



Land Science



**BECKLEY STUD, REEDS LANE,
SOUTHWATER, RH13 9DQ
PHASE I GEO-ENVIRONMENTAL
ASSESSMENT ("DESK STUDY")
EQUINE AMERICA
14TH OCTOBER 2025
LS8882**

Site:	BECKLEY STUD, REEDS LANE, SOUTHWATER RH13 9DQ	
Title:	PHASE I GEO-ENVIRONMENTAL ASSESSMENT ("DESK STUDY")	
PROJECT:	ERECTION OF A NEW STORAGE BUILDING ON THE EXISTING SAND SCHOOL	
Client:	EQUINE AMERICA	
Contact:	BATCHELLER MONKHOUSE	
Date:	14TH OCTOBER 2025	
Reference:	LS8882	
Version:	A – final for issue	
Prepared By:	<i>Alex Lintern</i>	ALEX LINTERN B.Sc. (Hons) <u>Geo-Environmental Engineer</u>
Checked By:	<i>Jocelyn Middleton</i>	JOCELYN MIDDLETON MGeol FGS <u>Principal Geo-Environmental Consultant</u>
Review & Authorised By:	<i>Mike Rose</i>	MICHAEL ROSE M.Sc., B.Sc., FGS, AIEMA <u>Principal Geo-Environmental Consultant</u>

Land Science are Geotechnical Engineering and Contaminated Land specialists for construction, regulation, property ownership, and due diligence. By understanding our client's needs and appreciating the role that ground issues play within a wider context, we provide a reliable service and first-class expertise tailored to specific requirements. For more information on how we can benefit your project, please visit www.landscience.co.uk



CONTENTS

1.0	INTRODUCTION	4
2.0	WALKOVER SURVEY	6
3.0	DESK STUDY	8
4.0	CONCEPTUAL SITE MODEL (CSM)	13
5.0	PRELIMINARY RISK ASSESSMENT (PRA)	17
6.0	SUMMARY PHASE I ASSESSMENT	19
	REFERENCES	20
	REPORT CONDITIONS	21
	GLOSSARY OF TERMS	22

FIGURES

FIGURE 1:	Site Location Plan
FIGURE 2:	Existing Layout

APPENDICES

APPENDIX A:	Site Walkover
APPENDIX B:	Photographs
APPENDIX C:	Desk Study

1.0 INTRODUCTION

1.1 General

Land Science was instructed to undertake a Phase I Geo-Environmental Assessment (“desk study”) in relation to the proposed redevelopment at Beckley Stud, Reeds Lane, Southwater RH13 9DQ. The location is shown on Figure 1, which is centred at grid reference TQ 16753 27840.

1.2 Client

The Client for this appointment was Equine America, with Batcheller Monkhouse as the agent. This report may only be used by this named client and their project team for the purposes set out and subject to the report conditions. It was assumed that Equine America already owned the property, and that this investigation was not a pre-purchase appraisal.

1.3 Area Under Investigation

The area under investigation comprised part of a stud for high level competition horses and also the HQ for Equine America product. The site layout is indicated on Figure 2, and a walkover survey is presented in section 2.0. The area was approximately 0.63 hectares.

1.4 Proposed Development

The proposed development was understood to comprise the erection of a new storage building on the existing sand school. The proposed development was subject to a number of enforcement cases, including a surface water drainage plan and a phase 1 contaminated land survey has been requested in connection to this. The findings of this report may not be valid if the proposed development is altered.

1.5 Previous Investigations

Land Science was not aware of any previous desk studies or ground investigation(s) for this project.

1.6 Scope of Work

The work carried out is described in detail in the following sections but in summary included:

- A phase I assessment desk study.
- Full site inspection to identify areas of concern or indicators of potential hazards.
- Phase I preliminary risk assessment and CSM.
- Recommendations for phase II intrusive investigation works (if required).

The walkover was conducted on 1st October 2025, under the supervision of Land Science.

1.7 Geo-Environmental Objectives

A preliminary phase I assessment was carried out, to identify potential sources of contamination, to develop a preliminary Conceptual Site Model (CSM) and to form the basis of a Preliminary Risk Assessment (PRA).

The report was required to assess risks associated with end users, the proposed redevelopment, adjacent land uses, and the wider environment, and in connection to the surface water drainage.

1.8 Standards

Where practicable, the investigation was undertaken in accordance with the following primary standards and guidance:

- Land Contamination Risk Management (LCRM) Environment Agency June 2025.
- BS10175:2011+A2:2017, Investigation of Potentially Contaminated Sites.
- National Planning Policy Framework, December 2024.
- Building Regulations Approved Document C: Site preparation and resistance to contaminants and moisture, HM Government, September 2013.
- NHBC Standards Chapter 4.1: Land Quality - Managing Ground Conditions, 2024.

Other technical sources have been cited in respect of specific aspects of the investigation, as referenced throughout the text.

2.0 WALKOVER SURVEY

2.1 General

A walkover survey was carried out in order to provide an assessment of the existing site conditions and to identify potential areas of concern. A record of the inspection is shown in Appendix A, with photographs in Appendix B.

