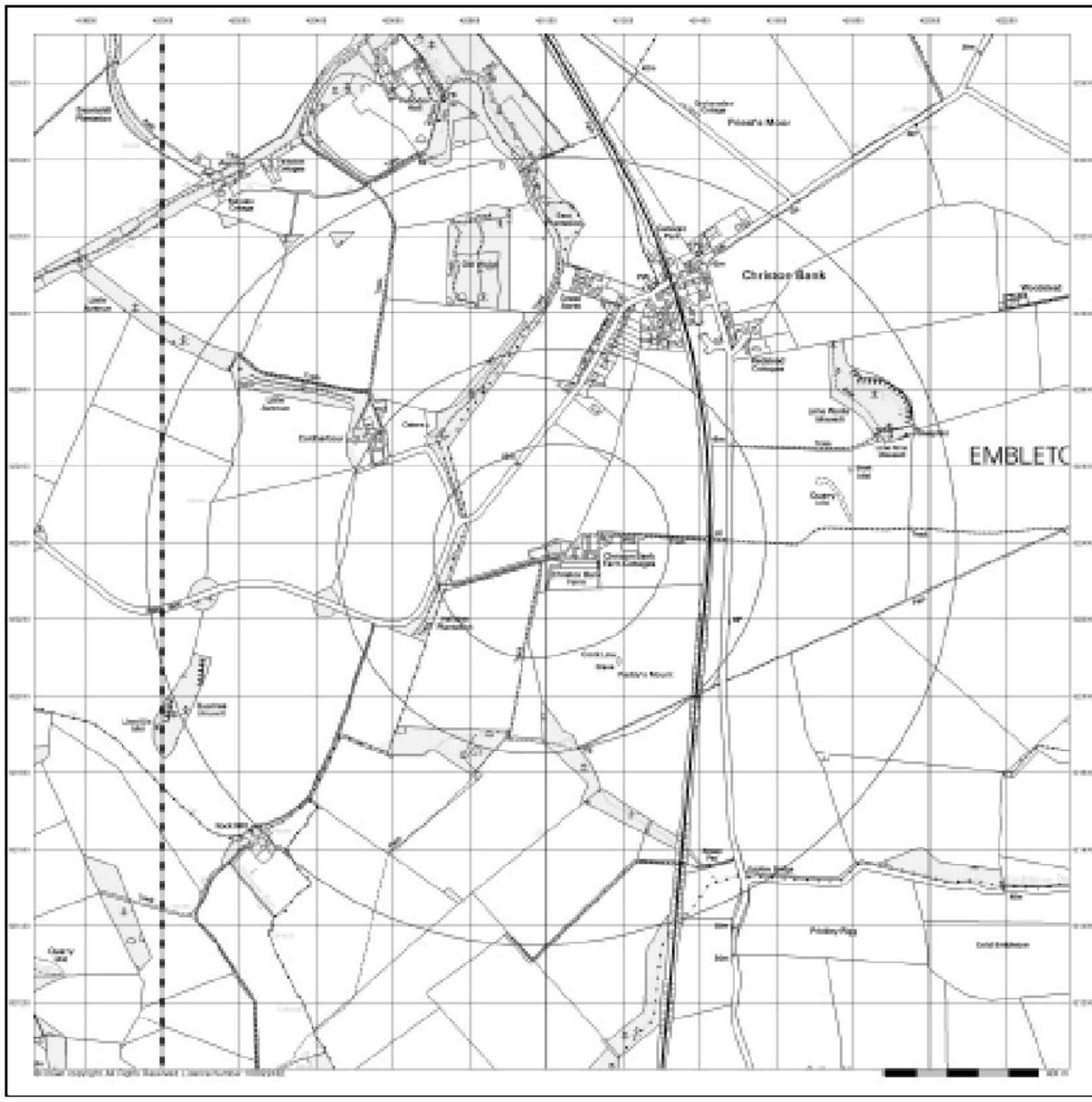


ROBERTS

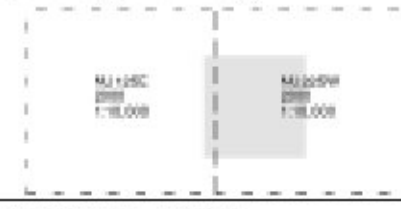
10k Raster Mapping

Published 2000

Source map scale - 1:10,000

The historical maps shown were produced from the Ordnance Survey's 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.

Map Name(s) and Date(s)



Historical Map - Slice A

Order Details

Order Number:	203067554_1_1
Customer Ref:	190502
National Grid Reference:	421010, 622380
Slice:	A
Site Area (Ha):	0.36
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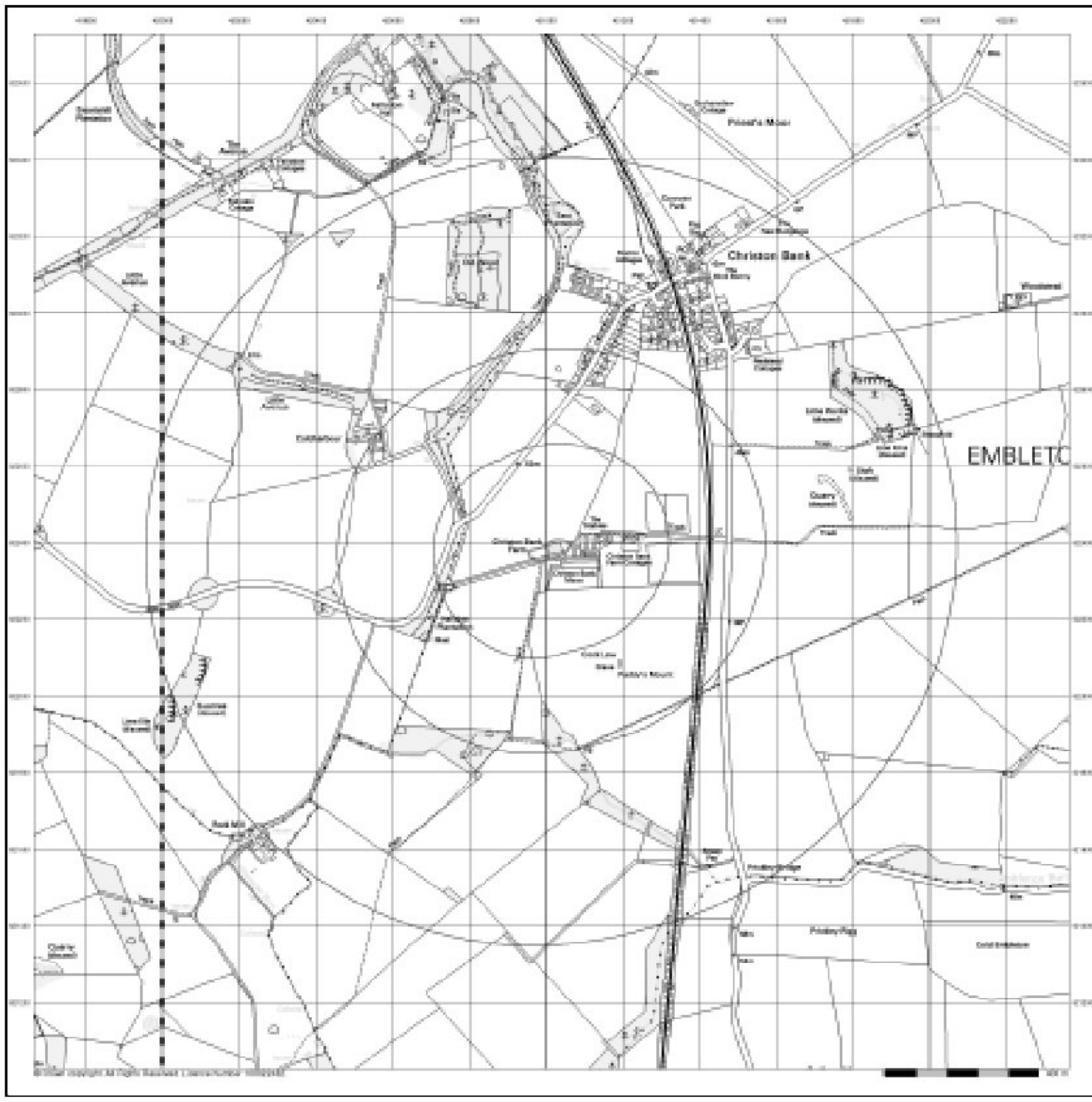


ROBERTS

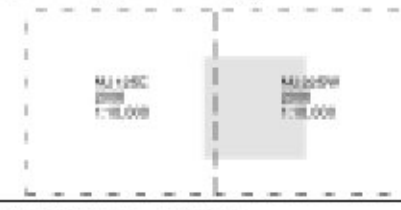
10k Raster Mapping

Published 2006

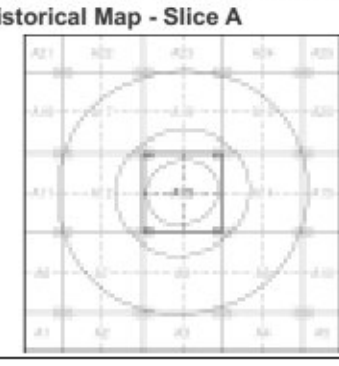
Source map scale - 1:10,000

The historical maps shown were produced from the Ordnance Survey's 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number:	203067554_1_1
Customer Ref:	190502
National Grid Reference:	421010, 622380
Slice:	A
Site Area (Ha):	0.36
Search Buffer (m):	1000

