



## **Tier 1 Contamination Assessment**

**Deadman's Hill, Sandon, Hertfordshire**

25163-XPL-501

July 2025

## Revision History

| Rev. | Date     | Purpose | Prepared                                                  | Checked                       | Approved                                                  |
|------|----------|---------|-----------------------------------------------------------|-------------------------------|-----------------------------------------------------------|
| -    | 25.07.25 | -       | M Henderson<br><small>MSc DIC BSc(Hons) FGS CGeol</small> | M King<br><small>MSci</small> | M Henderson<br><small>MSc DIC BSc(Hons) FGS CGeol</small> |

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## Executive Summary

| Details                         | Summary of Main Text                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Introduction                    | This Tier 1 Contamination Risk Assessment report has been prepared for the client, Mr K Reed. The assessment relates to a future residential use, entailing the conversion of an agricultural building and the creation of garden land.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Site description                | The site comprised an agricultural building (former cattle shed and lean-to) surrounding a concrete surfaced yard on two sides.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Site history                    | The site was known as Cobblers Pightle in 1840 tithe records and in use as pasture. The present day building was constructed between 1960 and 1975.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Geology and hydrogeology        | <p>The site is directly overlying the Chalk (undifferentiated Lewes Nodular Chalk Formation and Seaford Chalk Formation). A narrow strip of Clay-with-Flints Formation (clay, silt, sand and gravel) is along the northern edge of the site and may be thin or absent across the site.</p> <p>The Chalk is a Principal aquifer and mostly unconfined at this location. The site is in an SPZ3 and there are no active sensitive abstractions within 2km</p>                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Hydrology                       | The building area is level and capped by existing concrete slabs. Beyond this is a shallow gradient down towards a surface water drain 10m southeast.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Potential contamination sources | <p>Potential sources of contamination have been identified as follows:</p> <ul style="list-style-type: none"> <li>• Construction fills (made ground) from existing building, on site.</li> <li>• Agricultural use (cattle shed and machinery storage), on site.</li> <li>• Cement sheet fragments on the ground surface, on site.</li> <li>• Infilled chalk pit, 210m west off site.</li> <li>• Chalk geology, on and off site.</li> </ul> <p>Potential contaminants include metals, PAHs, hydrocarbons, asbestos, organic vapour and ground gas.</p>                                                                                                                                                                                                                                                                                                                                                  |
| Risk estimation                 | <p>Risks to human health are Very Low to Low.</p> <p>Risks to controlled waters (groundwater and surface waters) are Low.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Recommendations                 | <p>A site maximum risk of Low implies further investigation is not required.</p> <p>However, as new garden land is proposed within the former yard space, which may be underlain by construction fills, it is recommended that the formation be visually inspected following slab removal for evidence of potential contamination. If contamination is suspected, sampling and testing should be undertaken before placing a suitable depth of subsoil/topsoil.</p> <p>Soils imported to site for use as topsoil/subsoil in garden and landscape areas must be suitable for use on a residential development.</p> <p>Visible cement sheet fragments surrounding the buildings (potentially containing asbestos) should be hand-picked and disposed.</p> <p>If, during construction, previously unknown contamination is found or suspected on site then an appropriate scheme of investigation and</p> |

| <i>Details</i> | <i>Summary of Main Text</i>                     |
|----------------|-------------------------------------------------|
|                | course of action should be agreed with the LPA. |

## 1 Introduction

### 1.1 General

This Tier 1 Contamination Risk Assessment report has been prepared by Xplor Environmental Ltd (Xplor) for the client, Mr K Reed.

It is pursuant to condition 2 of the North Hertfordshire District Council planning consent ref. 25/01246/PNQ for "Land On The West Side Of, Gannock Road, Sandon, Hertfordshire, SG9 0RH".

### 1.2 Scope of Work

The terms of reference for the work were set out in the Xplor fee proposal reference 25163-XPL-101 dated 04 June 2025 and was for a Tier 1 contamination assessment.

### 1.3 Technical Approach

The report has been prepared from a desk-based review of published information, historical mapping, an environmental search report, and site walkover.

The process of assessment satisfies the Environment Agency guidance, Land Contamination Risk Management (LCRM, 2023 update) for a Tier 1 contamination risk assessment. Competent persons have been involved in the preparation and checking of the report.

### 1.4 Future Development

The assessment is based on a change in use to residential, entailing the conversion of an agricultural building. New garden land is proposed across part of the former yard space.

## 2 Site Information and Setting

### 2.1 Site Location

The site is located on land west of Deadman's Hill, Sandon, Hertfordshire, SG9 0RH.

The National Grid Reference for the site is 531819 235028. A location plan is presented as Figure 1.

### 2.2 Site Description

A site walkover was undertaken on 17 July 2025 when weather conditions were dry. Figure 2 presents a photographic record from the site walkover.

The site comprised an agricultural building of brick construction with a concrete floor slab. The roof structure had been removed with only external walls remaining. The building was in the form of an L-shape surrounding a concrete surfaced yard on its northern and western sides.

The northern part (former cattle shed) was open to the yard and contained a trailer, a sack of aggregate, coils of steel mesh fencing and two small heaps: one of scrap metal and one of mixed soil and rubble, which may have contained a small quantity of cement sheet. These were located on concrete slabs.

The western part was a lean-to attached to the western walls of the cattle shed and yard. The lean-to was gated and locked. It contained agricultural machinery and a small quantity of scrap wood and metal.

Within the eastern curtilage of the application area, were fragments of cement sheet on the ground. These are potentially asbestos containing.

### 2.3 Surrounding Land Use

The following land uses were outside the application area:

- North: grazing land.
- East: Deadman's Hill highway, beyond which is arable land.
- South: a concrete surfaced yard and the remains of building slabs, beyond which is woodland.
- West: a 10-20m wide strip of bare soil, beyond which is arable land.

### 2.4 Site History

#### 2.4.1 Tithe Records

The tithe record for 1840 named the site as Cobblers Pightle, in use as pasture.

#### 2.4.2 Ordnance Survey Mapping

Historical maps for the site have been reviewed and a summary of findings is presented in Table 2.1. Copies of the maps are presented in Appendix A.

*Georeferencing is based on modern digital mapping and may not match historical mapping, which is from scanned hard copies. This is accounted for in the descriptions below and in section 2.8.*

*Table 2.1 Historical Map Summary*

| Year      | On Site                                              | 0-100m                                                                                                                                                         |
|-----------|------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1877-1883 | The site is open land, probably in agricultural use. | Open land, probably in agricultural use, and scattered woodland.<br><br>Road was 15m east.<br><br>>100m: Chalk Pit was 210m west (later infilled – see below). |
| 1896-1898 | No change.                                           | Chalk 210m west pit not shown, possibly infilled.                                                                                                              |
| 1922-1960 | No change.                                           | Rises were approximately 30m east, inferring ephemeral groundwater.                                                                                            |
| 1975-2010 | Present day buildings were constructed.              | Rises 30m east not shown but Drain indicated 10m southeast.<br><br>Open sided building 10m south.                                                              |
| 2025      | No change.                                           | Building 10m south demolished.                                                                                                                                 |

#### 2.4.3 Aerial Images

Available aerial images were viewed on Google Earth Pro and in the appended Groundsure report.

In 2000, the present day building was shown. Some material storage was on site in 2017-2020.

The off-site building 10m south was present up until 2015 but was demolished by 2017.

## **2.5 Geology**

British Geological Survey (BGS) mapping at 1:50,000 scale indicates a bedrock is of Chalk (undifferentiated Lewes Nodular Chalk Formation and Seaford Chalk Formation) is at the surface across the site.

A narrow strip of Clay-with-Flints Formation (clay, silt, sand and gravel) is indicated along the northern edge of the site and could be thin or absent across this part of the site.

## **2.6 Hydrogeology**

The Chalk is a Principal aquifer and, if present, the Clay-with-Flints Formation is unproductive (a non-aquifer).

The site is within a total catchment Source Protection Zone (SPZ3).

There are no groundwater abstraction record entries or potable abstractions within 2km.

## **2.7 Hydrology**

The building and curtilage areas are level and capped by existing concrete slabs. Beyond this is a shallow gradient down towards a surface water drain 10m southeast.

There are no surface water abstraction record entries within 2km.

## **2.8 Environmental Data Searches**

A Groundsure Enviro Insight report was commissioned for the site and is presented in Appendix B. The following record entries are potentially relevant to the site condition and, except where stated, are generally limited to a maximum search distance of 100m.

### **2.8.1 Past Land Use**

There are no records of past historical industrial use on site or within 100m.

### **2.8.2 Waste and Landfill**

There are no active or closed landfill record entries on site or within 250m.

### **2.8.3 Current Industrial Land Use**

There are no records of current industrial use on site or within 100m.

### **2.8.4 Environmental Designations**

The site is within the Upper Bedford Ouse Chalk WFD groundwater body catchment. The site is not within a WFD surface water body catchment. However, the development is not of a type likely to be affected by the designations.

The site is in a Nitrate Vulnerable Zone (NVZ) for surface water and groundwater. This relates to rules that farmers should follow to tackle nitrate loss and is not applicable to the development.

The site is within a SSSI Risk Impact Zone, however the development is not of a type or size likely to be affected by the designation.

### **2.8.5 Natural Ground Subsidence**

Risks from natural ground hazards are Negligible to Moderate.

The Moderate Risk relates to the potential for ground dissolution of soluble rocks. This will be for the near surface Chalk bedrock and is described as "Soluble rocks are present within the ground. Many dissolution features may be present. Potential for difficult ground conditions are at a level where they should be considered. Potential for subsidence is at a level where it may need to be considered". Importantly, there are no natural cavities identified in the Groundsure report sections 19, Ground cavities and sinkholes.

2.8.6 Mining, Ground Working, Cavities and Sinkholes

A non-coal mining entry exists for the chalk on site and is described as “Underground mine workings are uncommon, although the geology is similar to that worked elsewhere. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered”.

2.8.7 Radon

The site is in an area where less than 1% of homes are affected by radon, for which radon protection is not required.

**2.9 Unexploded Ordnance (UXO)**

Zetica UXO risk maps were accessed online. These show the site is in an area at Low risk from UXO.

### 3 Contaminated Land Risk Assessment

#### 3.1 General

A qualitative risk assessment has been undertaken for the site based on an evaluation of the information collected during the desk study and site reconnaissance.

The process involves the identification of sources of potential contamination based on historical mapping, data searches and a site walkover, together with the identification of associated exposure pathways and human or environmental receptors.

A preliminary conceptual site model (CSM) has been developed and is described below.

#### 3.2 Contamination Sources

The potential sources of contamination that could impact on receptors are identified in Table 3.1.

*Table 3.1 Potential Sources of Contamination*

| Sources                                                                    | Contaminants / comments                                                                                                                                                                                                                                                           |
|----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>On site</b>                                                             |                                                                                                                                                                                                                                                                                   |
| Construction fills (made ground) from existing building and yard slab      | Metals, polycyclic aromatic hydrocarbons (PAHs) and asbestos.                                                                                                                                                                                                                     |
| Agricultural use (cattle shed and machinery store)                         | Metals, hydrocarbons, asbestos and organic vapour.<br>Pesticides are not assessed as the site was a cattle shed.<br>Ammonium, nitrate and pathogens are not assessed as keeping of cattle ceased many years ago and these degradable contaminants are now unlikely to be present. |
| Cement sheet fragments within the curtilage adjacent eastern external wall | Asbestos                                                                                                                                                                                                                                                                          |
| Spoil heap located on the building slab                                    | Metals, PAHs and asbestos.<br>This is not assessed as a source as it is a small heap onto an impermeable surface (concrete slab). It will be removed prior to construction commencing.                                                                                            |
| Chalk geology                                                              | Ground gas (carbon dioxide)                                                                                                                                                                                                                                                       |
| <b>Off site (potentially mobile contaminants)</b>                          |                                                                                                                                                                                                                                                                                   |
| Infilled historical chalk pit, 210m west                                   | Ground gas                                                                                                                                                                                                                                                                        |
| Chalk geology                                                              | Ground gas (carbon dioxide)                                                                                                                                                                                                                                                       |

#### 3.3 Contamination Pathways

Table 3.2 presents a review of potential exposure pathways that could exist at the site.



*Table 3.2 Potential Contamination Pathways*

| <i>Pathways</i>                                                                                                                  | <i>Description</i>                                                                                                                                                          |
|----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Direct contact with soil or groundwater (dermal, ingestion or dust/fibre inhalation), including plant uptake – operational phase | Residents could be exposed to soil contamination in garden land and ground gas/vapour indoors.                                                                              |
| Direct contact with soil or groundwater (dermal, ingestion or dust/fibre inhalation) – construction phase                        | Construction will involve work in the ground.                                                                                                                               |
| Leaching from soil down to groundwater                                                                                           | The geology of Chalk is a permeable soil. Removal of the existing yard slab to create new garden land will increase infiltration, potentially mobilising soil contaminants. |
| Migration in groundwater                                                                                                         | The geology of Chalk is a permeable soil.                                                                                                                                   |
| Migration in surface runoff                                                                                                      | The site is capped by the existing building. External areas are flat but beyond concrete hardstanding to the south the ground slope down towards a drain 10m southeast.     |
| Migration of ground gas and organic vapour                                                                                       | The geology of Chalk is a permeable soil.                                                                                                                                   |
| Contact with new infrastructure and construction                                                                                 | Foundations and underground services are proposed.                                                                                                                          |

### 3.4 Contamination Receptors

Table 3.3 lists the receptors on and off the site that could be affected by contamination during the construction and operational phases of development.

*Table 3.3 Potential Contamination Receptors*

| <i>Receptors</i>                     | <i>Description</i>                                                                                                                                  |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| Future site users                    | Residential.                                                                                                                                        |
| Neighbouring property                | Agricultural land.                                                                                                                                  |
| Construction and maintenance workers | Groundworks and maintenance of underground services.                                                                                                |
| Surface water                        | Drain is 10m southeast.                                                                                                                             |
| Groundwater                          | The Chalk is at the surface across the site and is a Principal aquifer. It is in an SPZ3 and there are no active sensitive abstractions within 2km. |

### 3.5 Risk Evaluation

Based on the sources, pathways and receptors identified above, table 3.4 provides an estimation risks for all potential sources, regardless of whether a pathway is present or not, and identifies the level of risk to receptors from each.

In accordance with the adopted methodology, the estimation of risk reflects both the probability of an event occurring (likelihood) and the potential consequence (magnitude) of possible effects. Risk definitions are provided in Appendix C.

A very low or low overall risk indicates remediation is unlikely to be required for development or will be limited. A moderate to high overall risk indicates further investigation or remediation could be required.

Table 3.4 Risk Estimation

| Sources                                                                                                                                                                                                                                                                                            | Pathway                                                               | Receptor                                  | Probability | Justification                                                                                                                                         | Magnitude | Justification                                                                                                                                           | Overall risk |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|-------------------------------------------|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| <u>On site</u><br>Construction fills (made ground) from existing building and yard slab<br>Agricultural use (cattle shed and machinery storage)<br>Cement sheet fragments on the ground in the east<br>Chalk geology<br><u>Contaminants</u><br>Metals, PAHs, hydrocarbons, asbestos and ground gas | Direct contact with soil (dermal, ingestion or dust/fibre inhalation) | Future site users (residents)             | Likely      | Development is residential with new garden land.                                                                                                      | Mild      | Contaminants unlikely to exceed assessment criteria.                                                                                                    | LOW          |
|                                                                                                                                                                                                                                                                                                    |                                                                       | Construction and maintenance workers      | Low         | Construction will take place within the existing building and yard footprint.                                                                         | Mild      | Contaminants unlikely to exceed assessment criteria. Short term exposure during construction phase.                                                     | LOW          |
|                                                                                                                                                                                                                                                                                                    |                                                                       | Neighbouring property (agricultural land) | Low         | Construction will take place within the existing building and yard footprint.                                                                         | Minor     | Agricultural land is low sensitivity.                                                                                                                   | VERY LOW     |
|                                                                                                                                                                                                                                                                                                    | Soil leaching down to groundwater                                     | Groundwater (Chalk).                      | Likely      | Chalk is permeable. Removal of the existing yard slab to create new garden land will increase infiltration, potentially mobilising soil contaminants. | Mild      | Principal aquifer but in SPZ3. Leachable or mobile contaminants unlikely to exceed assessment criteria.                                                 | LOW          |
|                                                                                                                                                                                                                                                                                                    | Migration in groundwater                                              |                                           | Likely      | Chalk is permeable.                                                                                                                                   | Mild      | Principal aquifer but in SPZ3 and no active sensitive abstractions within 2km. Leachable or mobile contaminants unlikely to exceed assessment criteria. | LOW          |
|                                                                                                                                                                                                                                                                                                    | Surface runoff                                                        | Surface water drain 10m southeast         | Low         | Site is level and runoff will be intercepted by drainage design.                                                                                      | Mild      | Surface water drain is low sensitivity.                                                                                                                 | LOW          |
|                                                                                                                                                                                                                                                                                                    | Migration in groundwater                                              |                                           | Likely      | Chalk is permeable.                                                                                                                                   | Mild      | Surface water drain is low sensitivity.                                                                                                                 | LOW          |
|                                                                                                                                                                                                                                                                                                    | Migration in soil (organic vapour)                                    | Future site users (residents)             | Likely      | Chalk is permeable.                                                                                                                                   | Mild      | Source of volatile substances not anticipated on site.                                                                                                  | LOW          |
|                                                                                                                                                                                                                                                                                                    | Migration in soil (ground gas)                                        | Future site users (residents)             | Likely      | Chalk is permeable.                                                                                                                                   | Minor     | Chalk is a naturally occurring source of carbon dioxide ground gas. However, concentrations are unlikely to exceed assessment criteria.                 | LOW          |
| <u>Off site</u><br>Infilled chalk pit, 210m west<br>Chalk geology                                                                                                                                                                                                                                  | Migration in soil (organic vapour and free phase fluids)              | Future site users (residents)             | Likely      | Chalk is permeable.                                                                                                                                   | Minor     | Source of volatile substances not anticipated off-site.                                                                                                 | LOW          |
|                                                                                                                                                                                                                                                                                                    | Migration in soil (ground gas)                                        | Future site users (residents)             | Likely      | Chalk is permeable.                                                                                                                                   | Mild      | Historical mapping indicates chalk pit was infilled by 1896. Pit was relatively                                                                         | LOW          |

| Sources                                                  | Pathway | Receptor | Probability | Justification | Magnitude | Justification                                                                                                                                                                                                                                    | Overall risk |
|----------------------------------------------------------|---------|----------|-------------|---------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| <p>Potentially mobile contaminants</p> <p>Ground gas</p> |         |          |             |               |           | <p>small and infill material c.130 years old. Gas emissions are unlikely to exceed assessment criteria.</p> <p>Chalk is a naturally occurring source of carbon dioxide ground gas. Gas emissions are unlikely to exceed assessment criteria.</p> |              |

## 4 Conclusions

The site comprised an agricultural building (former cattle shed and lean-to) surrounding a concrete surfaced yard on two sides.

The site was known as Cobblers Pightle in the 1840 tithe records and in use as pasture. The present day building was constructed between 1960 and 1975.

The site is directly overlying the Chalk (undifferentiated Lewes Nodular Chalk Formation and Seaford Chalk Formation). A narrow strip of Clay-with-Flints Formation (clay, silt, sand and gravel) is indicated along the northern edge of the site and may be thin or absent across this part of the site.

The Chalk is a Principal aquifer and mostly unconfined at this location. The site is in an SPZ3 and there are no active sensitive abstractions within 2km

The building and curtilage areas are level and capped by existing concrete slabs. Beyond this, there is a shallow gradient down towards a surface water drain 10m southeast.

Potential sources of contamination have been identified as follows:

- Construction fills (made ground) from existing building, on site.
- Agricultural use (cattle shed and machinery storage), on site.
- Cement sheet fragments on the ground surface, on site.
- Infilled chalk pit, 210m west off site.
- Chalk geology, on and off site.

Potential contaminants include metals, PAHs, hydrocarbons, asbestos, organic vapour and ground gas.

Risks to human health are Very Low to Low. Risks to controlled waters (groundwater and surface water) are Low.

## 5 Recommendations

A site maximum risk of Low implies further investigation is not required.

However, as new garden land is proposed within the former yard space, which may be underlain by construction fills, it is recommended that the formation be visually inspected following slab removal for evidence of potential contamination. If contamination is suspected, sampling and testing should be undertaken before placing a suitable depth of subsoil/topsoil.

Soils imported to site for use as topsoil/subsoil in garden and landscape areas must be suitable for use on a residential development.

Visible cement sheet fragments surrounding the buildings (potentially containing asbestos) should be hand-picked and disposed. The small heap of spoil laid on the yard slab should also be removed and disposed.

If, during construction, previously unknown contamination is found or suspected on site then an appropriate scheme of investigation and course of action should be agreed with the LPA.

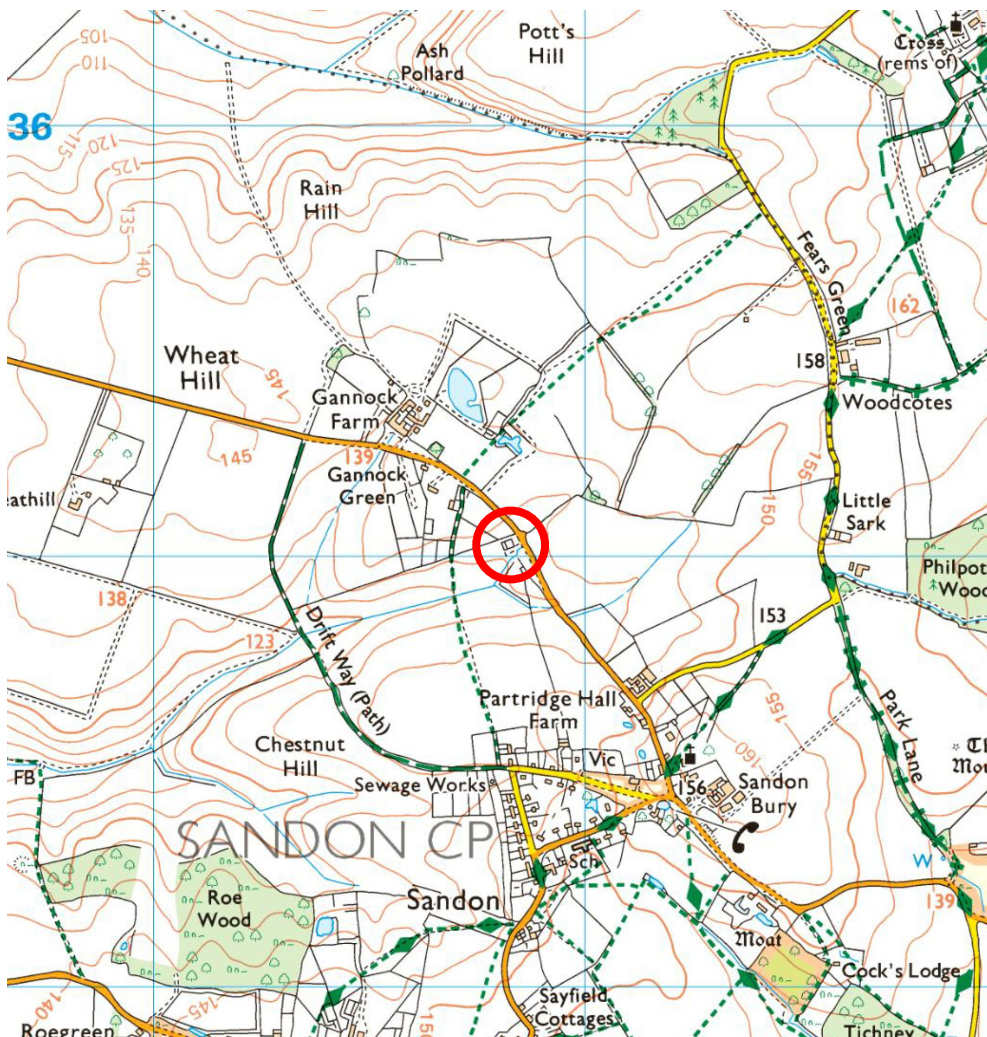
The report offers no guidance or advice on asbestos in any existing building construction on site. The client should seek their own advice or surveys before undertaking activities that could disturb asbestos containing materials.

## Figures

Figure 1 – Location Plan

Figure 2 – Site Walkover

Figure 3 – Tithe Records 1840







VIEW NORTH TOWARDS BUILDING – LEAN-TO (LEFT) & FORMER CATTLE SHED (RIGHT)

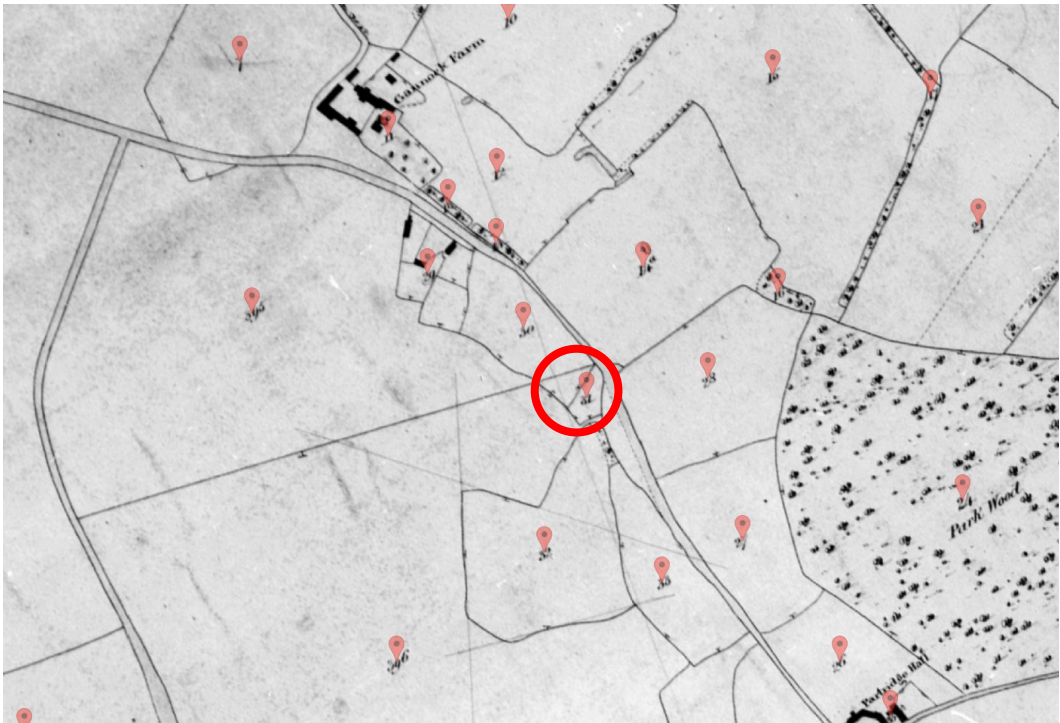


SPOIL HEAP ON CATTLE SHED FLOOR SLAB



CEMENT SHEET FRAGMENTS INSIDE EASTERN CURTILAGE

|                                                                                     |                     |                                   |                        |                    |                |                         |
|-------------------------------------------------------------------------------------|---------------------|-----------------------------------|------------------------|--------------------|----------------|-------------------------|
|  | CLIENT<br>MR K REED | PROJECT<br>DEADMAN'S HILL, SANDON | TITLE<br>SITE WALKOVER | SCALE: NTS         | JOB NR.: 25163 | DATE: 23.07.25          |
|                                                                                     |                     |                                   |                        | PREPARED BY:<br>MH | REVISION: -    | DRAWING NR.<br>FIGURE 2 |



|    |                  |         |
|----|------------------|---------|
| 28 | Triggs           | d.      |
| 31 | lobblers Pightle | plashue |
| 32 | Burlins          | hable   |
| 33 |                  |         |

|  |           |                        |                    |                    |                |                         |
|--|-----------|------------------------|--------------------|--------------------|----------------|-------------------------|
|  | CLIENT    | PROJECT                | TITLE              | SCALE: NTS         | JOB NR.: 25163 | DATE: 24.07.25          |
|  | MR K REED | DEADMAN'S HILL, SANDON | TITHE RECORDS 1840 | PREPARED BY:<br>MH | REVISION: -    | DRAWING NR.<br>FIGURE 4 |

## **Appendix A – Historical Maps**



#### Site Details:

GANNOCK ROAD, SANDON,  
HERTFORDSHIRE, SG9 0RH

**Client Ref:** 25163 Sandon  
**Report Ref:** GS-4XG-5YP-H7A-R2L  
**Grid Ref:** 531819, 235027

**Map Name:** County Series

**Map date:** 1877

**Scale:** 1:2,500

**Printed at:** 1:2,500



Surveyed 1877  
Revised 1877  
Edition N/A  
Copyright N/A  
Levelled N/A

Surveyed 1877  
Revised 1877  
Edition N/A  
Copyright N/A  
Levelled N/A

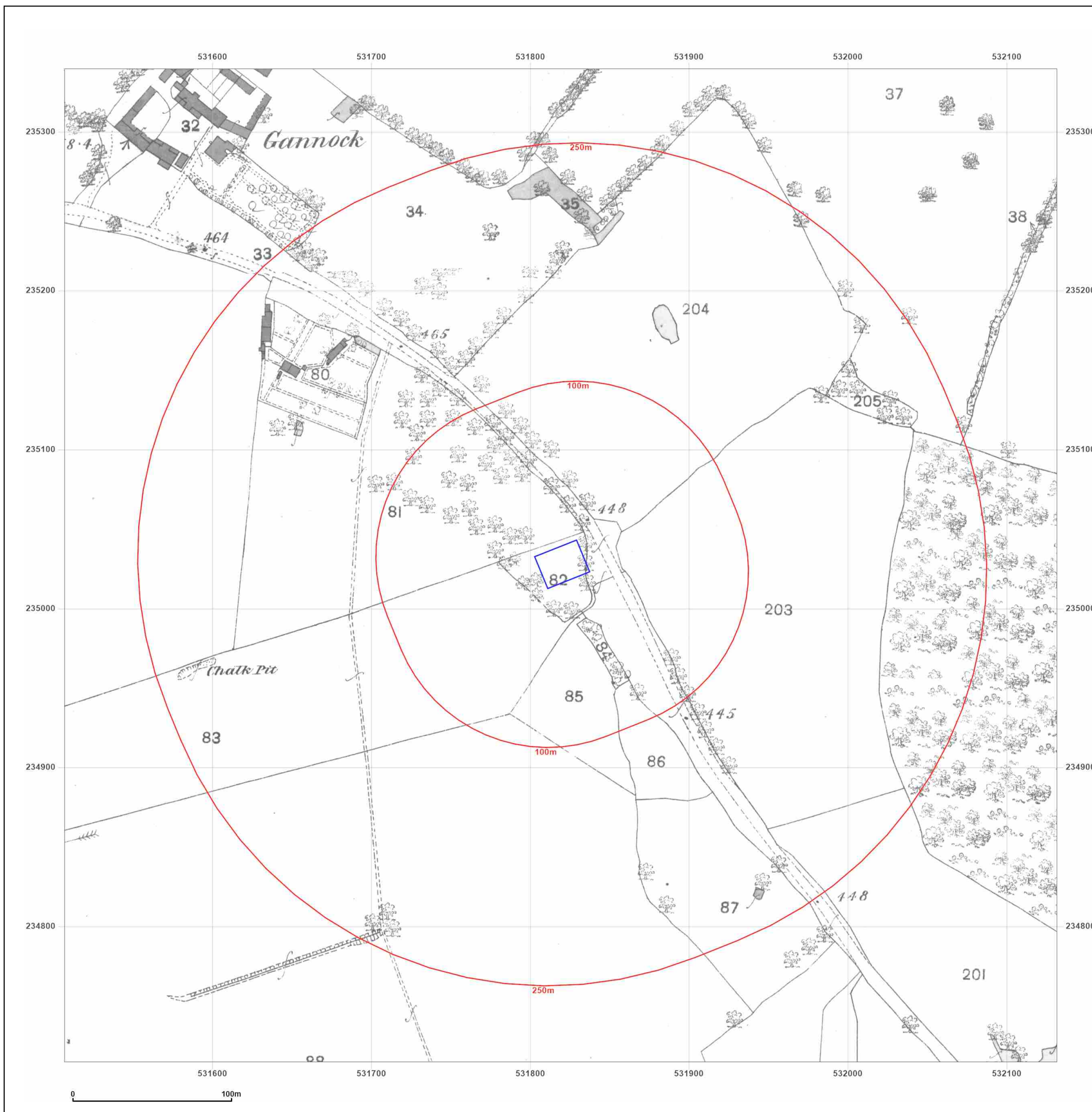


Produced by  
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W: [www.groundsure.com](http://www.groundsure.com)

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 14 July 2025

Map legend available at:  
[www.groundsure.com/sites/default/files/groundsure\\_legend.pdf](http://www.groundsure.com/sites/default/files/groundsure_legend.pdf)



