

THE SNELL & WILCOX LTD PENSION PLAN

**PROPOSED REDEVELOPMENT OF LAND AT
SOUTHLEIGH PARK HOUSE, EASTLEIGH ROAD,
HAVANT**

FLOOD RISK ASSESSMENT

**REPORT REF. 160720-04C
PROJECT NO. 160720
JULY 2017**

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EASTLEIGH ROAD, HAVANT**

FLOOD RISK ASSESSMENT

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EXECUTIVE SUMMARY

Ardent Consulting Engineers has been commissioned by The Snell & Wilcox Limited Pension Plan to carry out a Flood Risk Assessment (FRA) for the proposed residential redevelopment of Southleigh Park House, Eastleigh Road, Havant. This FRA has been undertaken to support a hybrid planning application.

This FRA considers the current policy relating to flood risk, including the National Planning Policy Framework, Local Flood Risk Management Strategy and the Strategic Flood Risk Assessment. This report has been informed by consultation with Southern Water.

According to the Environment Agency's modelled flood mapping and levels showing flood risk posed by rivers and the sea, the site is shown to be located within Flood Zone 1 ("very low probability of flooding").

Table 2 of the Planning Practice Guidance states that the proposed residential use of the site is classified as 'More Vulnerable'. In accordance with the National Planning Policy Framework, the site will therefore not be required to undergo the Sequential and Exception Tests as it resides wholly within Flood Zone 1.

Consultation with Southern Water reveals that reinforcement of the public foul water sewerage downstream of the site will not be necessary to enable the proposed development.

The proposed surface water drainage system will be capable of managing runoff from all rainfall events up to and including the critical duration of a 1 in 100-year storm event plus 40% allowance for climate change. Residual surface water runoff will be wholly stored on-site by means of a series of Sustainable Drainage (SuDS) features. Discharge of surface water will mimic existing surface water runoff rates and offer the requisite treatment of surface water as informed by CIRIA Guidance Document C753.

The FRA concludes that the risk of flooding from all sources, including fluvial, surface water, overland flow, groundwater and artificial waterbodies is low to negligible.

In conclusion, this FRA demonstrates that the proposals are consistent with the aims of the NPPF and the Planning Practice Guidance along with the aims of the Strategic Flood Risk Assessment. The site will not be at risk of flooding, or increase the flood risk to others.

1 INTRODUCTION

1.1 Brief

1.1.1 Ardent Consulting Engineers has been commissioned by The Snell & Wilcox Limited Pension Plan to carry out a Flood Risk Assessment (FRA) for the proposed residential redevelopment of Southleigh Park House, Eastleigh Road, Havant. This FRA has been undertaken to support a hybrid planning application.

1.1.2 This FRA has been prepared in compliance with both the National Planning Policy Framework (NPPF) and the supporting Practice Guidance. It has also been written in accordance with the Strategic Flood Risk Assessment (SFRA), updated February 2016.

1.2 Scope

1.2.1 The objective of this report is to provide an assessment of the risk of flooding to and from the proposed development and will address the following:

- Identify and assess potential sources of flooding to the site;
- Assess historical flood events associated with the site;
- Assess the potential impacts of the development proposals upon the local flood regime;
- Outline strategies to manage the flood risk to the site and local area allowing for future climate change;
- Propose a surface water management drainage strategy; and
- Propose measures for the management of residual risks.

1.3 Sources of Information

1.3.1 Key reports/documents reviewed as part of this study are listed in **Table 1-1** on the following page:

Title	Author	Date
South-East Hampshire Catchment Flood Management Plan	Environment Agency	December 2009
PUSH Strategic Flood Risk Assessment	Atkins/Eastern Solent Coastal Partnership	December 2007/Updated February 2016
Hampshire County Council Preliminary Flood Risk Assessment	Hampshire County Council	June 2011
Hampshire County Council Local Flood Risk Management Strategy	CH2M Hill	July 2013
Hampshire County Council Groundwater Management Plan	Hampshire County Council	October 2013
Havant Borough Council Local Plan (Core Strategy)	Havant Borough Council	Adopted March 2011
Sustainable Drainage Systems Non-statutory technical standards for SuDS	DEFRA	March 2015
Drainage Asset Plans	Southern Water	June 2015
Flood Maps	Environment Agency	July 2015
Topographic Survey	Sunshine Survey Ltd.	April 2015
Ground Investigation Desk Study Report	Geo-Environmental	October 2015

Table 1-1: Sources of Information

1.3.2 In addition to the above, a site walkover survey was undertaken to inform this study, carried out on 16th May 2016. This survey comprised visual examinations of the existing site and surrounding area including, where possible, identification of local drainage systems and an assessment of the local hydrology.

1.3.3 Photographs of the site and pertinent nearby features can be found in **Appendix A**.

1.4 Report Structure

1.4.1 Policies and national legislation relevant to flood risk and drainage matters associated with the development are addressed in **Section 2**. The environmental setting, focusing on the hydrological conditions

and site surroundings is outlined in **Section 3**. **Section 4** describes the proposed scheme and drainage strategy, and **Section 5** defines the flood hazard and probability. Appropriate mitigation measures against pertinent or residual flood risk issues are outlined in **Section 6**. Conclusions are presented in **Section 7**.

- 1.4.2 Throughout the report, reference is made to various appendices that are presented at the end of the report.

2 POLICY CONTEXT AND CURRENT LEGISLATION

2.1 National Planning Policy Framework (March 2012)

- 2.1.1 The susceptibility of a development to flooding is a material consideration in determining planning applications. The potential consequences of inappropriate development in a flood risk area for occupiers, either of the development or elsewhere, pose significant risks in terms of personal safety and damage to property.
- 2.1.2 The NPPF sets out Government policy on development and flood risk. It identifies how new developments are to take flood risk and climate change into account to ensure that developments not only remain safe from flooding but also do not increase flood risk elsewhere. The sequential test is used as the principal step to identify preferred locations, i.e. those not exposed to risk of flooding. Then, if development is deemed necessary in a flood zone, an exception test can be conducted through an appraisal of risk and appropriate reduction and management measures can be implemented.
- 2.1.3 The NPPF requires that the developer should prepare and submit an appropriate FRA to demonstrate how flood risk from all sources of flooding to the development itself and to others will be managed now and when taking future climate change into account.
- 2.1.4 The NPPF states that a FRA is required “for proposals of 1 hectare or greater in Flood Zone 1; all proposals for new development (including minor development and change of use) in Flood Zones 2 and 3, or in an area within Flood Zone 1 where proposed development or a change of use to a more vulnerable class may be subject to other sources of flooding.”

2.2 Flood and Water Management Act (2010)

- 2.2.1 The Flood and Water Management Act (FWMA) 2010 defines clearer roles and responsibilities for the implementation of sustainable drainage (SuDS) in developments, by requiring drainage systems to be approved against a set of draft national standards. In lieu of the standards being implemented, DEFRA released Non-statutory

Technical Standards for Sustainable Drainage Systems in March 2015. It is the intention that this guidance is used in conjunction with the NPPF and associated Technical Guidance.

- 2.2.2 The FWMA also requires a Lead Local Flood Authority (LLFA) to develop, maintain, apply and monitor a strategy for local flood risk management in its area. As of April 2015, this role is fulfilled by West Sussex County Council.

2.3 Sustainable Drainage Systems - Non-statutory technical standards for sustainable drainage systems (March 2015)

- 2.3.1 The non-statutory technical standards for sustainable drainage systems were published in March 2015. This document sets out non-statutory technical standards for sustainable drainage systems. They should be used in conjunction with the NPPG.
- 2.3.2 The Local Planning Authority (LPA) may set local requirements for planning permission that have the effect of more stringent requirements than these non-statutory technical standards.
- 2.3.3 In addition, SuDS should be designed in accordance with CIRIA 753 SuDS Manual, which represents current best practice.
- 2.3.4 The Non-Statutory Technical Standards for Sustainable Drainage Systems: Best Practice Guidance was published by Local Authority SuDS Officer Organisation (LASOO) in July 2015 to provide an interpretation of the proposed technical guidance.

2.4 South East Hampshire Catchment Flood Management Plan (December 2009)

- 2.4.1 Within the South East Hampshire Catchment Flood Management Plan, the site sits within "Sub-Area 5 – Havant and Denmead", identified as an area of low to moderate flood risk. Flooding in Havant is predominantly from a combination of high groundwater levels and run-off from heavy rainfall.
- 2.4.2 New developments are expected to manage drainage so that there is no net increase in flood risk.

- 2.4.3 As the site lies at the top end of the Havant and Denmead Sub-Area, it is crucial that surface water is sustainably managed on-site as to not cause detriment to the downstream network.

2.5 Hampshire County Council Preliminary Flood Risk Assessment (June 2011)

- 2.5.1 The Preliminary Flood Risk Assessment (PFRA) for Hampshire was published in June 2011, to meet the legal requirements of the Flood Risk Regulations (2009).
- 2.5.2 The PFRA process is aimed at providing a high-level overview of flood risk from a variety and combination of flood sources; that is surface water, groundwater, ordinary watercourses, canals and reservoirs.

2.6 Hampshire County Council Strategic Flood Risk Assessment (2007)

- 2.6.1 In November 2006, the 10 Local Planning Authorities (LPAs) and Hampshire County Council, which make up the Partnership for Urban South Hampshire (PUSH) commissioned Atkins to undertake the sub-regional Strategic Flood Risk Assessment (SFRA).
- 2.6.2 As part of a two staged approach the ultimate goal involved the production and delivery of a full SFRA which includes key mapping outputs and guidance to help Planners and Flood Risk Managers meet their housing and development targets whilst avoiding flood risk and demonstrating compliance with PPS25 [now the NPPF].
- 2.6.3 The PUSH online maps provide flooding data for HCC in terms of flood zones, surface water, groundwater, sewer flooding and historic flood events. The flood maps indicate the following:
- The site is in Flood Zone 1;
 - There are no historic groundwater flood events; and
 - The entire site is at no risk of surface water flooding with exception to the existing basin which is at 'high' risk.

**2.7 PUSH Strategic Flood Risk Assessment – Guidance Document:
Havant Borough Council (2016 Update)**

- 2.7.1 In February 2016, PUSH issued an update of the sub-regional SFRA which included borough specific guidance for Havant Borough Council. The document provides a flood risk summary for the borough, highlighting key areas at risk of tidal and fluvial flooding.

**2.8 Hampshire County Council Local Flood Risk Management
Strategy (July 2013)**

- 2.8.1 The Hampshire County Council Local Flood Risk Management Strategy, published in July 2013, is an overarching strategy that allows for more detailed flood risk assessments at a more localised level.
- 2.8.2 The Strategy presents all the main rivers and ordinary watercourses within Hampshire. It provides a more detailed overview of flood risk with specific reference to historic flooding events from flood sources including groundwater, fluvial, sewer, surface water and the combined sources of surface water, ordinary watercourses, coastal and main rivers.
- 2.8.3 The Strategy addresses anticipated changes to current and future flood risk from climate change and urban development which is quantified using the estimated number of new residential buildings in each of the different districts. The economic cost of flooding for each district and at a more local level is shown and indicates the areas likely to receive most funding.
- 2.8.4 As the LLFA for the area, Hampshire County Council is a statutory consultee for surface water drainage on applications for major development (10 dwellings or more or residential development greater than 0.5ha). This new role started on 15 April 2015 and requires Hampshire County Council to be consulted on these developments when a planning application is received by the Local Planning Authority. Current guidance from the LLFA stipulates that all applicants should provide information on:

- The **existing flow paths** of undeveloped sites;
- The **existing drainage network** for previously developed sites;
- Areas that may have been affected by **existing failures** in the existing drainage regime; and
- Evidence that the **proposed drainage should follow the same pattern as the existing**, so as to not direct more flow to another location.

2.9 Hampshire Groundwater Management Plan (October 2013)

2.9.1 The Hampshire Groundwater Management Plan (GMP) was published as a final draft in October 2013. The Plan was set up following extreme flooding in the winter of 2000/2001. As a region, Hampshire has a known history of groundwater flooding. The report assesses high risk areas and where specific management of groundwater flooding needs to be implemented. It also provides mapping to assess the susceptibility to groundwater flooding of the wider district.

2.10 Havant Borough Council Local Plan – Core Strategy (March 2011)

2.10.1 The Havant Borough Council Local Plan was adopted on in March 2011 and is part of the development plan for the Borough of Havant. The Plan sets out policies and specific proposals for the development and use of land to guide planning decisions.

2.10.2 Policy CS15 sets out the requirements in terms of flood risk for the permission of new developments. Areas at risk of flooding (in accordance with the EA and SFRA data), must meet a set of criteria including meeting the sequential and exception tests in relation to PPS25.

2.10.3 In terms of surface water drainage, all new developments will be required to ensure that there is no net increase in surface water runoff or increased flood risk. Priority should be given to incorporating Sustainable Drainage Systems (SuDS) to manage surface water drainage, unless it is proven that SuDS are not appropriate.

3 ENVIRONMENTAL SETTING

3.1 Location and Setting

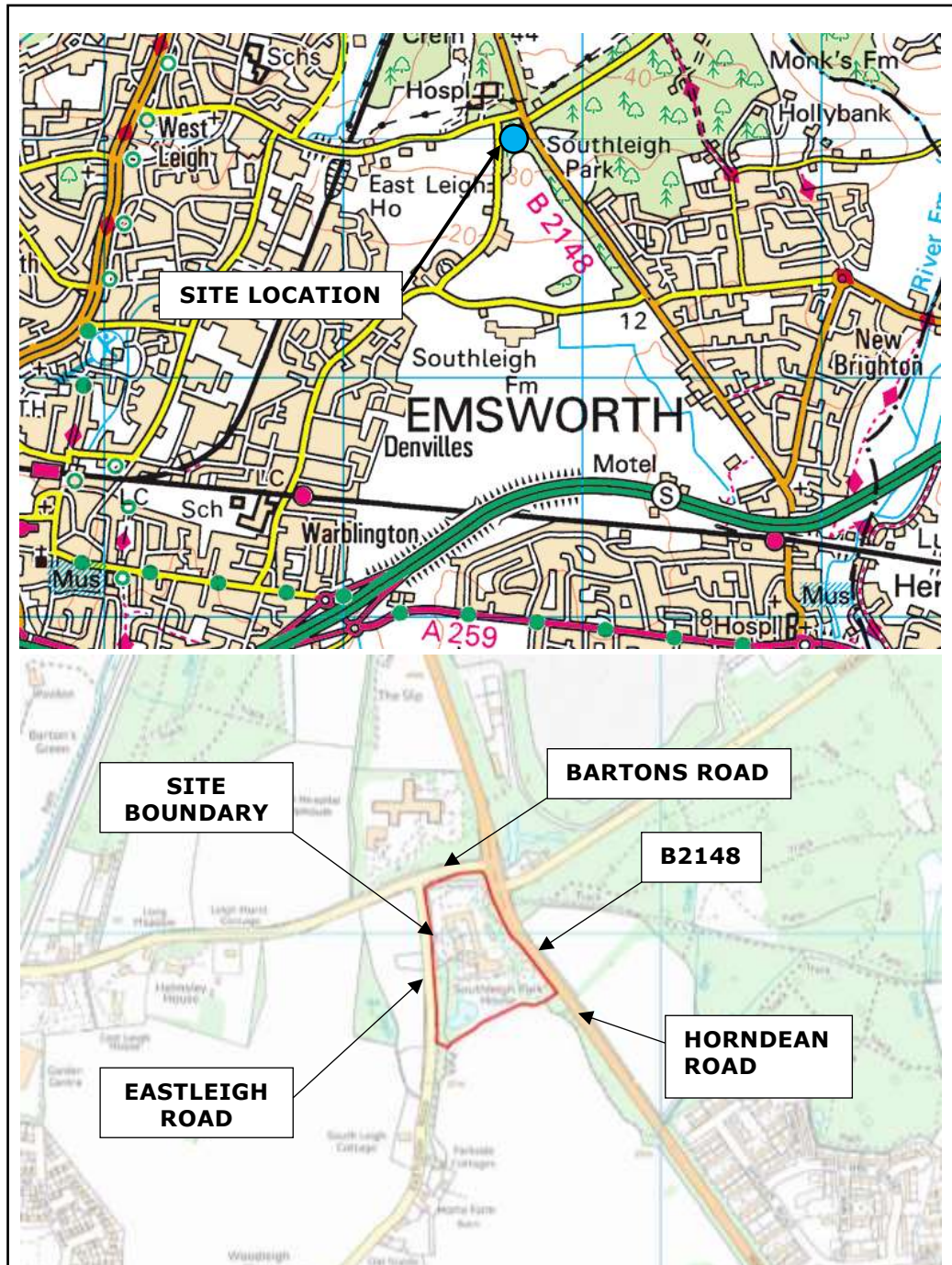


Figure 3-1: Site Location Plan

3.1.1 The site, circa 3.2ha in size, is located approximately 0.9km east of the town of Havant, Hampshire. It is situated in the south-east corner of Hampshire, approximately mid-way between Portsmouth and

Chichester. The site is centred on Ordnance Survey grid co-ordinates 473712mE 108006mN.

- 3.1.2 The Site is located on Eastleigh Road in Havant, see Figure 3-1 above. The Site is bounded by and accessed from Eastleigh Road to the west, bounded by Bartons Road and Spire Portsmouth Hospital to the north, Horndean Road (B2148) to the east and open agricultural land to the south.
- 3.1.3 The existing site comprises a mixture of gardens/parkland with areas of hardstanding and associated buildings, including Southleigh Park House and other historic buildings which are Grade 2 listed.
- 3.1.4 The site is currently used as office space (B1 building classification) with a canteen on site. Southleigh Park House is one of four listed buildings located on site, all of which will be retained and converted into C3 residential use. The existing office buildings have a gross internal area (GIA) of circa. 4,350m² and the canteen has a GIA of circa. 300m².

3.2 Topography

- 3.2.1 A topographic survey of the site was undertaken by Dorset Land Surveying in August 2015.
- 3.2.2 The site is generally characterised by a topographic high point towards the north-east of the site which lies at around 38.50m Above Ordnance Datum (AOD). From this point, the site falls steadily to the south-west. The steepest gradient across the site is from the north-eastern to south-eastern boundary, approximately 1:25.
- 3.2.3 Levels at the boundary extents generally vary in accordance with the following:
- Northern Boundary - from 38.50mAOD to 37.80mAOD moving from east to west, general gradient of 1:100;
 - Eastern Boundary - from 38.50mAOD to 32.80mAOD moving from northeast to southeast, general gradient of 1:30;

- Southern Boundary – from 32.80mAOD to 29.00mAOD moving from southeast to southwest, general gradient of 1:55; and
- Western Boundary – from 29.00mAOD to 37.80mAOD moving south to north, general gradient of 1:30.

3.2.4 In the wider context, the site boundaries sit elevated above the surrounding highways to the north, east and west. Refer to **Appendix B** for the full topographic survey.

3.3 Geology

3.3.1 The British Geological Survey (BGS) Geology of Britain Viewer shows that the site is underlain with superficial head deposits (clay, silt, sand and gravel). The bedrock geology at the site is shown to generally comprise The London Clay Formation (clay, silt and sand).

3.3.2 A ground investigation desk study was undertaken at the site by Geo-Environmental Services Ltd in June 2016. The investigation confirmed the above BGS mapping findings. Refer to **Appendix C**.

3.4 Surface Waters

3.4.1 There are no designated main rivers located within the site boundary. However, there is an existing pond/waterbody approximately 900m² within the southwest corner of the site. The pond currently collects surface water via pipes from sections of the site which then discharges via overland flow to a drainage ditch adjacent to Eastleigh Road.

3.4.2 On a wider scale, there is an assumed ditch which is considered a Main River by the EA located approximately 0.3km south-east of the southern site boundary. There is also an unnamed Main River located approximately 0.75km to the west of the site, it also flows in a south-westerly direction through the town Havant. A Main River named the River Ems is located 2.0km to the east of the site and flows in a south-westerly direction. Refer to **Figure 3-2** on the following page for the locations of the Main Rivers.

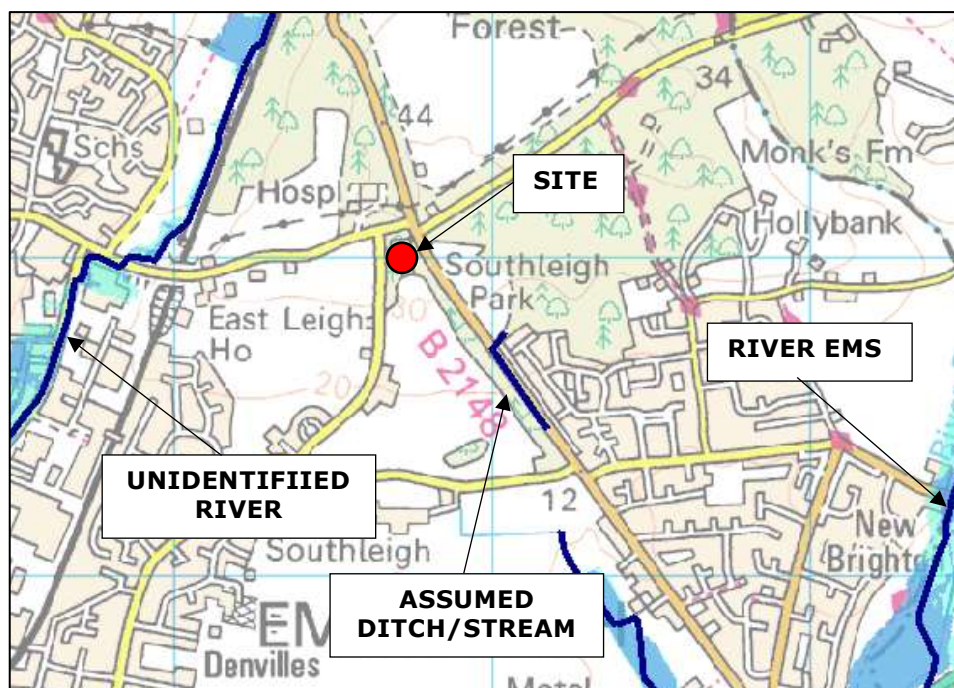


Figure 3-2: Surface Waters Plan

3.5 Hydrogeology

3.5.1 The geology of the superficial deposits beneath the site is designated as a 'secondary A aquifer', defined as permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. The EA also identifies Groundwater Vulnerability Zones which indicate the likelihood of a pollutant discharged at ground level reaching groundwater for superficial and bedrock aquifers. The north-western section of the site is classified by the EA to be within an inner zone (subsurface activity only – Zone 1C).

3.6 Groundwater

3.6.1 EA maps show that the application site is located within a groundwater Source Protection Zone (SPZ), the 'Inner Zone – Subsurface Activity Only (Zone 1C).

3.6.2 The ground investigation summarises the groundwater SPZ findings for the site. The below findings are summarised:

- SPZ Zone 1 - Travel time (of water) of 50 days or less to the groundwater source.

- No licensed groundwater abstractions were recorded within 500m of the site.
- No recorded pollution incidents to controlled waters were identified within 250m of the site boundary.
- No discharge consents to controlled groundwater were identified within 250m of the site boundary.

3.7 Existing Sewer Infrastructure

3.7.1 The Southern Water asset maps show a 150mm diameter foul sewer which encroaches into the southern boundary of the site (as seen in **Figure 3-3**). The foul flows from the existing buildings within the site boundary currently discharge to this sewer.

3.7.2 The nearest surface water sewer is a 375mm diameter and is located circa 300m east of the junction between Bartons Road and Eastleigh Road.

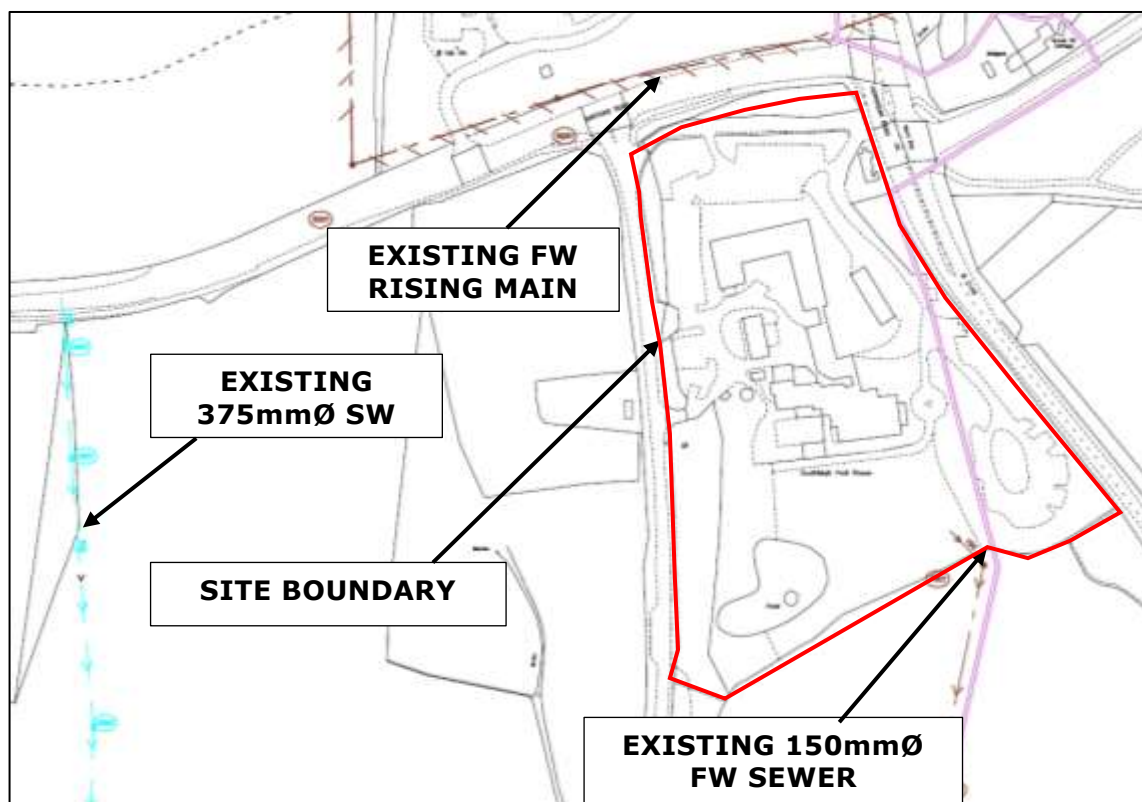


Figure 3-3: Southern Water Asset Plans (Extract)

3.7.3 An extract of Southern Water sewer records is provided above in **Figure 3-3**, however full details and Southern Water Correspondence can be found in **Appendix D**.

3.8 Existing Drainage Regime

3.8.1 It can be seen from the site visit and topographical survey that the hardstanding areas of the site are drained by gullies and channel drains and the buildings are drained by rainwater pipes. From the topography and asset plans, surface water is discharged downstream to the attenuation/infiltration pond. There is an outlet pipe from the pond at high level which discharges overland to a ditch that runs along Eastleigh Road. For the existing greenfield land within the site, it is likely that a proportion of the surface water runoff is accommodated through infiltration.

3.8.2 The existing surface water flow routes are demonstrated on drawing 160720-105 which can be found in **Appendix F**.

3.8.3 Using a combination of the methodologies outlined in the Wallingford Procedure and Report No. 124 – Flood Estimation for Small Catchments (Institute of Hydrology – IoH124), it has been possible to determine existing greenfield/brownfield runoff rates associated within the current site. These discharge rates are summarised in **Table 3-1** below:

UNDEVELOPED AREA (ha)	GREENFIELD RUNOFF RATES (l/s)		
	RAINFALL EVENTS		
	1 in 1 Year	1 in 30 Year	1 in 100 year
1.96	6.3	16.8	23.7
DEVELOPED AREA (ha)	BROWNFIELD RUNOFF RATES (l/s)		
	RAINFALL EVENTS		
	1 in 1 Year	1 in 30 Year	1 in 100 year
1.20	169.5	377.0	480.1
TOTAL SITE AREA (ha)	TOTAL SURFACE WATER RUNOFF RATES (l/s)		
	RAINFALL EVENTS		
	1 in 1 Year	1 in 30 Year	1 in 100 year
3.16	175.8	393.8	503.8

Table 3-1: Existing Surface Water Runoff Rates

4 SCHEME DESCRIPTION

4.1 Nature of the Proposed Development

4.1.1 The development proposals comprise the redevelopment of the existing Southleigh Park House and development of the remainder of the site. This FRA supports a hybrid application for up to 90 residential units in total, comprising:

- Hybrid application for up to 90 residential units in total, comprising: Full planning permission and listed building consent for the change of use, alterations to and extension of existing buildings to 20 residential units, (13 dwellings in the main house and 7 in other listed buildings) with associated landscaping, parking and amenity space.
- Outline application (all matters reserved except means of access) for the demolition of 1983 office building and associated brick and glass corridor link and development of up to 70 residential units, associated landscaping, parking and infrastructure works.

4.1.2 See **Figure 4-1** below for the Illustrative Masterplan.



Figure 4-1: Illustrative Masterplan (Extract)

4.1.3 The development proposals seek to utilise the existing access on Eastleigh Road (to the west of the site) as well as including two other existing accesses which are currently out of use, both on Eastleigh Road. There are 182 parking spaces allocated to the 90 residential units and provision of 24 visitor parking spaces.

4.1.4 Please refer to **Appendix E** for full details of the proposed development.

4.2 Proposed Surface Water Drainage Strategy

4.2.1 The proposed peak rate of runoff from the site has been calculated as 261.3/s for the 1 in 1 year storm event. This discharge rate accounts for the proposed impermeable area of 1.85ha and the proposed 'greenfield area' of 1.35ha.

4.2.2 The development proposals result in an increased impermeable area and subsequently an increase to the site's surface water runoff. Therefore, additional surface water runoff from the will be stored on-site through the use of SuDS including under-drained swales and permeable paving. A geocellular tank will also be installed upstream of the existing pond to provide supplementary storage and attenuation.

4.2.3 The proposed surface water drainage strategy seeks to mimic the existing system and retain the current outfall from the pond to the drainage ditch adjacent to Eastleigh Road.

4.2.4 Discharge from the pond will need to be restricted to the existing Q_{BAR} rate to ensure no additional surface water runoff is discharged off-site and to provide betterment to the existing drainage regime. The proposed drainage strategy is therefore designed to restrict all discharge rates to 11.0l/s for all storm events up to and including the 1 in 100-year event plus 40% allowance for climate change.

4.2.5 Refer to **Table 4-1** for the storage requirements necessary to attenuate the proposed surface water runoff from the site to the Greenfield Runoff Rate (Q_{BAR}).

<i>Proposed Area (ha)</i>	<i>Proposed Developable Area (ha)</i>	<i>Maximum Surface Water Discharge Rate (l/s)</i>	<i>Maximum Allowable Discharge Rate (l/s)</i>	<i>Attenuation Storage Required (m³)</i>
3.2	1.85	261.3	11.0	1150

Table 4-1: Proposed Discharge Rate

4.2.6 The surface water drainage strategy will employ a hybrid and integrated system of SuDS features and traditional piped drainage. The Ardent Preliminary Surface and Foul Water Drainage drawing (160720-100) in **Appendix F** provides greater detail regarding the proposed drainage strategy.

4.2.7 With regard to exceedance flow routes the internal highway network seeks to generally direct flows towards the road-side swales, geo-cellular tank and existing storage pond. The routes seek to mimic the current flow routes associated with the existing site where possible.

4.3 Proposed Foul Water Drainage Strategy

4.3.1 The peak foul flow rate for the proposed development is estimated to be 4.17l/s based on 90no. residential units (calculations are included in Appendix H). It is proposed that the foul drainage strategy for the development will be a gravity system that connects to the existing outfall to the Southern Water foul sewer at the south of the site. Refer to the preliminary drainage strategy drawing provided in **Appendix F**.

4.3.2 Consultation with Southern Water has resulted in confirmation of spare capacity within their foul sewer network to accommodate the proposed development, provided the point of connection is foul manhole ref. MHSU73077801 which is located approximately 4.0m south of the southern site boundary.

4.3.3 Refer to **Appendix D** for Southern Water correspondence.

5 DEFINITION OF THE FLOOD HAZARD AND PROBABILITY

5.1 Sources of Potential Flood Risk

5.1.1 The Technical Guidance of the NPPF requires flood risk from the following sources to be assessed:

- Fluvial sources (river flooding);
- Tidal sources (flooding from the sea);
- Groundwater sources;
- Artificial sources, canals, reservoirs etc; and,
- Pluvial sources (flooding resulting from overland flows); and
- It also requires the risk from increases in surface water discharge to be assessed (surface water management).

5.2 Fluvial Flooding

5.2.1 The EA Flood Map for the area designates the site in its entirety and its environs to be wholly located within Flood Zone 1; a very low risk of fluvial flooding which corresponds to an annual flood probability of less than 0.1% (less than 1 in 1000-year return period). The fluvial flood mapping produced as part of the SFRA agrees with the EA mapping, confirming that the site is within Flood Zone 1.

5.2.2 The site is a significant distance (over 0.75km) to the nearest area shown to be at risk of fluvial flooding which is the along the unidentified Main River to the west of the site as seen in **Figure 3-2** in **Chapter 3-4**. In addition to the above, there has been no history of flooding at the site attributable to fluvial sources.

5.2.3 Given the above, fluvial flooding is not considered to pose a risk to the site.

5.3 Tidal Flooding

5.3.1 Although the main source of flooding in Havant Borough Council is from the sea, the site is located in an area where no rivers or coastlines are influenced by tidal flooding.

5.3.2 Given the above, tidal flooding is not considered to pose a risk to the site.

5.4 Groundwater Flooding

- 5.4.1 Groundwater flooding typically occurs in areas underlain with aquifers or permeable rock that permits groundwater to rise to the surface during high/long rainfall events. Low lying areas are particularly susceptible given that the water table is usually at a much shallower depth.
- 5.4.2 The geology of the superficial deposits beneath the site is designated as a 'secondary A aquifer' and the EA maps show that the application site is located within a groundwater Source Protection Zone (SPZ), the 'Inner Zone – Subsurface Activity Only (Zone 1C)', as seen in **Figure 5-1** below.

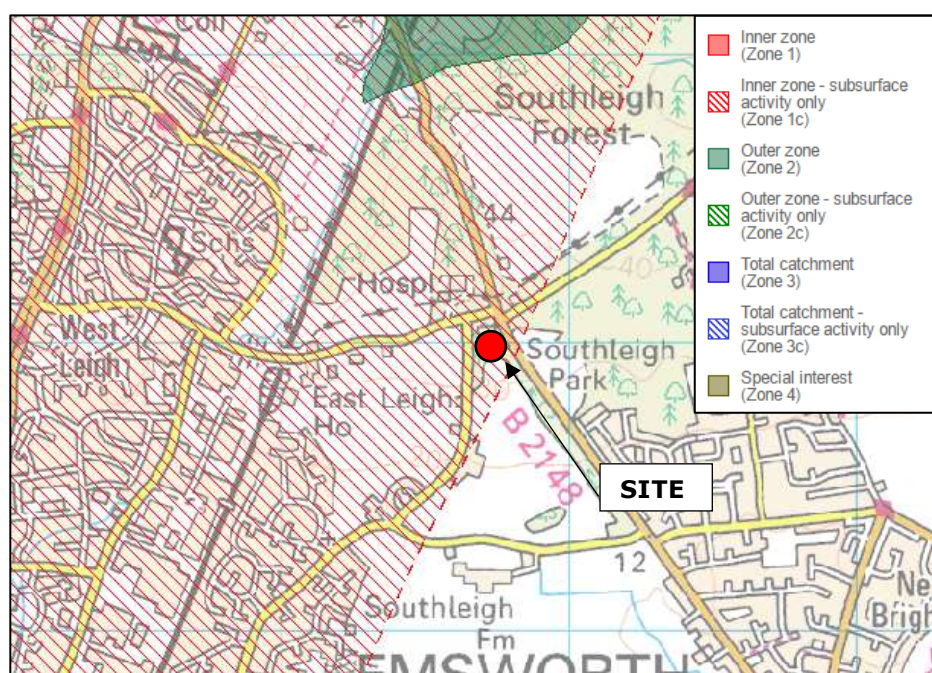


Figure 5-1: EA Groundwater SPZ Map

- 5.4.3 According to the ground investigation and the Partnership for Urban South Hampshire (PUSH) SFRA Flood Map, there is no historical groundwater flooding in the site's environs and it is considered unlikely at this stage that groundwater flooding will form a high risk at the site.
- 5.4.4 Given the above, it is considered that groundwater flooding currently represents a low risk to the site.

5.5 Canals and Artificial Sources

- 5.5.1 In general, reservoir flooding is extremely unlikely to occur and there has been no loss of life in the UK from reservoir flooding since 1925. All large reservoirs must be inspected and supervised by reservoir panel engineers. As the enforcement authority for the Reservoirs Act 1975 in England, the Environment Agency ensures that reservoirs are inspected regularly and essential safety work is carried out.
- 5.5.2 Given the extremely low likelihood of reservoir flooding, the Environment Agency do not require specific mitigation measures to be provided as part of an NPPF compliant Flood Risk Assessment.
- 5.5.3 EA flood maps confirm that the site is not at risk of reservoir flooding, with the nearest extents of flooding located some 4.5km southwest of the site. There are no canals or other artificial sources which will influence flooding at the site.
- 5.5.4 Given the above, flooding from canals and artificial sources is not considered to pose a risk to the site.

5.6 Pluvial Flooding – Surface Water/Overland Flows

- 5.6.1 Flooding attributable to surface water/overland flows typically arises when surface water is unable to discharge directly to a sewer or watercourse. The Hampshire County Council SFRA does not identify any history of surface water flooding within the site boundary.
- 5.6.2 The EA's Flood Maps for Surface Water provide a general indication of areas that may be at risk of surface water flooding. They take a broad account of underground drainage and typical storms which are likely to cause flooding (1 in 30 and 1 in 200 year). The maps make an approximate allowance for buildings using local data and use standardised infiltration rates for rural and urban areas. Approximate topographic data is used in this analysis.
- 5.6.3 EA surface water flood maps for the site, provided in **Figure 5-2** on the following page, generally show the site to be at a very low risk of flooding. There is an area of medium to high risk of surface water flooding where the storage pond is located in the southwestern corner

of the site, however this is considered extremely localised and will be mitigated within the proposed surface water drainage strategy.

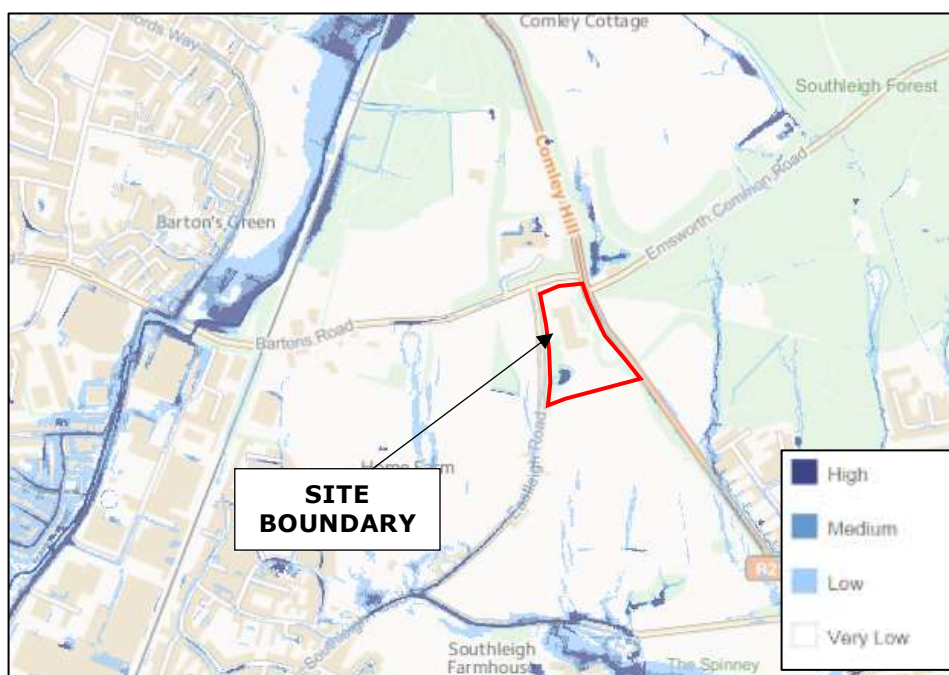


Figure 5-2: Environment Agency's Flood Maps for Surface Water

5.6.4 Given the information on the previous page, it is considered that the risk of pluvial flooding from surface water/overland flow is low.

5.7 Pluvial Flooding – Sewer Flooding

5.7.1 Sewer flooding typically occurs as a result of short intense rainfall events, during which the capacity of the receiving system (natural or engineered) is insufficient to accommodate surface water flows; resulting in surcharging of pipes and manholes.

5.7.2 As detailed within **Section 3.7** of this report, there are no existing adoptable surface water sewers within the site boundary and one 150mm foul water sewer encroaching the south of the site where the ground is less elevated. The site is elevated above its environs and therefore any surcharging of manholes would effectively result in runoff being directed away from the development proposals.

5.7.3 For the above reason, it is considered that the risk of pluvial flooding from sewer overloading is low/negligible.

5.8 Summary of Potential Flood Risk

5.8.1 **Table 5-1** below provides a high-level overview of the potential flood risk at the site as a result of the various sources highlighted above.

Source of Flooding	Pathway	Comment	Risk*
Fluvial	No designated watercourse within site boundary. Nearest watercourse some 1.15km north of site.	EA flood maps confirm site is located within flood Zone 1 - Low Probability	Low
Tidal	No rivers or coastlines affected by tidal sources	No Risk	Low
Pluvial	Overloading of sewers or Overland Flow	Majority of the site at "very low risk" in accordance with EA maps for surface water flooding, minor part of the site at medium-high risk. No risk of overland flows as site is elevated above surroundings. Site elevated above nearest adoptable foul sewer. Risk of flooding from overloading of sewers considered negligible	Overland Flow – Medium, low with suitable mitigation. Overloading of sewers – Low
Groundwater	Through underlying strata when groundwater levels rise above surface levels.	No historic record of groundwater flooding at site or immediate site environs. Site within SPZ 'Inner Zone 1C'	Low (with suitable mitigation during excavation works)
Canals and Artificial Sources	No reservoirs or other artificial sources in site environs	EA flood maps show site not to be at risk of reservoir flooding	Low

Table 5-1: Summary of Potential Flood Risk

5.9 Impact on Local Flooding Regime

5.9.1 In addition to assessing the sources of flooding to the development,

the NPPF requires that an FRA also considers the potential for a development to increase flood risk to the surrounding area.

5.9.2 As detailed above, the site is situated in Flood Zone 1 and therefore outside of a designated floodplain. As such, the development will have no impact on the surrounding area and there will be no requirement to provide floodplain compensation storage.

5.9.3 **Section 4.2** of this report describes the proposed drainage strategy for the development and confirms that discharge from the site will be restricted to the Q_{BAR} rate up to and including the 1 in 100-year storm event + 40% allowances for climate change. All surface water features will be sized accordingly, in line with the above to attenuate residual runoff on site.

5.9.4 It is therefore considered that the proposed drainage strategy utilises sustainable best practice techniques to offer betterment to the local flooding regime.

5.10 Application of National Planning Policy

5.10.1 The purpose of the sequential approach is to demonstrate that there are no reasonable available sites in areas with a lower probability of flooding that would be appropriate to the development being proposed.

5.10.2 As the site is located within Flood Zone 1, it automatically satisfies the requirements of the sequential test, as outlined within the Technical Guidance of the NPPF.

5.10.3 According to Table 3 of the NPPF Practice Guidance, the Exception Test is not required for a development of this nature within Flood Zone 1.

5.11 Climate Change Impacts

5.11.1 The NPPF states that to allow for the predicted impacts of climate change on surface water runoff, increases to rainfall intensity should be used. **Table 5-2** is an extract from the updated government guidance in relation to climate change allowances. It includes the

climate change allowances to utilise when designing a drainage system. It is recommended that the 'Upper end' climate change allowance should be used for designing the proposed development's drainage system.

Table 2 peak rainfall intensity allowance in small and urban catchments (use 1961 to 1990 baseline)

Applies across all of England	Total potential change anticipated for the '2020s' (2015 to 2039)	Total potential change anticipated for the '2050s' (2040 to 2069)	Total potential change anticipated for the '2080s' (2070 to 2115)
Upper end	10%	20%	40%
Central	5%	10%	20%

Table 5-2: Extract from updated government guidance on climate change allowance (July 2016)

5.11.2 Therefore, under the NPPF an allowance of 40% for the effects of climate change to the year 2115 should be used to achieve the policy requirements for the proposed residential redevelopment. This will enable all surface water from storm events up to and including the 1 in 100-year plus allowance for climate change to be safely stored on-site without detriment to existing flood risk. As a result, the proposed surface water drainage strategy will serve to improve the resilience of the existing site to the anticipated changes in rainfall patterns.

6 FLOOD RISK MANAGEMENT RECOMMENDATIONS

6.1 On Site Flood Management

6.1.1 **Section 5.8** demonstrates that there is no risk of flooding to the site from fluvial, tidal sources, infrastructure failure, surface water or overland flow. Groundwater is considered to be low.

6.1.2 The principal residual risks relate to the potential groundwater flooding of excavations during construction due to the presence of perched groundwater within the glaciofluvial lenses of the underlying geology.

6.1.3 Groundwater flood risk will need to be managed by ensuring the following during demolition and construction:

- Stability of excavations is appropriately considered within the Demolition and Construction Method Statements;
- De-watering equipment is available on-site to prevent/remedy the flooding of excavations; and
- Groundwater removed from excavations is not to be discharged into the surface water drainage system. This is due to the potential for the groundwater to be polluted with sediment, contaminants leached from made ground, and oils/fuels from on-site materials/machinery.

6.2 Off-site Flood Management

6.2.1 As the development proposals will be mimicking current discharge rates for all events up to and including the 1 in 100 year + 40% allowance for climate change, it is considered that the site will not cause detriment to the downstream receiving networks. For this reason, no further management proposals are deemed necessary.

6.3 Surface and Ground Water Pollution Prevention during Construction

6.3.1 The Construction Environment Management Plan (CEMP) and a temporary surface water management strategy should be implemented by the contractor during the construction works phase for the proposed development. This should, where possible, utilise a

staged SuDS implementation regime whereby the final drainage strategy is brought online incrementally.

7 SURFACE WATER TREATMENT AND MAINTENANCE

7.1 Surface Water Runoff Quality

- 7.1.1 As the development proposals sit in a groundwater SPZ 1 (inner zone), groundwater beneath the site is considered to have a high to moderate sensitivity and any infiltrating drainage techniques proposed will need to ensure sufficient surface water treatment is in place prior to discharge.
- 7.1.2 In terms of surface water treatment, the integration of the SuDS features outlined in **Chapter 4** would adopt the philosophy of the SuDS treatment train. This would ensure that surface water runoff would be of sufficient quality, so as not to cause pollutant-based detriment to the groundwater beneath the site or nearby watercourses.
- 7.1.3 In determining the necessary SuDS treatment methods, reference is made to Table 26.2, Table 26.3 and Table 26.4 of the SuDS Manual (CIRIA C753), which have been duplicated in **Tables 7-1, 7-2 and 7-3** below. The tables outline the 'Simple Index Approach' which sets out the water treatment criteria in relation to land use and SuDS performance evidence. To ensure sufficient treatment is proposed for surface waters, the total pollution mitigation index of the selected SuDS methods must equal or exceed the pollution hazard index for the site.

Land use	Pollution hazard level	Total suspended solids (TSS)	Metals	Hydrocarbons
Residential roofs	Very low	0.2	0.2	0.05
Other roofs (typically commercial/industrial roofs)	Low	0.3	0.2 (up to 0.8 where there is potential for metals to leach from the roof)	0.05
Individual property driveways, residential car parks, low traffic roads (eg cul de sacs, home zones and general access roads) and non-residential car parking with infrequent change (eg schools, offices) ie < 300 traffic movements/day	Low	0.5	0.4	0.4
Commercial yard and delivery areas, non-residential car parking with frequent change (eg hospitals, retail), all roads except low traffic roads and trunk roads/motorways	Medium	0.7	0.6	0.7
Sites with heavy pollution (eg haulage yards, lorry parks, highly frequented lorry approaches to industrial estates, waste sites), sites where chemicals and fuels (other than domestic fuel oil) are to be delivered, handled, stored, used or manufactured; industrial sites; trunk roads and motorways	High	0.8	0.8	0.9

Table 7-1: Pollution hazard indices for different land use classifications (land use in bold applicable for the development).

Type of SuDS component	Mitigation indices		
	TSS	Metals	Hydrocarbons
Filter strip	0.4	0.4	0.5
Filter drain	0.4	0.4	0.4
Swale	0.5	0.6	0.6
Bio retention system	0.8	0.8	0.8
Permeable pavement	0.7	0.6	0.7
Detention basin	0.5	0.5	0.6
Pond	0.7	0.7	0.5
Wetland	0.8	0.8	0.8
Proprietary treatment systems	These must demonstrate that they can address each of the contaminant types to acceptable levels for frequent events up to approximately the 1 in 1 year return period event, for inflow concentrations relevant to the contributing drainage area.		

Table 7-2: Indicative SuDS mitigation indices for discharges to surface waters (bold text is applicable to this development).

Characteristics of the material overlying the proposed infiltration surface, through which the runoff percolates	TSS	Metals	Hydrocarbons
A layer of dense vegetation underlain by a soil with good contaminant attenuation potential of at least 300mm in depth	0.6	0.5	0.6
A soil with good contaminant attenuation potential of at least 300mm in depth	0.4	0.3	0.3
Infiltration trench (where a suitable depth of filtration material is included that provides treatment, ie graded gravel with sufficient smaller particles but not single size coarse aggregate such as 20mm gravel) underlain by a soil with good contaminant attenuation potential of at least 300mm in depth	0.4	0.4	0.4
Constructed permeable pavement (where a suitable filtration layer is included that provides treatment, and including a geotextile at the base separating the foundation from the subgrade) underlain by a soil with good contaminant attenuation potential of at least 300mm in depth	0.7	0.6	0.7
Bio retention underlain by a soil with good contaminant attenuation potential of at least 300mm in depth	0.8	0.8	0.8
Proprietary treatment systems	These must demonstrate that they can address each of the contaminant types to acceptable levels for inflow concentrations relevant to the contributing drainage area		

Table 7-3: Indicative SuDS mitigation indices of discharges to groundwater (bold text is applicable to this development).

For surface water discharge from Residential Parking Areas and Low Traffic Roads <300 traffic movements/day			
	Required mitigation indices		
Source	TSS	Metals	Hydrocarbons
Low	0.5	0.4	0.4
Type of SuDS component provided			
Swale	0.5	0.6	0.6
Permeable Paving	0.7	0.6	0.7
Pond	0.7	0.7	0.5
Total	1.9	1.9	1.9
Check	+1.4	+1.5	+1.5

Table 7-4: SuDS Mitigation Summary

7.1.4 Following the above assessment, it is deemed that the site will be able to achieve and exceed suitable levels of surface water treatment prior to leaving the site if the features outlined in **Table 7-2** are integrated into the detailed surface water drainage strategy.

7.2 Urban Creep

7.2.1 In line with BS 8582 'Code of practice for surface water management for development sites' and DEFRA's non-statutory technical standards for sustainable drainage systems, a 10% additional allowance for surface water systems has been accommodated for within the design proposals to allow for any future extensions to paved areas.

7.3 Exceedance Routes

7.3.1 Exceedance flows would occur if a rainfall event exceeds the inlet capacity of the drainage network, when the receiving water or pipe system becomes overloaded, blocked or when the outfall becomes restricted due to flood levels in the receiving water. The internal highways network seeks to direct flows away from the proposed buildings and primarily to the larger areas of permeable paving and the proposed outfall pond at the south of the site. The routes ultimately seek to mimic the current flow routes associated with the existing site.

7.4 Maintenance

- 7.4.1 It is the intention that the permeable paving, geo-cellular storage, pond, all of the connecting pipework and the outfall will be managed and maintained by a private management company.
- 7.4.2 As these proposals are submitted for planning, maintenance plans will be produced by the relevant parties following detailed design. The above will also be the case for any associated management companies.
- 7.4.3 In the meantime, **Table 7-4** to **Table 7-6** below outline the typical maintenance requirements of the SuDS components throughout the drainage strategy; which have been informed by the guidance outlined within CIRIA C753. The following information would be supplemented by manufacturer's specifications and be obviously dependent on the type of system involved.

MAINTENANCE SCHEDULE	REQUIRED ACTION	FREQUENCY
Regular Maintenance	Remove sediment and debris from inspection chambers and hydrobrake chambers	Annually
	Cleaning of gutters and any filters on downpipes	Annually
	Remove any root ingress	As required
Occasional Maintenance	CCTV survey of drains to check alignment, cracking and joint displacement	10 year intervals

Table 7-5: Maintenance Regime for Drainage Pipes

MAINTENANCE SCHEDULE	REQUIRED ACTION	FREQUENCY
Regular Maintenance	Brushing and vacuuming	3 times/year at end of winter, mid-summer, after autumn leaf fall, or as required based on site specific observations of clogging or manufacturers recommendations
Occasional Maintenance	Stabilise and mow contributing and adjacent areas	As required
	Removal of weed	As required
Remedial Actions	Remediate any landscaping which, through vegetation maintenance or soil strip, has been raised to within 50mm of the level of paving	As required
	Remedial work to any depressions and rutting considered detrimental to the structural performance of the pavement or a hazard to users	As required
	Rehabilitation of surface and upper sub-structure	As required (if infiltration performance is reduced as a consequence of significant clogging)
Monitoring	Initial inspection	Monthly 3 months after installation
	Inspect for evidence of poor operation and/or weed growth. If required take remedial action	3-monthly, 48 hours after large storm
	Inspect silt accumulation rates and establish appropriate brushing rates	Annually
	Monitor inspection chambers	Annually

Table 7-6: Maintenance Regime for Permeable Pavements

MAINTENANCE SCHEDULE	REQUIRED ACTION	FREQUENCY
Regular Maintenance	Inspect and identify any areas that are not operating correctly. If required, take remedial action.	Monthly for 3 months, then six monthly
	Debris removal from catchment surface (where may cause risks to performance).	Monthly
	Removed Sediment from pre-treatment structures.	Annually or as required
Remedial Actions	Repair/rehabilitation of inlets, outlet, overflows and vents.	As required
Monitoring	Inspect/check all inlets, outlets, vents and overflows to ensure that they are in good condition and operating as designed	Annually and after large storms

Table 7-7: Maintenance Regime for Geo-cellular Crate

8 CONCLUSIONS

8.1 Summary

8.1.1 This FRA is based on observations, a review of published data, a site walkover survey and hydraulic modelling. The following points are considered pertinent to the proposed development's suitability for this site:

- The site is assessed to be within Flood Zone 1 and therefore not at risk of flooding from fluvial or tidal sources;
- Flood risk from artificial sources, pluvial sources, overland flows and groundwater are all considered to be very low/low.
- In accordance with the requirements of Chapter 10 of the NPPF, the proposed development site has been assessed for flood risk. Consideration has been given both to risk to the site, and to risk elsewhere caused by the anticipated development. Based on our understanding of the site setting and the proposed development, it is considered that the proposed development can be constructed and operated safely and will not increase flood risk elsewhere.
- Foul water from the site is intended to drain via a new foul water drainage system to the existing 150mm diameter Southern Water Sewer at the south of the site. This has been confirmed by Southern Water and is subject to a S106 during detailed design.
- A management company will be appointed to maintain the roads, landscaping and shared SuDS throughout the development. All maintenance will be in accordance with the best practices and the CIRIA Manual C753.
- The proposed drainage system will be capable of managing runoff from all rainfall events up to and including the critical duration of a 1 in 100-year storm event plus 40% allowable for climate change. Residual surface water runoff will be wholly stored on-site by means of a series of SuDS features. Discharge of surface water will mimic existing surface water runoff rates and offer the requisite treatment of surface water as informed by CIRIA Guidance Document C753.

Discharge rates will be restricted to the Q_{BAR} rate for all storm events up to and including the 1 in 100-year event climate change to alleviate off site surface water flood risk.

Appendix A
Site Photographs



PHOTOGRAPH A: Main Office Building Entrance, looking northeast from the Eastleigh Road vehicle access



PHOTOGRAPH B: Western Car Park, looking north from the Eastleigh Road vehicle access



PHOTOGRAPH C: Northern Car Park, looking east from the north-western corner of the site



PHOTOGRAPH D: Former Bartons Road alignment (within the site), looking west from the north-eastern corner of the site



PHOTOGRAPH E: Eastern Car Park Access Road, looking south from 'The Lodge' (north-western corner of the site)



PHOTOGRAPH F: Eastern Car Park, looking south



PHOTOGRAPH G: Southleigh Park House, looking northwest from the south-eastern corner of the site



PHOTOGRAPH H: The main lawn, looking towards the south-western corner from Southleigh Park House



PHOTOGRAPH I: The Pond, looking south



PHOTOGRAPH J: The Pond Outfall, looking south-west



PHOTOGRAPH K: The Coach House, looking northeast from the central Eastleigh Road vehicle access



PHOTOGRAPH L: The Stables Building, looking east



PHOTOGRAPH M: Central Courtyard, looking south-east to the rear of the Main House



PHOTOGRAPH N: Eastleigh Road Drainage Ditch (eastern verge), looking south from the southern vehicle access



PHOTOGRAPH O: Eastleigh Road Drainage Ditch (western verge), looking south from the southern vehicle access

Appendix B
Topographic Survey

Appendix C
Geo-Environmental Desk Study Report

DESK STUDY REPORT

for

SOUTHLEIGH PARK HOUSE, EASTLEIGH ROAD

HAVANT, HAMPSHIRE

PO9 2PE

on behalf of

ARDENT CONSULTING ENGINEERS

GE15562\DSR\JUNE16v1 STATUS: FINAL	
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FIGURES

FIGURE 1: Site Location Plan

APPENDICES

APPENDIX A: Desk Study Information



1.0 INTRODUCTION

1.1 General

Geo-Environmental Services Limited, 'Geo-Environmental', was instructed by Ardent Consulting Engineers to undertake a desk study of the geotechnical and environmental factors pertaining to the proposed development site referred to Southleigh Park House, Eastleigh Road, Havant, Hampshire, PO9 2PE (Figure 1). The centre of the site was located at National Grid Reference 473720, 107960.