Site Details

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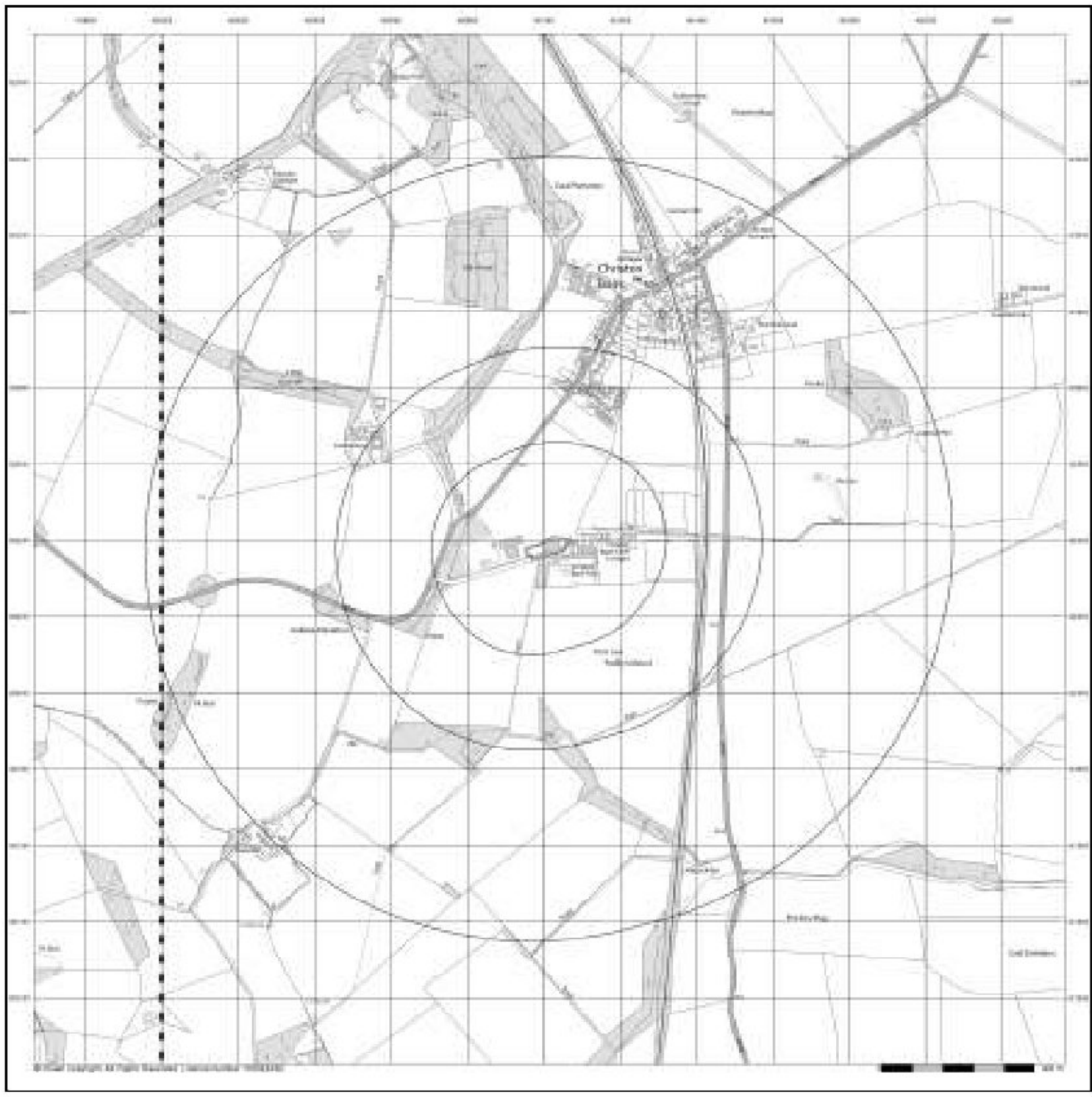


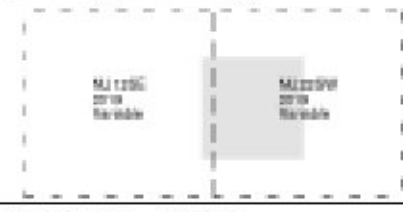
VectorMap Local

Published 2019

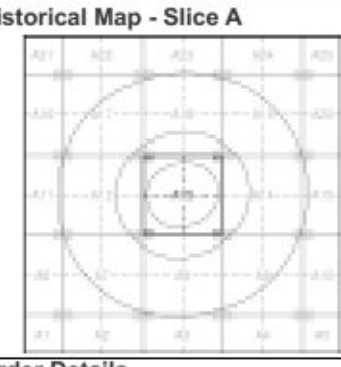
Source map scale - 1:10,000

VectorMap Local (Raster) is Ordnance Survey's highest detailed 'backdrop' mapping product. These maps are produced from OS's VectorMap Local, a simple vector dataset at a nominal scale of 1:10,000, covering the whole of Great Britain, that has been designed for creating graphical mapping. OS VectorMap Local is derived from large-scale information surveyed at 1:1250 scale (covering major towns and cities),1:2500 scale (smaller towns, villages and developed rural areas), and 1:10 000 scale (mountain, moorland and river estuary areas).

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

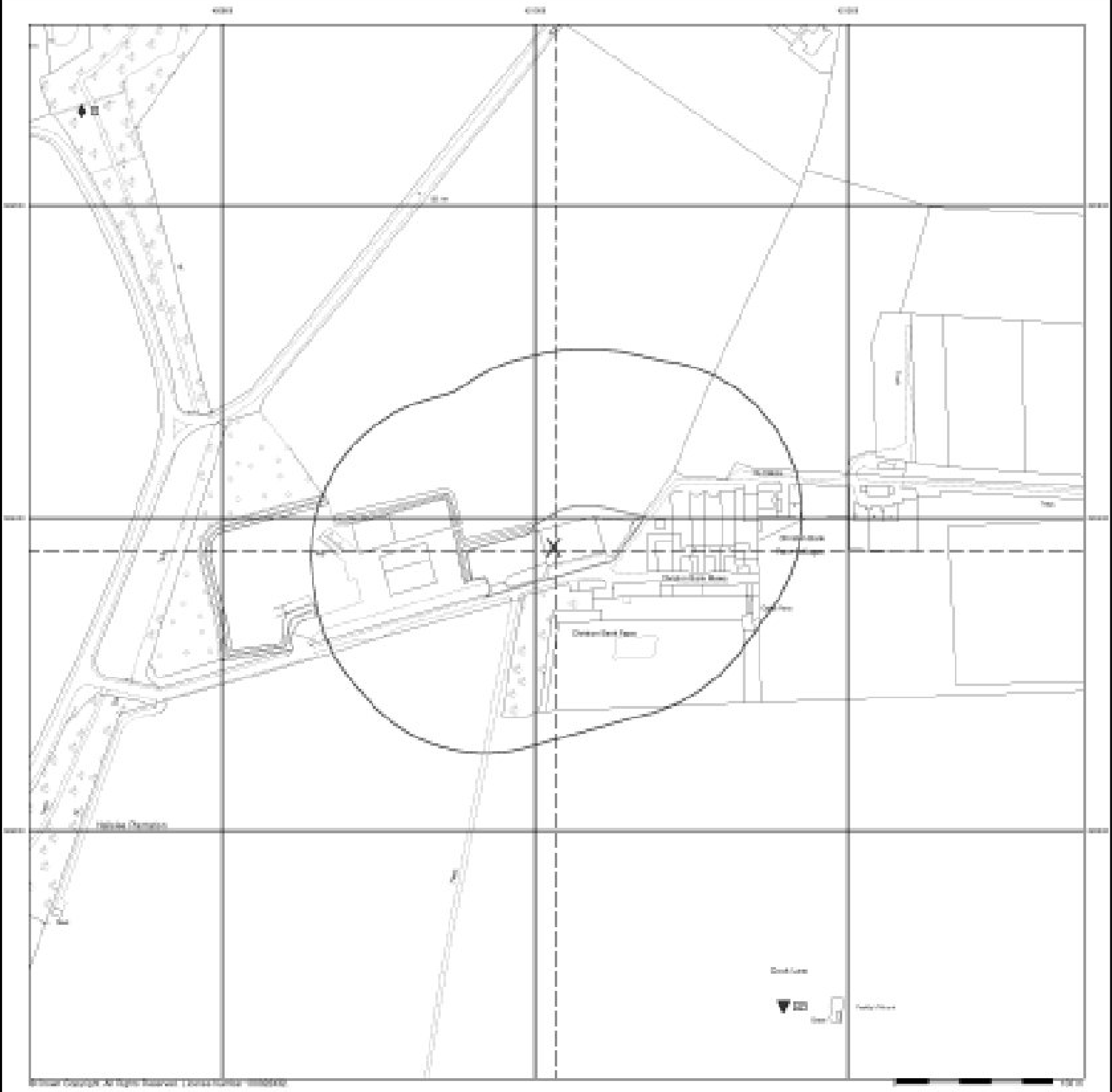
Order Number:	203067554_1_1
Customer Ref:	190502
National Grid Reference:	421010, 622380
Slice:	A
Site Area (Ha):	0.36
Search Buffer (m):	1000

Site Details

Christon Bank Farm, Christon Bank, Alnwick, Northumberland, NE66 3EZ

Landmark
Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

APPENDIX II SUPPORTING INFORMATION



ROBERTS

General

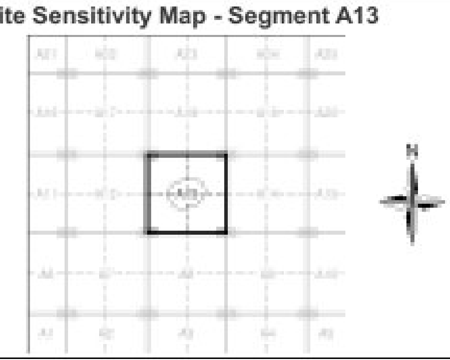
Agency and Hydrological

Waste

Hazardous Substances

Geological

Site Sensitivity Map - Segment A13



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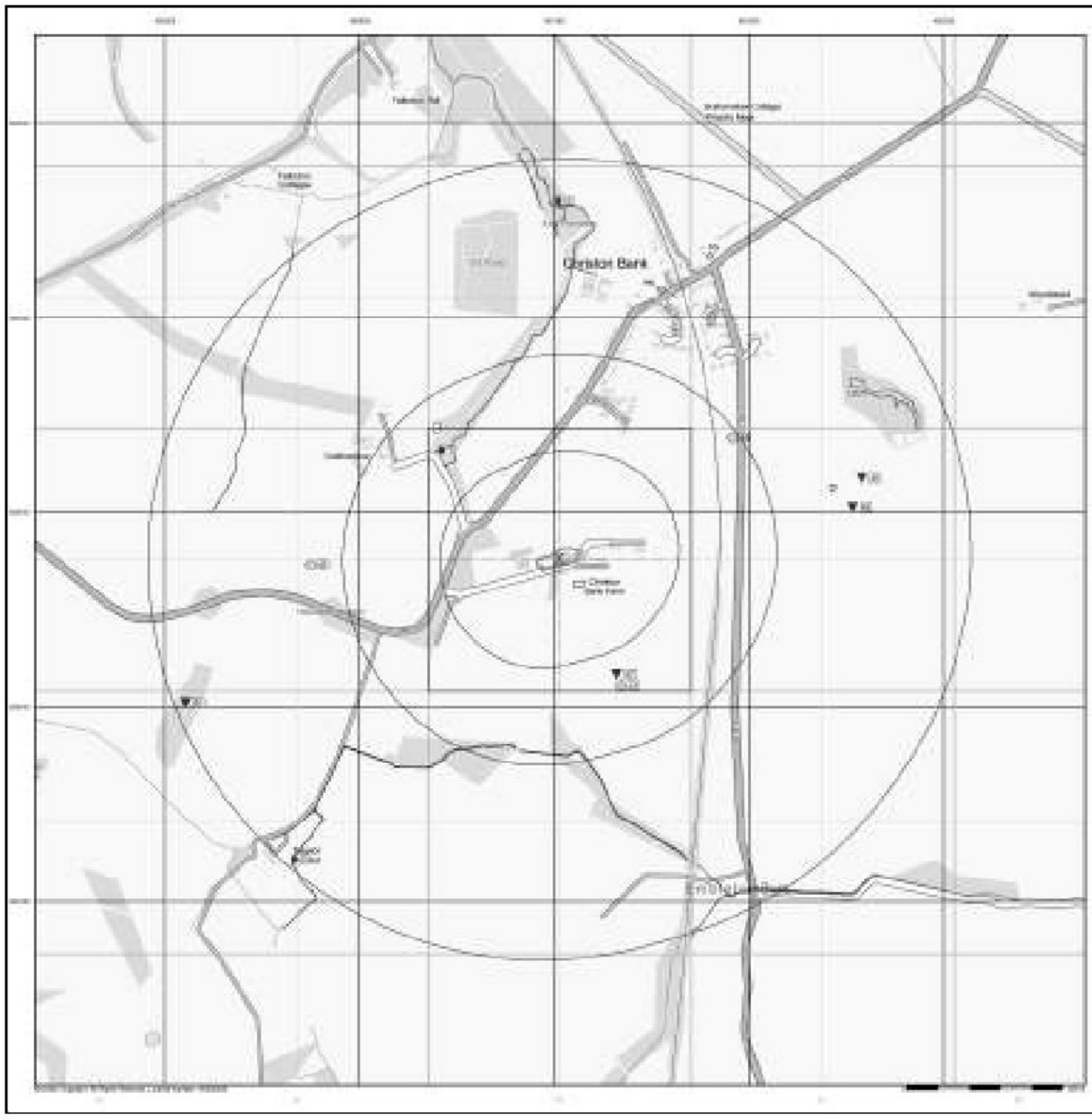
Slice: A
Site Area (Ha): 0.36
Plot Buffer (m): 100