**Site Details:**

GANNOCK ROAD, SANDON,  
HERTFORDSHIRE, SG9 0RH

**Client Ref:** 25163 Sandon  
**Report Ref:** GS-4XG-5YP-H7A-R2L  
**Grid Ref:** 531819, 235027

**Map Name:** County Series

**Map date:** 1898

**Scale:** 1:2,500

**Printed at:** 1:2,500



Surveyed 1898  
Revised 1898  
Edition N/A  
Copyright N/A  
Levelled N/A

Surveyed 1898  
Revised 1898  
Edition N/A  
Copyright N/A  
Levelled N/A

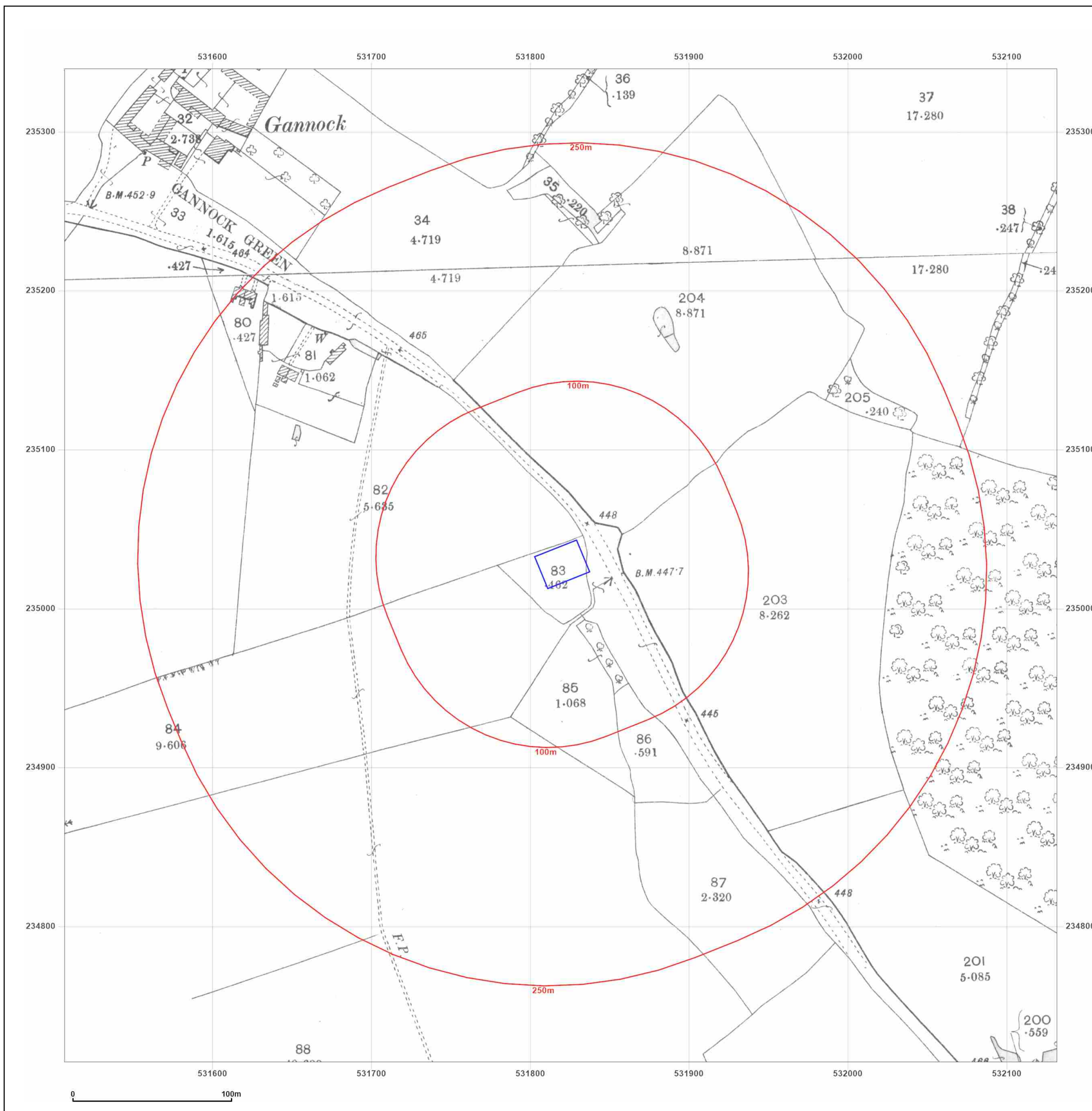


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#### Site Details:

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HERTFORDSHIRE, SG9 0RH

**Client Ref:** 25163 Sandon  
**Report Ref:** GS-4XG-5YP-H7A-R2L  
**Grid Ref:** 531819, 235027

**Map Name:** County Series

**Map date:** 1923

**Scale:** 1:2,500

**Printed at:** 1:2,500



Surveyed 1923  
Revised 1923  
Edition N/A  
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Surveyed 1923  
Revised 1923  
Edition N/A  
Copyright N/A  
Levelled N/A

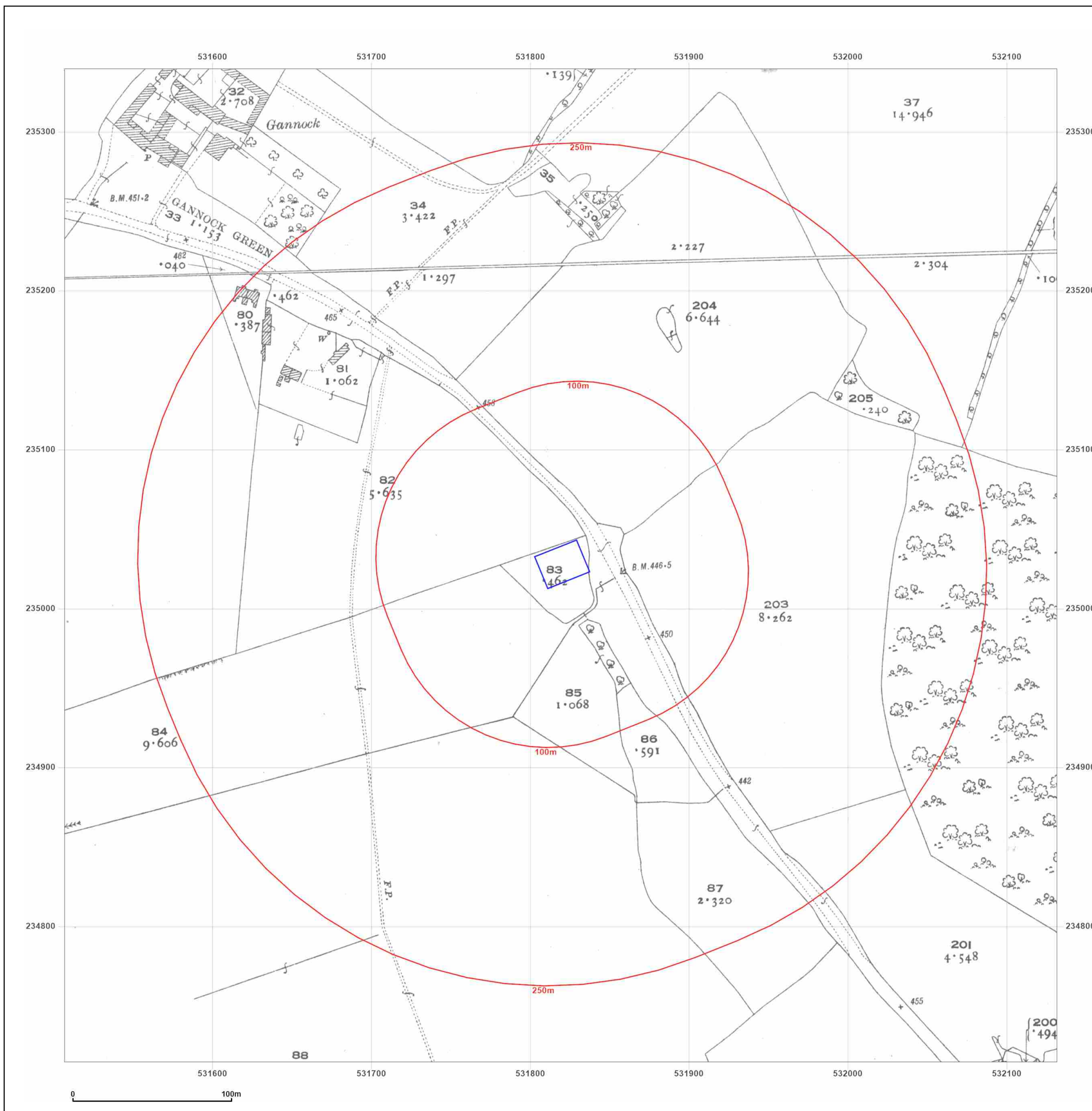


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**Client Ref:** 25163 Sandon  
**Report Ref:** GS-4XG-5YP-H7A-R2L  
**Grid Ref:** 531819, 235027

**Map Name:** National Grid

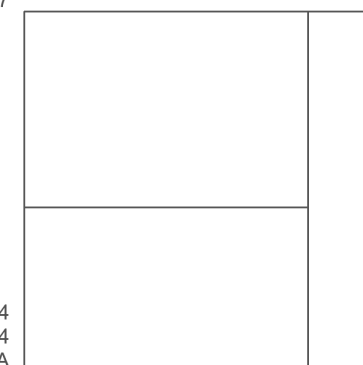
**Map date:** 1975

**Scale:** 1:2,500

**Printed at:** 1:2,500



Surveyed 1974  
Revised 1974  
Edition N/A  
Copyright 1975  
Levelled 1967



Surveyed 1974  
Revised 1974  
Edition N/A  
Copyright 1975  
Levelled 1968

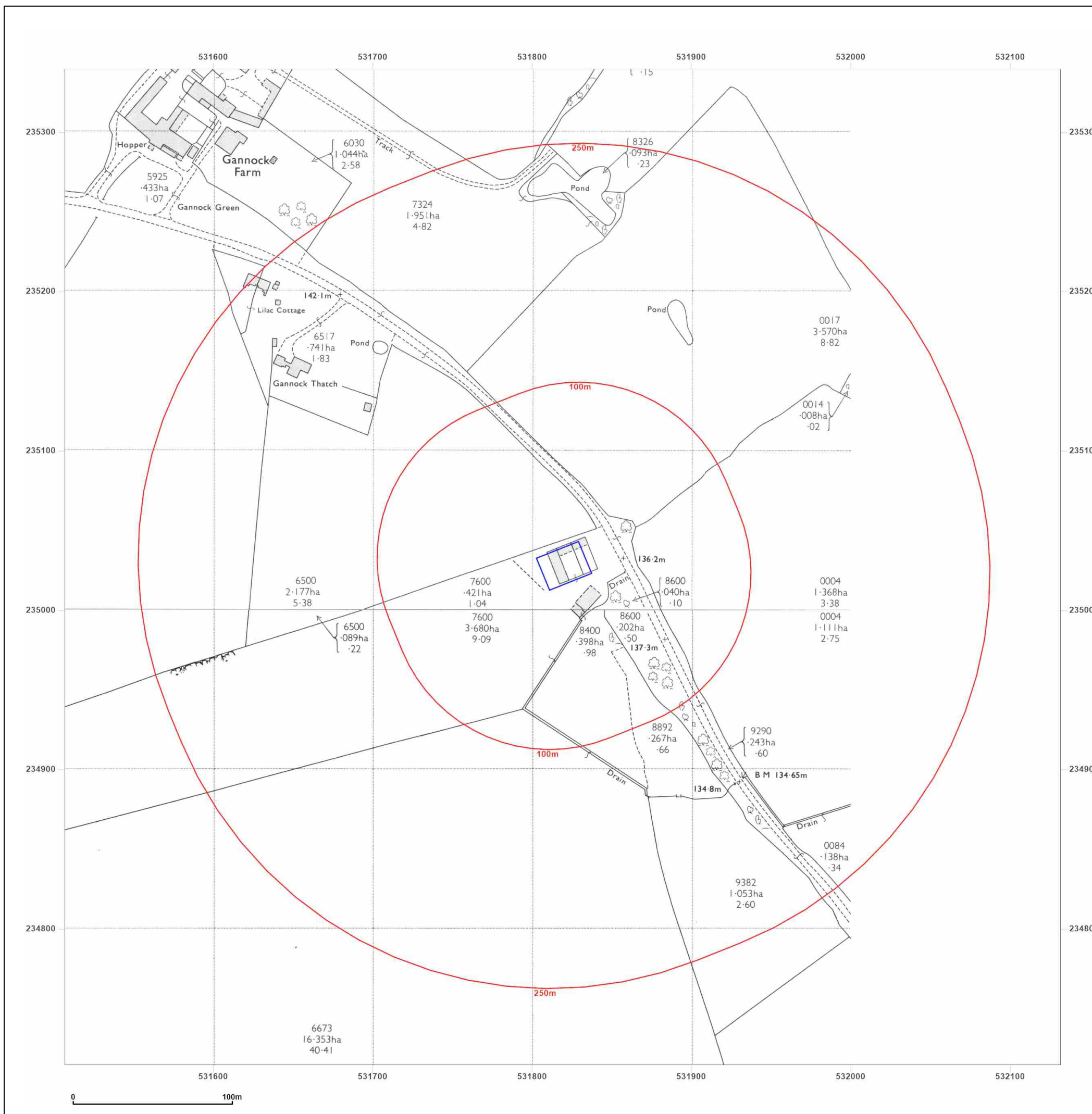


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**Site Details:**

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HERTFORDSHIRE, SG9 0RH

**Client Ref:** 25163 Sandon  
**Report Ref:** GS-4XG-5YP-H7A-R2L  
**Grid Ref:** 531819, 235027

**Map Name:** National Grid

**Map date:** 1993

**Scale:** 1:2,500

**Printed at:** 1:2,500



Surveyed N/A  
Revised N/A  
Edition N/A  
Copyright 1993  
Levelled N/A

Surveyed 1993  
Revised N/A  
Edition N/A  
Copyright 1993  
Levelled N/A

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Revised N/A  
Edition N/A  
Copyright 1993  
Levelled N/A

Surveyed 1993  
Revised N/A  
Edition N/A  
Copyright 1993  
Levelled N/A

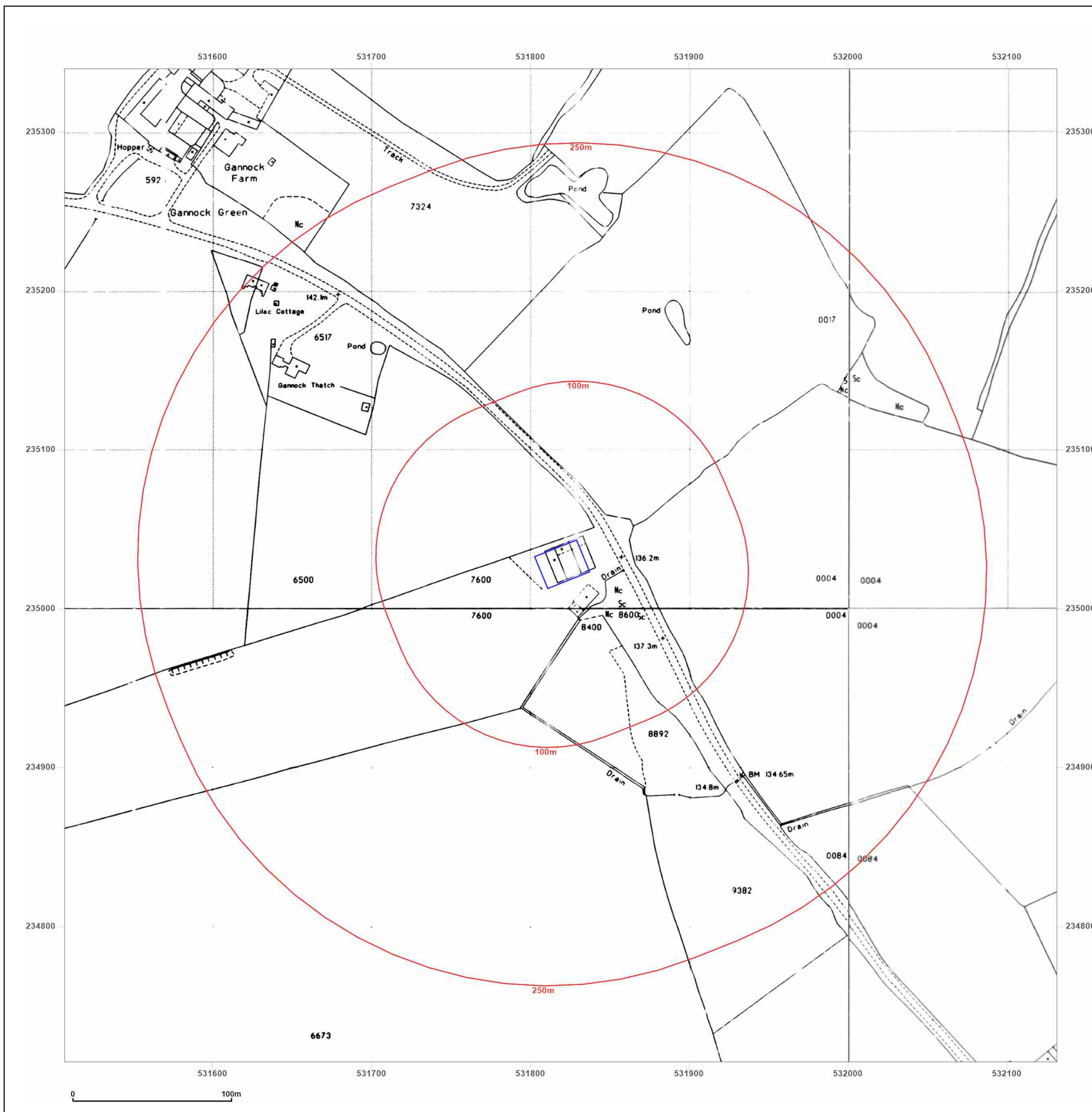


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**Site Details:**

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HERTFORDSHIRE, SG9 0RH

**Client Ref:** 25163 Sandon  
**Report Ref:** GS-4XG-5YP-H7A-R2L  
**Grid Ref:** 531819, 235027

**Map Name:** County Series

**Map date:** 1883

**Scale:** 1:10,560

**Printed at:** 1:10,560



Surveyed 1877  
Revised N/A  
Edition 1883  
Copyright N/A  
Levelled N/A

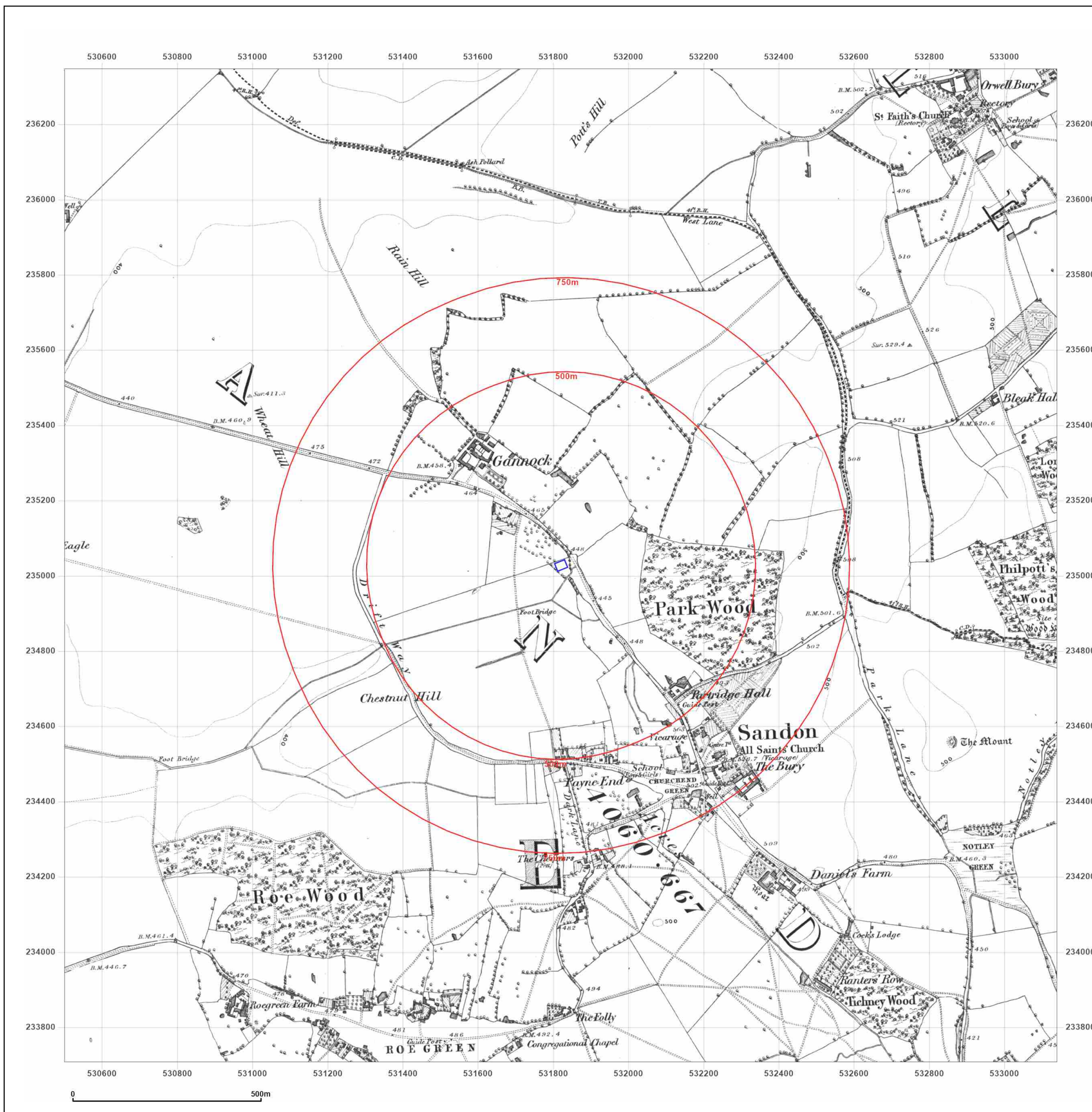


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**Client Ref:** 25163 Sandon  
**Report Ref:** GS-4XG-5YP-H7A-R2L  
**Grid Ref:** 531819, 235027

**Map Name:** County Series

**Map date:** 1896

**Scale:** 1:10,560

**Printed at:** 1:10,560



Surveyed 1877  
Revised 1896  
Edition N/A  
Copyright N/A  
Levelled N/A

Surveyed 1877  
Revised 1896  
Edition N/A  
Copyright N/A  
Levelled N/A

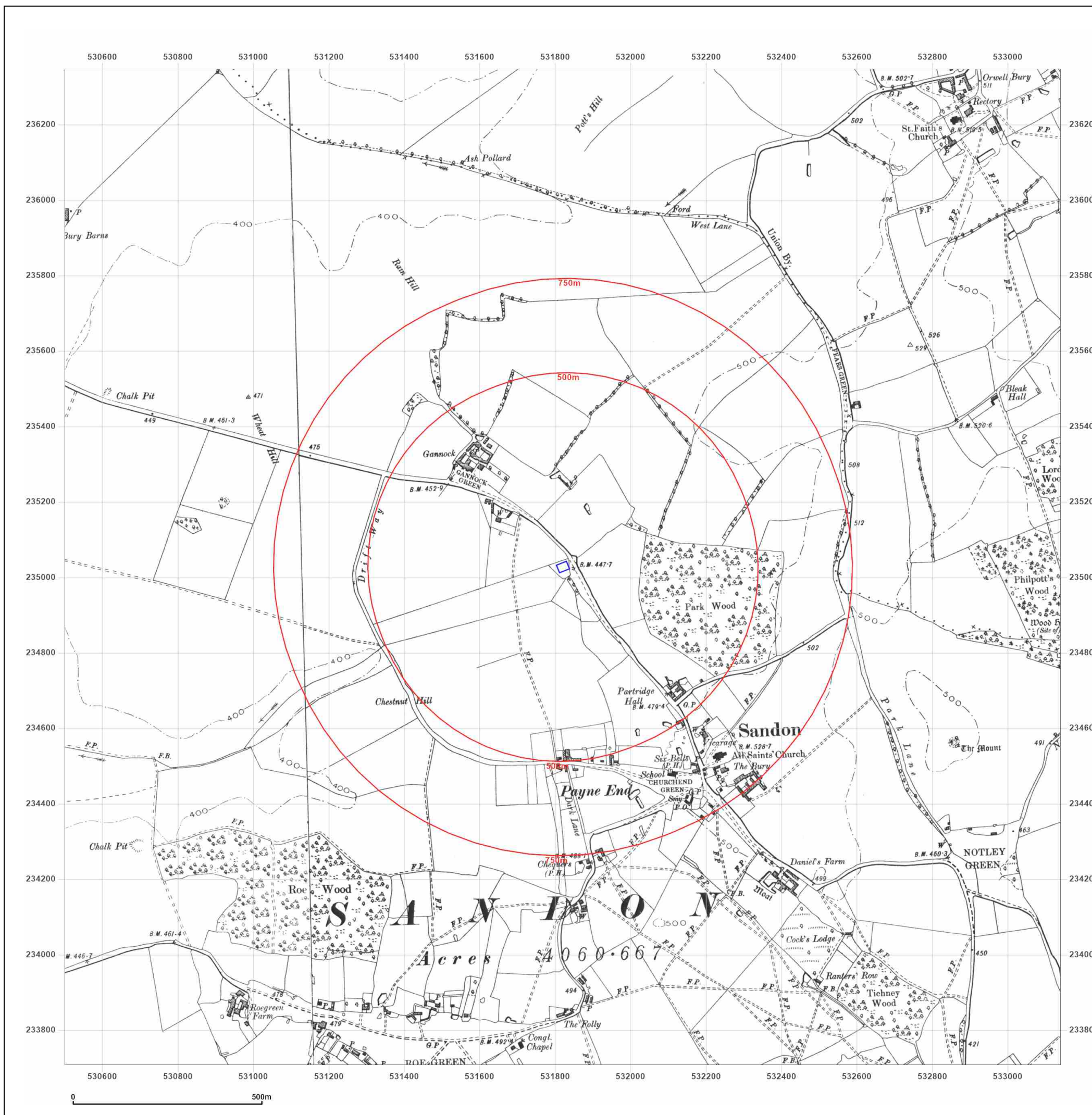


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**Site Details:**

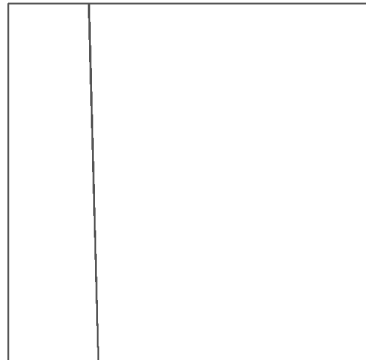
GANNOCK ROAD, SANDON,  
HERTFORDSHIRE, SG9 0RH

**Client Ref:** 25163 Sandon  
**Report Ref:** GS-4XG-5YP-H7A-R2L  
**Grid Ref:** 531819, 235027

**Map Name:** County Series  
**Map date:** 1922  
**Scale:** 1:10,560  
**Printed at:** 1:10,560



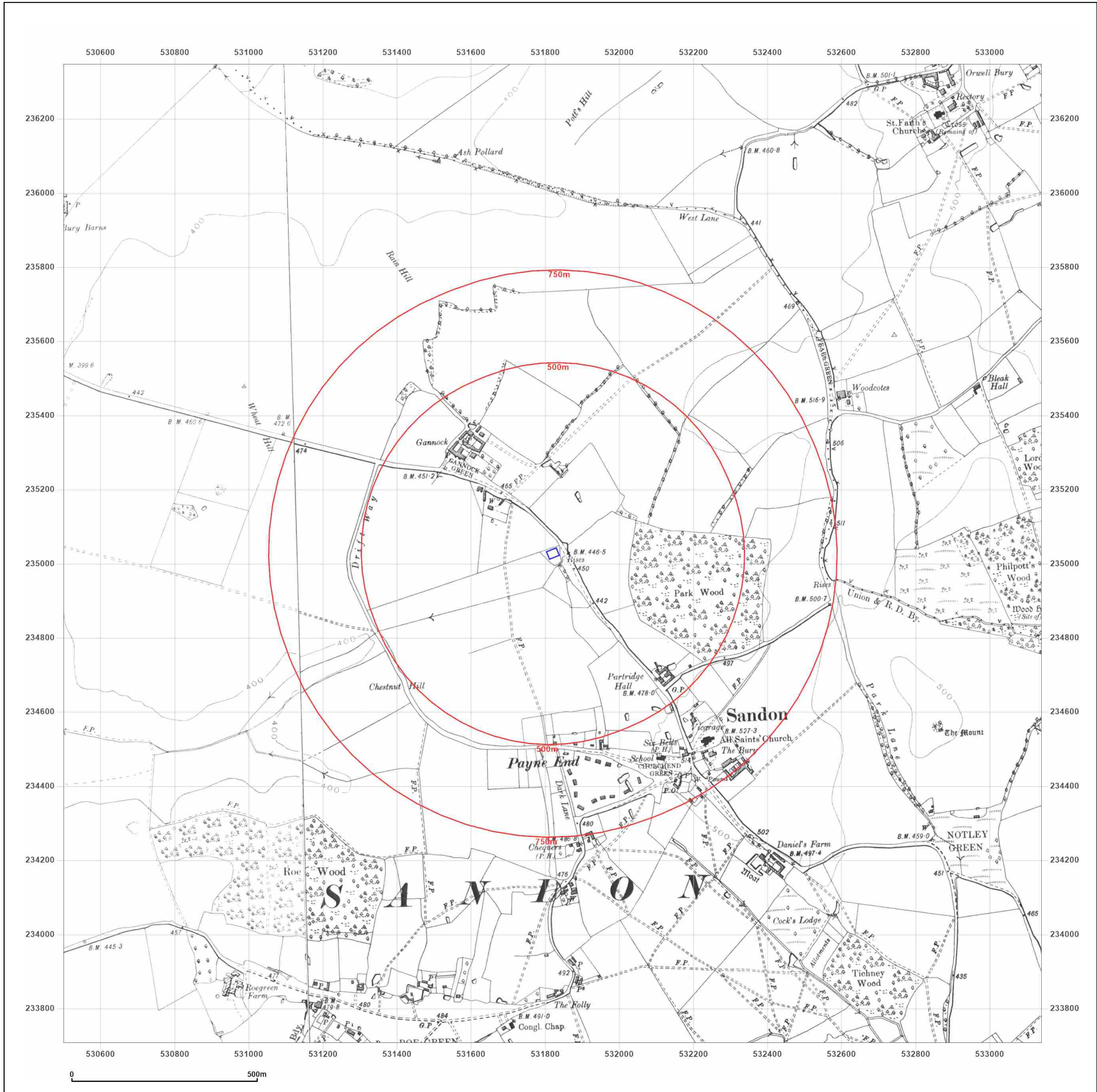
Surveyed 1877  
Revised 1922  
Edition N/A  
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Levelled N/A



Surveyed 1876  
Revised 1922  
Edition N/A  
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**Client Ref:** 25163 Sandon  
**Report Ref:** GS-4XG-5YP-H7A-R2L  
**Grid Ref:** 531819, 235027

**Map Name:** County Series

**Map date:** 1922

**Scale:** 1:10,560

**Printed at:** 1:10,560



Surveyed 1877  
Revised 1922  
Edition N/A  
Copyright N/A  
Levelled N/A

Surveyed 1876  
Revised 1922  
Edition N/A  
Copyright N/A  
Levelled N/A

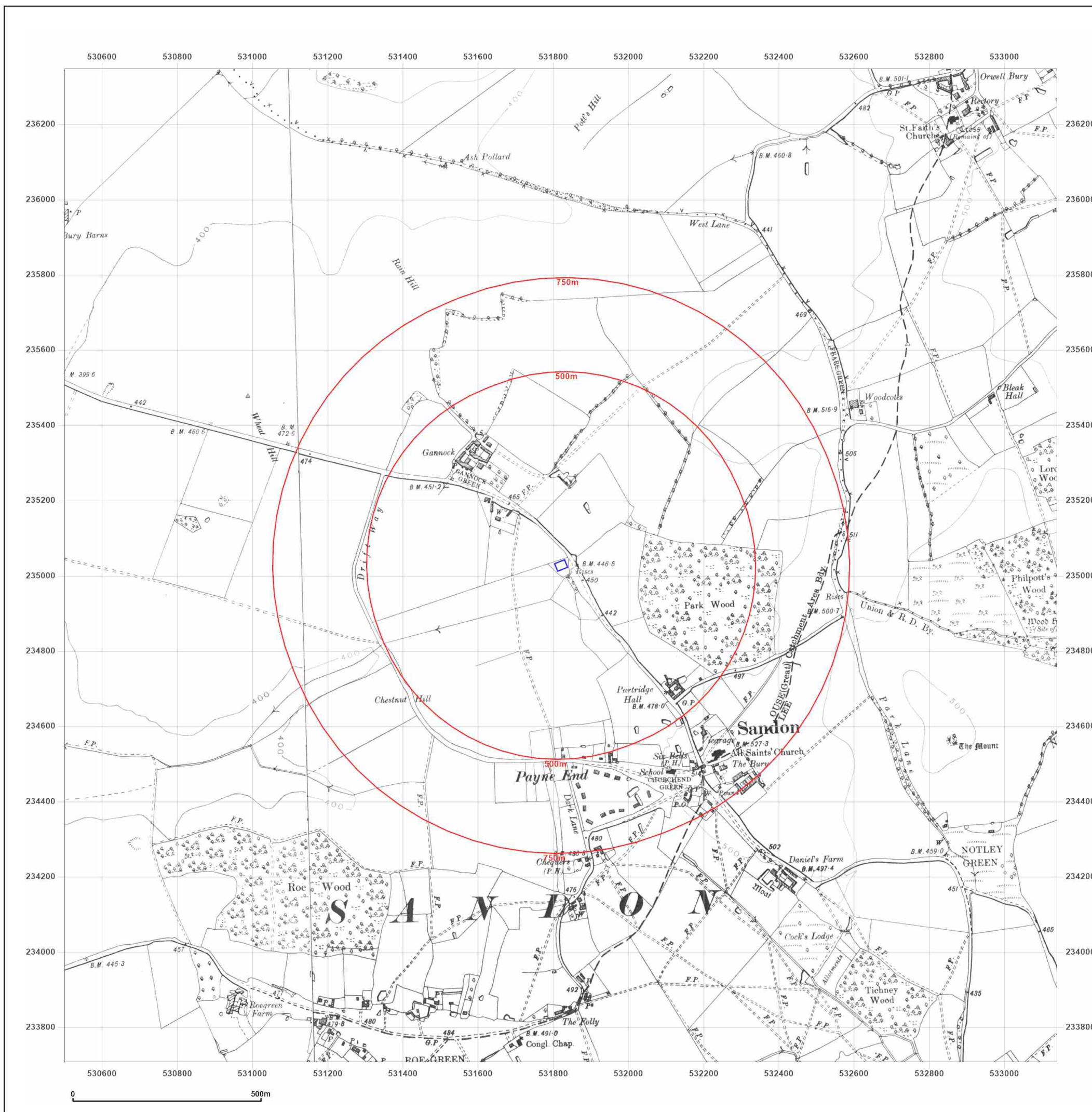


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**Site Details:**

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HERTFORDSHIRE, SG9 0RH

**Client Ref:** 25163 Sandon  
**Report Ref:** GS-4XG-5YP-H7A-R2L  
**Grid Ref:** 531819, 235027

**Map Name:** County Series

**Map date:** 1947

**Scale:** 1:10,560

**Printed at:** 1:10,560



Surveyed 1877  
Revised 1947  
Edition N/A  
Copyright N/A  
Levelled 1922

Surveyed 1876  
Revised 1947  
Edition N/A  
Copyright N/A  
Levelled N/A

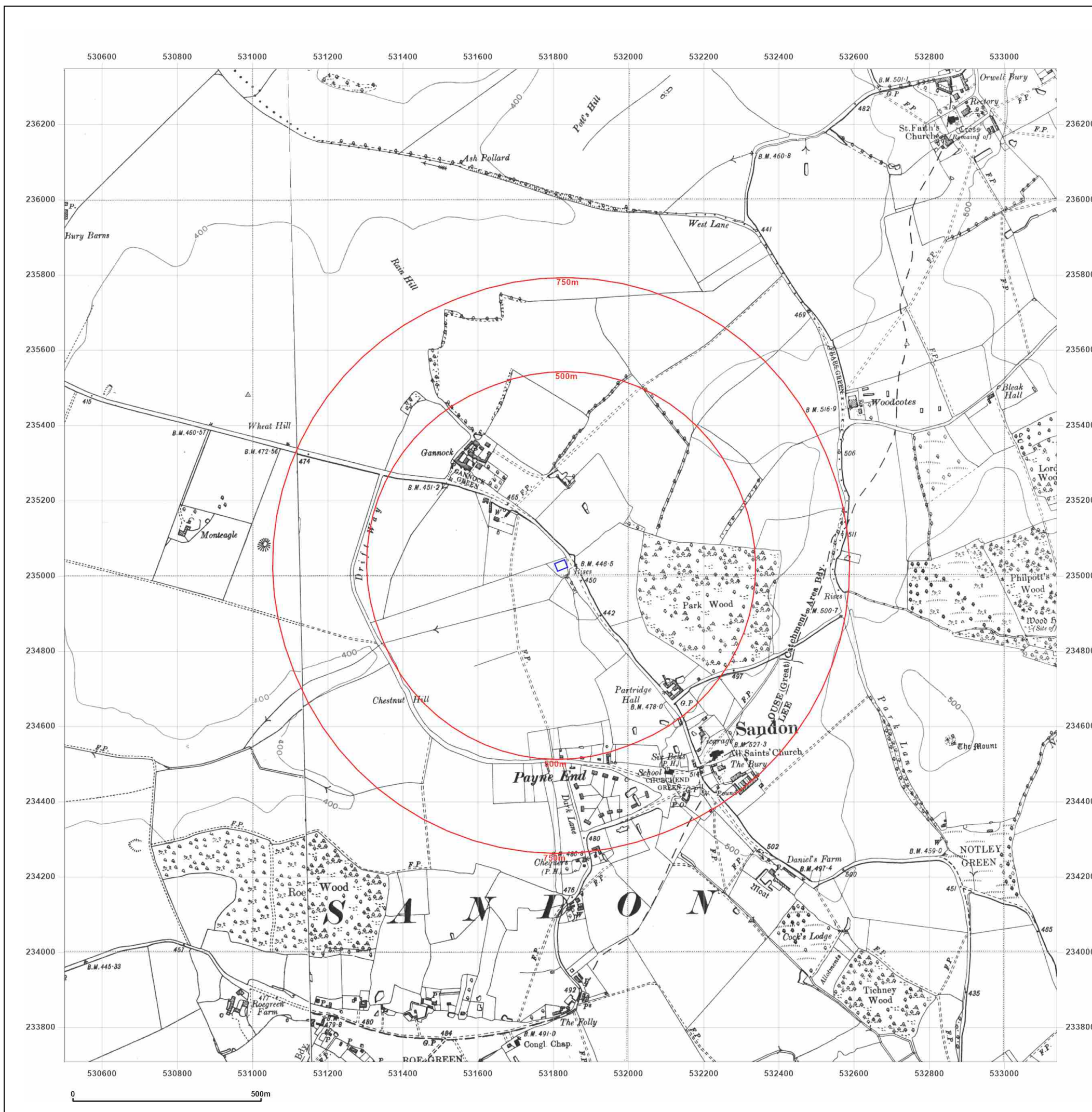


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Site Details:

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HERTFORDSHIRE, SG9 0RH

Client Ref:

25163 Sandon

Report Ref:

GS-4XG-5YP-H7A-R2L

Grid Ref:

531819, 235027

Map Name:

Provisional

Map date:

1960

Scale:

1:10,560

Printed at:

1:10,560

N

W

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Surveyed 1953  
Revised 1953  
Edition N/A  
Copyright 1960  
Levelled N/A

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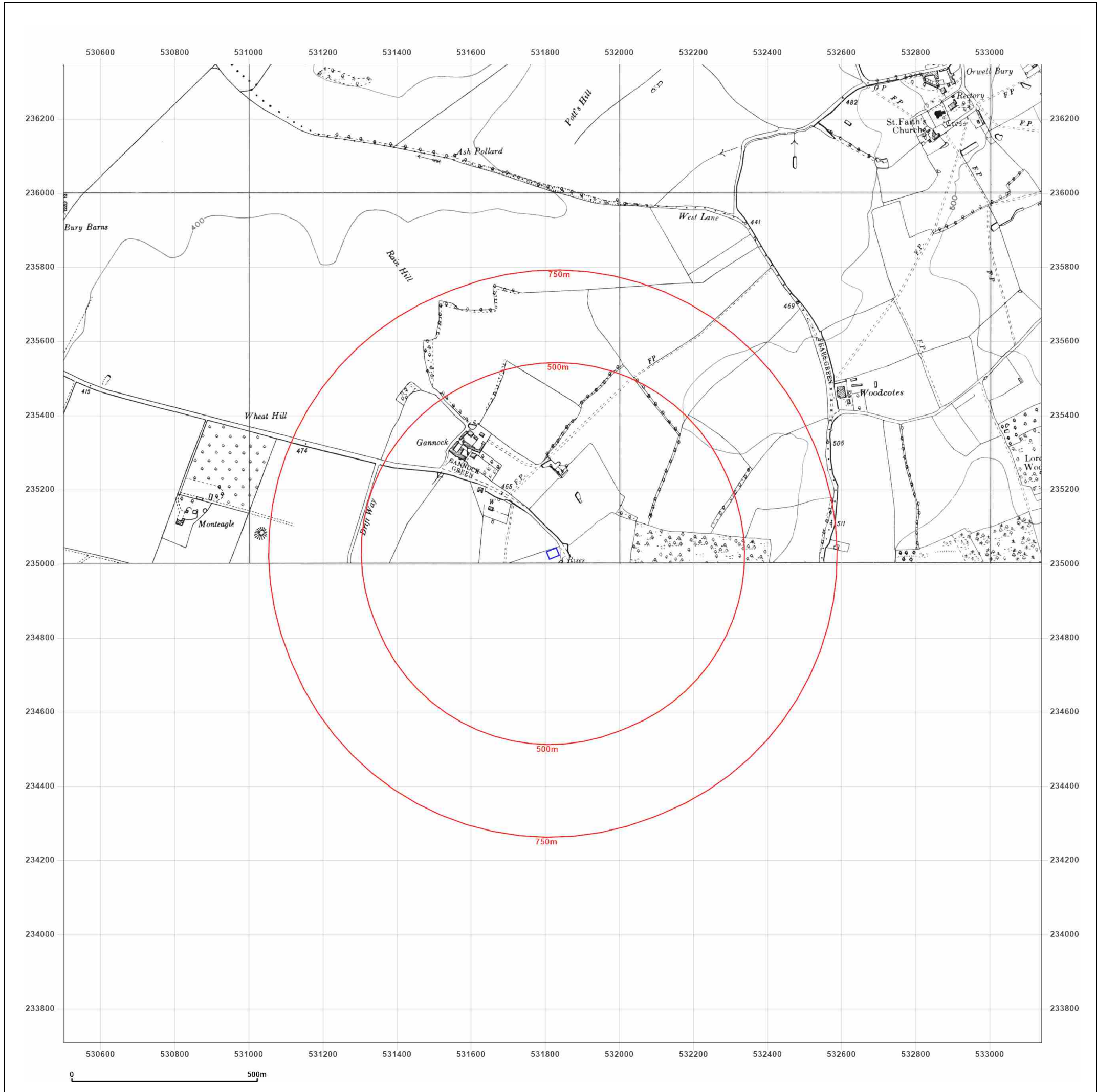
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**Client Ref:** 25163 Sandon  
**Report Ref:** GS-4XG-5YP-H7A-R2L  
**Grid Ref:** 531819, 235027

**Map Name:** National Grid

**Map date:** 1981-1982

**Scale:** 1:10,000

**Printed at:** 1:10,000



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Edition N/A  
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Levelled N/A

Surveyed 1975  
Revised 1981  
Edition N/A  
Copyright N/A  
Levelled N/A

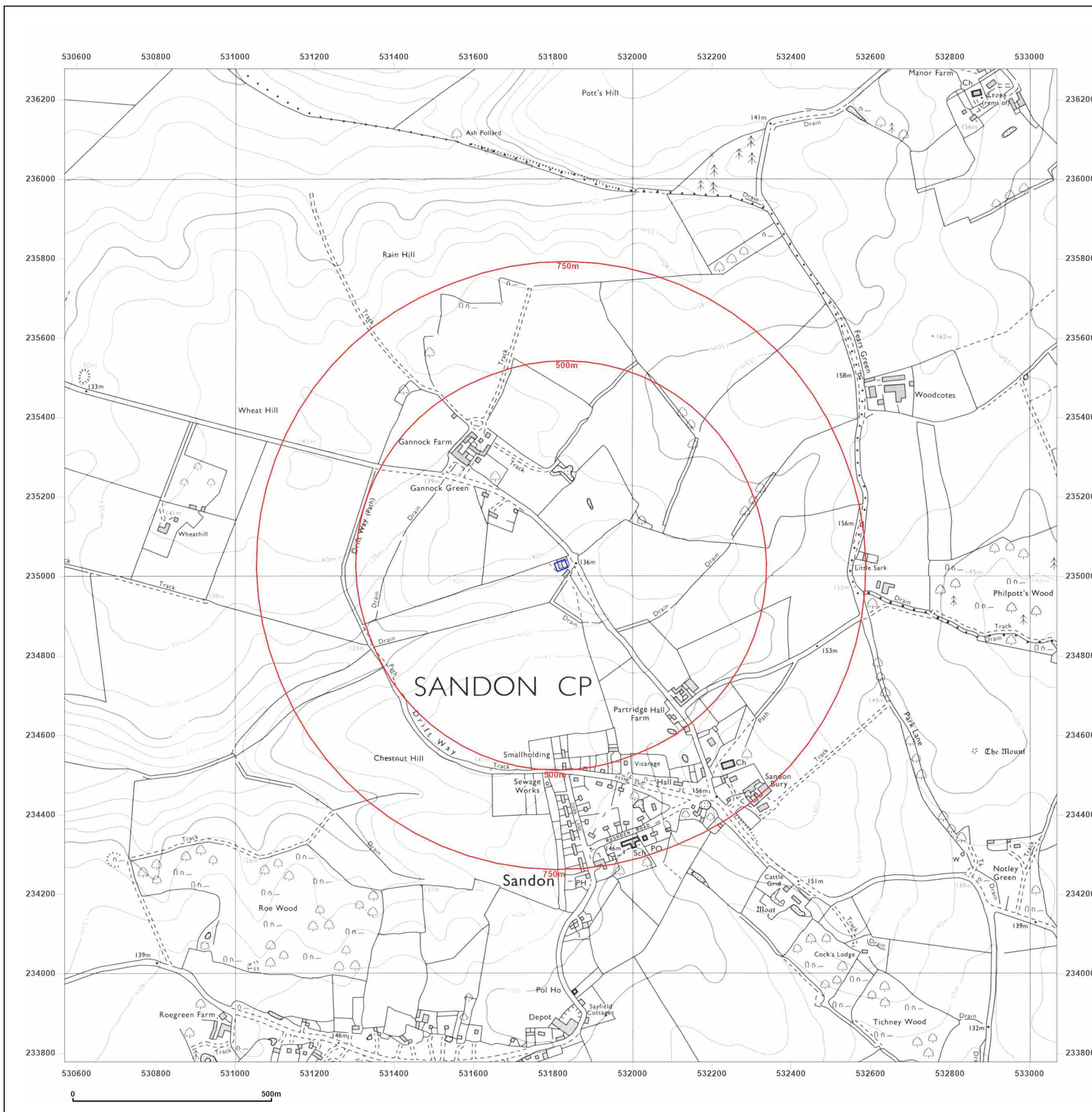


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**Site Details:**

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HERTFORDSHIRE, SG9 0RH

**Client Ref:** 25163 Sandon  
**Report Ref:** GS-4XG-5YP-H7A-R2L  
**Grid Ref:** 531819, 235027

**Map Name:** National Grid

**Map date:** 2001

**Scale:** 1:10,000

**Printed at:** 1:10,000



2001

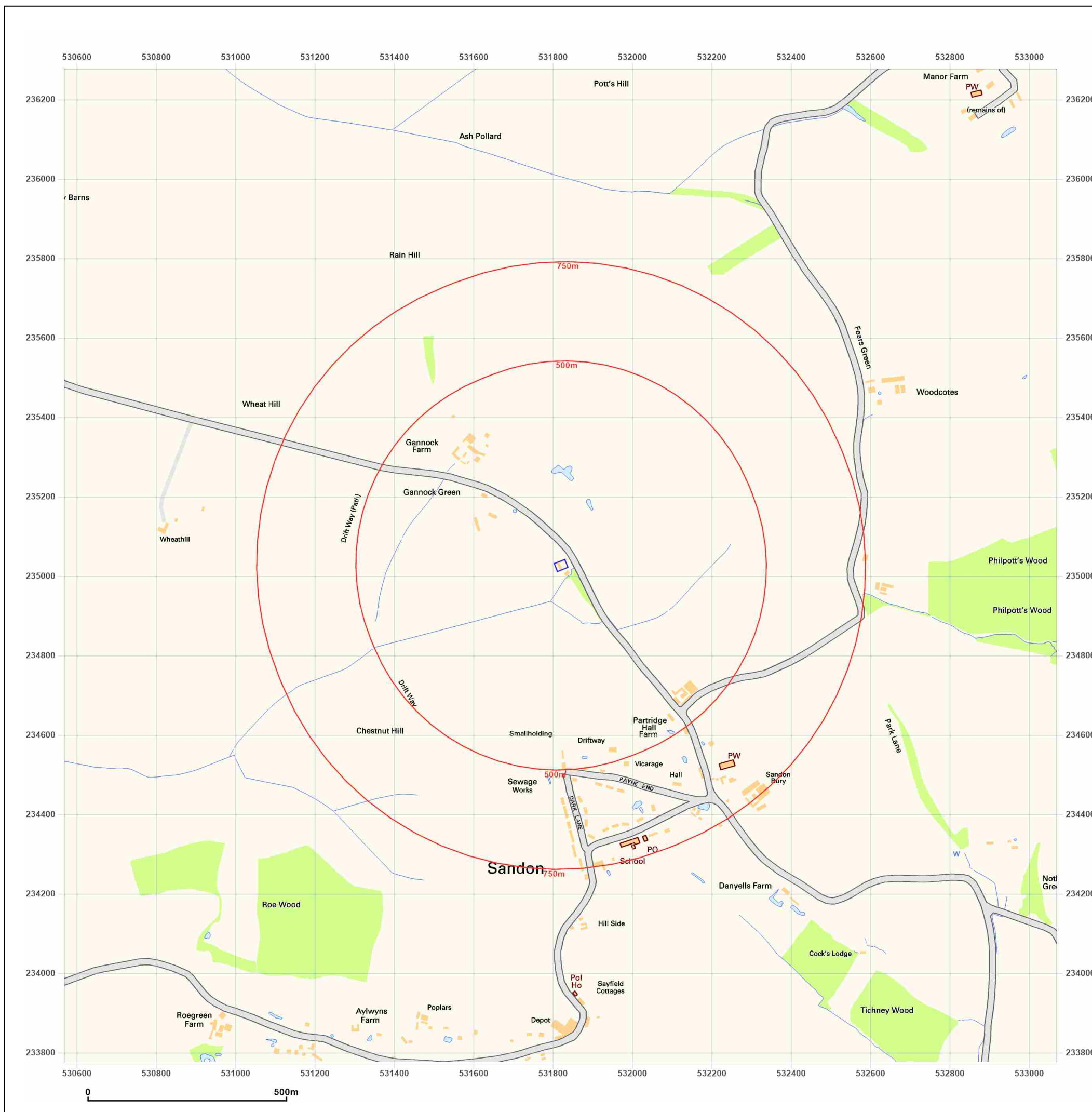


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**Site Details:**

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HERTFORDSHIRE, SG9 0RH

**Client Ref:** 25163 Sandon  
**Report Ref:** GS-4XG-5YP-H7A-R2L  
**Grid Ref:** 531819, 235027

**Map Name:** National Grid

**Map date:** 2010

**Scale:** 1:10,000

**Printed at:** 1:10,000



2010

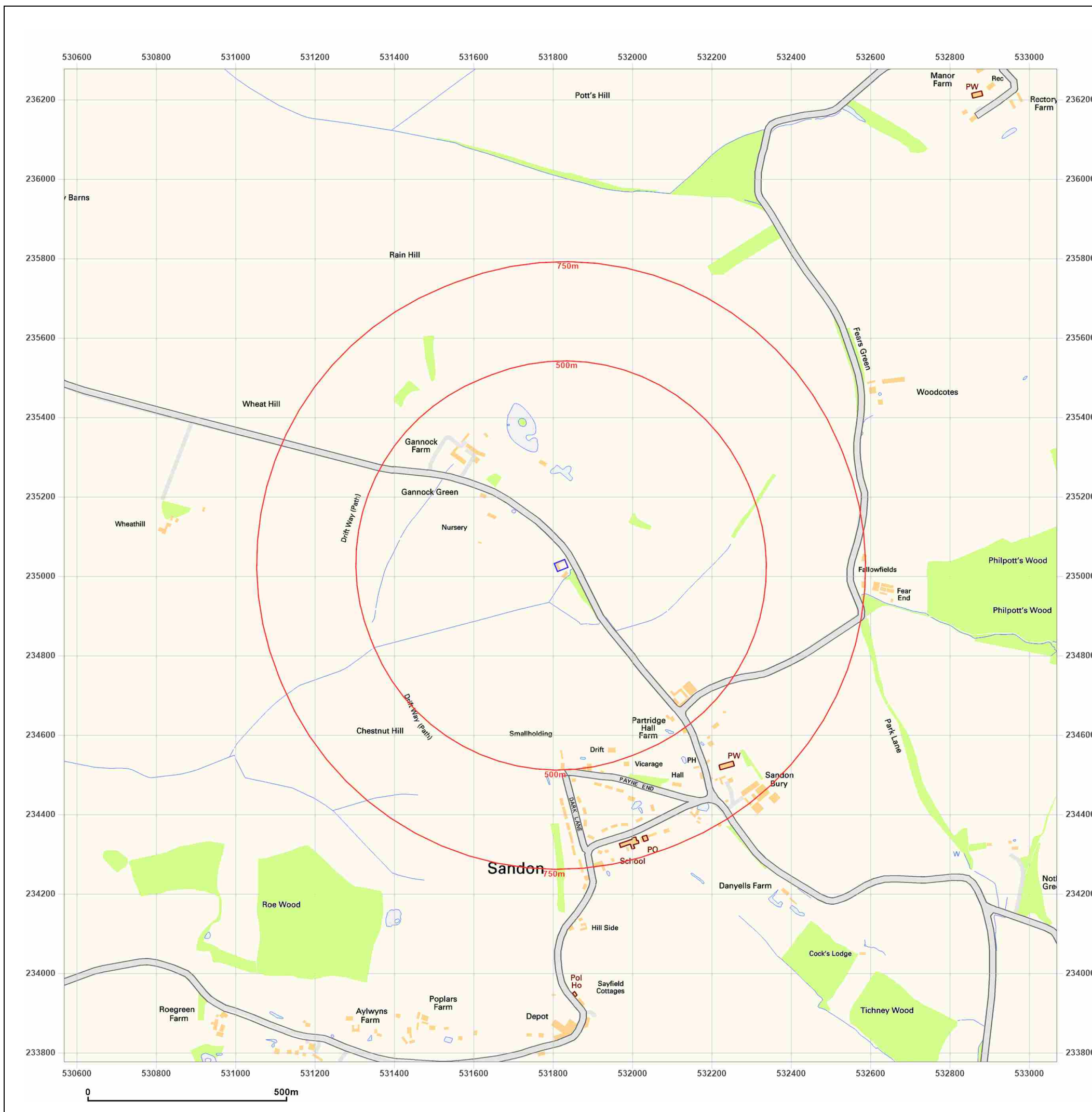


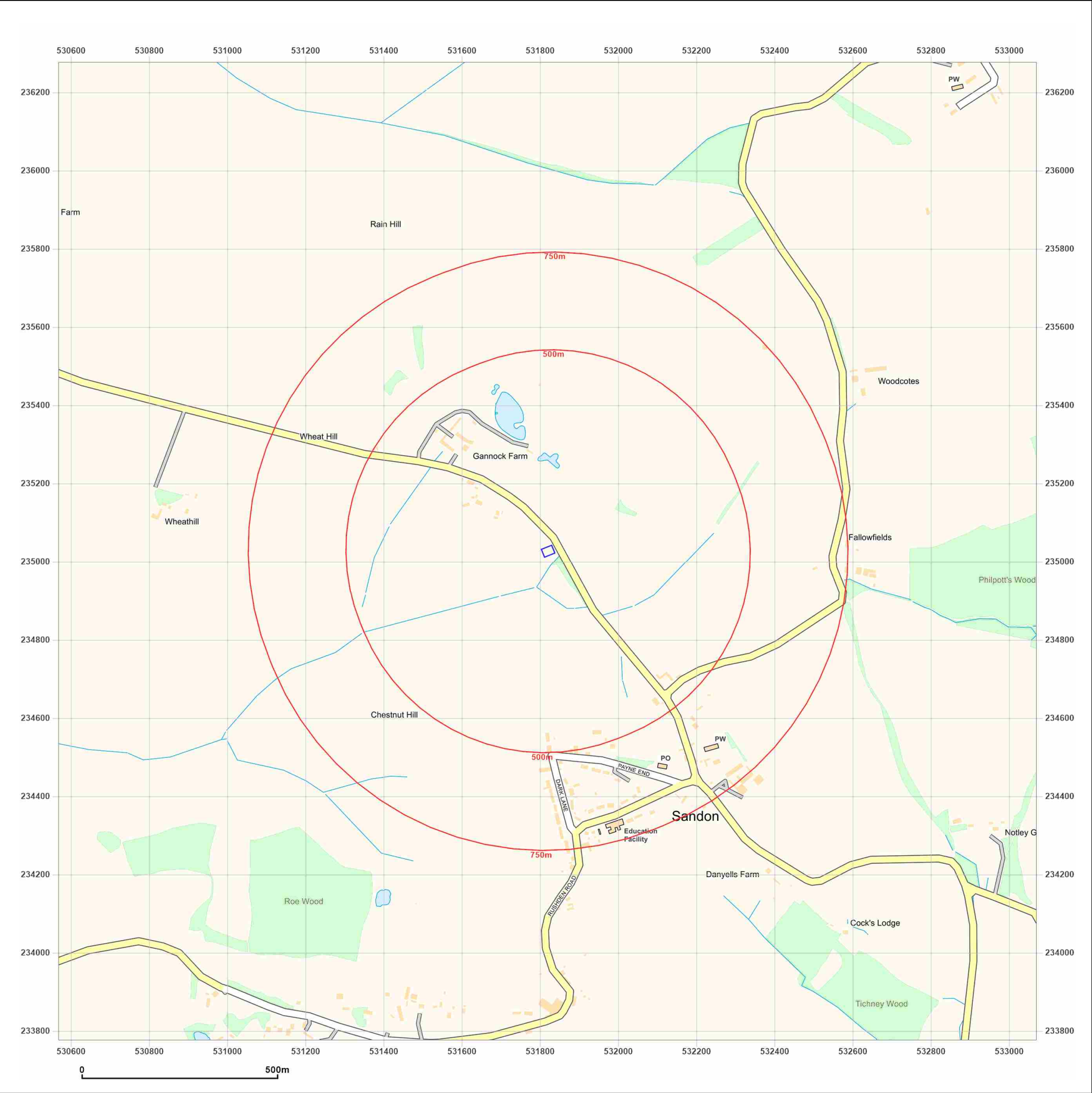
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**Site Details:**

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HERTFORDSHIRE, SG9 0RH

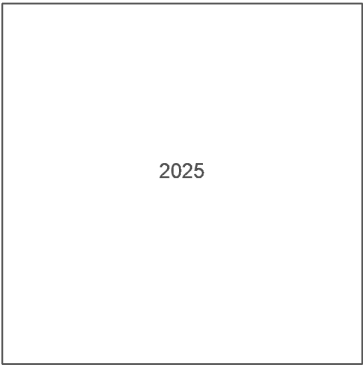
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**Report Ref:** GS-4XG-5YP-H7A-R2L  
**Grid Ref:** 531819, 235027

**Map Name:** National Grid

**Map date:** 2025

**Scale:** 1:10,000

**Printed at:** 1:10,000



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## **Appendix B – Groundsure Report**



GANNOCK ROAD, SANDON, HERTFORDSHIRE, SG9 0RH

## Order Details

**Date:** 14/07/2025  
**Your ref:** 25163 Sandon  
**Our Ref:** GS-YCU-DQY-54G-DYM

## Site Details

**Location:** 531819 235028  
**Area:** 0.07 ha  
**Authority:** [North Hertfordshire District Council](#) ↗



**Summary of findings**

[p. 2 >](#)

**Aerial image**

[p. 9 >](#)

**OS MasterMap site plan**

[p.14 >](#)

[Insight User Guide](#) ↗

Contact us with any questions at:

[info@groundsure.com](mailto:info@groundsure.com) ↗

01273 257 755

## Summary of findings

| Page                    | Section                  | <a href="#">Past land use &gt;</a>                           | On site | 0-50m | 50-250m | 250-500m | 500-2000m |
|-------------------------|--------------------------|--------------------------------------------------------------|---------|-------|---------|----------|-----------|
| <a href="#">15 &gt;</a> | <a href="#">1.1 &gt;</a> | <a href="#">Historical industrial land uses &gt;</a>         | 0       | 0     | 1       | 0        | -         |
| <a href="#">16 &gt;</a> | <a href="#">1.2 &gt;</a> | <a href="#">Historical tanks &gt;</a>                        | 0       | 0     | 0       | 1        | -         |
| 16                      | 1.3                      | Historical energy features                                   | 0       | 0     | 0       | 0        | -         |
| 16                      | 1.4                      | Historical petrol stations                                   | 0       | 0     | 0       | 0        | -         |
| 17                      | 1.5                      | Historical garages                                           | 0       | 0     | 0       | 0        | -         |
| 17                      | 1.6                      | Historical military land                                     | 0       | 0     | 0       | 0        | -         |
| Page                    | Section                  | <a href="#">Past land use - un-grouped &gt;</a>              | On site | 0-50m | 50-250m | 250-500m | 500-2000m |
| <a href="#">18 &gt;</a> | <a href="#">2.1 &gt;</a> | <a href="#">Historical industrial land uses &gt;</a>         | 0       | 0     | 1       | 0        | -         |
| <a href="#">19 &gt;</a> | <a href="#">2.2 &gt;</a> | <a href="#">Historical tanks &gt;</a>                        | 0       | 0     | 0       | 1        | -         |
| 19                      | 2.3                      | Historical energy features                                   | 0       | 0     | 0       | 0        | -         |
| 19                      | 2.4                      | Historical petrol stations                                   | 0       | 0     | 0       | 0        | -         |
| 19                      | 2.5                      | Historical garages                                           | 0       | 0     | 0       | 0        | -         |
| Page                    | Section                  | <a href="#">Waste and landfill &gt;</a>                      | On site | 0-50m | 50-250m | 250-500m | 500-2000m |
| 20                      | 3.1                      | Active or recent landfill                                    | 0       | 0     | 0       | 0        | -         |
| 20                      | 3.2                      | Historical landfill (BGS records)                            | 0       | 0     | 0       | 0        | -         |
| 21                      | 3.3                      | Historical landfill (LA/mapping records)                     | 0       | 0     | 0       | 0        | -         |
| 21                      | 3.4                      | Historical landfill (EA/NRW records)                         | 0       | 0     | 0       | 0        | -         |
| 21                      | 3.5                      | Historical waste sites                                       | 0       | 0     | 0       | 0        | -         |
| 21                      | 3.6                      | Licensed waste sites                                         | 0       | 0     | 0       | 0        | -         |
| <a href="#">21 &gt;</a> | <a href="#">3.7 &gt;</a> | <a href="#">Waste exemptions &gt;</a>                        | 0       | 0     | 0       | 1        | -         |
| Page                    | Section                  | <a href="#">Current industrial land use</a>                  | On site | 0-50m | 50-250m | 250-500m | 500-2000m |
| 23                      | 4.1                      | Recent industrial land uses                                  | 0       | 0     | 0       | -        | -         |
| 23                      | 4.2                      | National Geographic Database (NGD) - Current or recent tanks | 0       | 0     | 0       | -        | -         |
| 23                      | 4.3                      | Current or recent petrol stations                            | 0       | 0     | 0       | 0        | -         |
| 23                      | 4.4                      | Electricity cables                                           | 0       | 0     | 0       | 0        | -         |
| 23                      | 4.5                      | Gas pipelines                                                | 0       | 0     | 0       | 0        | -         |



| 24                      | 4.6                      | Sites determined as Contaminated Land                             | 0                        | 0     | 0       | 0        | -         |
|-------------------------|--------------------------|-------------------------------------------------------------------|--------------------------|-------|---------|----------|-----------|
| 24                      | 4.7                      | Control of Major Accident Hazards (COMAH)                         | 0                        | 0     | 0       | 0        | -         |
| 24                      | 4.8                      | Regulated explosive sites                                         | 0                        | 0     | 0       | 0        | -         |
| 24                      | 4.9                      | Hazardous substance storage/usage                                 | 0                        | 0     | 0       | 0        | -         |
| 24                      | 4.10                     | Historical licensed industrial activities (IPC)                   | 0                        | 0     | 0       | 0        | -         |
| 25                      | 4.11                     | Licensed industrial activities (Part A(1))                        | 0                        | 0     | 0       | 0        | -         |
| 25                      | 4.12                     | Licensed pollutant release (Part A(2)/B)                          | 0                        | 0     | 0       | 0        | -         |
| 25                      | 4.13                     | Radioactive Substance Authorisations                              | 0                        | 0     | 0       | 0        | -         |
| 25                      | 4.14                     | Licensed Discharges to controlled waters                          | 0                        | 0     | 0       | 0        | -         |
| 25                      | 4.15                     | Pollutant release to surface waters (Red List)                    | 0                        | 0     | 0       | 0        | -         |
| 26                      | 4.16                     | Pollutant release to public sewer                                 | 0                        | 0     | 0       | 0        | -         |
| 26                      | 4.17                     | List 1 Dangerous Substances                                       | 0                        | 0     | 0       | 0        | -         |
| 26                      | 4.18                     | List 2 Dangerous Substances                                       | 0                        | 0     | 0       | 0        | -         |
| 26                      | 4.19                     | Pollution Incidents (EA/NRW)                                      | 0                        | 0     | 0       | 0        | -         |
| 26                      | 4.20                     | Pollution inventory substances                                    | 0                        | 0     | 0       | 0        | -         |
| 27                      | 4.21                     | Pollution inventory waste transfers                               | 0                        | 0     | 0       | 0        | -         |
| 27                      | 4.22                     | Pollution inventory radioactive waste                             | 0                        | 0     | 0       | 0        | -         |
| Page                    | Section                  | <a href="#">Hydrogeology &gt;</a>                                 | On site                  | 0-50m | 50-250m | 250-500m | 500-2000m |
| <a href="#">28 &gt;</a> | <a href="#">5.1 &gt;</a> | <a href="#">Superficial aquifer &gt;</a>                          | Identified (within 500m) |       |         |          |           |
| <a href="#">30 &gt;</a> | <a href="#">5.2 &gt;</a> | <a href="#">Bedrock aquifer &gt;</a>                              | Identified (within 500m) |       |         |          |           |
| <a href="#">32 &gt;</a> | <a href="#">5.3 &gt;</a> | <a href="#">Groundwater vulnerability &gt;</a>                    | Identified (within 50m)  |       |         |          |           |
| <a href="#">33 &gt;</a> | <a href="#">5.4 &gt;</a> | <a href="#">Groundwater vulnerability- soluble rock risk &gt;</a> | Identified (within 0m)   |       |         |          |           |
| 34                      | 5.5                      | Groundwater vulnerability- local information                      | None (within 0m)         |       |         |          |           |
| 35                      | 5.6                      | Groundwater abstractions                                          | 0                        | 0     | 0       | 0        | 0         |
| 36                      | 5.7                      | Surface water abstractions                                        | 0                        | 0     | 0       | 0        | 0         |
| 36                      | 5.8                      | Potable abstractions                                              | 0                        | 0     | 0       | 0        | 0         |
| <a href="#">36 &gt;</a> | <a href="#">5.9 &gt;</a> | <a href="#">Source Protection Zones &gt;</a>                      | 1                        | 0     | 0       | 0        | -         |
| 36                      | 5.10                     | Source Protection Zones (confined aquifer)                        | 0                        | 0     | 0       | 0        | -         |
| Page                    | Section                  | <a href="#">Hydrology &gt;</a>                                    | On site                  | 0-50m | 50-250m | 250-500m | 500-2000m |





| <a href="#">37 &gt;</a> | <a href="#">6.1 &gt;</a>  | <a href="#">Water Network (OS MasterMap) &gt;</a>                | 0                       | 2     | 16      | -        | -         |
|-------------------------|---------------------------|------------------------------------------------------------------|-------------------------|-------|---------|----------|-----------|
| <a href="#">39 &gt;</a> | <a href="#">6.2 &gt;</a>  | <a href="#">Surface water features &gt;</a>                      | 0                       | 1     | 7       | -        | -         |
| <a href="#">39 &gt;</a> | <a href="#">6.3 &gt;</a>  | <a href="#">WFD Surface water body catchments &gt;</a>           | 1                       | -     | -       | -        | -         |
| <a href="#">40 &gt;</a> | <a href="#">6.4 &gt;</a>  | <a href="#">WFD Surface water bodies &gt;</a>                    | 0                       | 0     | 0       | -        | -         |
| <a href="#">40 &gt;</a> | <a href="#">6.5 &gt;</a>  | <a href="#">WFD Groundwater bodies &gt;</a>                      | 1                       | -     | -       | -        | -         |
| Page                    | Section                   | River and coastal flooding                                       | On site                 | 0-50m | 50-250m | 250-500m | 500-2000m |
| 41                      | 7.1                       | Risk of flooding from rivers and the sea                         | None (within 50m)       |       |         |          |           |
| 41                      | 7.2                       | Historical Flood Events                                          | 0                       | 0     | 0       | -        | -         |
| 41                      | 7.3                       | Flood Defences                                                   | 0                       | 0     | 0       | -        | -         |
| 42                      | 7.4                       | Areas Benefiting from Flood Defences                             | 0                       | 0     | 0       | -        | -         |
| 42                      | 7.5                       | Flood Storage Areas                                              | 0                       | 0     | 0       | -        | -         |
| 43                      | 7.6                       | Flood Zone 2                                                     | None (within 50m)       |       |         |          |           |
| 43                      | 7.7                       | Flood Zone 3                                                     | None (within 50m)       |       |         |          |           |
| Page                    | Section                   | Surface water flooding                                           |                         |       |         |          |           |
| 44                      | 8.1                       | Surface water flooding                                           | Negligible (within 50m) |       |         |          |           |
| Page                    | Section                   | <a href="#">Groundwater flooding &gt;</a>                        |                         |       |         |          |           |
| <a href="#">45 &gt;</a> | <a href="#">9.1 &gt;</a>  | <a href="#">Groundwater flooding &gt;</a>                        | Low (within 50m)        |       |         |          |           |
| Page                    | Section                   | <a href="#">Environmental designations &gt;</a>                  | On site                 | 0-50m | 50-250m | 250-500m | 500-2000m |
| <a href="#">46 &gt;</a> | <a href="#">10.1 &gt;</a> | <a href="#">Sites of Special Scientific Interest (SSSI) &gt;</a> | 0                       | 0     | 0       | 0        | 1         |
| 47                      | 10.2                      | Conserved wetland sites (Ramsar sites)                           | 0                       | 0     | 0       | 0        | 0         |
| 47                      | 10.3                      | Special Areas of Conservation (SAC)                              | 0                       | 0     | 0       | 0        | 0         |
| 47                      | 10.4                      | Special Protection Areas (SPA)                                   | 0                       | 0     | 0       | 0        | 0         |
| 47                      | 10.5                      | National Nature Reserves (NNR)                                   | 0                       | 0     | 0       | 0        | 0         |
| 48                      | 10.6                      | Local Nature Reserves (LNR)                                      | 0                       | 0     | 0       | 0        | 0         |
| <a href="#">48 &gt;</a> | <a href="#">10.7 &gt;</a> | <a href="#">Designated Ancient Woodland &gt;</a>                 | 0                       | 0     | 0       | 0        | 12        |
| 49                      | 10.8                      | Biosphere Reserves                                               | 0                       | 0     | 0       | 0        | 0         |
| 49                      | 10.9                      | Forest Parks                                                     | 0                       | 0     | 0       | 0        | 0         |
| 49                      | 10.10                     | Marine Conservation Zones                                        | 0                       | 0     | 0       | 0        | 0         |
| 49                      | 10.11                     | Green Belt                                                       | 0                       | 0     | 0       | 0        | 0         |