2.2 Site Description

In summary, the area under investigation comprised part of an active large equestrian centre, accessed from Reeds Lane to the east. It included a large open training area called the 'sand school' which was to be the site of a new barn structure. Other areas comprised a yard area, some buildings and hardstanding for access/parking.

Three shipping containers were present at the northern area of the site, all intended to be removed once the barn was built. Two shipping containers were inaccessible, however one contained general office goods and staff uniforms, although there was a small amount of scrap metal piled on top. Behind the containers there were three white goods with further scrap metal.

The warehouse and stables contained a poured concrete floor with paving around the exterior. The warehouse contained a large quantity of various horse products such as feed and treatments but no hazardous chemicals.

The access/parking areas were metalled gravel.

The sand school was approx. 30m in width by 60m in length and appeared to be raised on the southeastern corner, to form a level area, compared to the adjoining land. For drainage purposes it was designed with the following layers with a total thickness of 360mm; sand and rubber surfacing, permeable membrane to restrict sand migration, compacted hardcore over Terram membrane.

The site perimeter was a mixture of fence lines and hedgerows with further boundaries denoting the individual paddocks/fields. The site was generally flat, with slightly undulating fields with a gentle slope towards the west/southwest.

Mature trees were noted along the northern and eastern borders including oak, elm and sycamore to approx. 10-15m in height.

Within the equine centre but beyond the site boundaries were other structures; various paddocks with small stables, a larger modern stable complex and warehouse structure with associated storage and parking facilities. A large bund was noted approx. 80m northwest of the site, far from the area of interest. A rusty water tank was noted to the south.

2.3 Neighbouring Land

There is a similar facility adjacent to the north with an equestrian and vet amenity. To the east is Reeds Lane with woods beyond. The equestrian centre/land extends to the south and west with a

few structures including paddocks and fields etc. however a residential property High Reeds is located from 50m southeast.

2.4 Geo-Environmental Conditions

The walkover survey did not identify any areas of particular concern regarding the geo-environmental condition of the site, except for the large bund (potential built up ground) in the northwest corner of the site. No significant evidence of tanks, chemical storage, staining or sheens, or contaminative land uses etc. were noted.

2.5 Geotechnical Conditions

The walkover survey did not identify any areas of particular concern regarding the geotechnical condition of the site, except for the raised ground in the southeast corner of the sand school, the extensive drainage structures and large trees along the northern and eastern borders.

3.0 DESK STUDY

3.1 General

A desk study was carried out to inform the preliminary conceptual understanding of the site and its setting, and to identify potential aspects of concern, in the context of the stated report objectives.

3.2 Historical Mapping

Various historical records were reviewed to assess potential historical land uses and activities that may impact on ground conditions at the site.

A set of historical ordnance survey maps was obtained from Envirocheck and a copy is presented in Appendix C. The following key features were noted:

On site

- The earliest map dated 1875 showed the site comprised areas of two fields, likely connected to King's Farm adjacent to the north. A track/road borders the site to the north and partly to the east.
- By 1897 the site was an area within one larger field, which remained unchanged until the 2025 map. This latest OS map showed the site as Beckley Stud with a structure along the eastern border and several outlined areas in the northeastern corner and western half, broadly similar to the layout of present day.

Off site

- The earliest map dated 1875 showed the surrounding area as fields to the north, west and south, with King's Farm to adjacent to the north with a pond >250m northeast. Adjacent to the east were several copses with woods from 150m southeast. Approx 100m southeast was a small holding labelled Newfound Out with structures and an orchard.
- By 1897 pumps and wells were identified at the farm and small holding.
- By 1911 a nursery was located from approx. 100m north, which was no longer shown by 1932, when a few structures were shown from 150m southwest.
- By 1976 a property High Reeds was from 50m southeast with further small development beyond and from 150m southwest. By 1983/84 a link road to the later named A24 was located from 150m southwest with an embankment. An orchard was located from 100m south. The latest map dated 2025 showed the site and surrounding area to be in a broadly similar layout to the present day, except for a few additional buildings adjacent site to the southeast, and two ponds from 200m west and northwest.
- The historical map set included aerial photographs. The 1947 and 1999 imageries showed the site as being within the northeastern quarter of a large field.

3.3 Aerial Imagery

Recent aerial photography covering the site was examined using Google Earth Pro. The imagery identified the site as part of a larger field until 2015 when a couple of access tracks were shown. By 2018 hardstanding, vehicles and a few buildings were shown along the eastern border. A few areas across the northern half of site appeared as small excavations or stockpiles. By 2020 the sand school

and new building were shown in the southern half of site with other structures and vehicles in the northern half, with a few small paddock structures beyond. Beyond the sand school border to the south there was exposed ground, which was shown as soft landscaping by 2021 with a further building in the northern half of site. A few shipping containers were added across the years in the northern half of the site until 2025. West of the site a golf course was formed from 2012 with two ponds.

Google Street View was examined which showed a metal shipping container along the eastern border in 2009. By 2019 Beckley Stud was present at site with wooden fencing and a main gate with multiple buildings and structures shown inside. By 2022 a new building was present just north of the main gate. By 2024 the sand school and vehicles were shown as the gate was open.

The Historic England photo archive was checked with the photograph from 1959 showing the site as part of a larger field with trees along the northern and eastern border, with King's Farm to the north.