Site Details

Christon Bank Farm, Christon Bank, Alnwick, Northumberland, NE66 3EZ

Landmark INFORMATION GROUP

Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



ROBERTS

General

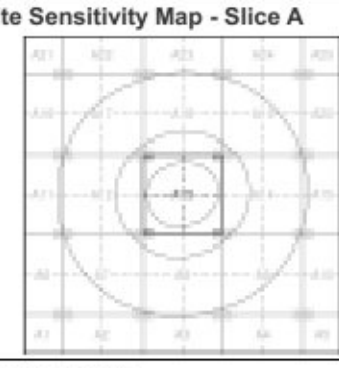
Agency and Hydrological

Waste

Hazardous Substances

Geological

Site Sensitivity Map - Slice A



Order Details

Order Number:	203067554_1_1
Customer Ref:	190502
National Grid Reference:	421010, 622380
Slice:	A
Site Area (Ha):	0.36
Search Buffer (m):	1000

Site Details

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Landmark
Tel: 0844 844 9952
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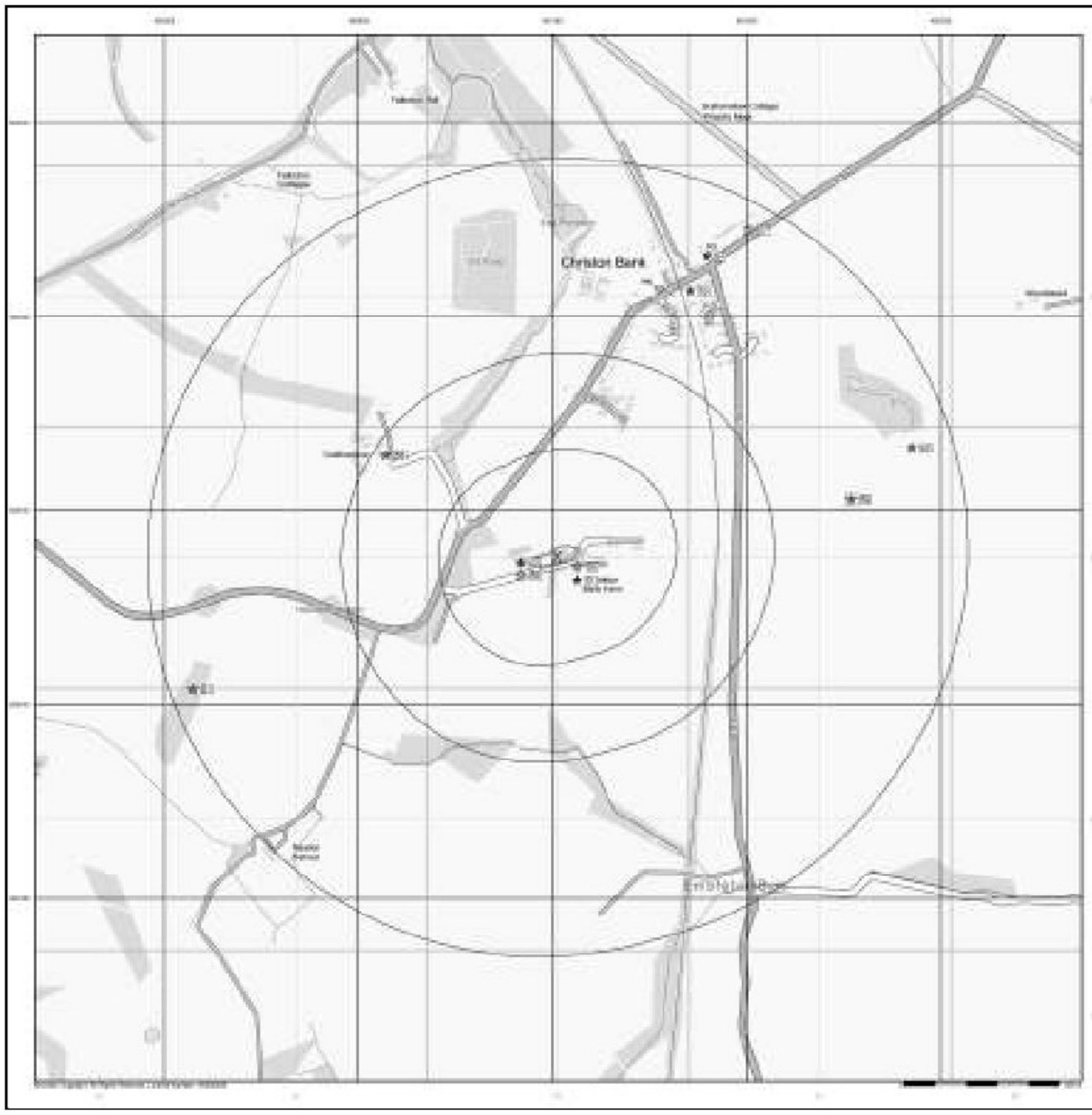

ROBERTS

Industrial Land Use Map

General

Industrial Land Use

Industrial Land Use Map - Slice A

Order Details

Order Number:	203067554_1_1
Customer Ref:	190502
National Grid Reference:	421010, 622380
Slice:	A
Site Area (Ha):	0.36
Search Buffer (m):	1000

Site Details

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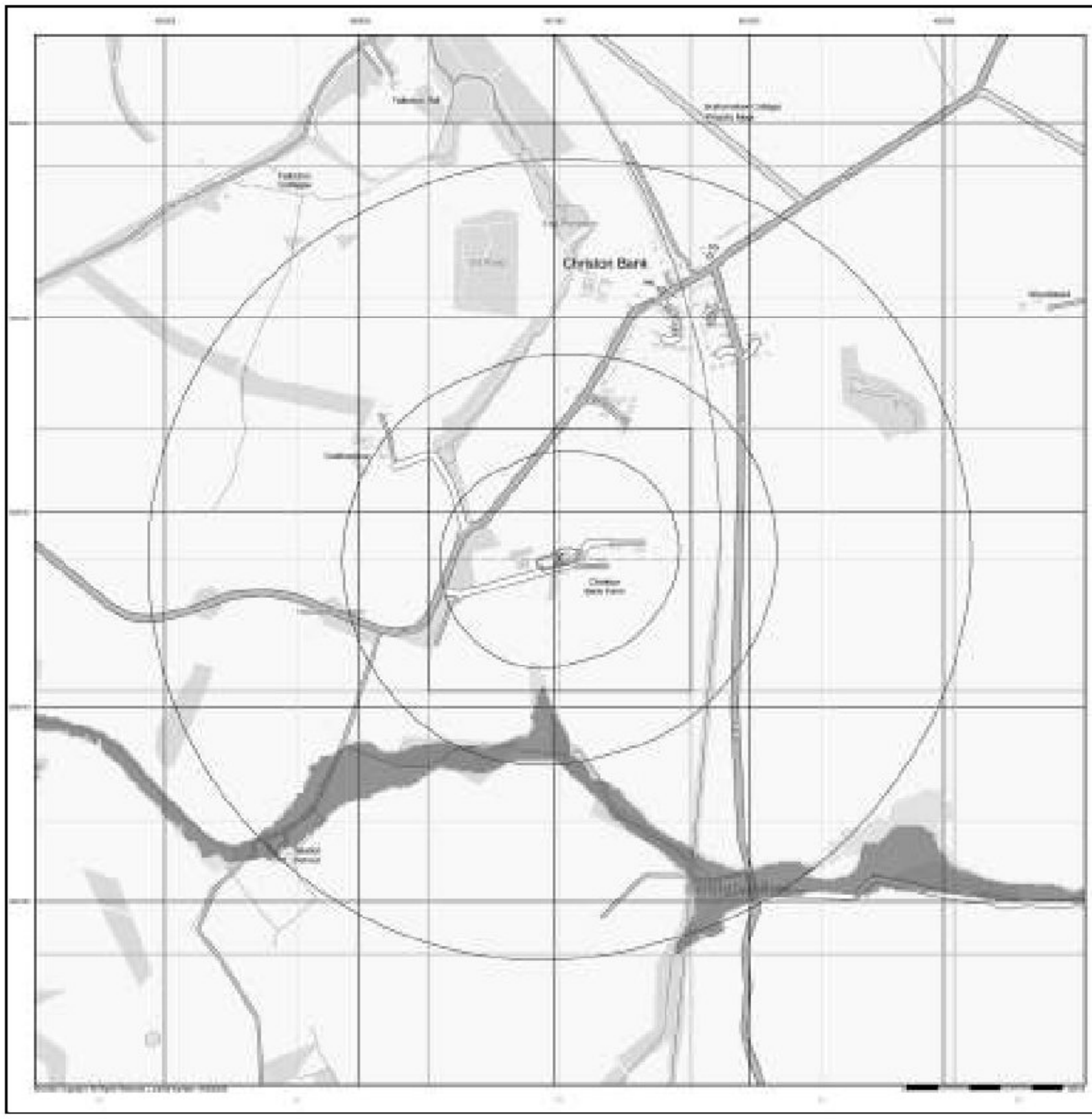
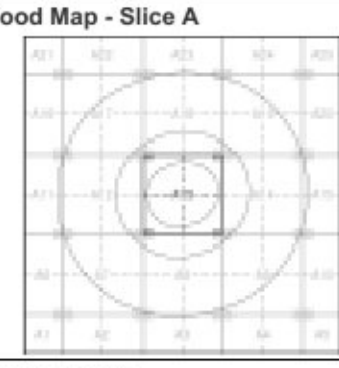