1.2 Form of Development

It was understood that the proposed development was to comprise the redevelopment of the offices to residential use, the demolition of a number of the buildings and further residential development within the grounds which would include private and communal gardens, soft landscaping, access roads and associated infrastructure.

1.3 Objectives

This desk study has been developed herein in the form of a conceptual site model and a Preliminary Risk Assessment (PRA) in accordance with CLR11. The objective of the risk assessments was to determine the risks posed to the proposed redevelopment, adjacent land users, and the wider environment, in the context of the existing planning regime.

1.4 Standards

Where practicable, the ground investigation and subsequent environmental assessments were undertaken in accordance with the following documents and guidance:

- British Standards Institute - Code of Practice for Site Investigations (BS5930:2015).
- British Standards Institute - Code of Practice for the Characterisation and Remediation from Ground Gas in Affected Developments (BS8485:2015).
- British Standards Institute - Eurocode 7 – Geotechnical Design - Parts 1 & 2 (BS EN1997-1:2004 & BS EN1997-2:2007).
- British Standards Institute - Investigation of Potentially Contaminated Sites - Code of Practice (BS10175:2011).
- British Standards Institute - Soils for Civil Engineering Purposes (BS1377:1990).
- Building Research Establishment - The Performance of Building Materials in Contaminated Land (BRE255) (1994).
- Building Research Establishment – Soakaway Design (Digest 365) (1991).
- Construction Industry Research and Information Association - Assessing risks posed by hazardous ground gases to buildings (C665) (2007).
- Department for Communities and Local Government - National Planning Policy Framework (2012).
- Department for Environment Food and Rural Affairs and Environment Agency - Model Procedures for the Management of Contaminated Land (CLR11) (2004).
- Department of Environment - Industry Profiles (1995 - 1996).



- Environment Agency - Guidance for waste destined for disposal in landfills (2006).
- Environment Agency - Guidance on Requirements for Land Contamination Reports (2005).
- National House Building Council, Environment Agency & Chartered Institute of Environmental Health - Guidance for the Safe Development of Housing on Land Affected by Contamination (R&D Publication 66) (2008).
- National House Building Council - Guidance on evaluation of development proposals on sites where methane and carbon dioxide are present (10627-R01[04]) (2007).
- National House Building Council – Standards, Chapter 4.1 Land Quality - Managing Ground Conditions (1999).
- BS8485 Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings (2015).

1.5 Conditions

The data collected from the desk study has been used to provide a preliminary assessment of the geo-environmental conditions pertaining to the site. The recommendations and opinions expressed in this report are based on the data obtained.

Geo-Environmental Services Limited takes no responsibility for conditions that either have not been revealed in the available records. Whilst every effort has been made to interpret the conditions, such information is only indicative and liability cannot be accepted for its accuracy.

Information contained in the report is intended for the use of the Client, and Geo-Environmental Services Limited can take no responsibility for the use of this information by any third party for uses other than that described in this report.

Geo-Environmental Services Limited does not indemnify any third parties against any dispute or claim arising from any finding or result of this investigation or any claim or dispute arising as a result of any decisions made thereof.



2.0 DESK STUDY

The findings of the Phase I Desk Study are presented in the following section. A copy of the historical maps and background information obtained as part of the desk study is presented in Appendix A.

Comments made in the following sections regarding possible ground conditions on the site are based purely on the desk study. Confirmation of ground conditions can only be provided through undertaking site specific intrusive investigation.

2.1 Site Description

The site comprised a roughly rectangular shaped plot which sloped gently down towards the south-west with an approximate change in height of 10m across the site.

At the time of the walkover, the site was occupied by a number of buildings and these included, on its southern portion, a large vacant two storey period manor house (Southleigh Park House) which had been converted into offices, together with a large contemporary U shaped office block located centrally. Further smaller office buildings of contemporary construction were also located centrally between the larger structures. Car parking areas were noted to the north of the main office building within the northern third of the site and also within the south-eastern corner. An access road was noted around the perimeter of the central portion of the site.

A derelict period two storey building was also noted on the north-eastern extremity of the site fronting onto Horndean Road. An electricity sub-station was noted some 20m to the south of the building also fronting onto Horndean Road.

The grounds of the site were landscaped with many mature trees, shrubs and hedges. A large lawn and pond was noted within the southern portion.

The site was bound by a mixture of close boarded fencing, a brick wall, chain link fencing, mature trees and hedges.

The surrounding area comprised fields to the east, south and west, with a hospital to the north. Site access was via Eastleigh Road to the west.

2.2 Historic Mapping

Historic maps dating back to 1866 were obtained as part of the desk study. A summary of the apparent key features observed on the map extracts both on the site and in the local area is presented within Table 2.1.

Date	On Site	Off Site
1866	The site comprised 'Woodlands' which was a private estate with a large private house located centrally with several outbuildings adjacent. Within the northern portion were five further buildings. The remainder of the site	The surrounding area comprised fields and woodlands with a gravel pit and pond c.55m north-east. A further gravel pit was indicated c.120m west.



Date	On Site	Off Site
	comprised landscaped gardens with a large pond within the south-western portion.	
1870	Few changes since the previous map edition.	Few changes since the previous map edition.
1889	Few changes since the previous map edition.	An additional pond was indicated c.20m north-east.
1897	The property had been renamed 'South Leigh', six buildings were clearly defined on-site along with four glass houses.	The pond c.20m north-east was no longer indicated. The pit to the west was labelled old gravel pit.
1898	Few changes since the previous map edition.	A further gravel pit was indicated c.10m east.
1899	Few changes since the previous map edition.	Few changes since the previous map edition.
1909	Few changes since the previous map edition.	The old gravel pit to the west appeared disused, the pit to the east was labelled old gravel pit.
1910-1933	Few changes since the previous map edition.	Few changes since the previous map edition.
1938	The site was now labelled 'Southleigh Park'.	Few changes since the previous map edition.
1952-72	Few changes since the previous map edition.	Few changes since the previous map edition.
1969-90	The site was referred to as 'Southleigh Park House'. A large building was indicated within the central northern portion.	The gravel pit to the north-east was no longer indicated. A hospital was indicated c.20m north.
1973-75	Few changes since the previous map edition.	Few changes since the previous map edition.
1983 Russian	Few changes since the previous map edition.	Few changes since the previous map edition.
1991-92	Few changes since the previous map edition.	There had been much residential development to the south-east and to the west.
1993	Few changes since the previous map edition.	Few changes since the previous map edition.
1999	Few changes since the previous map edition.	A rubbish tip was indicated c.400m north-east.
2000	Few changes since the previous map edition.	A tip was indicated as disused c.550m north-east, whilst the existing tip boundary was c.110m north-east.
2006	Few changes since the previous map edition.	Few changes since the previous map edition.
2016	Few changes since the previous map edition.	The tip was indicated to form a landfill.

Table 2.1 Summary of Historical Map extracts

2.3 Geology

With reference to British Geological Survey (BGS) mapping, the geology of the site was anticipated to comprise Head Deposits overlying London Clay.



Head Deposits are drifts produced by solifluxion, the downslope movement of debris outwash during the periglacial period, and characteristically comprise poorly sorted sands gravels and chalk of local derivation.

London Clay comprises a stiff grey fissured clay, weathering to brown near surface. Concretions of argillaceous limestone in nodular form (Claystones) occur throughout the formation. Crystals of gypsum (Selenite) are often found within the weathered part of the London Clay, and precautions against sulphate attack to concrete are sometimes required.

The lowest part of the formation is a sandy bed with black rounded gravel and occasional layers of sandstone and is known as the Basement Beds.

2.4 Hydrogeology

With reference to information obtained from the Envirocheck Data and the Environment Agency the following aquifer designations were identified on site:

Deposit Type	Geological Formation	Aquifer Designation
Superficial	Head Deposits	Secondary 'A'
Bedrock	London Clay	Unproductive Strata

Table 2.2 Summary of Aquifer Designations

Secondary 'A' aquifers comprise permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers.

Unproductive Strata's are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow.

According to information provided by the Environment Agency the site is within an Inner Zone (subsurface activity only) 1c Source Protection Zone (SPZ). An SPZ is a protection zone placed around a well or borehole that supplies groundwater of potable quality. An SPZ is divided into three zones defined as follows:

- Zone I – Travel time (of water) of 50 days or less to the groundwater source.
- Zone II – Either 25% of the source area or a travel time of 400 days whichever is the greater.
- Zone III – The total area needed to support the discharge and abstraction from the protected groundwater source.

No licensed groundwater abstractions were recorded within 500m of the site.

No recorded pollution incidents to controlled waters were identified within 250m of the site boundary.

No discharge consents to controlled groundwater were identified within 250m of the site boundary.



2.5 Hydrology

With reference to the Envirocheck Data, the closest surface water feature was on-site (pond).

The site is indicated to be outside of any area of extreme flooding from rivers or sea. The area of the pond on-site was indicated to be within a high risk (30 year return) from surface water flooding. The BGS flood GFS data map indicated the site had the potential for groundwater flooding to occur at surface level across the site.

2.6 Sensitive Land Uses

A search was made of environmentally sensitive areas, including areas of green belt, scenic or natural beauty, parks, reserves, nitrate zones, protected conservation and scientific areas.

The site is indicated to be within a nitrate vulnerable zone. A nitrate vulnerable zone is a conservation designation of the Environment Agency for areas of land that drain into nitrate polluted waters, or waters which could become polluted by nitrates.

2.7 Environmental Data

Searches of other various environmental databases were made as part of the desk study, including air pollution control sites, Part IIA contaminated land, Integrated Pollution Control (IPC) and Integrated Pollution Prevention and Control (IPPC) sites, registered radioactive substances, COMAH sites, explosives sites, Notification of Installations Handling Hazardous Substances (NIHHS) sites, planning permissions for sites involving hazardous substances, contemporary trade directories and fuel station registers.

Two active and inactive Contemporary Trade Directory Entries were noted within a radius of 250m of the site boundary which are associated with contaminative activities/materials, details of which are given below:

Name	Location	Classification/Status	Distance From Site
Southleigh Landfill Site	Badgers Cottage, PO9 2PB	Waste disposal services	70m NE
Portsmouth Hospital	Havant, PO9 5NP	Hospitals	142m N

Table 2.3 Summary of Contemporary Trade Directory Entries

No Local Authority Pollution Prevention and Control sites were identified within 250m of the site boundary.

2.8 Geochemistry

A large portion of the UK's urban soils have naturally elevated concentrations of some potentially harmful chemicals. In some cases these exceed the Environment Agency CLR soil guideline value (SGV), (C4SL) Category 4 Screening Levels and/or the Land Quality Management/Chartered Institute of Environmental Health (LQM/CIEH) generic assessment



criteria (GAC). A summary of the measured urban soil chemistry for the area is presented in the following table:

Determinand	Concentration (mg/kg)	In Excess of SGV/GAC*?
Arsenic	<15	No
Cadmium	<1.8	No
Chromium	60-90	No
Lead	<100	No
Nickel	15-30	No

Table 2.6 Summary of Site Geochemistry

NOTE: * Comparative SGV concentrations are for a residential end use with plant uptake

It should be noted that these values are not necessarily representative of the site's soil chemistry. Furthermore, SGVs, C4SLs and GACs are dependent on pH and soil organic matter content. Therefore, concentrations of specific determinands and the utilised SGV/C4SLs/GAC cannot be determined without site specific investigation and analysis.

2.9 Geotechnical Data

The site lies within an area considered by the Coal Authority that might not be affected by mining activities.

National databases for a number of geological hazards have been compiled by the BGS, and a summary of the hazard data pertaining to the site is presented on the following table below. In accordance with BGS recommendations, the highest rating within 50m of the site boundary (or a 250m radius for shallow mining) has been recorded.

Hazard	Designation
Non coal mining area	No hazard
Collapsible ground	Very low
Compressible ground	No hazard
Ground dissolution	No hazard
Landslide	Very low
Running sand	No hazard
Swelling clay	Low

Table 2.7 Summary of BGS Geological Hazards

Three BGS recorded mineral sites were identified within 250m of the site boundary:

- 26m NE – South Leigh Gravel Pit, sand and gravel, opencast, ceased.
- 137m W – South Leigh Gravel Pit, sand and gravel, opencast, ceased.
- 195m NE – South Leigh Gravel Pit, sand and gravel, opencast, ceased.

2.10 Ground Gases

A search of BGS recorded landfill sites, IPC registered waste sites, licensed waste management facilities, local authority recorded landfill sites, other registered landfill sites, waste transfer stations, and other waste treatment or disposal sites was undertaken as part



of the desk study. Such sites may form an artificial source of ground gases, such as carbon dioxide and methane, where wastes are buried or disposed of to landfill.

Three registered landfills were identified within 500m of the site boundary:

- 353m N – Summerdown Ltd, Southleigh Forest, authorised waste included adhesive wastes, ceramics, clays, commercial and industrial paper and packaging, construction and demolition wastes, cork, cullet, electrical fittings, fixtures and appliances, enamels, foundry and moulding sands, hard-core and builders waste, oiled paper, tarred paper, pottery, china, products of complete polymerisation, sand, chalk, gravel and natural earth spoils, sands, silica, sawdust, sanderdust, slags ex manufacturing iron/steel/copper/tin, solid rubber excluding tyres, timber wood offcuts, hardboard, waste excluding highway maintenance and construction, dated 30/11/1984, licence lapsed.
- 353m N – George Ewen Ltd, Southleigh Forest, authorised waste included ceramic waste, construction and demolition waste, cork, electrical goods, tvs and whiteware, enamels, excavated natural minerals, foundry sand, glass/cullet, hardcore and rubble, other minerals, polymeric material products and scrap, pottery making waste, road making materials, sand, sawdust bark, scrap rubber (including tyres), slag boiler/flue cleanings, synthetic adhesive wastes, timber and other organic material, wood waste timber, 27/01/1984, status superseded.
- 413m N – Leigh Environmental (Southern) Ltd, authorised waste included adhesive wastes, ceramics mica, clays, construction and demolition wastes, contaminated land clearance waste, cork, cullet, electrical fittings/fixtures/appliances, enamels, ferrous metals, food/food processed waste, hard solid wastes, insoluble in water acid, household waste, maximum waste permitted by licence stated, metal swarf, non-ferrous metals, oiled/tarred paper, paper/packaging excluding commercial and industrial premises, pottery/china, products of complete polymerisation, sand/chalk/gravel and natural earth spoils, sawdust/sanderdust, solid rubber, timber, tyres, vegetable matter, wood offcuts, 01/11/1991, operational.

2.11 Radon

Reference has been made to the Envirocheck data report. The report indicates that the site lies in an area where radon protection measures are not required.

2.12 Previous Ground Investigations

Geo-environmental was not aware of any previous ground investigations which may have been undertaken on the site.

2.13 Generic Contamination

The desk study has identified that the site originally comprised a private house before being developed as its current use as offices, which are not associated with any specific source of contamination.

However, it is possible that the near surface soils may have been impacted by asbestos, heavy metals and organic pollutants such as PAHs through direct placement/introduction of



materials such as ash, clinker or the like during the historic use of the site and/or through aerial deposition.

2.14 Ground Gas Summary

The desk study has identified the presence potential sources of ground gas off-site from nearby landfills. It would be recommended that gas monitoring be undertaken to verify the findings of the desk study report and to ensure that ground gas hazards are assessed in order to clarify the risk of harm to the proposed end users.

Vapour intrusion is the migration of volatile chemicals from the subsurface into overlying buildings. Volatile chemicals in contaminated soils or groundwater can emit vapours that may migrate through subsurface soils and into indoor air spaces of overlying buildings in way to that of radon gas seeping into homes.

Methane is an asphyxiating flammable and toxic gas with a density about two-thirds that of air. Methane is toxic at concentrations in excess of 30%v/v and flammable at concentrations of between 5% and 15% by volume in air. Such a methane-air mixture will explode where confined in some way and ignited. The 5% by volume concentration is termed the lower explosive limit (LEL).

Carbon dioxide is a non-flammable toxic and asphyxiating gas which is about 1.5 times heavier than air. In addition, the presence of elevated carbon dioxide may be in conjunction with depleted concentrations of oxygen. Carbon dioxide is inflammable and may affect the flammability of methane by correspondingly reducing the concentration of oxygen within an atmosphere.



3.0 PRELIMINARY RISK ASSESSMENTS

Based on the findings of the desk study the following sections summarise the anticipated geotechnical and environmental factors likely to impact the site.

3.1 Preliminary Geotechnical Risk Assessment & Engineering Options

Hazards identified as being potentially present on site could have implications for foundation design and construction. A summary of commonly occurring geotechnical hazards is given in the following table:

Geotechnical Hazard	Probability	Engineering Implications
Lateral changes in ground conditions	Likely	Variable ground conditions posed by the solid geology (can vary between clay and sand and gravel) across the site may affect foundation design.
Shrinkable soils	Likely	The more cohesive parts of the Head Deposits (superficial) and London Clay (bedrock) are likely to be shrinkable and may affect depth and type of foundations and floor slab design.
Highly compressible/low bearing capacity soils (including peat & soft clay)	Unlikely	Larger or deeper foundations may be required where soft compressible soils are encountered.
High groundwater table and/or flooding (including waterlogged ground)	Unlikely	May affect temporary works and foundation design and construction.
Significant depths of Made Ground	Unlikely	Deep Made Ground is unlikely to be encountered on-site.
Aggressive chemical ground conditions (sulphates)	Unlikely	Aggressive ground conditions are unlikely to be encountered on-site.

Table 3.1 Possible Geotechnical Hazards

3.2 Foundations & Ground Engineering

The recommendations made in the following section are based on the anticipated ground and groundwater conditions identified during the desk study. All geotechnical aspects should be confirmed through detailed intrusive investigation.

3.2.1 Foundations

The choice and design of foundations is highly dependent on the height and loading of a particular development and the underlying geology. As such, it is difficult to provide general advice of foundations for the whole site.

Dependent on the depth of any Made Ground, it is likely that traditional trench fill foundations could be adopted. However, the presence of shrinkable soils in association with large trees and hedges may dictate that piled foundations be adopted in certain areas of the site.



3.2.2 Ground Floor Slabs

Ground bearing floor slabs are likely to be unsuitable for the proposed development due to the potential for the presence of shrinkable soils.

3.2.3 Excavations

Both shallow and deeper excavations within any Made Ground or granular horizons of the superficial deposits and underlying bedrock may be prone to collapse and some form of temporary support or battering back to a safe angle may be necessary.

Deeper excavations with the more cohesive horizons of the Head Deposits and London Clay are likely to remain relatively stable in the short to medium term. However, clays will soften rapidly when exposed to water.

Any excavation taken below the groundwater table will become highly unstable and some form of temporary support and dewatering would likely be necessary.

3.2.4 Soakaways

The ground conditions are unlikely to be suitable for the use of shallow soakaways due to their potential clay content. However, site specific full scale soakage testing would be required to confirm this.

3.3 Preliminary Environmental Conceptual Site Model & Risk Assessment

3.3.1 Methodology

A Preliminary Risk Assessment (PRA) and Conceptual Site Model (CSM) have been prepared in accordance with CLR11 based on information obtained as part of the Desk Study. Possible risks associated with potential sources of contamination and sensitive receptors identified have been qualitatively assessed following a source-pathway-receptor (pollutant linkage) approach in accordance with current UK protocols.

A risk may only exist where a plausible pollutant linkage is present, and where the quantity or concentration of a contaminant is sufficient so as to pose harm. Under the statutory definition, "Contamination" may only strictly exist where contaminants pose a risk of harm to a receptor. Risk may be defined as a function of the likelihood and severity of any adverse effects arising from contamination. The risk classification has been assessed in accordance with CIRIA C552 (Rudland *et al.*, 2001). A summary of how the risks are derived and their definitions are presented in Tables 3.2 and 3.3.



		Consequence			
		Severe	Medium	Mild	Minor
Probability	High Likelihood	Very high risk	High risk	Moderate risk	Moderate/low risk
	Likely	High risk	Moderate risk	Moderate/low risk	Low risk
	Low Likelihood	Moderate risk	Moderate/low risk	Low risk	Very low risk
	Unlikely	Moderate/low risk	Low risk	Very low risk	Very low risk

Table 3.2 Risk Ratings Matrix

Risk Rating	Definitions
Very high risk	There is a high probability that severe harm could arise to a designated receptor from an identified hazard, OR, there is evidence that severe harm to a designated receptor is currently happening. This risk, if realised, is likely to result in a substantial liability. Urgent investigation (if not already undertaken) and remediation are likely to be required.
High risk	Harm is likely to arise to a designated receptor from an identified hazard Realisation of the risk is likely to present a substantial liability. Urgent investigation (if not already undertaken) is required and remediation works may be necessary in the short term and are likely over the longer term.
Moderate risk	It is possible that harm could arise to a designated receptor from an identified hazard. However, it is either relatively unlikely that any such harm would be severe, or if any harm were to occur it is more likely that the harm would be relatively mild.
Moderate to low risk	It is possible that harm could arise to a designated receptor from an identified hazard. However, it is unlikely that any such harm would be severe, or if any harm were to occur it is probable that the harm would be relatively mild.
Low risk	It is possible that harm could arise to a designated receptor from an identified hazard, but it is likely that this harm, if realised, would at worst normally be mild.
Very low risk	There is low possibility that harm could arise to a receptor. In the event of such harm being realised it is not likely to be severe.

Table 3.3 Risk Rating Definitions



3.3.2 Summary of Plausible Sources

Possible sources of contamination identified or discounted as part of the Desk Study are summarised in Table 3.4.

Source	Description	Contaminants	On/Off Site
Made Ground and near surface soils	General background chemical quality of near surface soils. Made Ground may have been imported to construct areas of roads and hardstanding. Made Ground and near surface soils adjacent to the sub-station may be impacted.	Possible elevated metals, organic and inorganic contaminants. PCB's may be present in surface soils at the location of the sub-station.	On
Ground Gases (Made Ground & Vapours)	Possible presence of ground gases as a result of Made Ground (if present) and vapours associated with organic contaminants (if present). Three landfills identified within 500m of the site.	Possible elevated Methane, Carbon Dioxide, depleted Oxygen and Volatile Organic Compounds (VOCs)	Off

Table 3.4 Possible Sources of Contamination

3.3.3 Summary of Plausible Pathways

The plausible pathways are summarised in Table 3.5.

Pathway	Description
Direct Contact	Soil, dust and vegetable ingestion, dermal contact and dust inhalation.
Soil Gas Inhalation	Inhalation of soil gas both inside and outside of buildings.
Vertical & Lateral Migration	Contaminant movement both vertically through leaching/gravity and horizontally along preferential pathways or with groundwater.
Root Uptake	Uptake of soil and waterborne contaminants by plants.
Chemical Attack	Attack of buried plastics and concrete by aggressive ground conditions.

Table 3.5 Possible Contamination Pathways

3.3.4 Summary of Plausible receptors

Potential receptors associated with the site and its development, identified or otherwise discounted, are summarised in Table 3.6.

Receptor	Description	Comments	Plausible
End Users	Residential end users of the proposed redevelopment	The proposed development will include private gardens	Yes
Adjacent Land Users	Sensitive land uses identified within the immediate vicinity	Adjacent land users are predominantly residential and agricultural.	Yes
Soft Landscaping	Areas of planting including lawns, shrubs, trees, etc.	Areas of soft landscaping are proposed as part of the redevelopment	Yes



Water Supply Pipes	Plastics for potable water supply pipes may be laid in contact with contaminated soils	Made Ground may be present beneath the site.	Yes
Building Materials	Buried concrete for foundations etc. may be laid in contact with contaminated soils	The possible presence of aggressive chemical ground conditions may affect foundation design and construction.	yes
Groundwater	Controlled waters contained within the aquifer(s) beneath the site	The site overlies Secondary 'A' Aquifer and Unproductive Strata is within a Zone 1c SPZ	Yes
Surface Water	Controlled waters within lakes, rivers, and ponds, etc., or coastal waters	The nearest surface water feature was located on-site (pond).	Yes

Table 3.6 Possible Receptors of Contamination

Site workers involved in the preparation and construction of the development have not been considered in this assessment as the Principal Contractor is duty bound under the current CDM Regulations to undertake their own risk assessments with respect to their employees and develop safe systems of work.

Whilst the above sources and receptors have been identified, Table 3.7 summarises the identified plausible pollution linkages and a qualitative assessment of the risks based on the Desk Study research:

Potential Source/ media	Potential Receptors	Potential Pathways	Probability	Consequence	Risk and Justification
General chemical quality/Made Ground & Near Surface Soils	End Users	Direct contact	Likely	Mild	Moderate to Low Future end users are likely to come into contact with potentially impacted soils via direct contact in private garden areas.
	Adjacent Land Users	Direct contact	Low	Mild	Low During the development fugitive dust may be released which could impact neighboring land users through direct contact.
	Soft Landscaping	Root uptake	Likely	Mild	Moderate to Low Planting is likely within flower borders and alike.
	Water Supply Pipes	Chemical attack	Likely	Mild	Moderate to Low Water supply pipes are likely to come into contact with soils though significant contamination is not anticipated.
	Buildings and Infrastructure	Chemical attack	Likely	Mild	Moderate to Low Foundations and utilities will be placed within soils. However, the consequence is anticipated to be mild.



Potential Source/ media	Potential Receptors	Potential Pathways	Probability	Consequence	Risk and Justification
	Groundwater	Vertical migration	Likely	Mild	Moderate to Low Groundwater is anticipated to be shallow within the Head Deposits. No significant source of mobile contamination has been identified on site with the exception of potential limited volumes of hydrocarbons from spillages/leakage from parked cars and access roads
	Surface Water	Horizontal and vertical migration	likely	Mild	Moderate to low No significant source of mobile contamination has been identified on site with the exception of potential limited volumes of hydrocarbons from spillages/leakage from parked cars and access roads.
Ground Gas/Made Ground & Near Surface Soils	End Users	Inhalation	Likely	Medium	Moderate It is likely that end users of the site will come into contact with ground gases should they be present. Three registered landfills are located within 500m of the site boundaries.

Table 3.7 Plausible Pollutant Linkages & Qualitative Risk Assessment

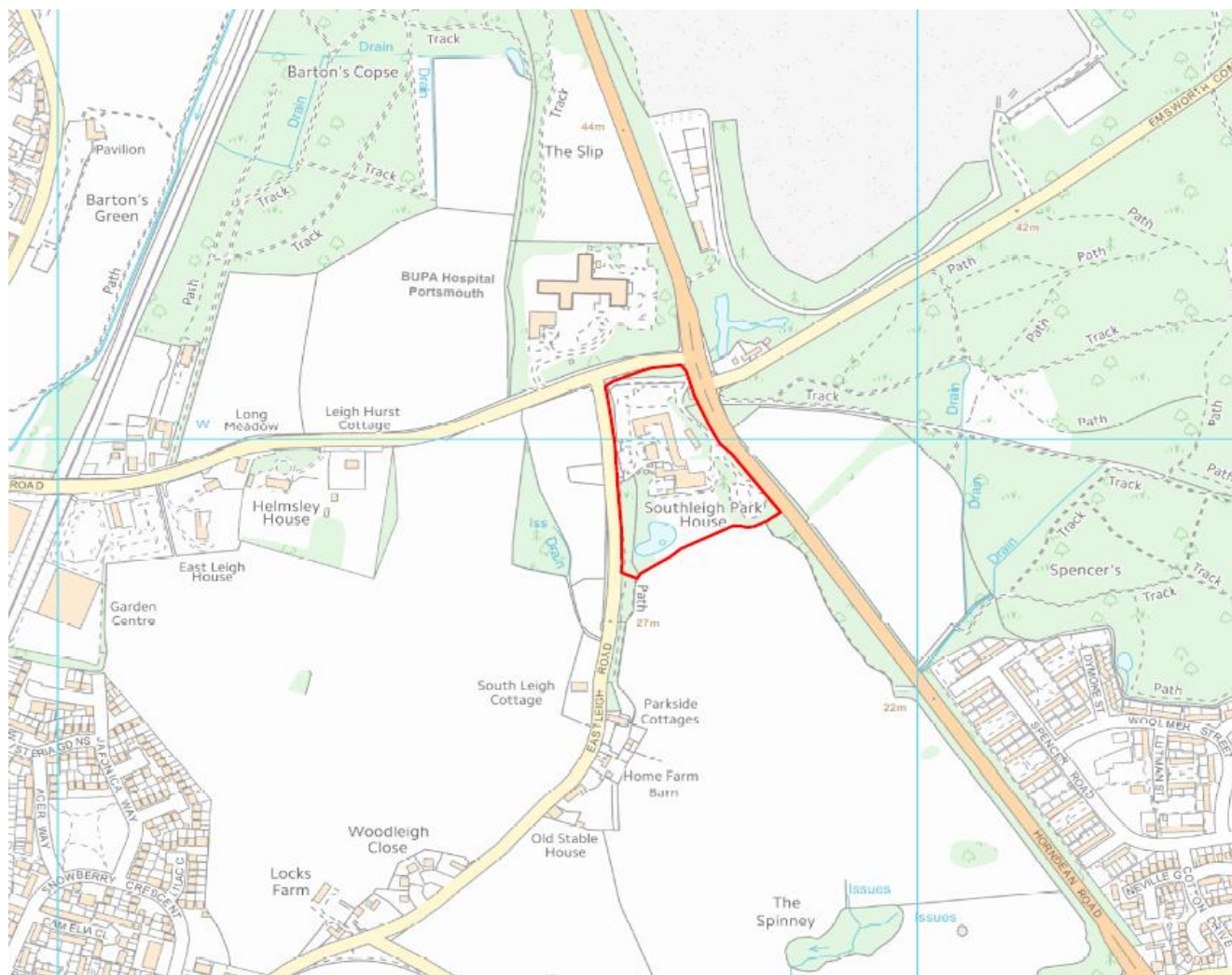
3.4 Preliminary Risk Assessment Summary

The PRA and CSM developed from the information gathered as part of the desk study process has identified several plausible pollutant linkages that exist in relation to the proposed redevelopment of the site. However, the preliminary risk rating for each linkage has been classified as moderate to low and low and as such the site is considered overall as moderate to low risk.

3.5 Recommended Intrusive Investigation

Given that several plausible geotechnical and environmental risks have been identified as part of the desk study, it is recommended that an intrusive investigation be undertaken on the site to quantitatively assess the risks posed. The following works are recommended:

- Exploratory boreholes and trial pits across the site, including targeting car park areas and electricity sub-station.
- Installation of ground gas and groundwater monitoring standpipes with six return monitoring visits.
- Geotechnical and geochemical laboratory analysis on both soils and groundwater.

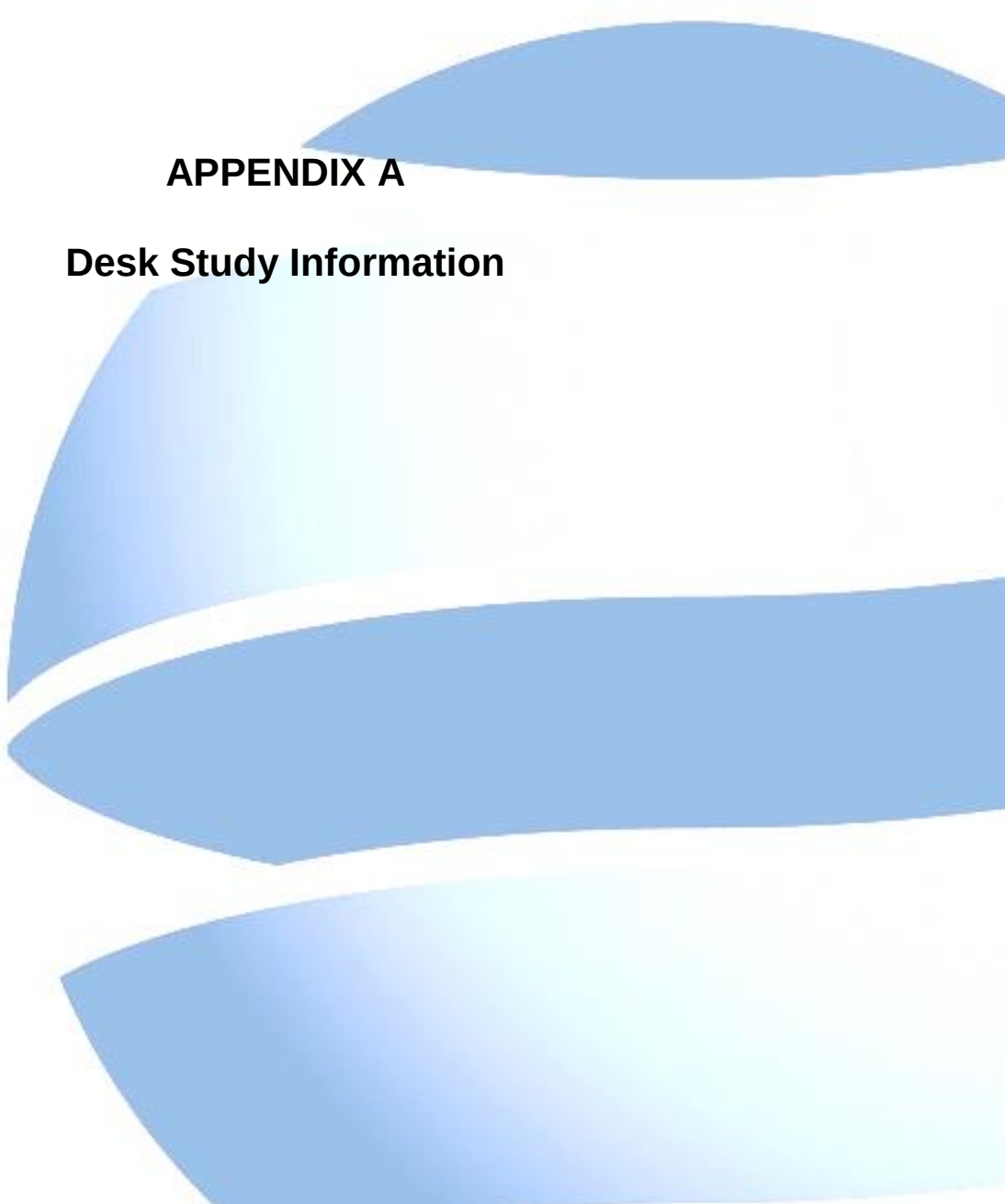


Project:	Southleigh Park House, Eastleigh Road, Havant			Title	Site Location	
Client:	Ardent Consulting			Geo-Environmental Services Ltd Unit 7 Danworth Farm, Cuckfield Road Hurstpierpoint, West Sussex BN6 9GL +44(0)1273 832972 www.gesl.net		
Ref No:	GE15562	Revision:	1			
Drawn:	GE	Date:	28/06/2016			
Figure:	1	Scale:	Not To Scale			



Geo-Environmental





APPENDIX A

Desk Study Information



Geo-Environmental

Envirocheck[®] Report:

Datasheet

Order Details:

Order Number:

85480247_1_1

Customer Reference:

GE15562

National Grid Reference:

473720, 107960

Slice:

A

Site Area (Ha):

3.17

Search Buffer (m):

1000

Site Details:

Southleigh Park House
Eastleigh Road
HAVANT
Hampshire
PO9 2PE

Client Details:

Mr C Azevedo
Geo Environmental Services Ltd
Unit 7 Danworth Farm
Cuckfield Road
Hurstpierpoint
West Sussex
BN6 9GL



Report Section	Page Number
Summary	-
Agency & Hydrological	1
Waste	11
Hazardous Substances	17
Geological	18
Industrial Land Use	21
Sensitive Land Use	30
Data Currency	31
Data Suppliers	37
Useful Contacts	38

Introduction

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

In the attached datasheet the National Grid References (NGRs) are rounded to the nearest 10m in accordance with Landmark's agreements with a number of Data Suppliers.

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Report Version v50.0



Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
BGS Groundwater Flooding Susceptibility	pg 1	Yes	Yes	Yes	n/a
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 2			1	5
Prosecutions Relating to Controlled Waters			n/a	n/a	n/a
Enforcement and Prohibition Notices					
Integrated Pollution Controls					
Integrated Pollution Prevention And Control	pg 4			1	5
Local Authority Integrated Pollution Prevention And Control	pg 5			1	
Local Authority Pollution Prevention and Controls					
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 5	Yes			
Pollution Incidents to Controlled Waters	pg 5				2
Prosecutions Relating to Authorised Processes	pg 5			1	
Registered Radioactive Substances					
River Quality	pg 5		1		1
River Quality Biology Sampling Points					
River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register	pg 6			4	2
Water Abstractions	pg 7				(*1)
Water Industry Act Referrals					
Groundwater Vulnerability	pg 7	Yes	n/a	n/a	n/a
Drift Deposits			n/a	n/a	n/a
Bedrock Aquifer Designations	pg 7	Yes	n/a	n/a	n/a
Superficial Aquifer Designations	pg 7	Yes	n/a	n/a	n/a
Source Protection Zones	pg 7	1			1
Extreme Flooding from Rivers or Sea without Defences				n/a	n/a
Flooding from Rivers or Sea without Defences				n/a	n/a
Areas Benefiting from Flood Defences				n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences				n/a	n/a
Detailed River Network Lines	pg 7		Yes	Yes	n/a
Detailed River Network Offline Drainage	pg 10		Yes	Yes	n/a



Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Waste					
BGS Recorded Landfill Sites					
Historical Landfill Sites	pg 11		1		1
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)	pg 11		2		
Licensed Waste Management Facilities (Locations)	pg 11			1	
Local Authority Landfill Coverage	pg 11	2	n/a	n/a	n/a
Local Authority Recorded Landfill Sites					
Potentially Infilled Land (Non-Water)	pg 12		1		
Potentially Infilled Land (Water)	pg 12		2	3	15
Registered Landfill Sites	pg 13			3	1
Registered Waste Transfer Sites					
Registered Waste Treatment or Disposal Sites					
Hazardous Substances					
Control of Major Accident Hazards Sites (COMAH)					
Explosive Sites					
Notification of Installations Handling Hazardous Substances (NIHHS)					
Planning Hazardous Substance Consents	pg 17				1
Planning Hazardous Substance Enforcements					



Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Geological					
BGS 1:625,000 Solid Geology	pg 18	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 18	Yes			Yes
BGS Recorded Mineral Sites	pg 18		3	1	1
BGS Urban Soil Chemistry					
BGS Urban Soil Chemistry Averages					
Brine Compensation Area			n/a	n/a	n/a
Coal Mining Affected Areas			n/a	n/a	n/a
Mining Instability			n/a	n/a	n/a
Man-Made Mining Cavities					
Natural Cavities					
Non Coal Mining Areas of Great Britain				n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 19	Yes		n/a	n/a
Potential for Compressible Ground Stability Hazards				n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 19	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 19		Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 20	Yes	Yes	n/a	n/a
Radon Potential - Radon Affected Areas			n/a	n/a	n/a
Radon Potential - Radon Protection Measures			n/a	n/a	n/a
Industrial Land Use					
Contemporary Trade Directory Entries	pg 21		4	5	54
Fuel Station Entries					
Points of Interest - Commercial Services	pg 26			1	11
Points of Interest - Education and Health	pg 27		5		
Points of Interest - Manufacturing and Production	pg 27			1	3
Points of Interest - Public Infrastructure	pg 28		1	2	5
Points of Interest - Recreational and Environmental	pg 28			3	6
Gas Pipelines					
Underground Electrical Cables					



Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Sensitive Land Use					
Ancient Woodland	pg 30			1	3
Areas of Adopted Green Belt					
Areas of Unadopted Green Belt					
Areas of Outstanding Natural Beauty					
Environmentally Sensitive Areas					
Forest Parks					
Local Nature Reserves					
Marine Nature Reserves					
National Nature Reserves					
National Parks					
Nitrate Sensitive Areas					
Nitrate Vulnerable Zones	pg 30	1			2
Ramsar Sites					
Sites of Special Scientific Interest					
Special Areas of Conservation					
Special Protection Areas					
World Heritage Sites					



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13SW (N)	0	2	473718 107958
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (N)	7	2	473718 108100
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NW (N)	9	2	473700 108100
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (NW)	20	2	473650 108100
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (NW)	37	2	473600 108050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (NW)	46	2	473600 108100
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NE (NE)	50	2	473800 108050
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NW (N)	57	2	473718 108150
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (N)	59	2	473700 108150
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (N)	68	2	473650 108150
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NW (NW)	85	2	473600 108150
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NW (N)	107	2	473718 108200
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NW (N)	109	2	473700 108200
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13NE (N)	109	2	473750 108200
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (NE)	116	2	473850 108100
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (NW)	116	2	473550 108150
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13SW (S)	126	2	473718 107700
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (NE)	129	2	473900 108050
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NW (NW)	130	2	473600 108200
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13NE (NE)	135	2	473850 108150
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13SW (W)	150	2	473500 107950
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NW (NW)	154	2	473550 108200



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NW (N)	157	2	473718 108250
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13NE (NE)	246	2	473950 108200
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A18SW (NW)	294	2	473450 108300
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (NE)	309	2	474050 108150
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A14NW (E)	319	2	474150 108000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14NW (E)	337	2	474150 108050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14NW (NE)	360	2	474100 108200
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A18SE (NE)	411	2	474000 108400
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A19SW (NE)	426	2	474100 108300
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A14NW (E)	429	2	474250 108050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A18SE (NE)	446	2	474050 108400
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12NE (NW)	472	2	473200 108250
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A17SE (NW)	476	2	473250 108350
1	Discharge Consents Operator: Southern Water Services Ltd (H) Property Type: Sewerage Network - Sewers - Water Company Location: Eastleigh Road, Denvilles Hampshire Authority: Environment Agency, Southern Region Catchment Area: Not Given Reference: A00327 Permit Version: 1 Effective Date: 1st April 1991 Issued Date: 1st April 1991 Revocation Date: 6th March 1996 Discharge Type: Public Sewage: Storm Sewage Overflow Discharge Environment: Freshwater Stream/River Receiving Water: Freshwater River Status: Post National Rivers Authority Legislation where issue date > 31/08/1989 Positional Accuracy: Located by supplier to within 100m	A12SE (SW)	287	3	473400 107700
2	Discharge Consents Operator: Southern Water Services Ltd (H) Property Type: Sewerage Network - Sewers - Water Company Location: Woodbine Cottage, Eastleigh Road, Havant, Hampshire, Po9 2ny Authority: Environment Agency, Southern Region Catchment Area: Unknown to Emsworth Channel Reference: W00316 Permit Version: 1 Effective Date: 27th January 1979 Issued Date: 27th January 1979 Revocation Date: Not Supplied Discharge Type: Public Sewage: Storm Sewage Overflow Discharge Environment: Freshwater Stream/River Receiving Water: Unnamed Drain Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989 Positional Accuracy: Located by supplier to within 100m	A8SE (S)	589	3	473870 107270



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
3	Discharge Consents Operator: Chidden Farms Property Type: Undefined Or Other Location: Southleigh Farm, Southleigh Road, Havant, Hampshire Authority: Environment Agency, Southern Region Catchment Area: Not Given Reference: H01588 Permit Version: 1 Effective Date: 18th January 1963 Issued Date: 18th January 1963 Revocation Date: Not Supplied Discharge Type: Discharge Of Other Matter-Surface Water Discharge: Freshwater Stream/River Environment: Receiving Water: Freshwater River Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989 Positional Accuracy: Located by supplier to within 100m	A8SE (S)	681	3	473890 107180
4	Discharge Consents Operator: Thermofil Polymers (Uk) Ltd Property Type: Water Treatment Works Location: New Lane, Havant, Hampshire Authority: Environment Agency, Southern Region Catchment Area: Not Supplied Reference: Ao0598 Permit Version: 1 Effective Date: 28th November 1994 Issued Date: 28th November 1994 Revocation Date: 6th September 2005 Discharge Type: Discharge Of Other Matter-Surface Water Discharge: Freshwater Stream/River Environment: Receiving Water: Freshwater River Status: Authorisation revokedRevoked Positional Accuracy: Located by supplier to within 10m	A12SW (W)	836	3	472810 107950
4	Discharge Consents Operator: Vickers Systems Ltd. Property Type: Water Treatment Works Location: New Lane, Havant, Hampshire Authority: Environment Agency, Southern Region Catchment Area: Not Given Reference: H01208 Permit Version: 1 Effective Date: 15th April 1965 Issued Date: 15th April 1965 Revocation Date: 27th February 2006 Discharge Type: Trade Effluent Discharge: Freshwater Stream/River Environment: Receiving Water: Freshwater River Status: Consent revoked: Discharge ceased (Water Resources Act 1991, Schedule 10 & 6) Positional Accuracy: Located by supplier to within 100m	A12SW (W)	836	3	472810 107950
5	Discharge Consents Operator: Gec-Plessey Avionics Ltd. Property Type: Undefined Or Other Location: Gec-Plessey Avionics Ltd., Martin Road, West Leigh, Havant, Hampshire Authority: Environment Agency, Southern Region Catchment Area: Not Given Reference: P01759 Permit Version: 1 Effective Date: 14th July 1988 Issued Date: 14th July 1988 Revocation Date: 8th March 1996 Discharge Type: Discharge Of Other Matter-Surface Water Discharge: Freshwater Stream/River Environment: Receiving Water: Freshwater River Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989 Positional Accuracy: Located by supplier to within 100m	A11SE (W)	964	3	472690 107800



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
6	Integrated Pollution Prevention And Control Name: Veolia Es Landfill Limited Location: Southleigh Landfill - Leachate Treatment Plant, Southleigh Landfill Leachate Treatment Plant, Havant, Hampshire, PO9 2PB Authority: Environment Agency, Southern Region Permit Reference: SP3838LY Original Permit Ref: Sp3838ly Effective Date: 28th March 2007 Status: Superseded By Variation Application Type: Application App. Sub Type: New Positional Accuracy: Located by supplier to within 100m Activity Code: 5.3 A(1) (C) (I) Activity Description: Other Waste Disposal; Non-Hazardous Waste >50T/D By Biological Treatment Primary Activity: Y	A18SE (N)	442	3	473900 108500
7	Integrated Pollution Prevention And Control Name: Veolia Es Landfill Limited Location: Southleigh Landfill - Leachate Treatment Plant, Southleigh Landfill Leachate Treatment Plant, Elmsworth Road,,, Havant, Hampshire, PO9 2PB Authority: Environment Agency - South East Region, Solent & South Downs Area Permit Reference: SP3230TB Original Permit Ref: Sp3838ly Effective Date: 26th May 2010 Status: Surrender Effective Application Type: Surrender App. Sub Type: Whole Positional Accuracy: Automatically positioned to the address Activity Code: 5.3 A(1) (C) (I) Activity Description: Other Waste Disposal; Non-Hazardous Waste >50T/D By Biological Treatment Primary Activity: Y	A19SW (NE)	548	3	474161 108426
7	Integrated Pollution Prevention And Control Name: Veolia Es Landfill Limited Location: Southleigh Landfill - Leachate Treatment Plant, Southleigh Landfill Leachate Treatment Plant, Elmsworth Road,,, Havant, Hampshire, PO9 2PB Authority: Environment Agency, Southern Region Permit Reference: SP3230TB Original Permit Ref: Sp3838ly Effective Date: 26th May 2010 Status: Surrender Effective Application Type: Surrender App. Sub Type: Whole Positional Accuracy: Automatically positioned to the address Activity Code: 5.3 A(1) (C) (I) Activity Description: Other Waste Disposal; Non-Hazardous Waste >50T/D By Biological Treatment Primary Activity: Y	A19SW (NE)	548	3	474161 108426
7	Integrated Pollution Prevention And Control Name: Veolia Es Landfill Limited Location: Southleigh Landfill - Leachate Treatment Plant, Southleigh Landfill Leachate Treatment Plant, Elmsworth Road,,, Havant, Hampshire, PO9 2PB Authority: Environment Agency - South East Region, Solent & South Downs Area Permit Reference: SP3838LY Original Permit Ref: Sp3838ly Effective Date: 28th March 2007 Status: Superseded By Variation Application Type: Application App. Sub Type: New Positional Accuracy: Automatically positioned to the address Activity Code: 5.3 A(1) (C) (I) Activity Description: Other Waste Disposal; Non-Hazardous Waste >50T/D By Biological Treatment Primary Activity: Y	A19SW (NE)	548	3	474161 108426
7	Integrated Pollution Prevention And Control Name: Veolia Es Onyx Limited Location: Southleigh Landfill Site, Southleigh Landfill Site, Emsworth Common Road,,, EMSWORTH, Hampshire, PO9 2PB Authority: Environment Agency - South East Region, Solent & South Downs Area Permit Reference: BV9926IV Original Permit Ref: Bv9926iv Effective Date: Not Supplied Status: Application refused Application Type: Application App. Sub Type: New Positional Accuracy: Automatically positioned to the address Activity Code: 5.2 A(1) (A) Activity Description: Waste Landfilling; Greater Than 10 T/D With Capacity Greater Than 25,000T Excluding Inert Waste Primary Activity: Y	A19SW (NE)	548	3	474161 108426



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
8	Integrated Pollution Prevention And Control Name: Veolia Es Onyx Limited Location: Southleigh Landfill Site, Emsworth Common Road, Emsworth, Hampshire, PO9 2PB Authority: Environment Agency, Southern Region Permit Reference: Bv9926iv Original Permit Ref: Bv9926iv Effective Date: Not Supplied Status: Application refused Application Type: Application App. Sub Type: New Positional Accuracy: Manually positioned to the address or location Activity Code: 5.2 A(1) (A) Activity Description: Waste Landfilling; Greater Than 10 T/D With Capacity Greater Than 25,000T Excluding Inert Waste Primary Activity: Y	A18SE (N)	566	3	473926 108623
9	Local Authority Integrated Pollution Prevention And Control Name: Veolia Es Onyx Ltd Location: Southleigh Landfill, Emsworth Common Road, Havant, PO9 2PB Authority: Havant Borough Council, Environmental Health Department Permit Reference: EA/IPPC/SP3838LY Dated: 9th August 2006 Process Type: The Chemical Industry Description: Not Supplied Status: Permit Revoked Positional Accuracy: Located by supplier to within 10m	A18SE (N)	453	4	473877 108520
	Nearest Surface Water Feature	A13SW (S)	0	-	473697 107896
10	Pollution Incidents to Controlled Waters Property Type: Private Sewage (Non-PLC): Water Treatment Works Location: Hollybank Lane, EMSWORTH Authority: Environment Agency, Southern Region Pollutant: Miscellaneous - Inert Suspended Solids Note: River Of Oil Coming From House Incident Date: 2nd November 1998 Incident Reference: 798519 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Deliberate Disposal To Drain Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14SE (E)	764	3	474600 107800
10	Pollution Incidents to Controlled Waters Property Type: Private Sewage (Non-PLC): Water Treatment Works Location: Little Oaks, Hollybank Lane, EMSWORTH Authority: Environment Agency, Southern Region Pollutant: Miscellaneous - Inert Suspended Solids Note: Oil Spill At Hollybank Lane Incident Date: 3rd November 1998 Incident Reference: 798527 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Deliberate Disposal To Drain Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14SE (E)	765	3	474600 107795
11	Prosecutions Relating to Authorised Processes Location: Southleigh Landfill Site, EMSWORTH Prosecution Text: Breach Of Wml - Failure To Cover Waste With Topsoil. Prosecution Act: Epa90 S33(6) Hearing Date: 24th August 2001 Verdict: Guilty Fine: 3000 Costs: 867.37 Positional Accuracy: Manually positioned to the road within the address or location	A18SE (N)	414	3	473871 108481
	River Quality Name: Southleigh Strm GQA Grade: River Quality D Reach: Tidal Limit - Source Estimated Distance (km): 2.2 Flow Rate: Flow less than 0.31 cumecs Flow Type: River Year: 2000	A13SW (SW)	108	3	473606 107738



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	River Quality Name: Lavant (Hants) GQA Grade: River Quality A Reach: Tidal Limit - Source Estimated Distance (km): 6.5 Flow Rate: Flow less than 0.31 cumecs Flow Type: River Year: 2000	A17SE (NW)	648	3	473279 108613
12	Substantiated Pollution Incident Register Authority: Environment Agency - Southern Region, Solent and South Downs Incident Date: 19th June 2001 Incident Reference: 10056 Water Impact: Category 2 - Significant Incident Air Impact: Category 4 - No Impact Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: General Biodegradable : Other	A14SW (SE)	288	3	474090 107760
13	Substantiated Pollution Incident Register Authority: Environment Agency - Southern Region, Solent and South Downs Incident Date: 9th February 2004 Incident Reference: 215755 Water Impact: Category 4 - No Impact Air Impact: Category 2 - Significant Incident Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Atmospheric Pollutants And Effects: Landfill Odour	A13SE (SE)	319	3	474057 107672
14	Substantiated Pollution Incident Register Authority: Environment Agency - Southern Region, Solent and South Downs Incident Date: 8th March 2004 Incident Reference: 221674 Water Impact: Category 4 - No Impact Air Impact: Category 2 - Significant Incident Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Atmospheric Pollutants And Effects: Landfill Odour	A14SW (SE)	411	3	474206 107716
15	Substantiated Pollution Incident Register Authority: Environment Agency - Southern Region, Solent and South Downs Incident Date: 15th May 2004 Incident Reference: 237021 Water Impact: Category 4 - No Impact Air Impact: Category 2 - Significant Incident Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Atmospheric Pollutants And Effects: Landfill Odour	A9NW (SE)	482	3	474187 107571
16	Substantiated Pollution Incident Register Authority: Environment Agency - Southern Region, Solent and South Downs Incident Date: 18th October 2004 Incident Reference: 272695 Water Impact: Category 4 - No Impact Air Impact: Category 2 - Significant Incident Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Atmospheric Pollutants And Effects: Landfill Odour	A19SW (NE)	533	3	474081 108491
17	Substantiated Pollution Incident Register Authority: Environment Agency - Southern Region, Solent and South Downs Incident Date: 1st March 2004 Incident Reference: 220057 Water Impact: Category 4 - No Impact Air Impact: Category 2 - Significant Incident Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Atmospheric Pollutants And Effects: Landfill Odour	A9NW (SE)	633	3	474294 107465



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Mr N Rule Licence Number: 10/41/511005 Permit Version: 100 Location: Watercourse At Mill House, Westbourne Authority: Environment Agency, Southern Region Abstraction: Aquaculture: Fish Farm/Cress Pond Throughflow Abstraction Type: Water may be abstracted from a river or stream reach, or a row of wellpoints Source: Surface Daily Rate (m3): 45 Yearly Rate (m3): 3409.1 Details: Mill House, Westbourne Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 9th June 2009 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(E)	1966	3	475810 107920
	Groundwater Vulnerability Soil Classification: Not classified Map Sheet: Sheet 45 West Sussex and Surrey Scale: 1:100,000	A13SW (N)	0	3	473718 107958
	Groundwater Vulnerability Soil Classification: Soils of Intermediate Leaching Potential (I1) - Soils which can possibly transmit a wide range of pollutants Map Sheet: Sheet 45 West Sussex and Surrey Scale: 1:100,000	A13NW (N)	0	3	473719 107968
	Drift Deposits None				
	Bedrock Aquifer Designations Aquifer Designation: Unproductive Strata	A13SW (N)	0	2	473718 107958
	Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A13SW (N)	0	2	473718 107958
18	Source Protection Zones Name: Not Supplied Source: Environment Agency, Head Office Reference: Not Supplied Type: Zone Ic (Inner Protection Zone): Travel time of 50 days or less to the groundwater source - subsurface activity only.	A13SW (N)	0	3	473718 107958
19	Source Protection Zones Name: Lovedean Source: Environment Agency, Head Office Reference: Su295 Type: Zone II (Outer Protection Zone): Either 25% of the source area or a 400 day travel time whichever is greater.	A17NE (NW)	825	3	473295 108825
	Extreme Flooding from Rivers or Sea without Defences None				
	Flooding from Rivers or Sea without Defences None				
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				
	Flood Defences None				
20	Detailed River Network Lines River Type: Tertiary River River Name: Drain Hydrographic Area: D007 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Drain (ditch, Reen, Rhyne, Drain) Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A13NE (NE)	209	3	474027 108089



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
21	Detailed River Network Lines River Type: Primary River River Name: Drain Hydrographic Area: D007 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Currently Undefined Flood Risk: Currently Undefined Management Status: Water Course: West Brook Name: Water Course: S614 Reference:	A13SE (SE)	249	3	474006 107711
22	Detailed River Network Lines River Type: Primary River River Name: Not Supplied Hydrographic Area: D007 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A13SE (SE)	250	3	474050 107767
23	Detailed River Network Lines River Type: Secondary River River Name: Not Supplied Hydrographic Area: D007 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A13SE (SE)	252	3	474058 107779
24	Detailed River Network Lines River Type: Tertiary River River Name: Drain Hydrographic Area: D007 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Drain (ditch, Reen, Rhyne, Drain) Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A14SW (E)	256	3	474090 107837
25	Detailed River Network Lines River Type: Extended Culvert (greater than 50m) River Name: Not Supplied Hydrographic Area: D007 River Flow Type: Primary Flow Path River Surface Level: Below Surface Drain Feature: Not a Drain Flood Risk: Currently Undefined Management Status: Water Course: West Brook Name: Water Course: S614 Reference:	A13SE (SE)	258	3	474004 107707
26	Detailed River Network Lines River Type: Tertiary River River Name: Drain Hydrographic Area: D007 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Drain (ditch, Reen, Rhyne, Drain) Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A18SW (NW)	305	3	473440 108306



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
27	Detailed River Network Lines River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D007 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A18SW (N)	425	3	473523 108485
28	Detailed River Network Lines River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D007 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A17SE (NW)	452	3	473274 108341
29	Detailed River Network Lines River Type: Tertiary River River Name: Drain Hydrographic Area: D007 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Drain (ditch, Reen, Rhyne, Drain) Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A18SW (NW)	455	3	473434 108481
30	Detailed River Network Lines River Type: Tertiary River River Name: Drain Hydrographic Area: D007 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Drain (ditch, Reen, Rhyne, Drain) Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A17SE (NW)	457	3	473269 108343
31	Detailed River Network Lines River Type: Tertiary River River Name: Drain Hydrographic Area: D007 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Drain (ditch, Reen, Rhyne, Drain) Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A17SE (NW)	457	3	473269 108343
32	Detailed River Network Lines River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D007 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A8NE (S)	468	3	473920 107427



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
33	Detailed River Network Offline Drainage River Type: Tertiary River Hydrographic Area: D007	A13NE (N)	35	3	473758 108110
34	Detailed River Network Offline Drainage River Type: Tertiary River Hydrographic Area: D007	A13SW (SW)	59	3	473584 107881
35	Detailed River Network Offline Drainage River Type: Tertiary River Hydrographic Area: D007	A14SW (SE)	447	3	474243 107709