| 49                   | 10.12                   | Proposed Ramsar sites                               | 0                        | 0     | 0       | 0        | 0         |
|----------------------|-------------------------|-----------------------------------------------------|--------------------------|-------|---------|----------|-----------|
| 50                   | 10.13                   | Possible Special Areas of Conservation (pSAC)       | 0                        | 0     | 0       | 0        | 0         |
| 50                   | 10.14                   | Potential Special Protection Areas (pSPA)           | 0                        | 0     | 0       | 0        | 0         |
| <a href="#">50</a> > | <a href="#">10.15</a> > | <a href="#">Nitrate Sensitive Areas</a> >           | 1                        | 0     | 0       | 0        | 1         |
| <a href="#">51</a> > | <a href="#">10.16</a> > | <a href="#">Nitrate Vulnerable Zones</a> >          | 2                        | 0     | 0       | 0        | 6         |
| <a href="#">52</a> > | <a href="#">10.17</a> > | <a href="#">SSSI Impact Risk Zones</a> >            | 1                        | -     | -       | -        | -         |
| <a href="#">53</a> > | <a href="#">10.18</a> > | <a href="#">SSSI Units</a> >                        | 0                        | 0     | 0       | 0        | 2         |
| Page                 | Section                 | Visual and cultural designations                    | On site                  | 0-50m | 50-250m | 250-500m | 500-2000m |
| 54                   | 11.1                    | World Heritage Sites                                | 0                        | 0     | 0       | -        | -         |
| 54                   | 11.2                    | Area of Outstanding Natural Beauty                  | 0                        | 0     | 0       | -        | -         |
| 54                   | 11.3                    | National Parks                                      | 0                        | 0     | 0       | -        | -         |
| 54                   | 11.4                    | Listed Buildings                                    | 0                        | 0     | 0       | -        | -         |
| 55                   | 11.5                    | Conservation Areas                                  | 0                        | 0     | 0       | -        | -         |
| 55                   | 11.6                    | Scheduled Ancient Monuments                         | 0                        | 0     | 0       | -        | -         |
| 55                   | 11.7                    | Registered Parks and Gardens                        | 0                        | 0     | 0       | -        | -         |
| Page                 | Section                 | <a href="#">Agricultural designations</a> >         | On site                  | 0-50m | 50-250m | 250-500m | 500-2000m |
| <a href="#">56</a> > | <a href="#">12.1</a> >  | <a href="#">Agricultural Land Classification</a> >  | Grade 3 (within 250m)    |       |         |          |           |
| <a href="#">57</a> > | <a href="#">12.2</a> >  | <a href="#">Open Access Land</a> >                  | 0                        | 2     | 2       | -        | -         |
| 57                   | 12.3                    | Tree Felling Licences                               | 0                        | 0     | 0       | -        | -         |
| <a href="#">58</a> > | <a href="#">12.4</a> >  | <a href="#">Environmental Stewardship Schemes</a> > | 0                        | 2     | 0       | -        | -         |
| 58                   | 12.5                    | Countryside Stewardship Schemes                     | 0                        | 0     | 0       | -        | -         |
| Page                 | Section                 | Habitat designations                                | On site                  | 0-50m | 50-250m | 250-500m | 500-2000m |
| 59                   | 13.1                    | Priority Habitat Inventory                          | 0                        | 0     | 0       | -        | -         |
| 59                   | 13.2                    | Habitat Networks                                    | 0                        | 0     | 0       | -        | -         |
| 59                   | 13.3                    | Open Mosaic Habitat                                 | 0                        | 0     | 0       | -        | -         |
| 59                   | 13.4                    | Limestone Pavement Orders                           | 0                        | 0     | 0       | -        | -         |
| Page                 | Section                 | <a href="#">Geology 1:10,000 scale</a> >            | On site                  | 0-50m | 50-250m | 250-500m | 500-2000m |
| <a href="#">60</a> > | <a href="#">14.1</a> >  | <a href="#">10k Availability</a> >                  | Identified (within 500m) |       |         |          |           |
| 61                   | 14.2                    | Artificial and made ground (10k)                    | 0                        | 0     | 0       | 0        | -         |



| 62 > | 14.3 >  | <a href="#">Superficial geology (10k) &gt;</a>           | 0                        | 1     | 3       | 1        | -         |
|------|---------|----------------------------------------------------------|--------------------------|-------|---------|----------|-----------|
| 63   | 14.4    | Landslip (10k)                                           | 0                        | 0     | 0       | 0        | -         |
| 64 > | 14.5 >  | <a href="#">Bedrock geology (10k) &gt;</a>               | 0                        | 1     | 0       | 2        | -         |
| 65   | 14.6    | Bedrock faults and other linear features (10k)           | 0                        | 0     | 0       | 0        | -         |
| Page | Section | <a href="#">Geology 1:50,000 scale &gt;</a>              | On site                  | 0-50m | 50-250m | 250-500m | 500-2000m |
| 66 > | 15.1 >  | <a href="#">50k Availability &gt;</a>                    | Identified (within 500m) |       |         |          |           |
| 67   | 15.2    | Artificial and made ground (50k)                         | 0                        | 0     | 0       | 0        | -         |
| 67   | 15.3    | Artificial ground permeability (50k)                     | 0                        | 0     | -       | -        | -         |
| 68 > | 15.4 >  | <a href="#">Superficial geology (50k) &gt;</a>           | 1                        | 1     | 0       | 1        | -         |
| 69 > | 15.5 >  | <a href="#">Superficial permeability (50k) &gt;</a>      | Identified (within 50m)  |       |         |          |           |
| 69   | 15.6    | Landslip (50k)                                           | 0                        | 0     | 0       | 0        | -         |
| 69   | 15.7    | Landslip permeability (50k)                              | None (within 50m)        |       |         |          |           |
| 70 > | 15.8 >  | <a href="#">Bedrock geology (50k) &gt;</a>               | 1                        | 0     | 0       | 2        | -         |
| 71 > | 15.9 >  | <a href="#">Bedrock permeability (50k) &gt;</a>          | Identified (within 50m)  |       |         |          |           |
| 71   | 15.10   | Bedrock faults and other linear features (50k)           | 0                        | 0     | 0       | 0        | -         |
| Page | Section | Boreholes                                                | On site                  | 0-50m | 50-250m | 250-500m | 500-2000m |
| 72   | 16.1    | BGS Boreholes                                            | 0                        | 0     | 0       | -        | -         |
| Page | Section | <a href="#">Natural ground subsidence &gt;</a>           |                          |       |         |          |           |
| 73 > | 17.1 >  | <a href="#">Shrink swell clays &gt;</a>                  | Low (within 50m)         |       |         |          |           |
| 75 > | 17.2 >  | <a href="#">Running sands &gt;</a>                       | Very low (within 50m)    |       |         |          |           |
| 77 > | 17.3 >  | <a href="#">Compressible deposits &gt;</a>               | Negligible (within 50m)  |       |         |          |           |
| 78 > | 17.4 >  | <a href="#">Collapsible deposits &gt;</a>                | Very low (within 50m)    |       |         |          |           |
| 79 > | 17.5 >  | <a href="#">Landslides &gt;</a>                          | Very low (within 50m)    |       |         |          |           |
| 81 > | 17.6 >  | <a href="#">Ground dissolution of soluble rocks &gt;</a> | Moderate (within 50m)    |       |         |          |           |
| Page | Section | <a href="#">Mining and ground workings &gt;</a>          | On site                  | 0-50m | 50-250m | 250-500m | 500-2000m |
| 83   | 18.1    | BritPits                                                 | 0                        | 0     | 0       | 0        | -         |
| 84 > | 18.2 >  | <a href="#">Surface ground workings &gt;</a>             | 0                        | 0     | 8       | -        | -         |
| 84   | 18.3    | Underground workings                                     | 0                        | 0     | 0       | 0        | 0         |
| 84   | 18.4    | Underground mining extents                               | 0                        | 0     | 0       | 0        | -         |



| 85                   | 18.5                   | Historical Mineral Planning Areas                         | 0                        | 0     | 0       | 0        | -         |
|----------------------|------------------------|-----------------------------------------------------------|--------------------------|-------|---------|----------|-----------|
| <a href="#">85</a> > | <a href="#">18.6</a> > | <a href="#">Non-coal mining</a> >                         | 1                        | 1     | 0       | 0        | 0         |
| 85                   | 18.7                   | JPB mining areas                                          | None (within 0m)         |       |         |          |           |
| 86                   | 18.8                   | The Coal Authority non-coal mining                        | 0                        | 0     | 0       | 0        | -         |
| 86                   | 18.9                   | Researched mining                                         | 0                        | 0     | 0       | 0        | -         |
| 86                   | 18.10                  | Mining record office plans                                | 0                        | 0     | 0       | 0        | -         |
| 86                   | 18.11                  | BGS mine plans                                            | 0                        | 0     | 0       | 0        | -         |
| 87                   | 18.12                  | Coal mining                                               | None (within 0m)         |       |         |          |           |
| 87                   | 18.13                  | Brine areas                                               | None (within 0m)         |       |         |          |           |
| 87                   | 18.14                  | Gypsum areas                                              | None (within 0m)         |       |         |          |           |
| 87                   | 18.15                  | Tin mining                                                | None (within 0m)         |       |         |          |           |
| 87                   | 18.16                  | Clay mining                                               | None (within 0m)         |       |         |          |           |
| Page                 | Section                | Ground cavities and sinkholes                             | On site                  | 0-50m | 50-250m | 250-500m | 500-2000m |
| 88                   | 19.1                   | Natural cavities                                          | 0                        | 0     | 0       | 0        | -         |
| 88                   | 19.2                   | Mining cavities                                           | 0                        | 0     | 0       | 0        | 0         |
| 88                   | 19.3                   | Reported recent incidents                                 | 0                        | 0     | 0       | 0        | -         |
| 88                   | 19.4                   | Historical incidents                                      | 0                        | 0     | 0       | 0        | -         |
| Page                 | Section                | <a href="#">Radon</a> >                                   |                          |       |         |          |           |
| <a href="#">90</a> > | <a href="#">20.1</a> > | <a href="#">Radon</a> >                                   | Less than 1% (within 0m) |       |         |          |           |
| Page                 | Section                | <a href="#">Soil chemistry</a> >                          | On site                  | 0-50m | 50-250m | 250-500m | 500-2000m |
| <a href="#">92</a> > | <a href="#">21.1</a> > | <a href="#">BGS Estimated Background Soil Chemistry</a> > | 2                        | 3     | -       | -        | -         |
| 92                   | 21.2                   | BGS Estimated Urban Soil Chemistry                        | 0                        | 0     | -       | -        | -         |
| 93                   | 21.3                   | BGS Measured Urban Soil Chemistry                         | 0                        | 0     | -       | -        | -         |
| Page                 | Section                | Railway infrastructure and projects                       | On site                  | 0-50m | 50-250m | 250-500m | 500-2000m |
| 94                   | 22.1                   | Underground railways (London)                             | 0                        | 0     | 0       | -        | -         |
| 94                   | 22.2                   | Underground railways (Non-London)                         | 0                        | 0     | 0       | -        | -         |
| 94                   | 22.3                   | Railway tunnels                                           | 0                        | 0     | 0       | -        | -         |
| 94                   | 22.4                   | Historical railway and tunnel features                    | 0                        | 0     | 0       | -        | -         |
| 94                   | 22.5                   | Royal Mail tunnels                                        | 0                        | 0     | 0       | -        | -         |





|    |      |                     |   |   |   |   |   |
|----|------|---------------------|---|---|---|---|---|
| 95 | 22.6 | Historical railways | 0 | 0 | 0 | - | - |
| 95 | 22.7 | Railways            | 0 | 0 | 0 | - | - |
| 95 | 22.8 | Crossrail 2         | 0 | 0 | 0 | 0 | - |
| 95 | 22.9 | HS2                 | 0 | 0 | 0 | 0 | - |

## Recent aerial photograph



Aerial photography supplied by Getmapping PLC. © Copyright Getmapping PLC 2025. All Rights Reserved

Capture Date: 06/04/2021

Site Area: 0.07ha



## Recent site history - 2018 aerial photograph



Aerial photography supplied by Getmapping PLC. © Copyright Getmapping PLC 2025. All Rights Reserved

Capture Date: 03/08/2018

Site Area: 0.07ha



## Recent site history - 2015 aerial photograph



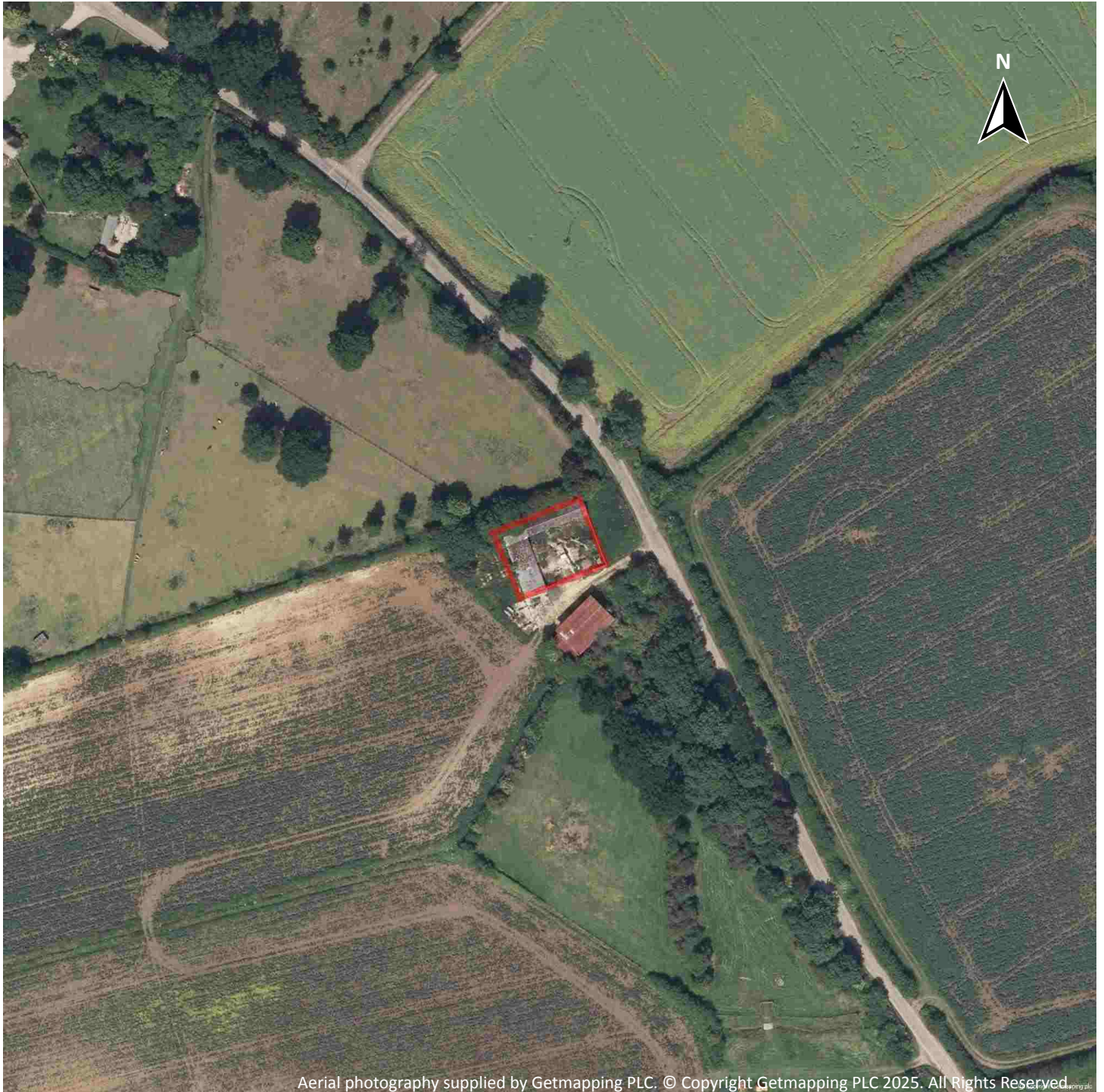
Capture Date: 03/07/2015

Site Area: 0.07ha





## Recent site history - 2009 aerial photograph



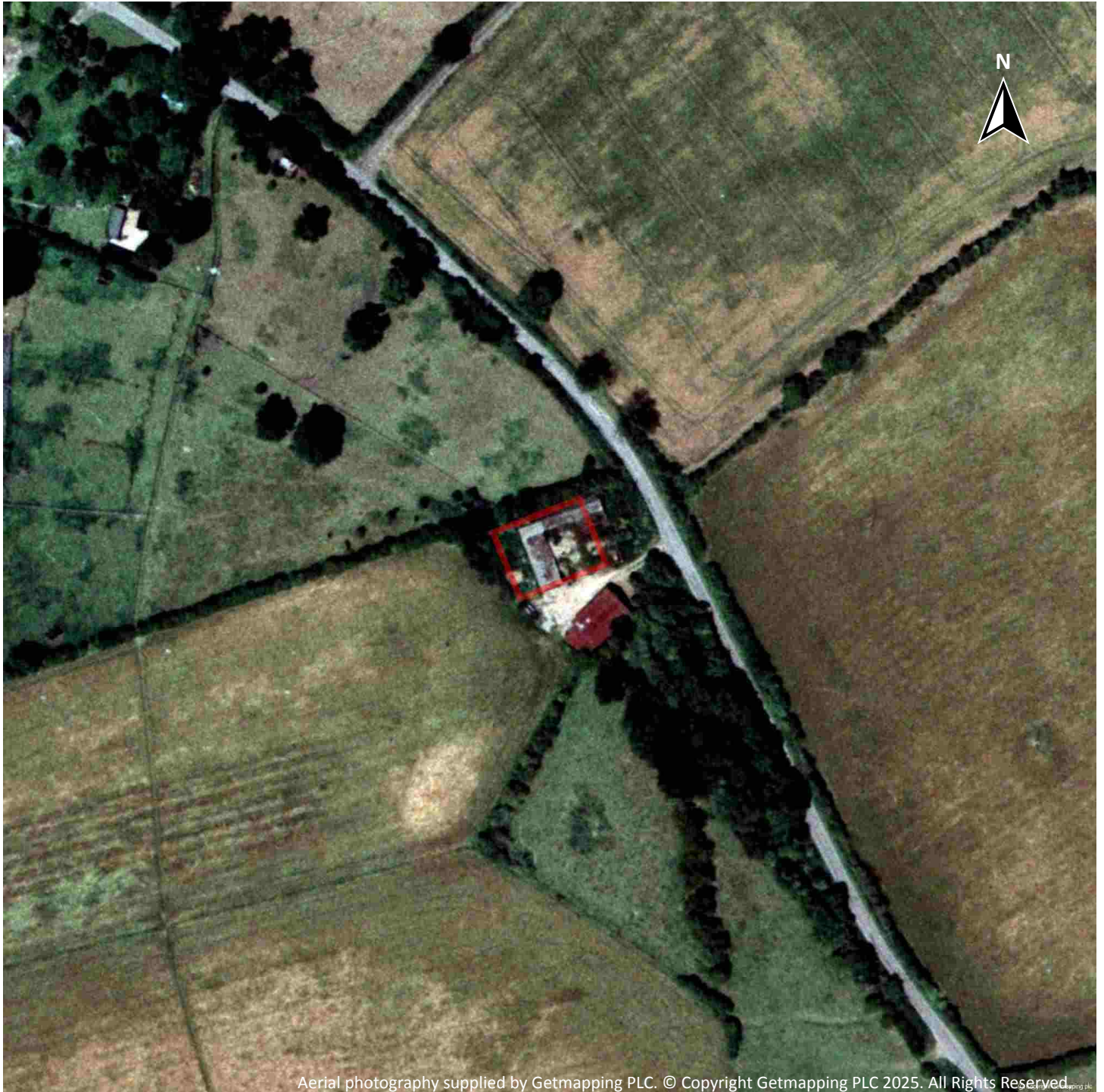
Capture Date: 29/06/2009

Site Area: 0.07ha





## Recent site history - 1999 aerial photograph



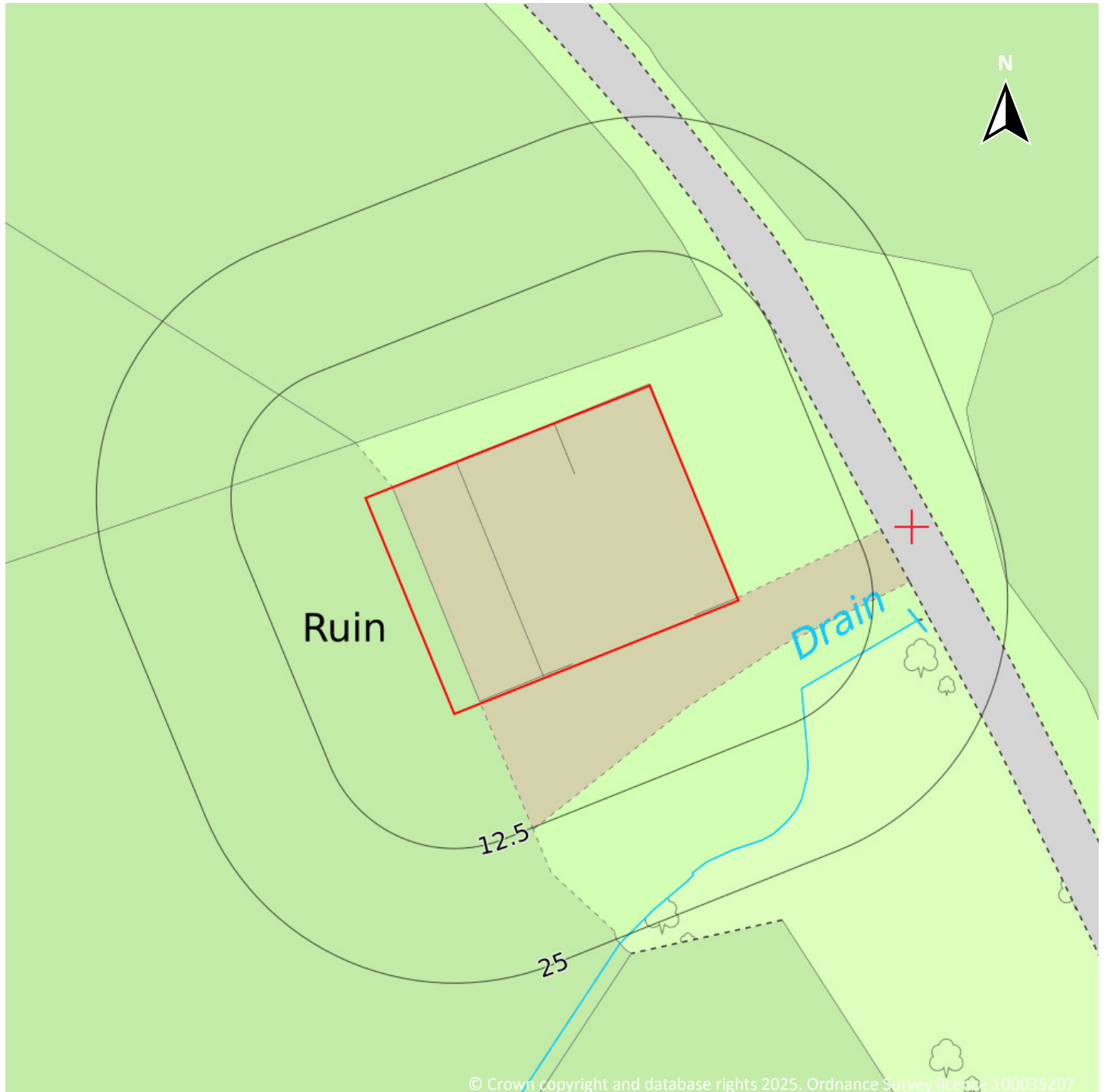
Aerial photography supplied by Getmapping PLC. © Copyright Getmapping PLC 2025. All Rights Reserved.

Capture Date: 18/07/1999

Site Area: 0.07ha



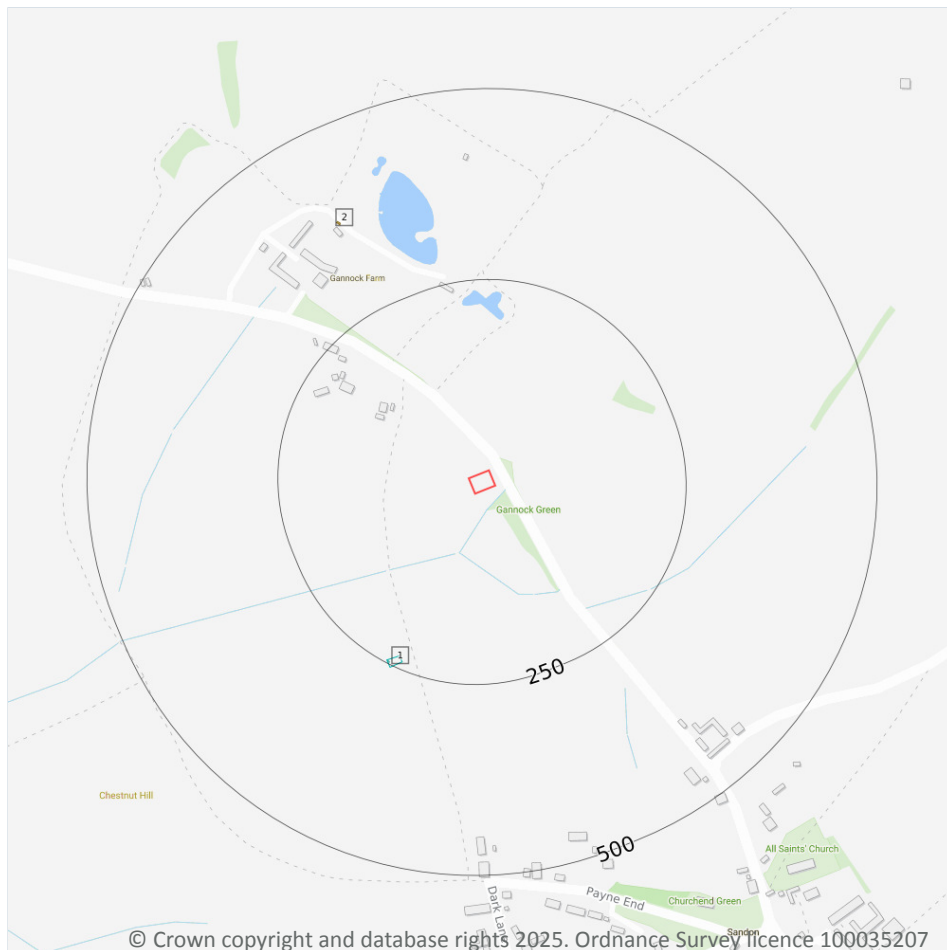
## OS MasterMap site plan



Site Area: 0.07ha



## 1 Past land use



- Site Outline
- Search buffers in metres (m)
- Historical industrial land uses
- Historical tanks

### 1.1 Historical industrial land uses

#### Records within 500m

1

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 1:10,560 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on [page 15 >](#)

| ID | Location | Land use | Dates present | Group ID |
|----|----------|----------|---------------|----------|
| 1  | 234m SW  | Cuttings | 1883          | 2074972  |





*This data is sourced from Ordnance Survey / Groundsure.*

## 1.2 Historical tanks

### Records within 500m

**1**

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on [page 15 >](#)

| ID | Location | Land use         | Dates present | Group ID |
|----|----------|------------------|---------------|----------|
| 2  | 373m NW  | Unspecified Tank | 1997          | 362907   |

*This data is sourced from Ordnance Survey / Groundsure.*

## 1.3 Historical energy features

### Records within 500m

**0**

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

*This data is sourced from Ordnance Survey / Groundsure.*

## 1.4 Historical petrol stations

### Records within 500m

**0**

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

*This data is sourced from Ordnance Survey / Groundsure.*



## 1.5 Historical garages

Records within 500m

0

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

*This data is sourced from Ordnance Survey / Groundsure.*

## 1.6 Historical military land

Records within 500m

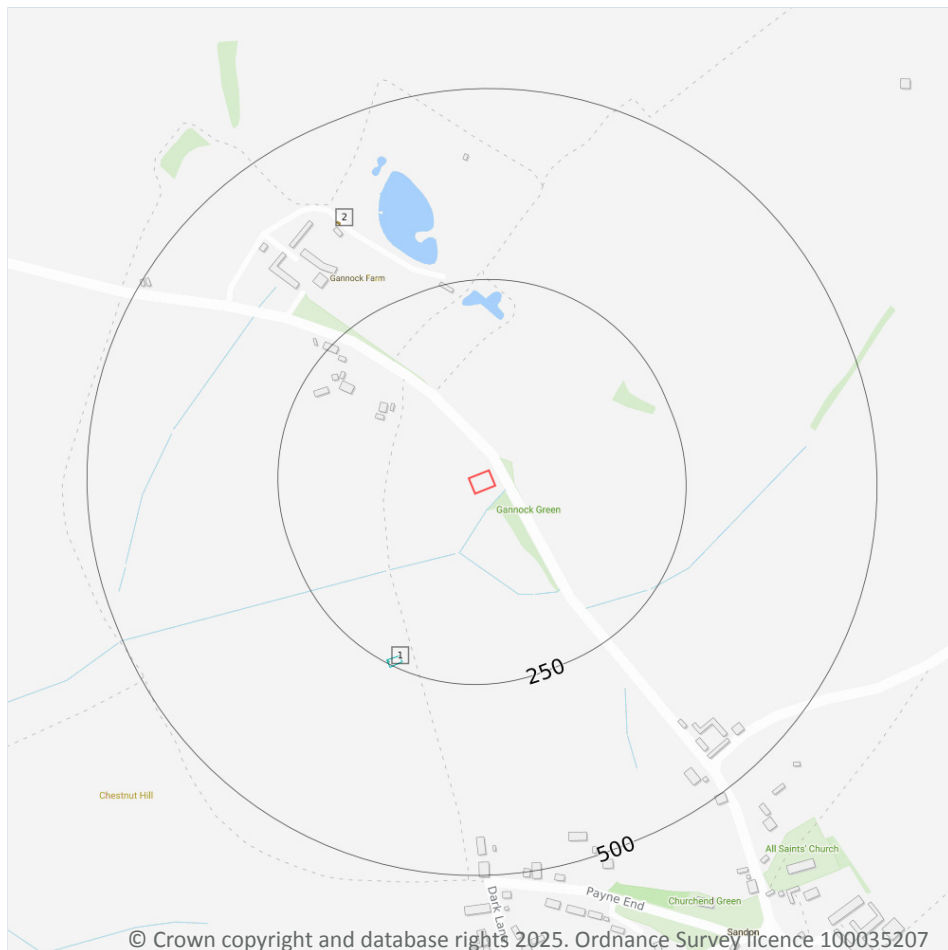
0

Areas of military land digitised from multiple sources including the National Archives, local records, MOD records and verified other sources, intelligently grouped into contiguous features.

*This data is sourced from Ordnance Survey / Groundsure / other sources.*



## 2 Past land use - un-grouped



- Site Outline
- Search buffers in metres (m)
- Historical industrial land uses
- Historical tanks

### 2.1 Historical industrial land uses

#### Records within 500m

1

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 10,560 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on [page 18](#) >

| ID | Location | Land Use | Date | Group ID |
|----|----------|----------|------|----------|
| 1  | 234m SW  | Cuttings | 1883 | 2074972  |

*This data is sourced from Ordnance Survey / Groundsure.*



## 2.2 Historical tanks

### Records within 500m

**1**

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on [page 18 >](#)

| ID | Location | Land Use         | Date | Group ID |
|----|----------|------------------|------|----------|
| 2  | 373m NW  | Unspecified Tank | 1997 | 362907   |

*This data is sourced from Ordnance Survey / Groundsure.*

## 2.3 Historical energy features

### Records within 500m

**0**

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

*This data is sourced from Ordnance Survey / Groundsure.*

## 2.4 Historical petrol stations

### Records within 500m

**0**

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

*This data is sourced from Ordnance Survey / Groundsure.*

## 2.5 Historical garages

### Records within 500m

**0**

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

*This data is sourced from Ordnance Survey / Groundsure.*





## 3 Waste and landfill



- Site Outline
- Search buffers in metres (m)
- Waste exemptions

### 3.1 Active or recent landfill

Records within 500m

0

Active or recently closed landfill sites under Environment Agency/Natural Resources Wales regulation.

*This data is sourced from the Environment Agency and Natural Resources Wales.*

### 3.2 Historical landfill (BGS records)

Records within 500m

0

Landfill sites identified on a survey carried out on behalf of the DoE in 1973. These sites may have been closed or operational at this time.

*This data is sourced from the British Geological Survey.*



### 3.3 Historical landfill (LA/mapping records)

**Records within 500m****0**

Landfill sites identified from Local Authority records and high detail historical mapping.

*This data is sourced from the Ordnance Survey/Groundsure and Local Authority records.*

### 3.4 Historical landfill (EA/NRW records)

**Records within 500m****0**

Known historical (closed) landfill sites (e.g. sites where there is no PPC permit or waste management licence currently in force). This includes sites that existed before the waste licensing regime and sites that have been licensed in the past but where a licence has been revoked, ceased to exist or surrendered and a certificate of completion has been issued.

*This data is sourced from the Environment Agency and Natural Resources Wales.*

### 3.5 Historical waste sites

**Records within 500m****0**

Waste site records derived from Local Authority planning records and high detail historical mapping.

*This data is sourced from Ordnance Survey/Groundsure and Local Authority records.*

### 3.6 Licensed waste sites

**Records within 500m****0**

Active or recently closed waste sites under Environment Agency/Natural Resources Wales regulation.