ROBERTS

General

Agency and Hydrological (Flood)

Flood Map - Slice A



Order Details

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Customer Ref:	190502
National Grid Reference:	421010, 622380
Slice:	A
Site Area (Ha):	0.36
Search Buffer (m):	1000

Site Details

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Landmark
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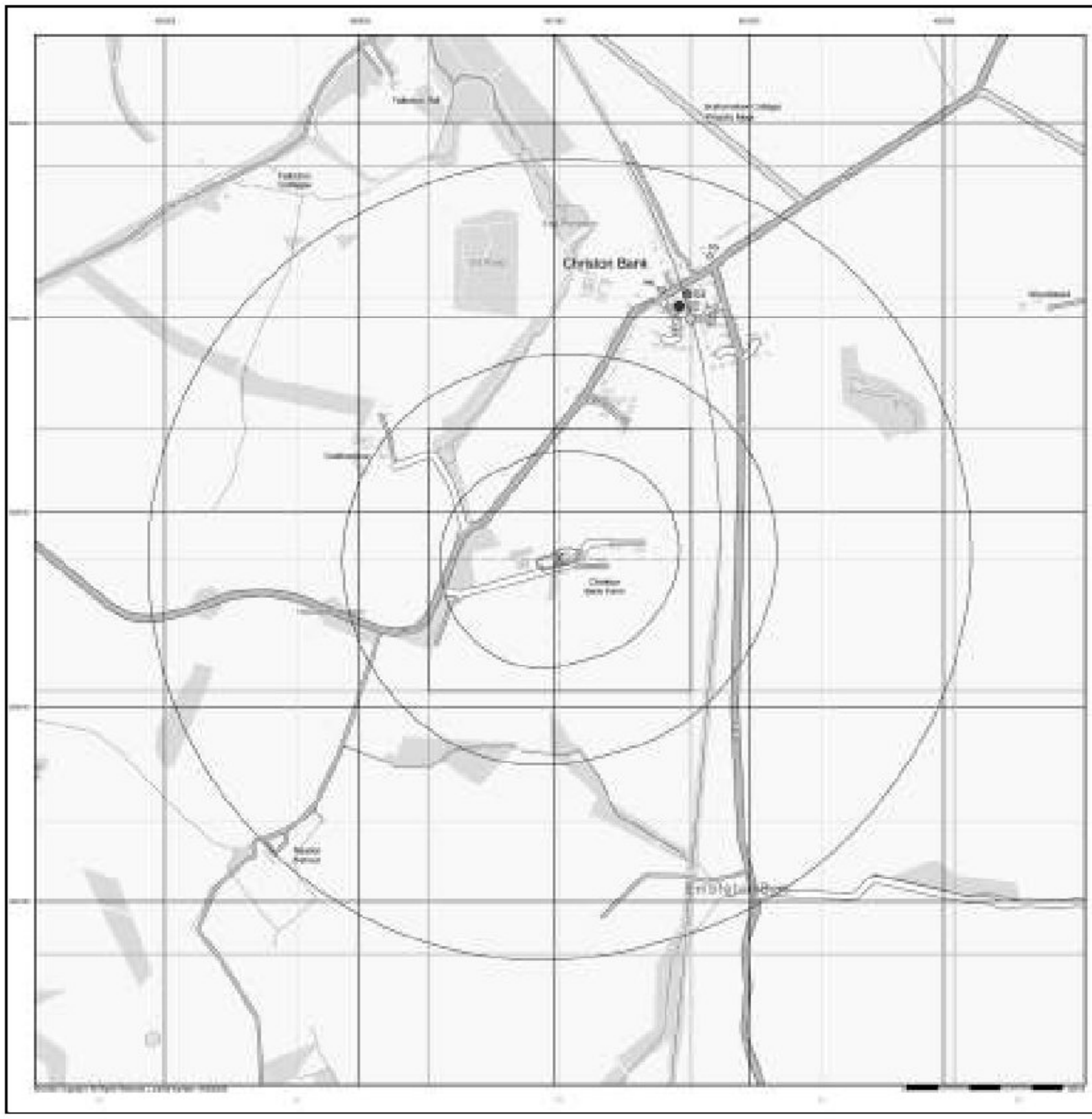


ROBERTS

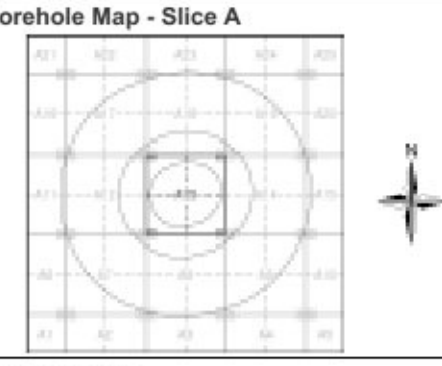
General

Agency and Hydrological (Boreholes)

For Borehole information please refer to the Borehole .csv file which accompanied this slice.

A copy of the BGS Borehole Ordering Form is available to download from the Support section of www.envirocheck.co.uk.

Borehole Map - Slice A



Order Details

Order Number:	203067554_1_1
Customer Ref:	190502
National Grid Reference:	421010, 622380
Slice:	A
Site Area (Ha):	0.36
Search Buffer (m):	1000

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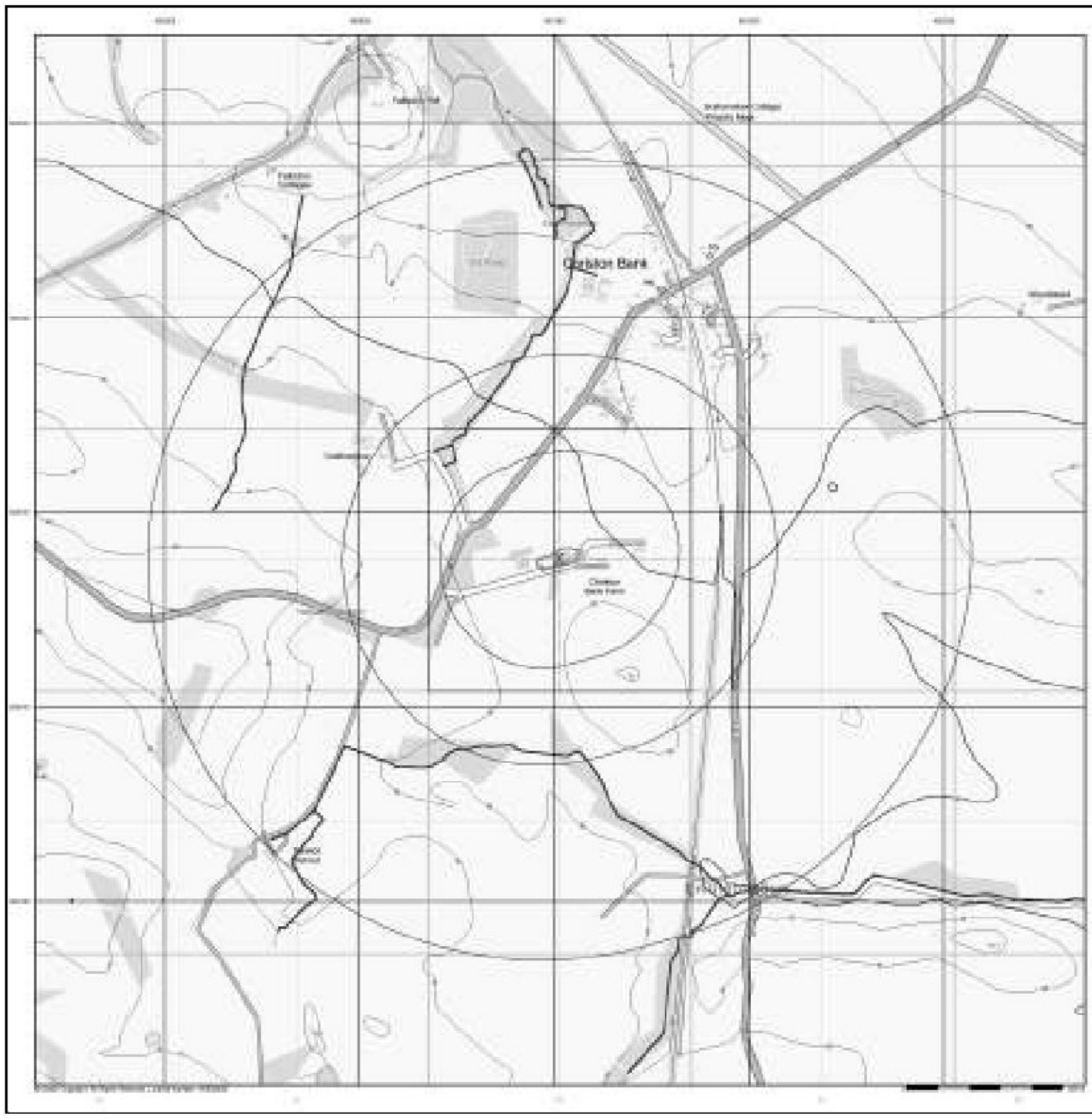


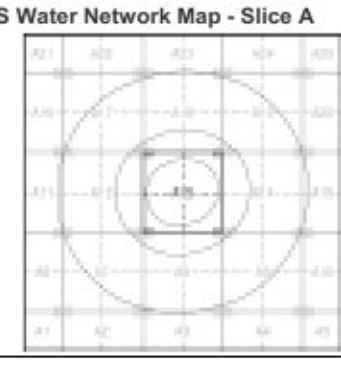
ROBERTS

General

OS Water Network Data

Contours (height in metres)

OS Water Network Map - Slice A



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Order Details

Order Number:	203067554_1_1
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National Grid Reference:	421010, 622380
Slice:	A
Site Area (Ha):	0.36
Search Buffer (m):	1000