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
36	Historical Landfill Sites Licence Holder: Leigh Environmental Southern Limited Location: Havant, Hampshire Name: Southleigh Forest Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD20471 First Input Date: 8th March 1993 Last Input Date: Not Supplied Specified Waste: Deposited Waste included Inert and Commercial Waste Type: EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 1700/6018 BGS Ref: Not Supplied Other Ref: 6/18F, FEH13, 6.22f	A13NE (N)	115	3	473783 108193
37	Historical Landfill Sites Licence Holder: A and J Bull (Southern) Limited Location: Emsworth Common Road, Havant, Hampshire Name: Blackbush Hanger Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD20474 First Input Date: 3rd August 1988 Last Input Date: Not Supplied Specified Waste: Deposited Waste included Inert, Industrial and Commercial Waste Type: EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 1700/6028 BGS Ref: Not Supplied Other Ref: FEH16, 6/28, SE15	A19SW (NE)	640	3	474231 108487
38	Licensed Waste Management Facilities (Landfill Boundaries) Name: Southleigh Landfill Site Licence Number: 19870 Location: Southleigh Landfill Site, Emsworth Common Road, Emsworth, Hampshire, PO9 2PB Licence Holder: Leigh Environmental (Southern) Ltd Authority: Environment Agency - Southern Region, Hampshire and Isle of Wight Area Office Site Category: Co-disposal Landfill Sites Max Input Rate: Not Supplied Licence Status: Inactive Issued: 3rd May 1995 Positional Accuracy: Positioned by the supplier Boundary Accuracy: As Supplied	A13NE (N)	32	3	473764 108089
39	Licensed Waste Management Facilities (Landfill Boundaries) Name: Southleigh Landfill Site Licence Number: 19870 Location: Southleigh Landfill Site, Emsworth Common Road, Emsworth, Hampshire, PO9 2PB Licence Holder: Leigh Environmental (Southern) Ltd Authority: Environment Agency - South East Region, Solent & South Downs Area Site Category: Co-disposal Landfill Sites Max Input Rate: Not Supplied Licence Status: Closure Issued: Not Supplied Positional Accuracy: Positioned by the supplier Boundary Accuracy: As Supplied	A13NE (N)	32	3	473766 108084
40	Licensed Waste Management Facilities (Locations) Licence Number: 19870 Location: Southleigh Landfill Site, Emsworth Common Road, Emsworth, Hampshire, PO9 2PB Operator Name: Leigh Environmental (Southern) Ltd Operator Location: Not Supplied Authority: Environment Agency - South East Region, Solent & South Downs Area Site Category: Co-disposal Landfill Sites Licence Status: Closed Issued: 3rd May 1995 Last Modified: 11th March 2002 Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A18SE (N)	442	3	473840 108520
	Local Authority Landfill Coverage Name: Havant Borough Council - Has supplied landfill data		0	4	473718 107958



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Local Authority Landfill Coverage Name: Hampshire County Council - Had landfill data but passed it to the relevant environment agency		0	5	473718 107958
	Local Authority Landfill Coverage Name: East Hampshire District Council - Has no landfill data to supply		57	6	473679 108146
41	Potentially Infilled Land (Non-Water) Bearing Ref: W Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A13NW (W)	149	-	473493 108030
42	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1910	A13SW (SW)	128	-	473528 107856
43	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1910	A13SW (SW)	233	-	473500 107659
44	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1963	A14SW (SE)	280	-	474096 107786
45	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1910	A12SE (SW)	385	-	473291 107704
46	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1898	A8NE (S)	469	-	473929 107431
47	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1914	A12SW (W)	592	-	473059 107920
48	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1963	A12NE (NW)	593	-	473088 108296
49	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1914	A12SW (W)	608	-	473055 107724
50	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1898	A14SE (E)	624	-	474467 107883
51	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1963	A14SE (E)	630	-	474456 107759
52	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1963	A8SE (S)	631	-	473825 107213
53	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1963	A17SE (NW)	664	-	473226 108595
54	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1963	A14NE (E)	757	-	474543 108202
55	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1963	A14NE (NE)	764	-	474503 108296
56	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1932	A7SE (SW)	767	-	473286 107162
57	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1932	A7SE (SW)	774	-	473193 107212
58	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1914	A12SW (W)	855	-	472799 107846



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
59	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1963	A14SE (E)	897	-	474728 107758
60	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1963	A14SE (E)	907	-	474732 107725
61	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1932	A9SW (SE)	908	-	474271 107106
62	Registered Landfill Sites Licence Holder: Summerdown Ltd Licence Reference: 6/ 18f Site Location: Southleigh Forest, Havant, Hampshire Licence Easting: 473900 Licence Northing: 108400 Operator Location: 8 Landport Terrace, Portsmouth, Hampshire Authority: Environment Agency - Thames Region, South East Area Site Category: Landfill Max Input Rate: Undefined Waste Source: No known restriction on source of waste Restrictions: Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 30th November 1984 Preceded By: 6/ 18 Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste Prohibited Waste	A18SE (N)	353	3	473900 108400



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
62	Registered Landfill Sites Licence Holder: George Ewen Ltd Licence Reference: 6/ 18 Site Location: Southleigh Forest, Havant, Hampshire Licence Easting: 473900 Licence Northing: 108400 Operator Location: Butser Limeworks, Portsmouth Road, Petersfield, Hampshire Authority: Environment Agency - Thames Region, South East Area Site Category: Landfill Max Input Rate: Undefined Waste Source: No known restriction on source of waste Restrictions: Status: Record supersededSuperseded Dated: 27th January 1984 Preceded By: Not Given Licence: Superseded By: 6/ 18f Licence: Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste: Ceramic Waste Construction And Demolition Wastes Cork Electrical Goods/Tvs/Whiteware Enamels Excavated Natural Materials \$ Foundry Sand Glass/Cullet Hardcore And Rubble Other Minerals Polymeric Material, Products/Scrap Pottery Making Waste Road Making Materials Sand Sawdust/Bark Scrap Rubber (Including Tyres) Slag, Boiler/Flue Cleanings Synthetic Adhesive Wastes Timber And Other Organic Material Wood Waste/Timber Prohibited Waste Biodegradable/Putrescible Waste Contaminated Rubble Fibrous Forms Of Asbestos Food Waste Liquid/Slurry/Sludge Wastes Paper/Cardboard Waste Phenols, Analogues/Derivatives Poisonous, Noxious, Polluting Wastes Special Wastes N.O.S Vegetable/Processing Waste	A18SE (N)	353	3	473900 108400



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
63	Registered Landfill Sites Licence Holder: Leigh Environmental (Southern) Ltd Licence Reference: EH 044C Site Location: Southleigh Landfill, Emsworth Common Road, Emsworth, Hampshire Licence Easting: 473800 Licence Northing: 108500 Operator Location: Dundas Spur, Dundas Lane, Copnor, PORTSMOUTH, Hampshire, PO3 5NY Authority: Environment Agency - Southern Region, Hampshire Area Site Category: Landfill - with treatment Max Input Rate: Very Large (Equal to or greater than 250,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Status: Operational as far as is knownOperational Dated: 1st November 1991 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste Adhesive Wastes Ceramics,Mica Clays Construction And Demolition Wastes Contaminated Land Clearance Waste Cork Cullet Elect. Fittings/Fixtures/Appliances Enamels Ferrous Metals Food/Food Proc.Waste - < 5% Daily Inp Hard Solid Waste Insol. In Water/Acid Household Waste Max.Waste Permitted By Licence-States Metal Swarf Non-Ferrous Metals Oiled/Tarred Paper - < 5% Daily Input Paper/Packaging Ex Com./Ind.Premises Pottery,China Prods Of Complete Polymerisation Sand,Chalk,Gravel & Nat.Earth Spoils Sawdust, Sanderdust Solid Rubber Timber Tyres - < 5% Daily Vol. Input Vegetable Matter - < 5% Daily Input Wood Offcuts, Hardboard All Cat'S Of Clinical Wastes In Wmp 25 Drums > 5 L Cap'Y Unless Full Permit.W Fibrous Forms Of Asbestos Liquid/Slurry/Sludge Wastes Mineral Oil Contamination Old Cars,Vehicles,Tractors Phenol Or Mat'L Containing Phenol Poisonous, Noxious, Polluting Wastes Poll.Conc'Ns Cu,Cr,Zn,Pb,Va,Other Met. Potentially Hazardous Wastes Potentially Toxic Wastes Rubble-Premis Use Toxic/Water Sol.Chems Special Wastes Waste N.O.S. Waste-Dry Cut'G,Grind'G,Shap'G Metals Prohibited Waste	A18SE (N)	413	3	473800 108500



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
64	Registered Landfill Sites Licence Holder: A & J Bull (Southern) Ltd Licence Reference: 6/ 28 Site Location: Blackbush Hanger, Emsworth Common Road, Havant, Hamp Licence Easting: 474250 Licence Northing: 108650 Operator Location: c/o P Johnson Associates, Walberton, ARUNDEL, West Sussex, BN18 0PB Authority: Environment Agency - Thames Region, South East Area Site Category: Landfill Max Input Rate: Undefined Waste Source: No known restriction on source of waste Restrictions: Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 1st August 1988 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste Adhesive Wastes Ceramics/Mica Clays Construction And Demolition Wastes Cork Cullet Enamels Highways Maintenance Waste Man-Made Fibres Oiled/Tarred Paper Paper/Packaging From Com/Ind. Prems Pottery/China Prod'Ts Of Complete Polymerisation Sand,Chalk,Gravel,Nat.Occ.Earth Spoils Sawdust/Sanderdust Solid Rubber (Including Tyres) Textiles, Rag,Wool,Cloth,Hessian Etc Timber Wood Offcuts/Hardboard Prohibited Waste All Fibrous Forms Of Asbestos Contam.Rubble Ex Prems Using Tox/Chems Drums >5l Unless Open & Cont'S Above Food Waste Liquid/Sludge Wastes Other Rapidly Biodegradable Waste Phenols & Mat'ls Cont.Phenols Phenols Or Ma'ls Cont.Phenols Poisonous, Noxious, Polluting Wastes Special Wastes Vegetable Matter Waste N.O.S.	A19NW (NE)	765	3	474250 108650



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
65	Planning Hazardous Substance Consents Name: British Gas Plc Location: Gas Holder Station, Downley Road, New Lane, HAVANT, Hampshire, PO9 2NJ Authority: Havant Borough Council, Commercial Team Application Ref: 92/53844/001 Hazardous Substance: Liquefied extremely flammable gas (including LPG) and natural gas (whether liquefied or not) Maximum Quantity: 42 Application date: 28th October 1992 Decision: Unknown at time of reportUnknown Positional Accuracy: Automatically positioned to the address	A6NE (W)	986	7	472701 107580



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: Thames Group	A13SW (N)	0	2	473718 107958
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13SW (N)	0	2	473718 107958
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A18NW (N)	747	2	473423 108791
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A17SW (NW)	802	2	473000 108561
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: 100 - 200 mg/kg Nickel Concentration: 15 - 30 mg/kg	A8SW (S)	826	2	473718 107000
66	BGS Recorded Mineral Sites Site Name: South Leigh Gravel Pit Location: , Emsworth, Hampshire Source: British Geological Survey, National Geoscience Information Service Reference: 163104 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Quaternary Geology: Head Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A13NE (NE)	26	2	473771 108054
67	BGS Recorded Mineral Sites Site Name: South Leigh Gravel Pit Location: , Emsworth, Hampshire Source: British Geological Survey, National Geoscience Information Service Reference: 163102 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Quaternary Geology: Head Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A13NW (W)	137	2	473504 108040



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
68	BGS Recorded Mineral Sites Site Name: South Leigh Gravel Pit Location: , Emsworth, Hampshire Source: British Geological Survey, National Geoscience Information Service Reference: 163103 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Palaeogene Geology: London Clay Formation Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A13NE (NE)	195	2	473858 108237
69	BGS Recorded Mineral Sites Site Name: Southleigh Forest Location: , Southleigh, Havant, Hampshire Source: British Geological Survey, National Geoscience Information Service Reference: 2188 Type: Opencast Status: Ceased Operator: H T Hughes Plc Operator Location: H T Hughes Plc, Dundas Spur, Copnor, Portsmouth, Po3 5ny Periodic Type: Quaternary Geology: Head (Head Gravel) Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A18SE (N)	460	2	473870 108530
70	BGS Recorded Mineral Sites Site Name: Southleigh Location: , Southleigh, Havant, Hampshire Source: British Geological Survey, National Geoscience Information Service Reference: 2187 Type: Opencast Status: Ceased Operator: A & J Bull Ltd Operator Location: A & J Bull Ltd, Benedict Wharf, Benedict Road, Mitcham, Surrey, Cr4 3bq Periodic Type: Quaternary Geology: Head (Head Gravel) Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A19NW (NE)	709	2	474165 108650
	BGS Measured Urban Soil Chemistry No data available				
	BGS Urban Soil Chemistry Averages No data available				
	Coal Mining Affected Areas In an area that might not be affected by coal mining				
	Non Coal Mining Areas of Great Britain No Hazard				
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (N)	0	2	473718 107958
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (N)	0	2	473718 107958
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (N)	0	2	473718 107958
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (N)	0	2	473718 107958
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	160	2	473995 107963
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	167	2	473760 108257
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (N)	0	2	473718 107958



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (S)	132	2	473711 107692
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SW (N)	0	2	473718 107958
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	33	2	473799 108019
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (N)	53	2	473710 108145
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	162	2	473767 108250
	Radon Potential - Radon Affected Areas Affected Area: The property is in a lower probability radon area, as less than 1% of homes are above the action level Source: British Geological Survey, National Geoscience Information Service	A13SW (N)	0	2	473718 107958
	Radon Potential - Radon Protection Measures Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A13SW (N)	0	2	473718 107958



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
71	Contemporary Trade Directory Entries Name: Southleigh Landfill Site Location: Badgers Cottage, Emsworth Common Road, HAVANT, Hampshire, PO9 2PB Classification: Waste Disposal Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NE (NE)	70	-	473800 108104
72	Contemporary Trade Directory Entries Name: Cancer Partners Uk Location: Bartons Road, Havant, Hampshire, PO9 5NP Classification: Hospitals Status: Active Positional Accuracy: Manually positioned within the geographical locality	A13NW (N)	142	-	473614 108217
72	Contemporary Trade Directory Entries Name: Spire Portsmouth Hospital Location: Portsmouth Hospital, Bartons Road, Havant, Hampshire, PO9 5NP Classification: Hospitals Status: Active Positional Accuracy: Automatically positioned to the address	A13NW (N)	142	-	473614 108217
72	Contemporary Trade Directory Entries Name: Spire Portsmouth Hospital Location: Bartons Road, Havant, Hampshire, PO9 5NP Classification: Hospitals Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (N)	142	-	473614 108217
73	Contemporary Trade Directory Entries Name: The Oaks Havant Crematorium Location: Bartons Road, Havant, Hampshire, PO9 5NA Classification: Cemeteries & Crematoria Status: Active Positional Accuracy: Automatically positioned to the address	A18SW (NW)	298	-	473497 108336
74	Contemporary Trade Directory Entries Name: Hometyre (Portsmouth) Location: 11a, Dymoke Street, Emsworth, Hampshire, PO10 7XL Classification: Tyre Dealers Status: Active Positional Accuracy: Automatically positioned to the address	A14SW (SE)	386	-	474173 107708
75	Contemporary Trade Directory Entries Name: Aquila Location: Flat 4, Helmsley House, Bartons Road, Havant, Hampshire, PO9 5NB Classification: Pest & Vermin Control Status: Inactive Positional Accuracy: Automatically positioned to the address	A12SE (W)	393	-	473256 107945
75	Contemporary Trade Directory Entries Name: Aquila Location: Flat 4, Helmsley House, Bartons Road, Havant, Hampshire, PO9 5NB Classification: Pest & Vermin Control Status: Inactive Positional Accuracy: Automatically positioned to the address	A12SE (W)	393	-	473256 107945
76	Contemporary Trade Directory Entries Name: Havant Mower Services Location: Bartons Rd, Havant, Hampshire, PO9 5NA Classification: Lawnmowers & Garden Machinery - Sales & Service Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A12NE (W)	482	-	473166 107968
77	Contemporary Trade Directory Entries Name: Office Concept Installations Location: Southleigh Rd, Havant, Hampshire, PO9 2NX Classification: Office Furniture & Equipment Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A8SE (S)	565	-	473826 107282
78	Contemporary Trade Directory Entries Name: Office Check Up Location: 3, Diana Close, Emsworth, Hampshire, PO10 7UQ Classification: Commercial Cleaning Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SW (SE)	587	-	474376 107663
79	Contemporary Trade Directory Entries Name: Stephen Anthony Design Ltd Location: Unit 4, Southleigh Farm, Southleigh Rd, Havant, Hampshire, PO9 2NX Classification: Cabinet Makers Status: Inactive Positional Accuracy: Manually positioned to the address or location	A8SW (S)	665	-	473700 107162



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
80	Contemporary Trade Directory Entries Name: Woodsides Wheelie Cleaners Location: Little Oaks, Hollybank Lane, Emsworth, Hampshire, PO10 7UE Classification: Wheelie Bin Cleaning Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SE (E)	689	-	474533 107919
81	Contemporary Trade Directory Entries Name: Scottish Hydro Electric Gas Location: Bartons Rd, Havant, Hampshire, PO9 5JB Classification: Electricity Companies Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A12SW (W)	690	-	472959 107942
81	Contemporary Trade Directory Entries Name: Southern Electric Location: Bartons Rd, Havant, Hampshire, PO9 5JB Classification: Electricity Companies Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A12SW (W)	690	-	472959 107942
82	Contemporary Trade Directory Entries Name: Beacon Design & Engineering Ltd Location: Unit 11, Dakota Business Park, 14, Downley Road, Havant, Hampshire, PO9 2NJ Classification: Refrigeration Equipment Manufacturers & Distributors Status: Inactive Positional Accuracy: Automatically positioned to the address	A12SW (W)	736	-	472918 107807
82	Contemporary Trade Directory Entries Name: P & I Generators Ltd Location: Unit 8, Dakota Business Park, 14, Downley Road, Havant, PO9 2NJ Classification: Generators - Sales & Service Status: Active Positional Accuracy: Automatically positioned to the address	A12SW (W)	749	-	472907 107773
82	Contemporary Trade Directory Entries Name: Formaplex Location: Unit 1, Dakota Business Park, 14, Downley Road, Havant, Hampshire, PO9 2NJ Classification: Precision Engineers Status: Inactive Positional Accuracy: Automatically positioned to the address	A12SW (W)	765	-	472889 107809
83	Contemporary Trade Directory Entries Name: Help Location: 3, Lisle Way, Emsworth, Hampshire, PO10 7XN Classification: Pest & Vermin Control Status: Inactive Positional Accuracy: Automatically positioned to the address	A9NW (SE)	739	-	474342 107365
84	Contemporary Trade Directory Entries Name: Closewood Air-Conditioning Location: Unit A, 12, Downley Road, Havant, PO9 2NJ Classification: Air Conditioning & Refrigeration Contractors Status: Active Positional Accuracy: Automatically positioned to the address	A12SW (W)	813	-	472843 107771
84	Contemporary Trade Directory Entries Name: Multitrade Supplies Ltd Location: 10, Downley Road, Havant, PO9 2NJ Classification: Builders' Merchants Status: Active Positional Accuracy: Automatically positioned to the address	A12SW (W)	817	-	472843 107734
84	Contemporary Trade Directory Entries Name: B Justice Location: Unit 4-10 Downley Rd, Havant, Hampshire, PO9 2NJ Classification: French Polishing Status: Active Positional Accuracy: Manually positioned to the address or location	A12SW (W)	819	-	472841 107733
85	Contemporary Trade Directory Entries Name: Happy Days General Cleaning Co Location: 80, Rowan Road, Havant, Hampshire, PO9 2UU Classification: Commercial Cleaning Services Status: Active Positional Accuracy: Automatically positioned to the address	A7NW (SW)	836	-	472965 107360



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
86	Contemporary Trade Directory Entries Name: T & L'S Clean Team Location: 33, Sharps Road, Havant, Hampshire, PO9 5QJ Classification: Cleaning Services - Domestic Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NW (W)	847	-	472796 108173
86	Contemporary Trade Directory Entries Name: Domestic Cleaning Location: 33, Sharps Road, Havant, Hampshire, PO9 5QJ Classification: Cleaning Services - Domestic Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NW (W)	847	-	472796 108173
87	Contemporary Trade Directory Entries Name: M J Mack Location: 10, Itchen Road, Havant, Hampshire, PO9 5LR Classification: Boatbuilders & Repairers Status: Inactive Positional Accuracy: Automatically positioned to the address	A17SW (NW)	866	-	472960 108614
88	Contemporary Trade Directory Entries Name: Eaton Hydraulics Location: 46, New Lane, Havant, Hampshire, PO9 2NB Classification: Hydraulic Systems & Equipment Manufacturers Status: Active Positional Accuracy: Automatically positioned to the address	A12SW (W)	871	-	472782 107884
89	Contemporary Trade Directory Entries Name: Dunham-Bush Ltd Location: 8, Downley Road, Havant, Hampshire, PO9 2JD Classification: Heating Equipment - Sales & Service Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NW (W)	872	-	472809 107616
90	Contemporary Trade Directory Entries Name: Westover Metal Spinning Ltd Location: 8 Downley Point, Downley Rd, Havant, Hampshire, PO9 2NA Classification: Metal Spinners Status: Inactive Positional Accuracy: Manually positioned to the address or location	A7NW (SW)	887	-	472822 107526
90	Contemporary Trade Directory Entries Name: Window Sash Co Location: Unit 6, Downley Point, Downley Road, Havant, Hampshire, PO9 2NA Classification: Windows - Sash Status: Inactive Positional Accuracy: Manually positioned to the address or location	A7NW (SW)	902	-	472798 107547
91	Contemporary Trade Directory Entries Name: Simply Filtration Ltd Location: 532, Southleigh Road, Emsworth, Hampshire, PO10 7TX Classification: Filtration Systems & Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A9NE (SE)	897	-	474525 107326
92	Contemporary Trade Directory Entries Name: Autogas One Stop Location: Hollybank House, Hollybank Lane, Emsworth, Hampshire, PO10 7UN Classification: Car Engine Tuning & Diagnostic Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A14NE (E)	900	-	474719 108122
92	Contemporary Trade Directory Entries Name: Sail Boat Deliveries Ltd Location: Hollybank House, Hollybank Lane, Emsworth, Hampshire, PO10 7UN Classification: Boatbuilders & Repairers Status: Inactive Positional Accuracy: Automatically positioned to the address	A14NE (E)	900	-	474719 108122
93	Contemporary Trade Directory Entries Name: Inovolt Ltd Location: 7, Downley Road, Havant, PO9 2NJ Classification: Mechanical Engineers Status: Active Positional Accuracy: Automatically positioned to the address	A12SW (W)	914	-	472749 107704
93	Contemporary Trade Directory Entries Name: Rapid Response Solutions Ltd Location: 44a, New Lane, Havant, Hampshire, PO9 2NF Classification: Machinery - Industrial & Commercial Status: Inactive Positional Accuracy: Automatically positioned to the address	A11SE (W)	949	-	472711 107719



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
93	Contemporary Trade Directory Entries Name: L Kattenhorn & Partners Ltd Location: New Lane, Havant, Hampshire, PO9 2NE Classification: Asphalt & Coated Macadam Laying Contractors Status: Inactive Positional Accuracy: Automatically positioned to the address	A11SE (W)	955	-	472708 107695
94	Contemporary Trade Directory Entries Name: Cool Breeze Services Ltd Location: Unit 8, Downley Point, Downley Rd, Havant, Hampshire, PO9 2NA Classification: Air Conditioning & Refrigeration Contractors Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A12SW (W)	922	-	472752 107641
95	Contemporary Trade Directory Entries Name: Monolution 3d Machining Location: Unit 3, Downley Point, Downley Road, Havant, Hampshire, PO9 2NA Classification: Precision Engineers Status: Active Positional Accuracy: Manually positioned to the address or location	A7NW (SW)	927	-	472769 107557
95	Contemporary Trade Directory Entries Name: A & B Precision Engineering Location: Downley Point, Downley Rd, Havant, Hampshire, PO9 2NA Classification: Tool Design, Manufacturers & Makers Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A7NW (SW)	928	-	472776 107532
95	Contemporary Trade Directory Entries Name: Havant Sheet Metal Location: 6, Downley Road, Havant, Hampshire, PO9 2NN Classification: Sheet Metal Work Status: Active Positional Accuracy: Automatically positioned to the address	A7NW (SW)	953	-	472757 107511
95	Contemporary Trade Directory Entries Name: Santric Ltd Location: 6, Downley Road, Havant, Hampshire, PO9 2YD Classification: Hygiene & Sanitary Appliance Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NW (SW)	956	-	472754 107512
95	Contemporary Trade Directory Entries Name: Martin Parr Location: Unit 5, Downley Road, Havant, Hampshire, PO9 2NJ Classification: Packaging & Wrapping Equipment & Supplies Status: Inactive Positional Accuracy: Automatically positioned in the proximity of the address	A6NE (SW)	984	-	472720 107524
95	Contemporary Trade Directory Entries Name: Ahmarra Ltd Location: Zullard House, 4, Downley Road, Havant, Hampshire, PO9 2NJ Classification: Joinery Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A6NE (SW)	985	-	472727 107501
95	Contemporary Trade Directory Entries Name: Tqm Chemicals Location: Zullard House, 4, Downley Road, Havant, Hampshire, PO9 2NJ Classification: Chemicals & Allied Products Status: Inactive Positional Accuracy: Automatically positioned to the address	A6NE (SW)	985	-	472727 107501
95	Contemporary Trade Directory Entries Name: Webb Location: Zullard House, 4, Downley Road, Havant, Hampshire, PO9 2NJ Classification: Joinery Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A6NE (SW)	985	-	472727 107501
96	Contemporary Trade Directory Entries Name: Active Location: 80, Nutwick Road, Havant, Hampshire, PO9 2UL Classification: Pest & Vermin Control Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NW (SW)	930	-	472853 107362
97	Contemporary Trade Directory Entries Name: Sailing Solutions Location: 20, Long Copse Lane, Emsworth, Hampshire, PO10 7UL Classification: Marine Equipment & Supplies Status: Active Positional Accuracy: Automatically positioned to the address	A15SW (E)	931	-	474773 107847



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
98	Contemporary Trade Directory Entries Name: Portsmouth Surgical Equipment Location: 44, New Lane, Havant, Hampshire, PO9 2NF Classification: Medical Equipment Manufacturers Status: Active Positional Accuracy: Automatically positioned to the address	A11SE (W)	947	-	472710 107753
99	Contemporary Trade Directory Entries Name: Neal Simpson & Sons Location: 77, Hornbeam Road, Havant, Hampshire, PO9 2UT Classification: Cladding Suppliers & Installers Status: Active Positional Accuracy: Automatically positioned to the address	A7SW (SW)	954	-	473000 107140
100	Contemporary Trade Directory Entries Name: Park Life Location: New La, Havant, Hampshire, PO9 2ND Classification: Cycle Accessories, Manufacturers & Wholesalers Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A11SE (W)	955	-	472696 107904
101	Contemporary Trade Directory Entries Name: Wavemar Electronics Ltd Location: 21, The Oakwood Centre, Downley Road, Havant, Hampshire, PO9 2NP Classification: Electronic Equipment - Manufacturers & Assemblers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NW (SW)	955	-	472787 107435
101	Contemporary Trade Directory Entries Name: Williamsons Industrial Supplies Ltd Location: 19, The Oakwood Centre, Downley Road, Havant, Hampshire, PO9 2NP Classification: Abrasive Products - Manufacturers & Distributors Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NW (SW)	968	-	472767 107445
101	Contemporary Trade Directory Entries Name: S G Design & Print Location: 22, The Oakwood Centre, Downley Road, Havant, Hampshire, PO9 2NP Classification: Printers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NW (SW)	969	-	472780 107416
101	Contemporary Trade Directory Entries Name: Sytec Ltd Location: 28, The Oakwood Centre, Downley Road, Havant, Hampshire, PO9 2NP Classification: Electronic Engineers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NW (SW)	974	-	472777 107409
101	Contemporary Trade Directory Entries Name: Fluid Power Components Ltd Location: 13-14, The Oakwood Centre, Downley Road, Havant, Hampshire, PO9 2NP Classification: Pneumatic Systems & Equipment Status: Active Positional Accuracy: Automatically positioned to the address	A7NW (SW)	978	-	472754 107450
101	Contemporary Trade Directory Entries Name: Uni-Guard Fire Protection Ltd Location: 12, The Oakwood Centre, Downley Road, Havant, Hampshire, PO9 2NP Classification: Firefighting Equipment Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NW (SW)	983	-	472748 107452
101	Contemporary Trade Directory Entries Name: Hampshire Heating Components Location: 12, The Oakwood Centre, Downley Road, Havant, Hampshire, PO9 2NP Classification: Heat Treatment - Metals Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NW (SW)	983	-	472748 107452
101	Contemporary Trade Directory Entries Name: Macdonald Engineering Location: 10, The Oakwood Centre, Downley Road, Havant, Hampshire, PO9 2NP Classification: Precision Engineers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NW (SW)	994	-	472735 107457
102	Contemporary Trade Directory Entries Name: Colt International Ltd Location: New Lane, Havant, Hampshire, PO9 2LY Classification: Ventilators & Ventilation Systems Status: Inactive Positional Accuracy: Automatically positioned to the address	A11NE (W)	972	-	472670 107970



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
102	Contemporary Trade Directory Entries Name: Colt Service Ltd Location: New Lane, Havant, Hampshire, PO9 2LY Classification: Ventilators & Ventilation Systems Status: Inactive Positional Accuracy: Automatically positioned to the address	A11NE (W)	972	-	472670 107970
102	Contemporary Trade Directory Entries Name: Colt International Location: New Lane, Havant, Hampshire, PO9 2LY Classification: Ventilators & Ventilation Systems Status: Inactive Positional Accuracy: Automatically positioned to the address	A11NE (W)	972	-	472670 107970
102	Contemporary Trade Directory Entries Name: Colt International Location: New Lane, Havant, Hampshire, PO9 2LY Classification: Ventilators & Ventilation Systems Status: Active Positional Accuracy: Automatically positioned to the address	A11NE (W)	972	-	472670 107970
103	Contemporary Trade Directory Entries Name: 1st A1 Location: 219, Wakefords Way, Havant, Hampshire, PO9 5JW Classification: Waste Disposal Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A17NW (NW)	991	-	472839 108661
104	Points of Interest - Commercial Services Name: Aquila Location: Flat 4 Helmsley House, Bartons Road, Havant, PO9 5NB Category: Contract Services Class Code: Pest and Vermin Control Positional Accuracy: Positioned to address or location	A12SE (W)	393	8	473256 107945
105	Points of Interest - Commercial Services Name: Pinnacle Ductwork Manufacturers Ltd Location: Unit 12 Dakota Business Park 14, Downley Road, Havant, PO9 2NJ Category: Construction Services Class Code: Metalworkers Including Blacksmiths Positional Accuracy: Positioned to address or location	A12SW (W)	732	8	472922 107818
106	Points of Interest - Commercial Services Name: Pesthelp Ltd Location: 3 Lisle Way, Emsworth, PO10 7XN Category: Contract Services Class Code: Pest and Vermin Control Positional Accuracy: Positioned to address or location	A9NW (SE)	739	8	474342 107365
107	Points of Interest - Commercial Services Name: Car Call UK Location: Unit A 12, Downley Road, Havant, PO9 2NJ Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12SW (W)	812	8	472845 107771
107	Points of Interest - Commercial Services Name: Car Call UK Location: Unit A 12, Downley Road, Havant, PO9 2NJ Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12SW (W)	812	8	472845 107771
108	Points of Interest - Commercial Services Name: M R Towbars Location: 81 Froxfield Road, Havant, PO9 5PW Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A17SW (NW)	815	8	472917 108455
109	Points of Interest - Commercial Services Name: Autogas One Stop Location: Hollybank House, Hollybank Lane, Emsworth, PO10 7UN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A14NE (E)	900	8	474719 108122
109	Points of Interest - Commercial Services Name: Sailboat Deliveries Location: Hollybank House, Hollybank Lane, Emsworth, PO10 7UN Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A14NE (E)	900	8	474719 108122



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
110	Points of Interest - Commercial Services Name: Active Pest Control Location: 80 Nutwick Road, Havant, PO9 2UL Category: Contract Services Class Code: Pest and Vermin Control Positional Accuracy: Positioned to address or location	A7NW (SW)	930	8	472853 107362
110	Points of Interest - Commercial Services Name: Active Pest Control Location: 80 Nutwick Road, Havant, PO9 2UL Category: Contract Services Class Code: Pest and Vermin Control Positional Accuracy: Positioned to address or location	A7NW (SW)	930	8	472853 107362
111	Points of Interest - Commercial Services Name: Havant Sheet Metal Co Ltd Location: 6 Downley Road, Havant, PO9 2NN Category: Construction Services Class Code: Metalworkers Including Blacksmiths Positional Accuracy: Positioned to address or location	A7NW (SW)	956	8	472754 107512
111	Points of Interest - Commercial Services Name: Havant Sheet Metal Location: 6 Downley Road, Havant, PO9 2NN Category: Construction Services Class Code: Metalworkers Including Blacksmiths Positional Accuracy: Positioned to address or location	A7NW (SW)	956	8	472754 107512
112	Points of Interest - Education and Health Name: Spire Portsmouth Hospital Location: Portsmouth Hospital, Bartons Road, Havant, PO9 5NP Category: Health Practitioners and Establishments Class Code: Hospitals Positional Accuracy: Positioned to address or location	A13NW (N)	142	8	473614 108217
112	Points of Interest - Education and Health Name: Spire Portsmouth Hospital Location: Bartons Road, Havant, PO9 5NP Category: Health Practitioners and Establishments Class Code: Hospitals Positional Accuracy: Positioned to address or location	A13NW (N)	142	8	473614 108217
112	Points of Interest - Education and Health Name: Spire Portsmouth Hospital Location: Bartons Road, Havant, PO9 5NP Category: Health Practitioners and Establishments Class Code: Hospitals Positional Accuracy: Positioned to address or location	A13NW (N)	142	8	473614 108217
112	Points of Interest - Education and Health Name: BUPA Portsmouth Hospital Location: Bartons Road, Havant, Hampshire, PO9 5NP Category: Health Practitioners and Establishments Class Code: Hospitals Positional Accuracy: Positioned to address or location	A13NW (N)	142	8	473614 108217
112	Points of Interest - Education and Health Name: Spire Portsmouth Hospital Location: Portsmouth Hospital, Bartons Road, Havant, PO9 5NP Category: Health Practitioners and Establishments Class Code: Hospitals Positional Accuracy: Positioned to address or location	A13NW (N)	142	8	473614 108217
113	Points of Interest - Manufacturing and Production Name: Southleigh Landfill - Landfill Gas (DECC) Location: Emsworth Common Road, Havant, Hampshire, PO9 Category: Industrial Features Class Code: Energy Production Positional Accuracy: Positioned to address or location	A18SE (N)	413	8	473921 108457
114	Points of Interest - Manufacturing and Production Name: Tanks Location: PO9 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A12SW (W)	853	8	472814 107683
115	Points of Interest - Manufacturing and Production Name: Industrial Estate Location: PO9 Category: Industrial Features Class Code: Business Parks and Industrial Estates Positional Accuracy: Positioned to an adjacent address or location	A12SW (W)	901	8	472754 107792



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
116	Points of Interest - Manufacturing and Production Name: Tanks Location: PO9 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A7NW (SW)	901	8	472793 107566
117	Points of Interest - Public Infrastructure Name: Southleigh Landfill Site Location: Badgers Cottage, Emsworth Common Road, Havant, PO9 2PB Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to address or location	A13NE (NE)	70	8	473800 108104
118	Points of Interest - Public Infrastructure Name: The Oaks Havant Crematorium Location: Bartons Road, Havant, PO9 5NA Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to address or location	A18SW (NW)	298	8	473497 108336
119	Points of Interest - Public Infrastructure Name: Refuse Tip Location: PO9 Category: Infrastructure and Facilities Class Code: Refuse Disposal Facilities Positional Accuracy: Positioned to an adjacent address or location	A18SE (N)	419	8	473871 108486
120	Points of Interest - Public Infrastructure Name: Refuse Tip Location: PO9 Category: Infrastructure and Facilities Class Code: Refuse Disposal Facilities Positional Accuracy: Positioned to an adjacent address or location	A18NE (N)	572	8	473771 108663
121	Points of Interest - Public Infrastructure Name: Refuse Tip Location: PO9 Category: Infrastructure and Facilities Class Code: Refuse Disposal Facilities Positional Accuracy: Positioned to an adjacent address or location	A19SW (NE)	583	8	474086 108552
122	Points of Interest - Public Infrastructure Name: Refuse Tip Location: PO9 Category: Infrastructure and Facilities Class Code: Refuse Disposal Facilities Positional Accuracy: Positioned to an adjacent address or location	A19NW (NE)	740	8	474213 108651
123	Points of Interest - Public Infrastructure Name: 1st A1 Location: 219 Wakefords Way, Havant, PO9 5JW Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to address or location	A17NW (NW)	991	8	472839 108661
123	Points of Interest - Public Infrastructure Name: 1st A1 Location: 219 Wakefords Way, Havant, PO9 5JW Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to address or location	A17NW (NW)	991	8	472839 108661
124	Points of Interest - Recreational and Environmental Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A9NW (SE)	482	8	474222 107611
124	Points of Interest - Recreational and Environmental Name: Playground Location: Woolmer Street, PO10 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A14SW (SE)	484	8	474236 107626
124	Points of Interest - Recreational and Environmental Name: Playground Location: Woolmer Street, PO10 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A9NW (SE)	496	8	474230 107598



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
125	Points of Interest - Recreational and Environmental Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A12NW (W)	670	8	472985 108228
125	Points of Interest - Recreational and Environmental Name: Playground Location: Wakefords Way, PO9 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A12NW (W)	670	8	472985 108228
126	Points of Interest - Recreational and Environmental Name: Play Area Location: Nutwick Road, PO9 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A7NW (SW)	828	8	472909 107472
126	Points of Interest - Recreational and Environmental Name: Play Area Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A7NW (SW)	830	8	472908 107470
127	Points of Interest - Recreational and Environmental Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A7SW (SW)	929	8	472908 107281
127	Points of Interest - Recreational and Environmental Name: Playground Location: Elder Road, PO9 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A7SW (SW)	931	8	472905 107281



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
128	Ancient Woodland Name: Not Supplied Reference: 1490506 Area(m²): 124281.33 Type: Ancient and Semi-Natural Woodland	A13NW (NW)	294	9	473441 108292
129	Ancient Woodland Name: Not Supplied Reference: 1490465 Area(m²): 2906.41 Type: Ancient and Semi-Natural Woodland	A17NE (NW)	666	9	473287 108640
130	Ancient Woodland Name: Emsworth Common Blackbush Coppice Reference: 1491086 Area(m²): 472068.72 Type: Plantation on Ancient Woodland	A18NE (N)	689	9	473966 108739
131	Ancient Woodland Name: Emsworth Common Blackbush Coppice Reference: 1491333 Area(m²): 83187.42 Type: Ancient and Semi-Natural Woodland	A18NE (N)	700	9	473962 108752
132	Nitrate Vulnerable Zones Name: Not Supplied Description: Eutrophic Water Source: Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	A13SW (N)	0	10	473718 107958
133	Nitrate Vulnerable Zones Name: Not Supplied Description: Surface Water Source: Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	A7NE (SW)	538	10	473196 107551
134	Nitrate Vulnerable Zones Name: Not Supplied Description: Groundwater Source: Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	A18NE (N)	700	10	473952 108756



Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices East Hampshire District Council - Environmental Health Department Havant Borough Council - Environmental Health Department Chichester District Council - Environmental Health Department Portsmouth City Council - Health and Trading Standards Winchester City Council - Environmental Health Department	January 2015 January 2015 July 2013 October 2014 September 2014	Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update
Discharge Consents Environment Agency - Southern Region	January 2016	Quarterly
Enforcement and Prohibition Notices Environment Agency - Southern Region	March 2013	As notified
Integrated Pollution Controls Environment Agency - Southern Region	October 2008	Not Applicable
Integrated Pollution Prevention And Control Environment Agency - South East Region - Solent & South Downs Area Environment Agency - Southern Region	January 2016 January 2016	Quarterly Quarterly
Local Authority Integrated Pollution Prevention And Control Portsmouth City Council - Environmental Health Department East Hampshire District Council - Environmental Health Department Winchester City Council - Environmental Health Department Havant Borough Council - Environmental Health Department Chichester District Council - Environmental Health Department	August 2014 December 2014 December 2014 December 2015 October 2014	Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update
Local Authority Pollution Prevention and Controls Portsmouth City Council - Environmental Health Department East Hampshire District Council - Environmental Health Department Winchester City Council - Environmental Health Department Havant Borough Council - Environmental Health Department Chichester District Council - Environmental Health Department	August 2014 December 2014 December 2014 December 2015 October 2014	Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update
Local Authority Pollution Prevention and Control Enforcements Portsmouth City Council - Environmental Health Department East Hampshire District Council - Environmental Health Department Winchester City Council - Environmental Health Department Havant Borough Council - Environmental Health Department Chichester District Council - Environmental Health Department	August 2014 December 2014 December 2014 December 2015 October 2014	Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update
Nearest Surface Water Feature Ordnance Survey	July 2012	Quarterly
Pollution Incidents to Controlled Waters Environment Agency - Southern Region	December 1999	Not Applicable
Prosecutions Relating to Authorised Processes Environment Agency - Southern Region	March 2013	As notified
Prosecutions Relating to Controlled Waters Environment Agency - Southern Region	March 2013	As notified
River Quality Environment Agency - Head Office	November 2001	Not Applicable
River Quality Biology Sampling Points Environment Agency - Head Office	July 2012	Annually
River Quality Chemistry Sampling Points Environment Agency - Head Office	July 2012	Annually
Substantiated Pollution Incident Register Environment Agency - Southern Region - Hampshire and Isle of Wight Area Office Environment Agency - Southern Region - Solent and South Downs Environment Agency - Southern Region - Sussex Area	January 2016 January 2016 January 2016	Quarterly Quarterly Quarterly
Water Abstractions Environment Agency - Southern Region	January 2016	Quarterly



Agency & Hydrological	Version	Update Cycle
Water Industry Act Referrals Environment Agency - Southern Region	January 2016	Quarterly
Groundwater Vulnerability Environment Agency - Head Office	April 2015	Not Applicable
Drift Deposits Environment Agency - Head Office	January 1999	Not Applicable
Bedrock Aquifer Designations British Geological Survey - National Geoscience Information Service	August 2015	As notified
Superficial Aquifer Designations British Geological Survey - National Geoscience Information Service	August 2015	As notified
Source Protection Zones Environment Agency - Head Office	January 2016	Quarterly
Extreme Flooding from Rivers or Sea without Defences Environment Agency - Head Office	February 2016	Quarterly
Flooding from Rivers or Sea without Defences Environment Agency - Head Office	February 2016	Quarterly
Areas Benefiting from Flood Defences Environment Agency - Head Office	February 2016	Quarterly
Flood Water Storage Areas Environment Agency - Head Office	February 2016	Quarterly
Flood Defences Environment Agency - Head Office	February 2016	Quarterly
Detailed River Network Lines Environment Agency - Head Office	March 2012	Annually
Detailed River Network Offline Drainage Environment Agency - Head Office	March 2012	Annually
Surface Water 1 in 30 year Flood Extent Environment Agency - Head Office	October 2013	As notified
Surface Water 1 in 100 year Flood Extent Environment Agency - Head Office	October 2013	As notified
Surface Water 1 in 1000 year Flood Extent Environment Agency - Head Office	October 2013	As notified
Surface Water Suitability Environment Agency - Head Office	October 2013	As notified
BGS Groundwater Flooding Susceptibility British Geological Survey - National Geoscience Information Service	May 2013	Annually



Waste	Version	Update Cycle
BGS Recorded Landfill Sites British Geological Survey - National Geoscience Information Service	June 1996	Not Applicable
Historical Landfill Sites Environment Agency - Head Office	March 2016	Quarterly
Integrated Pollution Control Registered Waste Sites Environment Agency - Southern Region	October 2008	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries) Environment Agency - South East Region - Solent & South Downs Area Environment Agency - Southern Region - Hampshire and Isle of Wight Area Office Environment Agency - Southern Region - Solent and South Downs Environment Agency - Southern Region - Sussex Area	February 2016 February 2016 February 2016 February 2016	Quarterly Quarterly Quarterly Quarterly
Licensed Waste Management Facilities (Locations) Environment Agency - South East Region - Solent & South Downs Area Environment Agency - Southern Region - Hampshire and Isle of Wight Area Office Environment Agency - Southern Region - Solent and South Downs Environment Agency - Southern Region - Sussex Area	January 2016 January 2016 January 2016 January 2016	Quarterly Quarterly Quarterly Quarterly
Local Authority Landfill Coverage Chichester District Council - Environmental Health Department East Hampshire District Council Hampshire County Council - Minerals and Waste Planning Havant Borough Council - Environmental Health Department Portsmouth City Council - Environmental Health Department West Sussex County Council - Environment & Development Winchester City Council - Environmental Health Department	May 2000 May 2000 May 2000 May 2000 May 2000 May 2000 May 2000	Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable
Local Authority Recorded Landfill Sites Chichester District Council - Environmental Health Department East Hampshire District Council Hampshire County Council - Minerals and Waste Planning Havant Borough Council - Environmental Health Department Portsmouth City Council - Environmental Health Department West Sussex County Council - Environment & Development Winchester City Council - Environmental Health Department	May 2000 May 2000 May 2000 May 2000 May 2000 May 2000 May 2000	Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable
Potentially Infilled Land (Non-Water) Landmark Information Group Limited	December 1999	Not Applicable
Potentially Infilled Land (Water) Landmark Information Group Limited	December 1999	Not Applicable
Registered Landfill Sites Environment Agency - Southern Region - Hampshire Area Environment Agency - Southern Region - Sussex Area Environment Agency - Thames Region - South East Area	March 2003 March 2003 March 2003	Not Applicable Not Applicable Not Applicable
Registered Waste Transfer Sites Environment Agency - Southern Region - Hampshire Area Environment Agency - Southern Region - Sussex Area	March 2003 March 2003	Not Applicable Not Applicable
Registered Waste Treatment or Disposal Sites Environment Agency - Southern Region - Hampshire Area Environment Agency - Southern Region - Sussex Area	March 2003 March 2003	Not Applicable Not Applicable



Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH) Health and Safety Executive	February 2016	Bi-Annually
Explosive Sites Health and Safety Executive	February 2016	Bi-Annually
Notification of Installations Handling Hazardous Substances (NIHHS) Health and Safety Executive	November 2000	Not Applicable
Planning Hazardous Substance Enforcements Chichester District Council - Planning Department East Hampshire District Council Hampshire County Council - Minerals and Waste Planning Havant Borough Council - Commercial Team Portsmouth City Council - Planning Office West Sussex County Council - Environment & Development Winchester City Council - Planning Department	February 2016 February 2016 February 2016 February 2016 February 2016 October 2006 October 2015	Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update
Planning Hazardous Substance Consents Chichester District Council - Planning Department East Hampshire District Council Hampshire County Council - Minerals and Waste Planning Havant Borough Council - Commercial Team Portsmouth City Council - Planning Office West Sussex County Council - Environment & Development Winchester City Council - Planning Department	February 2016 February 2016 February 2016 February 2016 February 2016 October 2006 October 2015	Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update



Geological	Version	Update Cycle
BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service	January 2009	Not Applicable
BGS Estimated Soil Chemistry British Geological Survey - National Geoscience Information Service	October 2015	Annually
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	November 2015	Bi-Annually
Brine Compensation Area Cheshire Brine Subsidence Compensation Board	August 2011	Not Applicable
Coal Mining Affected Areas The Coal Authority - Property Searches	March 2014	As notified
Mining Instability Ove Arup & Partners	October 2000	Not Applicable
Non Coal Mining Areas of Great Britain British Geological Survey - National Geoscience Information Service	May 2015	Not Applicable
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Radon Potential - Radon Affected Areas British Geological Survey - National Geoscience Information Service	July 2011	As notified
Radon Potential - Radon Protection Measures British Geological Survey - National Geoscience Information Service	July 2011	As notified
Industrial Land Use	Version	Update Cycle
Contemporary Trade Directory Entries Thomson Directories	March 2016	Quarterly
Fuel Station Entries Catalist Ltd - Experian	November 2015	Quarterly
Gas Pipelines National Grid	July 2014	Quarterly
Points of Interest - Commercial Services PointX	March 2016	Quarterly
Points of Interest - Education and Health PointX	March 2016	Quarterly
Points of Interest - Manufacturing and Production PointX	March 2016	Quarterly
Points of Interest - Public Infrastructure PointX	March 2016	Quarterly
Points of Interest - Recreational and Environmental PointX	March 2016	Quarterly
Underground Electrical Cables National Grid	January 2016	Bi-Annually



Sensitive Land Use	Version	Update Cycle
Ancient Woodland Natural England	June 2015	Bi-Annually
Areas of Outstanding Natural Beauty Natural England	April 2016	Bi-Annually
Environmentally Sensitive Areas Natural England	April 2016	Annually
Forest Parks Forestry Commission	April 1997	Not Applicable
Local Nature Reserves Natural England	April 2016	Bi-Annually
Marine Nature Reserves Natural England	April 2016	Bi-Annually
National Nature Reserves Natural England	April 2016	Bi-Annually
National Parks Natural England	March 2016	Bi-Annually
Nitrate Sensitive Areas Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	April 2016	Not Applicable
Nitrate Vulnerable Zones Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	October 2015	Annually
Ramsar Sites Natural England	April 2016	Bi-Annually
Sites of Special Scientific Interest Natural England	October 2015	Bi-Annually
Special Areas of Conservation Natural England	April 2016	Bi-Annually
Special Protection Areas Natural England	April 2016	Bi-Annually
World Heritage Sites English Heritage - National Monument Record Centre	September 2015	Bi-Annually



A selection of organisations who provide data within this report

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



Contact	Name and Address	Contact Details
2	British Geological Survey - Enquiry Service British Geological Survey, Kingsley Dunham Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
3	Environment Agency - National Customer Contact Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk
4	Havant Borough Council - Environmental Health Department Public Service PLaza, Civic Centre Road, Havant, Hampshire, PO9 2AX	Telephone: 023 9244 6677 Email: env.services@havant.gov.uk Website: www.havant.gov.uk
5	Hampshire County Council - Minerals and Waste Planning Room 130, Ashburton Court West, The Castle, Winchester, Hampshire, SO23 8UD	Telephone: 01962 841841 Fax: 01962 847055 Website: www.hants.gov.uk
6	East Hampshire District Council Penns Place, Petersfield, Hampshire, GU31 4EX	Telephone: 01730 266551 Fax: 01730 267366 Website: www.easthants.gov.uk
7	Havant Borough Council - Commercial Team Civic Offices, Civic Centre Road, Havant, Hampshire, PO9 2AX	Telephone: 02392 474174 Fax: 02392 446659 Website: www.havant.gov.uk
8	PointX 7 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY	Website: www.pointx.co.uk
9	Natural England County Hall, Spetchley Road, Worcester, WR5 2NP	Telephone: 0300 060 3900 Email: enquiries@naturalengland.org.uk Website: www.naturalengland.org.uk
10	Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA) Government Buildings, Otley Road, Lawnswood, Leeds, West Yorkshire, LS16 5QT	Telephone: 0113 2613333 Fax: 0113 230 0879
11	Environment Agency - Head Office Rio House, Waterside Drive, Aztec West, Almondsbury, Bristol, Avon, BS32 4UD	Telephone: 01454 624400 Fax: 01454 624409
-	Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org
-	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

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



Geo-Environmental

General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Map ID
- Several of Type at Location
- Pylon
- Overhead Transmission Line

Agency and Hydrological

- Contaminated Land Register Entry or Notice (Location)
- Contaminated Land Register Entry or Notice
- Discharge Consent
- Enforcement or Prohibition Notice
- Integrated Pollution Control
- Integrated Pollution Prevention Control
- Local Authority Integrated Pollution Prevention and Control
- Local Authority Pollution Prevention and Control
- Local Authority Pollution Prevention and Control Enforcement
- Pollution Incident to Controlled Waters
- Prosecution Relating to Authorised Processes
- Prosecution Relating to Controlled Waters
- Registered Radioactive Substance
- River Network or Water Feature
- River Quality Sampling Point
- Substantiated Pollution Incident Register
- Water Abstraction
- Water Industry Act Referral
- BGS Recorded Landfill Site (Location)
- BGS Recorded Landfill Site
- EA Historic Landfill (Buffered Point)
- EA Historic Landfill (Polygon)
- Integrated Pollution Control Registered Waste Site
- Licensed Waste Management Facility (Landfill Boundary)
- Licensed Waste Management Facility (Location)
- Local Authority Recorded Landfill Site (Location)
- Local Authority Recorded Landfill Site
- Potentially Infilled Land (Non-water)
- Potentially Infilled Land (Non-water)
- Potentially Infilled Land (Water)
- Potentially Infilled Land (Water)
- Potentially Infilled Land (Water)
- Registered Landfill Site
- Registered Landfill Site (Location)
- Registered Landfill Site (Point Buffered to 100m)
- Registered Landfill Site (Point Buffered to 250m)
- Registered Waste Transfer Site (Location)
- Registered Waste Transfer Site
- Registered Waste Treatment or Disposal Site (Location)
- Registered Waste Treatment or Disposal Site

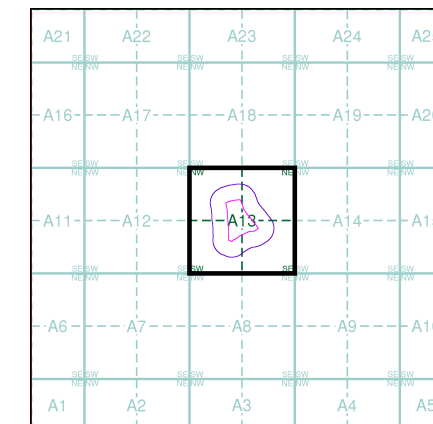
Hazardous Substances

- COMAH Site
- Explosive Site
- NIHHS Site
- Planning Hazardous Substance Consent
- Planning Hazardous Substance Enforcement

Geological

- BGS Recorded Mineral Site

Site Sensitivity Map - Segment A13



Order Details

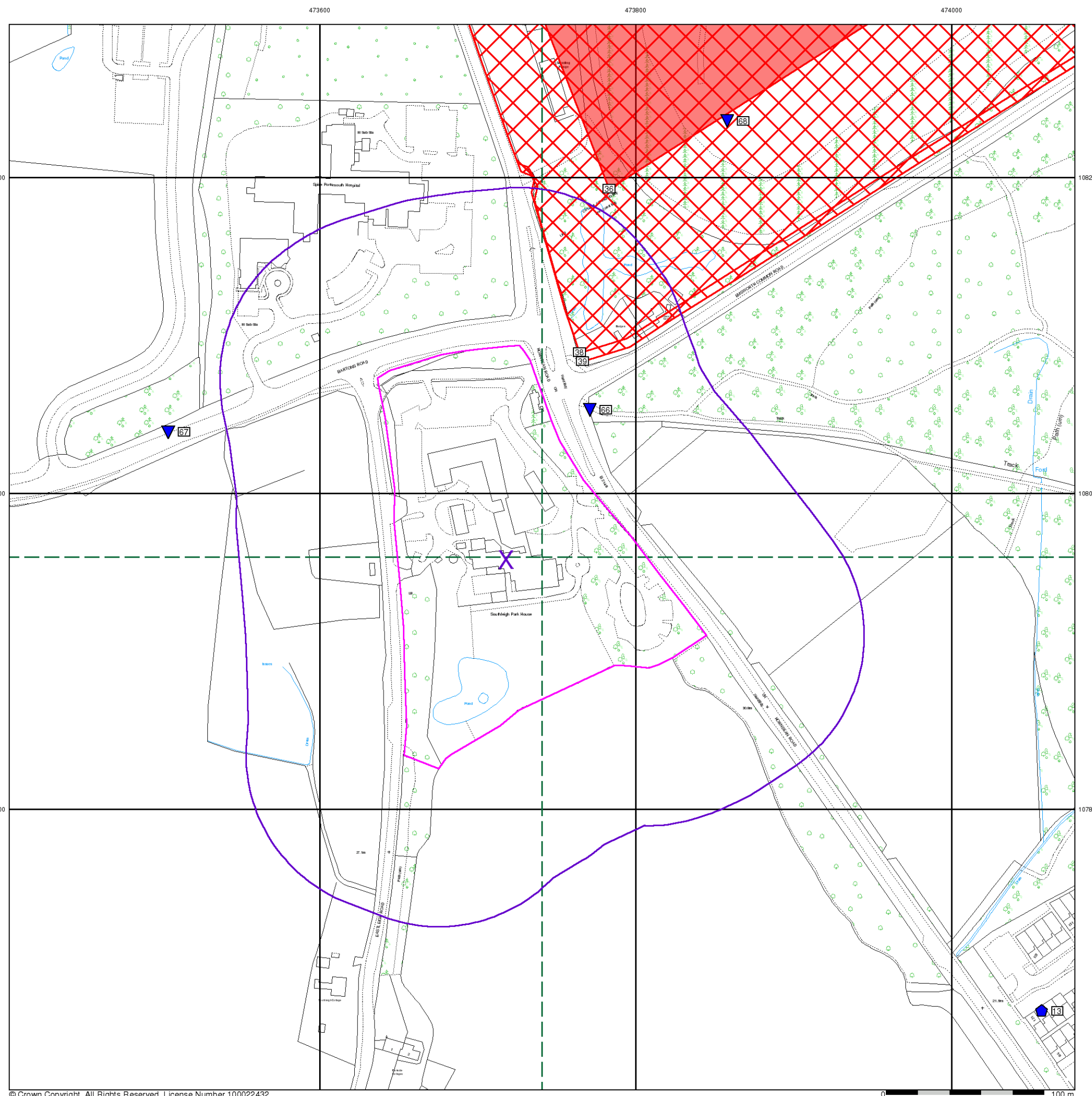
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Customer Ref: GE15562
National Grid Reference: 473720, 107960
Slice: A
Site Area (Ha): 3.17
Plot Buffer (m): 100