3.4 Current Industrial Land Use Data

The desk study included a search of contemporary land use records from various databases. Such land uses may impact on the condition of the site and the vicinity. The following significant land use information was identified:

Discharge Consent – four off site:

Location	Address	Details	Status
8m northeast	Barn at King's Farm, Coltstaple Lane, Southwater	Sewage discharge - final/treated effluent to freshwater stream/river. Effective/issue date: 16/12/1991	Post National Rivers Authority Legislation where issue date > 31/08/1989
68m northwest	King's Farm, Coltstaple Lane, Southwater	Sewage discharge - final/treated effluent to freshwater stream/river. Effective/issue date: 03/09/1996	New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)
81m southeast	Newfound Out Bungalow, Reeds Lane, Southwater	Sewage discharge - final/treated effluent to freshwater stream/river. Effective/issue date: 12/08/1999	New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)
203m northeast	Oaklands Farm Newfoundout Oaklands Farm, Coltstaple Lane, Newfoundout, Southwater	Sewage discharge - final/treated effluent to freshwater stream/river. Effective/issue date: 16/02/2007	New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)

3.5 Planning Portal

The online planning portal for Horsham District Council was checked with records between 2000 and present day reviewed. Several entries were recorded but there were no specific details pertaining to ground conditions or contamination.

The following table summarises details considered to be relevant to the site and immediate area.

Planning reference	Proposal
Planning application DC/25/1444 (adjacent east of site) validated 15/09/2025 – status: registered	Change of Use of Equestrian Stables to Offices (Class E), including the enclosure of the existing stable roof overhang.
DISC/25/0217 (whole of Beckley Stud including site) validated 08/07/2025 – status: registered	Application for Approval of Details Reserved by Conditions 3 & 10 to approved application DC/22/0388 (Appeal allowed - APP/Z3825/W/23/3324019)
DC/22/0565 (whole of Beckley Stud including site) decision dated 15/03/2023	Temporary retention of storage containers at Beckley Stud for a two year period – application refused
DC/22/0388 (whole of Beckley Stud including site) decision dated 15/03/2025	Retention of existing green steel clad building and mono-pitch lean-to for storage and distribution use by Equine America UK and resulting mixed use of Beckley Stud as a whole for equestrian, residential and commercial purposes - application refused
DISC/20/0278 (west of site) decision dated 03/12/2020	Application for approval of details reserved by condition 2 on DC/20/0615 – application permitted
DC/20/0755 (covering northern/eastern borders of site and beyond) decision 04/11/2020	To confirm the works of boundary fencing, brick piers and gate benefited from the General Permitted Development Order (Certificate of Lawful Development - Existing) – application has split decision
DC/20/0615 (west of site) decision date 05/08/2020	Retention of bund – application permitted
DC/20/0613 (part of northern half of site) – decision dated 05/08/2020	Retention and completion of horse walker with barn shelter and adjacent turnout pen – application permitted
DC/19/0278 (whole of Beckley Stud including site) decision dated 06/08/2019	Demolition of existing stable and erection of stables – application permitted
DC/18/1826 (whole of Beckley Stud including site) decision date 09/11/2018	Erection of a 60m x 30m sand school – application permitted
DC/18/1622 (whole of Beckley Stud including site) decision date 17/11/2020	Removal of existing mobile home and positioning of new mobile home (retrospective). Construction of 1.8m fencing along eastern/southern boundaries along with brick pillars and gates to entrance (retrospective). Proposed construction of 1.5m high fence along eastern/northern boundaries – application permitted
DISC/18/0186 (whole of Beckley Stud including site) decision date 03/08/2018	Approval of details reserved by condition 11 on DC/17/2048 – application permitted
DISC/18/0158 (whole of Beckley Stud including site) decision date 08/08/2018	Approval of details reserved by condition 10 on DC/17/2048 – application permitted
DC/17/2048 (whole of Beckley Stud including site) decision date 08/03/2018	Proposed change of use of existing equestrian facilities to combined equestrian and charitable use. Retention of mobile home and re-sited timber clad container – application permitted
DISC/17/0348 (adjacent east of site) decision date	Approval of details reserved by condition 4 on DC/16/1069 – application permitted

Planning reference	Proposal
02/11/2017	

No relevant ground conditions were noted.

3.6 Ground Conditions

A preliminary ground model was derived for the site based on a combination of various sources including published maps, borehole records (BGS borehole ref. TQ12NE35), previous investigations, and the site history. In summary, the following potential ground model was identified:

Strata	Approximate Depth (mbgl)	Summary Description
Made Ground	<1.00	The site has been subject to previous development and there is a potential for construction and demolition wastes, imported fill materials, and zones of disturbed ground, etc.
Localised Deeper Made Ground	>1.00	Potentially raised ground to level the sand school in the southeastern corner.
Superficial -	-	None recorded
Bedrock – Horsham Stone Member	To depth	Sandstone, calcareous, generally fine grained micaceous locally well laminated pale grey to green/olive grey. Contains clay partings and ignite fragments and rootlet traces.

The local borehole approx. 150m southwest of site proved silty clay to 1.10m, brown clay to 1.80m, brown shaley clay to 3.80m and clay-shale to 7.60m.