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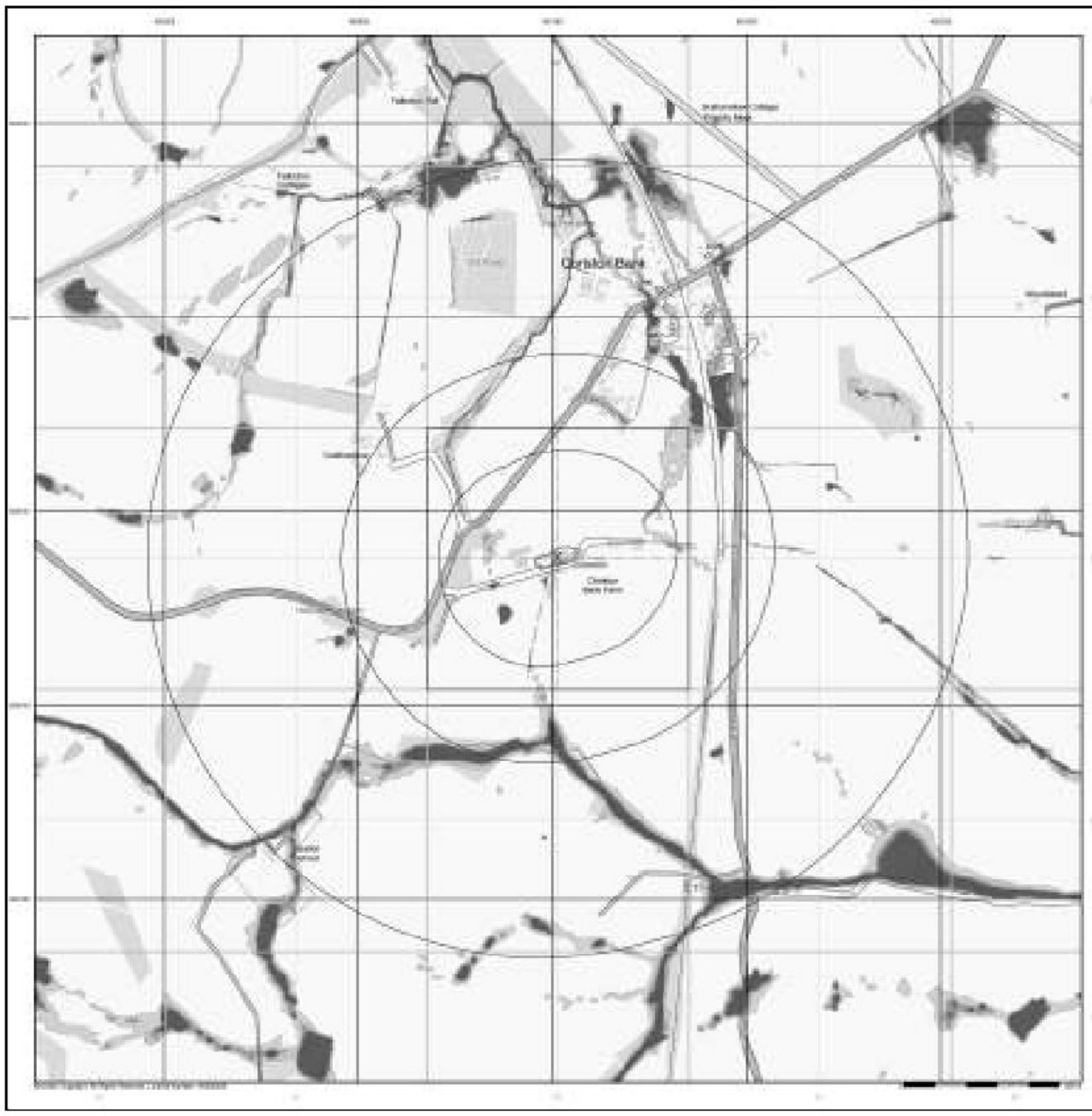


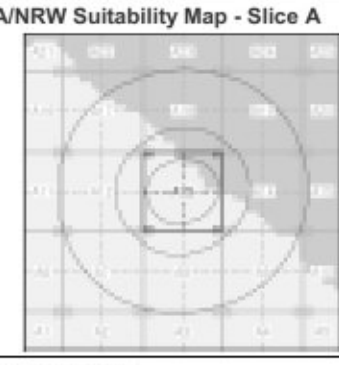
ROBERTS

General

Risk of Flooding from Surface Water

Suitability

EA/NRW Suitability Map - Slice A



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National Grid Reference:	421010, 622380
Slice:	A
Site Area (Ha):	0.36
Search Buffer (m):	1000

Site Details

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Landmark
Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

Envirocheck® Report:

Datasheet

Order Details:

Order Number:
203067554_1_1

Customer Reference:
190502

National Grid Reference:
421010, 622380

Slice:
A

Site Area (Ha):
0.36

Search Buffer (m):
1000

Site Details:

Christon Bank Farm
Christon Bank
Alnwick
Northumberland
NE66 3EZ

Client Details:

Mr J Roberts
Roberts Environmental Ltd
23 Grey Street
Newcastle Upon Tyne
NE1 6EE

Contents

Introduction

The Environment Act 1995 has made site sensitivity a key issue, as the legislation pays as much attention to the pathways by which contamination could spread, and to the vulnerable targets of contamination, as it does the potential sources of contamination.
For this reason, Landmark's Site Sensitivity maps and Datasheet(s) place great emphasis on statutory data provided by the Environment Agency/Natural Resources Wales and the Scottish Environment Protection Agency; it also incorporates data from Natural England (and the Scottish and Welsh equivalents) and Local Authorities; and highlights hydrogeological features required by environmental and geotechnical consultants. It does not include any information concerning past uses of land. The datasheet is produced by querying the Landmark database to a distance defined by the client from a site boundary provided by the client.
In this datasheet the National Grid References (NGRs) are rounded to the nearest 10m in accordance with Landmark's agreements with a number of Data Suppliers.

Report Version v53.0

Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
BGS Groundwater Flooding Susceptibility	pg 1	Yes	Yes	Yes	n/a
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 1			1	4
Prosecutions Relating to Controlled Waters			n/a	n/a	n/a
Enforcement and Prohibition Notices					
Integrated Pollution Controls					
Integrated Pollution Prevention And Control					
Local Authority Integrated Pollution Prevention And Control					
Local Authority Pollution Prevention and Controls					
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 2		Yes		
Pollution Incidents to Controlled Waters					
Prosecutions Relating to Authorised Processes					
Registered Radioactive Substances					
River Quality	pg 2				1
River Quality Biology Sampling Points					
River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register					
Water Abstractions					
Water Industry Act Referrals					
Groundwater Vulnerability Map	pg 3	Yes	n/a	n/a	n/a
Groundwater Vulnerability - Soluble Rock Risk	pg 3	2	n/a	n/a	n/a
Groundwater Vulnerability - Local Information			n/a	n/a	n/a
Bedrock Aquifer Designations	pg 3	Yes	n/a	n/a	n/a
Superficial Aquifer Designations	pg 3	Yes	n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences	pg 3		Yes	n/a	n/a
Flooding from Rivers or Sea without Defences				n/a	n/a
Areas Benefiting from Flood Defences				n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences				n/a	n/a
OS Water Network Lines	pg 3			10	29

Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Waste					
BGS Recorded Landfill Sites					
Historical Landfill Sites					
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)					
Licensed Waste Management Facilities (Locations)					
Local Authority Landfill Coverage	pg 9	2	n/a	n/a	n/a
Local Authority Recorded Landfill Sites					
Potentially Infilled Land (Non-Water)	pg 9			2	2
Potentially Infilled Land (Water)					
Registered Landfill Sites					
Registered Waste Transfer Sites					
Registered Waste Treatment or Disposal Sites					
Hazardous Substances					
Control of Major Accident Hazards Sites (COMAH)					
Explosive Sites					
Notification of Installations Handling Hazardous Substances (NIHHS)					
Planning Hazardous Substance Consents					
Planning Hazardous Substance Enforcements					

Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Geological					
BGS 1:625,000 Solid Geology	pg 10	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 10	Yes	Yes	Yes	
BGS Recorded Mineral Sites	pg 10			1	3
BGS Urban Soil Chemistry					
BGS Urban Soil Chemistry Averages					
CBSCB Compensation District			n/a	n/a	n/a
Coal Mining Affected Areas	pg 11	Yes	n/a	n/a	n/a
Mining Instability	pg 11	Yes	n/a	n/a	n/a
Man-Made Mining Cavities					
Natural Cavities					
Non Coal Mining Areas of Great Britain	pg 11	Yes		n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 11	Yes		n/a	n/a
Potential for Compressible Ground Stability Hazards				n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 11	Yes		n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 12	Yes		n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 12	Yes		n/a	n/a
Radon Potential - Radon Affected Areas			n/a	n/a	n/a
Radon Potential - Radon Protection Measures			n/a	n/a	n/a
Industrial Land Use					
Contemporary Trade Directory Entries	pg 13		2		2
Fuel Station Entries					
Points of Interest - Commercial Services	pg 13		2		1
Points of Interest - Education and Health					
Points of Interest - Manufacturing and Production	pg 13			1	4
Points of Interest - Public Infrastructure					
Points of Interest - Recreational and Environmental					
Gas Pipelines					
Underground Electrical Cables					

Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Sensitive Land Use					
Ancient Woodland					
Areas of Adopted Green Belt					
Areas of Unadopted Green Belt					
Areas of Outstanding Natural Beauty					
Environmentally Sensitive Areas					
Forest Parks					
Local Nature Reserves					
Marine Nature Reserves					
National Nature Reserves					
National Parks					
Nitrate Sensitive Areas					
Nitrate Vulnerable Zones					
Ramsar Sites					
Sites of Special Scientific Interest					
Special Areas of Conservation					
Special Protection Areas					
World Heritage Sites					

Agency & Hydrological

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (NE)	0	1	421012 622381
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SE (SE)	54	1	421050 622300
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13NW (W)	57	1	420900 622381
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SE (SE)	133	1	421100 622250
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SW (SW)	194	1	420800 622250
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SE (SE)	312	1	421200 622100
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A14NW (E)	408	1	421450 622550
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12NE (W)	414	1	420550 622450
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12NE (NW)	421	1	420600 622600
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A12SE (W)	486	1	420500 622200
1	**Discharge Consents** Operator: Mr P O R Bridgeman Property Type: WWTW (NOT WATER CO) (NOT STP AT A PRIVATE PREMISES) Location: Cold Harbour Cottages, Fallodon Estate, Alnwick, Northumberland Authority: Environment Agency, North East Region Catchment Area: N Northumberland/Holy Is Reference: 221/C/0008 Permit Version: 1 Effective Date: 19th November 1965 Issued Date: 19th November 1965 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Brunton Burn, Tributary Of **Status: Transferred from Rivers (Prevention of Pollution) Act 1951-1961** Positional Accuracy: Located by supplier to within 10m	A13NW (NW)	375	2	420710 622660
2	**Discharge Consents** Operator: Northumbrian Water Limited Property Type: PUMPING STATION ON SEWERAGE NETWORK (WATER COMPANY) Location: Christon Bank Sps, Christon Bank, Alnwick, Northumberland Authority: Environment Agency, North East Region Catchment Area: Not Supplied Reference: 221/1030 Permit Version: 1 Effective Date: 16th October 2003 Issued Date: 16th October 2003 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Unnamed Trib Of Brunton Burn **Status: Consent without application (Water Resources Act 1991, Schedule 10)** Positional Accuracy: Located by supplier to within 10m	A18NW (N)	893	2	421010 623300