*This data is sourced from the Environment Agency and Natural Resources Wales.*

### 3.7 Waste exemptions

**Records within 500m****1**

Activities involving the storage, treatment, use or disposal of waste that are exempt from needing a permit. Exemptions have specific limits and conditions that must be adhered to.

Features are displayed on the Waste and landfill map on [page 20](#) >

| ID | Location | Site | Reference | Category                | Sub-Category | Description       |
|----|----------|------|-----------|-------------------------|--------------|-------------------|
| 1  | 257m NE  | -    | WEX387556 | Storing waste exemption | On a farm    | Storage of sludge |



*This data is sourced from the Environment Agency and Natural Resources Wales.*



## 4 Current industrial land use

### 4.1 Recent industrial land uses

Records within 250m

0

Current potentially contaminative industrial sites.

*This data is sourced from Ordnance Survey.*

### 4.2 National Geographic Database (NGD) - Current or recent tanks

Records within 250m

0

Current or recent tanks identified from the Ordnance Survey NGD.

*This data is sourced from Ordnance Survey.*

### 4.3 Current or recent petrol stations

Records within 500m

0

Open, closed, under development and obsolete petrol stations.

*This data is sourced from Experian.*

### 4.4 Electricity cables

Records within 500m

0

High voltage underground electricity transmission cables.

*This data is sourced from National Grid.*

### 4.5 Gas pipelines

Records within 500m

0

High pressure underground gas transmission pipelines.

*This data is sourced from National Grid.*





## 4.6 Sites determined as Contaminated Land

**Records within 500m****0**

Contaminated Land Register of sites designated under Part 2a of the Environmental Protection Act 1990.

*This data is sourced from Local Authority records.*

## 4.7 Control of Major Accident Hazards (COMAH)

**Records within 500m****0**

Control of Major Accident Hazards (COMAH) sites. This data includes upper and lower tier sites, and includes a historical archive of COMAH sites and Notification of Installations Handling Hazardous Substances (NIHHS) records.

*This data is sourced from the Health and Safety Executive.*

## 4.8 Regulated explosive sites

**Records within 500m****0**

Sites registered and licensed by the Health and Safety Executive under the Manufacture and Storage of Explosives Regulations 2005 (MSER). The last update to this data was in April 2011.

*This data is sourced from the Health and Safety Executive.*

## 4.9 Hazardous substance storage/usage

**Records within 500m****0**

Consents granted for a site to hold certain quantities of hazardous substances at or above defined limits in accordance with the Planning (Hazardous Substances) Regulations 2015.

*This data is sourced from Local Authority records.*

## 4.10 Historical licensed industrial activities (IPC)

**Records within 500m****0**

Integrated Pollution Control (IPC) records of substance releases to air, land and water. This data represents a historical archive as the IPC regime has been superseded.

*This data is sourced from the Environment Agency and Natural Resources Wales.*

#### 4.11 Licensed industrial activities (Part A(1))

**Records within 500m****0**

Records of Part A(1) installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

*This data is sourced from the Environment Agency and Natural Resources Wales.*

#### 4.12 Licensed pollutant release (Part A(2)/B)

**Records within 500m****0**

Records of Part A(2) and Part B installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

*This data is sourced from Local Authority records.*

#### 4.13 Radioactive Substance Authorisations

**Records within 500m****0**

Records of the storage, use, accumulation and disposal of radioactive substances regulated under the Radioactive Substances Act 1993.

*This data is sourced from the Environment Agency and Natural Resources Wales.*

#### 4.14 Licensed Discharges to controlled waters

**Records within 500m****0**

Discharges of treated or untreated effluent to controlled waters under the Water Resources Act 1991.

*This data is sourced from the Environment Agency and Natural Resources Wales.*

#### 4.15 Pollutant release to surface waters (Red List)

**Records within 500m****0**

Discharges of specified substances under the Environmental Protection (Prescribed Processes and Substances) Regulations 1991.

*This data is sourced from the Environment Agency and Natural Resources Wales.*



#### 4.16 Pollutant release to public sewer

**Records within 500m****0**

Discharges of Special Category Effluents to the public sewer.

*This data is sourced from the Environment Agency and Natural Resources Wales.*

#### 4.17 List 1 Dangerous Substances

**Records within 500m****0**

Discharges of substances identified on List I of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

*This data is sourced from the Environment Agency and Natural Resources Wales.*

#### 4.18 List 2 Dangerous Substances

**Records within 500m****0**

Discharges of substances identified on List II of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

*This data is sourced from the Environment Agency and Natural Resources Wales.*

#### 4.19 Pollution Incidents (EA/NRW)

**Records within 500m****0**

Records of substantiated pollution incidents. Since 2006 this data has only included category 1 (major) and 2 (significant) pollution incidents.

*This data is sourced from the Environment Agency and Natural Resources Wales.*

#### 4.20 Pollution inventory substances

**Records within 500m****0**

The pollution inventory (substances) includes reporting on annual emissions of certain regulated substances to air, controlled waters and land. A reporting threshold for each substance is also included. Where emissions fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

*This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.*

## 4.21 Pollution inventory waste transfers

Records within 500m

0

The pollution inventory (waste transfers) includes reporting on annual transfers and recovery/disposal of controlled wastes from a site. A reporting threshold for each waste type is also included. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

*This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.*

## 4.22 Pollution inventory radioactive waste

Records within 500m

0

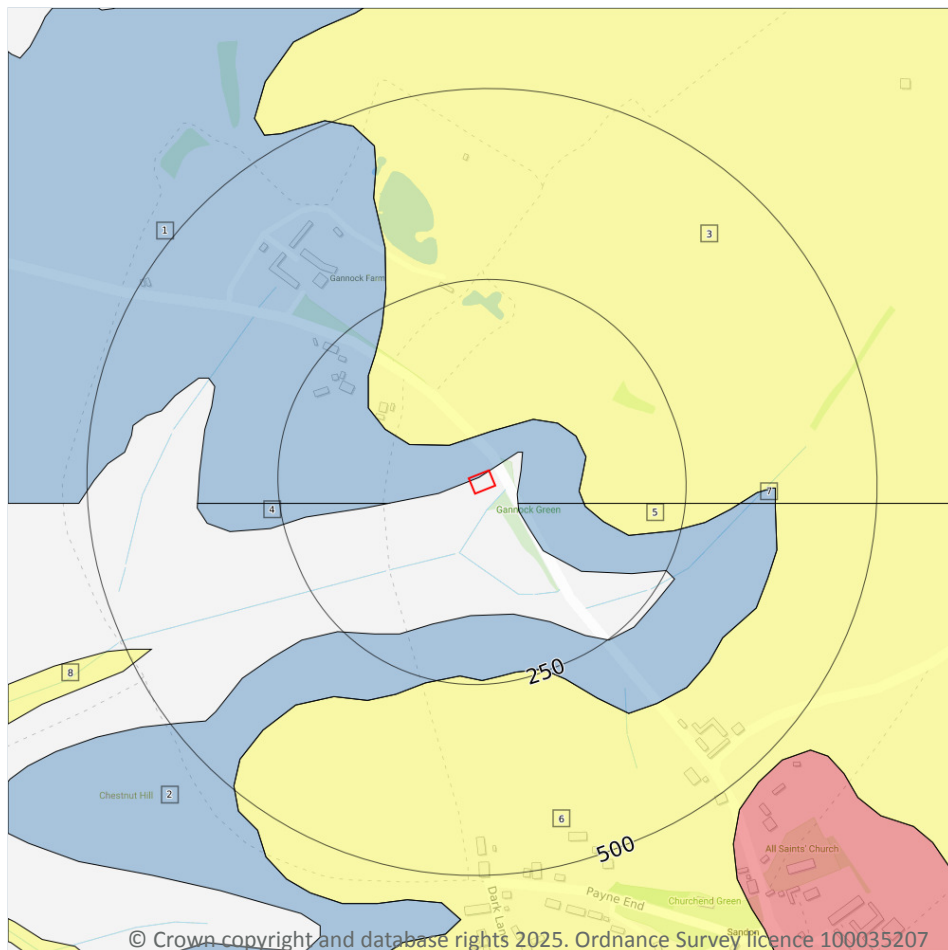
The pollution inventory (radioactive wastes) includes reporting on annual releases of radioactive substances from a site, including the means of release. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

*This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.*





## 5 Hydrogeology - Superficial aquifer



- Site Outline**
- Search buffers in metres (m)**
- Principal
  - Secondary A
  - Secondary B
  - Secondary Undifferentiated
  - Unproductive
  - Unknown

### 5.1 Superficial aquifer

Records within 500m

8

Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on [page 28 >](#)

| ID | Location | Designation  | Description                                                                                                                         |
|----|----------|--------------|-------------------------------------------------------------------------------------------------------------------------------------|
| 1  | On site  | Unproductive | These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow |
| 2  | 38m SE   | Unproductive | These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow |

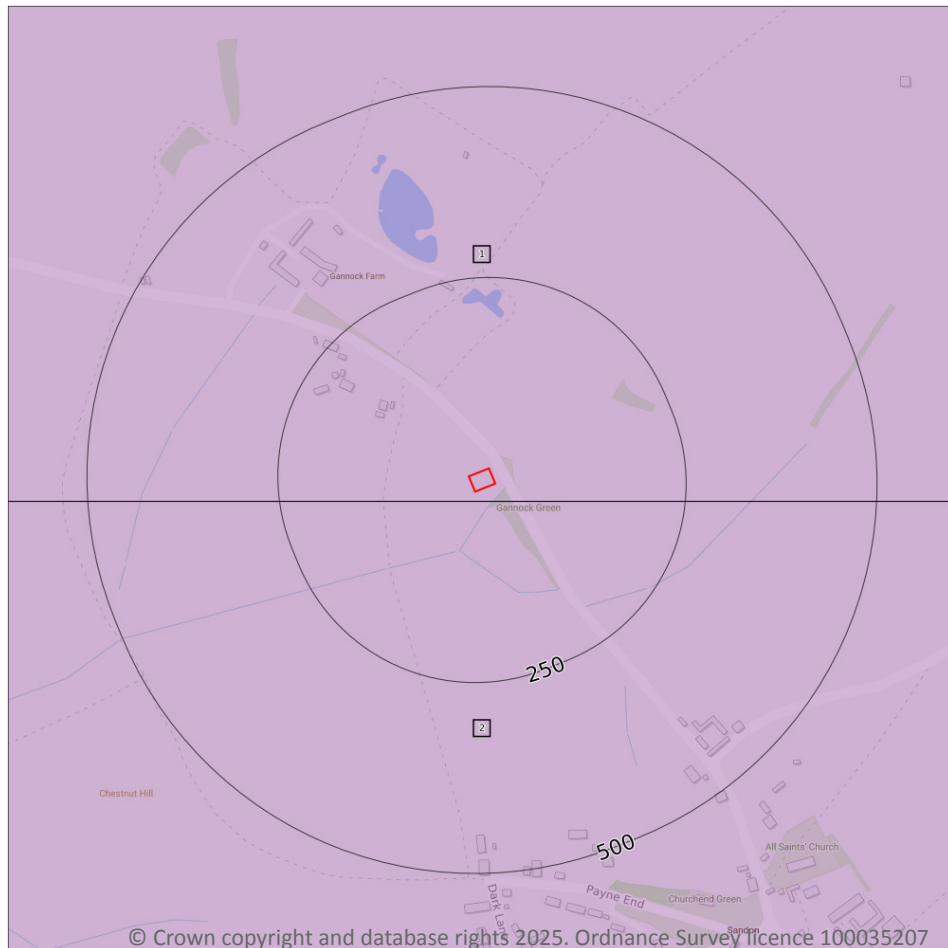


| ID | Location | Designation                | Description                                                                                                                                                                                                                                             |
|----|----------|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3  | 48m N    | Secondary Undifferentiated | Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type |
| 4  | 110m W   | Unproductive               | These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow                                                                                                                     |
| 5  | 119m E   | Secondary Undifferentiated | Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type |
| 6  | 240m S   | Secondary Undifferentiated | Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type |
| 7  | 321m E   | Unproductive               | These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow                                                                                                                     |
| 8  | 470m SW  | Secondary Undifferentiated | Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type |

*This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.*



## Bedrock aquifer



- Site Outline**
- Search buffers in metres (m)**
- Principal
  - Secondary A
  - Secondary B
  - Secondary Undifferentiated
  - Unproductive

## 5.2 Bedrock aquifer

### Records within 500m

2

Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on [page 30](#) >

| ID | Location | Designation | Description                                                                                                                                                                                                                                |
|----|----------|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1  | On site  | Principal   | Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers |
| 2  | 13m S    | Principal   | Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers |

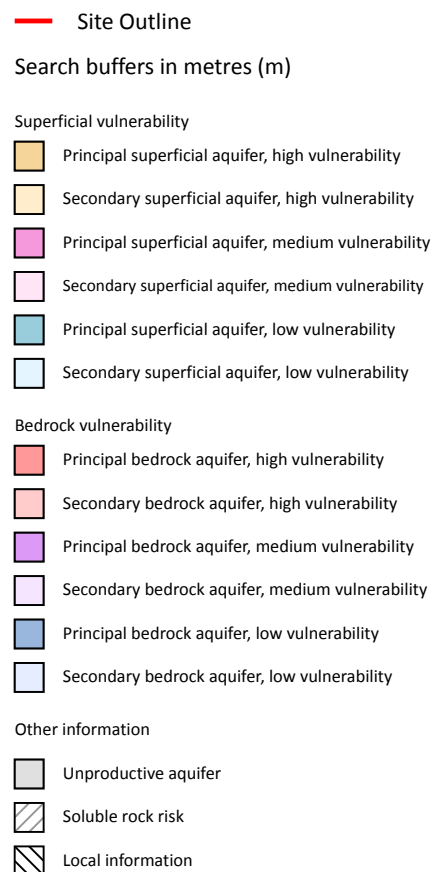
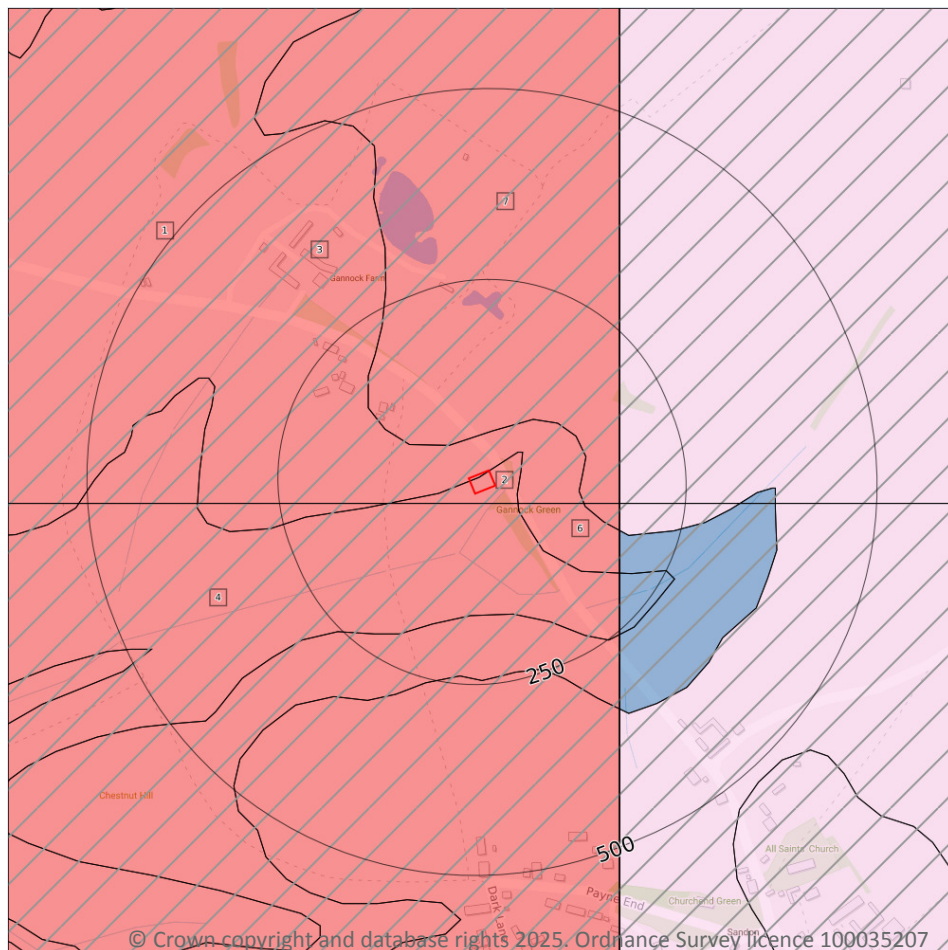


*This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.*





## Groundwater vulnerability



### 5.3 Groundwater vulnerability

#### Records within 50m

5

An assessment of the vulnerability of groundwater to a pollutant discharged at ground level based on the hydrological, geological, hydrogeological and soil properties within a one kilometre square grid. Groundwater vulnerability is described as High, Medium or Low as follows:

- High - Areas able to easily transmit pollution to groundwater. They are likely to be characterised by high leaching soils and the absence of low permeability superficial deposits.
- Medium - Intermediate between high and low vulnerability.
- Low - Areas that provide the greatest protection from pollution. They are likely to be characterised by low leaching soils and/or the presence of superficial deposits characterised by a low permeability.

Features are displayed on the Groundwater vulnerability map on [page 32](#) >



| ID | Location | Summary                                                                                                                                                                             | Soil / surface                                                                                                       | Superficial geology                                                                                                                                                       | Bedrock geology                                                                                                 |
|----|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| 1  | On site  | <b>Summary Classification:</b><br>Principal bedrock aquifer - High Vulnerability<br><b>Combined classification:</b><br>Productive Bedrock Aquifer, Unproductive Superficial Aquifer | <b>Leaching class:</b><br>Intermediate<br><b>Infiltration value:</b> 40-70%<br><b>Dilution value:</b><br><300mm/year | <b>Vulnerability:</b> Unproductive<br><b>Aquifer type:</b> Unproductive<br><b>Thickness:</b> 3-10m<br><b>Patchiness value:</b> <90%<br><b>Recharge potential:</b> No Data | <b>Vulnerability:</b> High<br><b>Aquifer type:</b> Principal<br><b>Flow mechanism:</b> Well connected fractures |
| 2  | On site  | <b>Summary Classification:</b><br>Principal bedrock aquifer - High Vulnerability<br><b>Combined classification:</b><br>Productive Bedrock Aquifer, No Superficial Aquifer           | <b>Leaching class:</b><br>Intermediate<br><b>Infiltration value:</b> 40-70%<br><b>Dilution value:</b><br><300mm/year | <b>Vulnerability:</b> -<br><b>Aquifer type:</b> -<br><b>Thickness:</b> 3-10m<br><b>Patchiness value:</b> <90%<br><b>Recharge potential:</b> No Data                       | <b>Vulnerability:</b> High<br><b>Aquifer type:</b> Principal<br><b>Flow mechanism:</b> Well connected fractures |
| 4  | 13m S    | <b>Summary Classification:</b><br>Principal bedrock aquifer - High Vulnerability<br><b>Combined classification:</b><br>Productive Bedrock Aquifer, No Superficial Aquifer           | <b>Leaching class:</b><br>Intermediate<br><b>Infiltration value:</b> 40-70%<br><b>Dilution value:</b><br><300mm/year | <b>Vulnerability:</b> -<br><b>Aquifer type:</b> -<br><b>Thickness:</b> 3-10m<br><b>Patchiness value:</b> <90%<br><b>Recharge potential:</b> No Data                       | <b>Vulnerability:</b> High<br><b>Aquifer type:</b> Principal<br><b>Flow mechanism:</b> Well connected fractures |
| 6  | 38m SE   | <b>Summary Classification:</b><br>Principal bedrock aquifer - High Vulnerability<br><b>Combined classification:</b><br>Productive Bedrock Aquifer, Unproductive Superficial Aquifer | <b>Leaching class:</b><br>Intermediate<br><b>Infiltration value:</b> 40-70%<br><b>Dilution value:</b><br><300mm/year | <b>Vulnerability:</b> Unproductive<br><b>Aquifer type:</b> Unproductive<br><b>Thickness:</b> 3-10m<br><b>Patchiness value:</b> <90%<br><b>Recharge potential:</b> No Data | <b>Vulnerability:</b> High<br><b>Aquifer type:</b> Principal<br><b>Flow mechanism:</b> Well connected fractures |
| 7  | 48m N    | <b>Summary Classification:</b><br>Principal bedrock aquifer - High Vulnerability<br><b>Combined classification:</b><br>Productive Bedrock Aquifer, Productive Superficial Aquifer   | <b>Leaching class:</b><br>Intermediate<br><b>Infiltration value:</b> 40-70%<br><b>Dilution value:</b><br><300mm/year | <b>Vulnerability:</b> Medium<br><b>Aquifer type:</b> Secondary<br><b>Thickness:</b> 3-10m<br><b>Patchiness value:</b> <90%<br><b>Recharge potential:</b> No Data          | <b>Vulnerability:</b> High<br><b>Aquifer type:</b> Principal<br><b>Flow mechanism:</b> Well connected fractures |

*This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.*

## 5.4 Groundwater vulnerability- soluble rock risk

### Records on site

1

This dataset identifies areas where solution features that enable rapid movement of a pollutant may be present within a 1km grid square.



| ID | Maximum soluble risk category                                                                                                                                                                                                                              | Percentage of grid square covered by maximum risk |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|
| 3  | Very significant soluble rocks are likely to be present with a moderate possibility of localised natural subsidence or dissolution-related degradation of bedrock, especially in adverse conditions such as concentrated surface or subsurface water flow. | 26.0%                                             |

*This data is sourced from the British Geological Survey and the Environment Agency.*

## 5.5 Groundwater vulnerability- local information

|                 |   |
|-----------------|---|
| Records on site | 0 |
|-----------------|---|

This dataset identifies areas where additional local information affecting vulnerability is held by the Environment Agency. Further information can be obtained by contacting the Environment Agency local Area groundwater team through the Environment Agency National Customer Call Centre on 03798 506 506 or by email on [enquiries@environment-agency.gov.uk](mailto:enquiries@environment-agency.gov.uk) ↗.

*This data is sourced from the British Geological Survey and the Environment Agency.*

## Abstractions and Source Protection Zones



- Site Outline
- Search buffers in metres (m)
- Source Protection Zone 1  
Inner catchment
- Source Protection Zone 2  
Outer catchment
- Source Protection Zone 3  
Total catchment
- Source Protection Zone 4  
Zone of Special Interest
- Source Protection Zone 1c  
Inner catchment - confined aquifer
- Source Protection Zone 2c  
Outer catchment - confined aquifer
- Source Protection Zone 3c  
Total catchment - confined aquifer
- Drinking water abstraction licences  
Polygon features
- Drinking water abstraction licences  
Linear features
- Groundwater abstraction licence (point)
- Groundwater abstraction licence (area)
- Groundwater abstraction licence (linear)
- Surface Water Abstractions (point)
- Surface Water Abstractions (area)
- Surface Water Abstractions (linear)

### 5.6 Groundwater abstractions

Records within 2000m

0

Licensed groundwater abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, between two points (line data) or a larger area.

*This data is sourced from the Environment Agency and Natural Resources Wales.*





## 5.7 Surface water abstractions

Records within 2000m

0

Licensed surface water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

*This data is sourced from the Environment Agency and Natural Resources Wales.*

## 5.8 Potable abstractions

Records within 2000m

0

Licensed potable water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

*This data is sourced from the Environment Agency and Natural Resources Wales.*

## 5.9 Source Protection Zones

Records within 500m

1

Source Protection Zones define the sensitivity of an area around a potable abstraction site to contamination. Features are displayed on the Abstractions and Source Protection Zones map on [page 35 >](#)

| ID | Location | Type | Description     |
|----|----------|------|-----------------|
| 1  | On site  | 3    | Total catchment |

*This data is sourced from the Environment Agency and Natural Resources Wales.*

## 5.10 Source Protection Zones (confined aquifer)

Records within 500m

0

Source Protection Zones in the confined aquifer define the sensitivity around a deep groundwater abstraction to contamination. A confined aquifer would normally be protected from contamination by overlying geology and is only considered a sensitive resource if deep excavation/drilling is taking place.

*This data is sourced from the Environment Agency and Natural Resources Wales.*



## 6 Hydrology



- Site Outline
- Search buffers in metres (m)
- Water Network (OS MasterMap)
- Surface water features (wider than 5m)
- Surface water features (narrower than 5m)
- ⋯ WFD River, canal and surface water transfer water bodies
- WFD Lake water bodies
- WFD Transitional and coastal water bodies
- WFD Surface water body catchments boundaries
- WFD Groundwater body boundaries

### 6.1 Water Network (OS MasterMap)

Records within 250m

18

Detailed water network of Great Britain showing the flow and precise central course of every river, stream, lake and canal.

Features are displayed on the Hydrology map on [page 37 >](#)

| ID | Location | Type of water feature                               | Ground level      | Permanence                                                      | Name |
|----|----------|-----------------------------------------------------|-------------------|-----------------------------------------------------------------|------|
| A  | 10m SE   | Inland river not influenced by normal tidal action. | On ground surface | Watercourse contains water year round (in normal circumstances) | -    |



| ID | Location | Type of water feature                               | Ground level      | Permanence                                                      | Name |
|----|----------|-----------------------------------------------------|-------------------|-----------------------------------------------------------------|------|
| A  | 26m S    | Inland river not influenced by normal tidal action. | On ground surface | Watercourse contains water year round (in normal circumstances) | -    |
| A  | 80m S    | Inland river not influenced by normal tidal action. | On ground surface | Watercourse contains water year round (in normal circumstances) | -    |
| A  | 80m S    | Inland river not influenced by normal tidal action. | On ground surface | Watercourse contains water year round (in normal circumstances) | -    |
| A  | 81m S    | Inland river not influenced by normal tidal action. | Underground       | Watercourse contains water year round (in normal circumstances) | -    |
| A  | 83m S    | Inland river not influenced by normal tidal action. | On ground surface | Watercourse contains water year round (in normal circumstances) | -    |
| A  | 144m S   | Inland river not influenced by normal tidal action. | On ground surface | Watercourse contains water year round (in normal circumstances) | -    |
| A  | 150m SW  | Inland river not influenced by normal tidal action. | Underground       | Watercourse contains water year round (in normal circumstances) | -    |
| A  | 151m S   | Inland river not influenced by normal tidal action. | Underground       | Watercourse contains water year round (in normal circumstances) | -    |
| A  | 152m S   | Inland river not influenced by normal tidal action. | On ground surface | Watercourse contains water year round (in normal circumstances) | -    |
| B  | 155m SW  | Inland river not influenced by normal tidal action. | On ground surface | Watercourse contains water year round (in normal circumstances) | -    |
| A  | 160m SE  | Inland river not influenced by normal tidal action. | On ground surface | Watercourse contains water year round (in normal circumstances) | -    |
| A  | 160m SE  | Inland river not influenced by normal tidal action. | Underground       | Watercourse contains water year round (in normal circumstances) | -    |
| A  | 165m SE  | Inland river not influenced by normal tidal action. | Underground       | Watercourse contains water year round (in normal circumstances) | -    |



| ID | Location | Type of water feature                               | Ground level      | Permanence                                                      | Name |
|----|----------|-----------------------------------------------------|-------------------|-----------------------------------------------------------------|------|
| A  | 169m SE  | Inland river not influenced by normal tidal action. | On ground surface | Watercourse contains water year round (in normal circumstances) | -    |
| A  | 199m SE  | Inland river not influenced by normal tidal action. | On ground surface | Watercourse contains water year round (in normal circumstances) | -    |
| A  | 241m SE  | Inland river not influenced by normal tidal action. | Underground       | Watercourse contains water year round (in normal circumstances) | -    |
| C  | 245m SE  | Inland river not influenced by normal tidal action. | On ground surface | Watercourse contains water year round (in normal circumstances) | -    |

*This data is sourced from the Ordnance Survey.*

## 6.2 Surface water features

|                            |          |
|----------------------------|----------|
| <b>Records within 250m</b> | <b>8</b> |
|----------------------------|----------|

Covering rivers, streams and lakes (some overlap with OS MasterMap Water Network data in previous section) but additionally covers smaller features such as ponds. Rivers and streams narrower than 5m are represented as a single line. Lakes, ponds and rivers or streams wider than 5m are represented as polygons.

Features are displayed on the Hydrology map on [page 37 >](#)

*This data is sourced from the Ordnance Survey.*

## 6.3 WFD Surface water body catchments

|                        |          |
|------------------------|----------|
| <b>Records on site</b> | <b>1</b> |
|------------------------|----------|

The Water Framework Directive is an EU-led framework for the protection of inland surface waters, estuaries, coastal waters and groundwater through river basin-level management planning. In terms of surface water, these basins are broken down into smaller units known as management, operational and water body catchments.

Features are displayed on the Hydrology map on [page 37 >](#)

| ID | Location | Type  | Water body catchment | Water body ID  | Operational catchment | Management catchment   |
|----|----------|-------|----------------------|----------------|-----------------------|------------------------|
| A  | On site  | River | Cat Ditch            | GB105033037740 | Ivel                  | Ouse Upper and Bedford |

*This data is sourced from the Environment Agency and Natural Resources Wales.*





## 6.4 WFD Surface water bodies

### Records identified

**1**

Surface water bodies under the Directive may be rivers, lakes, estuary or coastal. To achieve the purpose of the Directive, environmental objectives have been set and are reported on for each water body. The progress towards delivery of the objectives is then reported on by the relevant competent authorities at the end of each six-year cycle. The river water body directly associated with the catchment listed in the previous section is detailed below, along with any lake, canal, coastal or artificial water body within 250m of the site. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each water body listed.

Features are displayed on the Hydrology map on [page 37 >](#)

| ID | Location | Type  | Name      | Water body ID                    | Overall rating | Chemical rating | Ecological rating | Year |
|----|----------|-------|-----------|----------------------------------|----------------|-----------------|-------------------|------|
| -  | 3177m NW | River | Cat Ditch | <a href="#">GB105033037740</a> ↗ | Moderate       | Fail            | Good              | 2019 |

*This data is sourced from the Environment Agency and Natural Resources Wales.*

## 6.5 WFD Groundwater bodies

### Records on site

**1**

Groundwater bodies are also covered by the Directive and the same regime of objectives and reporting detailed in the previous section is in place. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each groundwater body listed.

Features are displayed on the Hydrology map on [page 37 >](#)

| ID | Location | Name                     | Water body ID                    | Overall rating | Chemical rating | Quantitative | Year |
|----|----------|--------------------------|----------------------------------|----------------|-----------------|--------------|------|
| A  | On site  | Upper Bedford Ouse Chalk | <a href="#">GB40601G603000</a> ↗ | Poor           | Poor            | Poor         | 2019 |

*This data is sourced from the Environment Agency and Natural Resources Wales.*



## 7 River and coastal flooding

### 7.1 Risk of flooding from rivers and the sea

**Records within 50m****0**

The chance of flooding from rivers and/or the sea in any given year, based on cells of 50m within the Risk of Flooding from Rivers and Sea (RoFRaS)/Flood Risk Assessment Wales (FRAW) models. Each cell is allocated one of four flood risk categories, taking into account flood defences and their condition. The risk categories for RoFRaS for rivers and the sea and FRAW for rivers are; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 100 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 100 chance) or High (greater than or equal to 1 in 30 chance). The risk categories for FRAW for the sea are; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 200 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 200 chance) or High (greater than or equal to 1 in 30 chance).

*This data is sourced from the Environment Agency and Natural Resources Wales.*

### 7.2 Historical Flood Events

**Records within 250m****0**

Records of historic flooding from rivers, the sea, groundwater and surface water. Records began in 1946 when predecessor bodies started collecting detailed information about flooding incidents, although limited details may be included on flooding incidents prior to this date. Takes into account the presence of defences, structures, and other infrastructure where they existed at the time of flooding, and includes flood extents that may have been affected by overtopping, breaches or blockages.

*This data is sourced from the Environment Agency and Natural Resources Wales.*

### 7.3 Flood Defences

**Records within 250m****0**

Records of flood defences owned, managed or inspected by the Environment Agency and Natural Resources Wales. Flood defences can be structures, buildings or parts of buildings. Typically these are earth banks, stone and concrete walls, or sheet-piling that is used to prevent or control the extent of flooding.

*This data is sourced from the Environment Agency and Natural Resources Wales.*



## 7.4 Areas Benefiting from Flood Defences

Records within 250m

0

Areas that would benefit from the presence of flood defences in a 1 in 100 (1%) chance of flooding each year from rivers or 1 in 200 (0.5%) chance of flooding each year from the sea.

*This data is sourced from the Environment Agency and Natural Resources Wales.*

## 7.5 Flood Storage Areas

Records within 250m

0

Areas that act as a balancing reservoir, storage basin or balancing pond to attenuate an incoming flood peak to a flow level that can be accepted by the downstream channel or to delay the timing of a flood peak so that its volume is discharged over a longer period.

*This data is sourced from the Environment Agency and Natural Resources Wales.*



## River and coastal flooding - Flood Zones

### 7.6 Flood Zone 2

Records within 50m

0

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land between Flood Zone 3 (see next section) and the extent of the flooding from rivers or the sea with a 1 in 1000 (0.1%) chance of flooding each year.

*This data is sourced from the Environment Agency and Natural Resources Wales.*

### 7.7 Flood Zone 3

Records within 50m

0

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land with a 1 in 100 (1%) or greater chance of flooding each year from rivers or a 1 in 200 (0.5%) or greater chance of flooding each year from the sea.

*This data is sourced from the Environment Agency and Natural Resources Wales.*





## 8 Surface water flooding

### 8.1 Surface water flooding

Highest risk on site

Negligible

Highest risk within 50m

Negligible

Ambiental Risk Analytics surface water (pluvial) FloodMap identifies areas likely to flood as a result of extreme rainfall events, i.e. land naturally vulnerable to surface water ponding or flooding. This data set was produced by simulating 1 in 30 year, 1 in 100 year, 1 in 250 year and 1 in 1,000 year rainfall events. Modern urban drainage systems are typically built to cope with rainfall events between 1 in 20 and 1 in 30 years, though some older ones may flood in a 1 in 5 year rainfall event.