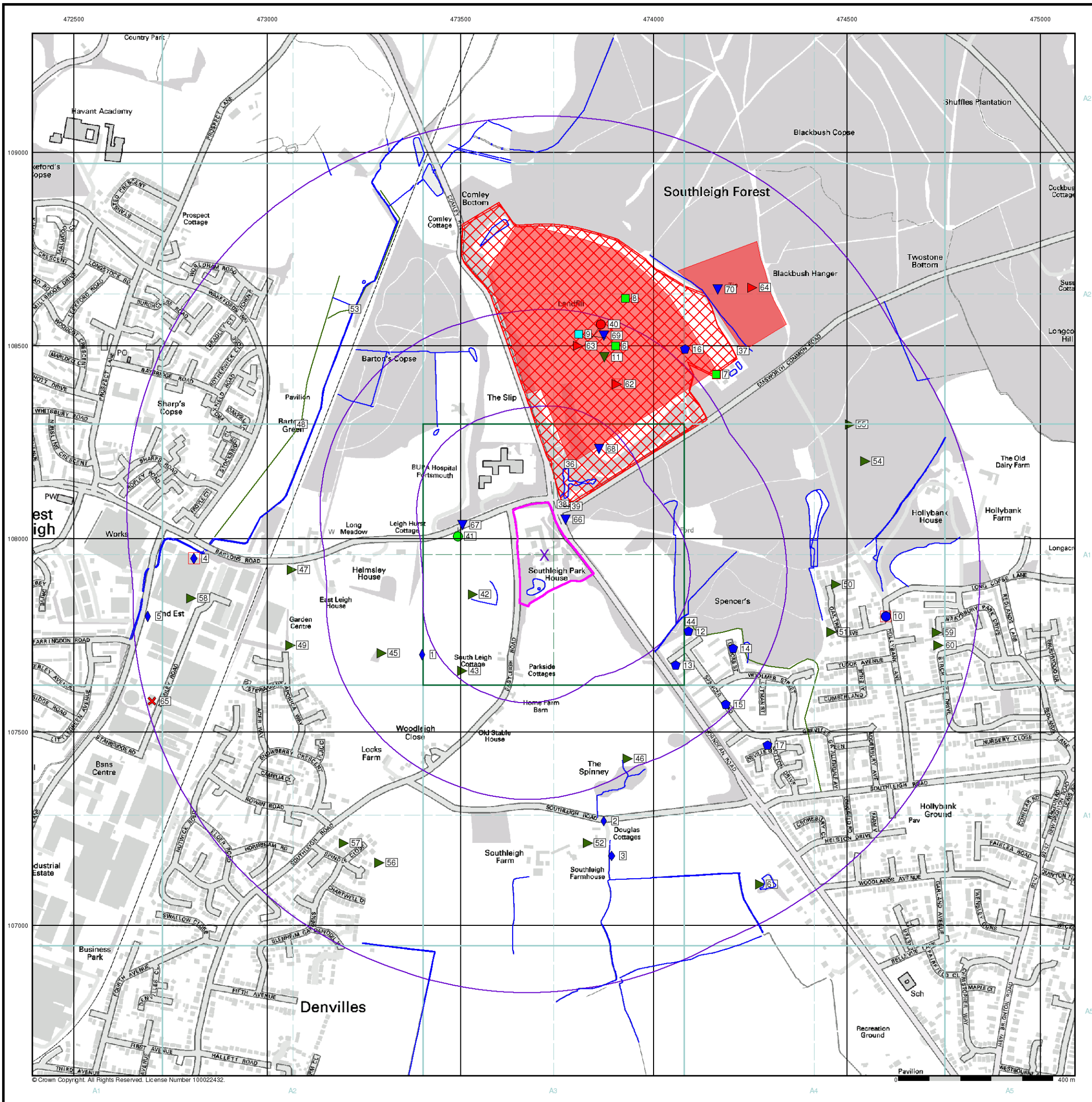
Site Details

Southleigh Park House, Eastleigh Road, HAVANT, Hampshire, PO9 2PE



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





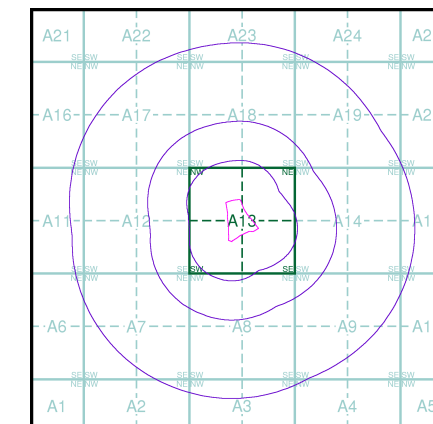
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Geo-Environmental

- General**
- Specified Site
 - Specified Buffer(s)
 - Bearing Reference Point
 - Map ID
 - Several of Type at Location
- Agency and Hydrological**
- Contaminated Land Register Entry or Notice (Location)
 - Contaminated Land Register Entry or Notice
 - Discharge Consent
 - Enforcement or Prohibition Notice
 - Integrated Pollution Control
 - Integrated Pollution Prevention Control
 - Local Authority Integrated Pollution Prevention and Control
 - Local Authority Pollution Prevention and Control
 - Local Authority Pollution Prevention and Control Enforcement
 - Pollution Incident to Controlled Waters
 - Prosecution Relating to Authorised Processes
 - Prosecution Relating to Controlled Waters
 - Registered Radioactive Substance
 - River Network or Water Feature
 - River Quality Sampling Point
 - Substantiated Pollution Incident Register
 - Water Abstraction
 - Water Industry Act Referral
- Hazardous Substances**
- COMAH Site
 - Explosive Site
 - NIHHS Site
 - Planning Hazardous Substance Consent
 - Planning Hazardous Substance Enforcement
 - BGS Recorded Mineral Site
- Waste**
- BGS Recorded Landfill Site (Location)
 - BGS Recorded Landfill Site
 - EA Historic Landfill (Buffered Point)
 - EA Historic Landfill (Polygon)
 - Integrated Pollution Control Registered Waste Site
 - Licensed Waste Management Facility (Landfill Boundary)
 - Licensed Waste Management Facility (Location)
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 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Water)
 - Potentially Infilled Land (Water)
 - Potentially Infilled Land (Water)
 - Registered Landfill Site (Location)
 - Registered Landfill Site (Point Buffered to 100m)
 - Registered Landfill Site (Point Buffered to 250m)
 - Registered Waste Transfer Site (Location)
 - Registered Waste Transfer Site
 - Registered Waste Treatment or Disposal Site (Location)
 - Registered Waste Treatment or Disposal Site

Site Sensitivity Map - Slice A



Order Details

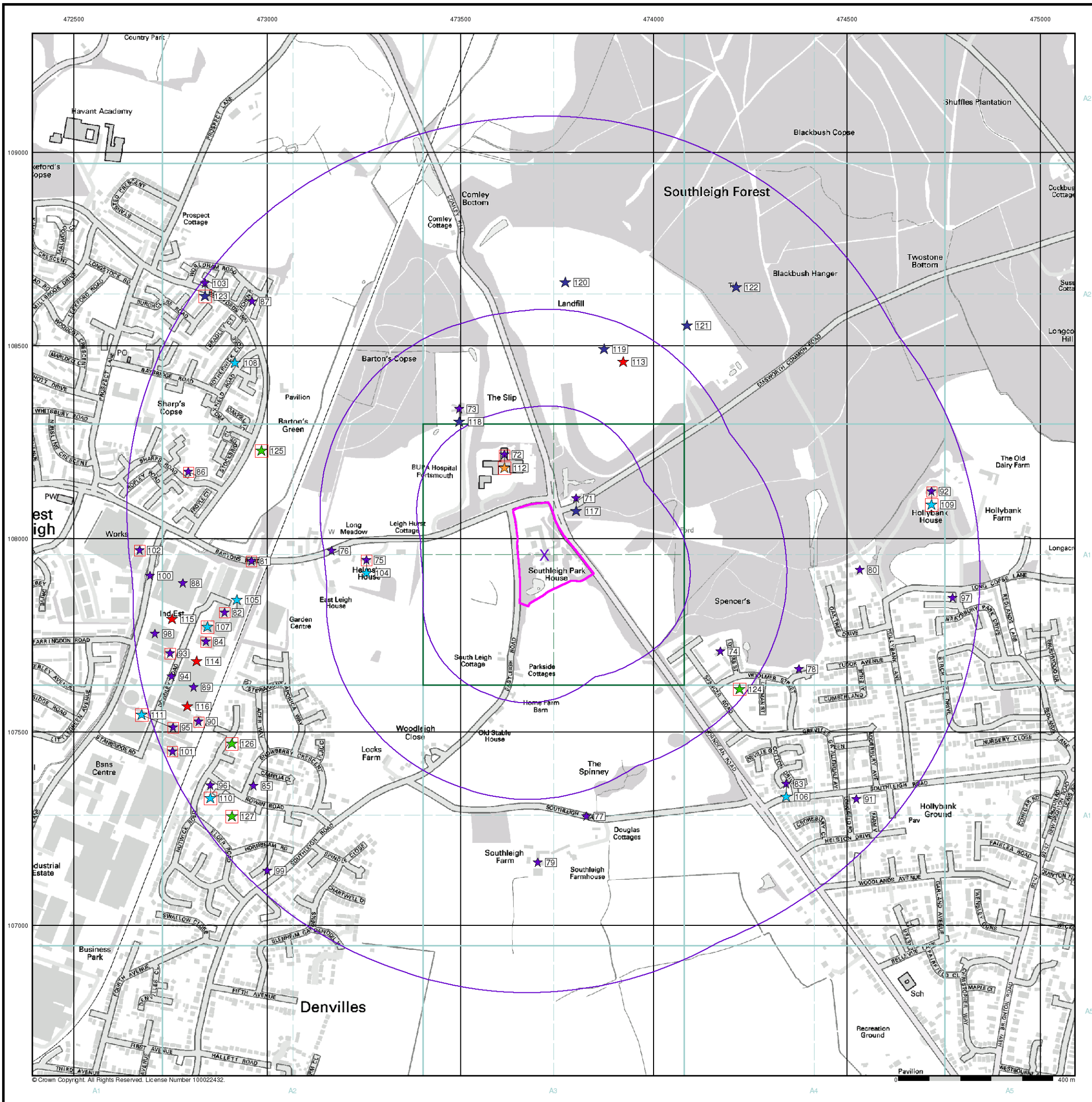
Order Number: 85480247_1_1
Customer Ref: GE15562
National Grid Reference: 473720, 107960
Slice: A
Site Area (Ha): 3.17
Search Buffer (m): 1000

Site Details

Southleigh Park House, Eastleigh Road, HAVANT, Hampshire, PO9 2PE



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Geo-Environmental Industrial Land Use Map

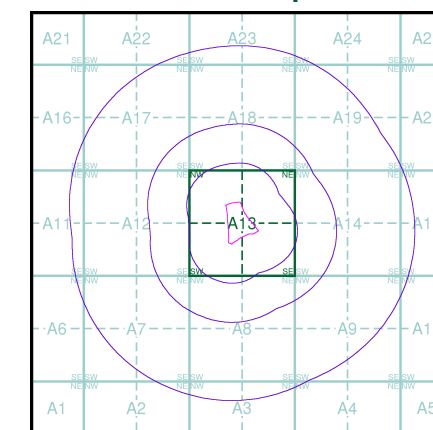
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Industrial Land Use

- Contemporary Trade Directory Entry
- Fuel Station Entry
- Gas Pipeline
- Points of Interest - Commercial Services
- Points of Interest - Education and Health
- Points of Interest - Manufacturing and Production
- Points of Interest - Public Infrastructure
- Points of Interest - Recreational and Environmental
- Underground Electrical Cables

Industrial Land Use Map - Slice A



Order Details

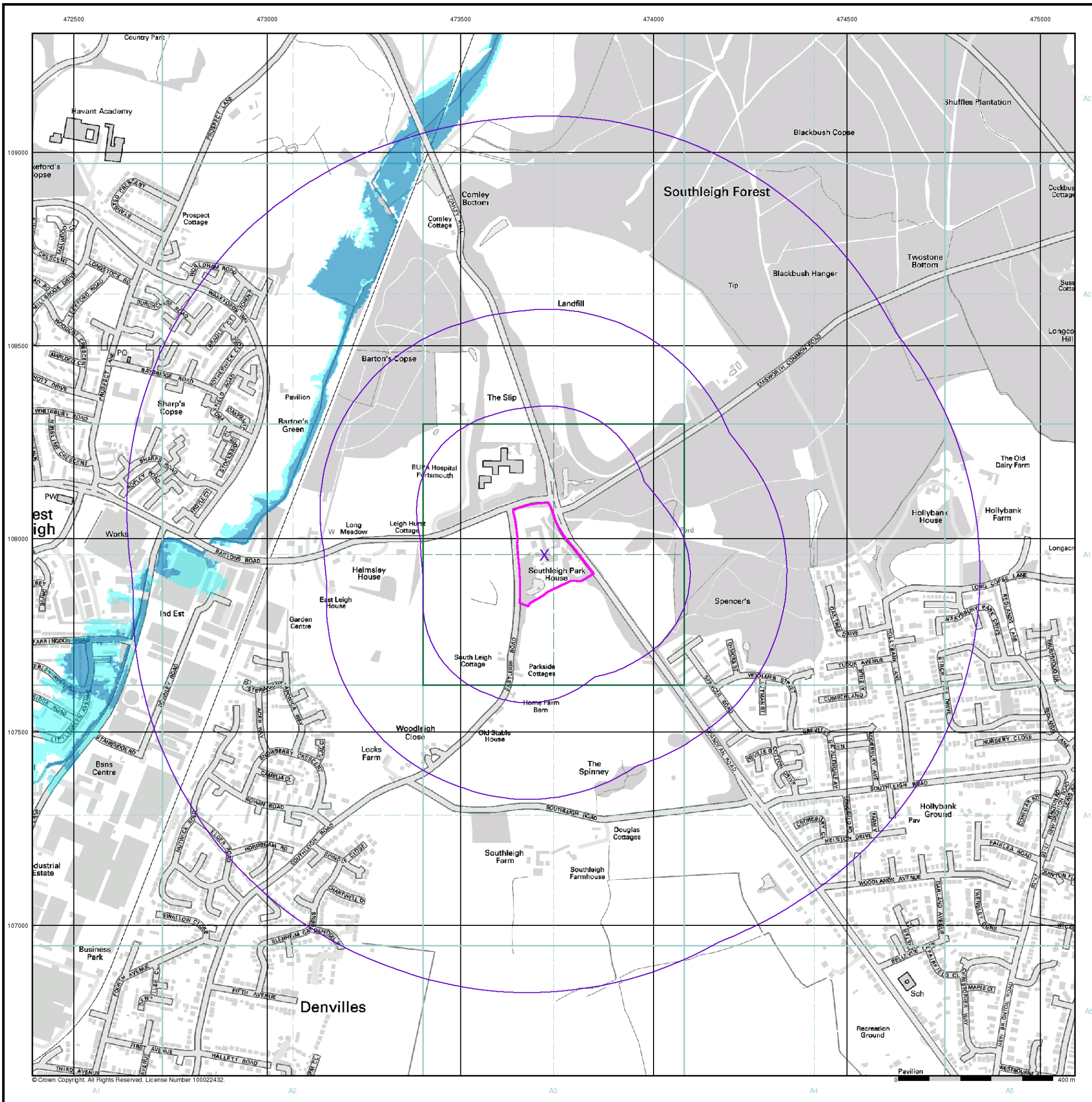
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Customer Ref: GE15562
National Grid Reference: 473720, 107960
Slice: A
Site Area (Ha): 3.17
Search Buffer (m): 1000

Site Details

Southleigh Park House, Eastleigh Road, HAVANT, Hampshire,
PO9 2PE



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Geo-Environmental

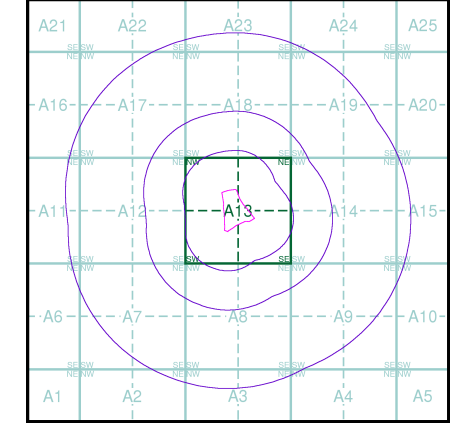
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

Agency and Hydrological (Flood)

- Extreme Flooding from Rivers or Sea without Defences (Zone 2)
- Flooding from Rivers or Sea without Defences (Zone 3)
- Area Benefiting from Flood Defence
- Flood Water Storage Areas
- Flood Defence

Flood Map - Slice A



Order Details

Order Number: 85480247_1_1
 Customer Ref: GE15562
 National Grid Reference: 473720, 107960
 Slice: A
 Site Area (Ha): 3.17
 Search Buffer (m): 1000

Site Details

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Geo-Environmental

General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Map ID
- Several of Type at Location

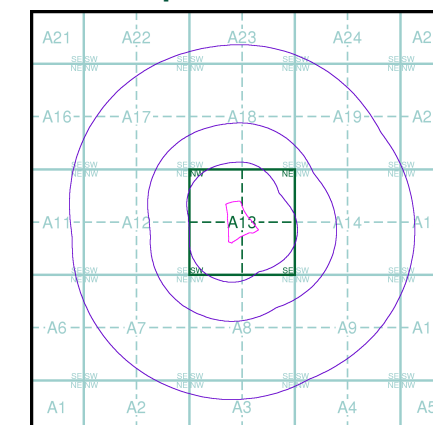
Agency and Hydrological (Boreholes)

- BGS Borehole Depth 0 - 10m
- BGS Borehole Depth 10 - 30m
- BGS Borehole Depth 30m +
- Confidential
- Other

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

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

Borehole Map - Slice A



Order Details

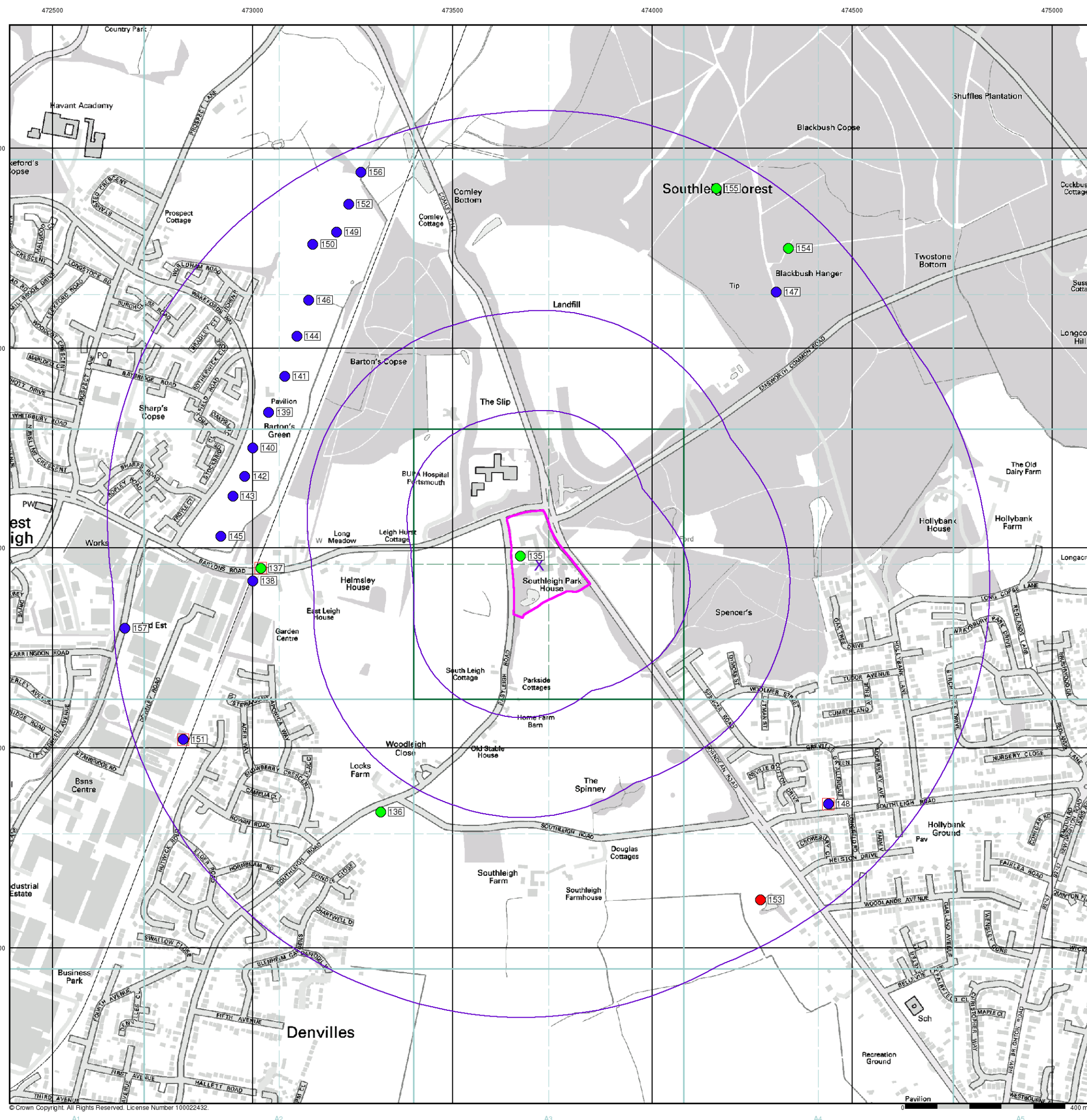
Order Number: 85480247_1_1
Customer Ref: GE15562
National Grid Reference: 473720, 107960
Slice: A
Site Area (Ha): 3.17
Search Buffer (m): 1000

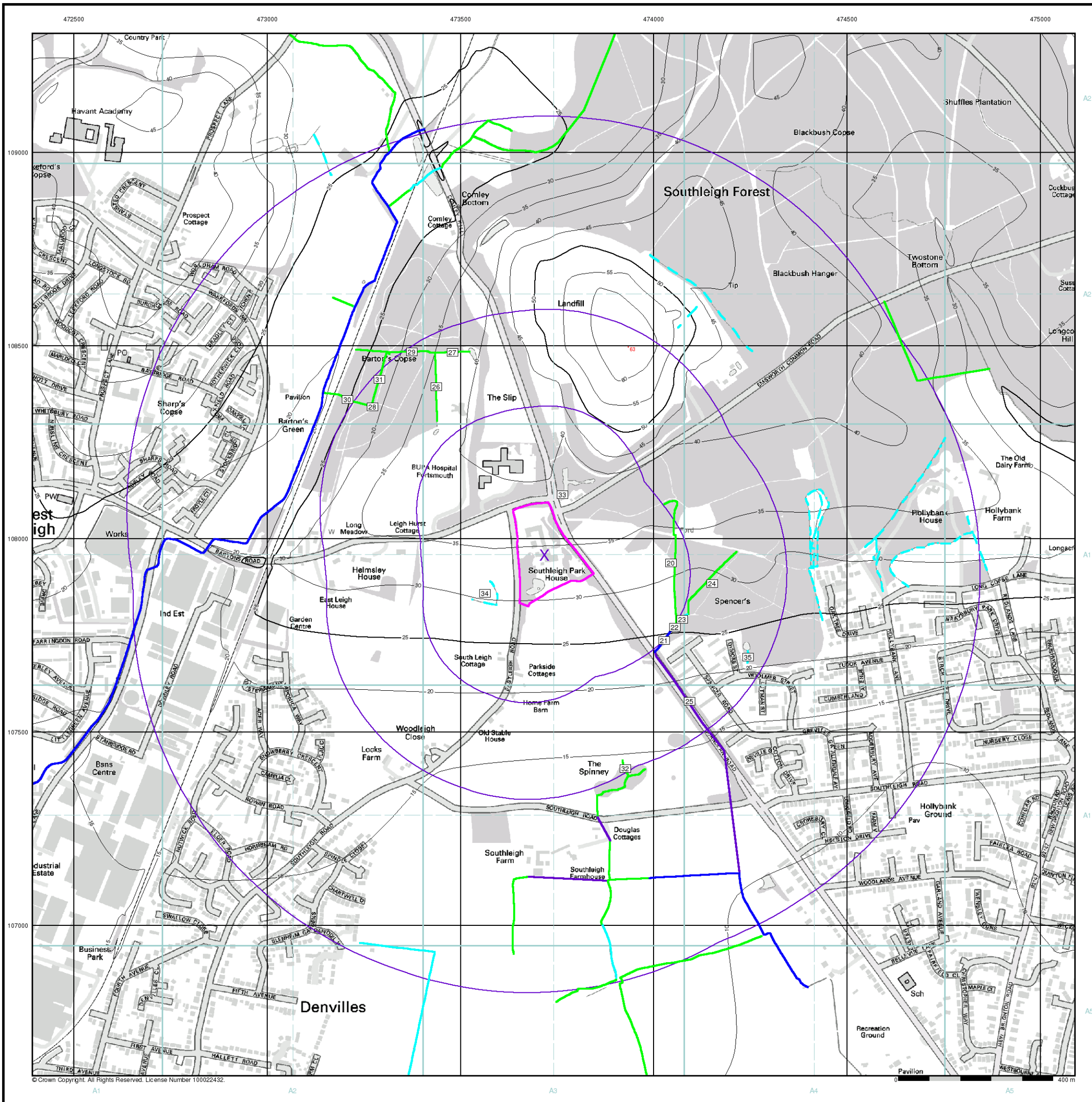
Site Details

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Geo-Environmental

General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Map ID

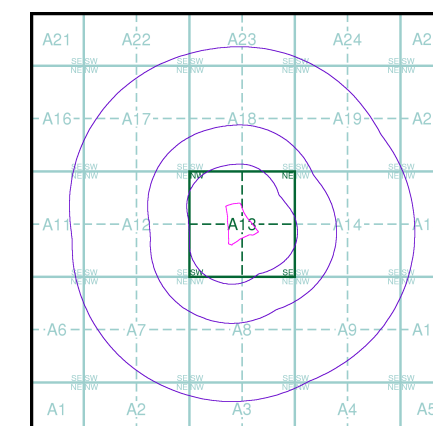
Detailed River Network Data

- | | |
|--------------------------|-------------------------------------|
| Primary River | Extended Culvert (greater than 50m) |
| Secondary River | Underground River (inferred) |
| Tertiary River | Underground River (local knowledge) |
| Canal | Downstream of High Water Mark |
| Canal Tunnel | Downstream of Seaward Extension |
| Undefined River | Not assigned River feature |
| Lake/Reservoir | |
| Offline Drainage Feature | |

Contours (height in metres)

- Standard Contour 105 100 95
- Master Contour
- Spot Height 167.3
- MLW Mean Low Water
- MHW Mean High Water

E/NRW Detailed River Network Map - Slice A



Order Details

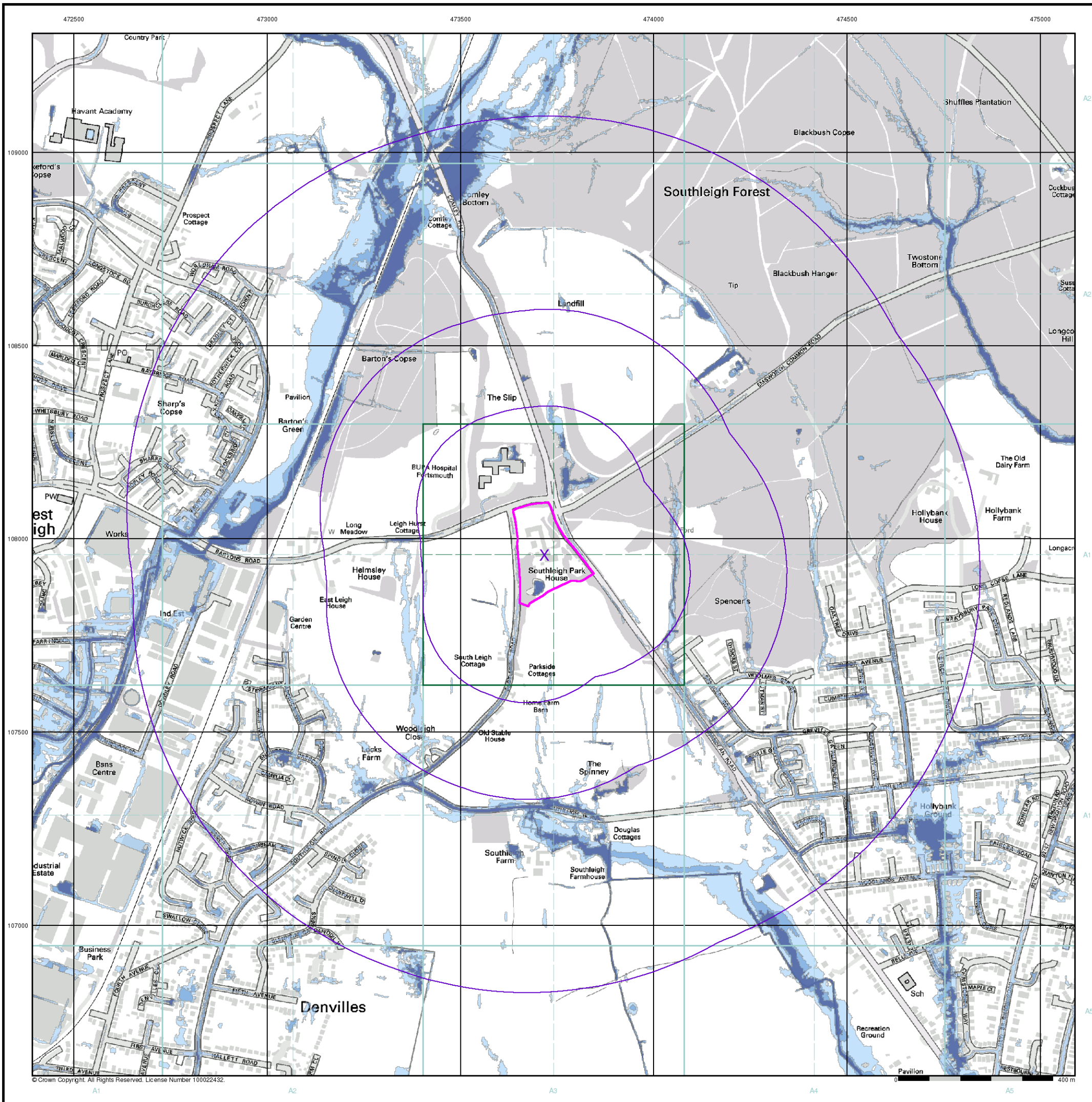
Order Number: 85480247_1_1
Customer Ref: GE15562
National Grid Reference: 473720, 107960
Slice: A
Site Area (Ha): 3.17
Search Buffer (m): 1000

Site Details

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Geo-Environmental

General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

Risk of Flooding from Surface Water

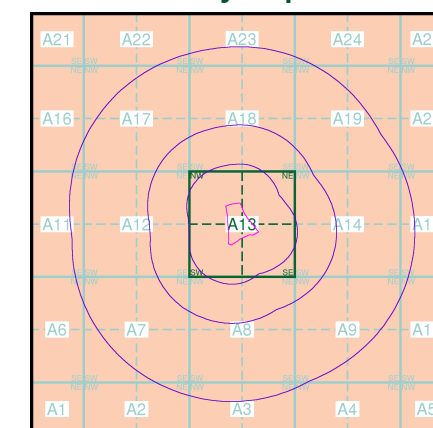
- High - 30 Year Return
- Medium - 100 Year Return
- Low - 1000 Year Return

Suitability

See the suitability map below

- National to county
- County to town
- Town to street
- Street to parcels of land
- Property

EA/NRW Suitability Map - Slice A



Order Details

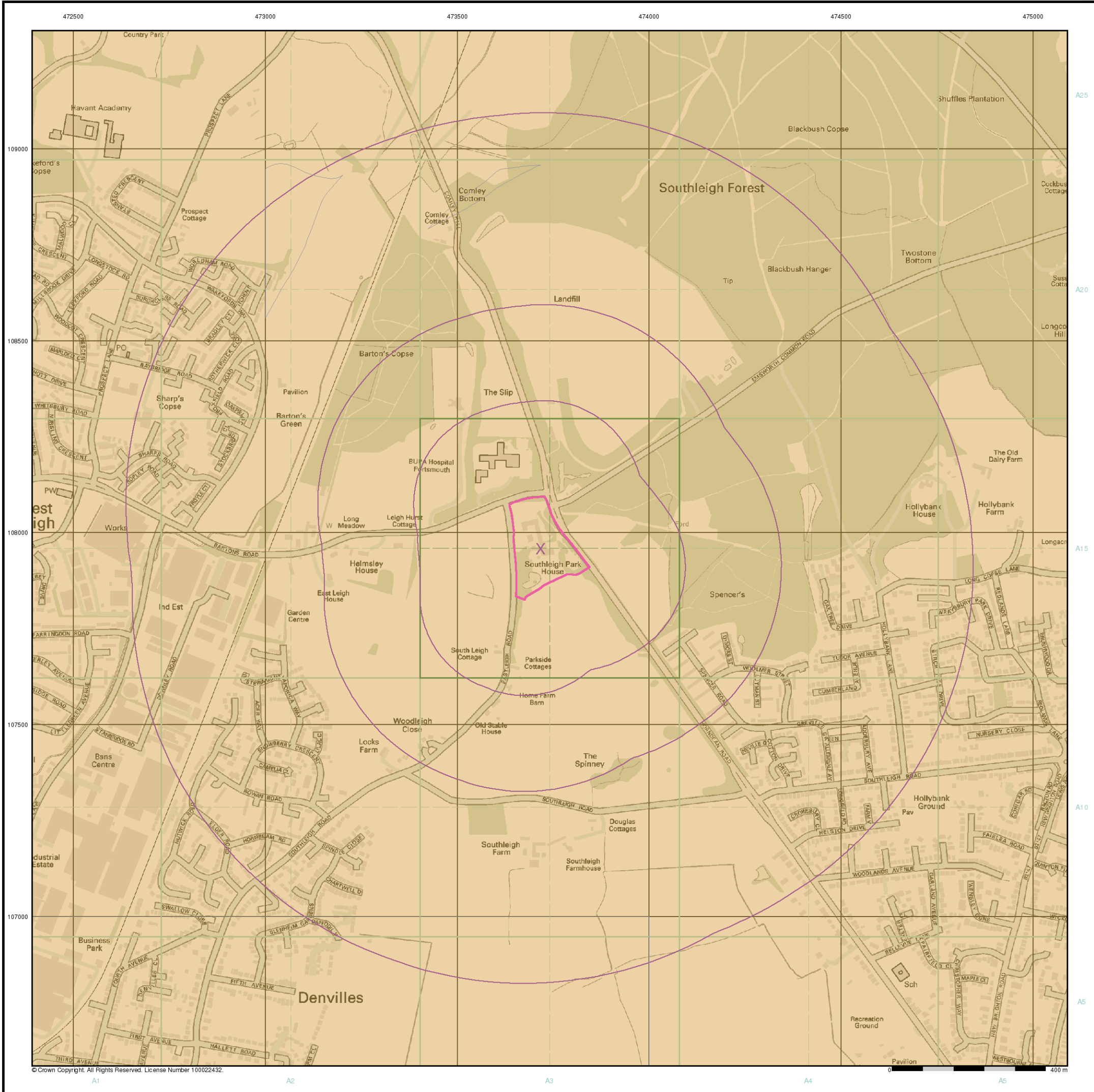
Order Number: 85480247_1_1
Customer Ref: GE15562
National Grid Reference: 473720, 107960
Slice: A
Site Area (Ha): 3.17
Search Buffer (m): 1000

Site Details

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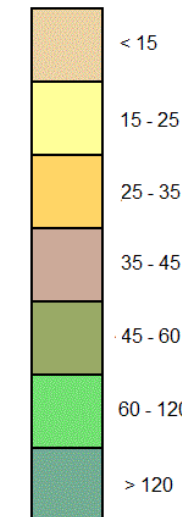
Geo-Environmental

General

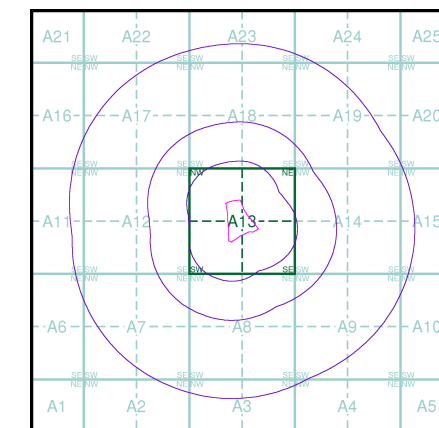
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

Estimated Soil Chemistry Arsenic

Arsenic Concentrations mg/kg



Estimated Soil Chemistry Arsenic - Slice A



Order Details

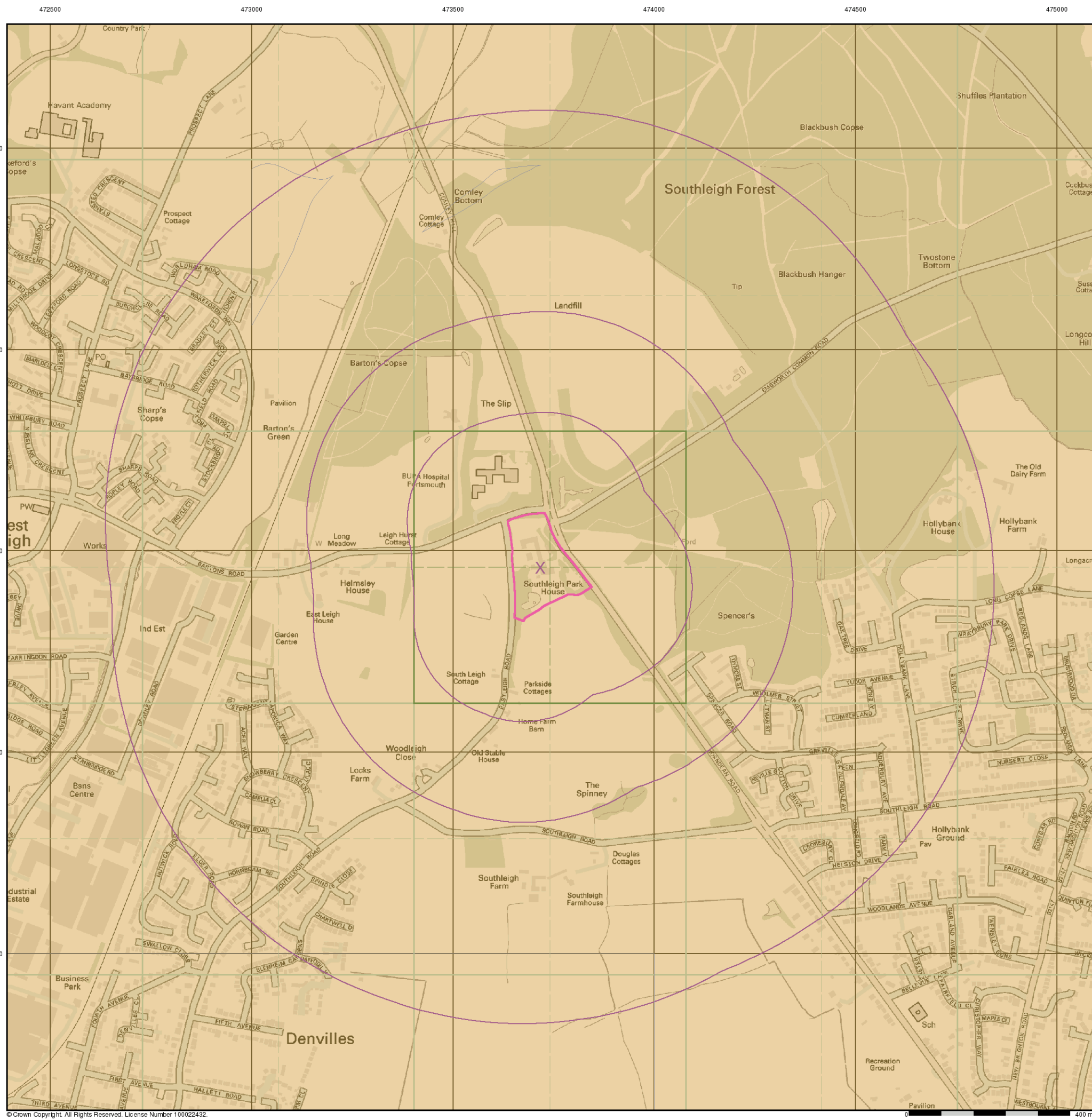
Order Details: 85480247_1_1
 Customer Ref: GE15562
 National Grid Reference: 473720, 107960
 Slice: A
 Site Area (Ha): 3.17
 Search Buffer (m): 1000

Site Details

Southleigh Park House, Eastleigh Road, HAVANT, Hampshire, PO9 2PE



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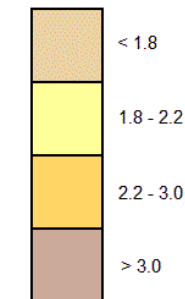
Geo-Environmental

General

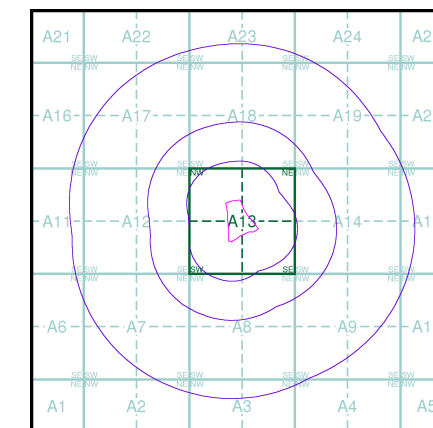
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Cadmium

Cadmium Concentrations mg/kg



Estimated Soil Chemistry Cadmium - Slice A



Order Details

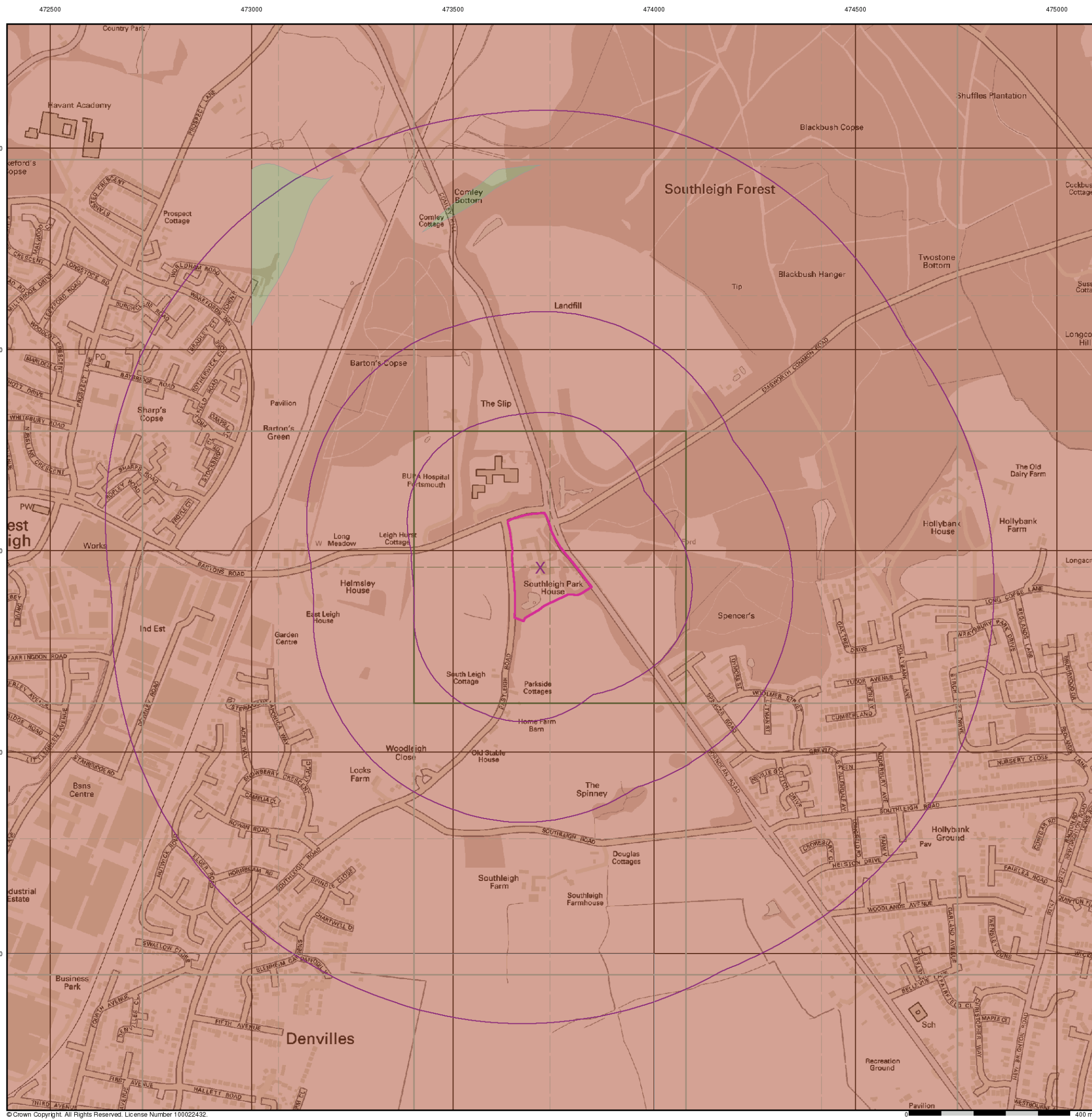
Order Details: 85480247_1_1
Customer Ref: GE15562
National Grid Reference: 473720, 107960
Slice: A
Site Area (Ha): 3.17
Search Buffer (m): 1000

Site Details

Southleigh Park House, Eastleigh Road, HAVANT, Hampshire, PO9 2PE



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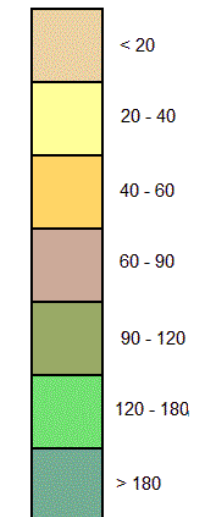
Geo-Environmental

General

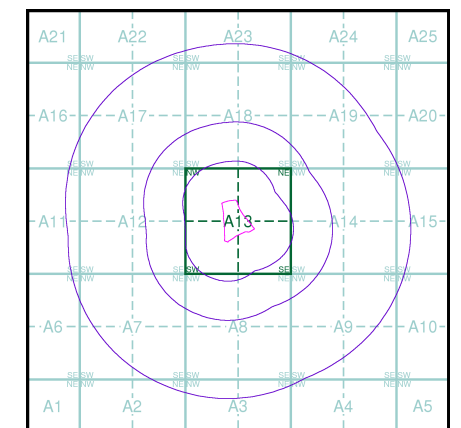
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Chromium

Chromium Concentrations mg/kg



Estimated Soil Chemistry Chromium - Slice A



Order Details

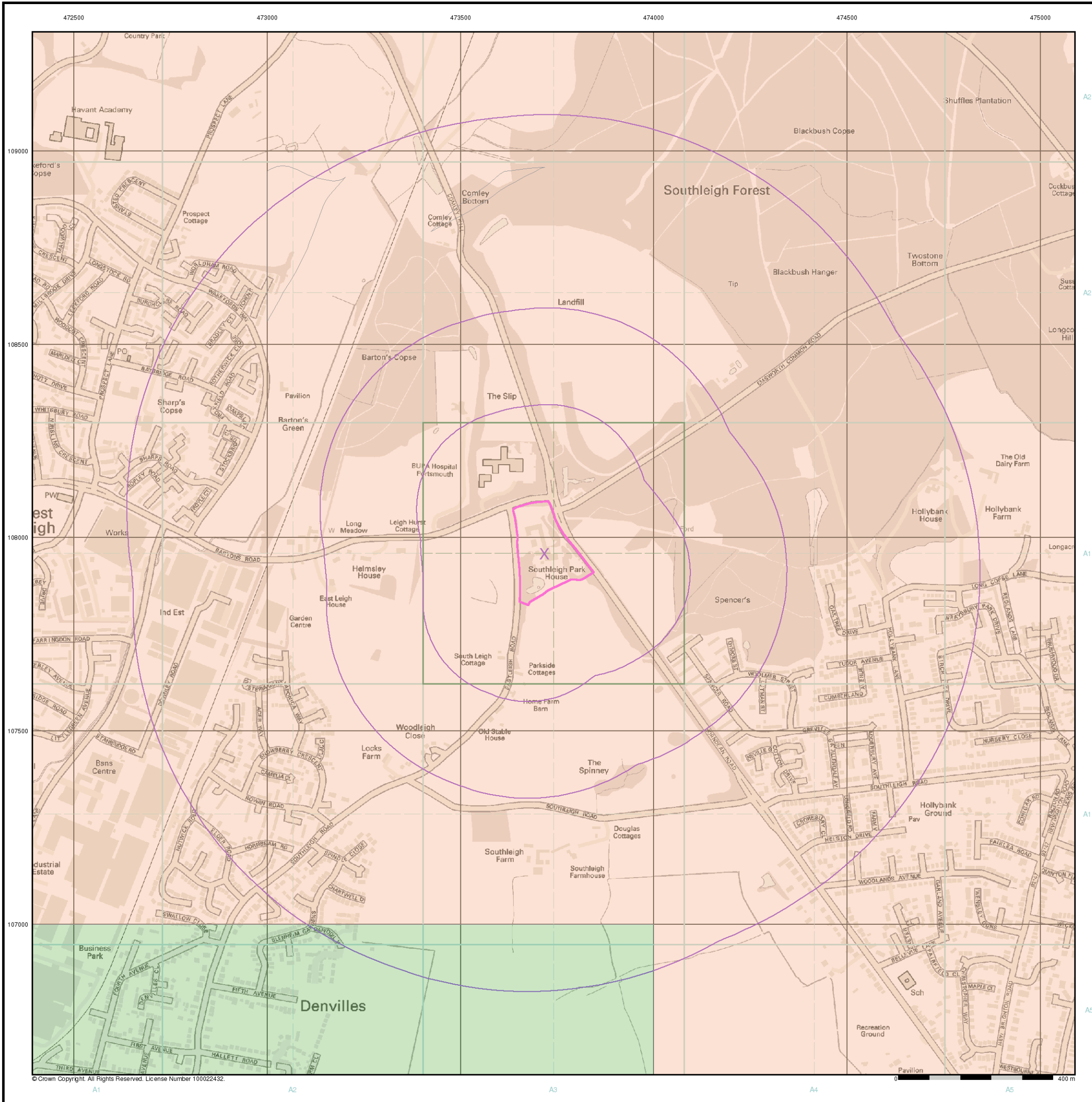
Order Details: 85480247_1_1
Customer Ref: GE15562
National Grid Reference: 473720, 107960
Slice: A
Site Area (Ha): 3.17
Search Buffer (m): 1000

Site Details

Southleigh Park House, Eastleigh Road, HAVANT, Hampshire, PO9 2PE



Tel: 0844 844 9952
Fax: 0844 844 9951
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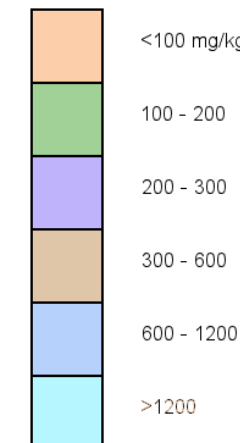
Geo-Environmental

General

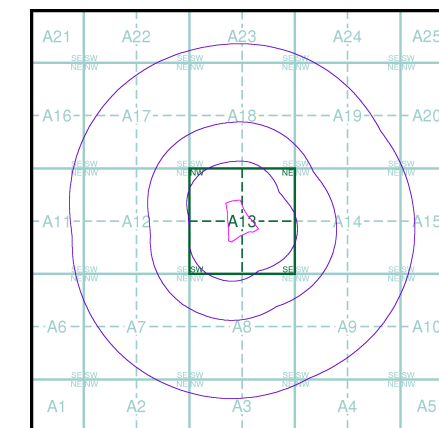
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Lead

Lead Concentrations mg/kg



Estimated Soil Chemistry Lead - Slice A



Order Details

Order Details: 85480247_1_1
Customer Ref: GE15562
National Grid Reference: 473720, 107960
Slice: A
Site Area (Ha): 3.17
Search Buffer (m): 1000

Site Details

Southleigh Park House, Eastleigh Road, HAVANT, Hampshire, PO9 2PE



Tel: 0844 844 9952
Fax: 0844 844 9951
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Geo-Environmental

General

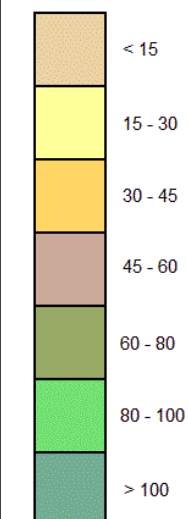
 Specified Site

 Specified Buffer(s)

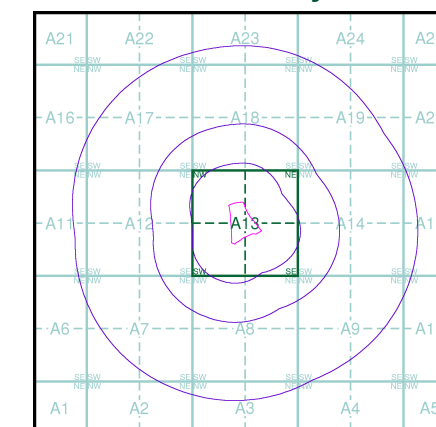
X Bearing Reference Point

Estimated Soil Chemistry Nickel

Nickel Concentrations mg/kg



Estimated Soil Chemistry Nickel - Slice A



Order Details

Order Details: 85480247_1_1
Customer Ref: GE15562
National Grid Reference: 473720, 107960
Slice: A
Site Area (Ha): 3.17
Search Buffer (m): 1000

Site Details

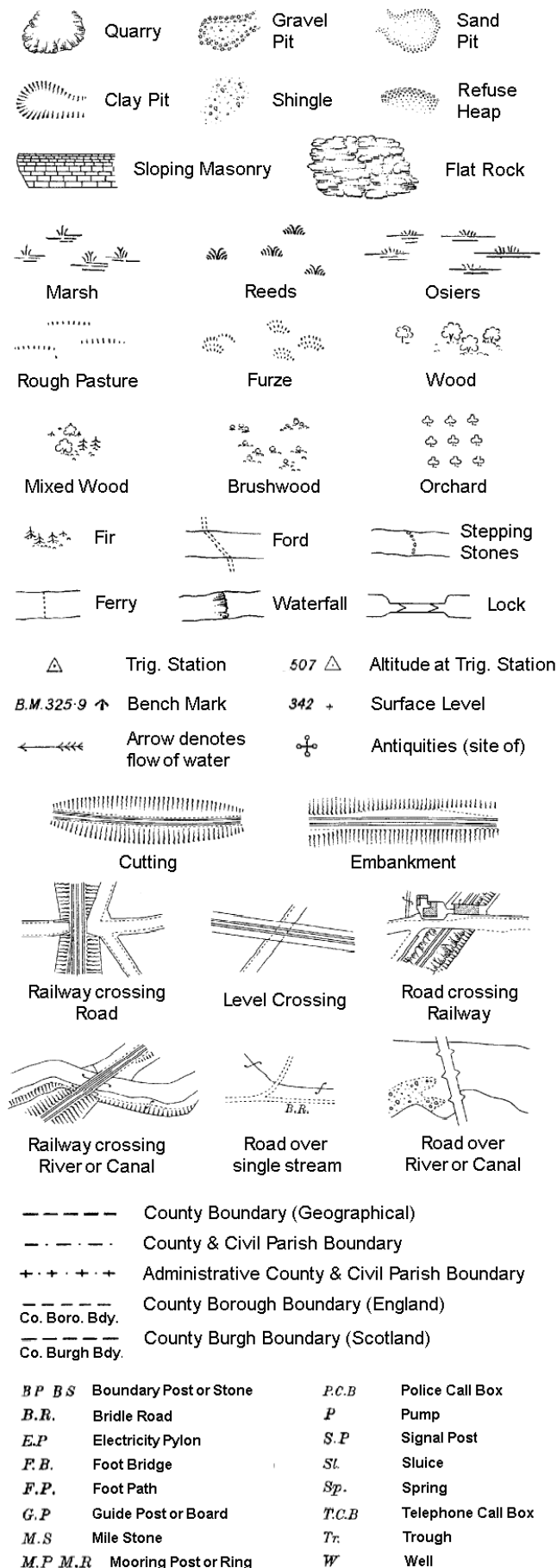
Southleigh Park House, Eastleigh Road, HAVANT, Hampshire,
PO9 2PE



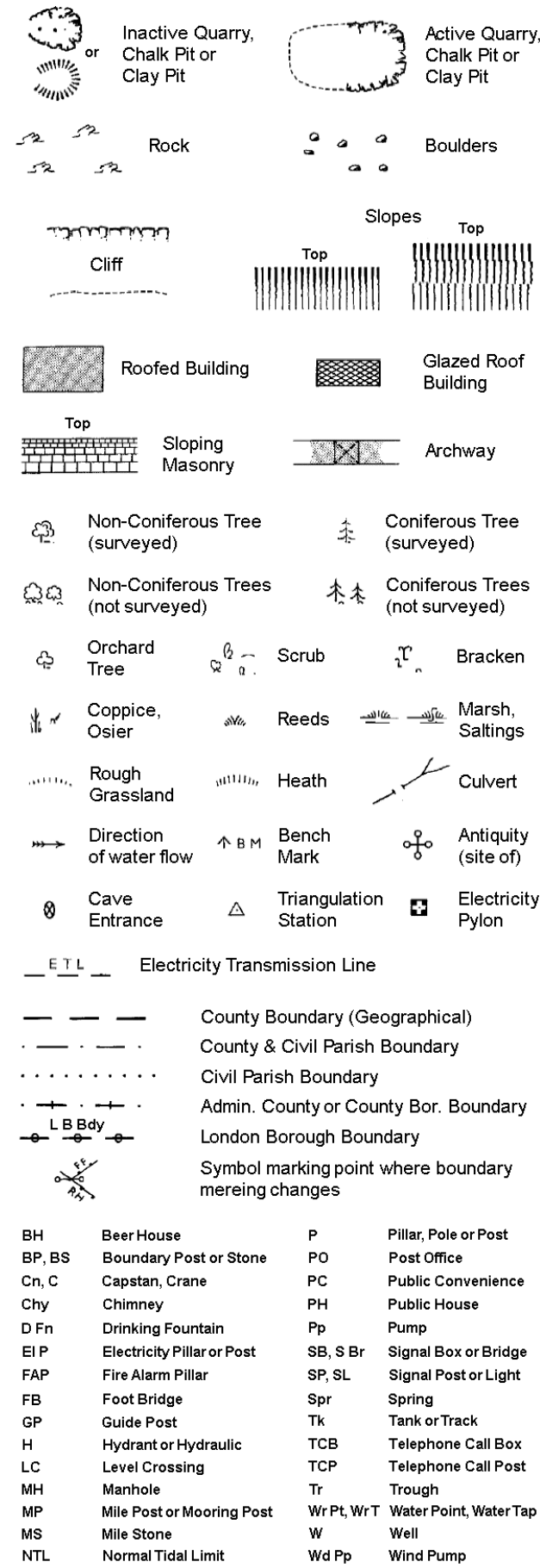
Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