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
2	**Discharge Consents** Operator: Northumbrian Water Limited Property Type: PUMPING STATION ON SEWERAGE NETWORK (WATER COMPANY) Location: Christon Bank Sps, Christon Bank, Alnwick, Northumberland Authority: Environment Agency, North East Region Catchment Area: Not Supplied Reference: 221/1030 Permit Version: 1 Effective Date: 16th October 2003 Issued Date: 16th October 2003 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Unnamed Trib Of Brunton Burn **Status: Consent without application (Water Resources Act 1991, Schedule 10)** Positional Accuracy: Located by supplier to within 10m	A18NW (N)	893	2	421010 623300
2	**Discharge Consents** Operator: Northumbrian Water Limited Property Type: PUMPING STATION ON SEWERAGE NETWORK (WATER COMPANY) Location: Christon Bank Pumping Station, Christon Bank, Northumberland Authority: Environment Agency, North East Region Catchment Area: N Northumberland/Holy Is Reference: 221/G/0337 Permit Version: 1 Effective Date: 3rd February 1964 Issued Date: 3rd February 1964 Revocation Date: 16th October 2003 Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Brunton Burn, Tributary Of **Status: Authorisation revoked** Positional Accuracy: Located by supplier to within 10m	A18NW (N)	893	2	421010 623300
3	**Discharge Consents** Operator: Holt J M Mr Property Type: WWTW (NOT WATER CO) (NOT STP AT A PRIVATE PREMISES) Location: Rock Mill, Alnwick, Northumberland, Ne66 3ha Authority: Environment Agency, North East Region Catchment Area: Not Supplied Reference: 221/1057 Permit Version: 1 Effective Date: 7th January 2005 Issued Date: 7th January 2005 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Kittycarter Burn **Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 10m	A7SW (SW)	977	2	420330 621610
	Nearest Surface Water Feature	A13SE (SE)	48	-	421052 622323
	River Quality Name: Embleton_Burn GQA Grade: River Quality B Reach: Source_Se Estimated Distance (km): 11 Flow Rate: Flow less than 0.31 cumecs Flow Type: River Year: 2000	A8NW (S)	545	2	420940 621804

Agency & Hydrological

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Groundwater Vulnerability Map Combined Classification: Secondary Superficial Aquifer - Medium Vulnerability Combined Vulnerability: Medium Combined Aquifer: Productive Bedrock Aquifer, Productive Superficial Aquifer Pollutant Speed: Low Bedrock Flow: Well Connected Fractures Dilution: <300 mm/year Baseflow Index: <40% Superficial Patchiness: >90% Superficial Thickness: <3m Superficial Recharge: Medium	A13NW (W)	0	3	421000 622381
	Groundwater Vulnerability Map Combined Classification: Secondary Superficial Aquifer - Medium Vulnerability Combined Vulnerability: Medium Combined Aquifer: Productive Bedrock Aquifer, Productive Superficial Aquifer Pollutant Speed: Low Bedrock Flow: Well Connected Fractures Dilution: <300 mm/year Baseflow Index: <40% Superficial Patchiness: >90% Superficial Thickness: <3m Superficial Recharge: Medium	A13NW (NE)	0	3	421012 622381
	Groundwater Vulnerability - Soluble Rock Risk Classification: Significant Risk - Problems Unlikely	A13NW (W)	0	3	421000 622381
	Groundwater Vulnerability - Soluble Rock Risk Classification: Significant Risk - Low Possibility	A13NW (NE)	0	3	421012 622381
	Bedrock Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A13NW (NE)	0	3	421012 622381
	Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - Undifferentiated	A13NW (NE)	0	3	421012 622381
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SW (S)	236	2	420960 622114
	Flooding from Rivers or Sea without Defences None				
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				
	Flood Defences None				
4	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 58.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Berwick to Alnmouth Coast Primacy: 1	A13NW (NW)	328	4	420748 622631
5	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 2.9 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Berwick to Alnmouth Coast Primacy: 1	A13NW (NW)	335	4	420733 622626

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
6	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 16.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Berwick to Alnmouth Coast Primacy: 1	A13NW (NW)	336	4	420730 622625
7	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 21.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Berwick to Alnmouth Coast Primacy: 1	A13NW (NW)	367	4	420738 622673
8	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 576.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Berwick to Alnmouth Coast Primacy: 1	A13NW (NW)	367	4	420768 622698
9	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 3.3 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Berwick to Alnmouth Coast Primacy: 1	A13NW (NW)	375	4	420718 622666
10	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 23.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Berwick to Alnmouth Coast Primacy: 1	A13NW (NW)	376	4	420715 622665
11	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 209.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Embleton Burn Catchment Name: Berwick to Alnmouth Coast Primacy: 1	A8NW (S)	455	4	420888 621902
12	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 10.8 Watercourse Level: Underground Permanent: True Watercourse Name: Embleton Burn Catchment Name: Berwick to Alnmouth Coast Primacy: 1	A8NW (S)	463	4	420902 621892
13	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 561.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Embleton Burn Catchment Name: Berwick to Alnmouth Coast Primacy: 1	A8NE (S)	465	4	421058 621886
14	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 446.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Kittycarter Burn Catchment Name: Berwick to Alnmouth Coast Primacy: 1	A8NW (SW)	554	4	420709 621860

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
15	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 66.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Berwick to Alnmouth Coast Primacy: 1	A18NE (N)	706	4	421108 623110
16	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 248.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Berwick to Alnmouth Coast Primacy: 1	A18NE (N)	723	4	421045 623129
17	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 107.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Berwick to Alnmouth Coast Primacy: 1	A18NW (N)	799	4	420999 623206
18	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 147.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Berwick to Alnmouth Coast Primacy: 1	A12NW (W)	810	4	420180 622606
19	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 246.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Berwick to Alnmouth Coast Primacy: 1	A12NW (W)	817	4	420201 622687
20	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 4.2 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Berwick to Alnmouth Coast Primacy: 1	A12NW (W)	820	4	420179 622637
21	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 27.6 Watercourse Level: Underground Permanent: True Watercourse Name: Embleton Burn Catchment Name: Berwick to Alnmouth Coast Primacy: 1	A8SE (SE)	821	4	421343 621606
22	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 50.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Embleton Burn Catchment Name: Berwick to Alnmouth Coast Primacy: 1	A9SW (SE)	841	4	421368 621594
23	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 46.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Kittycarter Burn Catchment Name: Berwick to Alnmouth Coast Primacy: 1	A7NE (SW)	849	4	420403 621717

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
24	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 87.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Berwick to Alnmouth Coast Primacy: 1	A7NE (SW)	853	4	420382 621731
25	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 26.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Kittycarter Burn Catchment Name: Berwick to Alnmouth Coast Primacy: 1	A7SE (SW)	864	4	420399 621700
26	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 172.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Berwick to Alnmouth Coast Primacy: 1	A18NW (N)	877	4	420966 623282
27	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 203.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Berwick to Alnmouth Coast Primacy: 1	A18NW (N)	877	4	421005 623284
28	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 6.0 Watercourse Level: Underground Permanent: True Watercourse Name: Embleton Burn Catchment Name: Berwick to Alnmouth Coast Primacy: 1	A9SW (SE)	887	4	421404 621559
29	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 2.5 Watercourse Level: Underground Permanent: True Watercourse Name: Kittycarter Burn Catchment Name: Berwick to Alnmouth Coast Primacy: 1	A7SE (SW)	890	4	420381 621682
30	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 350.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Kittycarter Burn Catchment Name: Berwick to Alnmouth Coast Primacy: 1	A7SE (SW)	892	4	420380 621679
31	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 36.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Embleton Burn Catchment Name: Berwick to Alnmouth Coast Primacy: 1	A9SW (SE)	893	4	421409 621555
32	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 5.7 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Berwick to Alnmouth Coast Primacy: 1	A17SW (NW)	902	4	420208 622880

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
33	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 457.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Berwick to Alnmouth Coast Primacy: 1	A17SW (NW)	904	4	420209 622886
34	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 3.4 Watercourse Level: Underground Permanent: True Watercourse Name: Embleton Burn Catchment Name: Berwick to Alnmouth Coast Primacy: 1	A9SW (SE)	926	4	421434 621530
35	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 16.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Embleton Burn Catchment Name: Berwick to Alnmouth Coast Primacy: 1	A9SW (SE)	930	4	421437 621528
36	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 3.7 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Berwick to Alnmouth Coast Primacy: 1	A7SW (SW)	938	4	420314 621677
37	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 49.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Berwick to Alnmouth Coast Primacy: 1	A9SW (SE)	941	4	421429 621511
38	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 8.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Berwick to Alnmouth Coast Primacy: 1	A9SW (SE)	942	4	421440 621515
39	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 42.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Berwick to Alnmouth Coast Primacy: 1	A7SW (SW)	942	4	420311 621675
40	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 1694.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Embleton Burn Catchment Name: Berwick to Alnmouth Coast Primacy: 1	A9SW (SE)	944	4	421448 621516
41	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 2.7 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Berwick to Alnmouth Coast Primacy: 1	A9SW (SE)	960	4	421407 621481

Agency & Hydrological

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
42	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 512.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Berwick to Alnmouth Coast Primacy: 1	A9SW (SE)	962	4	421405 621479

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Local Authority Landfill Coverage Name: Northumberland County Council - Has supplied landfill data		0	6	421012 622381
	Local Authority Landfill Coverage Name: Alnwick District Council - Has no landfill data to supply		0	5	421012 622381
43	**Potentially Infilled Land (Non-Water)** Bearing Ref: SE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1978	A13SE (SE)	324	-	421170 622072
44	**Potentially Infilled Land (Non-Water)** Bearing Ref: NE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1978	A14NW (NE)	484	-	421457 622692
45	**Potentially Infilled Land (Non-Water)** Bearing Ref: W Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1978	A12SE (W)	585	-	420372 622366
46	**Potentially Infilled Land (Non-Water)** Bearing Ref: NE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1978	A19SE (NE)	812	-	421772 622810

Geological

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: Yoredale Group	A13NW (NE)	0	1	421012 622381
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: <15 mg/kg	A13NW (NE)	0	1	421012 622381
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: <15 mg/kg	A13SE (S)	220	1	421102 622159
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A8NW (S)	351	1	421012 622000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A12NE (W)	411	1	420546 622381
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A14NW (NE)	444	1	421458 622617
47	**BGS Recorded Mineral Sites** Site Name: Cock Law Location: Christon Bank, Rennington, Alnwick, Northumberland Source: British Geological Survey, National Geoscience Information Service Reference: 112458 Type: Underground **Status: Ceased** Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Alston Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A13SE (SE)	305	1	421159 622088