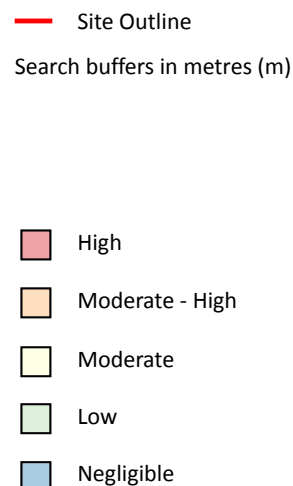
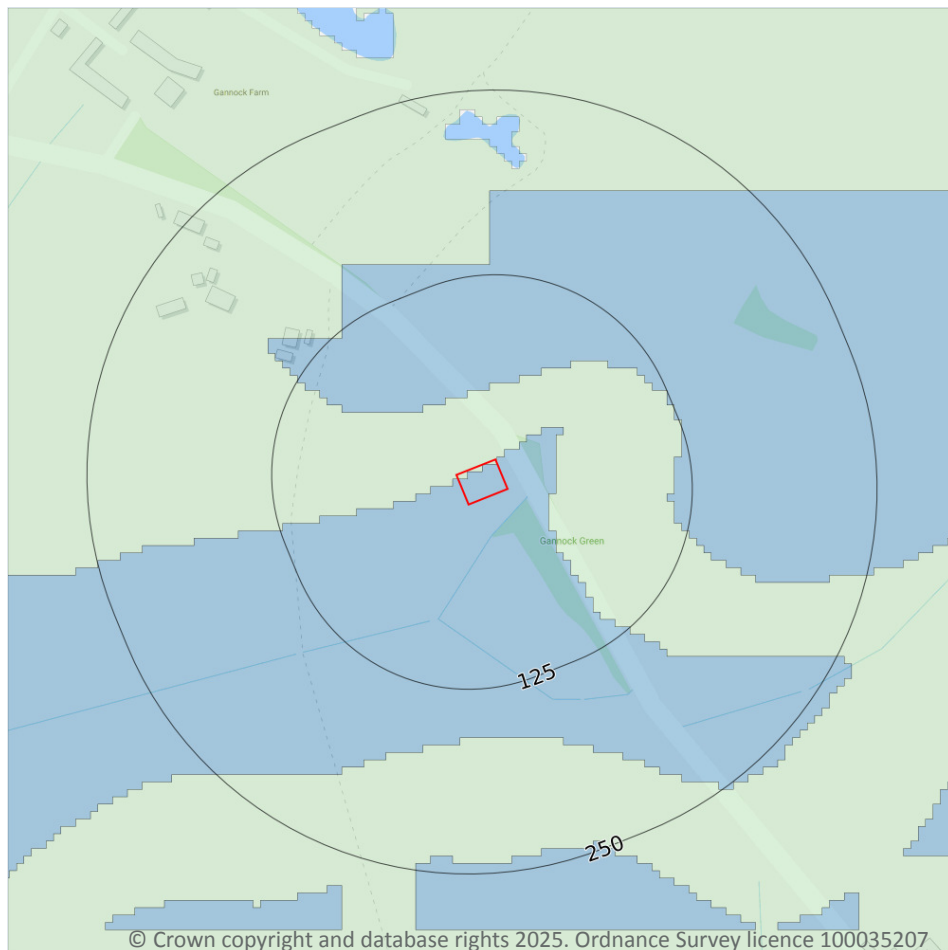
The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site. The table below shows the maximum flood depths for a range of return periods for the site.

| Return period  | Maximum modelled depth |
|----------------|------------------------|
| 1 in 1000 year | Negligible             |
| 1 in 250 year  | Negligible             |
| 1 in 100 year  | Negligible             |
| 1 in 30 year   | Negligible             |

*This data is sourced from Ambiental Risk Analytics.*



## 9 Groundwater flooding



### 9.1 Groundwater flooding

Highest risk on site

Low

Highest risk within 50m

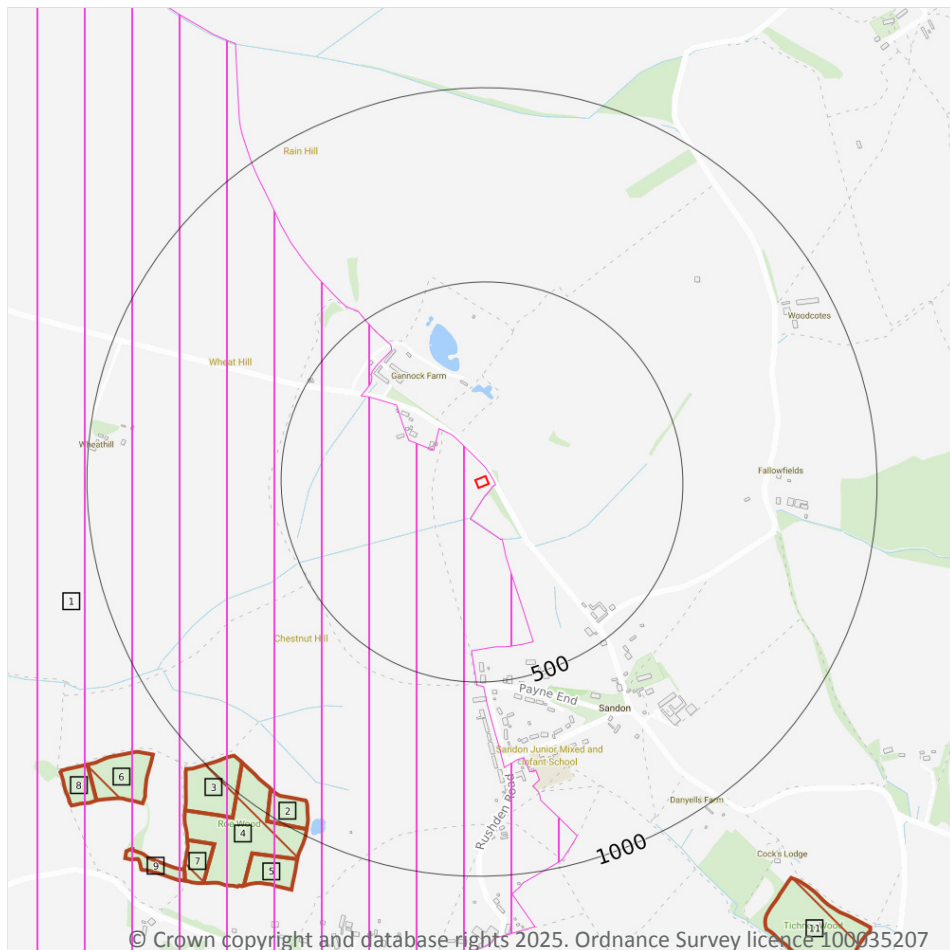
Low

Groundwater flooding is caused by unusually high groundwater levels. It occurs when the water table rises above the ground surface or within underground structures such as basements or cellars. Groundwater flooding tends to exhibit a longer duration than surface water flooding, possibly lasting for weeks or months, and as a result it can cause significant damage to property. This risk assessment is based on a 1 in 100 year return period and a 5m Digital Terrain Model (DTM).

Features are displayed on the Groundwater flooding map on [page 45 >](#)

*This data is sourced from Ambiantal Risk Analytics.*

## 10 Environmental designations



- Site Outline
- Search buffers in metres (m)
- Sites of Special Scientific Interest (SSSI)
- Designated Ancient Woodland
- Nitrate Sensitive Areas

### 10.1 Sites of Special Scientific Interest (SSSI)

#### Records within 2000m

1

Sites providing statutory protection for the best examples of UK flora, fauna, or geological or physiographical features. Originally notified under the National Parks and Access to the Countryside Act 1949, SSSIs were re-notified under the Wildlife and Countryside Act 1981. Improved provisions for the protection and management of SSSIs were introduced by the Countryside and Rights of Way Act 2000 (in England and Wales) and (in Scotland) by the Nature Conservation (Scotland) Act 2004 and the Wildlife and Natural Environment (Scotland) Act 2010.

Features are displayed on the Environmental designations map on [page 46](#) >

| ID | Location | Name                 | Data source     |
|----|----------|----------------------|-----------------|
| 12 | 1444m SE | Blagrove Common SSSI | Natural England |



*This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.*

## 10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m

0

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. They cover all aspects of wetland conservation and wise use, recognizing wetlands as ecosystems that are extremely important for biodiversity conservation in general and for the well-being of human communities. These sites cover a broad definition of wetland; marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, and even some marine areas.

*This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.*

## 10.3 Special Areas of Conservation (SAC)

Records within 2000m

0

Areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive.

*This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.*

## 10.4 Special Protection Areas (SPA)

Records within 2000m

0

Sites classified by the UK Government under the EC Birds Directive, SPAs are areas of the most important habitat for rare (listed on Annex I to the Directive) and migratory birds within the European Union.

*This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.*

## 10.5 National Nature Reserves (NNR)

Records within 2000m

0

Sites containing examples of some of the most important natural and semi-natural terrestrial and coastal ecosystems in Great Britain. They are managed to conserve their habitats, provide special opportunities for scientific study or to provide public recreation compatible with natural heritage interests.

*This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.*



## 10.6 Local Nature Reserves (LNR)

**Records within 2000m****0**

Sites managed for nature conservation, and to provide opportunities for research and education, or simply enjoying and having contact with nature. They are declared by local authorities under the National Parks and Access to the Countryside Act 1949 after consultation with the relevant statutory nature conservation agency.

*This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.*

## 10.7 Designated Ancient Woodland

**Records within 2000m****12**

Ancient woodlands are classified as areas which have been wooded continuously since at least 1600 AD. This includes semi-natural woodland and plantations on ancient woodland sites. 'Wooded continuously' does not mean there is or has previously been continuous tree cover across the whole site, and not all trees within the woodland have to be old.

Features are displayed on the Environmental designations map on [page 46 >](#)

| ID | Location | Name        | Woodland Type                   |
|----|----------|-------------|---------------------------------|
| 2  | 920m SW  | Roe Wood    | Ancient Replanted Woodland      |
| 3  | 933m SW  | Roe Wood    | Ancient Replanted Woodland      |
| 4  | 933m SW  | Roe Wood    | Ancient & Semi-Natural Woodland |
| 5  | 1064m SW | Roe Wood    | Ancient Replanted Woodland      |
| 6  | 1084m SW | Unknown     | Ancient & Semi-Natural Woodland |
| 7  | 1142m SW | Roe Wood    | Ancient Replanted Woodland      |
| 8  | 1234m SW | Unknown     | Ancient Replanted Woodland      |
| 9  | 1240m SW | Roe Wood    | Ancient & Semi-Natural Woodland |
| -  | 1249m E  | Lords Wood  | Ancient & Semi-Natural Woodland |
| 11 | 1279m SE | Unknown     | Ancient & Semi-Natural Woodland |
| -  | 1850m E  | Unknown     | Ancient & Semi-Natural Woodland |
| -  | 1928m S  | Friars Wood | Ancient & Semi-Natural Woodland |

*This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.*





## 10.8 Biosphere Reserves

Records within 2000m

0

Biosphere Reserves are internationally recognised by UNESCO as sites of excellence to balance conservation and socioeconomic development between nature and people. They are recognised under the Man and the Biosphere (MAB) Programme with the aim of promoting sustainable development founded on the work of the local community.

*This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.*

## 10.9 Forest Parks

Records within 2000m

0

These are areas managed by the Forestry Commission designated on the basis of recreational, conservation or scenic interest.

*This data is sourced from the Forestry Commission.*

## 10.10 Marine Conservation Zones

Records within 2000m

0

A type of marine nature reserve in UK waters established under the Marine and Coastal Access Act (2009). They are designated with the aim to protect nationally important, rare or threatened habitats and species.

*This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.*

## 10.11 Green Belt

Records within 2000m

0

Areas designated to prevent urban sprawl by keeping land permanently open.

*This data is sourced from the Ministry of Housing, Communities and Local Government.*

## 10.12 Proposed Ramsar sites

Records within 2000m

0

Ramsar sites are areas listed as a Wetland of International Importance under the Convention on Wetlands of International Importance especially as Waterfowl Habitat (the Ramsar Convention) 1971. The sites here supplied have a status of 'Proposed' having been identified for potential adoption under the framework.

*This data is sourced from Natural England.*

### 10.13 Possible Special Areas of Conservation (pSAC)

Records within 2000m

0

Special Areas of Conservation are areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive. Those sites supplied here are those with a status of 'Possible' having been identified for potential adoption under the framework.

*This data is sourced from Natural England and Natural Resources Wales.*

### 10.14 Potential Special Protection Areas (pSPA)

Records within 2000m

0

Special Protection Areas (SPAs) are areas designated (or 'classified') under the European Union Wild Birds Directive for the protection of nationally and internationally important populations of wild birds. Those sites supplied here are those with a status of 'Potential' having been identified for potential adoption under the framework.

*This data is sourced from Natural England.*

### 10.15 Nitrate Sensitive Areas

Records within 2000m

2

Areas where nitrate concentrations in drinking water sources exceeded or was at risk of exceeding the limit of 50 mg/l set by the 1980 EC Drinking Water Directive. Voluntary agricultural measures as a means of reducing the levels of nitrate were introduced by DEFRA as MAFF, with payments being made to farmers who complied. The scheme was started as a pilot in 1990 in ten areas, later implemented within 32 areas. The scheme was closed to further new entrants in 1998, although existing agreements continued for their full term. All Nitrate Sensitive Areas fell within the areas designated as Nitrate Vulnerable Zones (NVZs) in 1996 under the EC Nitrate Directive (91/676/EEC).

Features are displayed on the Environmental designations map on [page 46 >](#)

| ID | Location | Name     | Data source     |
|----|----------|----------|-----------------|
| 1  | On site  | Slip End | Natural England |
| -  | 1803m W  | Slip End | Natural England |

*This data is sourced from Natural England.*



## 10.16 Nitrate Vulnerable Zones

Records within 2000m

8

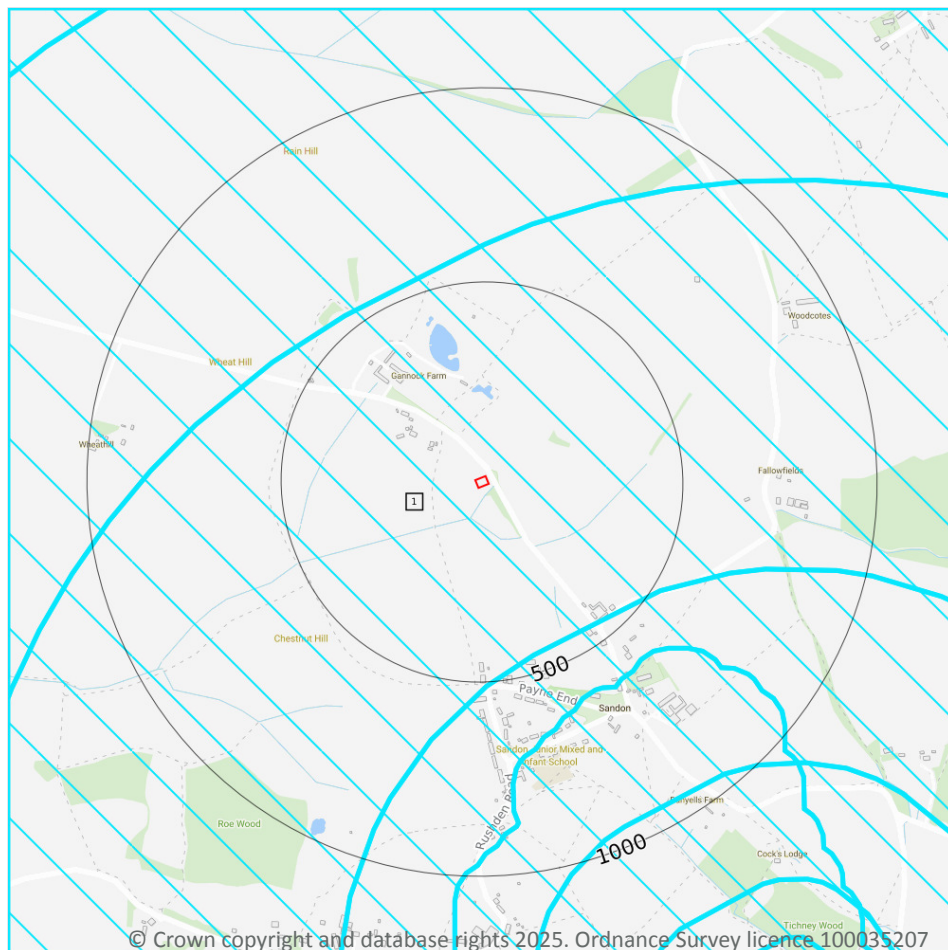
Areas at risk from agricultural nitrate pollution designated under the EC Nitrate Directive (91/676/EEC). These are areas of land that drain into waters polluted by nitrates. Farmers operating within these areas have to follow mandatory rules to tackle nitrate loss from agriculture.

| Location | Name           | Type          | NVZ ID | Status   |
|----------|----------------|---------------|--------|----------|
| On site  | Great Ouse NVZ | Surface Water | 391    | Existing |
| On site  | Anglian Chalk  | Groundwater   | 71     | Existing |
| 607m SE  | LEE NVZ        | Surface Water | 443    | Existing |
| 939m N   | Anglian Chalk  | Groundwater   | 71     | Existing |
| 939m N   | Great Ouse NVZ | Surface Water | 391    | Existing |
| 1059m NE | LEE NVZ        | Surface Water | 443    | Existing |
| 1285m NE | Great Ouse NVZ | Surface Water | 391    | Existing |
| 1313m NE | LEE NVZ        | Surface Water | 443    | Existing |

*This data is sourced from Natural England and Natural Resources Wales.*



## SSSI Impact Zones and Units



- Site Outline
- Search buffers in metres (m)
- SSSI Impact Risk Zones
- SSSI Units
- Not recorded
- Favourable
- Unfavourable - Recovering
- Unfavourable - No change
- Unfavourable - Declining
- Partially destroyed
- Destroyed

### 10.17 SSSI Impact Risk Zones

#### Records on site

1

Developed to allow rapid initial assessment of the potential risks to SSSIs posed by development proposals. They define zones around each SSSI which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal which could potentially have adverse impacts.

Features are displayed on the SSSI Impact Zones and Units map on [page 52](#) >

| ID | Location | Type of developments requiring consultation                                                                                                                                                                                                                                     |
|----|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1  | On site  | <a href="https://irz.geodata.org.uk/IRZ/step2.html?irzcode=0101011322302&amp;notes=&amp;location=531368,234637%20(IRZ%20polygon%20centre)">https://irz.geodata.org.uk/IRZ/step2.html?irzcode=0101011322302&amp;notes=&amp;location=531368,234637%20(IRZ%20polygon%20centre)</a> |

*This data is sourced from Natural England.*



## 10.18 SSSI Units

### Records within 2000m

**2**

Divisions of SSSIs used to record management and condition details. Units are the smallest areas for which Natural England gives a condition assessment, however, the size of units varies greatly depending on the types of management and the conservation interest.

Features are displayed on the SSSI Impact Zones and Units map on [page 52 >](#)

ID: 7  
 Location: 1444m SE  
 SSSI name: Blagrove Common  
 Unit name: Hmwt Reserve  
 Broad habitat: Neutral Grassland - Lowland  
 Condition: Unfavourable - Declining  
 Reportable features:

| Feature name    | Feature condition        | Date of assessment |
|-----------------|--------------------------|--------------------|
| Lowland meadows | Unfavourable - Declining | 16/08/2022         |

ID: -  
 Location: 1526m SE  
 SSSI name: Blagrove Common  
 Unit name: South-Western Field  
 Broad habitat: Neutral Grassland - Lowland  
 Condition: Unfavourable - No change  
 Reportable features:

| Feature name    | Feature condition        | Date of assessment |
|-----------------|--------------------------|--------------------|
| Lowland meadows | Unfavourable - No change | 16/08/2022         |

*This data is sourced from Natural England and Natural Resources Wales.*





## 11 Visual and cultural designations

### 11.1 World Heritage Sites

Records within 250m

0

Sites designated for their globally important cultural or natural interest requiring appropriate management and protection measures. World Heritage Sites are designated to meet the UK's commitments under the World Heritage Convention.

*This data is sourced from Historic England, Cadw and Historic Environment Scotland.*

### 11.2 Area of Outstanding Natural Beauty

Records within 250m

0

Areas of Outstanding Natural Beauty (AONB) are conservation areas, chosen because they represent 18% of the finest countryside. Each AONB has been designated for special attention because of the quality of their flora, fauna, historical and cultural associations, and/or scenic views. The National Parks and Access to the Countryside Act of 1949 created AONBs and the Countryside and Rights of Way Act, 2000 added further regulation and protection. There are likely to be restrictions to some developments within these areas.

*This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.*

### 11.3 National Parks

Records within 250m

0

In England and Wales, the purpose of National Parks is to conserve and enhance landscapes within the countryside whilst promoting public enjoyment of them and having regard for the social and economic well-being of those living within them. In Scotland National Parks have the additional purpose of promoting the sustainable use of the natural resources of the area and the sustainable social and economic development of its communities. The National Parks and Access to the Countryside Act 1949 established the National Park designation in England and Wales, and The National Parks (Scotland) Act 2000 in Scotland.

*This data is sourced from Natural England, Natural Resources Wales and the Scottish Government.*

### 11.4 Listed Buildings

Records within 250m

0

Buildings listed for their special architectural or historical interest. Building control in the form of 'listed building consent' is required in order to make any changes to that building which might affect its special interest. Listed buildings are graded to indicate their relative importance, however building controls apply to all buildings equally, irrespective of their grade, and apply to the interior and exterior of the building in its entirety, together with any curtilage structures.



*This data is sourced from Historic England, Cadw and Historic Environment Scotland.*

## 11.5 Conservation Areas

Records within 250m

0

Local planning authorities are obliged to designate as conservation areas any parts of their own area that are of special architectural or historic interest, the character and appearance of which it is desirable to preserve or enhance. Designation of a conservation area gives broader protection than the listing of individual buildings. All the features within the area, listed or otherwise, are recognised as part of its character. Conservation area designation is the means of recognising the importance of all factors and of ensuring that planning decisions address the quality of the landscape in its broadest sense.

*This data is sourced from Historic England, Cadw and Historic Environment Scotland.*

## 11.6 Scheduled Ancient Monuments

Records within 250m

0

A scheduled monument is an historic building or site that is included in the Schedule of Monuments kept by the Secretary of State for Digital, Culture, Media and Sport. The regime is set out in the Ancient Monuments and Archaeological Areas Act 1979. The Schedule of Monuments has c.20,000 entries and includes sites such as Roman remains, burial mounds, castles, bridges, earthworks, the remains of deserted villages and industrial sites. Monuments are not graded, but all are, by definition, considered to be of national importance.

*This data is sourced from Historic England, Cadw and Historic Environment Scotland.*

## 11.7 Registered Parks and Gardens

Records within 250m

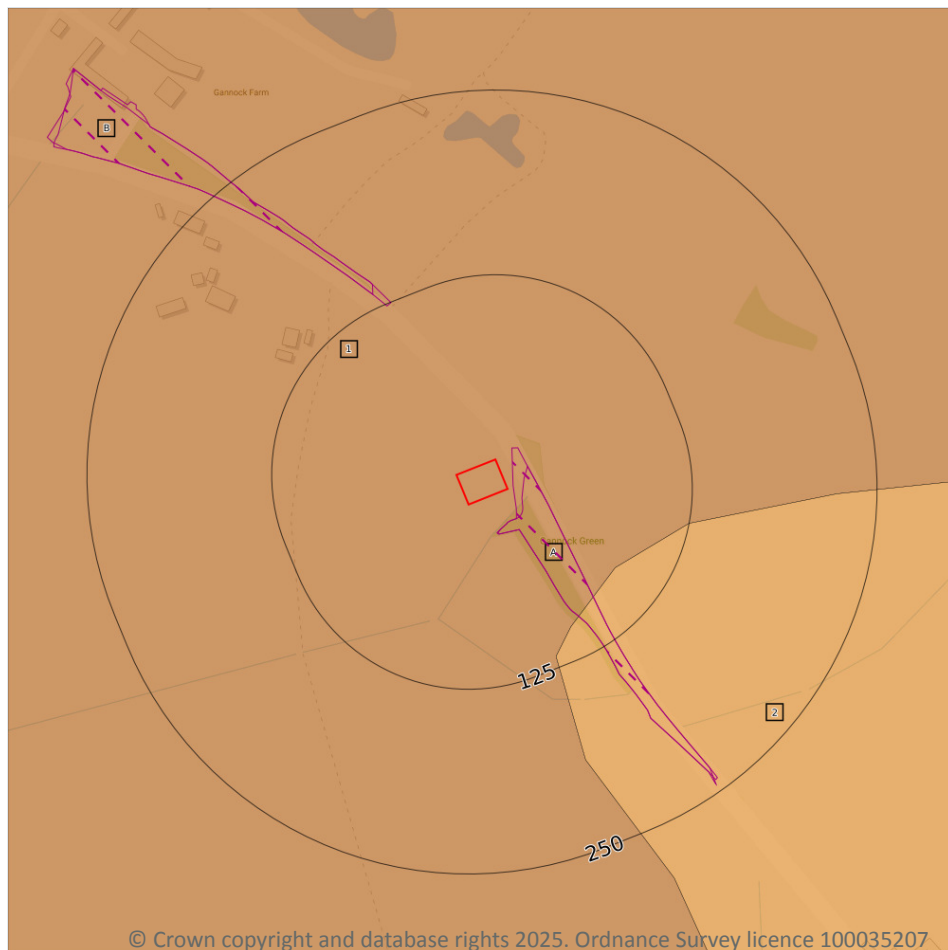
0

Parks and gardens assessed to be of particular interest and of special historic interest. The emphasis being on 'designed' landscapes, rather than on planting or botanical importance. Registration is a 'material consideration' in the planning process, meaning that planning authorities must consider the impact of any proposed development on the special character of the landscape.

*This data is sourced from Historic England, Cadw and Historic Environment Scotland.*



## 12 Agricultural designations



- Site Outline
- Search buffers in metres (m)
- Grade 1 - excellent quality
- Grade 2 - very good quality
- Grade 3 - good to moderate quality
- Grade 3a - good quality
- Grade 3b - moderate quality
- Grade 4 - poor quality
- Grade 5 - very poor quality
- Non-agricultural land
- Urban land
- Exclusion land
- Tree felling licences
- Open Access land

### 12.1 Agricultural Land Classification

Records within 250m

2

Classification of the quality of agricultural land taking into consideration multiple factors including climate, physical geography and soil properties. It should be noted that the categories for the grading of agricultural land are not consistent across England, Wales and Scotland.

Features are displayed on the Agricultural designations map on [page 56](#) >

| ID | Location | Classification | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----|----------|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1  | On site  | Grade 2        | Very good quality agricultural land. Land with minor limitations which affect crop yield, cultivations or harvesting. A wide range of agricultural and horticultural crops can usually be grown but on some land in the grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1. |
| 2  | 90m SE   | Grade 3        | Good to moderate quality agricultural land. Land with moderate limitations which affect the choice of crops, timing and type of cultivation, harvesting or the level of yield. Where more demanding crops are grown yields are generally lower or more variable than on land in Grades 1 and 2.                                                                                                                                                                                    |

*This data is sourced from Natural England.*

## 12.2 Open Access Land

Records within 250m

4

The Countryside and Rights of Way Act 2000 (CROW Act) gives a public right of access to land without having to use paths. Access land includes mountains, moors, heaths and downs that are privately owned. It also includes common land registered with the local council and some land around the England Coast Path. Generally permitted activities on access land are walking, running, watching wildlife and climbing.

Features are displayed on the Agricultural designations map on [page 56 >](#)

| ID | Location | Name                 | Classification                              | Other relevant legislation |
|----|----------|----------------------|---------------------------------------------|----------------------------|
| A  | 4m E     | Sandon Commons       | Section 15 Land                             | 1899 CA                    |
| A  | 10m E    | Gannock Green Common | Section 4 Conclusive Registered Common Land | -                          |
| B  | 124m N   | Sandon Commons       | Section 15 Land                             | 1899 CA                    |
| B  | 135m NW  | Gannock Green Common | Section 4 Conclusive Registered Common Land | -                          |

*This data is sourced from Natural England and Natural Resources Wales.*

## 12.3 Tree Felling Licences

Records within 250m

0

Felling Licence Application (FLA) areas approved by Forestry Commission England. Anyone wishing to fell trees must ensure that a licence or permission under a grant scheme has been issued by the Forestry Commission before any felling is carried out or that one of the exceptions apply.

*This data is sourced from the Forestry Commission.*



## 12.4 Environmental Stewardship Schemes

**Records within 250m****2**

Environmental Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. The schemes identified may be historical schemes that have now expired, or may still be active.

| Location | Reference  | Scheme                                    | Start Date | End date   |
|----------|------------|-------------------------------------------|------------|------------|
| 9m SW    | AG00578814 | Entry Level plus Higher Level Stewardship | 01/10/2014 | 30/09/2024 |
| 22m E    | AG00578814 | Entry Level plus Higher Level Stewardship | 01/10/2014 | 30/09/2024 |

*This data is sourced from Natural England.*

## 12.5 Countryside Stewardship Schemes

**Records within 250m****0**

Countryside Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. Main objectives are to improve the farmed environment for wildlife and to reduce diffuse water pollution.

*This data is sourced from Natural England.*





## 13 Habitat designations

### 13.1 Priority Habitat Inventory

Records within 250m

0

Habitats of principal importance as named under Natural Environment and Rural Communities Act (2006) Section 41.

*This data is sourced from Natural England.*

### 13.2 Habitat Networks

Records within 250m

0

Habitat networks for 18 priority habitat networks (based primarily, but not exclusively, on the priority habitat inventory) and areas suitable for the expansion of networks through restoration and habitat creation.

*This data is sourced from Natural England.*

### 13.3 Open Mosaic Habitat

Records within 250m

0

Sites verified as Open Mosaic Habitat. Mosaic habitats are brownfield sites that are identified under the UK Biodiversity Action Plan as a priority habitat due to the habitat variation within a single site, supporting an array of invertebrates.

*This data is sourced from Natural England.*

### 13.4 Limestone Pavement Orders

Records within 250m

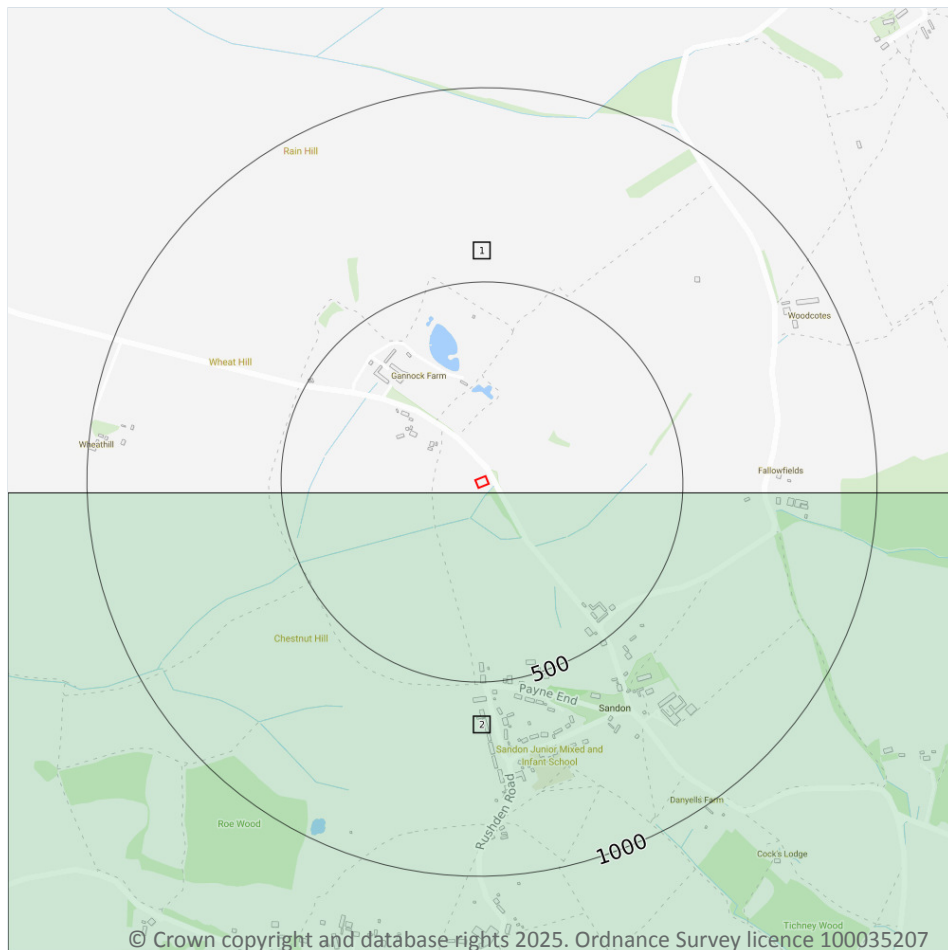
0

Limestone pavements are outcrops of limestone where the surface has been worn away by natural means over millennia. These rocks have the appearance of paving blocks, hence their name. Not only do they have geological interest, they also provide valuable habitats for wildlife. These habitats are threatened due to their removal for use in gardens and water features. Many limestone pavements have been designated as SSSIs which affords them some protection. In addition, Section 34 of the Wildlife and Countryside Act 1981 gave them additional protection via the creation of Limestone Pavement Orders, which made it a criminal offence to remove any part of the outcrop. The associated Limestone Pavement Priority Habitat is part of the UK Biodiversity Action Plan priority habitat in England.