In addition, groundwater was anticipated, as follows:

- Perched water – in granular soils upon cohesive soil or buried structures or in old trenches.
- Water table depth potentially shallow (from approx. 1.00m) when sandstone, possible flow direction down slope to southwest.

3.7 Geological Hazards

The desk study included searches of geological hazards. None of the hazards were rated as moderate or above, considered the screening threshold for further investigation.

A search of various databases for coal mining, mining, brine compensation, and natural cavities was carried out. No relevant features were identified, except the following:

- Non-Coal Mining Areas of Great Britain – 90m northeast – highly unlikely

3.8 Environmental Setting

The site lies in the following groundwater setting:

- Superficial aquifer: None - No superficial strata were classified.

- Bedrock aquifer: The Bedrock – Horsham Stone Member strata was classified as a Secondary A - 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.
- Source protection zone: None - no groundwater Source Protection Zones were identified on site or in the vicinity.
- Flooding from Rivers and Sea: Zone 1 Low Probability - Land having a less than 1 in 1,000 annual probability of river or sea flooding.
- Surface water flooding on site: Low risk - each year this area has a chance of flooding of between 0.1% and 1%. Flooding from surface water is difficult to predict as rainfall location and volume are difficult to forecast. In addition, local features can greatly affect the chance and severity of flooding.
- Groundwater flooding on site: Potential for groundwater flooding to occur at surface. With potential of groundwater flooding of property situated below ground level from 5m north.
- Nearest Surface Water Feature: isolated ditch 15m northeast, within catchment area of Adur and Teville.
- Nitrate Vulnerable Zone: River Arun (U/S Pallingham) Nvz.
- Ancient woodland – adjacent to the east/southeast.

3.9 Radon Gas

The requirement for Radon Protection Measures (RPM) has been assessed in accordance with BRE 211:2023 Public Health England and the BGS estimate the potential for radon and the requirement for Radon Protection Measures on site as follows:

- Radon probability: Not at risk - less than 1% of homes are estimated by PHE to exceed the threshold for Radon gas in residential dwellings.
- Radon Protection Measures (RPM): No radon protection is required for new dwellings or extensions constructed at this location.
- Commercial premises: On the basis that exposure limits for residential properties are more stringent than workspaces, it is concluded that no protection measures would be required for a commercial development at this site.

3.10 UXO Risk Assessment

Free online maps suggest the risk from UXO might be low. As such, no further assessment is considered necessary at this stage.

4.0 CONCEPTUAL SITE MODEL (CSM)

4.1 Source-Pathway-Receptor (SPR) Model

The assessment of potential contamination risks follows a Source-Pathway-Receptor (SPR) approach, following established guidance and best practice. The principle of primary and secondary sources has been adopted:

- A **primary source** for instance a leaking tank or drainage, industrial activity, buried fill materials, etc. identified as part of the desk study and site walkover.
- A **secondary source** is the environmental media (or phases) in which any resulting contamination may occur, being soils, ground gases, volatile vapours, and groundwater:

Secondary Source	Summary
Soil	Soils (Made Ground) contaminated with materials such as ash, clinker, bitumen, refuse, wastes, asbestos, etc. [Endogenic] or soils contaminated by discharges, spillage, drainage, run-off, migration etc. of contaminants from diffuse or point sources [Anthropogenic].
Ground water	Mobile contaminants entering groundwater, being either perched water (impermeable horizons such as clays or buried structures) or as a water table (more persistent water bodies within productive strata).
Volatile vapours	Volatile or semi-volatile compounds generating vapours which exist in a gas phase and may be generated from soils, groundwater or directly from storage such as underground tanks.
Ground gases	Ground gases occurring from a variety of natural and man-made sources, principally from the decomposition of waste materials, organic matter, organic contaminants. Examples include landfill sites, alluvium, and mine workings etc.

4.2 Qualitative Risk Assessment Framework

A qualitative estimate of risk associated with the identified source-pathway-receptor linkages has been made. Each source, pathway and receptor in each linkage is given a rating from 0-5, and the overall rating for the linkage is expressed as a multiple of the three numbers. The overall risk ratings are concluded in the next chapter (Preliminary Risk Assessment).

Rating	Source	Pathway	Receptor	SPR Linkage
Unlikely	0	0	0	0
Very Low	1	1	1	1-3
Low	2	2	2	4-17
Moderate	3	3	3	18-48
High	4	4	4	49-100
Very high	5	5	5	100+

The scoring is based on professional judgement and qualitative assessment of various factors:

Source - Whether it is on-site or off-site, the distance from the site, the age and time period, the history and evolution, whether it has been redeveloped and when, the overall magnitude or extent, any existing data or observations. Sources are identified from the conceptual site model.

Pathway - Proximity and relationship to the associated receptor, frequency, the ground conditions, flow directions, migration pathways. Pathways may vary between each source and each receptor.

Receptor - Direct or indirect effects, human health or non-human receptor, age classes, exposure duration and frequency, types of activity, materials, existing evidence of harm, quality of the receptor and significance of any harm. This will depend on any existing or proposed site uses.

Potential sources and receptors are identified first, before identifying whether any active realistic pathways exist between them.