Geological

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
48	**BGS Recorded Mineral Sites** Site Name: Embleton Location: Embleton, Alnwick, Northumberland Source: British Geological Survey, National Geoscience Information Service Reference: 112469 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Eelwell Limestone Member Commodity: Limestone Positional Accuracy: Located by supplier to within 10m	A14NE (E)	705	1	421765 622517
49	**BGS Recorded Mineral Sites** Site Name: Embleton Location: Embleton, Alnwick, Northumberland Source: British Geological Survey, National Geoscience Information Service Reference: 112470 Type: Underground **Status: Ceased** Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Alston Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A14NE (E)	743	1	421788 622592
50	**BGS Recorded Mineral Sites** Site Name: Rock Mill Location: Embleton, Alnwick, Northumberland Source: British Geological Survey, National Geoscience Information Service Reference: 112450 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Eelwell Limestone Member Commodity: Limestone Positional Accuracy: Located by supplier to within 10m	A7NW (W)	971	1	420052 622015
	BGS Measured Urban Soil Chemistry No data available				
	BGS Urban Soil Chemistry Averages No data available				
	Coal Mining Affected Areas Description: In an area which may be affected by coal mining activity. It is recommended that a coal mining report is obtained from the Coal Authority. Contact details are included in the Useful Contacts section of this report.	A13NW (NE)	0	7	421012 622381
	Mining Instability Mining Evidence: Conclusive Coal Mining Source: Ove Arup & Partners Boundary Quality: As Supplied	A13NW (NE)	0	-	421012 622381
	Mining Instability Mining Evidence: Inconclusive Coal Mining Source: Ove Arup & Partners Boundary Quality: As Supplied	A13NW (W)	0	-	421000 622381
	Non Coal Mining Areas of Great Britain Risk: Highly Unlikely Source: British Geological Survey, National Geoscience Information Service	A13NW (NE)	0	1	421012 622381
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (NE)	0	1	421012 622381
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (NE)	0	1	421012 622381
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (NE)	0	1	421012 622381
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (NE)	0	1	421012 622381

Geological

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (NE)	0	1	421012 622381
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NW (NE)	0	1	421012 622381
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	220	1	421102 622159
	Radon Potential - Radon Affected Areas Affected Area: The property is in a Lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service	A13NW (NE)	0	1	421012 622381
	Radon Potential - Radon Protection Measures Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A13NW (NE)	0	1	421012 622381

Industrial Land Use

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
51	**Contemporary Trade Directory Entries** Name: W Pringle Ltd Location: Christon Bank Farm, Christon Bank, Alnwick, Northumberland, NE66 3EZ Classification: Garage Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SE (SE)	24	-	421064 622354
52	**Contemporary Trade Directory Entries** Name: W Pringle Ltd Location: Christon Bank, NE66 3EZ Classification: Garage Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SW (W)	40	-	420918 622366
53	**Contemporary Trade Directory Entries** Name: Les Appliance Repairs Location: Lindores, Christon Bank, Alnwick, Northumberland, NE66 3ES Classification: Domestic Appliances - Servicing, Repairs & Parts **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A19NW (NE)	724	-	421356 623066
54	**Contemporary Trade Directory Entries** Name: Les Cooker Repairs Location: Christon Bank, Alnwick, Northumberland, NE66 3ES Classification: Cookers - Sales & Service **Status: Inactive** Positional Accuracy: Manually positioned within the geographical locality	A19NW (NE)	821	-	421397 623154
55	**Points of Interest - Commercial Services** Name: W Pringle Ltd Location: Christon Bank Farm, Christon Bank, Alnwick, NE66 3EZ Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13SE (SE)	24	8	421064 622354
56	**Points of Interest - Commercial Services** Name: W Pringle Ltd Location: W Pringle Workshop, Christon Bank Farm, Christon Bank, NE66 3EZ Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13SW (W)	40	8	420918 622366
57	**Points of Interest - Commercial Services** Name: W Pringle Ltd Location: Pringles Garage, Christon Bank, Alnwick, NE66 3ES Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A19NW (NE)	932	8	421506 623224
58	**Points of Interest - Manufacturing and Production** Name: J T Jeffrey & Sons Location: Christon Bank, Alnwick, NE66 3HB Category: Farming Class Code: Arable Farming Positional Accuracy: Positioned to address or location	A12NE (NW)	469	8	420570 622642
59	**Points of Interest - Manufacturing and Production** Name: Quarry (Disused) Location: NE66 Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to address or location	A14NE (E)	710	8	421769 622528
59	**Points of Interest - Manufacturing and Production** Name: Shaft (Disused) Location: NE66 Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to address or location	A14NE (E)	747	8	421792 622593
60	**Points of Interest - Manufacturing and Production** Name: Lime Kilns (Disused) Location: NE66 Category: Industrial Features Class Code: Lime Kilns Positional Accuracy: Positioned to an adjacent address or location	A14NE (E)	893	8	421925 622660
61	**Points of Interest - Manufacturing and Production** Name: Quarries (Disused) Location: NE66 Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to an adjacent address or location	A7NW (W)	943	8	420073 622038

Data Currency

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices		
Northumberland Council - Environmental Health Department	March 2015	Annually
Alnwick District Council (now part of Northumberland Council) - Environmental Health Department	October 2009	Not Applicable
Berwick-upon-Tweed Borough Council (now part of Northumberland Council) - Environmental Health Department	October 2009	Not Applicable
Discharge Consents		
Environment Agency - North East Region	January 2019	Quarterly
Enforcement and Prohibition Notices		
Environment Agency - North East Region	March 2013	Annual Rolling Update
Integrated Pollution Controls		
Environment Agency - North East Region	October 2008	Variable
Integrated Pollution Prevention And Control		
Environment Agency - North East Region	January 2019	Quarterly
Local Authority Integrated Pollution Prevention And Control		
Alnwick District Council (now part of Northumberland Council) - Environmental Health Department	April 2009	Not Applicable
Berwick-upon-Tweed Borough Council (now part of Northumberland Council) - Environmental Health Department	March 2005	Not Applicable
Northumberland Council - Environmental Health Department	May 2014	Variable
Local Authority Pollution Prevention and Controls		
Alnwick District Council (now part of Northumberland Council) - Environmental Health Department	April 2009	Not Applicable
Berwick-upon-Tweed Borough Council (now part of Northumberland Council) - Environmental Health Department	March 2005	Not Applicable
Northumberland Council - Environmental Health Department	May 2014	Annually
Local Authority Pollution Prevention and Control Enforcements		
Alnwick District Council (now part of Northumberland Council) - Environmental Health Department	April 2009	Not Applicable
Berwick-upon-Tweed Borough Council (now part of Northumberland Council) - Environmental Health Department	March 2005	Not Applicable
Northumberland Council - Environmental Health Department	May 2014	Variable
Nearest Surface Water Feature		
Ordnance Survey	January 2019	
Pollution Incidents to Controlled Waters		
Environment Agency - North East Region	December 1998	Not Applicable
Prosecutions Relating to Authorised Processes		
Environment Agency - North East Region	March 2013	Annual Rolling Update
Prosecutions Relating to Controlled Waters		
Environment Agency - North East Region	March 2013	Annual Rolling Update
Registered Radioactive Substances		
Environment Agency - North East Region	June 2016	
River Quality		
Environment Agency - Head Office	November 2001	Not Applicable
River Quality Biology Sampling Points		
Environment Agency - Head Office	July 2012	Annually
River Quality Chemistry Sampling Points		
Environment Agency - Head Office	July 2012	Annually
Substantiated Pollution Incident Register		
Environment Agency - North East Region - North East Area	January 2019	Quarterly
Environment Agency - North East Region - Northumbria Area	January 2019	Quarterly
Water Abstractions		
Environment Agency - North East Region	January 2019	Quarterly

Data Currency

Agency & Hydrological	Version	Update Cycle
Water Industry Act Referrals Environment Agency - North East Region	October 2017	Quarterly
Groundwater Vulnerability Map Environment Agency - Head Office	June 2018	Annually
Groundwater Vulnerability - Soluble Rock Risk Environment Agency - Head Office	June 2018	Annually
Bedrock Aquifer Designations Environment Agency - Head Office	January 2018	Annually
Superficial Aquifer Designations Environment Agency - Head Office	January 2018	Annually
Source Protection Zones Environment Agency - Head Office	January 2019	Quarterly
Extreme Flooding from Rivers or Sea without Defences Environment Agency - Head Office	February 2019	Quarterly
Flooding from Rivers or Sea without Defences Environment Agency - Head Office	February 2019	Quarterly
Areas Benefiting from Flood Defences Environment Agency - Head Office	February 2019	Quarterly
Flood Water Storage Areas Environment Agency - Head Office	February 2019	Quarterly
Flood Defences Environment Agency - Head Office	February 2019	Quarterly
OS Water Network Lines Ordnance Survey	January 2019	Quarterly
Surface Water 1 in 30 year Flood Extent Environment Agency - Head Office	October 2013	Annually
Surface Water 1 in 100 year Flood Extent Environment Agency - Head Office	October 2013	Annually
Surface Water 1 in 1000 year Flood Extent Environment Agency - Head Office	October 2013	Annually
Surface Water Suitability Environment Agency - Head Office	October 2013	Annually
BGS Groundwater Flooding Susceptibility British Geological Survey - National Geoscience Information Service	May 2013	Annually

Data Currency

Waste	Version	Update Cycle
BGS Recorded Landfill Sites		
British Geological Survey - National Geoscience Information Service	June 1996	Not Applicable
Historical Landfill Sites		
Environment Agency - Head Office	July 2018	Quarterly
Integrated Pollution Control Registered Waste Sites		
Environment Agency - North East Region	October 2008	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries)		
Environment Agency - North East Region - North East Area	July 2018	Quarterly
Environment Agency - North East Region - Northumbria Area	July 2018	Quarterly
Licensed Waste Management Facilities (Locations)		
Environment Agency - North East Region - North East Area	January 2019	Quarterly
Environment Agency - North East Region - Northumbria Area	January 2019	Quarterly
Local Authority Landfill Coverage		
Alnwick District Council (now part of Northumberland Council)	May 2000	Not Applicable
Berwick-upon-Tweed Borough Council (now part of Northumberland Council) - Environmental Health Department	May 2000	Not Applicable
Northumberland County Council (now part of Northumberland Council)	May 2000	Not Applicable
Local Authority Recorded Landfill Sites		
Alnwick District Council (now part of Northumberland Council)	May 2000	Not Applicable
Berwick-upon-Tweed Borough Council (now part of Northumberland Council) - Environmental Health Department	May 2000	Not Applicable
Northumberland County Council (now part of Northumberland Council)	May 2000	Not Applicable
Potentially Infilled Land (Non-Water)		
Landmark Information Group Limited	December 1999	Not Applicable
Potentially Infilled Land (Water)		
Landmark Information Group Limited	December 1999	Not Applicable
Registered Landfill Sites		
Environment Agency - North East Region - North East Area	March 2003	Not Applicable
Environment Agency - North East Region - Northumbria Area	March 2003	Not Applicable
Registered Waste Transfer Sites		
Environment Agency - North East Region - North East Area	March 2003	Not Applicable
Environment Agency - North East Region - Northumbria Area	March 2003	Not Applicable
Registered Waste Treatment or Disposal Sites		
Environment Agency - North East Region - North East Area	March 2003	Not Applicable
Environment Agency - North East Region - Northumbria Area	March 2003	Not Applicable