*This data is sourced from Natural England.*



## 14 Geology 1:10,000 scale - Availability



- Site Outline**
- Search buffers in metres (m)
- Full coverage
  - Partial coverage
  - No coverage

### 14.1 10k Availability

#### Records within 500m

2

An indication on the coverage of 1:10,000 scale geology data for the site, the most detailed dataset provided by the British Geological Survey. Either 'Full', 'Partial' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:10,000 scale - Availability map on [page 60](#) >

| ID | Location | Artificial  | Superficial | Bedrock     | Mass movement | Sheet No. |
|----|----------|-------------|-------------|-------------|---------------|-----------|
| 1  | On site  | No coverage | No coverage | No coverage | No coverage   | NoCov     |
| 2  | 13m S    | No coverage | Full        | Full        | No coverage   | TL33SW    |

*This data is sourced from the British Geological Survey.*



## Geology 1:10,000 scale - Artificial and made ground

### 14.2 Artificial and made ground (10k)

Records within 500m

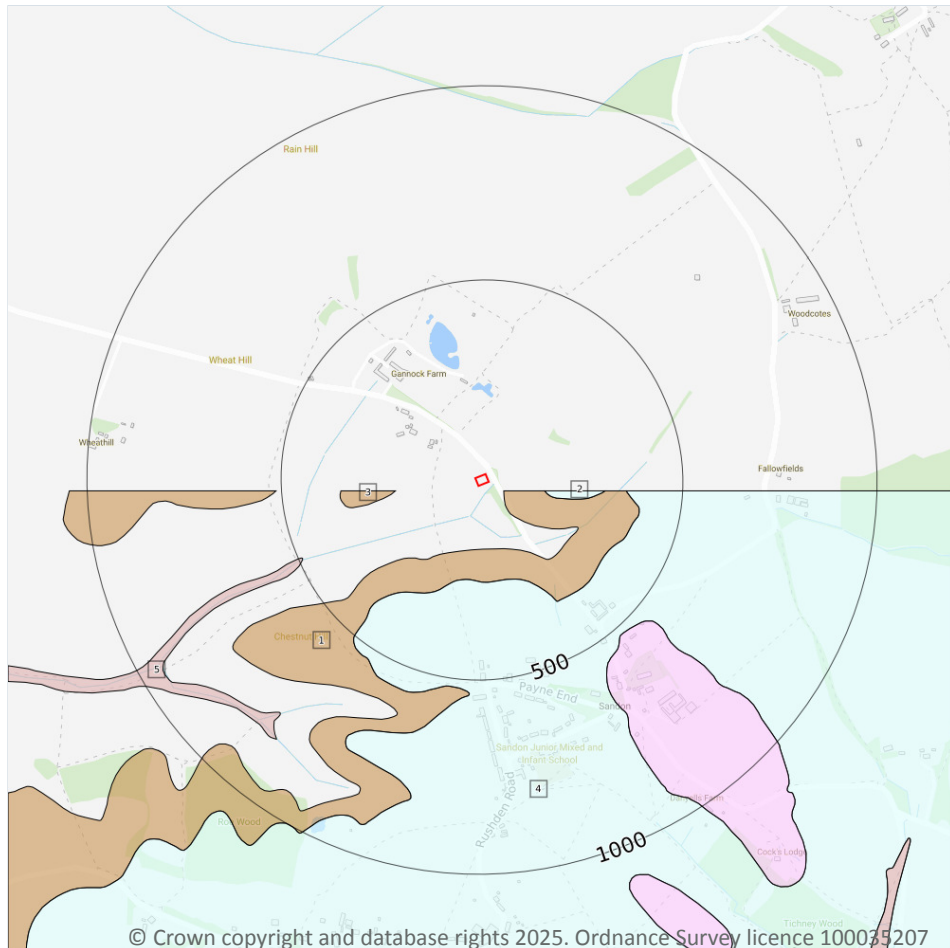
0

Details of made, worked, infilled, disturbed and landscaped ground at 1:10,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

*This data is sourced from the British Geological Survey.*



## Geology 1:10,000 scale - Superficial



**Site Outline**

Search buffers in metres (m)

**Landslip (10k)**

**Superficial geology (10k)**  
Please see table for more details.

### 14.3 Superficial geology (10k)

#### Records within 500m

5

Superficial geological deposits at 1:10,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

Features are displayed on the Geology 1:10,000 scale - Superficial map on [page 62](#) >

| ID | Location | LEX Code   | Description                                              | Rock description            |
|----|----------|------------|----------------------------------------------------------|-----------------------------|
| 1  | 45m SE   | CWF-XCZSV  | Clay-with-flints Formation - Clay, Silt, Sand And Gravel | Clay, Silt, Sand And Gravel |
| 2  | 146m E   | TILMP-DMTN | Till, Mid Pleistocene - Diamicton                        | Diamicton                   |
| 3  | 208m W   | CWF-XCZSV  | Clay-with-flints Formation - Clay, Silt, Sand And Gravel | Clay, Silt, Sand And Gravel |



| ID | Location | LEX Code   | Description                        | Rock description            |
|----|----------|------------|------------------------------------|-----------------------------|
| 4  | 242m S   | TILMP-DMTN | Till, Mid Pleistocene - Diamicton  | Diamicton                   |
| 5  | 490m W   | HEAD-XCZSV | Head - Clay, Silt, Sand And Gravel | Clay, Silt, Sand And Gravel |

*This data is sourced from the British Geological Survey.*

## 14.4 Landslip (10k)

### Records within 500m

**0**

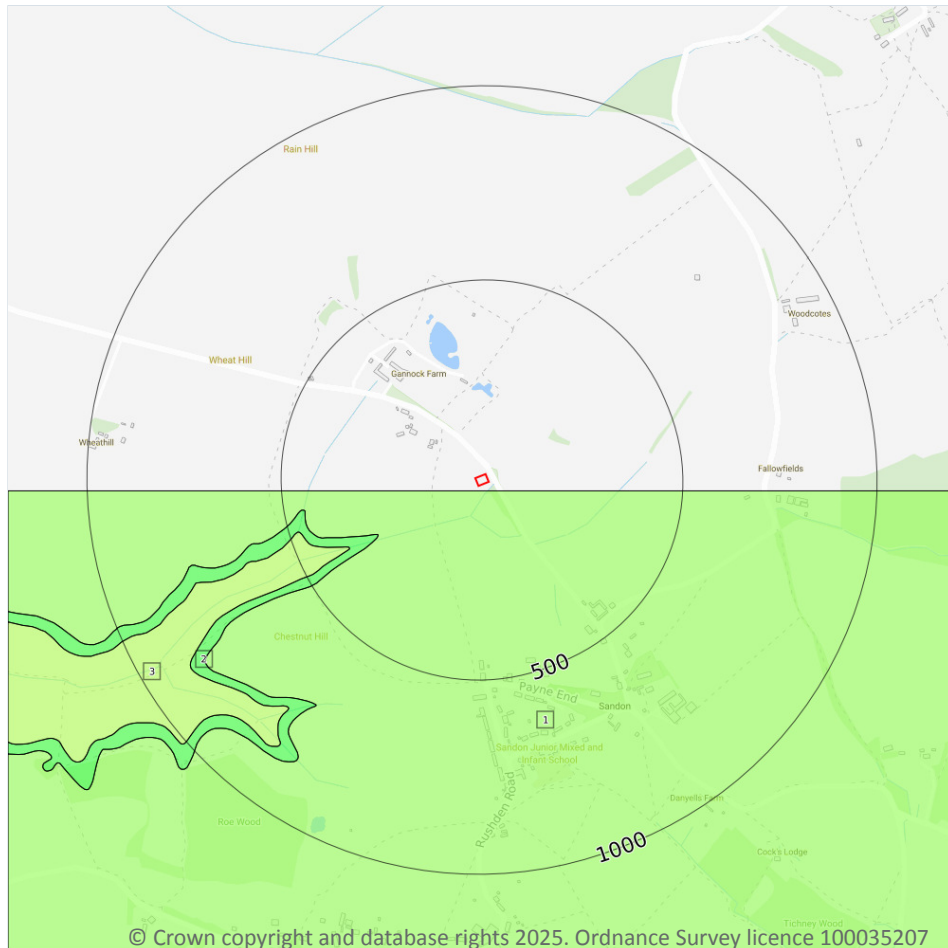
Mass movement deposits on BGS geological maps at 1:10,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

*This data is sourced from the British Geological Survey.*





## Geology 1:10,000 scale - Bedrock



**Site Outline**

Search buffers in metres (m)

..... Bedrock faults and other linear features (10k)

Bedrock geology (10k)  
Please see table for more details.

### 14.5 Bedrock geology (10k)

#### Records within 500m

3

Bedrock geology at 1:10,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:10,000 scale - Bedrock map on [page 64](#) >

| ID | Location | LEX Code  | Description                                                                             | Rock age                      |
|----|----------|-----------|-----------------------------------------------------------------------------------------|-------------------------------|
| 1  | 13m S    | LESE-CHLK | Lewes Nodular Chalk Formation And Seaford Chalk Formation (undifferentiated) - Chalk    | Santonian Age - Turonian Age  |
| 2  | 288m SW  | CKR-CHLK  | Chalk Rock Member - Chalk                                                               | Turonian Age                  |
| 3  | 369m SW  | HNCK-CHLK | Holywell Nodular Chalk Formation And New Pit Chalk Formation (undifferentiated) - Chalk | Turonian Age - Cenomanian Age |



*This data is sourced from the British Geological Survey.*

## 14.6 Bedrock faults and other linear features (10k)

Records within 500m

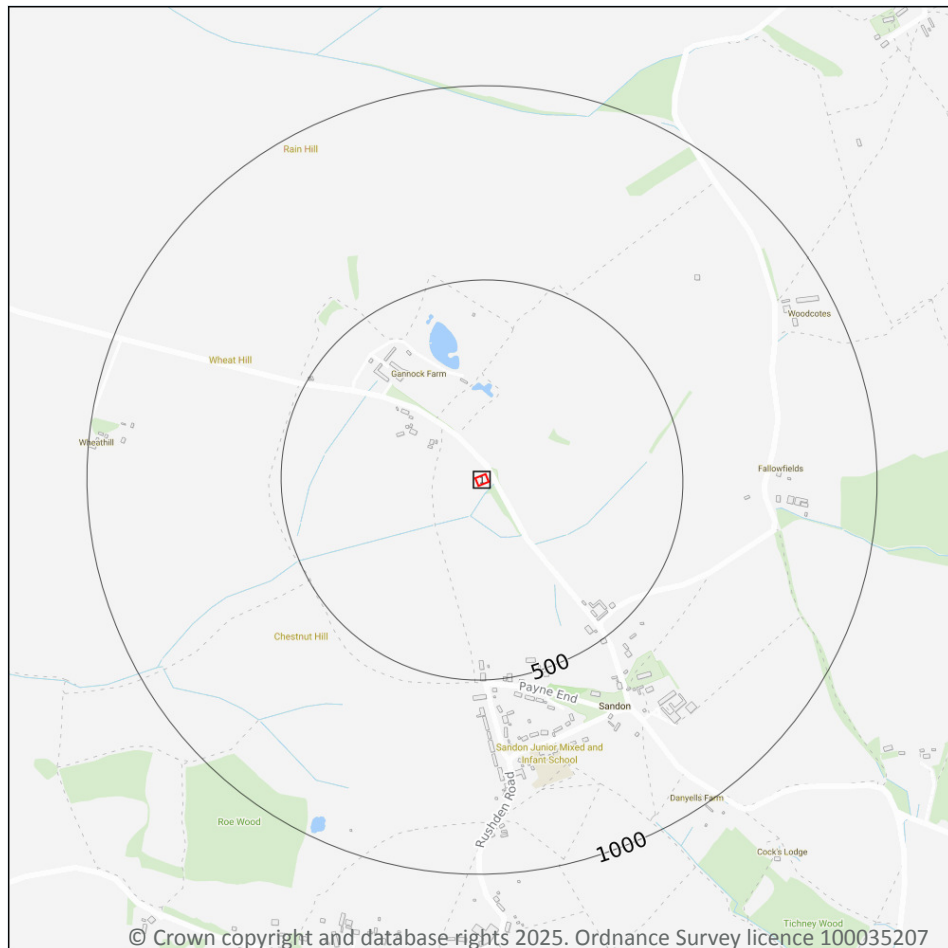
0

Linear features at the ground or bedrock surface at 1:10,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

*This data is sourced from the British Geological Survey.*



## 15 Geology 1:50,000 scale - Availability



— Site Outline

Search buffers in metres (m)

□ Geological map tile

### 15.1 50k Availability

#### Records within 500m

1

An indication on the coverage of 1:50,000 scale geology data for the site. Either 'Full' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:50,000 scale - Availability map on [page 66](#) >

| ID | Location | Artificial | Superficial | Bedrock | Mass movement | Sheet No.        |
|----|----------|------------|-------------|---------|---------------|------------------|
| 1  | On site  | Full       | Full        | Full    | Full          | EW221_hitchin_v4 |

*This data is sourced from the British Geological Survey.*



## Geology 1:50,000 scale - Artificial and made ground

### 15.2 Artificial and made ground (50k)

Records within 500m

0

Details of made, worked, infilled, disturbed and landscaped ground at 1:50,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

*This data is sourced from the British Geological Survey.*

### 15.3 Artificial ground permeability (50k)

Records within 50m

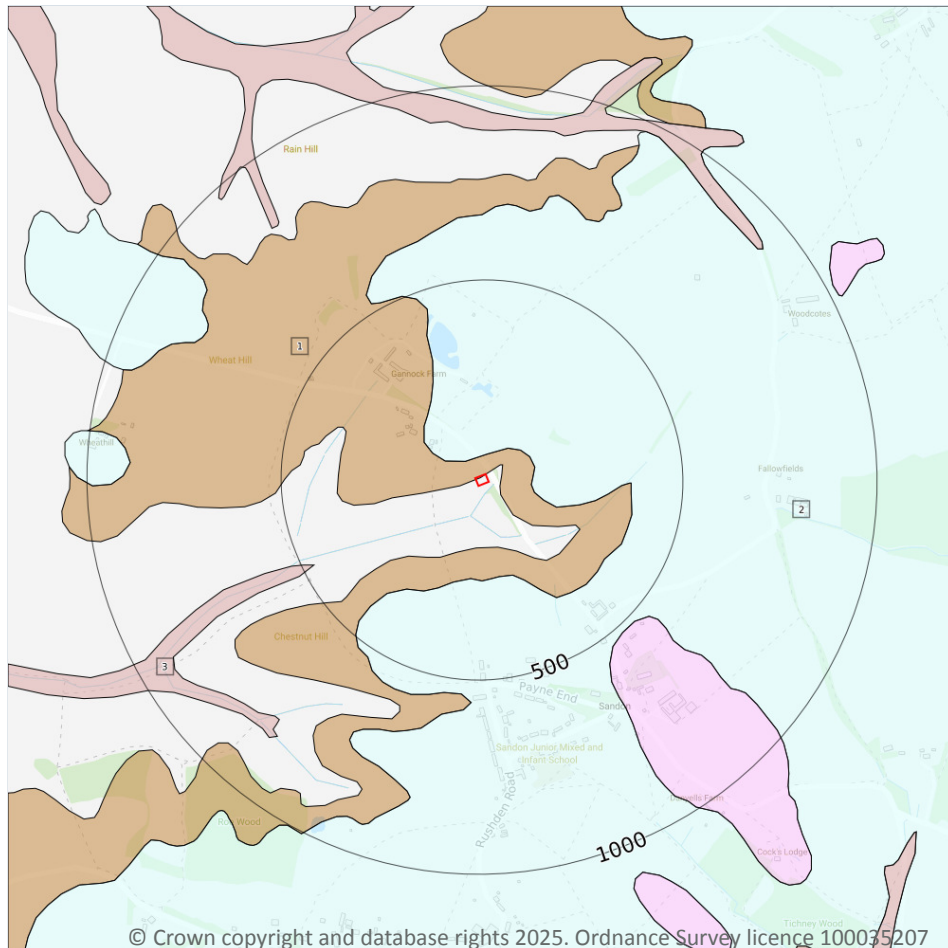
0

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any artificial deposits (the zone between the land surface and the water table).

*This data is sourced from the British Geological Survey.*



## Geology 1:50,000 scale - Superficial



**Site Outline**

Search buffers in metres (m)

**Landslip (50k)**

**Superficial geology (50k)**  
Please see table for more details.

### 15.4 Superficial geology (50k)

#### Records within 500m

3

Superficial geological deposits at 1:50,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

Features are displayed on the Geology 1:50,000 scale - Superficial map on [page 68](#) >

| ID | Location | LEX Code   | Description                | Rock description            |
|----|----------|------------|----------------------------|-----------------------------|
| 1  | On site  | CWF-XCZSV  | CLAY-WITH-FLINTS FORMATION | CLAY, SILT, SAND AND GRAVEL |
| 2  | 48m N    | LOFT-DMTN  | LOWESTOFT FORMATION        | DIAMICTON                   |
| 3  | 470m SW  | HEAD-XCZSV | HEAD                       | CLAY, SILT, SAND AND GRAVEL |





*This data is sourced from the British Geological Survey.*

## 15.5 Superficial permeability (50k)

Records within 50m

3

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any superficial deposits (the zone between the land surface and the water table).

| Location       | Flow type    | Maximum permeability | Minimum permeability |
|----------------|--------------|----------------------|----------------------|
| <b>On site</b> | <b>Mixed</b> | <b>High</b>          | <b>Very Low</b>      |
| 38m SE         | Mixed        | High                 | Very Low             |
| 48m N          | Mixed        | Moderate             | Low                  |

*This data is sourced from the British Geological Survey.*

## 15.6 Landslip (50k)

Records within 500m

0

Mass movement deposits on BGS geological maps at 1:50,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

*This data is sourced from the British Geological Survey.*

## 15.7 Landslip permeability (50k)

Records within 50m

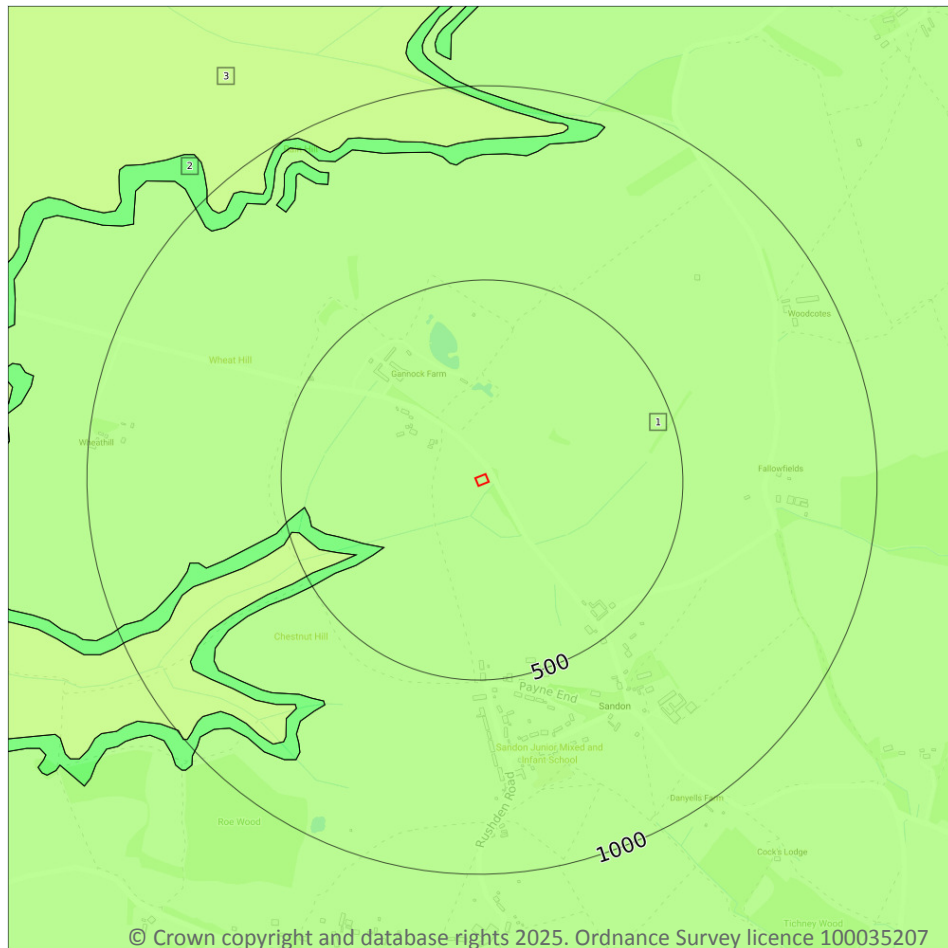
0

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any landslip deposits (the zone between the land surface and the water table).

*This data is sourced from the British Geological Survey.*



## Geology 1:50,000 scale - Bedrock



— Site Outline

Search buffers in metres (m)

.... Bedrock faults and other linear features (50k)

Bedrock geology (50k)  
Please see table for more details.

### 15.8 Bedrock geology (50k)

#### Records within 500m

3

Bedrock geology at 1:50,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:50,000 scale - Bedrock map on [page 70](#) >

| ID | Location | LEX Code  | Description                                                                             | Rock age   |
|----|----------|-----------|-----------------------------------------------------------------------------------------|------------|
| 1  | On site  | LESE-CHLK | LEWES NODULAR CHALK FORMATION AND SEAFORD CHALK FORMATION (UNDIFFERENTIATED) - CHALK    | TURONIAN   |
| 2  | 291m SW  | CKR-CHLK  | CHALK ROCK MEMBER - CHALK                                                               | TURONIAN   |
| 3  | 362m SW  | HNCK-CHLK | HOLYWELL NODULAR CHALK FORMATION AND NEW PIT CHALK FORMATION (UNDIFFERENTIATED) - CHALK | CENOMANIAN |



*This data is sourced from the British Geological Survey.*

## 15.9 Bedrock permeability (50k)

**Records within 50m**

**2**

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of bedrock (the zone between the land surface and the water table).

| Location       | Flow type       | Maximum permeability | Minimum permeability |
|----------------|-----------------|----------------------|----------------------|
| <b>On site</b> | <b>Fracture</b> | <b>Very High</b>     | <b>Very High</b>     |
| 13m S          | Fracture        | Very High            | Very High            |

*This data is sourced from the British Geological Survey.*

## 15.10 Bedrock faults and other linear features (50k)

**Records within 500m**

**0**

Linear features at the ground or bedrock surface at 1:50,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

*This data is sourced from the British Geological Survey.*



## 16 Boreholes

### 16.1 BGS Boreholes

Records within 250m

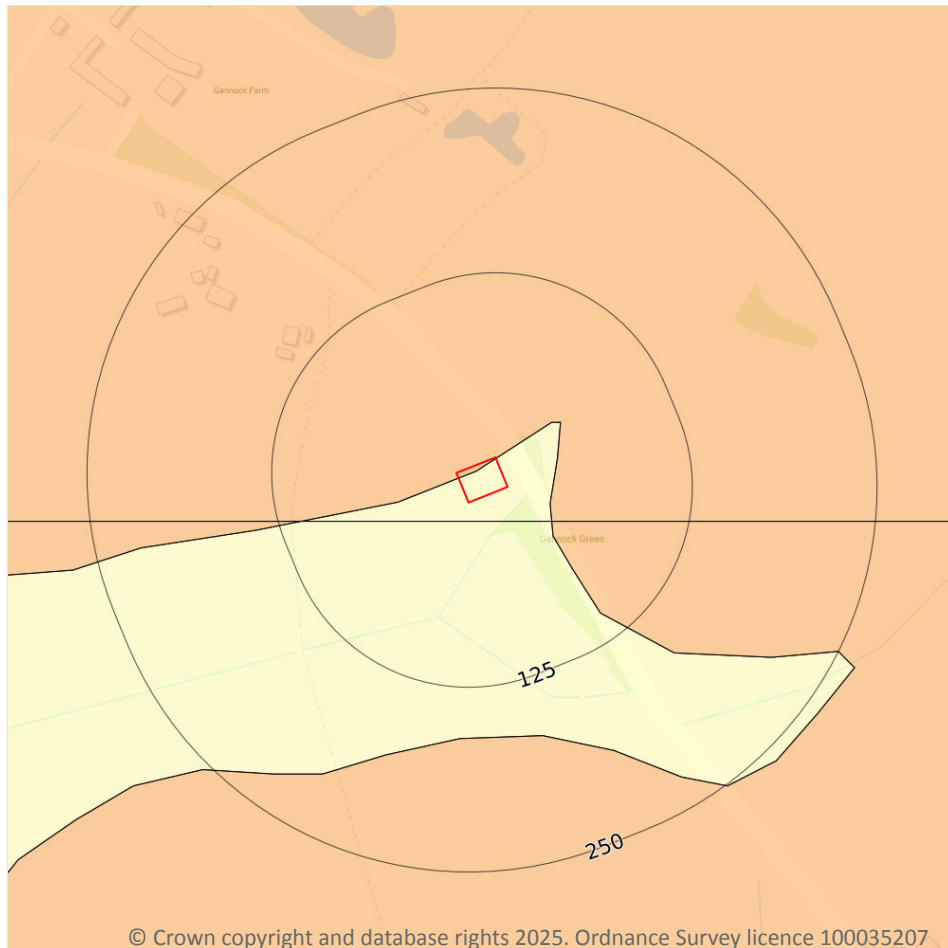
0

The Single Onshore Boreholes Index (SOBI); an index of over one million records of boreholes, shafts and wells from all forms of drilling and site investigation work held by the British Geological Survey. Covering onshore and nearshore boreholes dating back to at least 1790 and ranging from one to several thousand metres deep.

*This data is sourced from the British Geological Survey.*



## 17 Natural ground subsidence - Shrink swell clays



- Site Outline
- Search buffers in metres (m)
- ☐ No data
  - ☐ Negligible
  - ☐ Very low
  - ☐ Low
  - ☐ Moderate
  - ☐ High

### 17.1 Shrink swell clays

#### Records within 50m

4

The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and local drainage).

Features are displayed on the Natural ground subsidence - Shrink swell clays map on [page 73 >](#)

| Location | Hazard rating | Details                                            |
|----------|---------------|----------------------------------------------------|
| On site  | Negligible    | Ground conditions predominantly non-plastic.       |
| On site  | Low           | Ground conditions predominantly medium plasticity. |
| 13m S    | Negligible    | Ground conditions predominantly non-plastic.       |



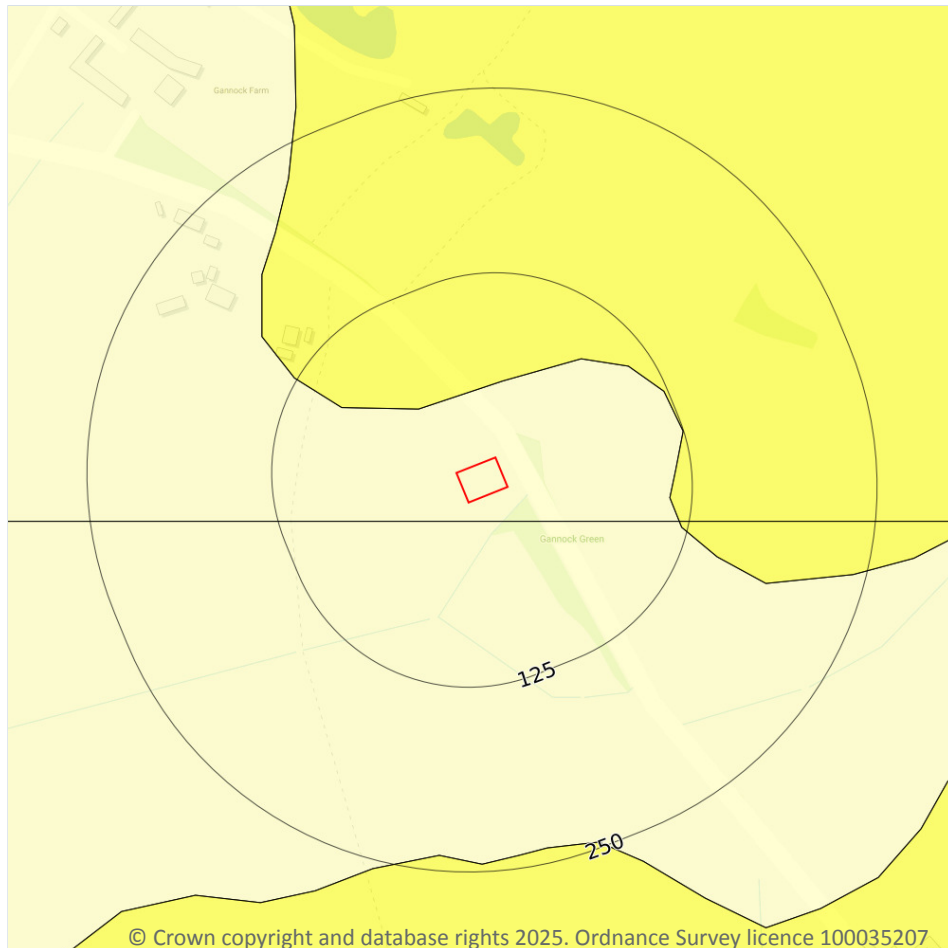


| Location | Hazard rating | Details                                            |
|----------|---------------|----------------------------------------------------|
| 38m SE   | Low           | Ground conditions predominantly medium plasticity. |

*This data is sourced from the British Geological Survey.*



## Natural ground subsidence - Running sands



- Site Outline
- Search buffers in metres (m)
- ☐ No data
  - ☐ Negligible
  - ☐ Very low
  - ☐ Low
  - ☐ Moderate
  - ☐ High

### 17.2 Running sands

#### Records within 50m

3

The potential hazard presented by rocks that can contain loosely-packed sandy layers that can become fluidised by water flowing through them. Such sands can 'run', removing support from overlying buildings and causing potential damage.

Features are displayed on the Natural ground subsidence - Running sands map on [page 75 >](#)

| Location | Hazard rating | Details                                                                                                                                                      |
|----------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| On site  | Negligible    | Running sand conditions are not thought to occur whatever the position of the water table. No identified constraints on lands use due to running conditions. |

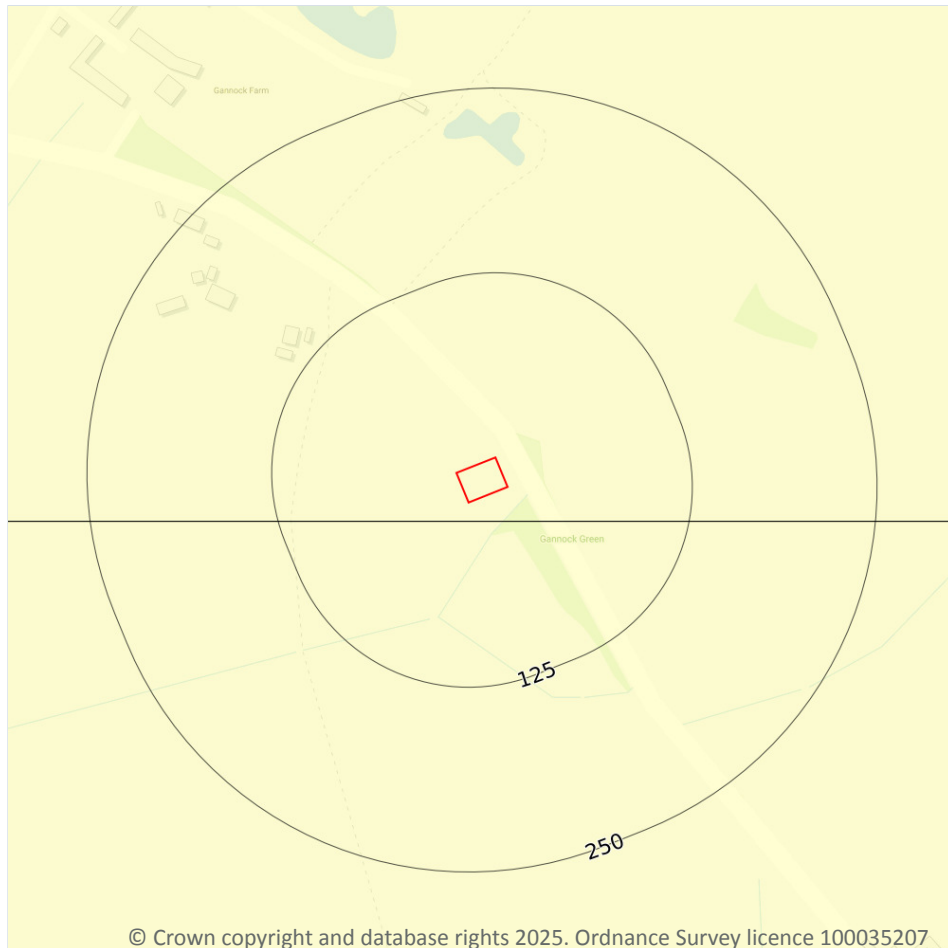


| Location | Hazard rating | Details                                                                                                                                                      |
|----------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 13m S    | Negligible    | Running sand conditions are not thought to occur whatever the position of the water table. No identified constraints on lands use due to running conditions. |
| 48m N    | Very low      | Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.                      |

*This data is sourced from the British Geological Survey.*



## Natural ground subsidence - Compressible deposits



- Site Outline
- Search buffers in metres (m)
- ☐ No data
  - ☐ Negligible
  - ☐ Very low
  - ☐ Low
  - ☐ Moderate
  - ☐ High

### 17.3 Compressible deposits

#### Records within 50m

2

The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

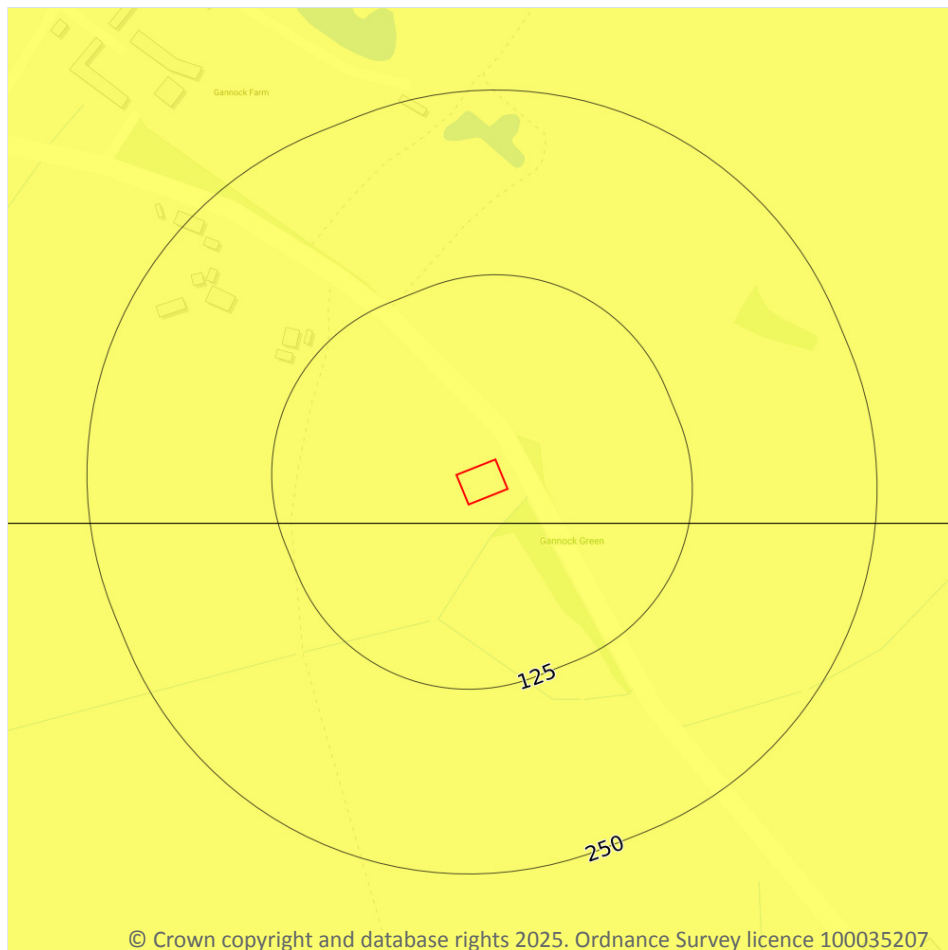
Features are displayed on the Natural ground subsidence - Compressible deposits map on [page 77 >](#)

| Location       | Hazard rating     | Details                                              |
|----------------|-------------------|------------------------------------------------------|
| <b>On site</b> | <b>Negligible</b> | <b>Compressible strata are not thought to occur.</b> |
| 13m S          | Negligible        | Compressible strata are not thought to occur.        |

*This data is sourced from the British Geological Survey.*



## Natural ground subsidence - Collapsible deposits



- Site Outline
- Search buffers in metres (m)
- ☐ No data
  - ☐ Negligible
  - ☒ Very low
  - ☐ Low
  - ☐ Moderate
  - ☐ High

### 17.4 Collapsible deposits

#### Records within 50m

2

The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

Features are displayed on the Natural ground subsidence - Collapsible deposits map on [page 78 >](#)

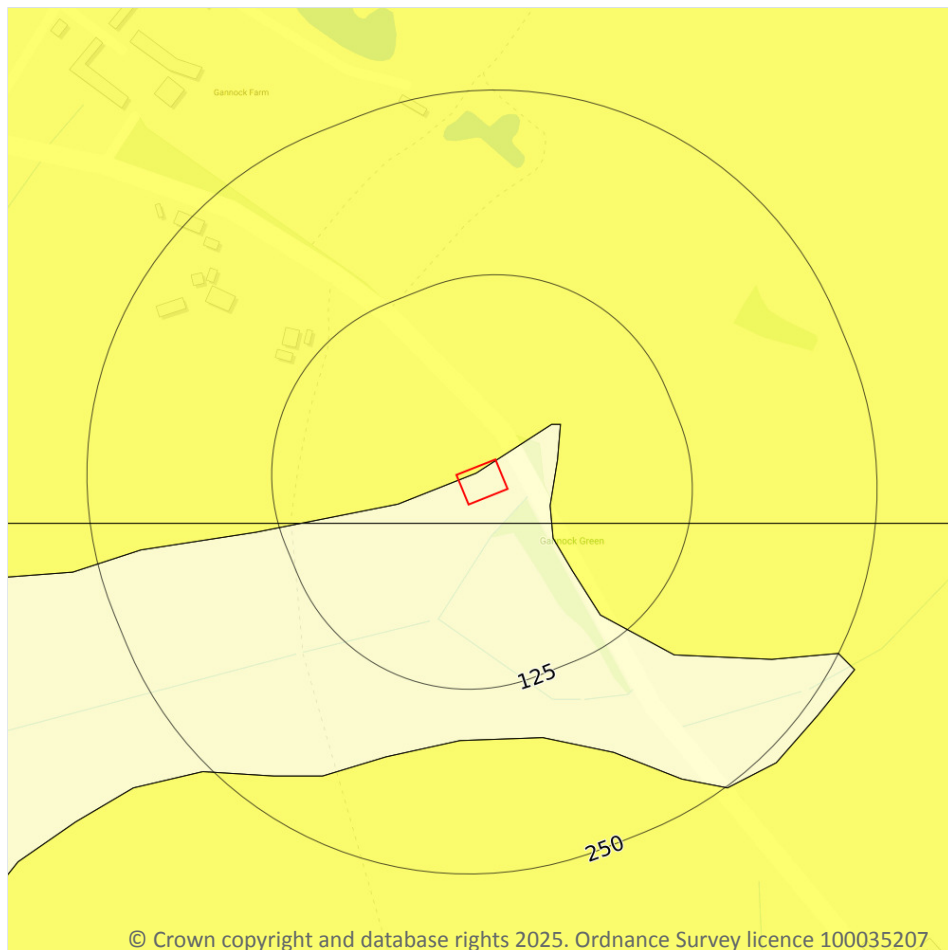
| Location       | Hazard rating   | Details                                                                                          |
|----------------|-----------------|--------------------------------------------------------------------------------------------------|
| <b>On site</b> | <b>Very low</b> | <b>Deposits with potential to collapse when loaded and saturated are unlikely to be present.</b> |
| 13m S          | Very low        | Deposits with potential to collapse when loaded and saturated are unlikely to be present.        |

*This data is sourced from the British Geological Survey.*





## Natural ground subsidence - Landslides



- Site Outline
- Search buffers in metres (m)
- ☐ No data
  - ☐ Negligible
  - ☐ Very low
  - ☐ Low
  - ☐ Moderate
  - ☐ High

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### 17.5 Landslides

#### Records within 50m

4

The potential for landsliding (slope instability) to be a hazard assessed using 1:50,000 scale digital maps of superficial and bedrock deposits, combined with information from the BGS National Landslide Database and scientific and engineering reports.