4.3 Primary Sources

Potential sources of contamination were identified and rated as follows:

Primary sources	Soils	Ground Water	Vapours	Ground Gases
Made Ground <1m - widespread (on-site)	Low	Unlikely	Unlikely	Unlikely
Made Ground <1m - localised: drainage layers (on-site)	Moderate	Low	Unlikely	Unlikely
Made Ground >1m - localised: raised section of sand school to SE (on-site)	Very Low	Unlikely	Unlikely	Unlikely
Agricultural land - stables (on-site)	Moderate	Unlikely	Unlikely	Unlikely
Bund/stockpile - 80m NW corner (off-site)	Very Low	Unlikely	Unlikely	Unlikely
Agricultural land - fields (off-site)	Unlikely	Unlikely	Unlikely	Unlikely
Road embankment - (off-site 150m SW)	Unlikely	Unlikely	Unlikely	Unlikely
Golf course ponds/embankment/infill (off-site 200m W/NW)	Unlikely	Unlikely	Unlikely	Unlikely
OVERALL RATING	Moderate	Low	Unlikely	Unlikely

Made Ground may be present on site as metalled gravel, yards and trackways dating to 2018, mostly within the vehicle access/parking areas east of the proposed development. These materials may contain a wide range of potential contaminants including metals, non-metals and organic contaminants, although given the site history and the nature of the site, the composition of the Made Ground is not expected to be particularly onerous and the likelihood of soil contamination is rated to be Low. Contaminants may be mobile and leach out into ground water however this was expected below 1.00m and this has been rated as Unlikely. The age and composition of Made Ground was such that the potential for significant generation of organic vapours was Unlikely. The depth of Made Ground was not anticipated to be greater than 1.00m and therefore was Unlikely to be a significant source of ground gases.

The **localised drainage layers** under the sand school are within the area to be developed with potentially unknown contaminants being deposited within the layers. Contamination has been rated as Moderate, with groundwater rated as Low and vapours/ground gas rated as Unlikely.

The **raised section** in the southeastern corner of the sand school dating to 2020 is expected to be compacted subbase supporting the sand school structure. These materials may contain sands and gravels with potential contaminants from an unknown source; however, the contamination is rated as Very Low. Groundwater, vapour and ground gas are rated as Unlikely.

The **stables** dating back to 2018 and have been subject to several phases of development over a short period of time, with ground disturbance and mixing likely to have occurred. Potential contaminative activities include the use of animal wastes, storage and burning of other wastes and use of fuels and maintenance of vehicles. Contaminants include metals, non-metals, organic compounds and pesticides and herbicides. Stable activities were carried out across the whole site, however the active sand school is in the area proposed for development and has been rated as Moderate. Groundwater, vapour and ground gas are rated as Unlikely.

The **bund/stockpile** approx. 80m northwest of site dating to 2020 is a good distance away from the proposed development, although the materials are unknown with an unknown source they are rated as Very Low. Groundwater, vapour and ground gas are rated as Unlikely.

The **off-site sources** including the Stud fields, road embankment and golf course have all been rated as Unlikely for soil, groundwater, vapours and ground gas. This is due to the distance and down slope position of the sources with any surface water running off to the west/southwest.

Waste management facilities where soil and wastes are deposited in the ground can be significant sources of ground gases. No registered waste management facilities where landfilling has occurred were identified on site or within the vicinity.

Natural strata can be a source of ground gases; principally these are organic bearing strata such as alluvium, peat, dock silt and coal measures etc. Shallow mine workings may also be significant. These may sources generate levels of carbon dioxide and/or methane with corresponding oxygen levels reduced. No significant naturally occurring sources of ground gases were identified.

4.4 Potential Receptors

The following potential receptors associated with the site and the proposed development have been considered in this report:

Receptor	Rating	Justification
End Users	High	Occupants of the proposed redevelopment. The proposed development comprised an equestrian centre with areas of soft landscaping.
Adjacent Land	High	Sensitive land uses identified locally. The site was surrounded by further property/fields of the equestrian centre and a residential property.
Soft Landscaping	Moderate	Areas of planting including lawns, shrubs, trees, etc. The existing soft landscaping was to be retained on site. No evidence of existing plant phytotoxicity was observed and was unlikely to be a significant issue.
Structural Concrete	High	New foundations etc. cast in contact with the ground. The development was anticipated to include shallow foundations.
Water Supply	Unlikely	Water supplies may be damaged or tainted when mains are laid in

Receptor	Rating	Justification
Pipework		contaminated ground. No new water supplies were understood to be laid as part of the project and Land Science was not aware of any existing issues.
Groundwater	Moderate	Water below ground in permeable strata. The site overlies strata classified as a secondary A aquifer and is a potential resource for potable or commercial abstractions, although not in a groundwater SPZ.
Surface Water	Low	Surface water in lakes and rivers etc. A limited ditch/stream was identified adjacent site to the northeast.

4.5 Receptors Excluded

The following potential receptors were excluded from the assessment as they are covered by other legislative controls and are outside the remit of this report.

- Ecological receptors such as statutory protected species or wildlife areas. An assessment of such risks was outside the scope of this report.
- Site workers such as those involved in construction work or future maintenance. Any risks posed to site workers would be controlled through Health & Safety legislation, including the CDM and COSHH regulations etc.