Historical Mapping Legends

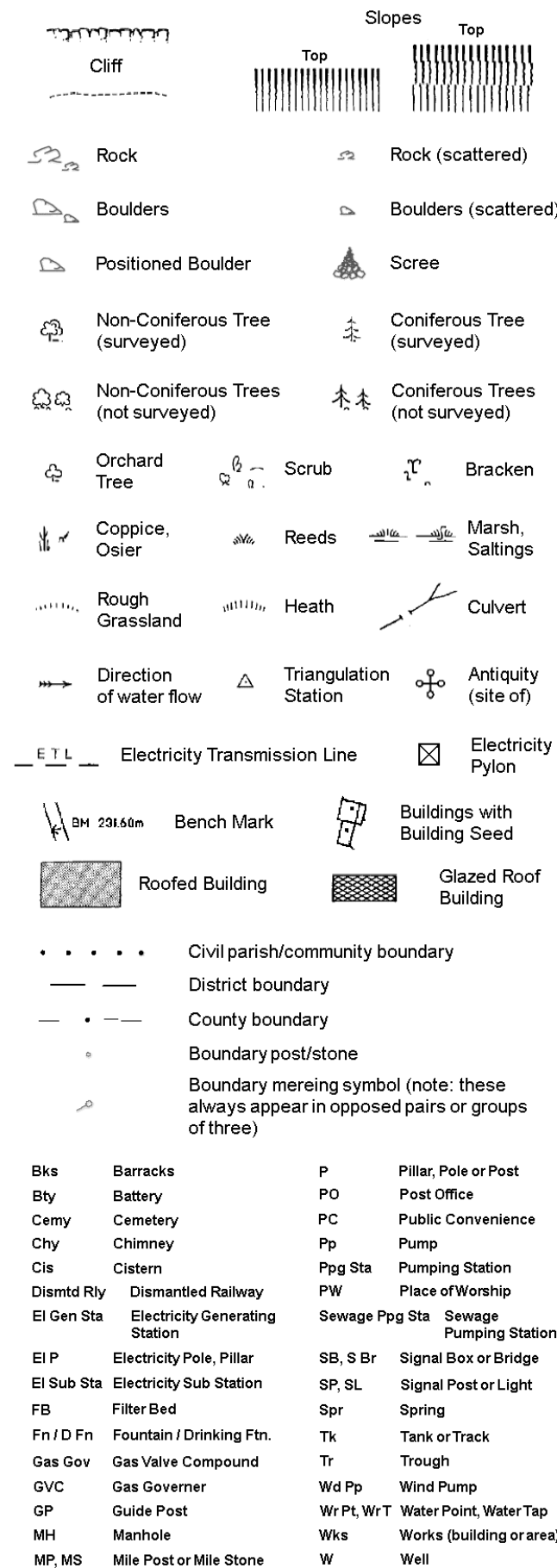
Ordnance Survey County Series and Ordnance Survey Plan 1:2,500



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



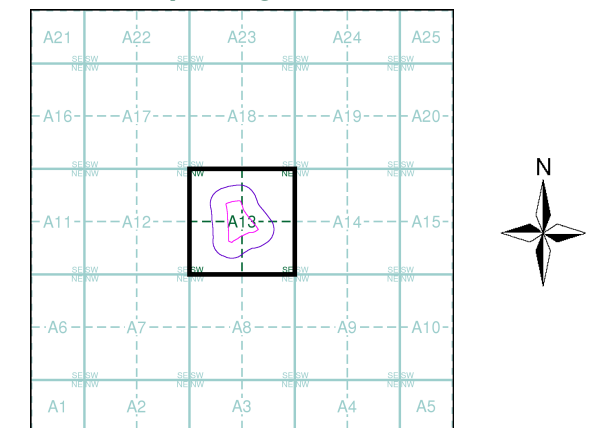
Large-Scale National Grid Data 1:2,500 and 1:1,250



Geo-Environmental Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Hampshire & Isle Of Wight	1:2,500	1866 - 1869	2
Sussex	1:2,500	1889	3
Hampshire & Isle Of Wight	1:2,500	1893	4
Hampshire & Isle Of Wight	1:2,500	1897	5
Sussex	1:2,500	1898	6
Hampshire & Isle Of Wight	1:2,500	1909	7
Sussex	1:2,500	1912	8
Hampshire & Isle Of Wight	1:2,500	1932	9
Ordnance Survey Plan	1:2,500	1952 - 1972	10
Ordnance Survey Plan	1:2,500	1955	11
Ordnance Survey Plan	1:1,250	1967 - 1981	12
Additional SIMs	1:2,500	1969 - 1990	13
Ordnance Survey Plan	1:2,500	1970	14
Supply of Unpublished Survey Information	1:2,500	1973	15
Large-Scale National Grid Data	1:2,500	1993	16
Large-Scale National Grid Data	1:1,250	1993	17
Large-Scale National Grid Data	1:2,500	1996	18
Large-Scale National Grid Data	1:1,250	1996	19

Historical Map - Segment A13



Order Details

Order Number: 85480247_1_1
Customer Ref: GE15562
National Grid Reference: 473720, 107960
Slice: A
Site Area (Ha): 3.17
Search Buffer (m): 100

Site Details

Southleigh Park House, Eastleigh Road, HAVANT, Hampshire, PO9 2PE



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Fax: 0844 844 9951
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Geo-Environmental Hampshire & Isle Of Wight

Published 1866 - 1869

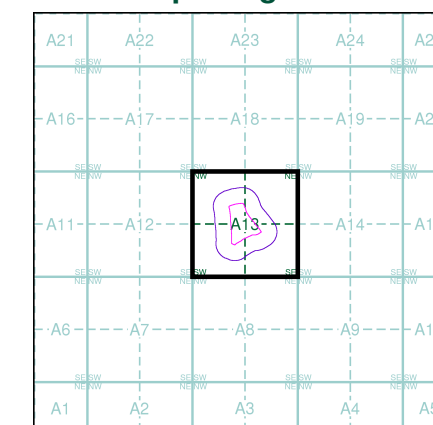
Source map scale - 1:2,500

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

Map Name(s) and Date(s)

076_04 1866 1:2,500
076_08 1869 1:2,500

Historical Map - Segment A13



Order Details

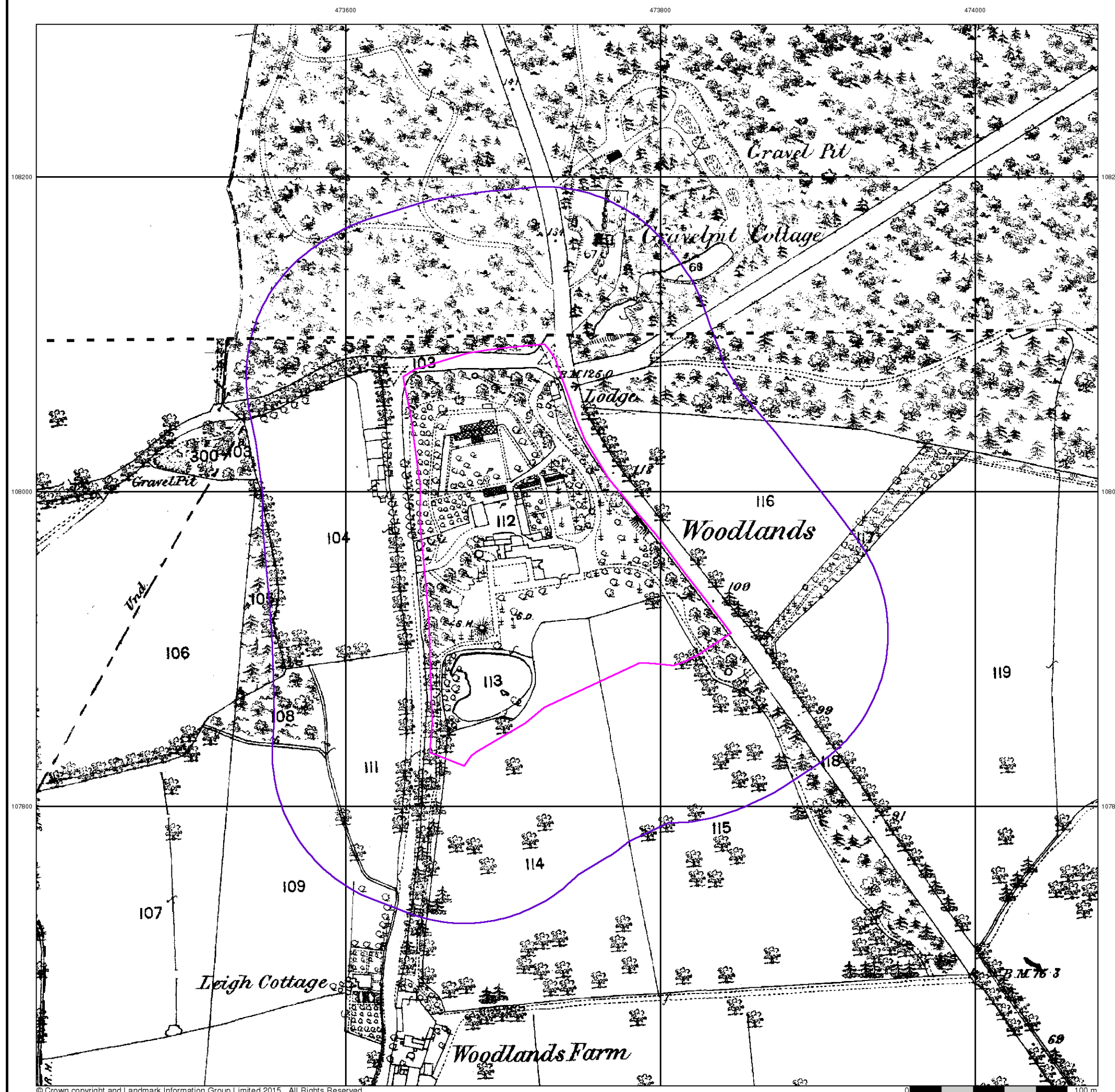
Order Number: 85480247_1_1
Customer Ref: GE15562
National Grid Reference: 473720, 107960
Slice: A
Site Area (Ha): 3.17
Search Buffer (m): 100

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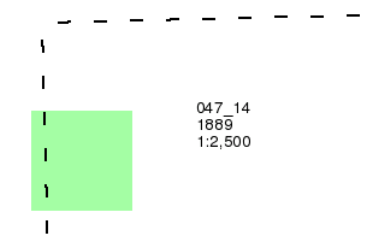
Geo-Environmental Sussex

Published 1889

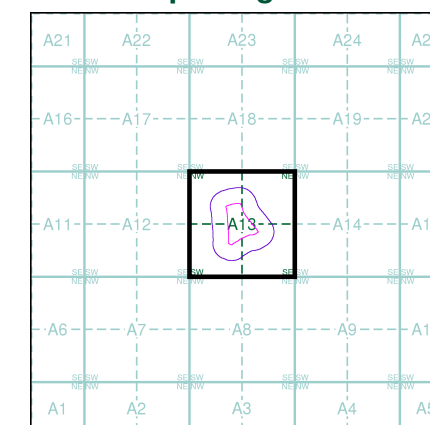
Source map scale - 1:2,500

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

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

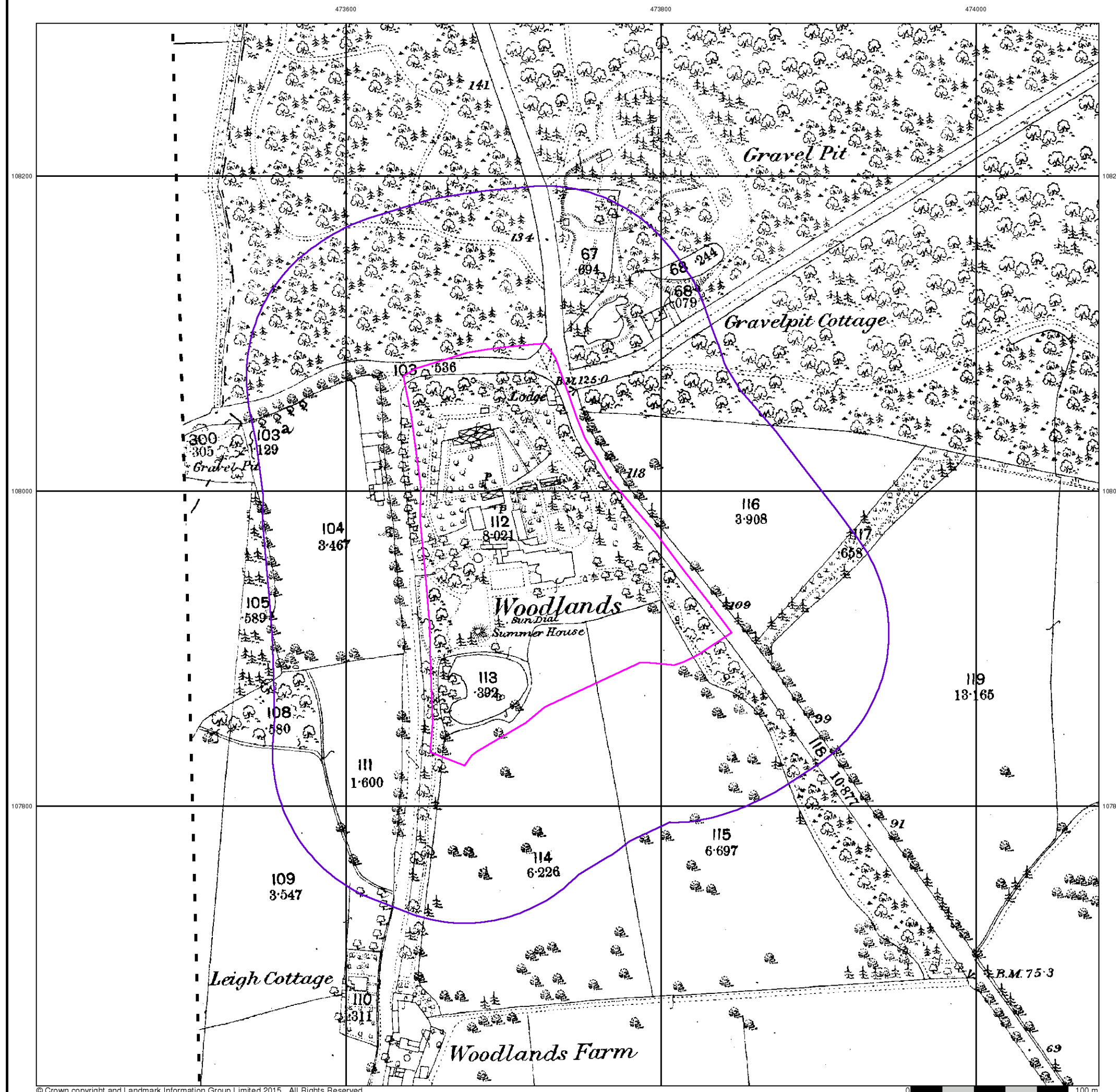
Order Number: 85480247_1_1
Customer Ref: GE15562
National Grid Reference: 473720, 107960
Slice: A
Site Area (Ha): 3.17
Search Buffer (m): 100

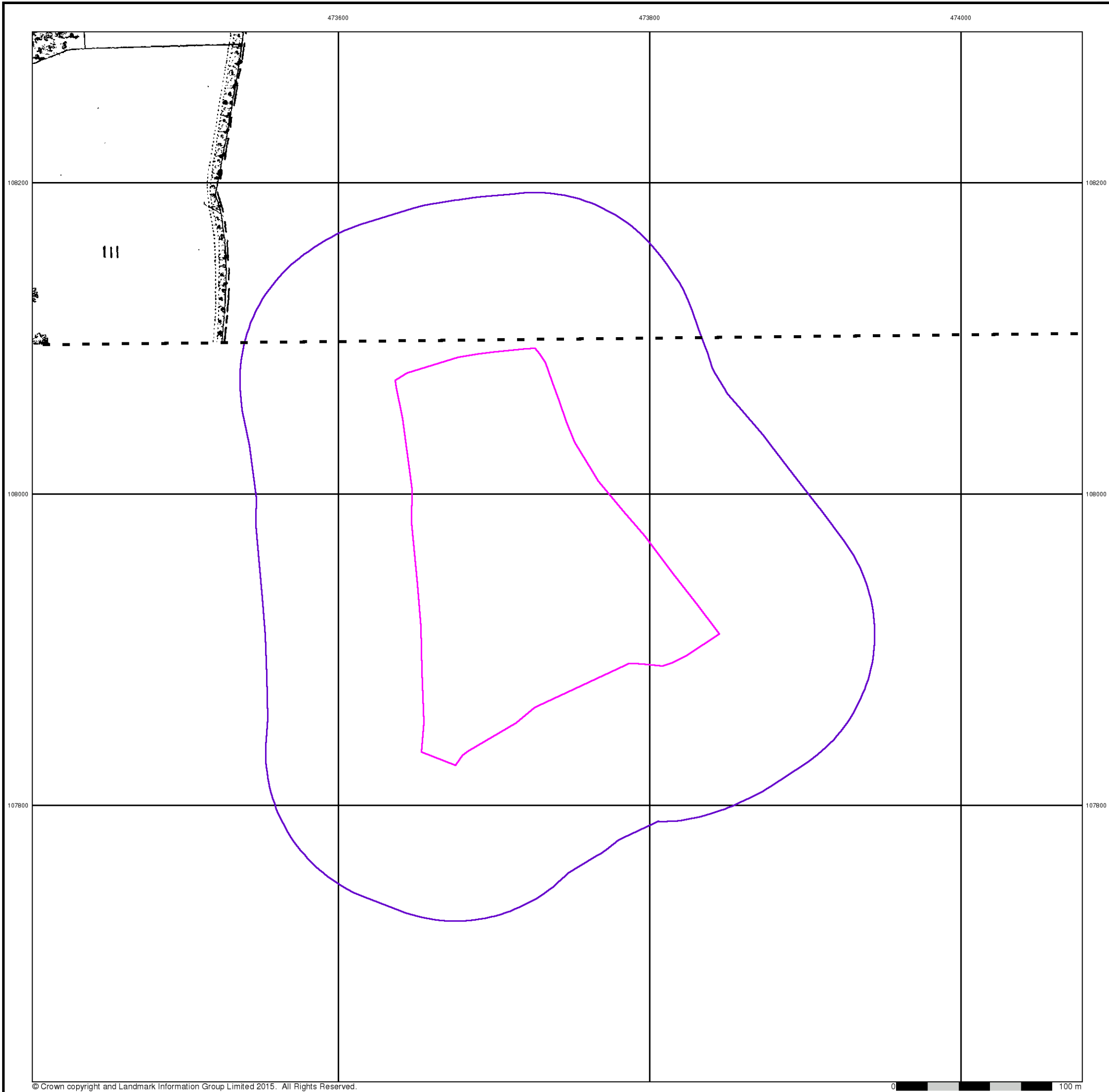
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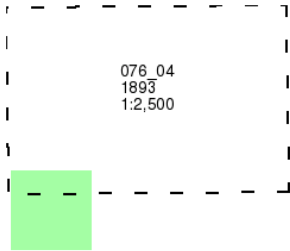
0 100 m



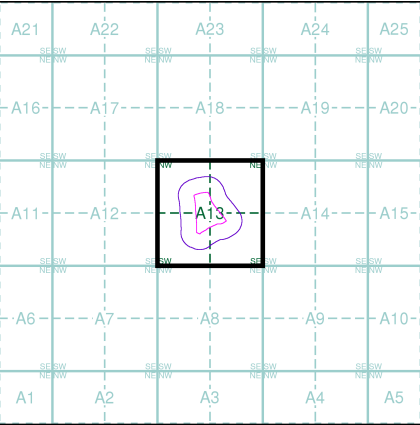
**Geo-Environmental
Hampshire & Isle Of Wight
Published 1893
Source map scale - 1:2,500**

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

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number: 85480247_1_1
Customer Ref: GE15562
National Grid Reference: 473720, 107960
Slice: A
Site Area (Ha): 3.17
Search Buffer (m): 100

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Geo-Environmental Hampshire & Isle Of Wight

Published 1897

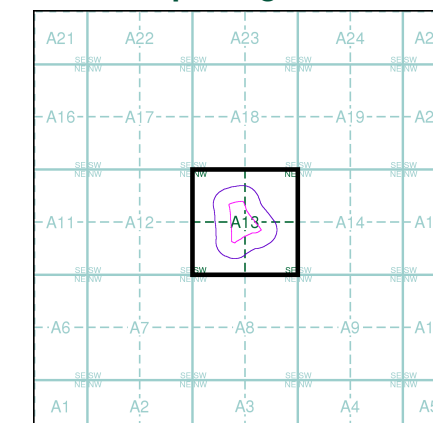
Source map scale - 1:2,500

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

Map Name(s) and Date(s)

076_04
1897
1:2,500
076_08
1897
1:2,500

Historical Map - Segment A13



Order Details

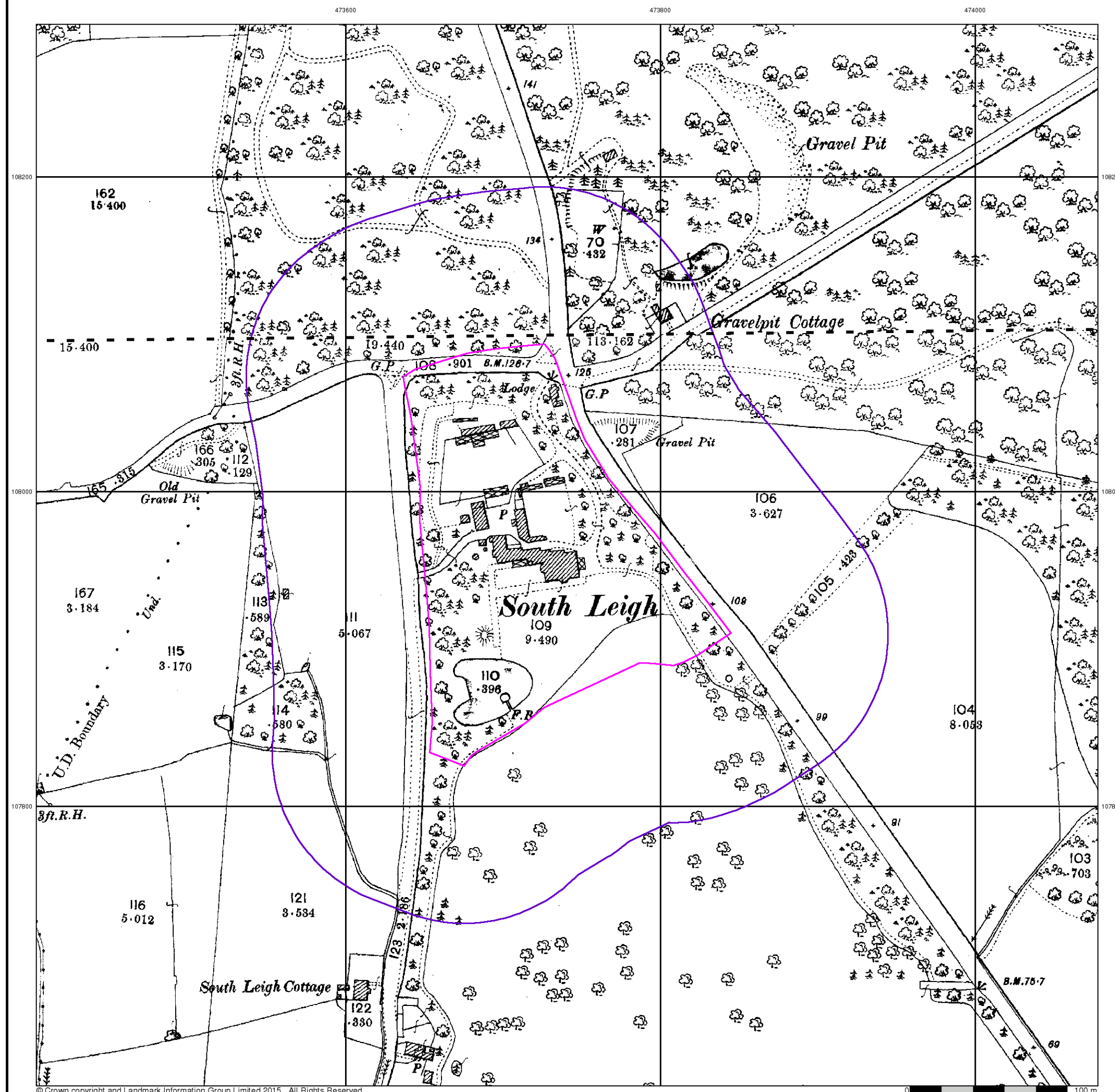
Order Number: 85480247_1_1
Customer Ref: GE15562
National Grid Reference: 473720, 107960
Slice: A
Site Area (Ha): 3.17
Search Buffer (m): 100

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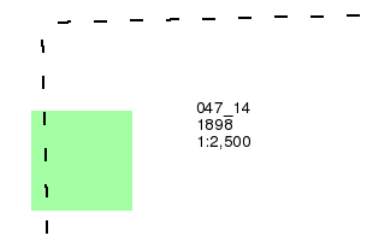
Geo-Environmental Sussex

Published 1898

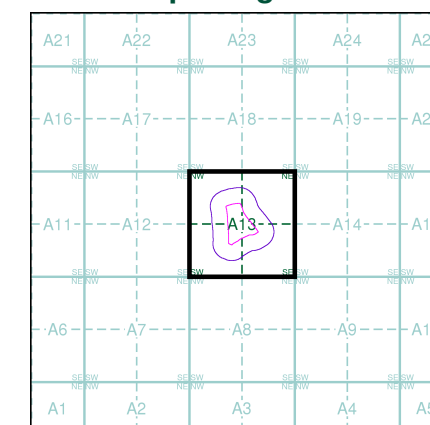
Source map scale - 1:2,500

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

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

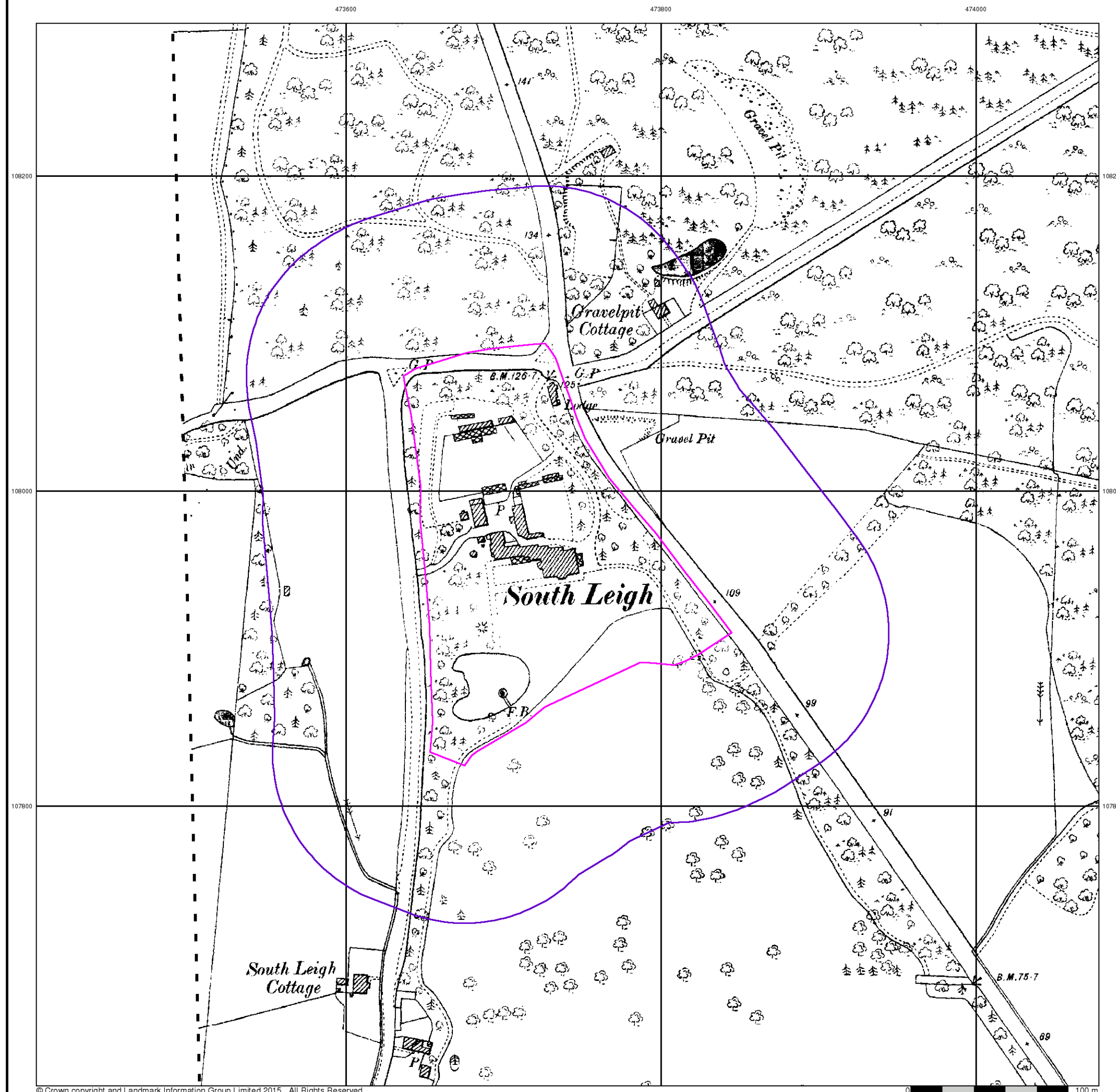
Order Number: 85480247_1_1
Customer Ref: GE15562
National Grid Reference: 473720, 107960
Slice: A
Site Area (Ha): 3.17
Search Buffer (m): 100

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Geo-Environmental Hampshire & Isle Of Wight

Published 1909

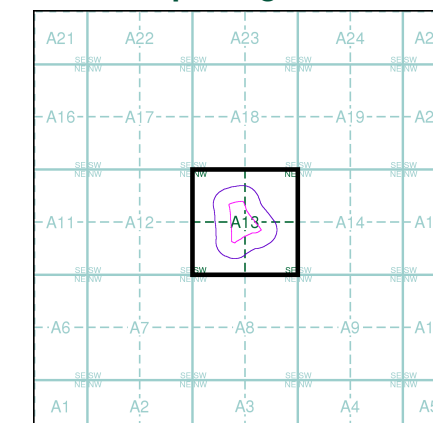
Source map scale - 1:2,500

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

Map Name(s) and Date(s)

076_04
1909
1:2,500
076_08
1909
1:2,500

Historical Map - Segment A13



Order Details

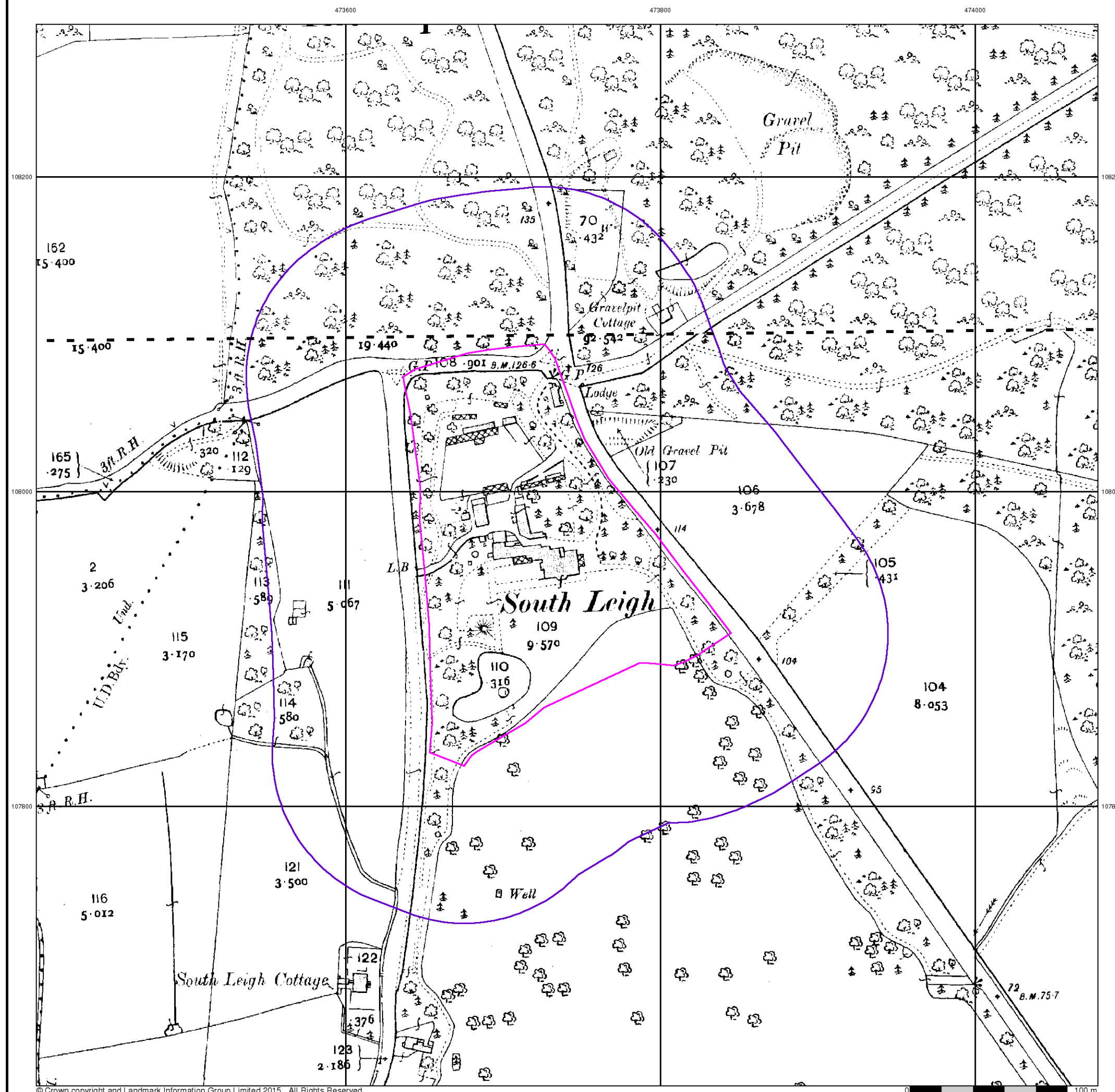
Order Number: 85480247_1_1
Customer Ref: GE15562
National Grid Reference: 473720, 107960
Slice: A
Site Area (Ha): 3.17
Search Buffer (m): 100

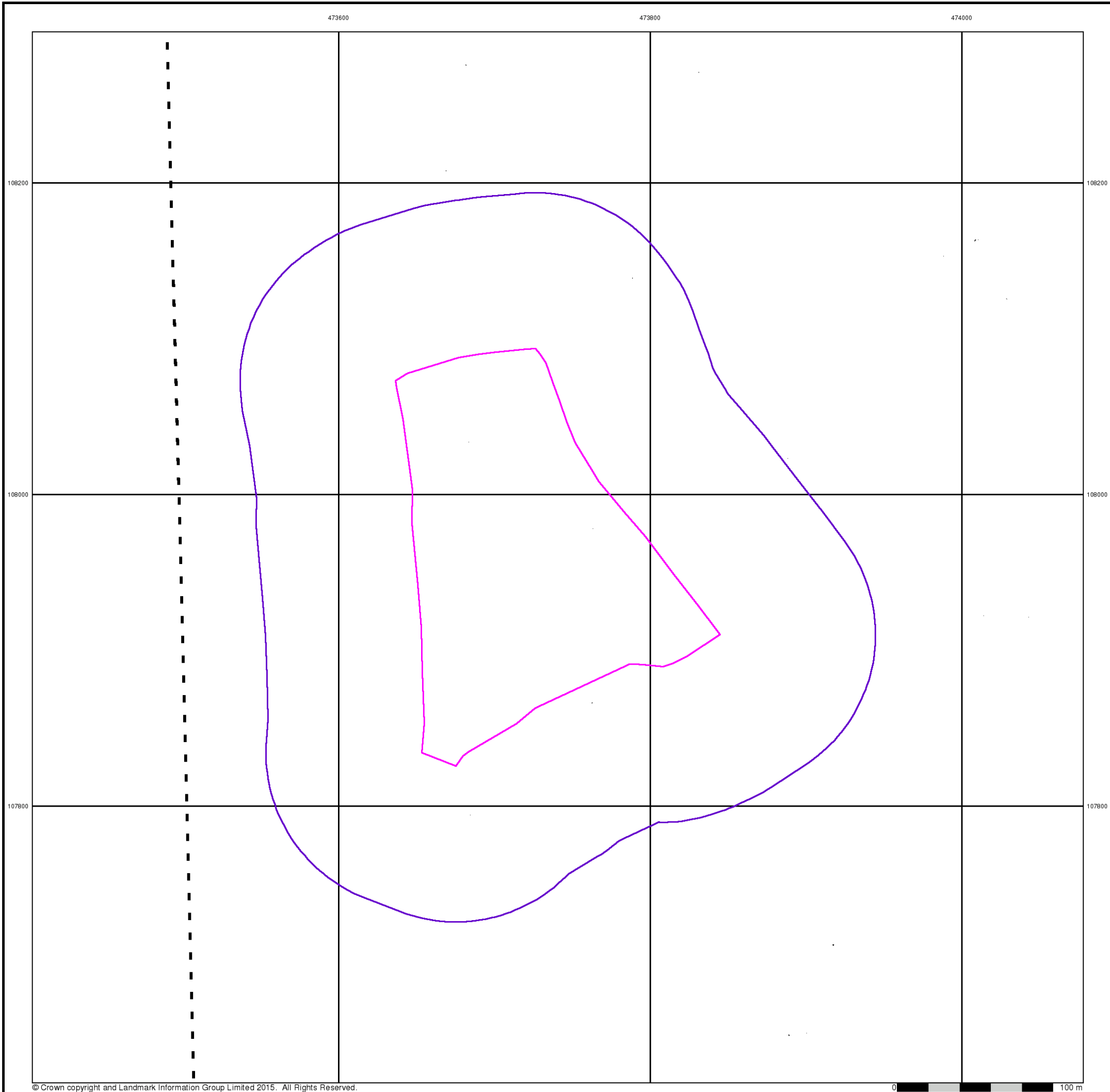
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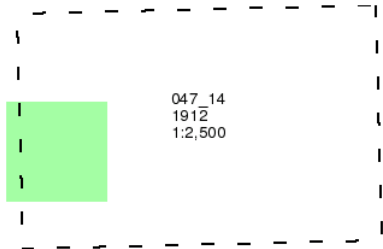
**Geo-Environmental
Sussex**

Published 1912

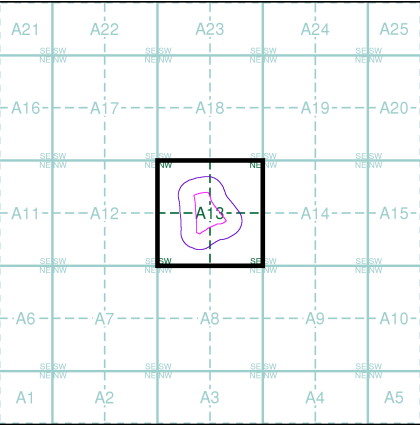
Source map scale - 1:2,500

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

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number: 85480247_1_1
Customer Ref: GE15562
National Grid Reference: 473720, 107960
Slice: A
Site Area (Ha): 3.17
Search Buffer (m): 100

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Geo-Environmental Hampshire & Isle Of Wight

Published 1932

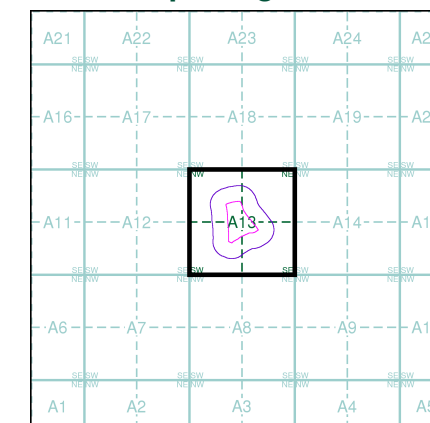
Source map scale - 1:2,500

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

Map Name(s) and Date(s)

076_04
1932
1:2,500
076_08
1932
1:2,500

Historical Map - Segment A13



Order Details

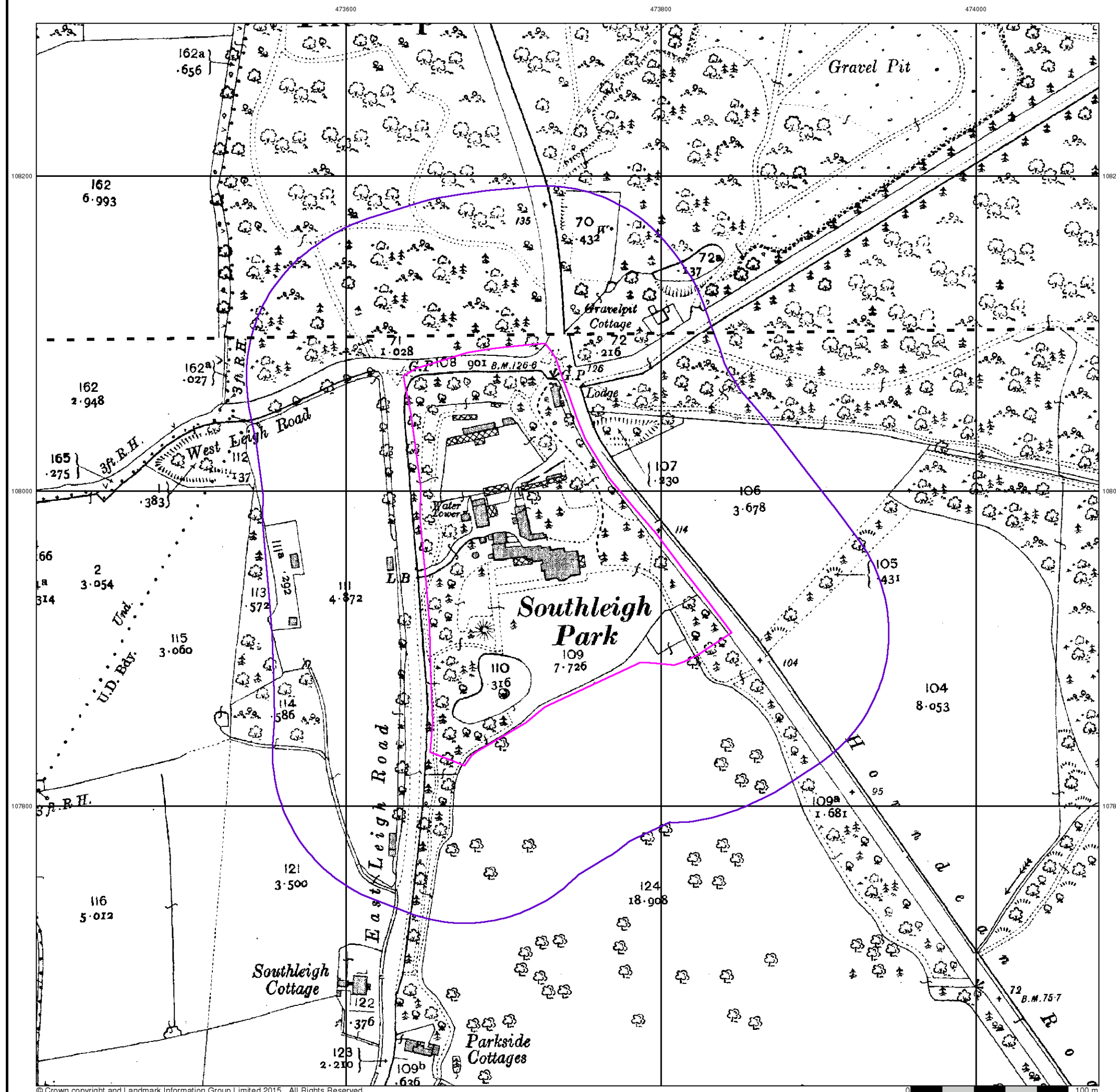
Order Number: 85480247_1_1
Customer Ref: GE15562
National Grid Reference: 473720, 107960
Slice: A
Site Area (Ha): 3.17
Search Buffer (m): 100

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Geo-Environmental Ordnance Survey Plan

Published 1952 - 1972

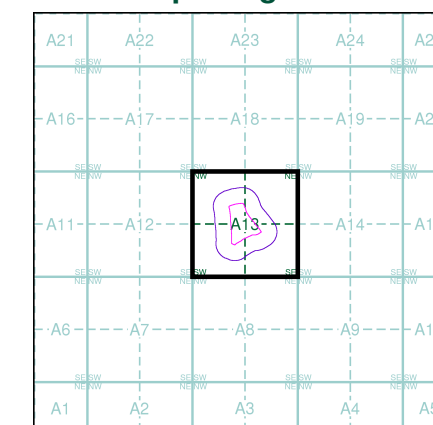
Source map scale - 1:2,500

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

Map Name(s) and Date(s)

SU7308 1970 12,500	SU7408 1969 12,500
SU7307 1972 12,500	SU7407 1952 12,500

Historical Map - Segment A13



Order Details

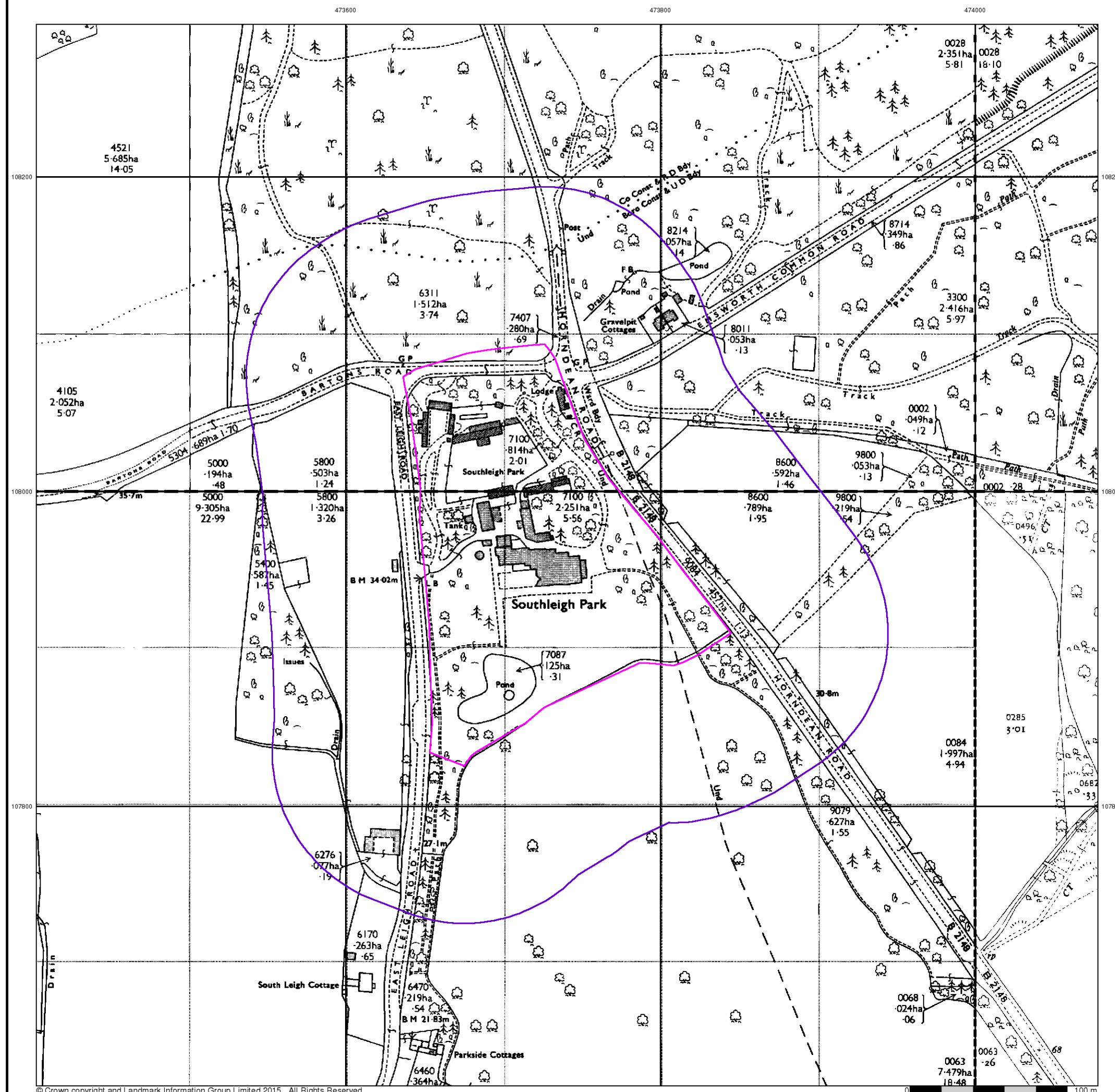
Order Number: 85480247_1_1
Customer Ref: GE15562
National Grid Reference: 473720, 107960
Slice: A
Site Area (Ha): 3.17
Search Buffer (m): 100

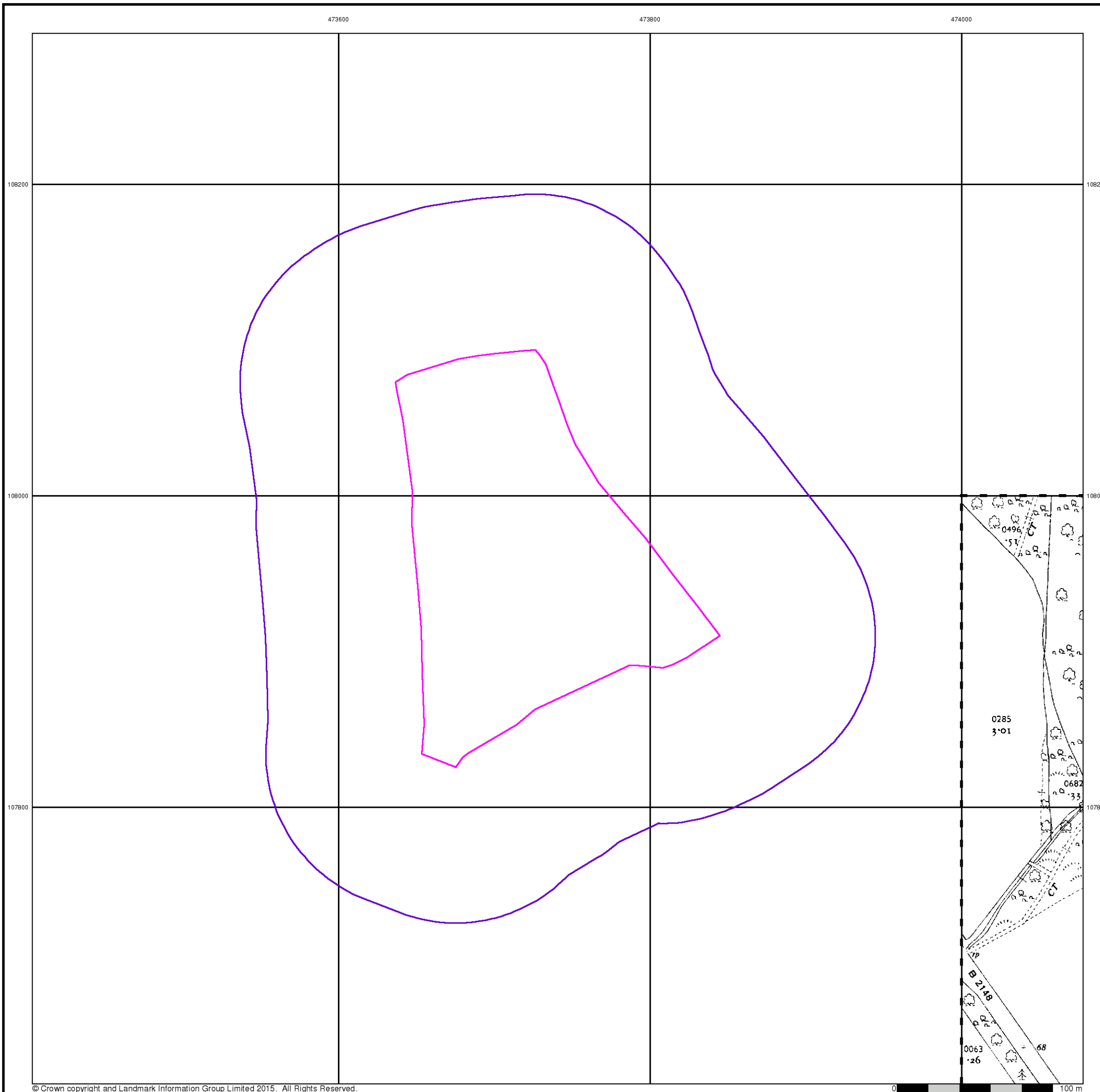
Site Details

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0 100 m



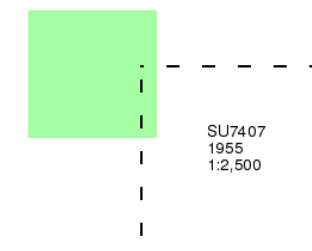
Geo-Environmental Ordnance Survey Plan

Published 1955

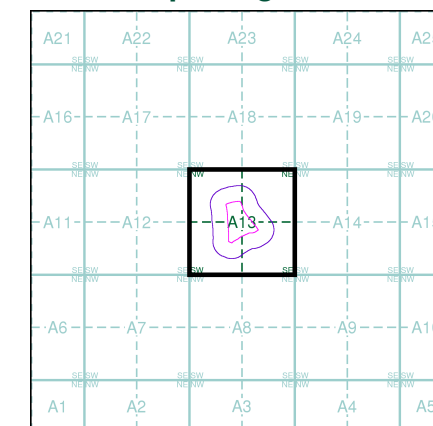
Source map scale - 1:2,500

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

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

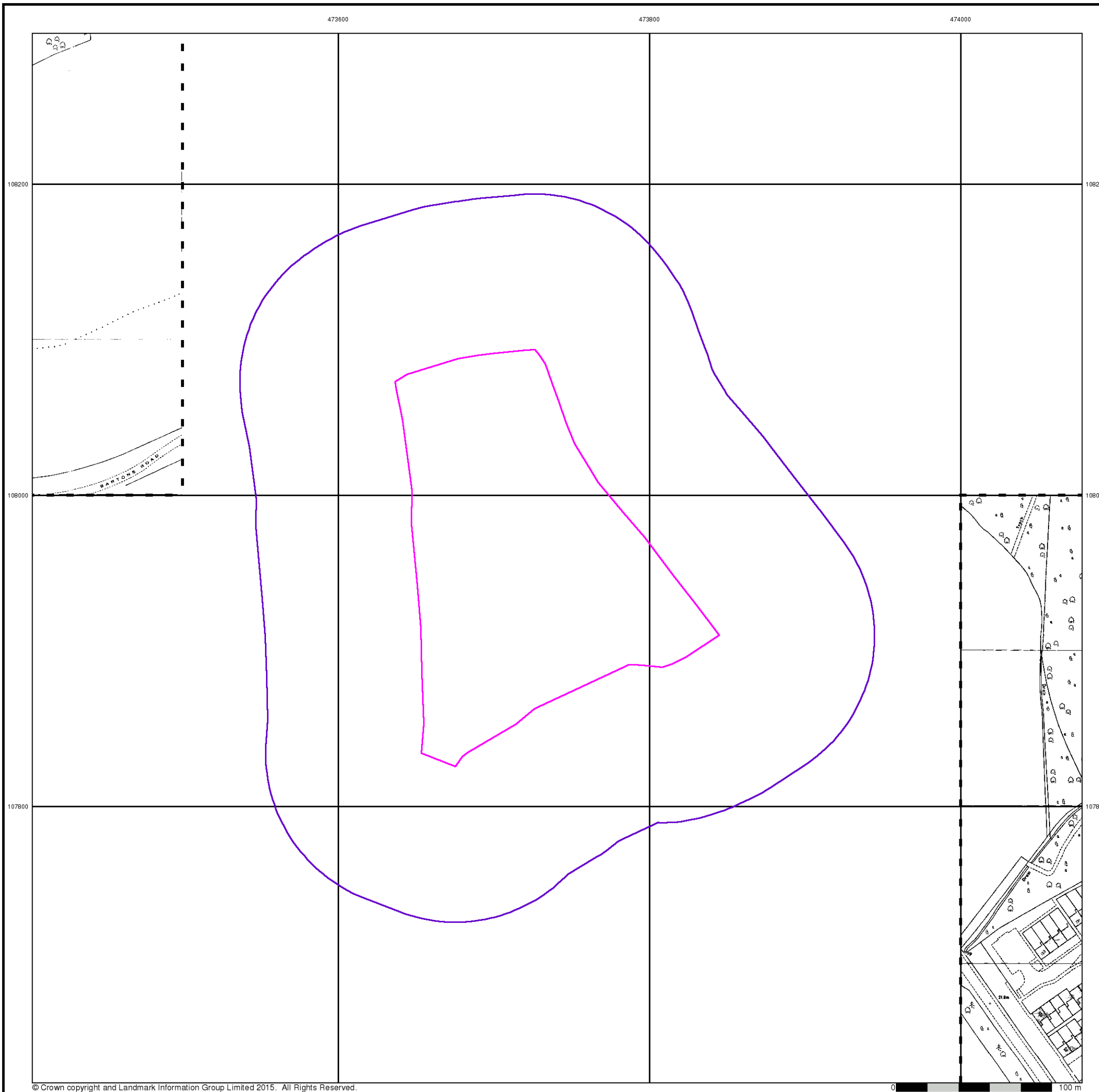
Order Number: 85480247_1_1
Customer Ref: GE15562
National Grid Reference: 473720, 107960
Slice: A
Site Area (Ha): 3.17
Search Buffer (m): 100