Features are displayed on the Natural ground subsidence - Landslides map on [page 79](#) >

| Location | Hazard rating | Details                                                                                                                                                          |
|----------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| On site  | Negligible    | Slope instability problems are not thought to occur but consideration to potential problems of adjacent areas impacting on the site should always be considered. |

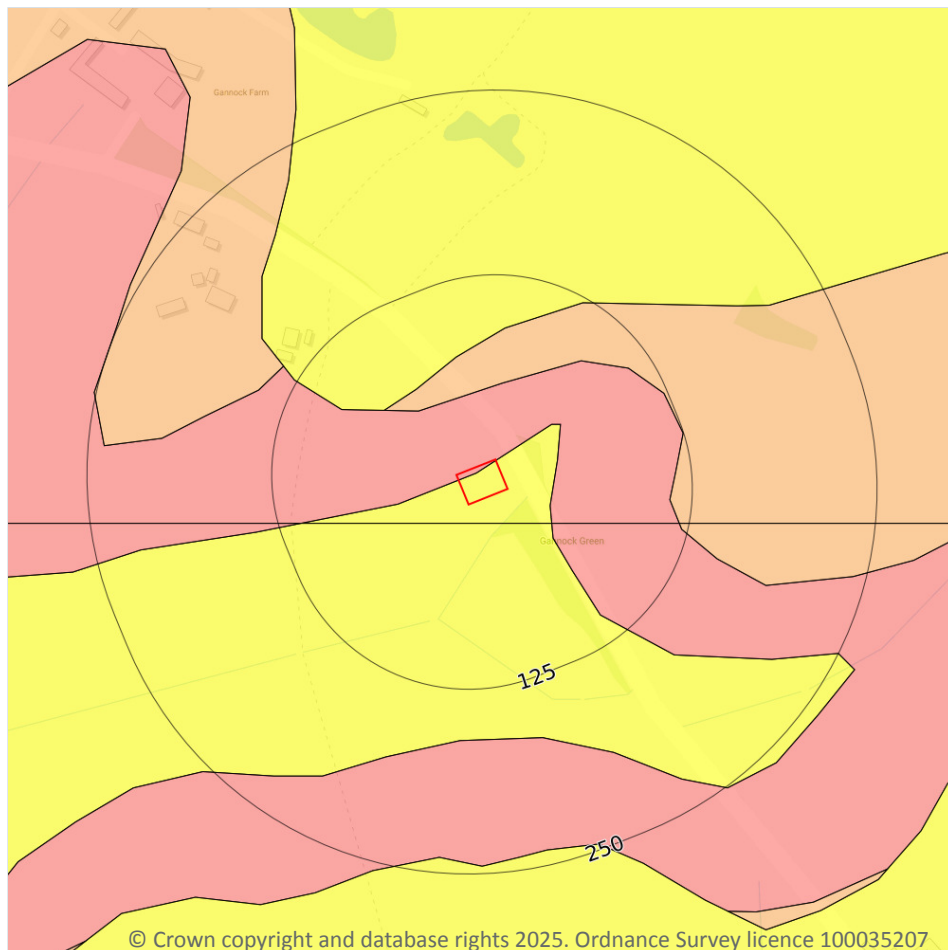


| Location | Hazard rating | Details                                                                                                                                                                |
|----------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| On site  | Very low      | <b>Slope instability problems are not likely to occur but consideration to potential problems of adjacent areas impacting on the site should always be considered.</b> |
| 13m S    | Negligible    | Slope instability problems are not thought to occur but consideration to potential problems of adjacent areas impacting on the site should always be considered.       |
| 38m SE   | Very low      | Slope instability problems are not likely to occur but consideration to potential problems of adjacent areas impacting on the site should always be considered.        |

*This data is sourced from the British Geological Survey.*



## Natural ground subsidence - Ground dissolution of soluble rocks



- Site Outline
- Search buffers in metres (m)
- ☐ No data
  - ☐ Negligible
  - ☐ Very low
  - ☐ Low
  - ☐ Moderate
  - ☐ High

### 17.6 Ground dissolution of soluble rocks

#### Records within 50m

5

The potential hazard presented by ground dissolution, which occurs when water passing through soluble rocks produces underground cavities and cave systems. These cavities reduce support to the ground above and can cause localised collapse of the overlying rocks and deposits.

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on [page 81](#) >

| Location | Hazard rating | Details                                                                                                                                                                                                             |
|----------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| On site  | Very low      | Soluble rocks are present within the ground. Few dissolution features are likely to be present. Potential for difficult ground conditions or localised subsidence are at a level where they need not be considered. |

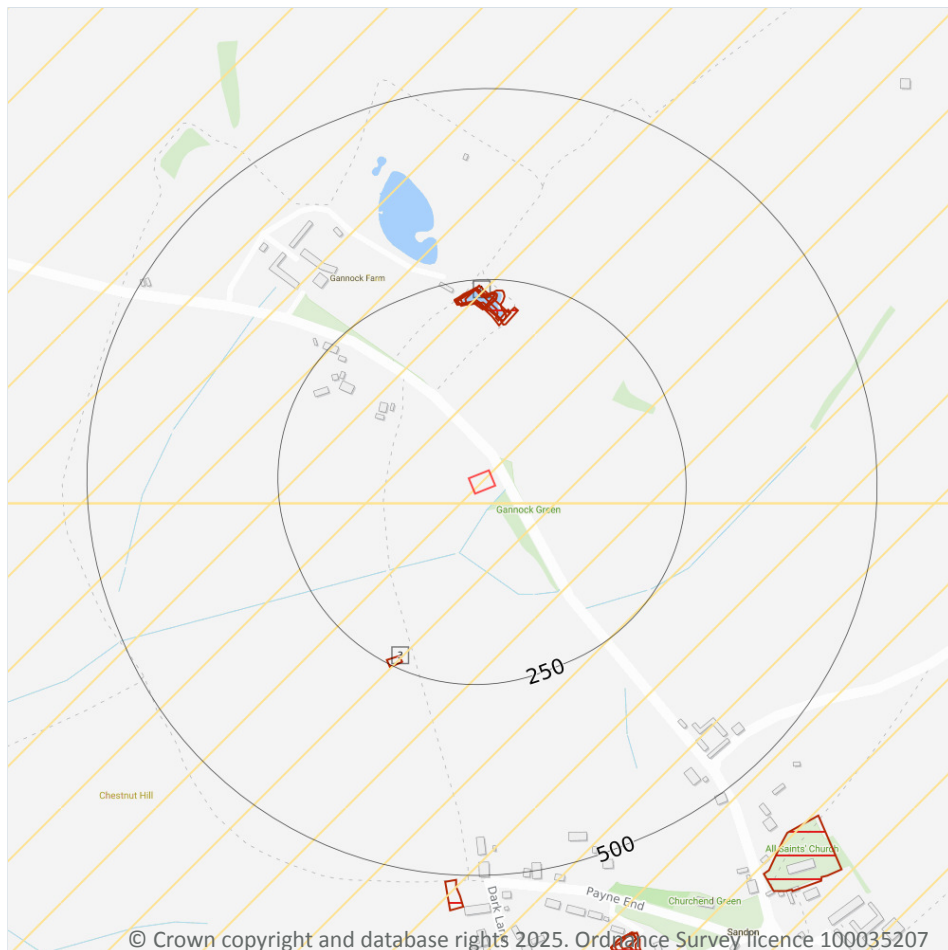


| Location | Hazard rating | Details                                                                                                                                                                                                                                                            |
|----------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| On site  | Moderate      | <b>Soluble rocks are present within the ground. Many dissolution features may be present. Potential for difficult ground conditions are at a level where they should be considered. Potential for subsidence is at a level where it may need to be considered.</b> |
| 13m S    | Very low      | Soluble rocks are present within the ground. Few dissolution features are likely to be present. Potential for difficult ground conditions or localised subsidence are at a level where they need not be considered.                                                |
| 38m SE   | Moderate      | Soluble rocks are present within the ground. Many dissolution features may be present. Potential for difficult ground conditions are at a level where they should be considered. Potential for subsidence is at a level where it may need to be considered.        |
| 48m N    | Low           | Soluble rocks are present within the ground. Some dissolution features may be present. Potential for difficult ground conditions are at a level where they may be considered, localised subsidence need not be considered except in exceptional circumstances.     |

*This data is sourced from the British Geological Survey.*



## 18 Mining and ground workings



- Site Outline
- Search buffers in metres (m)
- BritPits
- Surface ground workings
- Underground workings
- Underground mining extents
- Historical mineral planning areas
- TCA non-coal mining
- Non Coal Mining
  - Sporadic underground mining of restricted extent possible
  - Localised small scale underground mining possible
  - Small scale mining possible
  - Underground mining known or likely within or in close proximity
  - Underground mining known within or in very close proximity

### 18.1 BritPits

Records within 500m

0

BritPits (an abbreviation of British Pits) is a database maintained by the British Geological Survey of currently active and closed surface and underground mineral workings. Details of major mineral handling sites, such as wharfs and rail depots are also held in the database.

*This data is sourced from the British Geological Survey.*



## 18.2 Surface ground workings

### Records within 250m

**8**

Historical land uses identified from Ordnance Survey mapping that involved ground excavation at the surface. These features may or may not have been subsequently backfilled.

Features are displayed on the Mining and ground workings map on [page 83 >](#)

| ID | Location | Land Use | Year of mapping | Mapping scale |
|----|----------|----------|-----------------|---------------|
| A  | 190m N   | Pond     | 1896            | 1:10560       |
| A  | 192m N   | Pond     | 1883            | 1:10560       |
| A  | 198m N   | Pond     | 1982            | 1:10000       |
| A  | 211m N   | Pond     | 1947            | 1:10560       |
| A  | 211m N   | Pond     | 1922            | 1:10560       |
| A  | 211m N   | Pond     | 1960            | 1:10560       |
| A  | 212m N   | Pond     | 1922            | 1:10560       |
| 3  | 234m SW  | Cuttings | 1883            | 1:10560       |

*This data is sourced from Ordnance Survey/Groundsure.*

## 18.3 Underground workings

### Records within 1000m

**0**

Historical land uses identified from Ordnance Survey mapping that indicate the presence of underground workings e.g. mine shafts.

*This data is sourced from Ordnance Survey/Groundsure.*

## 18.4 Underground mining extents

### Records within 500m

**0**

This data identifies underground mine workings that could present a potential risk, including adits and seam workings. These features have been identified from BGS Geological mapping and mine plans sourced from the BGS and various collections and sources.

*This data is sourced from Groundsure.*



## 18.5 Historical Mineral Planning Areas

Records within 500m

0

Boundaries of mineral planning permissions for England and Wales. This data was collated between the 1940s (and retrospectively to the 1930s) and the mid 1980s. The data includes permitted, withdrawn and refused permissions.

*This data is sourced from the British Geological Survey.*

## 18.6 Non-coal mining

Records within 1000m

2

The potential for historical non-coal mining to have affected an area. The assessment is drawn from expert knowledge and literature in addition to the digital geological map of Britain. Mineral commodities may be divided into seven general categories - vein minerals, chalk, oil shale, building stone, bedded ores, evaporites and 'other' commodities (including ball clay, jet, black marble, graphite and chert).

Features are displayed on the Mining and ground workings map on [page 83 >](#)

| ID | Location | Name          | Commodity | Class | Likelihood                                                                                                                                                                                                     |
|----|----------|---------------|-----------|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1  | On site  | Not available | Chalk     | A     | Underground mine workings are uncommon, although the geology is similar to that worked elsewhere. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered. |
| 2  | 13m S    | Not available | Chalk     | A     | Underground mine workings are uncommon, although the geology is similar to that worked elsewhere. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered. |

*This data is sourced from the British Geological Survey.*

## 18.7 JPB mining areas

Records on site

0

Areas which could be affected by former coal and other mining. This data includes some mine plans unavailable to the Coal Authority.

*This data is sourced from Johnson Poole and Bloomer.*



## 18.8 The Coal Authority non-coal mining

**Records within 500m****0**

This data provides an indication of the potential zone of influence of recorded underground non-coal mining workings. Any and all analysis and interpretation of Coal Authority Data in this report is made by Groundsure, and is in no way supported, endorsed or authorised by the Coal Authority. The use of the data is restricted to the terms and provisions contained in this report. Data reproduced in this report may be the copyright of the Coal Authority and permission should be sought from Groundsure prior to any re-use.

*This data is sourced from The Coal Authority.*

## 18.9 Researched mining

**Records within 500m****0**

This data indicates areas of potential mining identified from alternative or archival sources, including; BGS Geological paper maps, Lidar data, aerial photographs (from World War II onwards), archaeological data services, websites, Tithe maps, and various text/plans from collected books and reports. Some of this data is approximate and Groundsure have interpreted the resultant risk area and, where possible, specific areas of risk have been captured.

*This data is sourced from Groundsure.*

## 18.10 Mining record office plans

**Records within 500m****0**

This dataset is representative of Mining Record Office and/or plan extents held by Groundsure and should be considered approximate. Where possible, plans have been located and any specific areas of risk they depict have been captured.

*This data is sourced from Groundsure.*

## 18.11 BGS mine plans

**Records within 500m****0**

This dataset is representative of BGS mine plans held by Groundsure and should be considered approximate. Where possible, plans have been located and any specific areas of risk they depict have been captured.

*This data is sourced from Groundsure.*



## 18.12 Coal mining

|                 |   |
|-----------------|---|
| Records on site | 0 |
|-----------------|---|

Areas which could be affected by past, current or future coal mining.

*This data is sourced from the Coal Authority.*

## 18.13 Brine areas

|                 |   |
|-----------------|---|
| Records on site | 0 |
|-----------------|---|

The Cheshire Brine Compensation District indicates areas that may be affected by salt and brine extraction in Cheshire and where compensation would be available where damage from this mining has occurred. Damage from salt and brine mining can still occur outside this district, but no compensation will be available.

*This data is sourced from the Cheshire Brine Subsidence Compensation Board.*

## 18.14 Gypsum areas

|                 |   |
|-----------------|---|
| Records on site | 0 |
|-----------------|---|

Generalised areas that may be affected by gypsum extraction.

*This data is sourced from British Gypsum.*

## 18.15 Tin mining

|                 |   |
|-----------------|---|
| Records on site | 0 |
|-----------------|---|

Generalised areas that may be affected by historical tin mining.

*This data is sourced from Groundsure.*

## 18.16 Clay mining

|                 |   |
|-----------------|---|
| Records on site | 0 |
|-----------------|---|

Generalised areas that may be affected by kaolin and ball clay extraction.

*This data is sourced from the Kaolin and Ball Clay Association (UK).*



## 19 Ground cavities and sinkholes

### 19.1 Natural cavities

Records within 500m

0

Industry recognised national database of natural cavities. Sinkholes and caves are formed by the dissolution of soluble rock, such as chalk and limestone, gulls and fissures by cambering. Ground instability can result from movement of loose material contained within these cavities, often triggered by water.

*This data is sourced from Stantec UK Ltd.*

### 19.2 Mining cavities

Records within 1000m

0

Industry recognised national database of mining cavities. Degraded mines may result in hazardous subsidence (crown holes). Climatic conditions and water escape can also trigger subsidence over mine entrances and workings.

*This data is sourced from Stantec UK Ltd.*

### 19.3 Reported recent incidents

Records within 500m

0

This data identifies sinkhole information gathered from media reports and Groundsure's own records. This data goes back to 2014 and includes relative accuracy ratings for each event and links to the original data sources. The data is updated on a regular basis and should not be considered a comprehensive catalogue of all sinkhole events. The absence of data in this database does not mean a sinkhole definitely has not occurred during this time.

*This data is sourced from Groundsure.*

### 19.4 Historical incidents

Records within 500m

0

This dataset comprises an extract of 1:10,560, 1:10,000, 1:2,500 and 1:1,250 scale historical Ordnance Survey maps held by Groundsure, dating back to the 1840s. It shows shakeholes, deneholes and other 'holes' as noted on these maps. Dene holes are medieval chalk extraction pits, usually comprising a narrow shaft with a number of chambers at the base of the shaft. Shakeholes are an alternative name for suffusion sinkholes, most commonly found in the limestone landscapes of North Yorkshire but also extensively noted around the Brecon Beacons National Park.

Not all 'holes' noted on Ordnance Survey mapping will necessarily be present within this dataset.

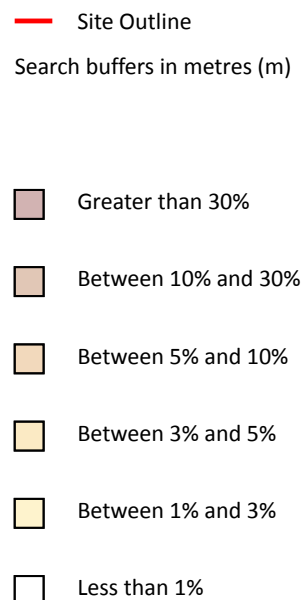
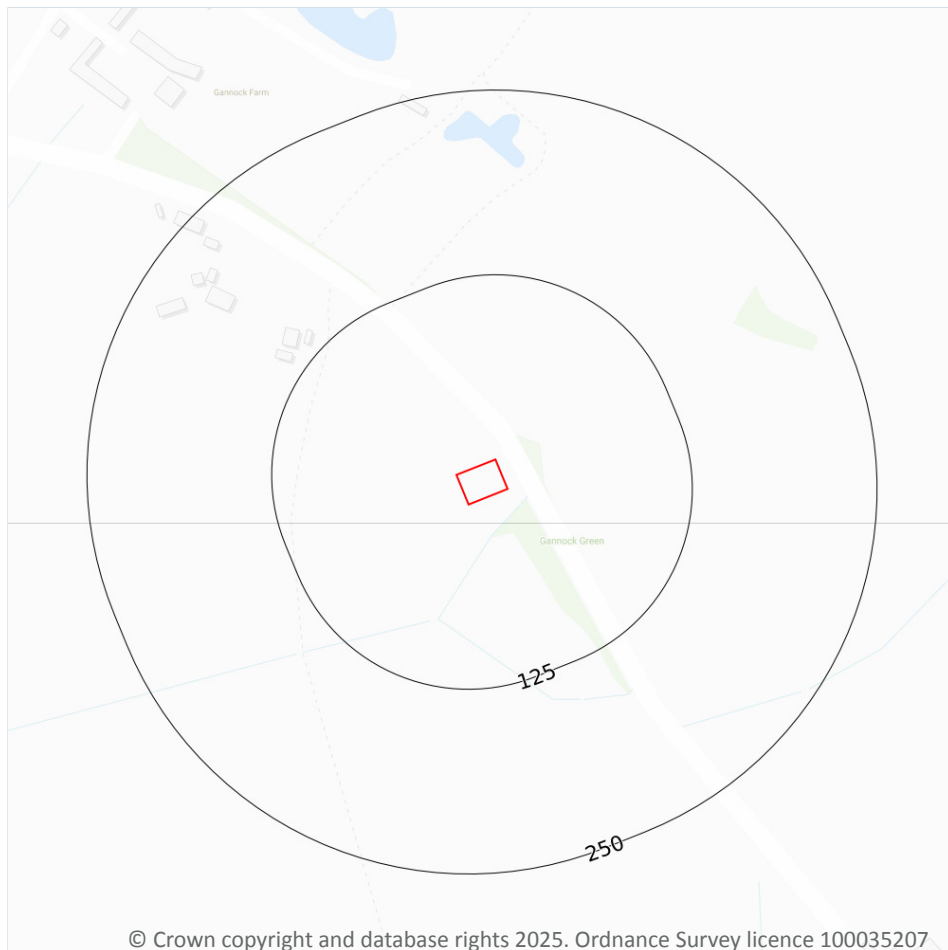




*This data is sourced from Groundsure.*



## 20 Radon



### 20.1 Radon

#### Records on site

1

The Radon Potential data classifies areas based on their likelihood of a property having a radon level at or above the Action Level in Great Britain. The dataset is intended for use at 1:50,000 scale and was derived from both geological assessments and indoor radon measurements (more than 560,000 records). A minimum 50m buffer should be considered when searching the maps, as the smallest detectable feature at this scale is 50m. The findings of this section should supersede any estimations derived from the Indicative Atlas of Radon in Great Britain (1:100,000 scale).

Features are displayed on the Radon map on [page 90 >](#)

| Location | Estimated properties affected | Radon Protection Measures required |
|----------|-------------------------------|------------------------------------|
| On site  | Less than 1%                  | None                               |



*This data is sourced from the British Geological Survey and UK Health Security Agency.*



## 21 Soil chemistry

### 21.1 BGS Estimated Background Soil Chemistry

Records within 50m

5

The estimated values provide the likely background concentration of the potentially harmful elements Arsenic, Cadmium, Chromium, Lead and Nickel in topsoil. The values are estimated primarily from rural topsoil data collected at a sample density of approximately 1 per 2 km<sup>2</sup>. In areas where rural soil samples are not available, estimation is based on stream sediment data collected from small streams at a sampling density of 1 per 2.5 km<sup>2</sup>; this is the case for most of Scotland, Wales and southern England. The stream sediment data are converted to soil-equivalent concentrations prior to the estimation.

| Location | Arsenic       | Bioaccessible Arsenic | Lead      | Bioaccessible Lead | Cadmium   | Chromium      | Nickel        |
|----------|---------------|-----------------------|-----------|--------------------|-----------|---------------|---------------|
| On site  | 15 - 25 mg/kg | No data               | 100 mg/kg | 60 mg/kg           | 1.8 mg/kg | 60 - 90 mg/kg | 30 - 45 mg/kg |
| On site  | 15 mg/kg      | No data               | 100 mg/kg | 60 mg/kg           | 1.8 mg/kg | 40 - 60 mg/kg | 15 - 30 mg/kg |
| 13m S    | 15 mg/kg      | No data               | 100 mg/kg | 60 mg/kg           | 1.8 mg/kg | 40 - 60 mg/kg | 15 - 30 mg/kg |
| 38m SE   | 15 - 25 mg/kg | No data               | 100 mg/kg | 60 mg/kg           | 1.8 mg/kg | 60 - 90 mg/kg | 30 - 45 mg/kg |
| 48m N    | 15 - 25 mg/kg | No data               | 100 mg/kg | 60 mg/kg           | 1.8 mg/kg | 60 - 90 mg/kg | 30 - 45 mg/kg |

*This data is sourced from the British Geological Survey.*

### 21.2 BGS Estimated Urban Soil Chemistry

Records within 50m

0

Estimated topsoil chemistry of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc and bioaccessible Arsenic and Lead in 23 urban centres across Great Britain. These estimates are derived from interpolation of the measured urban topsoil data referred to above and provide information across each city between the measured sample locations (4 per km<sup>2</sup>).

*This data is sourced from the British Geological Survey.*



## 21.3 BGS Measured Urban Soil Chemistry

Records within 50m

0

The locations and measured total concentrations (mg/kg) of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc in urban topsoil samples from 23 urban centres across Great Britain. These are collected at a sample density of 4 per km<sup>2</sup>.

*This data is sourced from the British Geological Survey.*



## 22 Railway infrastructure and projects

### 22.1 Underground railways (London)

**Records within 250m****0**

Details of all active London Underground lines, including approximate tunnel roof depth and operational hours.

*This data is sourced from publicly available information by Groundsure.*

### 22.2 Underground railways (Non-London)

**Records within 250m****0**

Details of the Merseyrail system, the Tyne and Wear Metro and the Glasgow Subway. Not all parts of all systems are located underground. The data contains location information only and does not include a depth assessment.

*This data is sourced from publicly available information by Groundsure.*

### 22.3 Railway tunnels

**Records within 250m****0**

Railway tunnels taken from contemporary Ordnance Survey mapping.

*This data is sourced from the Ordnance Survey.*

### 22.4 Historical railway and tunnel features

**Records within 250m****0**

Railways and tunnels digitised from historical Ordnance Survey mapping as scales of 1:1,250, 1:2,500, 1:10,000 and 1:10,560.

*This data is sourced from Ordnance Survey/Groundsure.*

### 22.5 Royal Mail tunnels

**Records within 250m****0**

The Post Office Railway, otherwise known as the Mail Rail, is an underground railway running through Central London from Paddington Head District Sorting Office to Whitechapel Eastern Head Sorting Office. The line is 10.5km long. The data includes details of the full extent of the tunnels, the depth of the tunnel, and the depth to track level.





*This data is sourced from Groundsure/the Postal Museum.*

## 22.6 Historical railways

**Records within 250m**

**0**

Former railway lines, including dismantled lines, abandoned lines, disused lines, historic railways and razed lines.

*This data is sourced from OpenStreetMap.*

## 22.7 Railways

**Records within 250m**

**0**

Currently existing railway lines, including standard railways, narrow gauge, funicular, trams and light railways.

*This data is sourced from Ordnance Survey and OpenStreetMap.*

## 22.8 Crossrail 2

**Records within 500m**

**0**

Crossrail 2 is a proposed railway linking the national rail networks in Surrey and Hertfordshire via an underground tunnel through London.

*This data is sourced from publicly available information by Groundsure.*

## 22.9 HS2

**Records within 500m**

**0**

HS2 is a proposed high speed rail network running from London to Manchester and Leeds via Birmingham. Main civils construction on Phase 1 (London to Birmingham) of the project began in 2019, and it is currently anticipated that this phase will be fully operational by 2026. Construction on Phase 2a (Birmingham to Crewe) is anticipated to commence in 2021, with the service fully operational by 2027. Construction on Phase 2b (Crewe to Manchester and Birmingham to Leeds) is scheduled to begin in 2023 and be operational by 2033.

*This data is sourced from HS2 Ltd.*



## Data providers

Groundsure works with respected data providers to bring you the most relevant and accurate information. To find out who they are and their areas of expertise see <https://www.groundsure.com/sources-reference> ↗.

## Terms and conditions

Groundsure's Terms and Conditions can be accessed at this link: [www.groundsure.com/terms-and-conditions-april-2023/](https://www.groundsure.com/terms-and-conditions-april-2023/) ↗.



## **Appendix C – Risk Definitions**

## Risk Evaluation

Risk evaluation is qualitative and is developed from the model provided in CIRIA C552 *Contaminated Land Risk Assessment – a guide to good practice* (DETR 2001). It involves classifying risk in terms of the probability of occurrence x magnitude of the potential consequence of occurrence. The risk rating is used to determine what action, if any, is needed to further investigate that risk and/or remediate to reduce risk to an acceptable level.

### *Classification of Probability*

| Classification | Definition                                                                                                                                                                                                                                                          |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| High           | There is a pollution linkage and an event appears very likely in the short term and almost inevitable in the long term or there is actual evidence at the receptor of harm or pollution.                                                                            |
| Likely         | There is a pollution linkage and all the elements are present and in the right place, which means that it is probable that an event will occur. Circumstances are such that an event is not inevitable, but possible in the short term and likely in the long term. |
| Low            | There is a pollution linkage and circumstances are possible under which an event could occur. However, it is not certain that even over a longer period such event would take place, and is less likely in the shorter term.                                        |
| Unlikely       | There is a pollution linkage but circumstances are such that it is improbable that an event would occur in the very long term.                                                                                                                                      |

### *Classification of Consequence*

| Classification | Definition                                                                                                                                                                                                                                                                                             | Examples                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Severe         | <ul style="list-style-type: none"> <li>Short-term (acute) risk to human health likely to result in significant harm.</li> <li>Short-term (acute) risk of pollution of sensitive water resource.</li> <li>Short-term (acute) risk to an ecosystem, or organism forming part of an ecosystem.</li> </ul> | <p>Unusually high concentration of toxic substance on the surface of a garden.</p> <p>Major release into controlled waters. EA Category 1 pollution incident. Closure of an abstraction point. Explosion, causing building collapse (and death if occupied).</p>                                                                                                                                                                                                               |
| Medium         | <ul style="list-style-type: none"> <li>Chronic damage to human health likely to result in significant harm.</li> <li>Pollution of sensitive water resource.</li> <li>Significant change in a particular ecosystem, or organism forming part of such ecosystem.</li> </ul>                              | <p>Concentration of contaminant from site exceeds generic or site-specific assessment criteria for human health or water supply pipes. Presence of asbestos.</p> <p>Leaching of contaminants from a site to a principal or secondary A aquifer. Concentration exceeds DWS in Inner Source Protection Zone (SPZ1) or EQS adjacent to water resource. EA Category 2+ pollution incident.</p> <p>Death of a species or loss of habitat within an area of national importance.</p> |
| Mild           | <ul style="list-style-type: none"> <li>Exposure is unlikely to result in significant harm to human health.</li> <li>Pollution of non-sensitive water resource.</li> <li>Damage to sensitive buildings, structures and services or the environment.</li> </ul>                                          | <p>Concentration of contaminant from site below generic or site-specific assessment criteria.</p> <p>Pollution of secondary (B or undifferentiated) aquifer. EA Category 3 pollution incident.</p> <p>Damage to a building rendering it unsafe to occupy. Death of a species or loss of habitat within an area of local importance.</p>                                                                                                                                        |

| Classification | Definition                                                                                                                                                                                                                                                      | Examples                                                                                     |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| Minor          | <ul style="list-style-type: none"> <li>Harm (but not significant harm) resulting in a financial loss or expenditure to resolve.</li> <li>Non-permanent human health effects.</li> <li>Easily repairable damage to buildings, structures and services</li> </ul> | <p>Pollution of unproductive strata.</p> <p>Loss of plants in garden or landscape areas.</p> |

### Risk Estimation

|             |            | Consequence    |               |               |               |
|-------------|------------|----------------|---------------|---------------|---------------|
|             |            | Severe         | Medium        | Mild          | Minor         |
| Probability | High       | Very high risk | High risk     | Moderate risk | Low risk      |
|             | Likely     | High risk      | Moderate risk | Low risk      | Low risk      |
|             | Low        | Moderate risk  | Low risk      | Low risk      | Very low risk |
|             | Unlikely   | Low risk       | Low risk      | Very low risk | Very low risk |
|             | No linkage | No risk        |               |               |               |

### Description of the Estimated Risks and Likely Action Required

| Risk             | Action                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Very high</b> | <p>There is a high probability that severe harm could arise or there is evidence that severe harm is currently happening. This risk, if realised, is likely to result in substantial liability.</p> <ul style="list-style-type: none"> <li>Urgent investigation required.</li> <li>Remediation required for the site in its existing state and for development.</li> </ul>               |
| <b>High</b>      | <p>Harm is likely to arise. Realisation of the risk is likely to present a significant liability.</p> <ul style="list-style-type: none"> <li>Urgent investigation is required and remedial works may be necessary in the short term and are likely over the long term.</li> <li>Remediation required for development.</li> </ul>                                                         |
| <b>Moderate</b>  | <p>A potential linkage is identifiable. However, it is either relatively unlikely that harm would be severe or, if any harm were to occur, it is more likely that the harm would be relatively mild.</p> <ul style="list-style-type: none"> <li>Investigation required to quantify the risk and determine potential liability.</li> <li>Remediation required for development.</li> </ul> |
| <b>Low</b>       | <p>It is possible that harm could arise but it is likely that this harm, if realised, would at worst normally be mild.</p> <ul style="list-style-type: none"> <li>Investigation is not normally required but could be useful to confirm findings.</li> <li>Remediation unlikely to be required or will be limited.</li> </ul>                                                            |
| <b>Very low</b>  | <p>There is a low possibility that harm could arise. In the event of such harm being realised it is not likely to be severe. Site is not capable of being determined under Part 2a.</p> <ul style="list-style-type: none"> <li>No further action recommended.</li> </ul>                                                                                                                 |