5.0 PRELIMINARY RISK ASSESSMENT (PRA)

Soils	Pathways	Rating	Receptor	Rating	Overall Rating
Moderate	Dermal contact with soil and soil-borne dust	Moderate	End Users	High	Moderate
Moderate	Ingestion of soil and soil-borne dust	Moderate	End Users	High	Moderate
Moderate	Inhalation of soil-borne dust	Moderate	End Users	High	Moderate
Moderate	Consumption of homegrown produce	Unlikely	End Users	High	Unlikely
Moderate	Inhalation of soil-borne dust	Moderate	Adjacent Land	High	Moderate
Moderate	Plant uptake, phytotoxic effects	High	Planting	Moderate	Moderate
Moderate	Chemical attack	High	Concrete	High	High
Moderate	Chemical attack	High	Pipework	Unlikely	Unlikely
Moderate	Leaching-out, migration to water table	High	Groundwater	Moderate	Moderate
Moderate	Leaching-out, migration to water bodies	Very Low	Surface Water	Low	Low

Ground water	Pathways	Rating	Receptor	Rating	Overall Rating
Low	Direct contact	Unlikely	End Users	High	Unlikely
Low	Direct contact	Unlikely	Adjacent Land	High	Unlikely
Low	Plant uptake, phytotoxic effects	Very Low	Planting	Moderate	Low
Low	Chemical attack	Very high	Concrete	High	Moderate
Low	Chemical attack	Moderate	Pipework	Unlikely	Unlikely
Low	Migration to Controlled Water receptor	Low	Groundwater	Moderate	Low
Low	Lateral migration to water bodies	Moderate	Surface Water	Low	Low

Vapours	Pathways	Rating	Receptor	Rating	Overall Rating
Unlikely	Inhalation, ignition	High	End Users	High	Unlikely
Unlikely	Inhalation, ignition	High	Adjacent Land	High	Unlikely
Unlikely	Root asphyxiation, phytotoxic effects	High	Planting	Moderate	Unlikely
Unlikely	Not a significant hazard	-	Concrete	High	Unlikely
Unlikely	Chemical attack	High	Pipework	Unlikely	Unlikely
Unlikely	Not a significant hazard	-	Groundwater	Moderate	Unlikely
Unlikely	Not a significant hazard	-	Surface Water	Low	Unlikely

Ground Gasses	Pathways	Rating	Receptor	Rating	Overall Rating
Unlikely	Inhalation, ignition	High	End Users	High	Unlikely
Unlikely	Inhalation, ignition	Unlikely	Adjacent Land	High	Unlikely
Unlikely	Root asphyxiation, phytotoxic effects	Moderate	Planting	Moderate	Unlikely
Unlikely	Not a significant hazard	-	Concrete	High	Unlikely
Unlikely	Not a significant hazard	-	Pipework	Unlikely	Unlikely
Unlikely	Not a significant hazard	-	Groundwater	Moderate	Unlikely
Unlikely	Not a significant hazard	-	Surface Water	Low	Unlikely

5.1 SPR Linkages and Risk Ratings

The source-pathway-receptor linkages identified are summarised below:

5.2 Other Factors

The following other areas of possible concern were identified, but were outside the geo-environmental risk assessment:

Site managers are responsible for the safety of persons in their employ under a variety of instruments including the CDM regulations and Health & Safety at Work Act. In terms of working on contaminated sites, guidance can be sought from the CIRIA publication entitled "A Guide for Safe Working on Contaminated Sites". Any work in confined spaces should only be carried out following appropriate risk assessment. Detailed risk assessment for workers is outside the scope of this report.

Unexpected soil conditions may be encountered during the process of site demolition and construction. Examples may include oily pockets within the soil, pockets of cement boarding or fibrous materials within the soil, black ashy materials, soils exhibiting strong odours, brightly coloured materials, and former structures or brickwork. Should previously undiscovered contamination be encountered during construction by the ground worker's, this should be reported to the Geo-Environmental Consultant immediately in order that any necessary inspection may be made. All site workers should be made aware of their responsibility to observe, report, and act on any potentially suspicious or contaminated materials they may encounter.

Dumped wastes including white goods and the rusty water tank were noted. An allowance should be made for removing such items as part of site preparation works.

Weil's Disease is a bacterial infection spread by animals caused by *Leptospira* bacteria. Leptospirosis generally causes mild flu-like symptoms, such as headache, chills and muscle pain, but in severe cases can be life-threatening and cause organ failure and internal bleeding. Leptospirosis can be caught by touching soil or water contaminated with the urine of wild animals (generally cattle, pigs, dogs and rodents, particularly rats) infected with the bacteria. Higher risks may arise through contact with sewage or freshwater. Leptospirosis is rare in the UK; only 55 cases were confirmed by laboratory testing in England and Wales between 2020 and 2023 (many of the cases originated overseas).

Damaging, disturbing or removing protected species can result in prosecution under a range of environmental legislation. Potential impacts on the ecological environment include:

- Disturbance of birds, badgers, bats and other protected species
- Removal and fragmentation of habitats
- Disturbance to aquatic wildlife and water quality
- Disturbance to wildlife from noise and vibration
- Damage to trees and hedgerows.