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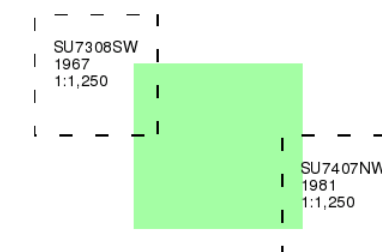
Geo-Environmental Ordnance Survey Plan

Published 1967 - 1981

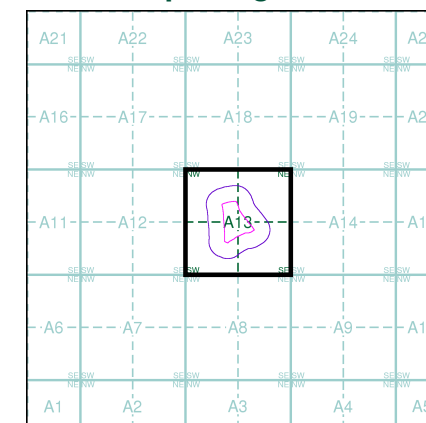
Source map scale - 1:1,250

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

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number: 85480247_1_1
Customer Ref: GE15562
National Grid Reference: 473720, 107960
Slice: A
Site Area (Ha): 3.17
Search Buffer (m): 100

Site Details

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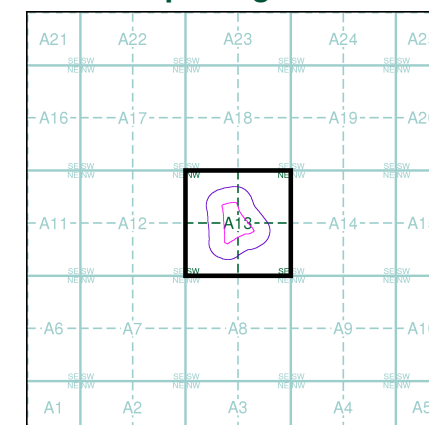


The SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)

SU7308	SU7408
1984	1969
12,500	12,500
SU7307	
1990	
12,500	

Historical Map - Segment A13



Order Details

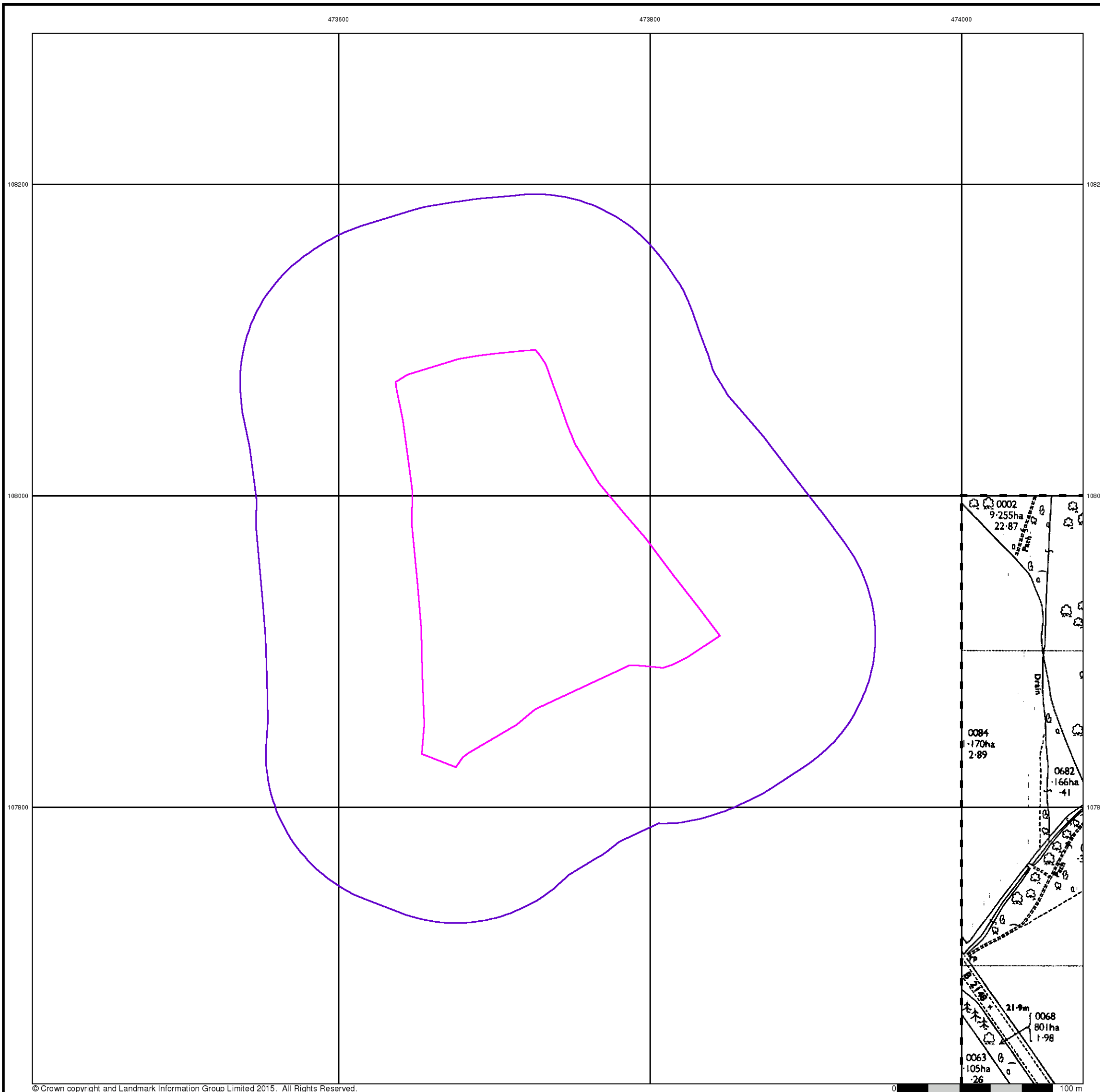
Order Number: 85480247_1_1
Customer Ref: GE15562
National Grid Reference: 473720, 107960
Slice: A
Site Area (Ha): 3.17
Search Buffer (m): 100

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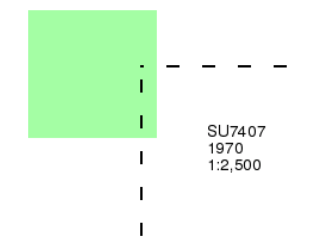
Geo-Environmental Ordnance Survey Plan

Published 1970

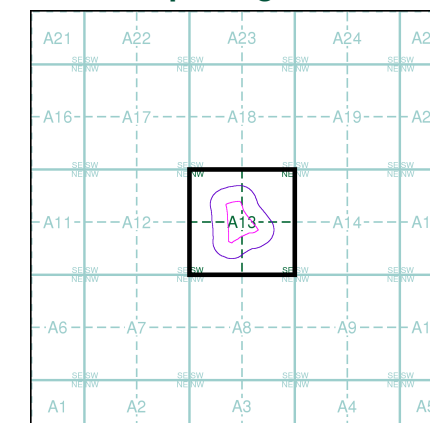
Source map scale - 1:2,500

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

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

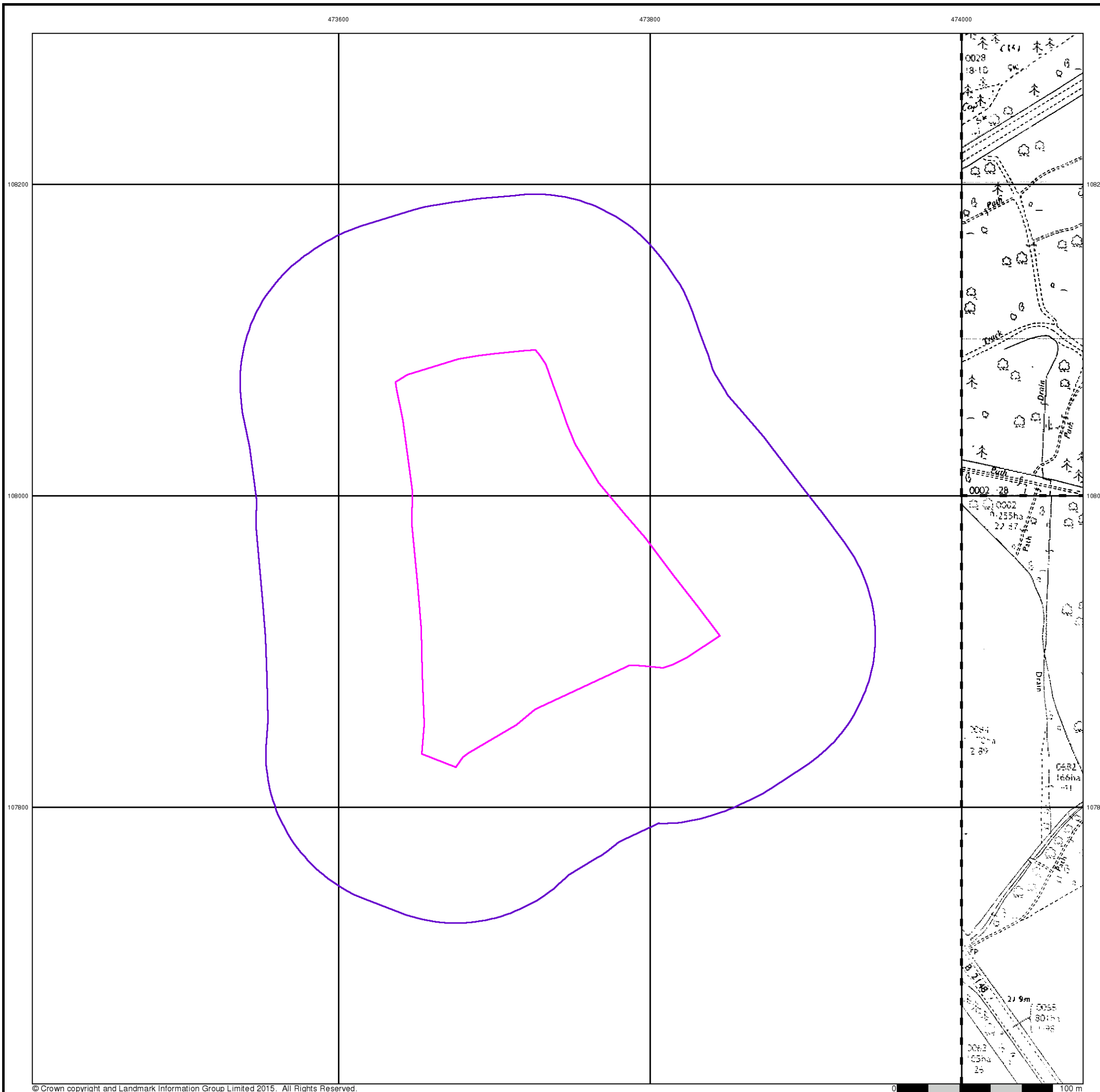
Order Number: 85480247_1_1
Customer Ref: GE15562
National Grid Reference: 473720, 107960
Slice: A
Site Area (Ha): 3.17
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Geo-Environmental Supply of Unpublished Survey Information

Published 1973

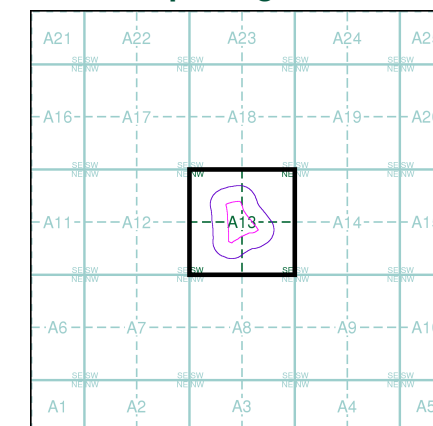
Source map scale - 1:2,500

SUSI maps (Supply of Unpublished Survey Information) were produced between 1972 and 1977, mainly for internal use at Ordnance Survey. These were more of a 'work-in-progress' plan as they showed updates of individual areas on a map. These maps were unpublished, and they do not represent a single moment in time. They were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)

SU7408
1973
1:2,500
SU7407
1973
1:2,500

Historical Map - Segment A13



Order Details

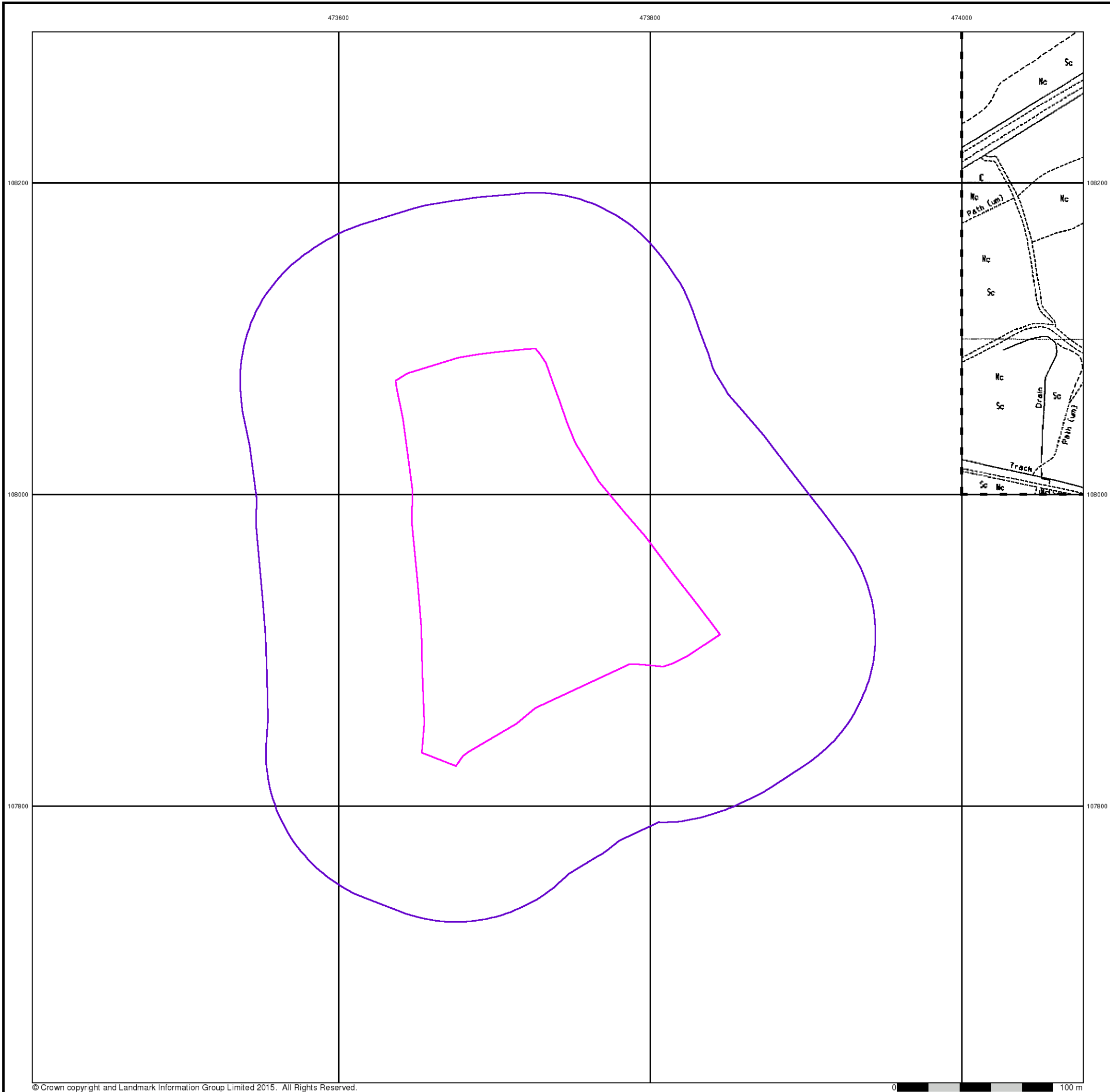
Order Number: 85480247_1_1
Customer Ref: GE15562
National Grid Reference: 473720, 107960
Slice: A
Site Area (Ha): 3.17
Search Buffer (m): 100

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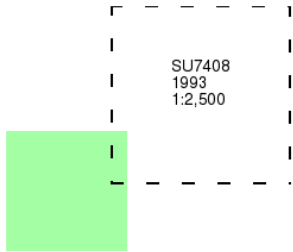
0 100 m



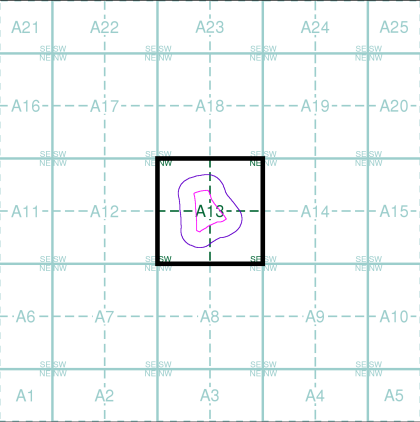
Geo-Environmental
Large-Scale National Grid Data
Published 1993
Source map scale - 1:2,500

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

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number: 85480247_1_1
Customer Ref: GE15562
National Grid Reference: 473720, 107960
Slice: A
Site Area (Ha): 3.17
Search Buffer (m): 100

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Geo-Environmental Large-Scale National Grid Data

Published 1993

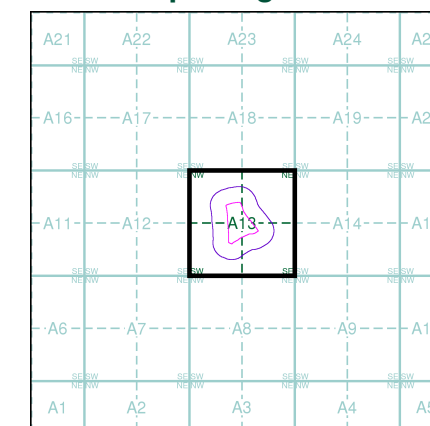
Source map scale - 1:1,250

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

Map Name(s) and Date(s)

SU7308SW	SU7308SE	
1993	1993	
1:1,250	1:1,250	
SU7307NW	SU7307NE	SU7407NW
1993	1993	1993
1:1,250	1:1,250	1:1,250

Historical Map - Segment A13



Order Details

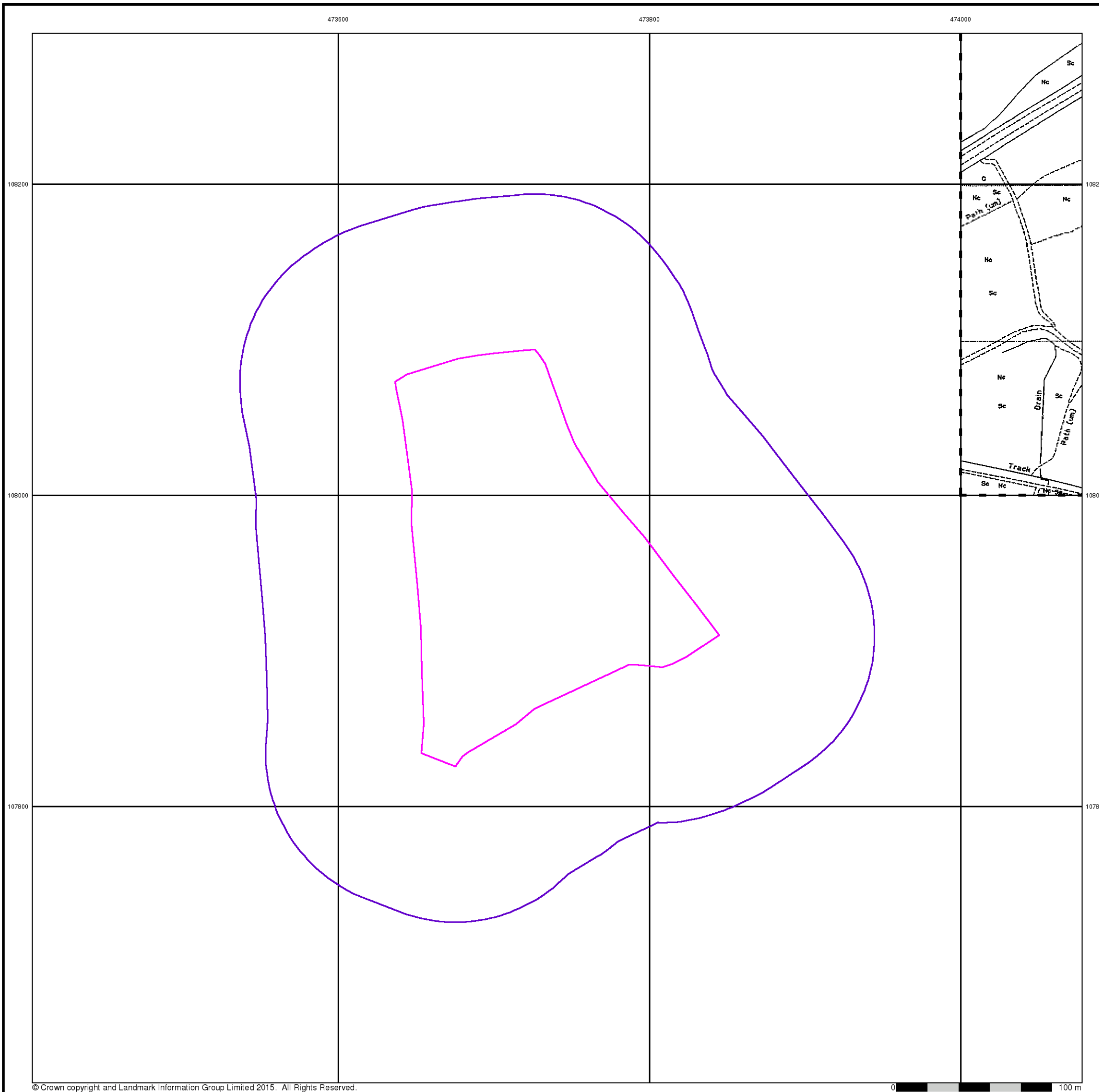
Order Number: 85480247_1_1
Customer Ref: GE15562
National Grid Reference: 473720, 107960
Slice: A
Site Area (Ha): 3.17
Search Buffer (m): 100

Site Details

Southleigh Park House, Eastleigh Road, HAVANT, Hampshire, PO9 2PE



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0 100 m



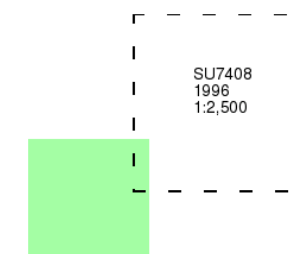
Geo-Environmental Large-Scale National Grid Data

Published 1996

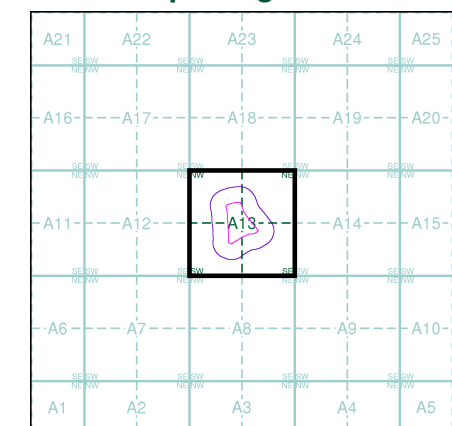
Source map scale - 1:2,500

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

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number: 85480247_1_1
Customer Ref: GE15562
National Grid Reference: 473720, 107960
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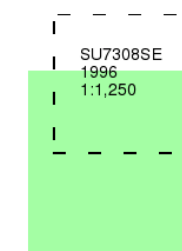
Geo-Environmental Large-Scale National Grid Data

Published 1996

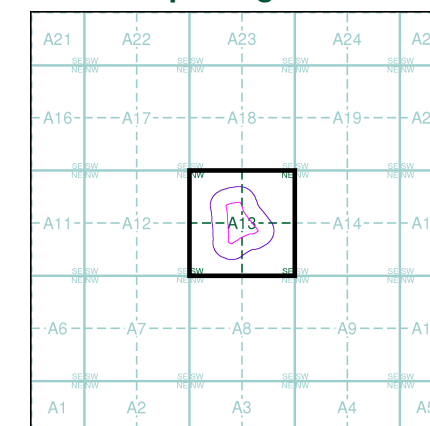
Source map scale - 1:1,250

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

Map Name(s) and Date(s)



Historical Map - Segment A13



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Historical Mapping Legends

Ordnance Survey County Series 1:10,560

	Gravel Pit		Sand Pit		Other Pits
	Quarry		Shingle		Orchard
	Osiers		Reeds		Marsh
	Mixed Wood		Deciduous		Brushwood
	Fir		Furze		Rough Pasture
	Arrow denotes flow of water		Trigonometrical Station		
	Site of Antiquities		Bench Mark		
	Pump, Guide Post, Signal Post		Well, Spring, Boundary Post		
	•285 Surface Level				
	Sketched Contour		Instrumental Contour		
	Main Roads		Minor Roads		
	Sunken Road		Raised Road		
	Road over Railway		Railway over River		
	Railway over Road		Level Crossing		
	Road over River or Canal		Road over Stream		
	Road over Stream				
	County Boundary (Geographical)				
	County & Civil Parish Boundary				
	Administrative County & Civil Parish Boundary				
	County Borough Boundary (England)				
	County Burgh Boundary (Scotland)				
	Rural District Boundary				
	Civil Parish Boundary				

Ordnance Survey Plan 1:10,000

	Chalk Pit, Clay Pit or Quarry		Gravel Pit
	Sand Pit		Disused Pit or Quarry
	Refuse or Slag Heap		Lake, Loch or Pond
	Dunes		Boulders
	Coniferous Trees		Non-Coniferous Trees
	Orchard		Scrub
	Coppice		
	Bracken		Heath
	Rough Grassland		
	Marsh		Reeds
	Saltings		
	Building		Glasshouse
	Sloping Masonry		
	Pylon		Electricity Transmission Line
	Pole		
	Cutting		Embankment
	Road Under		Road Over
	Level Crossing		Foot Bridge
	Standard Gauge Multiple Track		
	Standard Gauge Single Track		
	Siding, Tramway or Mineral Line		
	Narrow Gauge		
	Geographical County		
	Administrative County, County Borough or County of City		
	Municipal Borough, Urban or Rural District, Burgh or District Council		
	Borough, Burgh or County Constituency Shown only when not coincident with other boundaries		
	Civil Parish Shown alternately when coincidence of boundaries occurs		
	BP, BS Boundary Post or Stone		Pol Sta Police Station
	Ch Church		PO Post Office
	CH Club House		PC Public Convenience
	F E Sta Fire Engine Station		PH Public House
	FB Foot Bridge		SB Signal Box
	Fn Fountain		Spr Spring
	GP Guide Post		TCB Telephone Call Box
	MP Mile Post		TCP Telephone Call Post
	MS Mile Stone		W Well

1:10,000 Raster Mapping

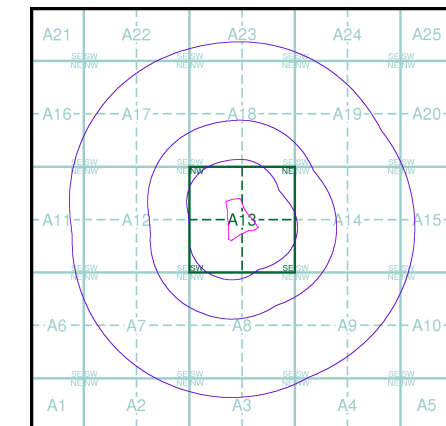
	Gravel Pit		Refuse tip or slag heap
	Rock		Rock (scattered)
	Boulders		Boulders (scattered)
	Shingle		Mud
	Sand		Sand Pit
	Slopes		Top of cliff
	General detail		Underground detail
	Overhead detail		Narrow gauge railway
	Multi-track railway		Single track railway
	County boundary (England only)		Civil, parish or community boundary
	District, Unitary, Metropolitan, London Borough boundary		Constituency boundary
	Area of wooded vegetation		Non-coniferous trees
	Non-coniferous trees (scattered)		Coniferous trees
	Coniferous trees (scattered)		Positioned tree
	Orchard		Coppice or Osiers
	Rough Grassland		Heath
	Scrub		Marsh, Salt Marsh or Reeds
	Water feature		Flow arrows
	MHW(S) Mean high water (springs)		MLW(S) Mean low water (springs)
	Telephone line (where shown)		Electricity transmission line (with poles)
	Bench mark (where shown)		Triangulation station
	Point feature (e.g. Guide Post or Mile Stone)		Pylon, flare stack or lighting tower
	Site of (antiquity)		Glasshouse
	General Building		Important Building



Geo-Environmental Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Hampshire & Isle Of Wight	1:10,560	1870	3
Sussex	1:10,560	1879 - 1880	4
Hampshire & Isle Of Wight	1:10,560	1898	5
Sussex	1:10,560	1899	6
Hampshire & Isle Of Wight	1:10,560	1910	7
Sussex	1:10,560	1914	8
Sussex	1:10,560	1914	9
Sussex	1:10,560	1914	10
Sussex	1:10,560	1932	11
Sussex	1:10,560	1932	12
Sussex	1:10,560	1932	13
Hampshire & Isle Of Wight	1:10,560	1933	14
Hampshire & Isle Of Wight	1:10,560	1933	15
Hampshire & Isle Of Wight	1:10,560	1938	16
Ordnance Survey Plan	1:10,000	1962 - 1963	17
Ordnance Survey Plan	1:10,000	1966	18
Ordnance Survey Plan	1:10,000	1973 - 1975	19
Havant	1:25,000	1983	20
Portsmouth	1:10,000	1988	21
Ordnance Survey Plan	1:10,000	1991 - 1992	22
Historical Aerial Photography	1:10,000	1999	23
10K Raster Mapping	1:10,000	2000	24
10K Raster Mapping	1:10,000	2006	25
VectorMap Local	1:10,000	2016	26

Historical Map - Slice A



Order Details

Order Number: 85480247_1_1
Customer Ref: GE15562
National Grid Reference: 473720, 107960
Slice: A
Site Area (Ha): 3.17
Search Buffer (m): 1000

Site Details

Southleigh Park House, Eastleigh Road, HAVANT, Hampshire, PO9 2PE

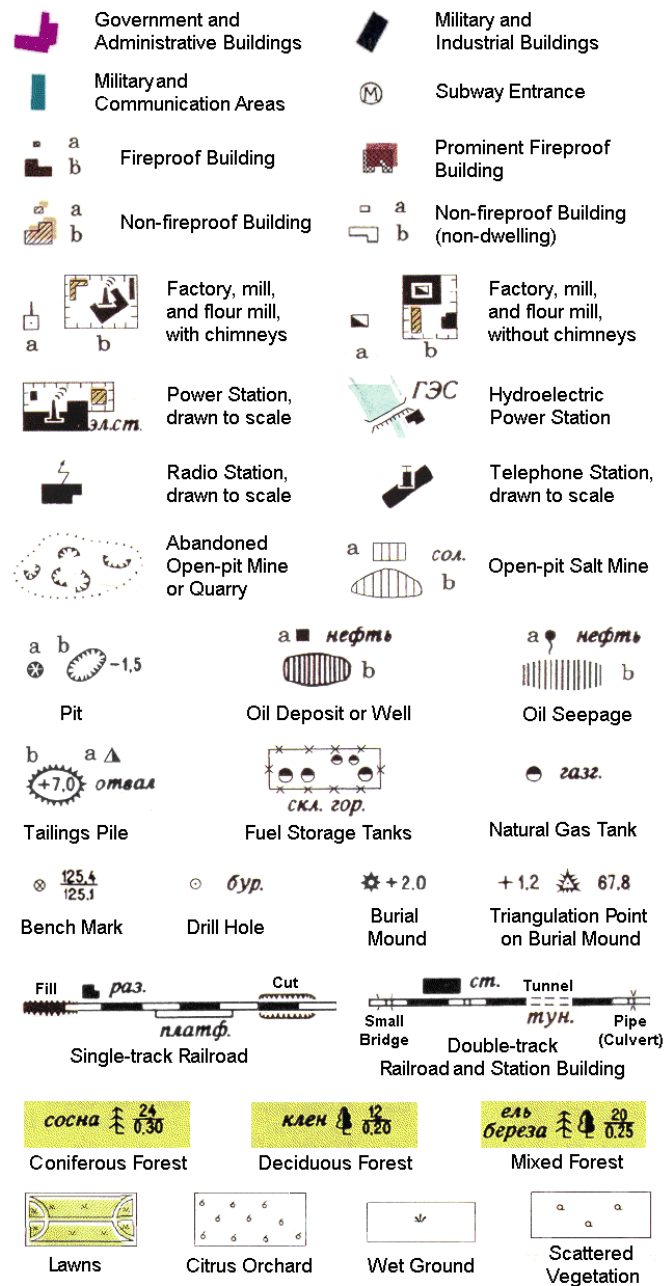


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Russian Military Mapping Legends

1:5,000 and 1:10,000 mapping

a. Not drawn to scale b. Drawn to scale



243.8 Values for prominent elevations

186.0 Numbers for spot elevations, depth soundings, contour lines, etc.

0.2 Velocity of the current, width of river bed, depth of river

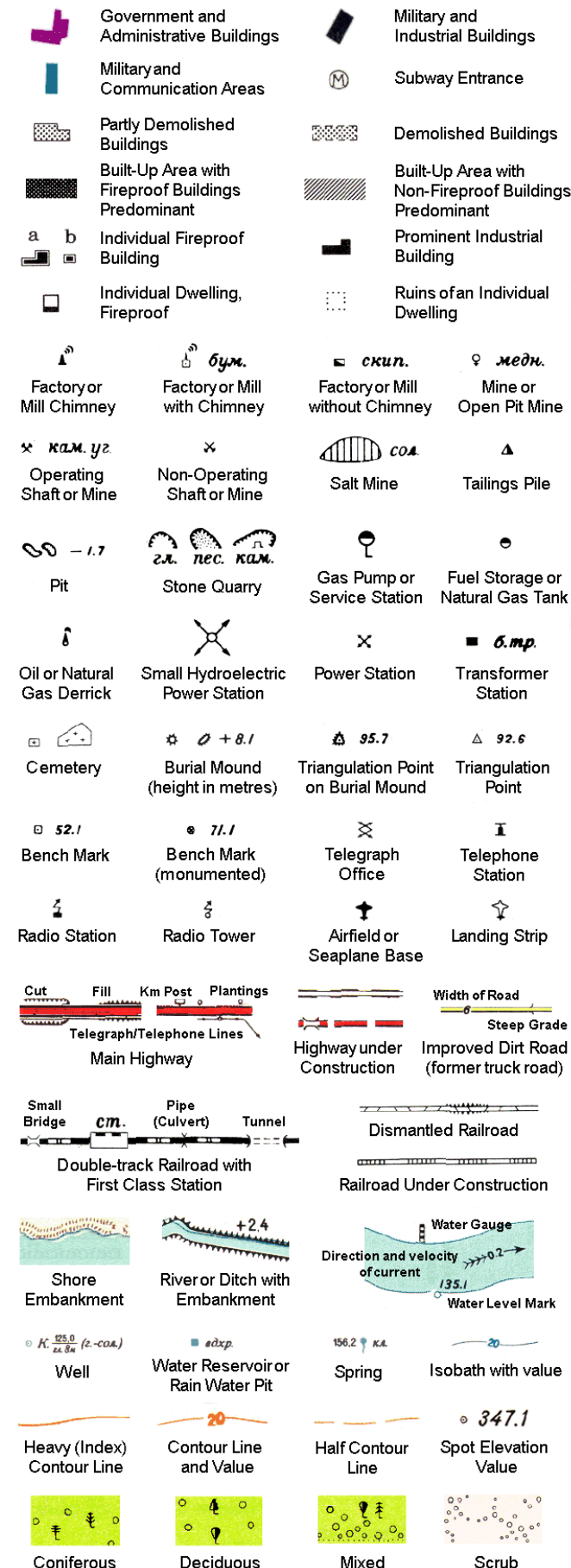
180/12 Fractional terms: length and capacity of bridges; depth of fords and condition of the river bottom; height of forest and the diameter of trees

Russian Alphabet (For reference and phonetic interpretation of map text)

А а (A)	З з (Z)	П п (P)	Ч ч (CH)
Б б (B)	И и (I)	Р р (R)	Ш ш (SH)
В в (V)	Й й (Y)	С с (S)	Щ щ (SHCH)
Г г (G)	К к (K)	Т т (T)	Ъ (-)
Д д (D)	Л л (L)	У у (U)	Ы (Y)
Е е (E)	М м (M)	Ф ф (F)	Ь (')
Ё ё (YO)	Н н (N)	Х х (KH)	Э э (E)
Ж ж (ZH)	О о (O)	Ц ц (TS)	Ю ю (YU or IU)
			Я я (YA or IA)

1:25,000 mapping

a. Not drawn to scale b. Drawn to scale



Key to Numbers on Mapping

SU70_Havant

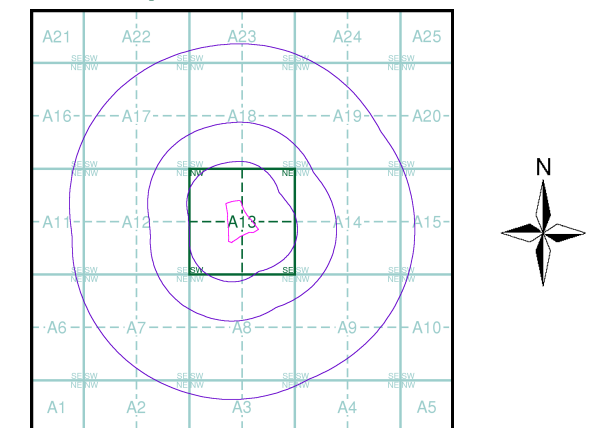
No.	Description
3	Factories (Radio Electronics, Metal Works, Electrical Appliances, Chemicals And Machinery)



Geo-Environmental Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Hampshire & Isle Of Wight	1:10,560	1870	3
Sussex	1:10,560	1879 - 1880	4
Hampshire & Isle Of Wight	1:10,560	1898	5
Sussex	1:10,560	1899	6
Hampshire & Isle Of Wight	1:10,560	1910	7
Sussex	1:10,560	1914	8
Sussex	1:10,560	1914	9
Sussex	1:10,560	1914	10
Sussex	1:10,560	1932	11
Sussex	1:10,560	1932	12
Sussex	1:10,560	1932	13
Hampshire & Isle Of Wight	1:10,560	1933	14
Hampshire & Isle Of Wight	1:10,560	1933	15
Hampshire & Isle Of Wight	1:10,560	1938	16
Ordnance Survey Plan	1:10,000	1962 - 1963	17
Ordnance Survey Plan	1:10,000	1966	18
Ordnance Survey Plan	1:10,000	1973 - 1975	19
Havant	1:25,000	1983	20
Portsmouth	1:10,000	1988	21
Ordnance Survey Plan	1:10,000	1991 - 1992	22
Historical Aerial Photography	1:10,000	1999	23
10K Raster Mapping	1:10,000	2000	24
10K Raster Mapping	1:10,000	2006	25
VectorMap Local	1:10,000	2016	26

Russian Map - Slice A



Order Details

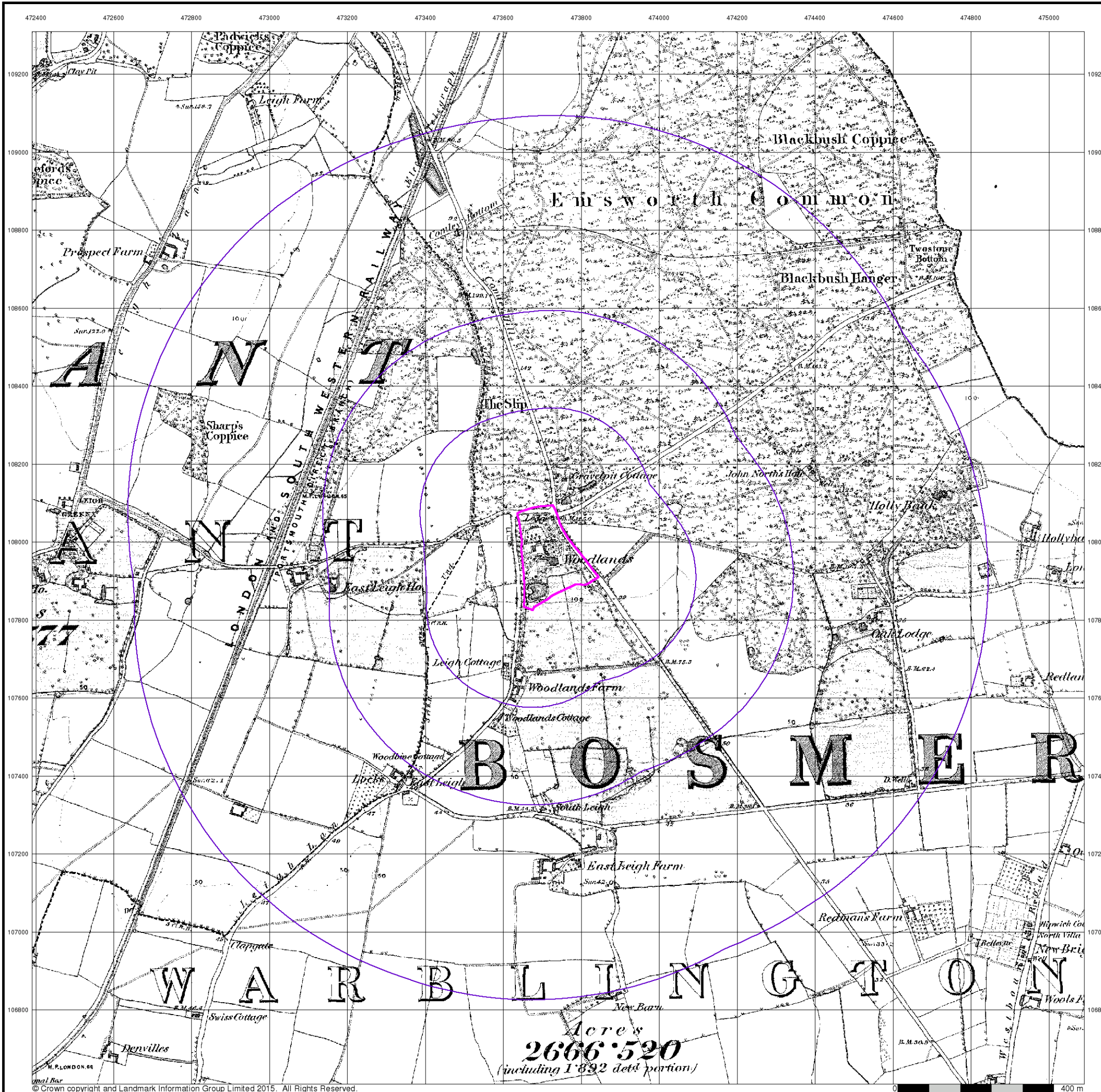
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Customer Ref: GE15562
National Grid Reference: 473720, 107960
Slice: A
Site Area (Ha): 3.17
Search Buffer (m): 1000

Site Details

Southleigh Park House, Eastleigh Road, HAVANT, Hampshire, PO9 2PE



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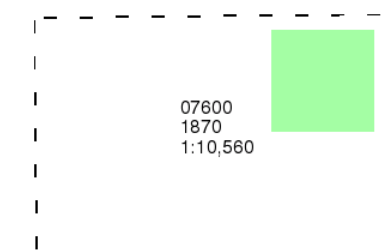
Geo-Environmental Hampshire & Isle Of Wight

Published 1870

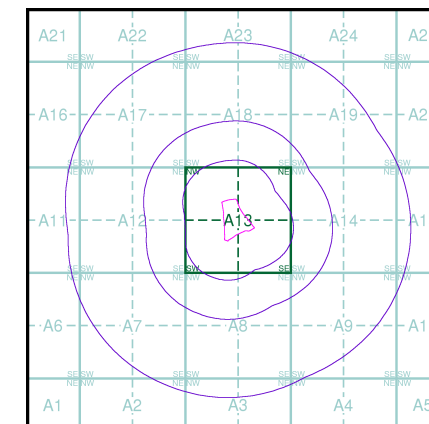
Source map scale - 1:10,560

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

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

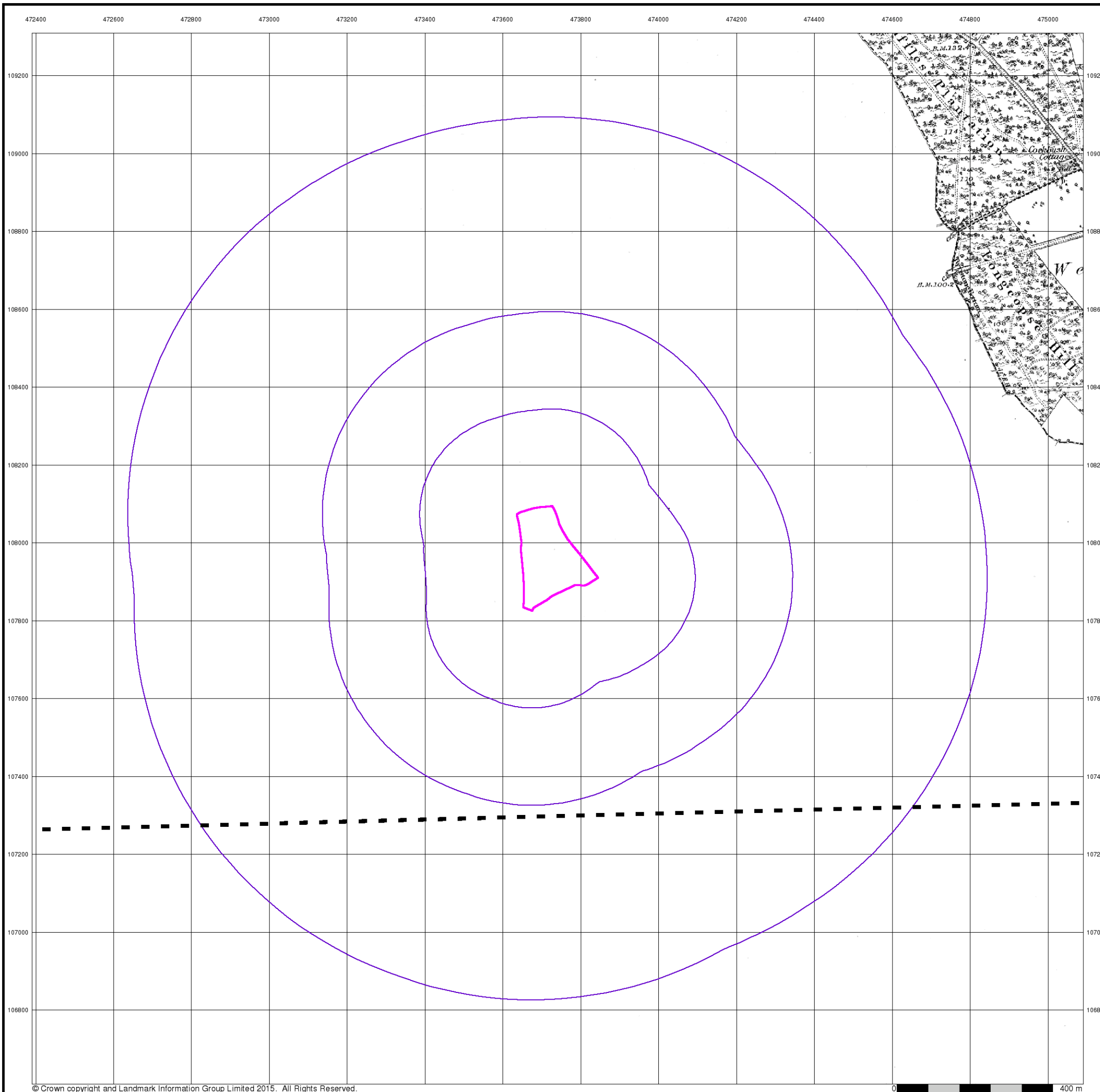
Order Number: 85480247_1_1
Customer Ref: GE15562
National Grid Reference: 473720, 107960
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Site Area (Ha): 3.17
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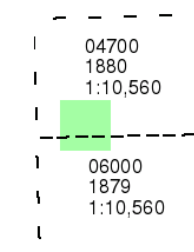
Geo-Environmental Sussex

Published 1879 - 1880

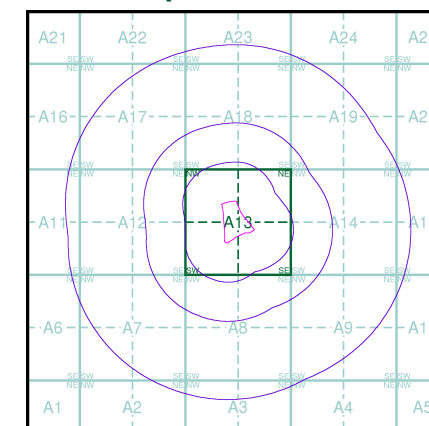
Source map scale - 1:10,560

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

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number: 85480247_1_1
Customer Ref: GE15562
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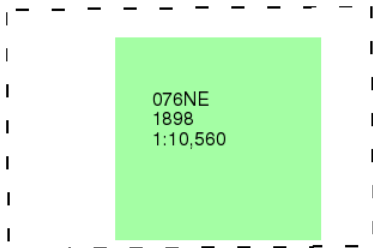
**Geo-Environmental
Hampshire & Isle Of Wight**

Published 1898

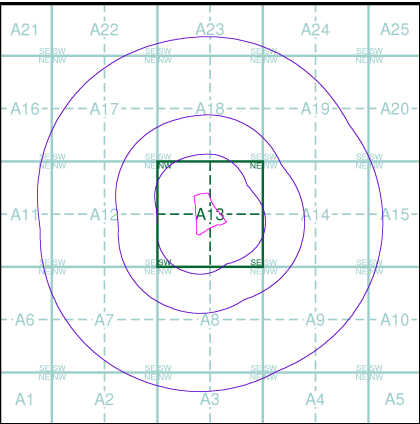
Source map scale - 1:10,560

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

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

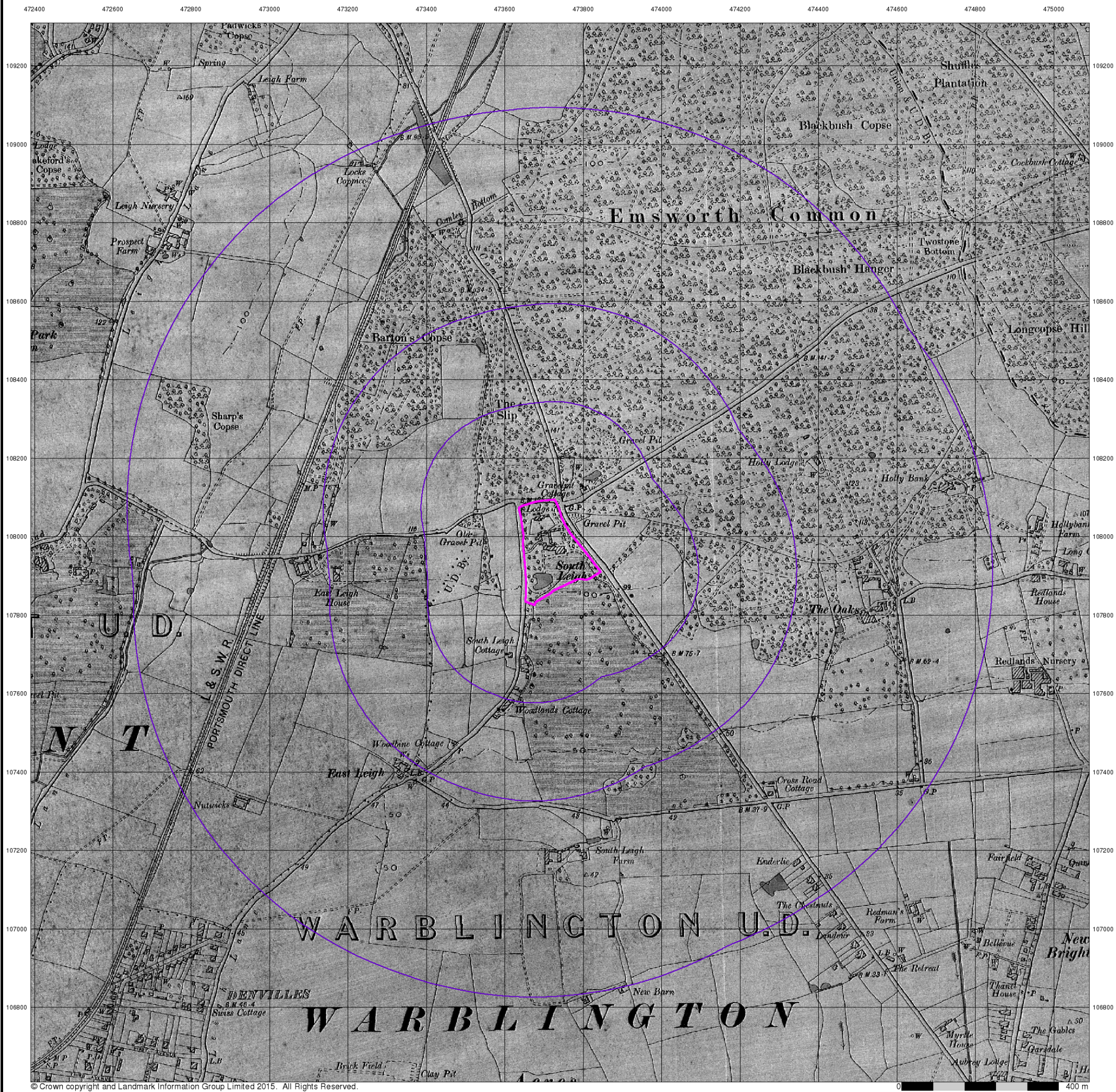
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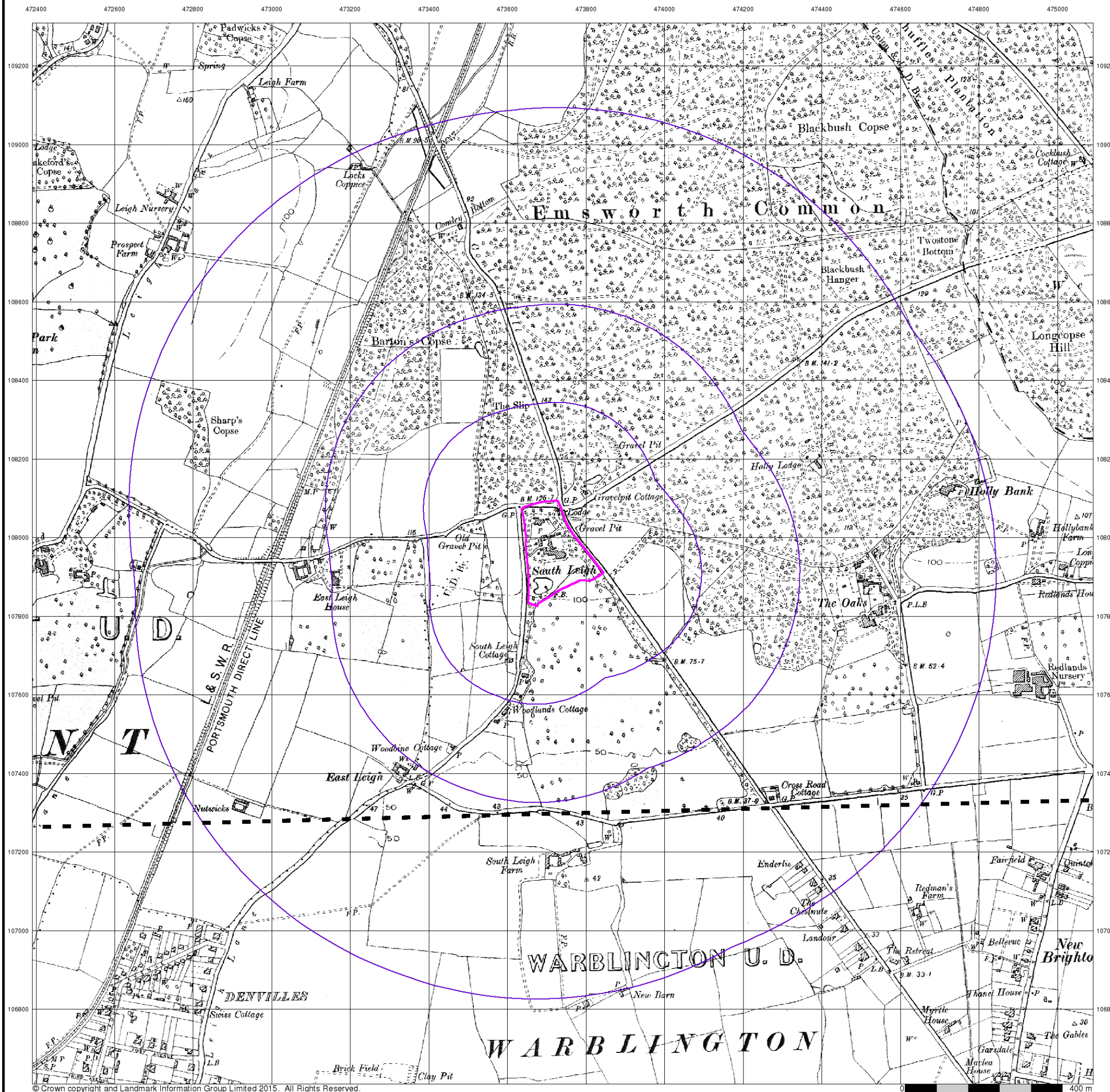
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Geo-Environmental Sussex

Published 1899

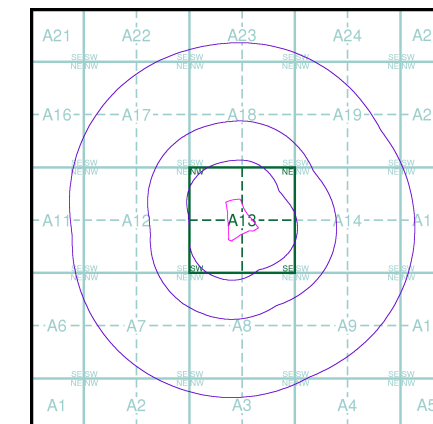
Source map scale - 1:10,560

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

Map Name(s) and Date(s)