Data Currency

Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH)		
Health and Safety Executive	April 2018	Bi-Annually
Explosive Sites		
Health and Safety Executive	March 2017	Annually
Notification of Installations Handling Hazardous Substances (NIHHS)		
Health and Safety Executive	November 2000	Not Applicable
Planning Hazardous Substance Enforcements		
Alnwick District Council (now part of Northumberland Council)	February 2009	Not Applicable
Berwick-upon-Tweed Borough Council (now part of Northumberland Council) - Planning Department	March 2009	Not Applicable
Northumberland County Council (now part of Northumberland Council) - Minerals Waste and Development Control	October 2008	Annual Rolling Update
Northumberland Council - Planning Department	October 2015	Variable
Planning Hazardous Substance Consents		
Alnwick District Council (now part of Northumberland Council)	February 2009	Not Applicable
Berwick-upon-Tweed Borough Council (now part of Northumberland Council) - Planning Department	March 2009	Not Applicable
Northumberland County Council (now part of Northumberland Council) - Minerals Waste and Development Control	October 2008	Annual Rolling Update
Northumberland Council - Planning Department	October 2015	Variable

Geological	Version	Update Cycle
BGS 1:625,000 Solid Geology		
British Geological Survey - National Geoscience Information Service	January 2009	Not Applicable
BGS Estimated Soil Chemistry		
British Geological Survey - National Geoscience Information Service	October 2015	Annually
BGS Recorded Mineral Sites		
British Geological Survey - National Geoscience Information Service	April 2019	Bi-Annually
CBSCB Compensation District		
Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011	Not Applicable
Coal Mining Affected Areas		
The Coal Authority - Property Searches	March 2014	Annual Rolling Update
Mining Instability		
Ove Arup & Partners	October 2000	Not Applicable
Non Coal Mining Areas of Great Britain		
British Geological Survey - National Geoscience Information Service	May 2015	Not Applicable
Potential for Collapsible Ground Stability Hazards		
British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Compressible Ground Stability Hazards		
British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Ground Dissolution Stability Hazards		
British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Landslide Ground Stability Hazards		
British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Running Sand Ground Stability Hazards		
British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Shrinking or Swelling Clay Ground Stability Hazards		
British Geological Survey - National Geoscience Information Service	January 2019	Annually
Radon Potential - Radon Affected Areas		
British Geological Survey - National Geoscience Information Service	July 2011	Annually
Radon Potential - Radon Protection Measures		
British Geological Survey - National Geoscience Information Service	July 2011	Annually

Data Currency

Industrial Land Use	Version	Update Cycle
Contemporary Trade Directory Entries Thomson Directories	January 2019	Quarterly
Fuel Station Entries Catalist Ltd - Experian	March 2019	Quarterly
Gas Pipelines National Grid	July 2014	
Points of Interest - Commercial Services PointX	November 2018	Quarterly
Points of Interest - Education and Health PointX	November 2018	Quarterly
Points of Interest - Manufacturing and Production PointX	November 2018	Quarterly
Points of Interest - Public Infrastructure PointX	November 2018	Quarterly
Points of Interest - Recreational and Environmental PointX	November 2018	Quarterly
Underground Electrical Cables National Grid	December 2015	
Sensitive Land Use	**Version**	**Update Cycle**
Ancient Woodland Natural England	August 2018	Bi-Annually
Areas of Outstanding Natural Beauty Natural England	August 2018	Bi-Annually
Environmentally Sensitive Areas Natural England	January 2017	
Forest Parks Forestry Commission	April 1997	Not Applicable
Local Nature Reserves Natural England	March 2019	Bi-Annually
Marine Nature Reserves Natural England	January 2018	Bi-Annually
National Nature Reserves Natural England	August 2018	Bi-Annually
National Parks Natural England	April 2017	Bi-Annually
Nitrate Vulnerable Zones Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	October 2015	
Ramsar Sites Natural England	April 2019	Bi-Annually
Sites of Special Scientific Interest Natural England	March 2019	Bi-Annually
Special Areas of Conservation Natural England	August 2018	Bi-Annually
Special Protection Areas Natural England	April 2019	Bi-Annually

Data Suppliers

A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	
Environment Agency	
Scottish Environment Protection Agency	
The Coal Authority	
British Geological Survey	
Centre for Ecology and Hydrology	
Natural Resources Wales	
Scottish Natural Heritage	
Natural England	
Public Health England	
Ove Arup	
Peter Brett Associates	

Useful Contacts

Contact	Name and Address	Contact Details
1	**British Geological Survey - Enquiry Service** British Geological Survey, Environmental Science Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
2	**Environment Agency - National Customer Contact Centre (NCCC)** PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk
3	**Environment Agency - Head Office** Rio House, Waterside Drive, Aztec West, Almondsbury, Bristol, Avon, BS32 4UD	Telephone: 01454 624400 Fax: 01454 624409
4	**Ordnance Survey** Adanac Drive, Southampton, Hampshire, SO16 0AS	Telephone: 03456 05 05 05 Email: customerservices@ordnancesurvey.co.uk Website: www.ordnancesurvey.gov.uk
5	**Alnwick District Council (now part of Northumberland Council)** County Hall, Morpeth, Northumberland, NE61 2EF	Telephone: 0845 600 6400 Website: www.northumberland.gov.uk
6	**Northumberland County Council (now part of Northumberland Council)** County Hall, Morpeth , Northumberland, NE61 2EF	Telephone: 01670 533000 Fax: 01670 534160 Website: www.northumberland.gov.uk
7	**The Coal Authority - Property Searches** 200 Lichfield Lane, Mansfield, Nottinghamshire, NG18 4RG	Telephone: 0345 762 6848 Fax: 01623 637 338 Email: groundstability@coal.gov.uk Website: www2.groundstability.com
8	**PointX** 7 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY	Website: www.pointx.co.uk
9	**Natural England** County Hall, Spetchley Road, Worcester, WR5 2NP	Telephone: 0300 060 3900 Email: enquiries@naturalengland.org.uk Website: www.naturalengland.org.uk
-	**Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards** Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org
-	**Landmark Information Group Limited** Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

Please note that the Environment Agency / Natural Resources Wales / SEPA have a charging policy in place for enquiries.

APPENDIX III DEFINITIONS AND RESERVATIONS

For the avoidance of doubt, Roberts Environmental has prepared the following alphabetical list of definitions and reservations to aid the client in understanding the content of our advice and or written reports(s):

Accuracy	Level of agreement between true value and observed value.
ACM's	Asbestos Containing Materials
Conceptual Exposure model	Textual and or schematic hypothesis of the nature and sources of contamination, potential migration pathways (including description of the ground and groundwater) and potential receptors, developed on the base of the information form the preliminary investigation and refined during subsequent phases of investigation and which is an essential part of the risk assessment process. **Note 1:** The conceptual exposure model is initially derived from the information obtained by the preliminary investigation. This conceptual model is used to focus subsequent investigations, where these are considered to be necessary, in order to meet the objectives of the investigations and the risk assessment. The results of the field investigation can provide additional data that can be used to further refine the conceptual model.
Contamination	Presence of a substance which is in, on or under land, and which has the potential to cause significant harm or to cause significant pollution of controlled water. **Note 1:** There is no assumption in this definition that harm results from the presence of the contamination. **Note 2:** Naturally enhanced concentrations of harmful substances can fall within this definition of contamination. **Note 3:** Contamination may relate to soils, groundwater or ground gas.
Controlled water	Inland freshwater (any lake, pond or watercourse above the freshwater limit), water contained in underground strata and any coastal water between the limit of highest tide or the freshwater line to the three mile limit of territorial waters. **Note 1:** See Section 104 of The Water Resources Act 1991.
Enquiries	Any enquiries undertaken by Roberts Environmental of local authorities and statutory undertakers are made verbally in respect of environmental issues. Local searches are not undertaken and no responsibility is accepted for any inaccurate information provided.
Harm	It is further assumed unless otherwise stated that all necessary licences, permits etc. either run with the property or are transferable to a new occupier as appropriate. Adverse effect on the health of living organisms, or other interference with ecological systems of which they form part, and, in the case humans, including property.
Hazard	Inherently dangerous quality of a substance, procedure or event.
Pathway	Mechanism or route by which a contaminant comes into contact with, or otherwise affects, a receptor.
Precision	Level of agreement within a series of measurements of a parameter.
Receptor	Persons, living organisms, ecological systems, controlled water, atmosphere, structures and utilities that could be adversely affected by the contaminant(s).
Risk	Probability of the occurrence, magnitude and consequences of an unwanted adverse effect on a receptor.
Risk assessment	Process of establishing, to the extent possible, the existence, nature and significance of risk.
Sampling	Methods and techniques used to obtain a representative sample of the material under investigation.
Soil	Upper layer of the earth's crust composed of mineral parts, organic substance, water, air and living matter. **Note 1:** In accordance with BS 10175:2001 the term soil has the meaning ascribed to it through general use in civil engineering and includes topsoil and subsoil; deposits such as clays, silt, sand, gravel, cobbles, boulders and organic deposits such as peat; and material of natural or human origin (e.g. fills and deposited wastes). The term embraces

	all components of soil, including mineral matter, organic matter, soil gas and moisture, and living organisms.
Source	Location from which contamination is, or was, derived. **Note 1:** This could be the location of the highest soil or groundwater concentration of the contaminant(s).
Uncertainty	Parameter, associated with the result of a measurement that characterizes the dispersion of the values that could reasonably be attributed to the measurement.

Risk Classification

In line with current UK guidance, the Environmental Assessment has been undertaken using a risk based approach, with the potential environmental risk assessed qualitatively using the 'source-pathway-receptor' scenario. In consideration of the information gathered an overall risk rating has been provided for the site based on the following definitions:

Low Risk

The site is considered suitable for present use and environmental setting. It is unlikely that any issues will arise as a liability/cost for the freehold owner of the site.

Medium Risk

The site may not be suitable for present use and environmental setting. Contaminants are probably or certainly present and are likely to have an unacceptable impact on the identified receptors. It is possible that the issue(s) could arise as a liability/cost for the freehold owner of the site. Further work is usually required to clarify the risk.

High Risk

The site is not suitable for present use and environmental setting. Contaminants are probably or certainly present and are very likely to have an unacceptable impact on the identified receptors. It is likely that the issue(s) will arise as a liability/cost for the freehold owner of the site. Further work is urgently needed.