It is recommended that the advice of an appropriately qualified ecologist should be sought prior to undertaking any works.

6.0 SUMMARY PHASE I ASSESSMENT

6.1 Qualitative Ratings

Overall, the level of risk ranged between Unlikely and High. Consequently, a **High** level of risk has been assigned to the site in respect of the proposed development. This is primarily due to the proposed development.

6.2 Recommendations

It would be necessary to undertake basic ground investigation works, which may include;

- Shallow boreholes, and possible trial pits, to assess the composition and depth of any Made Ground and any field evidence of contamination into the underlying soils.
- Selected samples (including materials bearing field evidence of contamination) should be sent for laboratory analysis. The main analytical suite is identified below.
- Positions should be located in areas of concern; i.e. targeted to specific points of potential contamination such as below the development footprint and in the location of buried services, etc.
- Soil samples should be screened for vapours using a Photoionisation Detector (PID).
- Positions should be located adjacent to the site boundaries in the western part of the sand school, to evaluate the potential for contamination to have migrated laterally off site and impact on adjacent land users.
- Positions should be targeted to potential source areas e.g. raised ground in the southeastern part of the sand school, likely to be sand and gravel. If leachate is an issue boreholes should be extended down into the water table to enable groundwater quality to be sampled and tested for a similar analytical suite.
- Samples of any perched water should be collected for laboratory testing.

The analytical suite, based on the known site history and walkover survey, should include:

- General parameters: acidity (pH), fraction of organic carbon.
- A selection of shallow samples should be screened for pesticides and herbicides.
- Metals; arsenic, cadmium, chromium (total), lead, mercury, selenium, boron, copper, nickel and zinc.
- Non-metals: water soluble sulphate, sulphide, total cyanide.
- Targeted organic parameters; TPH (speciated), BTEX, speciated PAHs, VOCs and SVOCs, scheduled based on PID screening and field evidence etc.
- Visual asbestos screening of all Made Ground samples. Where possible asbestos fibres or ACMs are identified, these should be examined under a microscope to determine type and quantification tests should be carried out.

Further positions may be required, additional samples analysed or additional determinands added to the analysis, as appropriate, based on any field evidence of possible contamination encountered.

In addition, the requirement for Waste Acceptance Criteria (WAC) testing should be considered to categorise soils in terms of disposal.

It would be prudent to confirm the scope of ground investigation works with the Local Authority and other stakeholders before carrying out these works.

REFERENCES

A number of technical references have been referred to in the preparation of this document, including:

- Smith, I. (2014) Smith's Elements of Soil Mechanics. Chichester. Wiley Blackwell. 9th edition.
- BRE Design Guide 365. Soakaway design ("DG365").
- Radon: Guidance on protective measures for new buildings, BRE Report BR 211, 2023 6th edition.
- The Environment Agency's approach to groundwater protection. February 2018 Version 1.2.
- Water UK and the Home Builders Federation; Contaminated Land Assessment Guidance, dated January 2014.
- Concrete – Complementary British Standard to BS EN 206; Part 1: Method of specifying and guidance for the specifier BS8500-1:2015+A1:2016, dated August 2016.
- Revised EU Waste Framework Directive 2008 2008/98/EC [transposed into English law under The Waste (England and Wales) Regulations 2011].
- European Community (EC) Directive 1999/31/EC [transposed into English law under the Landfill (England and Wales) Regulations 2002].
- Defining Waste Recovery - Permanent Deposit of Waste on Land, EPR13 v1.0, EA 2010.
- The definition of waste: Development Industry Code of Practice, v2, CL:AIRE 2011.
- Guidance on the classification and assessment of waste Technical Guidance WM3 ("WM3") EA publication (1st edition v1.2GB) dated 2021.

REPORT CONDITIONS

The Client

This report may only be used by the client named in section 1 and their appointed project team for the purpose of design, obtaining planning, building regulations approval, and in connection with finance. This report must not be used by any other persons or for other purposes without express written agreement of Land Science.

General

Land Science takes all reasonable professional care in the preparation of this report, using current standards and industry practice. However, the evaluation of ground conditions depends on an interpretation and extrapolation of the conditions revealed by a limited data set. The level of risk is related to the extent of investigation and no site is ever free of risk. The client should understand their risks and liabilities. We accept no liability whatsoever in respect of:

- The scope, extent or design of an investigation.
- Any conditions not directly revealed by the investigation.
- Published standards or methodologies used or adopted in this report.
- The opinion of any other party including any regulator, authority or stakeholder.
- Any dispute, claim or consequential loss arising from any findings of this report.
- Third party information and data.

This report relates solely to ground-related matters as set out in the objectives and makes no representation on other matters such as ecology, arboriculture, invasive plant species, the condition of buildings and structures, hazardous building materials such as insulation or asbestos, the locations of boundaries, unexploded ordnance, and or planning constraints etc. Further reports should be commissioned in this respect as appropriate.

Regulators and Approvals

This (and any other) report should be submitted to relevant authorities for their own assessments and to provide their approval or comments accordingly. This should be in good time before commencing on site in case additional work is to be carried out.