047SW
1899
1:10,560
060NW
1899
1:10,560

Historical Map - Slice A



Order Details

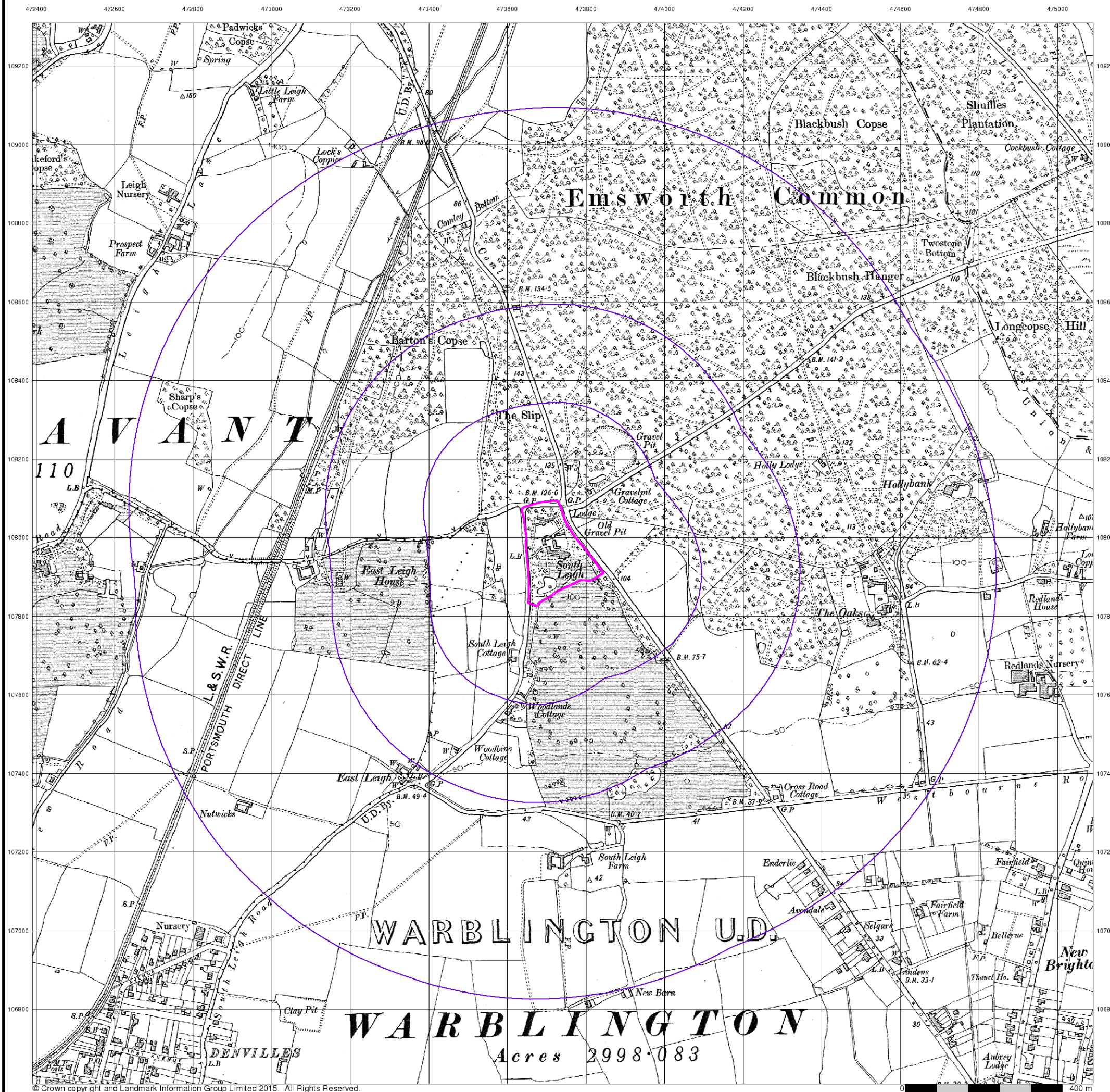
Order Number: 85480247_1_1
Customer Ref: GE15562
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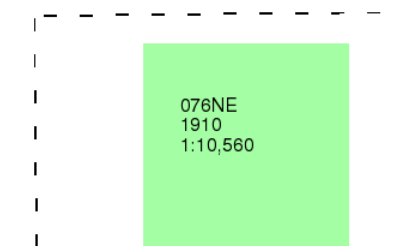
Geo-Environmental Hampshire & Isle Of Wight

Published 1910

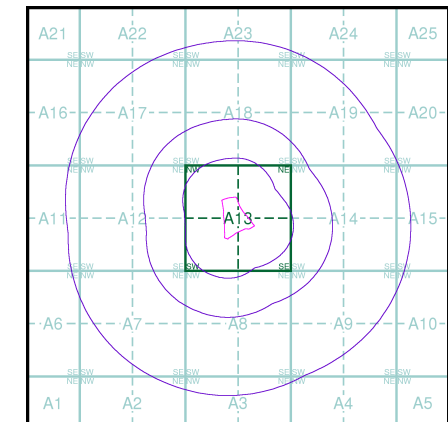
Source map scale - 1:10,560

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

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

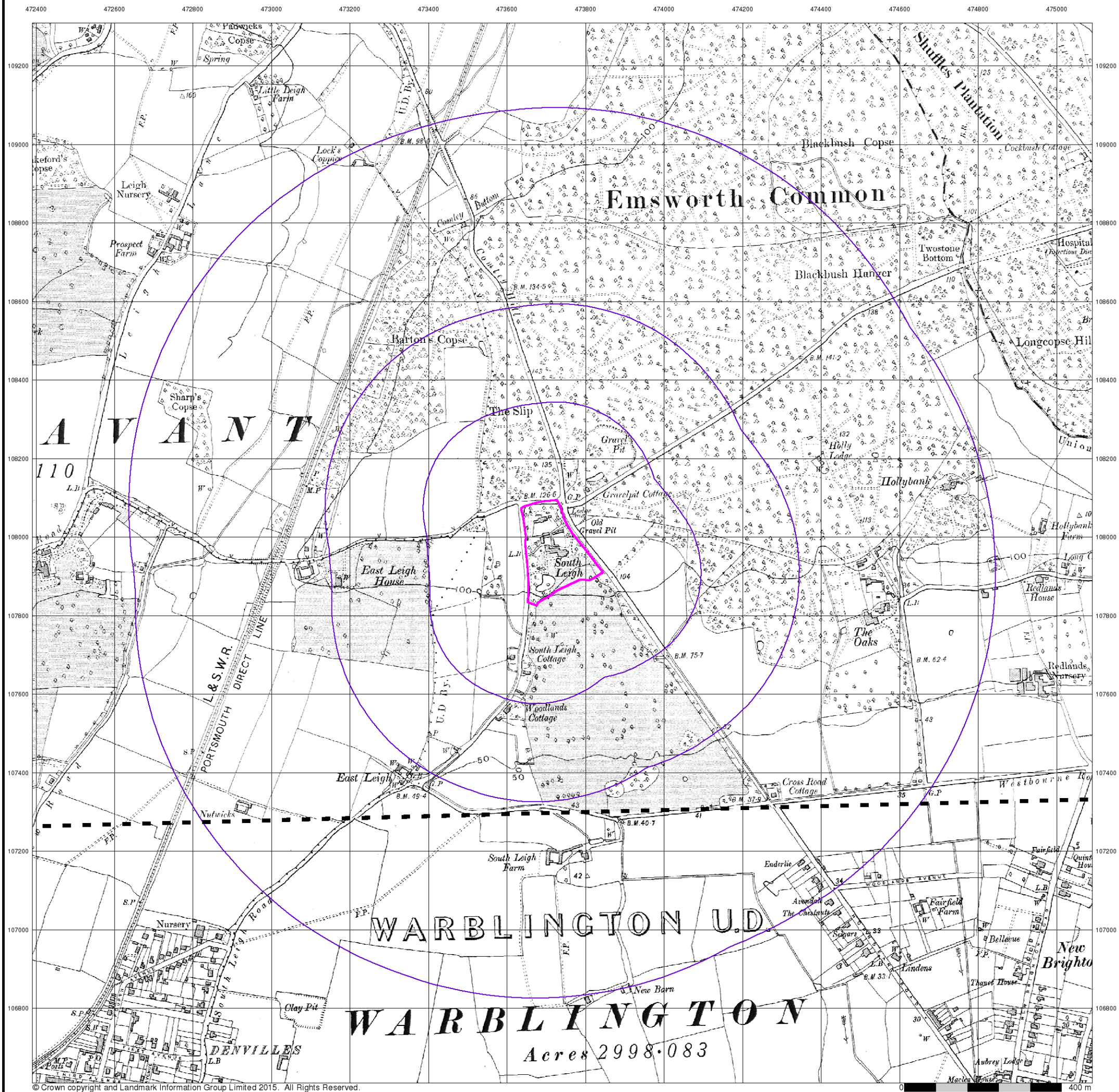
Order Number: 85480247_1_1
Customer Ref: GE15562
National Grid Reference: 473720, 107960
Slice: A
Site Area (Ha): 3.17
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Geo-Environmental Sussex

Published 1914

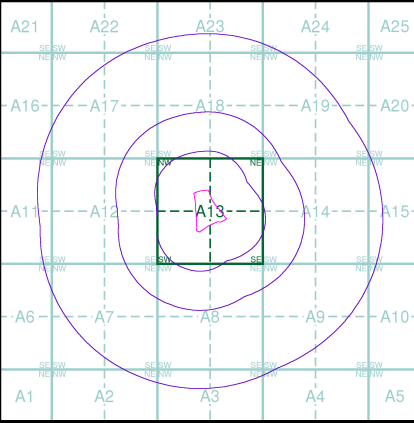
Source map scale - 1:10,560

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

Map Name(s) and Date(s)

047SW
1914
1:10,560
060NW
1914
1:10,560

Historical Map - Slice A



Order Details

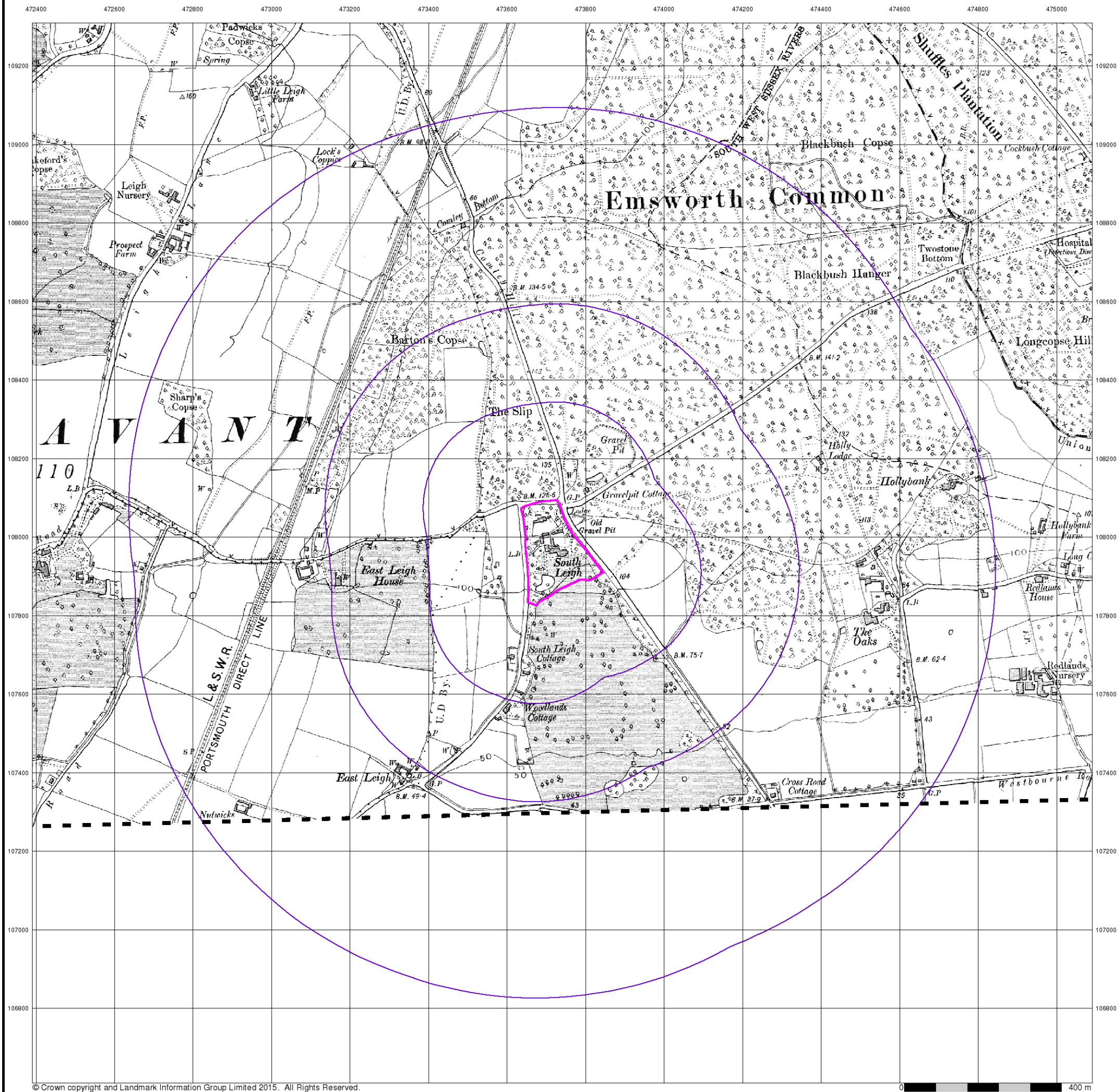
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Slice:	A
Site Area (Ha):	3.17
Search Buffer (m):	1000

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0 400 m



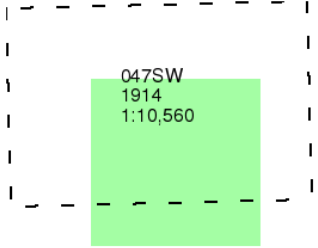
Geo-Environmental Sussex

Published 1914

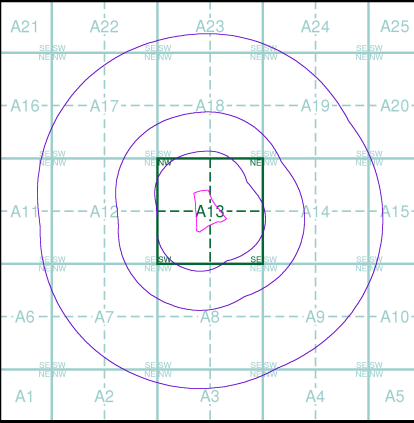
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The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps.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

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

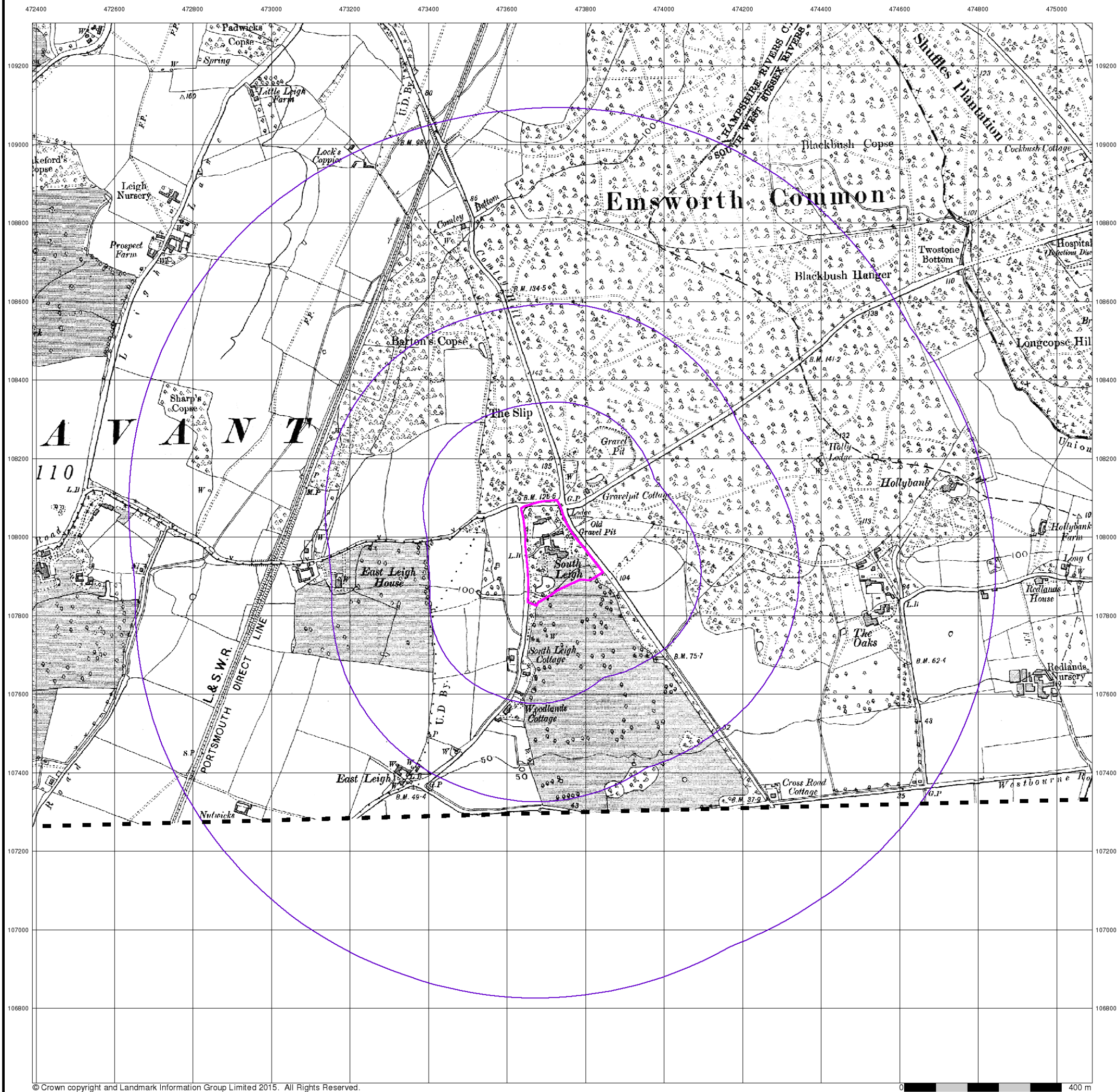
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Slice: A
Site Area (Ha): 3.17
Search Buffer (m): 1000

Site Details

Southleigh Park House, Eastleigh Road, HAVANT, Hampshire, PO9 2PE



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Fax: 0844 844 9951
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0 400 m



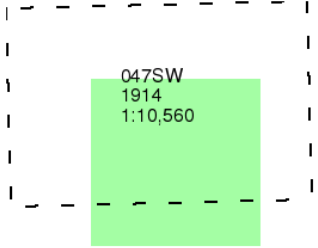
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Published 1914

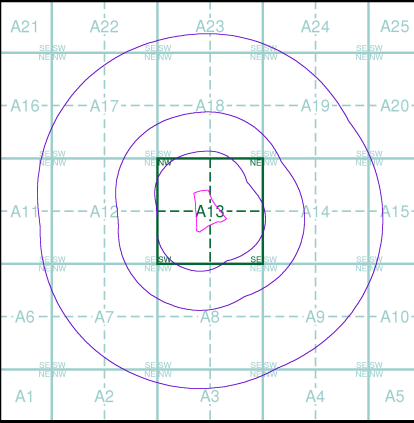
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Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

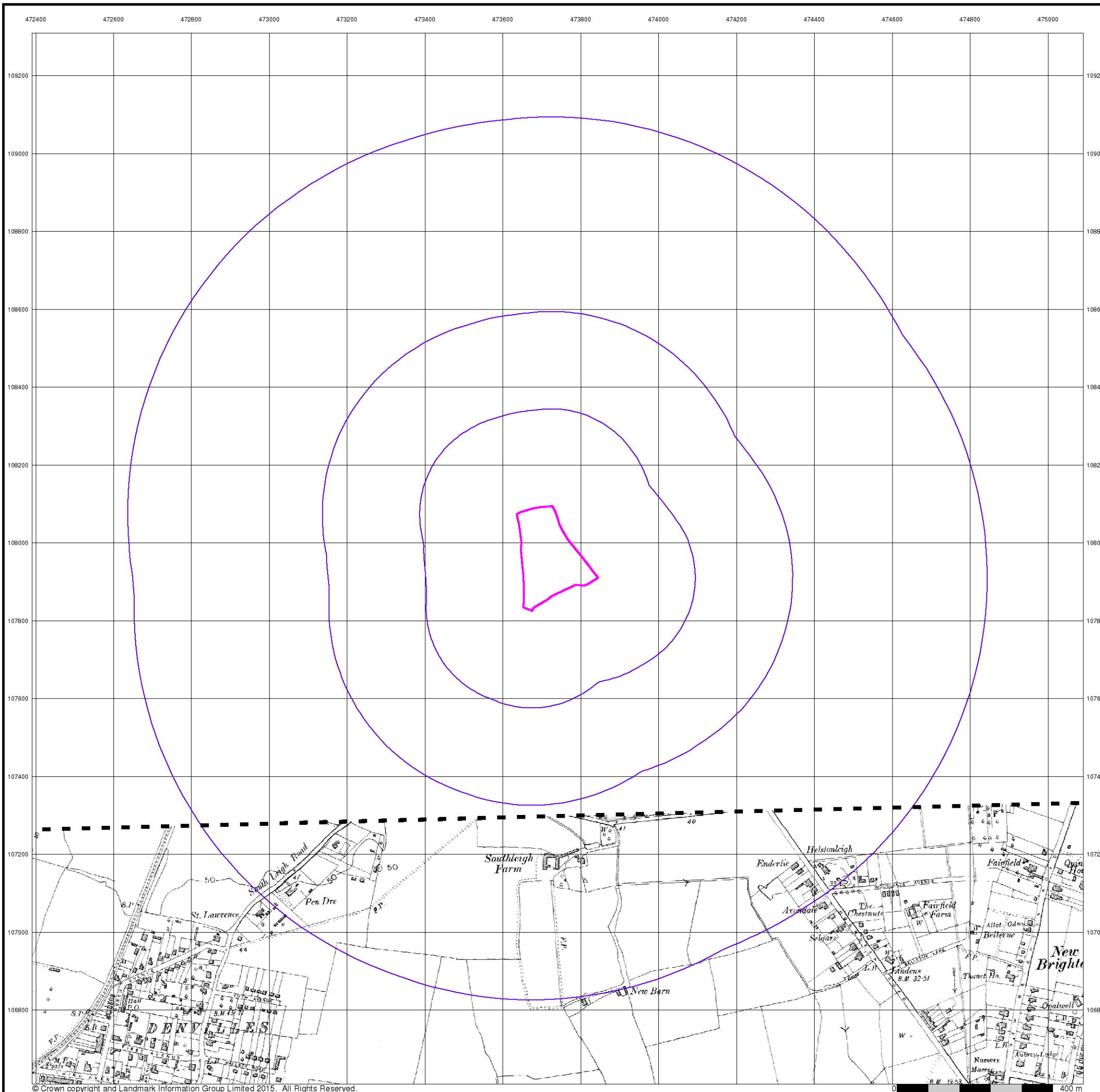
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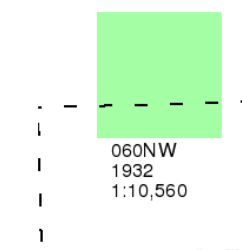
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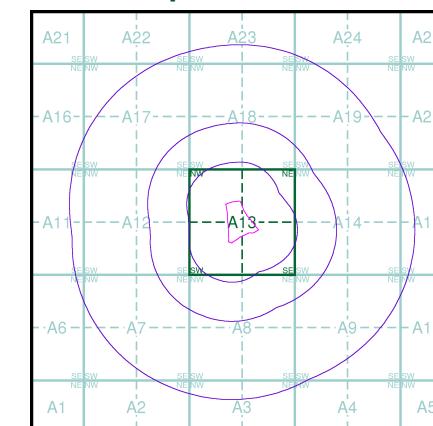
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Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

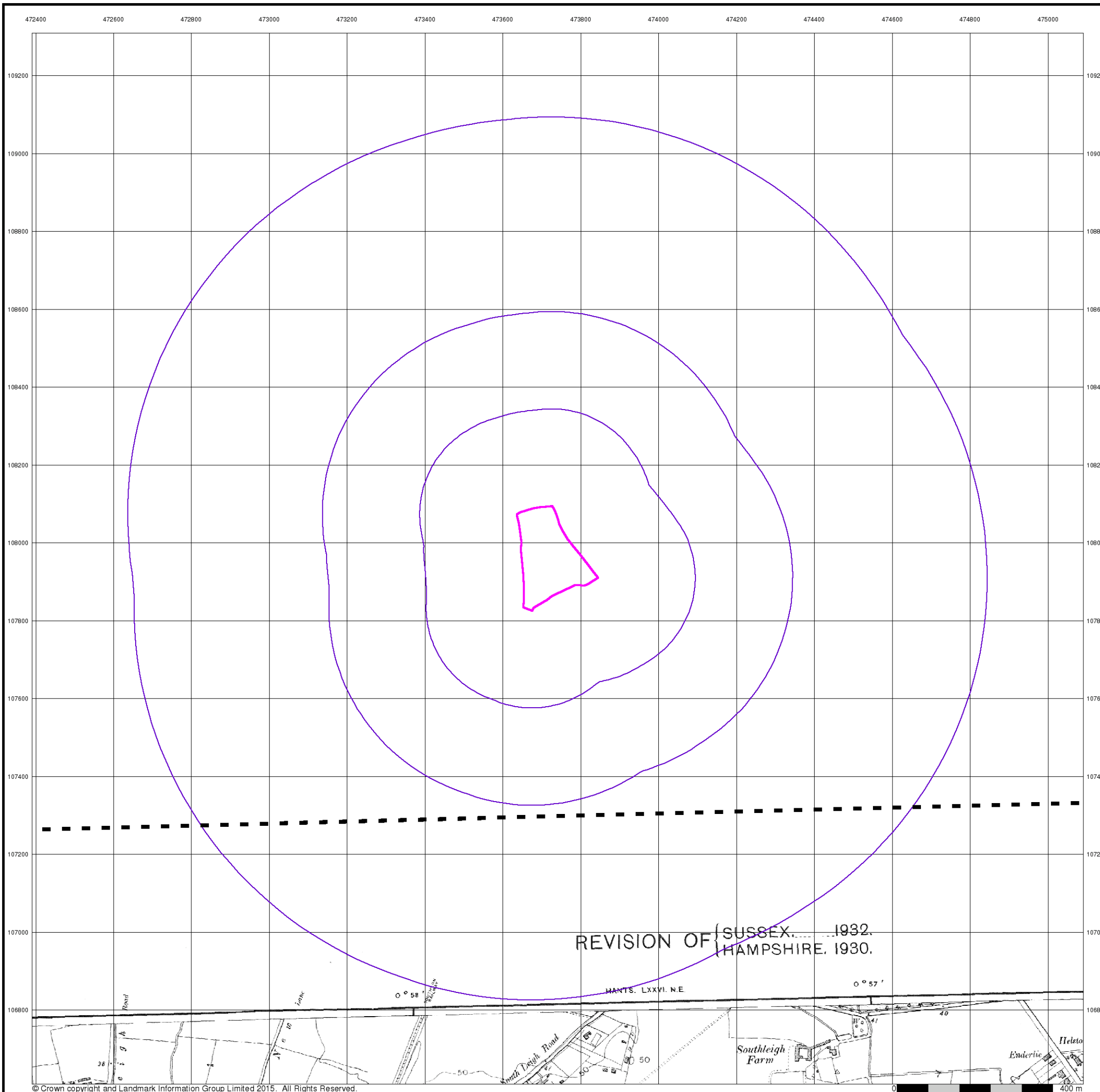
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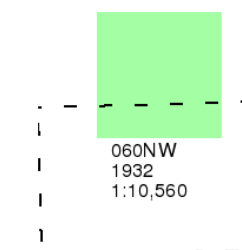
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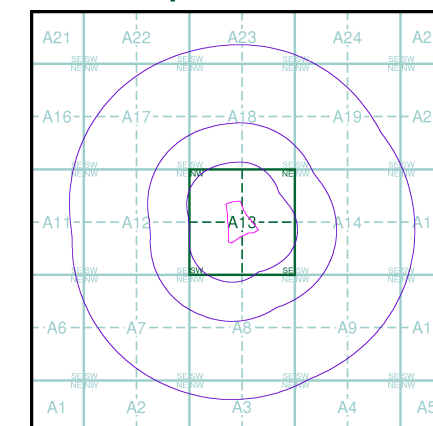
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Map Name(s) and Date(s)



Historical Map - Slice A



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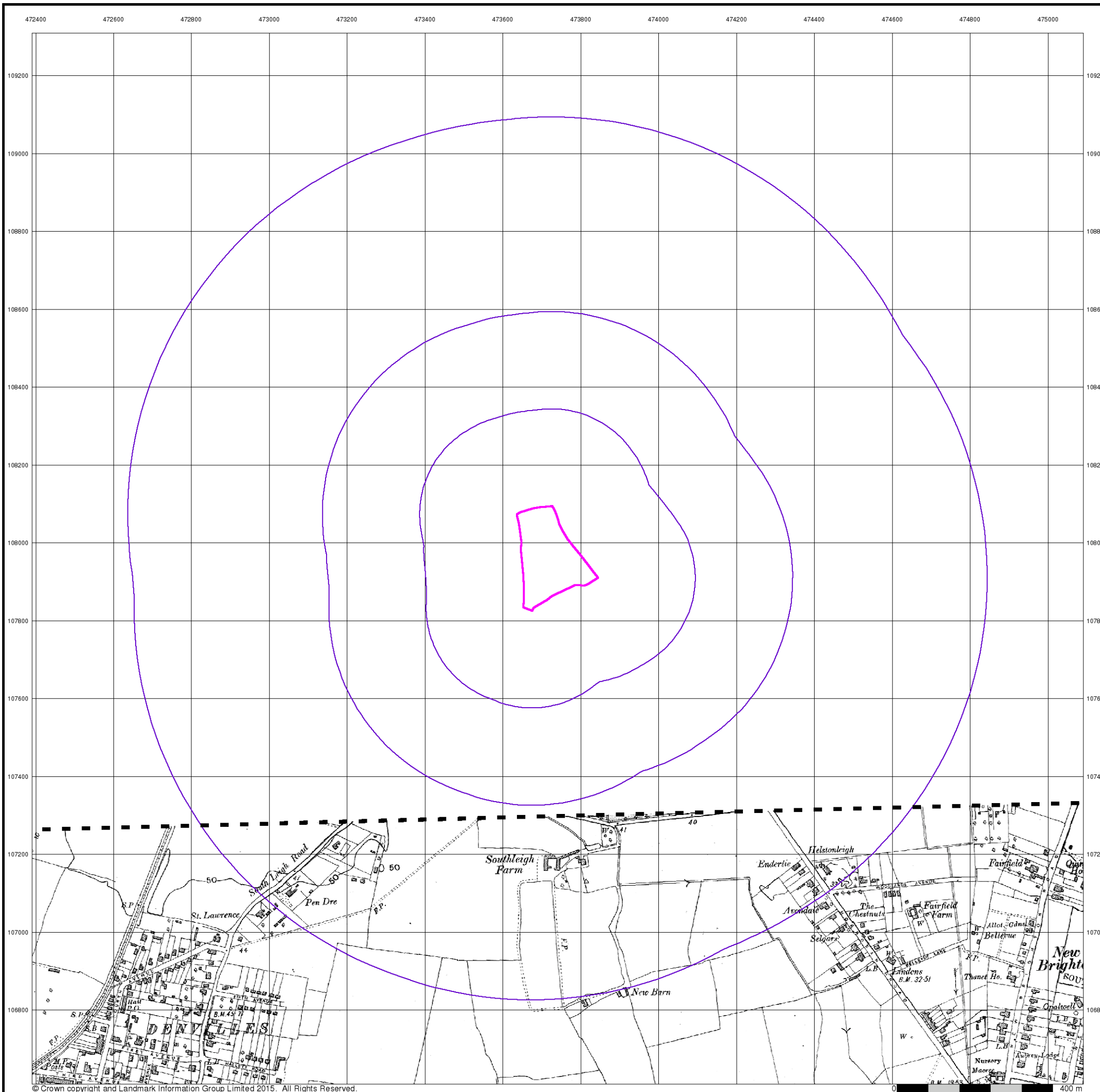
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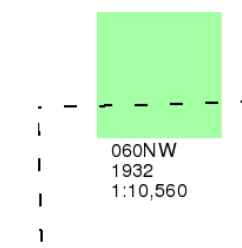
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Sussex**

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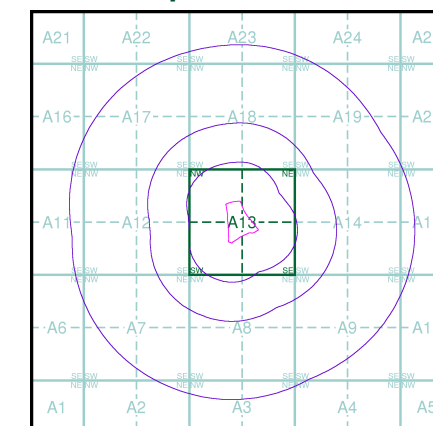
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Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

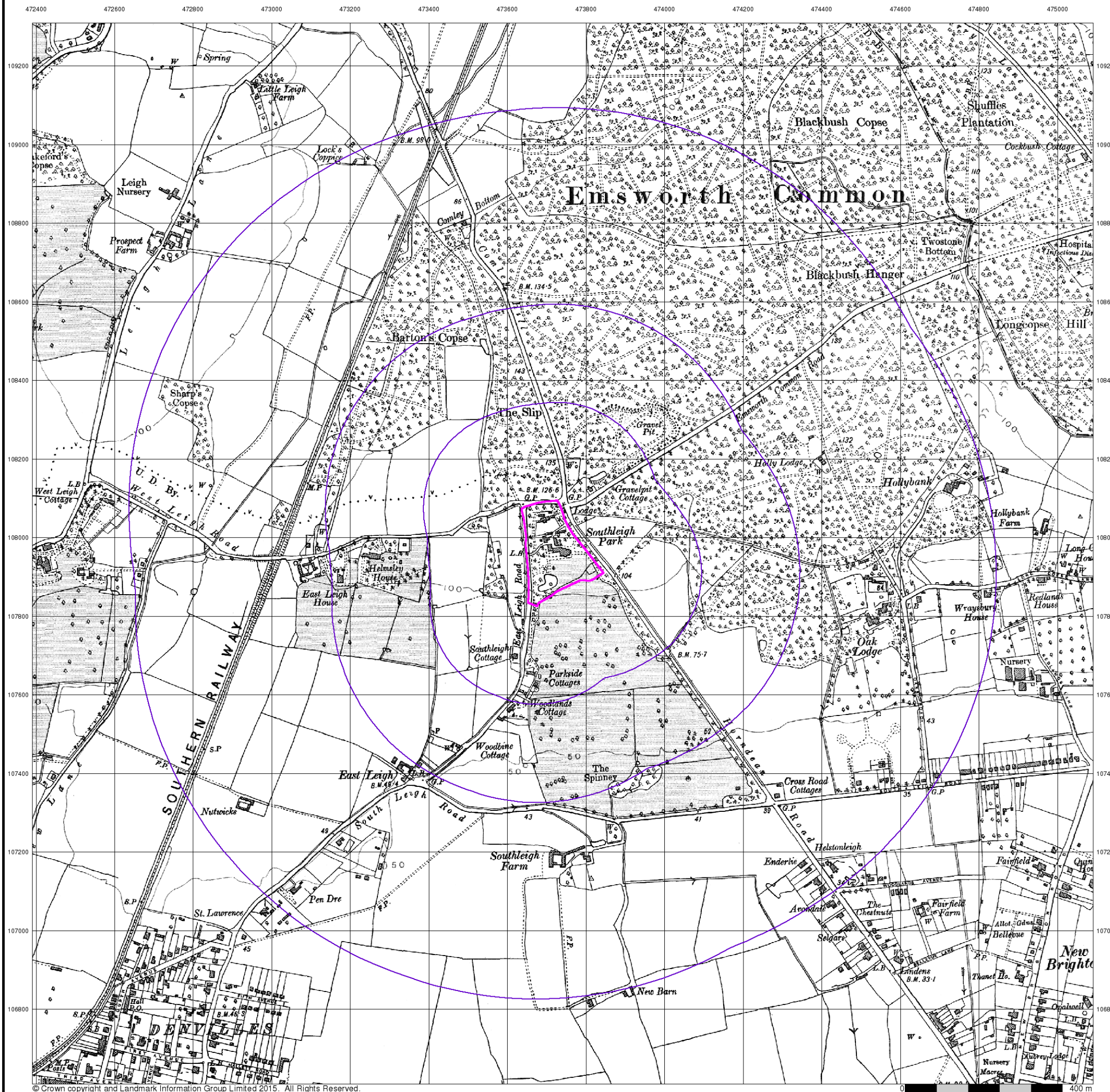
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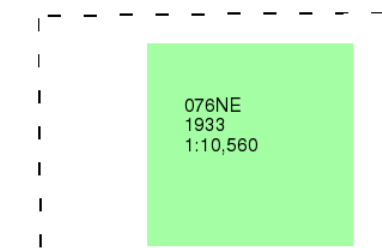
Geo-Environmental Hampshire & Isle Of Wight

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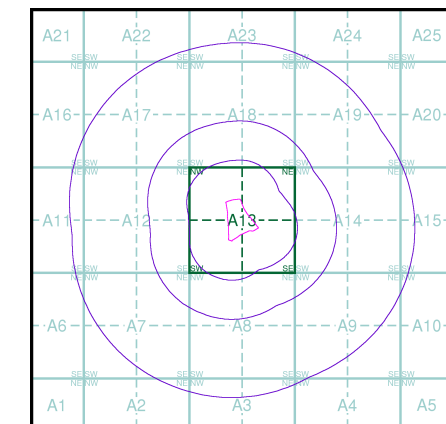
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Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number: 85480247_1_1
Customer Ref: GE15562
National Grid Reference: 473720, 107960
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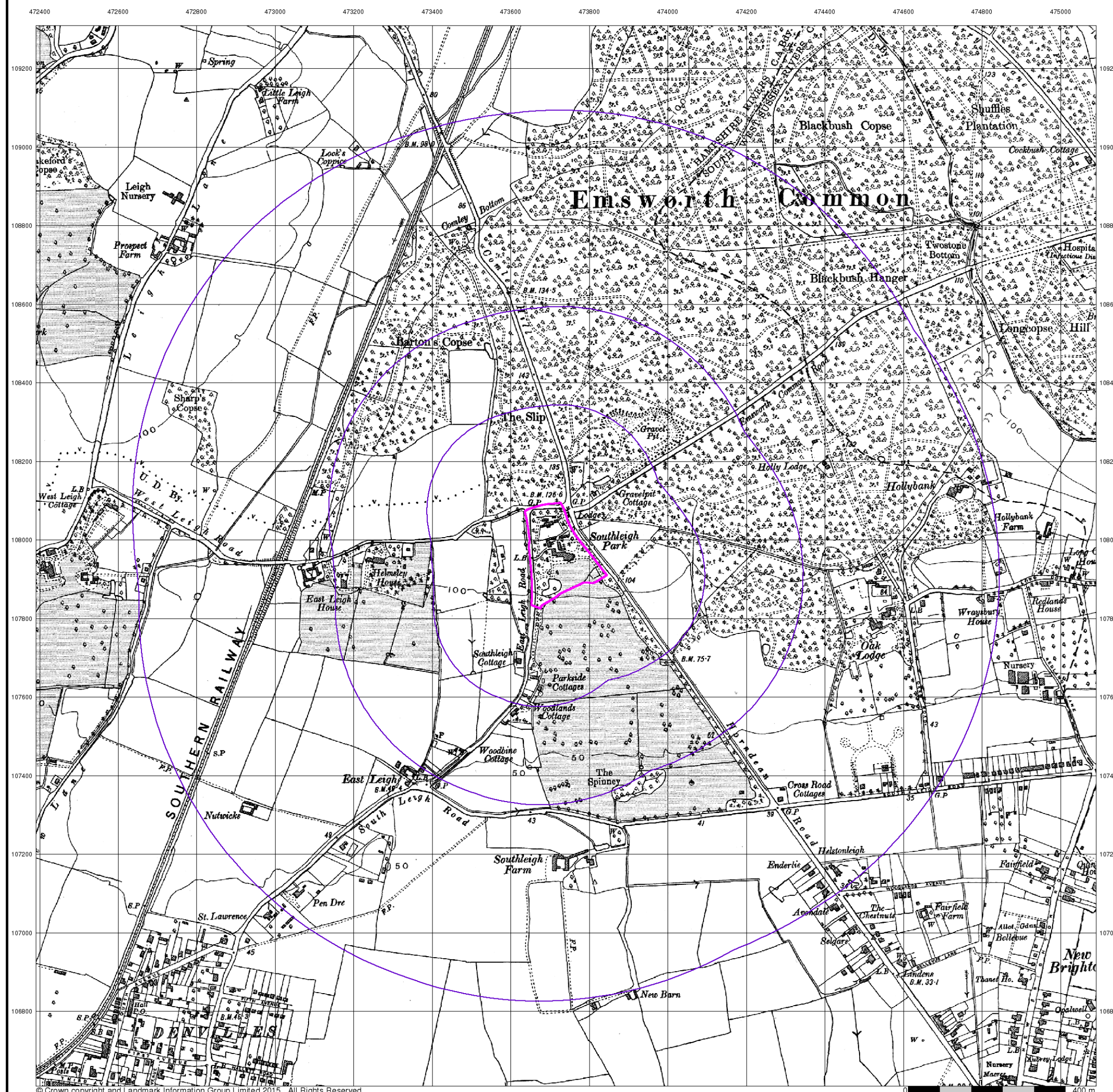


076NE
1933
1:10,560



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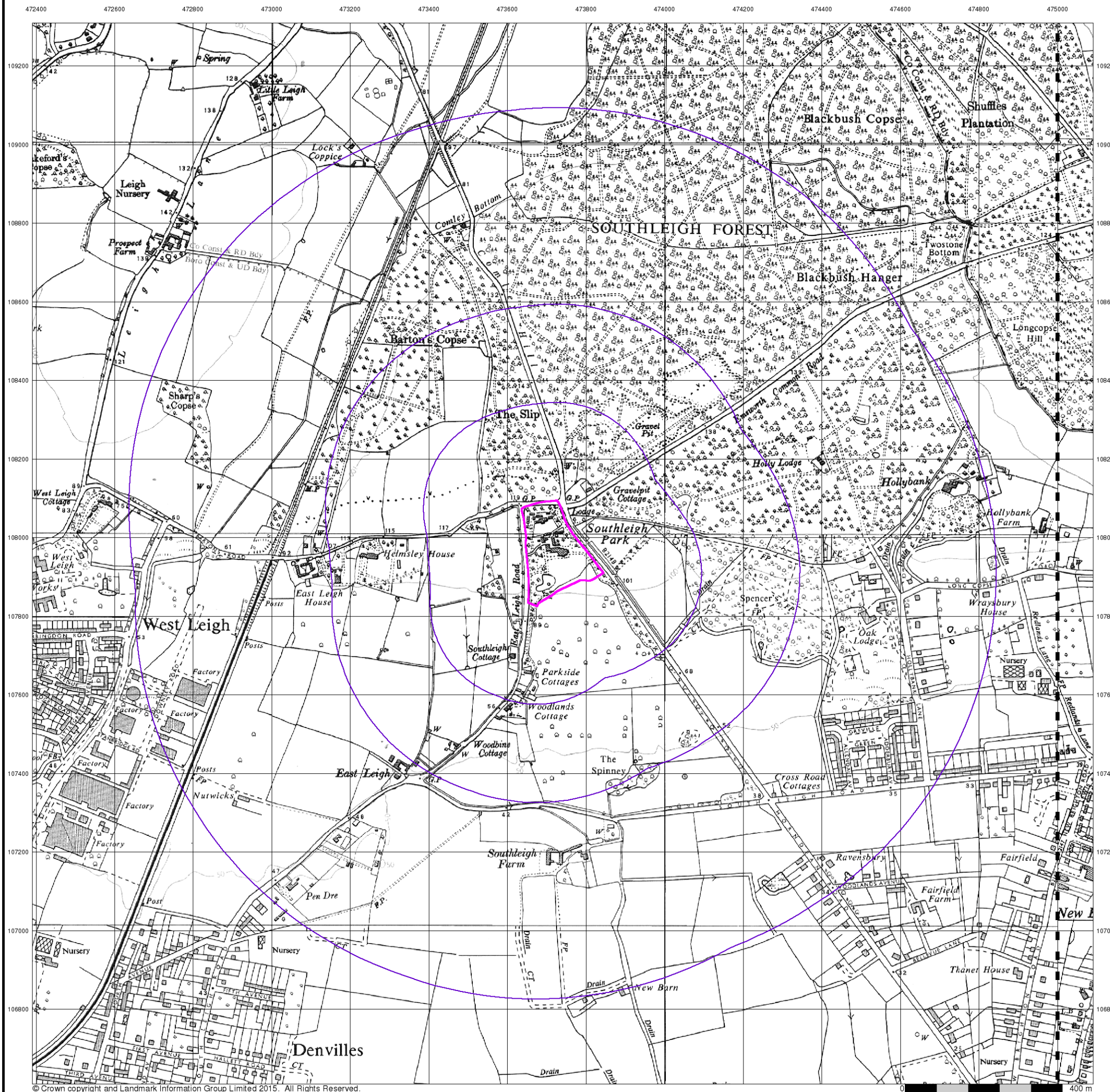
Southleigh Park House, Eastleigh Road, HAVANT, Hampshire,
PO9 2PE





076NE
1938
1:10,560

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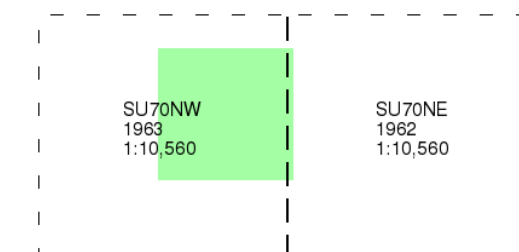
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Published 1962 - 1963

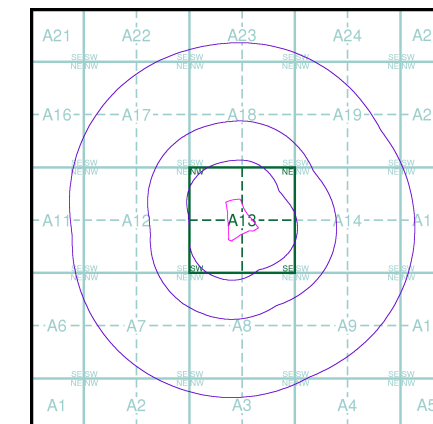
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Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

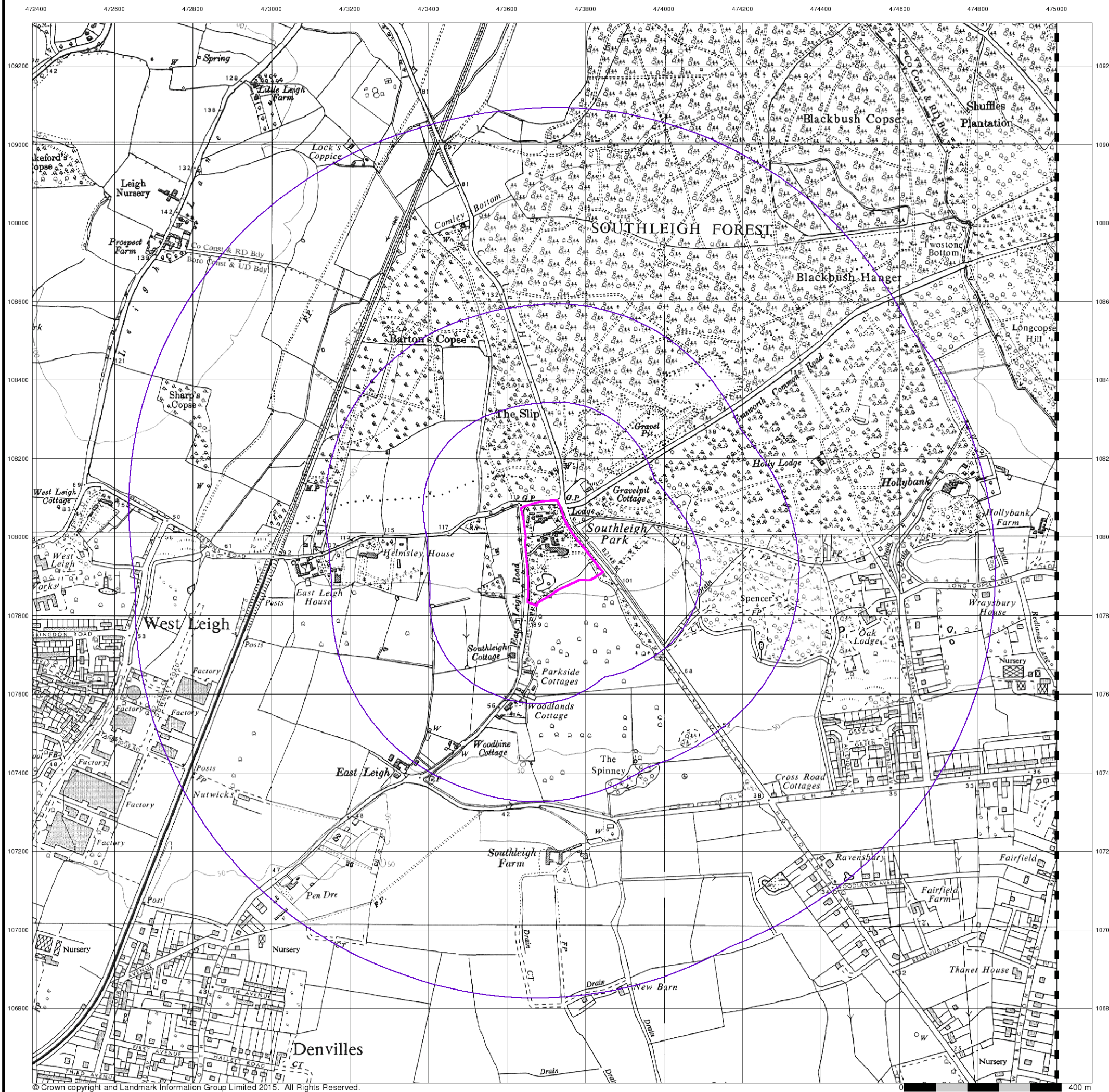
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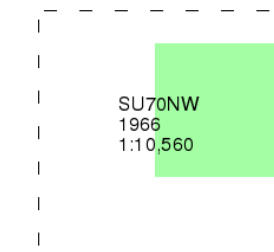
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Published 1966

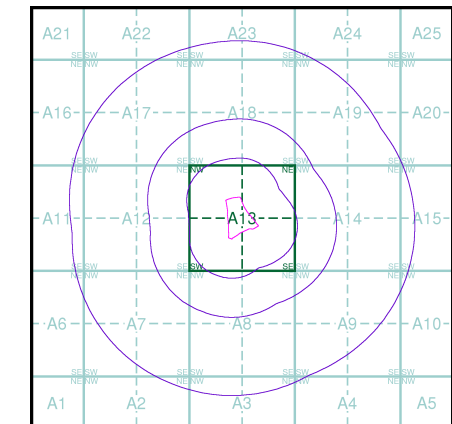
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Map Name(s) and Date(s)



Historical Map - Slice A



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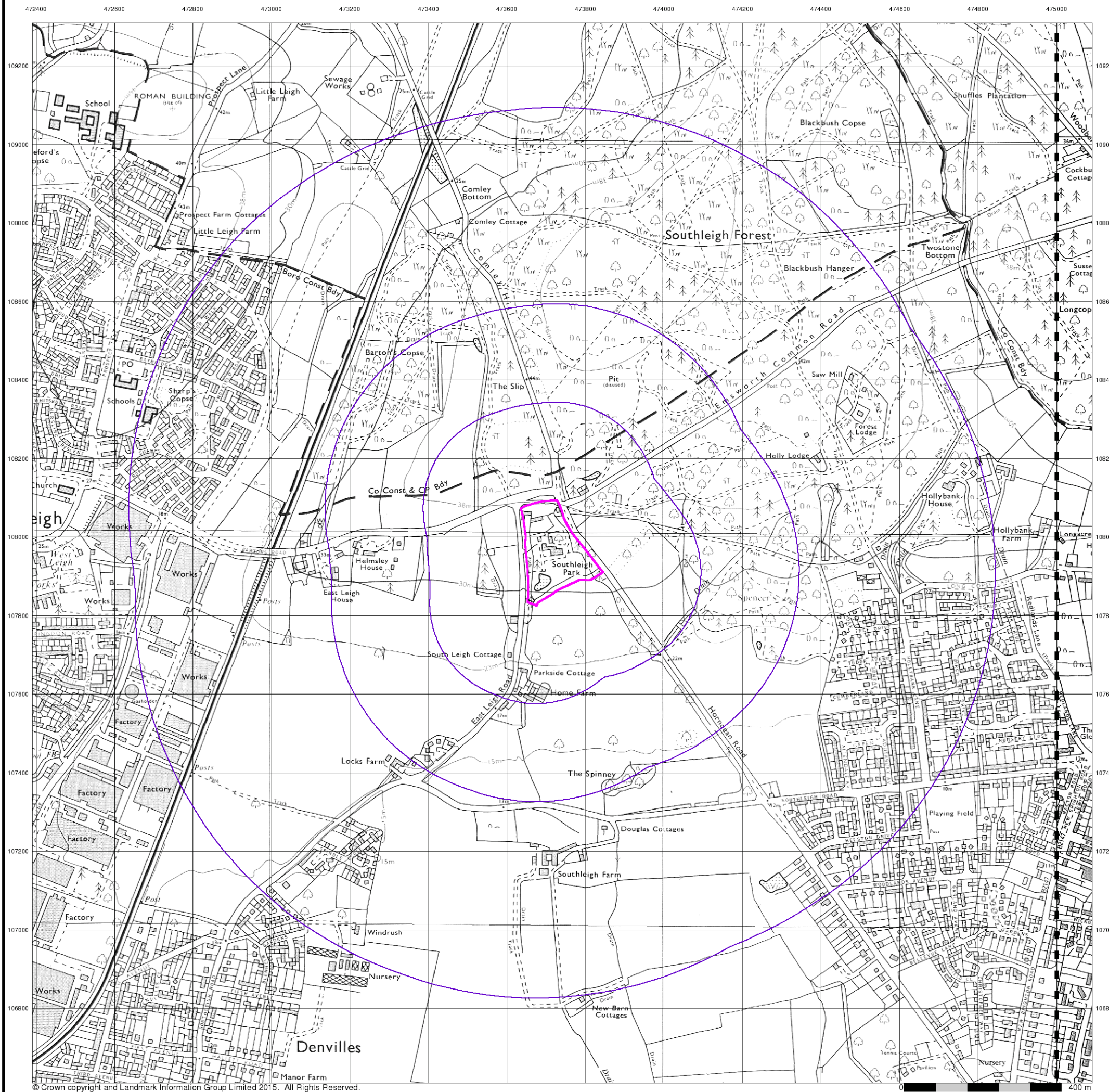
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PO9 2PE



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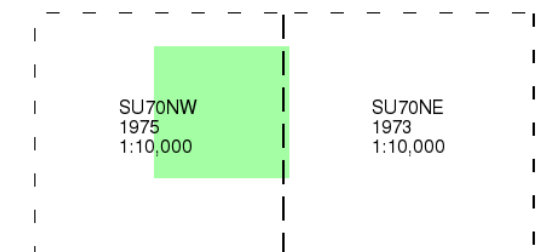
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Published 1973 - 1975

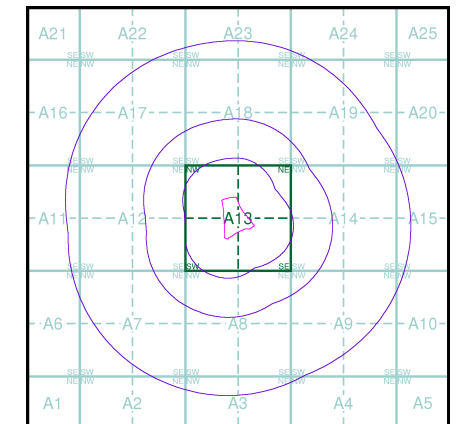
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Map Name(s) and Date(s)



Historical Map - Slice A



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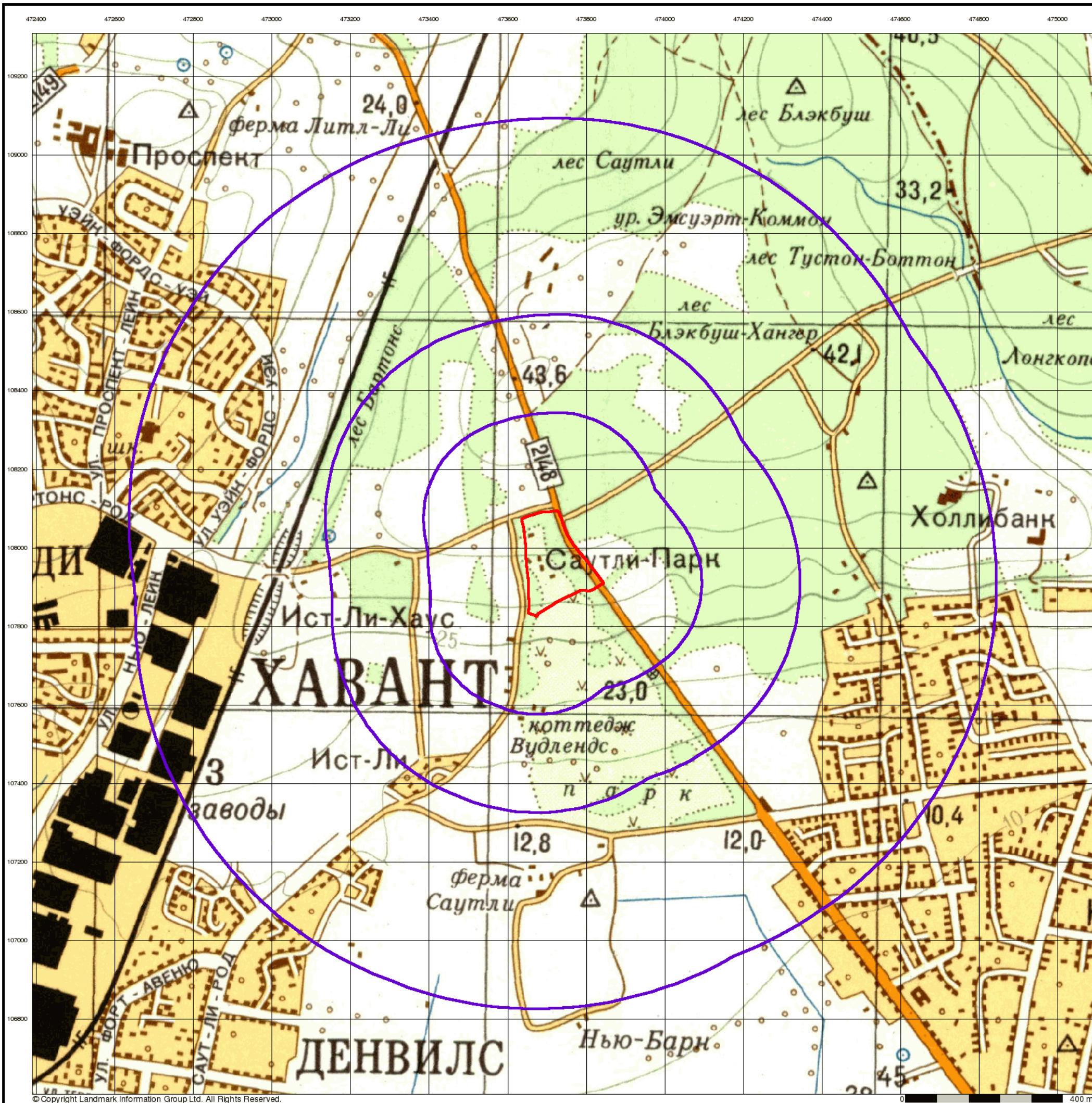
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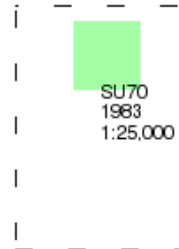
Geo-Environmental Havant

Published 1983

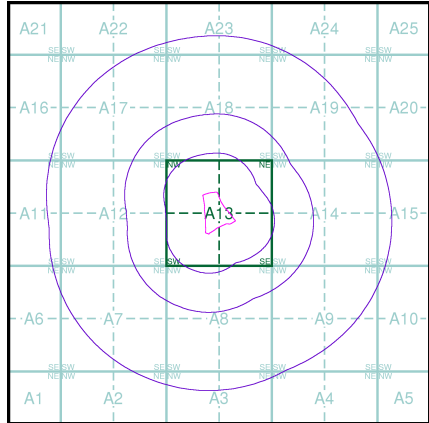
Source map scale - 1:25,000

These maps were produced by the Russian military during the Cold War between 1950 and 1997, and cover 103 towns and cities throughout the U.K. The maps are produced at 1:25,000, 1:10,000 and 1:5,000 scale, and show detailed land use, with colour-coded areas for development, green areas, and non-developed areas. Buildings are coloured black and important building uses (such as hospitals, post offices, factories etc.) are numbered, with a numbered key describing their use. They were produced by the Russians for the benefit of navigation, as well as strategic military sites and transport hubs, for use if they were to have invaded the U.K. The detailed information provided indicates that the areas were surveyed using land-based personnel, on the ground, in the cities that are mapped.

Map Name(s) and Date(s)



Russian Map - Slice A



Order Details

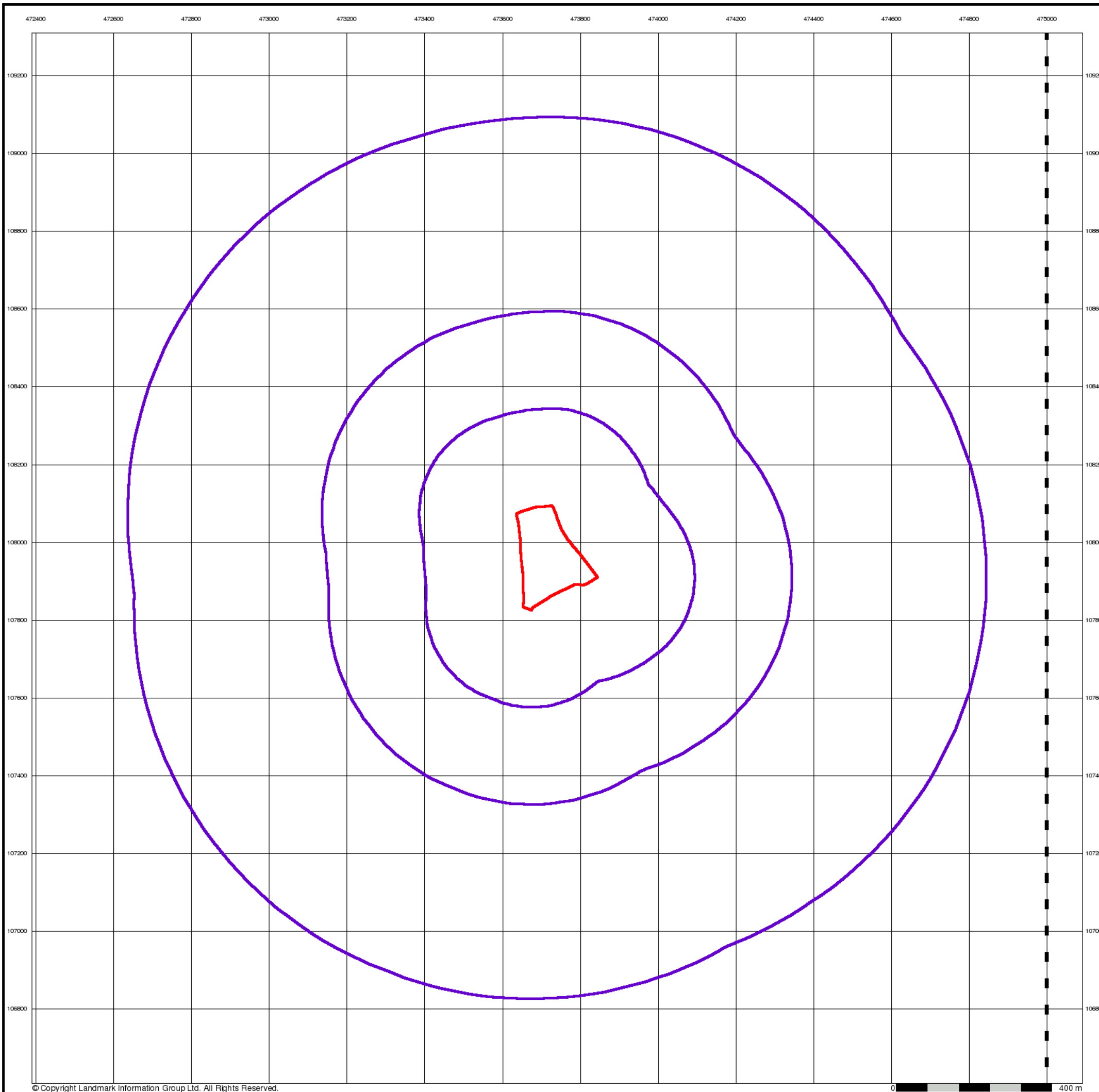
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Geo-Environmental Portsmouth

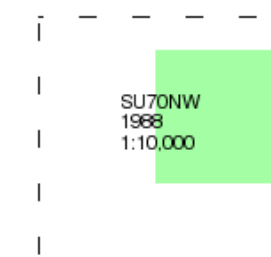
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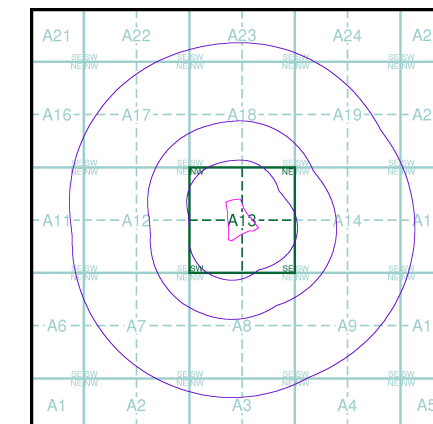
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Russian Map - Slice A



Order Details

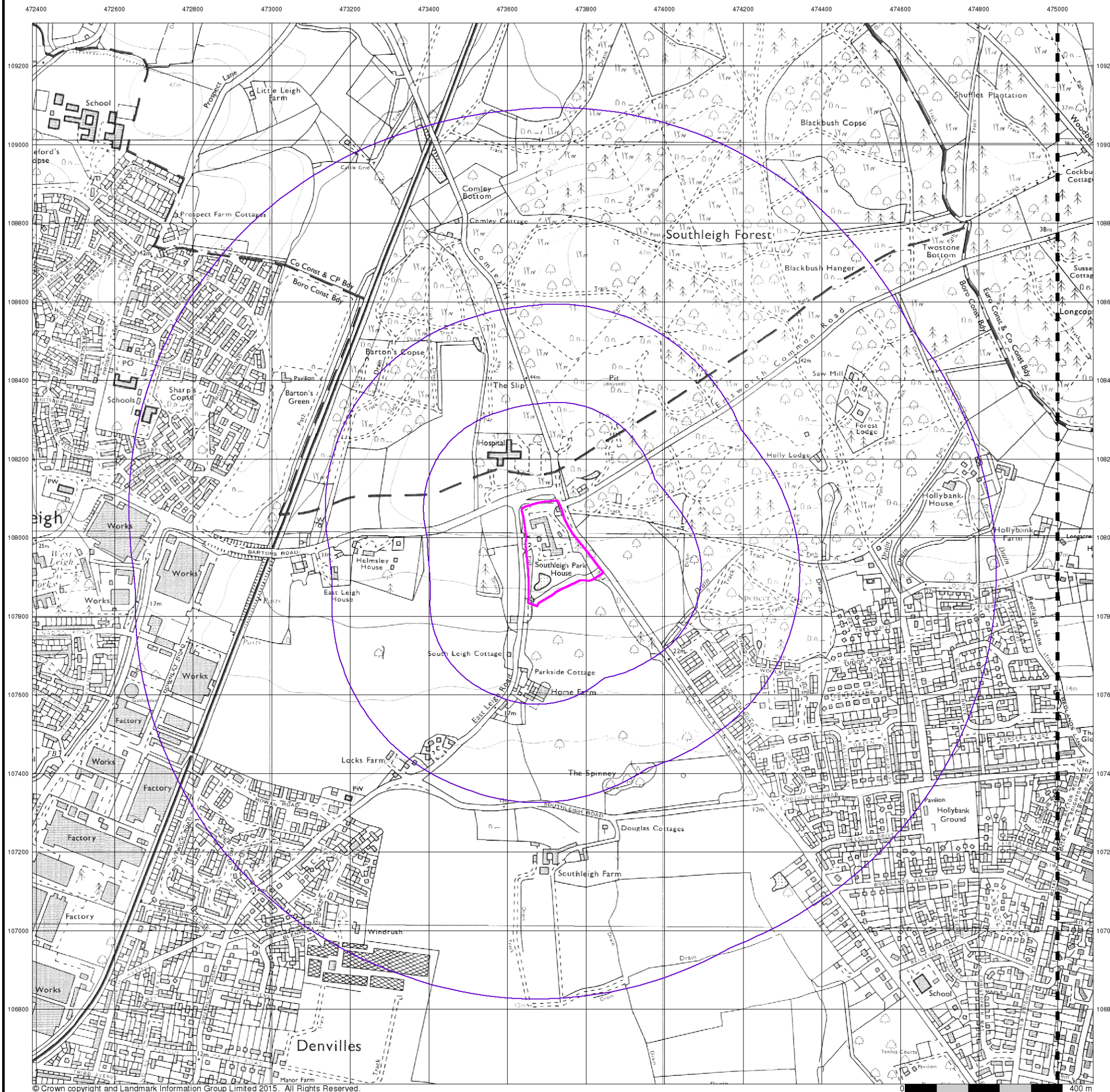
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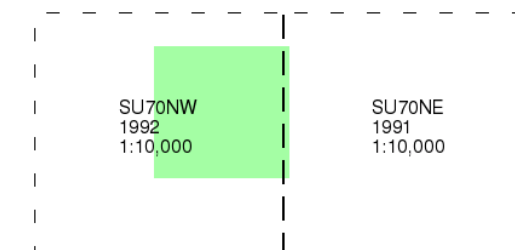
Geo-Environmental Ordnance Survey Plan

Published 1991 - 1992

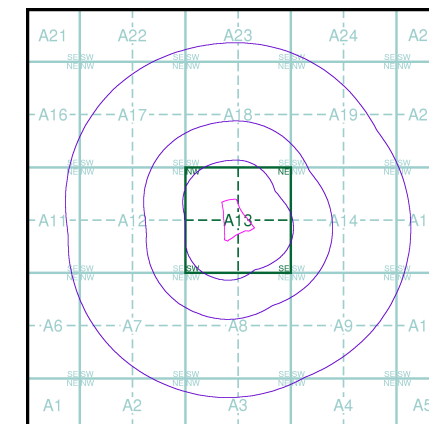
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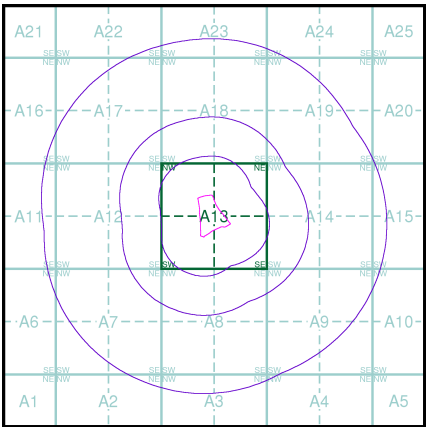


Geo-Environmental
Historical Aerial Photography
Published 1999

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



Historical Aerial Photography - Slice A



Order Details

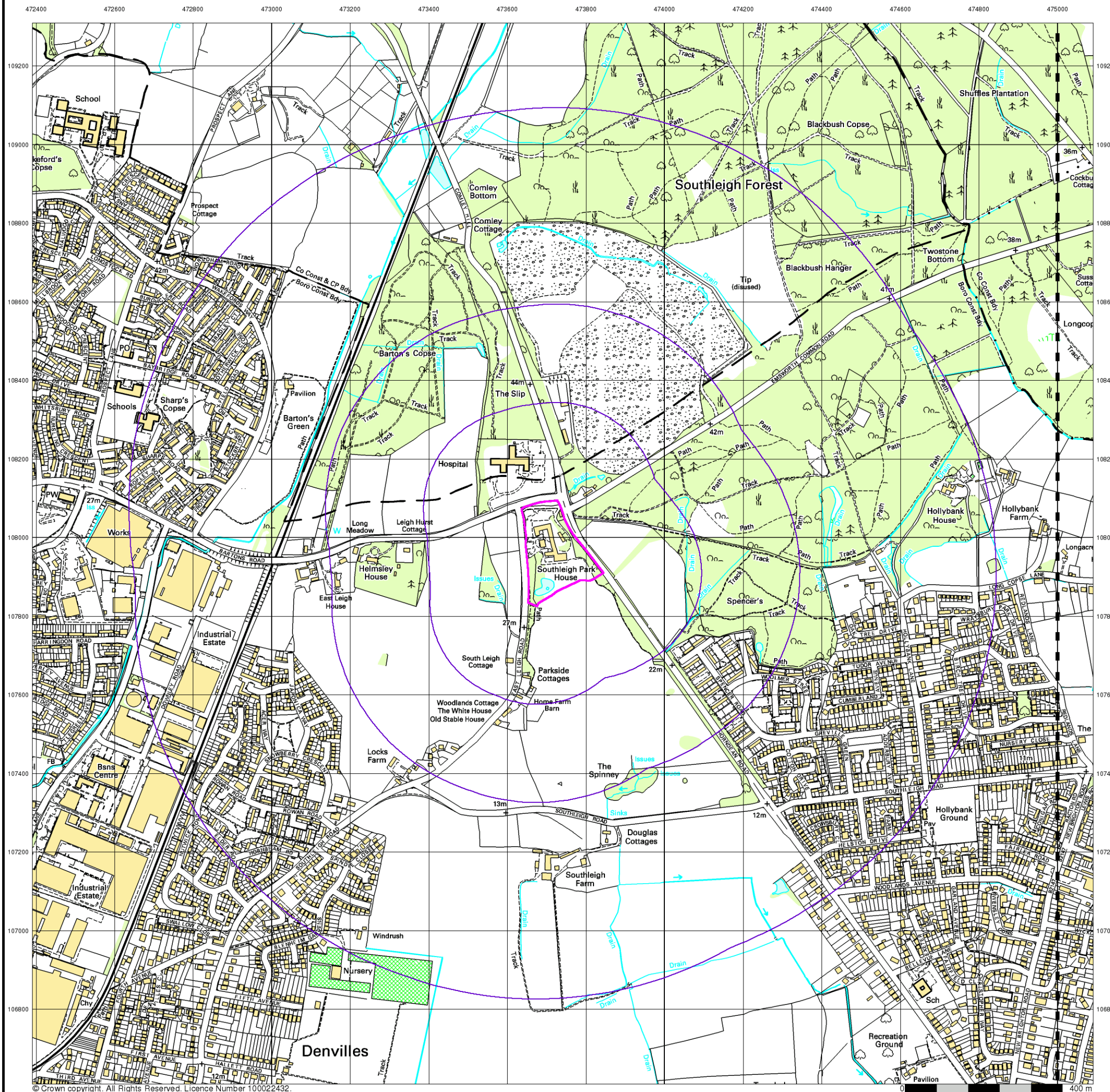
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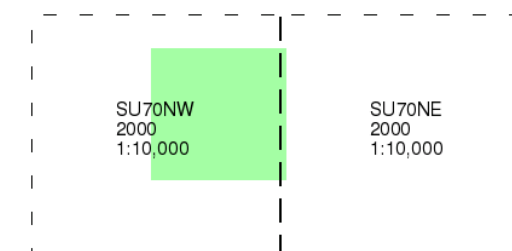
Geo-Environmental 10k Raster Mapping

Published 2000

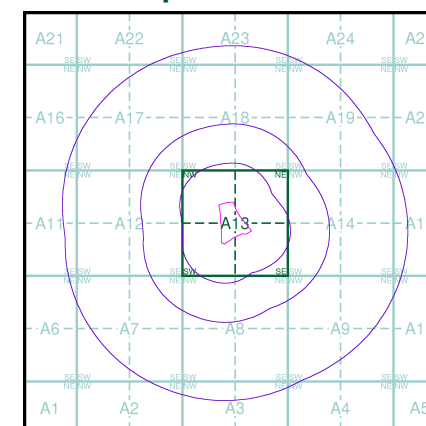
Source map scale - 1:10,000

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

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number: 85480247_1_1
Customer Ref: GE15562
National Grid Reference: 473720, 107960
Slice: A
Site Area (Ha): 3.17
Search Buffer (m): 1000

Site Details

Southleigh Park House, Eastleigh Road, HAVANT, Hampshire,
PO9 2PE



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



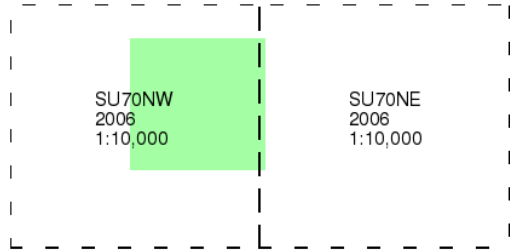
**Geo-Environmental
10k Raster Mapping**

Published 2006

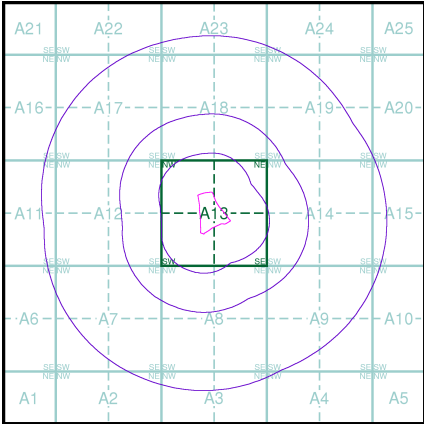
Source map scale - 1:10,000

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

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

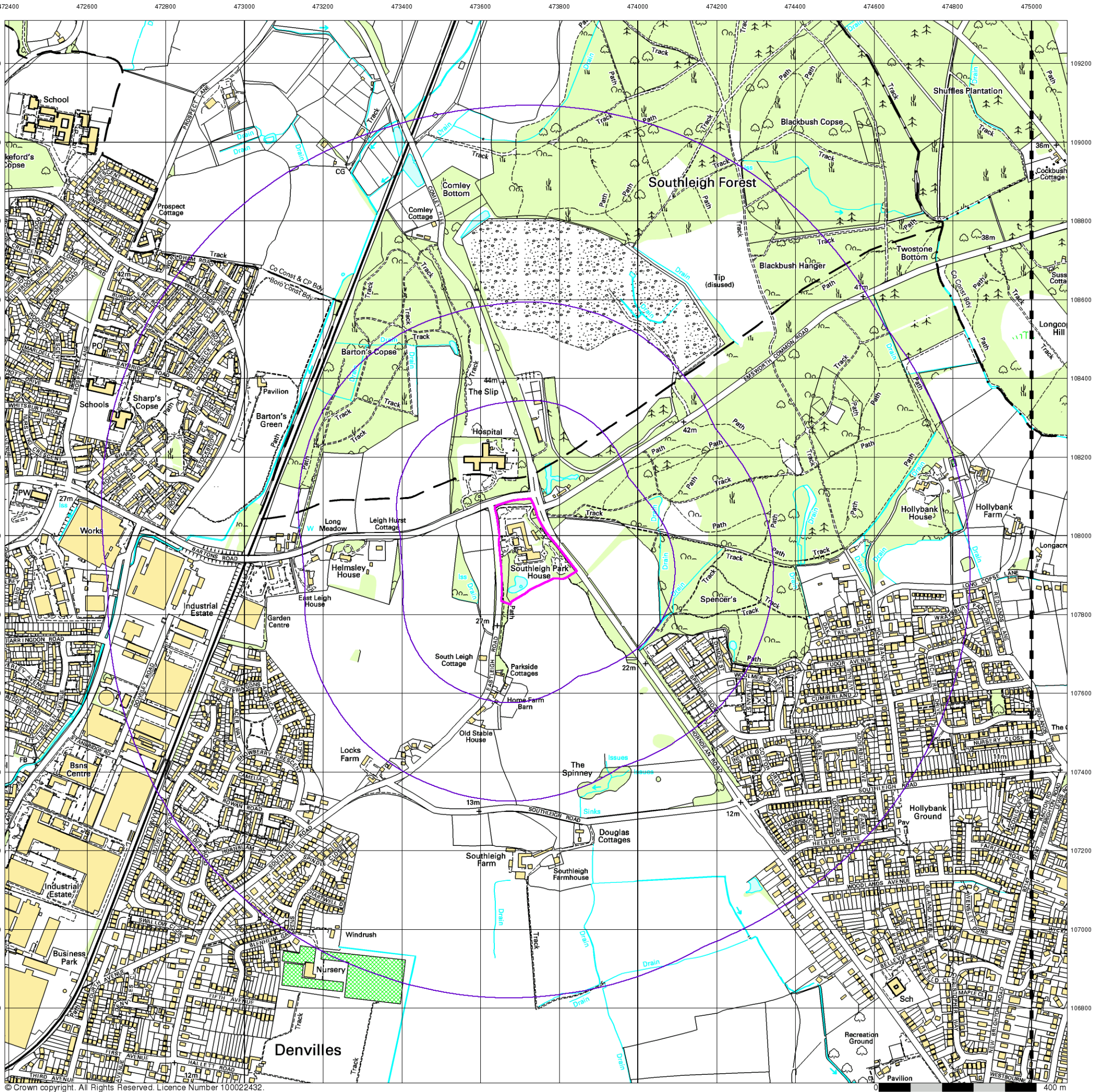
Order Number: 85480247_1_1
Customer Ref: GE15562
National Grid Reference: 473720, 107960
Slice: A
Site Area (Ha): 3.17
Search Buffer (m): 1000

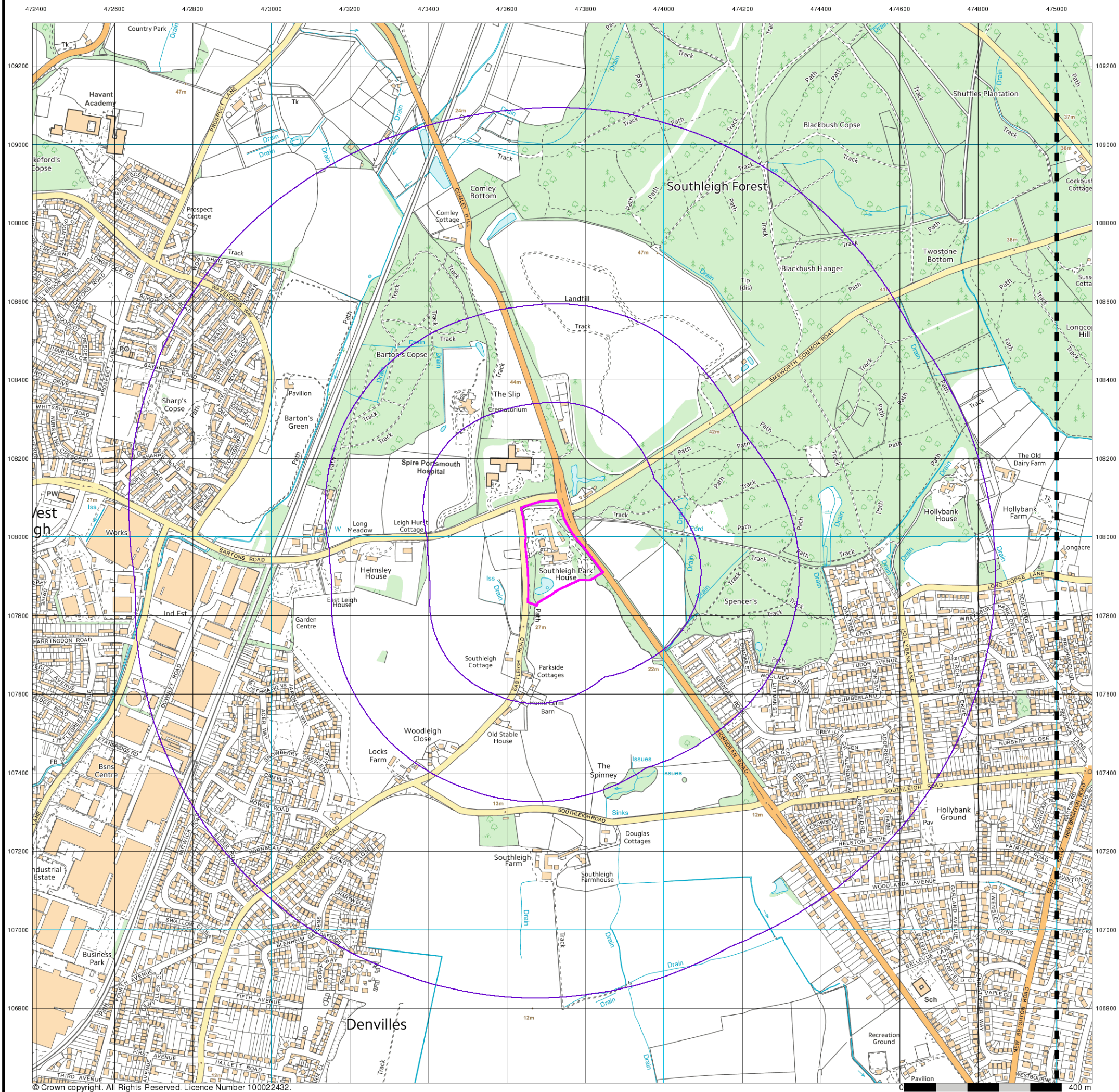
Site Details

Southleigh Park House, Eastleigh Road, HAVANT, Hampshire, PO9 2PE



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





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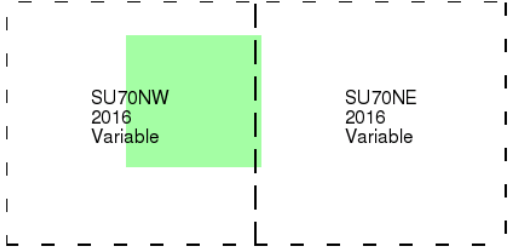
Geo-Environmental VectorMap Local

Published 2016

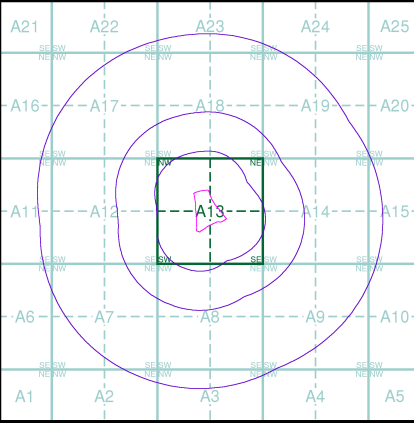
Source map scale - 1:10,000

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

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

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Site Details

Southleigh Park House, Eastleigh Road, HAVANT, Hampshire, PO9 2PE



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

Appendix D
Southern Water Correspondence



Ardent Consulting Engineers
Suite 207
One Alie Street
Aldgate
London

E1 8DE

Job No	Date
160720	9/11/16
Director	Circulation
TJF	MJR

Developer Services
Southern Water
Sparrowgrove House
Sparrowgrove
Otterbourne
Hampshire
SO21 2SW

Tel: **0330 303 0119**
Email: **developerservices@southernwater.co.uk**

Your Ref:

Our Ref:
CC-HANT-00474

Date:
7 November 2016

F.A.O: Millie Rickleton

Site: Southleigh Park House, Eastleigh Road, Havant. Hampshire. PO9 2PE

Dear Sirs,

Further to your recent application for a level 2 enquiry regarding the above development site.

FOUL WATER

Please find enclosed the capacity assessment recently undertaken for your proposed development site. As you are aware the owner or occupier of the premises or private sewer or drain must give the sewerage undertaker notice of the proposed works. Upon receipt of the notice the undertaker may, within 21 days, refuse to allow him to make the connection if it considers that the mode of construction or the condition of the connecting sewer or drain either does not satisfy the standards reasonably required by the undertaker, or is such that the making of the communication would be prejudicial to its sewerage system.

The right of refusal is limited to these criteria alone and the undertaker cannot refuse to allow the connection on the grounds that the sewerage system is inadequate to take the extra liquid that the connection will discharge into it. This is a matter that should be dealt with at the planning stage.

Yours faithfully

David Akehrst
Developer Services

Please note: - The information provided above does not grant approval for any designs/drawings submitted for the capacity analysis. The results quoted above are only valid for 12 months from the date of issue of this letter.



INFRASTRUCTURE ASSESSMENT FOR
FOUL DRAINAGE AT
SOUTHLEIGH PARK HOUSE
EASTLEIGH ROAD,
HAVANT,
HAMPSHIRE
PO92PE

7 NOVEMBER 2016

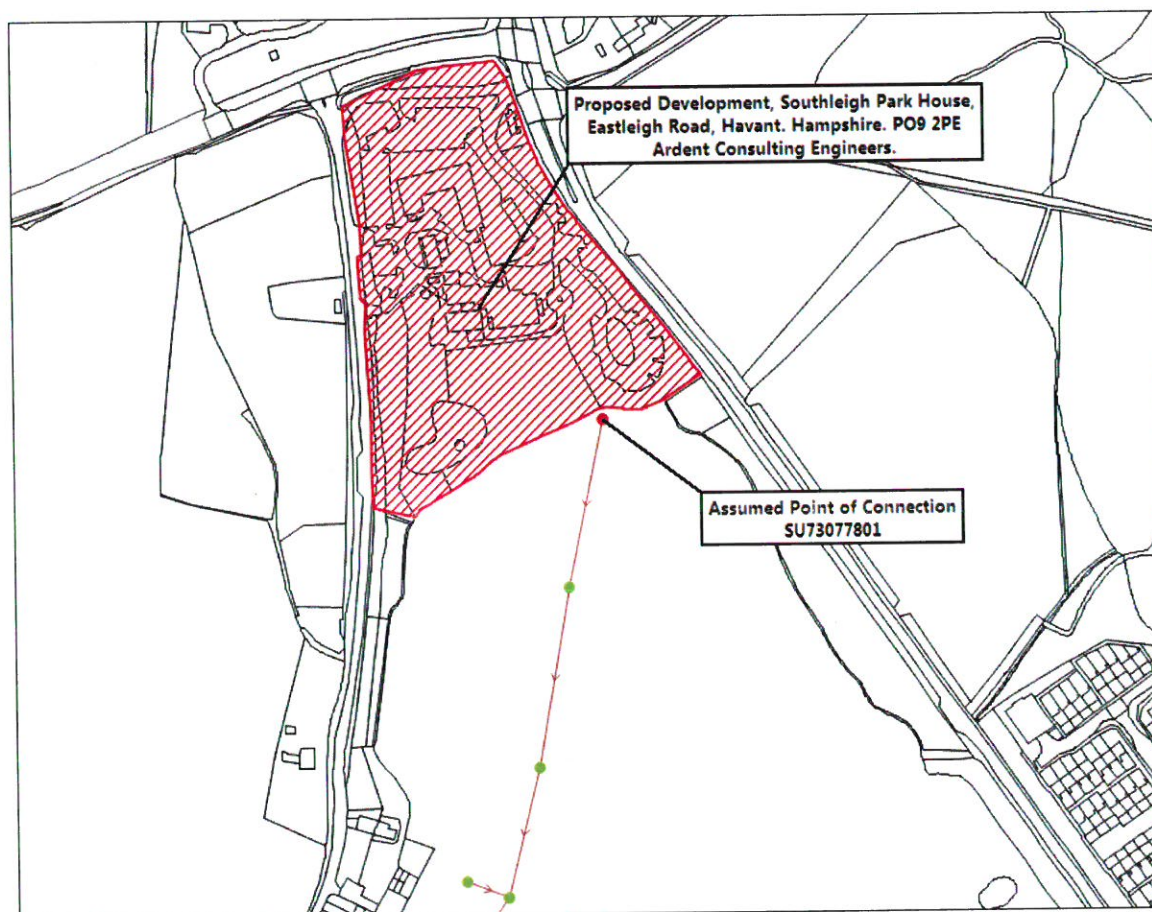
REQUESTED:
ARDENT CONSULTING ENGINEERS

Infrastructure Assessment for Foul Drainage at Southleigh Park House, Eastleigh Road, Havant. Hampshire. PO9 2PE

I. Development Details:

The proposal is to discharge foul flows to the local sewerage systems. The developer's preferred point of connection for the foul flows is at manhole SU73077801.

Figure 1 - Proposed Development - Foul Water System



Results:

Foul Water:

There is currently adequate capacity within the local sewerage network to accommodate the proposed foul flows at manhole reference SU73077801, off Eastleigh Road. The proposed development does not significantly increase flows to the local network and as a result existing properties and land should not be subject to a greater risk of flooding.

Section 98 of the Water Industry Act 1991 provides a legal mechanism through which the appropriate infrastructure can be requested (by the developer) and provided to drain a specific location.

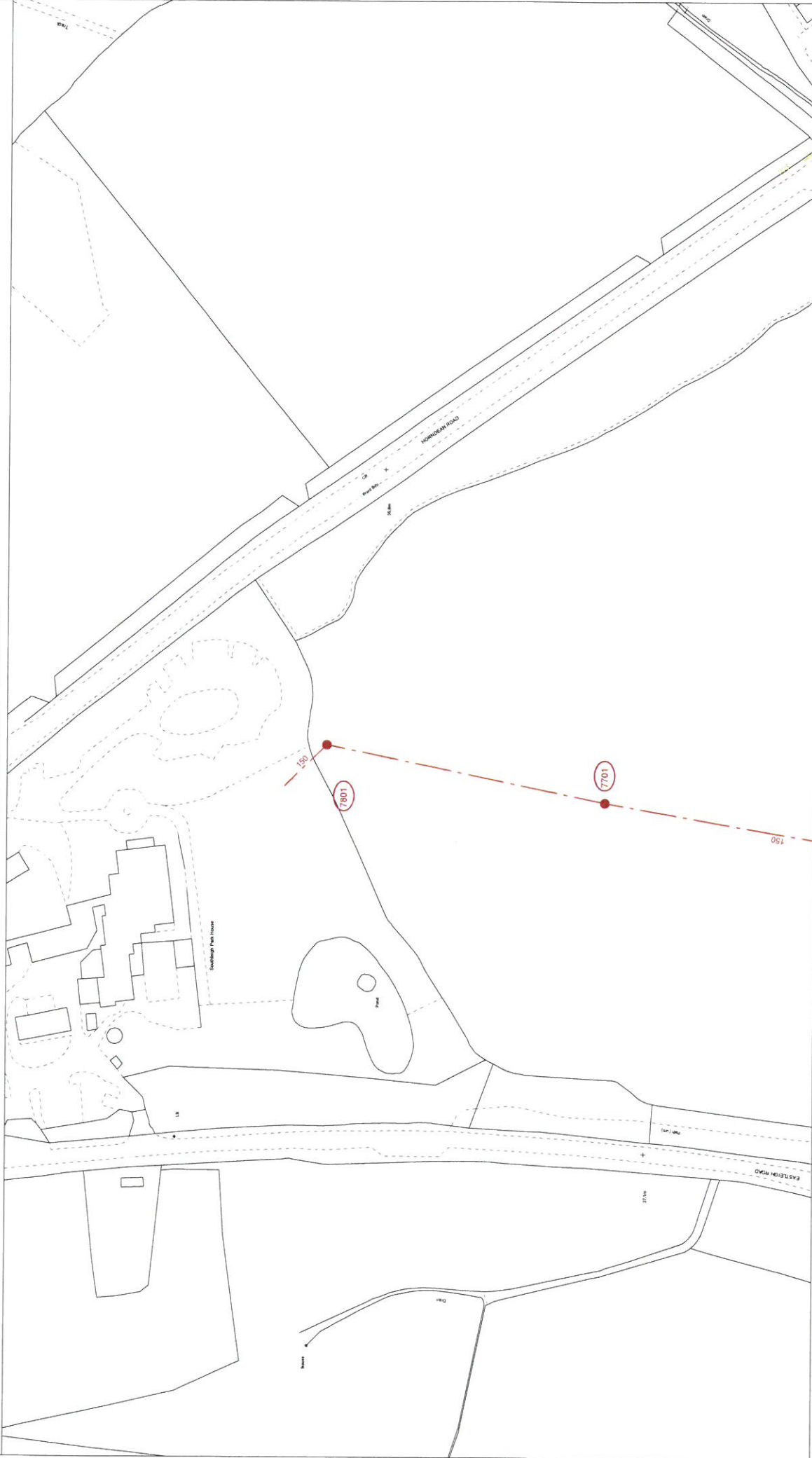
Surface Water System:

As a surface water capacity check has not been requested it is assumed that surface water will be disposed of by alternative means e.g. soakaway or any local drainage watercourses, subject to all interested parties' approval.

Before any connections are made, an application form needs to be completed and approved by Southern Water Services.

Please note: - The information provided above does not grant approval for any designs /drawings submitted for the capacity analysis. The results are an indicative hydraulic assessment and should not be used as a basis for design. The results quoted above are only valid for 12 months from the date of issue of this letter.

SOUTHERN WATER



The positions of pipes shown on this plan are believed to be correct, but Southern Water Services Ltd accept no responsibility in the event of inaccuracy. The actual positions should be determined on site.

Based upon Ordnance Survey Digital Data with the permission of the controller of H.M.S.O. Crown Copyright Reserved Licence No. W17 298310

O.S. REF: SU7307NE

Scale: 1:1250

Sewer Plot

WARNING: BAC pipes are constructed of Banded Asbestos Cement
WARNING: Unknown (FINK) materials may include Banded Asbestos Cement



Printed By: peachja

Southern Water MapGuide Browser

Requested By:
sewer record extract



Date: 1-11-2016



Ardent Consulting Engineers
Suite 207
One Alie Street
London
E1 8DE

Your ref 160970
Our ref 216439
Date 02 June 2016
Contact searches@southernwater.co.uk
Tel 0845 272 0845
0330 303 0276
Fax 01634 844514

Attention: Millie Rickleton

Dear Customer

Re: Provision of public sewer record extract

**Location: Southleigh Park House, Eastleigh Road, Havant, Hampshire,
PO9 2PE**

Thank you for your order regarding the provision of extracts of our sewer and/or water main records. Please find enclosed the extracts from Southern Water's records for the above location.

We confirm payment of your fee in the sum of £49.92 and enclose a VAT receipt for your records.

Customers should be aware that there are areas within our region in which there are neither sewers nor water mains. Similarly, whilst the enclosed extract may indicate the approximate location of our apparatus in the area of interest, it should not be relied upon as showing that further infrastructure does not exist and may subsequently be found following site investigation. Actual positions of the disclosed (and any undisclosed) infrastructure should therefore be determined on site, because Southern Water does not accept any responsibility for inaccuracy or omission regarding the enclosed plan. Accordingly it should not be considered to be a definitive document.

Should you require any further assistance regarding this matter, please contact the LandSearch team.

Yours faithfully

LandSearch

VAT receipt

Ordered by:

Ardent Consulting Engineers
One Alie Street
London
E1 8DE

VAT registration number: 813 0378 56
Order reference: 216439
Your reference: 160970

Receipt for provision of an extract from the public sewer and/or water main records.

Location	Costs
Southleigh Park House Eastleigh Road Havant Hampshire PO9 2PE	£41.60
Net total	£41.60
VAT	£8.32
Total	£49.92
Paid	Paid in full

Thank you for your payment:

Received on: 2 June 2016

For enquiries regarding the information provided in this receipt, please contact the LandSearch team:

Tel: 0845 270 0212
0330 303 0276 (individual consumers)

Email: searches@southernwater.co.uk

Web: www.southernwater.co.uk

LandSearch
Southern Water Services
Southern House
Capstone Road
Chatham
Kent
ME5 7QA



SEWER RECORDS PAGE 2 OF 2

Node	Cover	Invert	Size	Material	Shape	Node	Cover	Invert	Size	Material	Shape
0602X	21.876	19.416	150	UNK	CIRC						
0603X	22.033	20.203	150	UNK	CIRC						
0651X	21.847	20.307	225	UNK	CIRC						
0652X	21.888	19.888	225	UNK	CIRC						
0751X	22.486	20.566	225	UNK	CIRC						
0752X	22.754	20.804	225	UNK	CIRC						
1601X	22.298	20.298	150	UNK	CIRC						
1602X	19.644	17.454	UNK	UNK	CIRC						
1604X			UNK	UNK	CIRC						
1605X			UNK	UNK	CIRC						
160DX			UNK	UNK	CIRC						
161DX	20.632	20.324	300	UNK	CIRC						
1651X	22.044		225	UNK	CIRC						
1652X			100	UNK	CIRC						
1702X			225	UNK	CIRC						
1750X	22.892	21.342	225	UNK	CIRC						
1751X	23.843	22.093	225	UNK	CIRC						
1752X	23.941	22.311	225	UNK	CIRC						
2101X			UNK	UNK	CIRC						
3901X			UNK	UNK	CIRC						
3950X	34.843		375	UNK	CIRC						
3951X	32.49	31.225	UNK	UNK	CIRC						
4101X			UNK	UNK	CIRC						
4850X	27.867	26.327	375	UNK	CIRC						
5001X			UNK	UNK	CIRC						
5101X			UNK	UNK	CIRC						
510DX			UNK	UNK	CIRC						
6001X			UNK	UNK	CIRC						
7602X			UNK	UNK	CIRC						
7701X	23.109	21.618	150	UNK	CIRC						
7801X	28.249	26.789	UNK	UNK	CIRC						
7801X	32.06	30.36	UNK	UNK	CIRC						

[illegible]

Drawn by: spaceyk	
Title: 216439_Southleigh Park House	
Date: 02/06/2016	

Appendix E
Development Proposals

CAR PARKING ANALYSIS

Havant Borough SPD standard - 1 bed / 1 space; 2 bed / 2 spaces; 3 bed 2 spaces; 4+ bed / 3 spaces

Allocated Car Spaces

One bed units with one allocated space = 10 units (100%)
Two bed units with two allocated spaces = 33 units (100%)
Three bed units with two allocated spaces = 33 units (100%)
*3.5" bed (three bedrooms + study townhouse) with two allocated spaces = 2 units (100%)
Four bed units with three allocated spaces = 12 units (100%)

Units with shortfall of allocated car spaces to SPD = Nil

Visitor Car Spaces

Total number car spaces allocated to units = 182 spaces
Total number unallocated visitor spaces (entire development) = 24 spaces (12%)
Full planning application area (34 allocated spaces to listed building conversions) = 8 spaces (24%)



Southleigh Park House - Masterplan

ACCOMMODATION SCHEDULE SUMMARY

Main House - Residential Conversion

Plot No.	Unit Type	No. of Bedrooms	Count	Gross Internal Floor Area
MH1	Duplex Apartment	2 bed	1	1341 sq.ft
MH2	Apartment	1 bed	1	722 sq.ft
MH3	Apartment	1 bed	1	765 sq.ft
MH4	Apartment	2 bed	1	844 sq.ft
MH5	Apartment	1 bed	1	535 sq.ft
MH6	Townhouse	2 bed	1	1080 sq.ft
MH7	Townhouse	3.5 bed	1	1168 sq.ft
MH8	Townhouse	3.5 bed	1	1192 sq.ft
MH9	Townhouse	2 bed	1	950 sq.ft
MH10	Apartment	1 bed	1	597 sq.ft
MH11	Apartment	3 bed	1	1188 sq.ft
MH12	Apartment	2 bed	1	794 sq.ft
MH13	Apartment	1 bed	1	594 sq.ft
Totals		Units	13	11770 sq.ft

LEGEND

- One bed apartments/ flats over garage
- Two bed apartments/ FoGs
- Two bed townhouse conversions
- Two bed houses
- Three bed houses / townhouses
- Four bed houses
- Refuse & emergency vehicular access

Other Listed Structures (Cloak House, Coach House, Lodge) - Residential Conversion

Plot No.	Unit Type	No. of Bedrooms	Count	Gross Internal Floor Area
CL1	Townhouse	2 bed	1	922 sq.ft
CL2	Townhouse	2 bed	1	953 sq.ft
CL3	Townhouse	2 bed	1	794 sq.ft
CO1	Townhouse	2 bed	1	858 sq.ft
CO2	Townhouse	3 bed	1	920 sq.ft
CO3	Townhouse	2 bed	1	698 sq.ft
LO	Lodge	2 bed	1	936 sq.ft
Totals		Units	7	6081 sq.ft

Masterplan - Residential Units

Count	Unit Type	No. of Bedrooms	Unit Gross Floor Area	Subtotal GIFA
5	FOG Type 1	1 bed	594 sq.ft	55 sq.m
3	FOG Type 2	2 bed	712 sq.ft	66 sq.m
5	House Type A	4 bed	1588 sq.ft	148 sq.m
14	House Type B	3 bed	902 sq.ft	84 sq.m
4	House Type C	3 bed	1008 sq.ft	94 sq.m
17	House Type D	2 bed	800 sq.ft	74 sq.m
2	House Type E	2 bed	800 sq.ft	74 sq.m
13	House Type F	3 bed	907 sq.ft	84 sq.m
7	House Type G	4 bed	1180 sq.ft	110 sq.m
Totals		70 Units		64957 sq.ft

SUMMARY

	No.	Total Area
Main House Conversion	13 units	11770 sq.ft
Other Listed Buildings	7 units	6081 sq.ft
Residential Units - Houses	70 units	64957 sq.ft
TOTALS	90 units	82808 sq.ft



Appendix F

Preliminary Surface and Foul Water Drainage Strategy (160720-100)

Existing Drainage Flow Paths (160720-100)



- NOTES:
1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE RELEVANT SPECIFICATION AND ALL OTHER RELATED DRAWINGS ISSUED BY THE ENGINEER.
 2. DO NOT SCALE FROM THIS DRAWING. WORK FROM FIGURED DIMENSIONS ONLY.
 3. ALL DIMENSIONS SHOWN ON THIS DRAWING ARE IN MILLIMETRES UNLESS OTHERWISE STATED.
 4. ALL DIMENSIONS, LEVELS AND SURVEY GRID CO-ORDINATES ARE TO BE CHECKED ON SITE AND THE ENGINEER NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO THE COMMENCEMENT OF WORKS.
 5. DRAWING BASED ON TOPOGRAPHIC SURVEY REF. 6288A BY DORSET LAND SURVEYING UNDERTAKEN IN AUGUST 2015.

- KEY
- SITE BOUNDARY
 - EXISTING IMPERMEABLE AREA (1.20ha)
 - EXISTING SURFACE WATER POND
 - INDICATIVE OVERLAND FLOW ROUTE
 - INDICATIVE PIPED FLOW ROUTE
 - SURFACE WATER OUTFALL FLOW ROUTE

PRELIMINARY

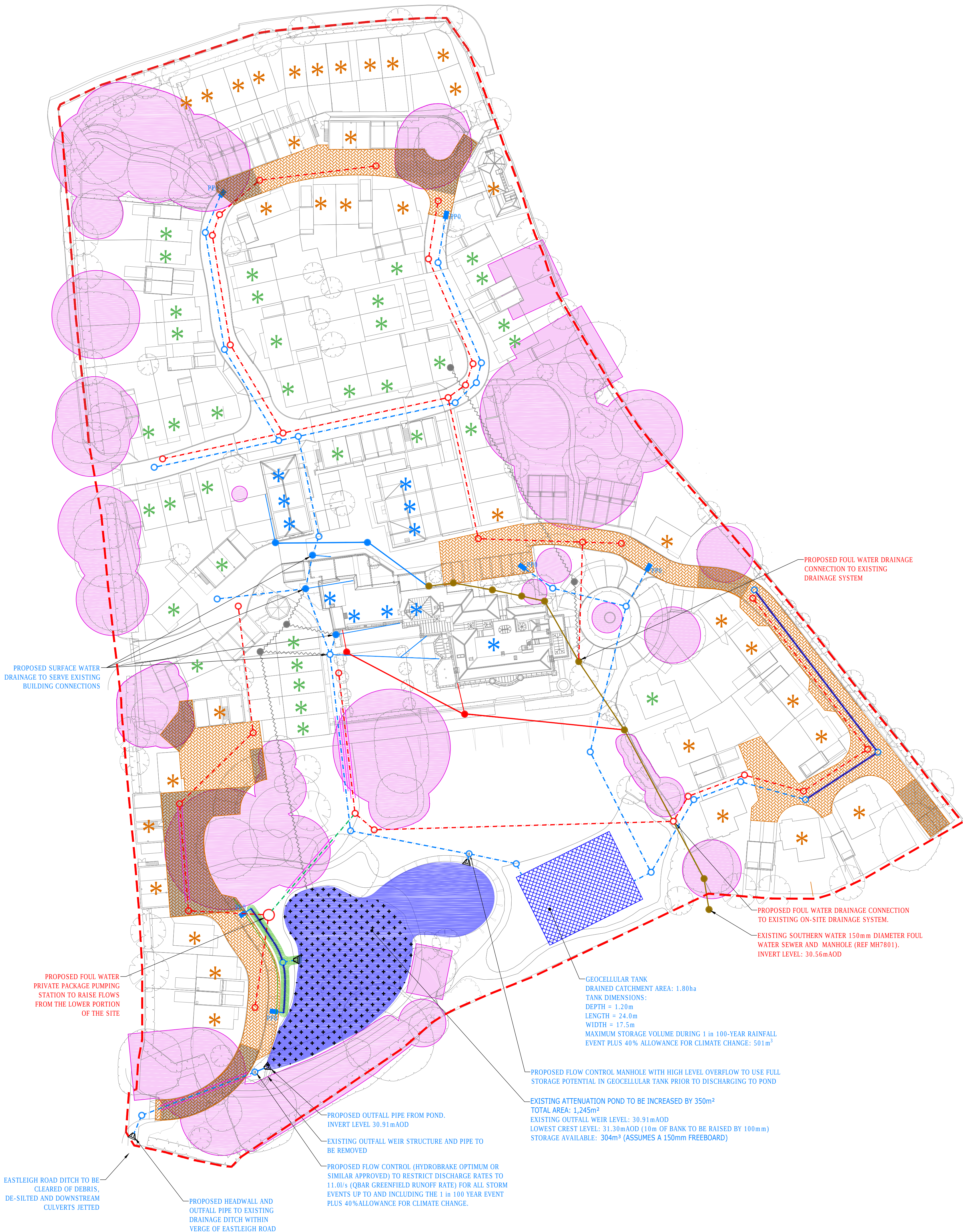
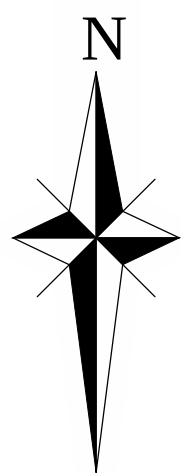
REV	AMENDMENTS	DRN	CHK	APP	DATE
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ARDENT CONSULTING ENGINEERS

SSIP

Suite 207
One Alie Street
London
E1 8DE
Tel: 020 7690 4098
Fax: 020 7488 3736
Web: www.ardent-ce.co.uk
E-mail: enquiries@ardent-ce.co.uk

CLIENT:			
THE SNELL & WILCOX LIMITED PENSION PLAN			
PROJECT TITLE:			
SOUTHLEIGH PARK HOUSE, HAVANT			
DRAWING TITLE:			
INDICATIVE EXISTING SURFACE WATER DRAINAGE FLOW PATHS			
SCALE:	DATE:	DESIGNED:	
1:500 @ A1	24/04/2017	HMB	
DRAWN:	CHECKED:	APPROVED:	
HMB	JEC	SJH	
DRAWING NO.	160720-105		REV:
			-



NOTES:

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE RELEVANT SPECIFICATION AND ALL OTHER RELATED DRAWINGS ISSUED BY THE ENGINEER.
2. DO NOT SCALE FROM THIS DRAWING. WORK FROM FIGURED DIMENSIONS ONLY.
3. ALL DIMENSIONS SHOWN ON THIS DRAWING ARE IN MILLIMETRES UNLESS OTHERWISE STATED.
4. ALL DIMENSIONS, LEVELS AND SURVEY GRID CO-ORDINATES ARE TO BE CHECKED ON SITE AND THE ENGINEER NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO THE COMMENCEMENT OF WORKS.
5. BASE LAYOUT REPRODUCED FROM TERENCE O'ROURKE PROPOSED MASTERPLAN DRAWING 245001-SK061/D.
6. RE-USE OF EXISTING DRAINAGE SYSTEMS SUBJECT TO CONDITION SURVEY.
7. DRAINAGE TO PRIVATE RESIDENCES TO BE CONFIRMED DURING THE DETAILED DESIGN STAGE.
8. PERMEABLE PAVING SUB-BASE DEPTH OF 200mm IN 'REDUCED-DIG' ROOT PROTECTION AREAS, OTHERWISE 550mm.
9. SURFACE WATER STORAGE PROVISION AS FOLLOWS:
TOTAL VOLUME PERMEABLE PAVING = 345.0m³
TOTAL VOLUME GEOCELL TANK = 501.0m³
TOTAL VOLUME ATTENUATION BASIN = 304.0m³
TOTAL STORAGE OF **1150m³** TO ACCOUNT FOR 1:100 YEAR STORM EVENT + 40% CLIMATE CHANGE ALLOWANCE.

KEY

- SITE BOUNDARY
- EXISTING SURFACE WATER SEWER AND MANHOLE
- PROPOSED SURFACE WATER SEWER AND MANHOLE
- PROPOSED PERFORATED SURFACE WATER PIPE
- EXISTING FOUL WATER SEWER AND MANHOLE
- PROPOSED FOUL WATER SEWER AND MANHOLE
- PROPOSED FOUL WATER RISING MAIN
- TRENCHLESS CONSTRUCTION WITHIN ROOT PROTECTION ZONE (RPZ)
- EXISTING COMBINED SEWER AND MANHOLE
- EXISTING DRAINAGE TO BE REMOVED (OR ABANDONED WITHIN ROOT PROTECTION ZONES)
- PROPOSED UNDER-DRAINED GRASS SWALE
- PROPOSED PERMEABLE PAVING OUTLET
- PROPOSED FLOW CONTROL MANHOLE (HYDROBRAKE OR SIMILAR)
- PROPOSED PERMEABLE BLOCK PAVING
NOMINAL AREA: 1779m²
SUB-BASE DEPTH: 550mm
- PROPOSED REDUCED-DIG CONSTRUCTION
NOMINAL AREA: 875m²
SUB-BASE DEPTH: 200mm (WITH CELLWEB)
- PROPOSED GEOCELLULAR TANK
- EXISTING POND
- PROPOSED EXTENSION TO EXISTING POND
- PROPOSED HEADWALL
- ROOT PROTECTION ZONE (RPZ) FOR EXISTING TREES
- DWELLING TO DISCHARGE SURFACE WATER TO EXISTING DRAINAGE SYSTEM
- DWELLING TO DISCHARGE SURFACE WATER TO ADJACENT PROPOSED PERMEABLE PAVING VIA DIFFUSER UNIT
- DWELLING TO DISCHARGE SURFACE WATER TO ADJACENT PROPOSED BELOW GROUND DRAINAGE SYSTEM

FOR INFORMATION ONLY

B	ATTENUATION STORAGE VOLUMES UPDATED	HB	HB	SJH	31.07.17
A	SITE PLAN AND PROPOSALS UPDATED	JC	JC	SJH	19.07.17
REV	AMENDMENTS	DRN	CHK	APP	DATE

ARDENT CONSULTING ENGINEERS

Worksafe consultant
www.ardent.co.uk
SSIP

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Web: www.ardent-ce.co.uk
E-mail: enquiries@ardent-ce.co.uk

ISO 9001
BUREAU VERITAS
Certification

CLIENT:	THE SNELL & WILCOX LIMITED PENSION PLAN		
PROJECT TITLE:	SOUTHLEIGH PARK HOUSE, HAVANT		
DRAWING TITLE:	PRELIMINARY SURFACE AND FOUL WATER DRAINAGE		
SCALE:	1:500 @ A1	DATE:	24/04/2017
DRAWN:	HMB	CHECKED:	JEC
DRAWING NO.	160720-100	DESIGNED:	HMB
		APPROVED:	SJH
		REV:	B