Standards, technical guidance and regulatory positions change over time and may therefore affect the findings and recommendations made in this report; this should be verified by the client prior to any critical project milestones. Where this information is used in design, the designer should verify that the information is appropriate and has been used correctly.

Variations with Time

The report relates to conditions revealed at the time of the investigation and any monitoring visits. Some parameters may vary over time or seasonally; groundwater levels, ground gas compositions, or concentrations of contaminants are particularly variable in this respect. Further monitoring or verification should be considered as appropriate.

GLOSSARY OF TERMS

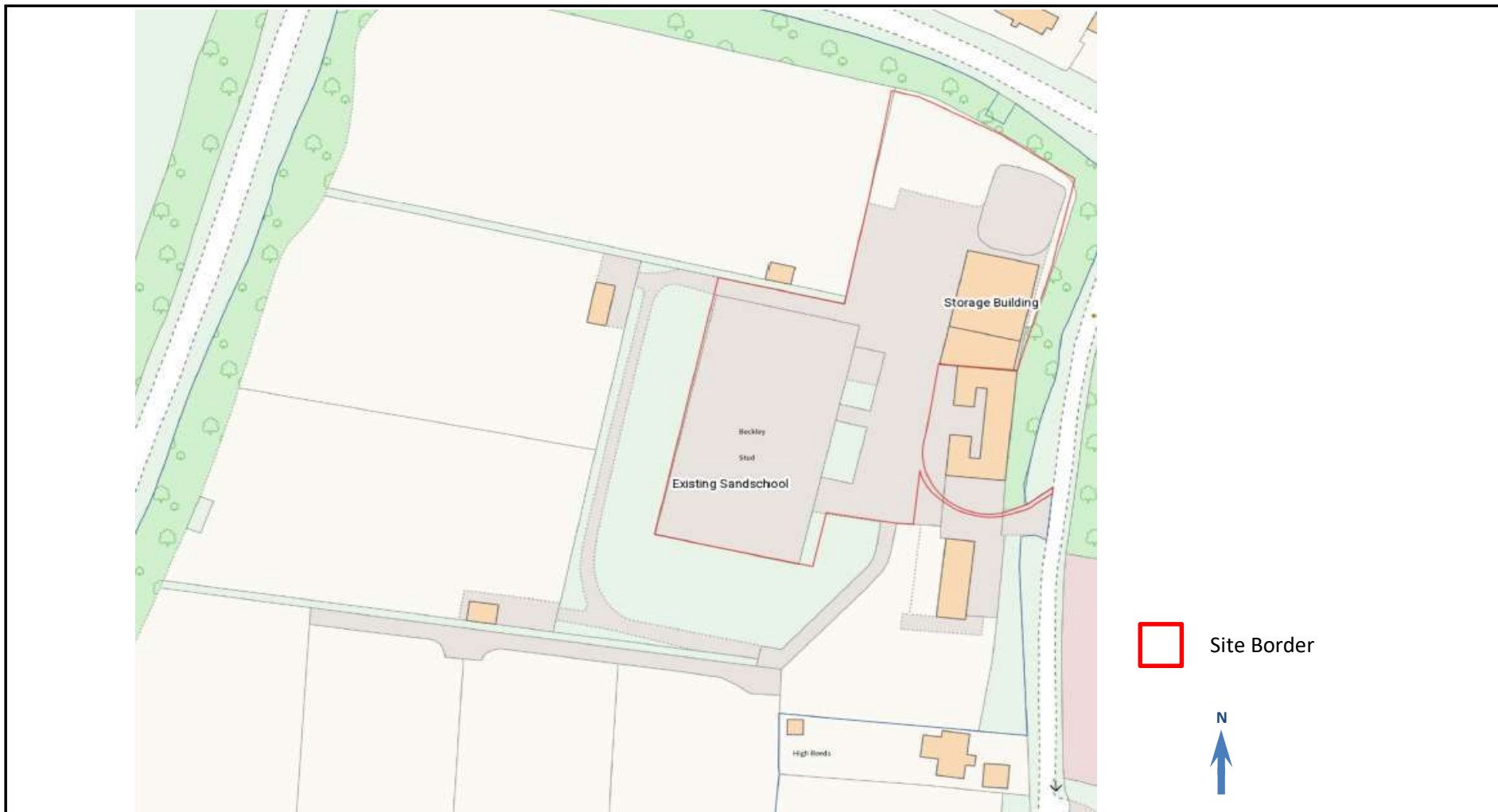
ACM	Asbestos Containing Material
BGS	British Geological Survey
BRE	Building Research Establishment
BS	British Standard
C4SL	Category 4 Screening Level
CBR	California Bearing Ratio
CDM	Construction Design and Management regulations
CIRIA	Construction Industry Research and Information Association
CL:AIRE	Contaminated Land: Applications in Real Environments
CLEA	Contaminated Land Exposure Assessment model
CSM	Conceptual Site Model
EA	Environment Agency
EQS	Environmental Quality Standards
FOC	Fraction of Organic Carbon
GAC	Generic Assessment Criterion
GQRA	Generic Quantitative Risk Assessment
mbgl	Meters Below Ground Level
NHBC	National House Building Council
mOD	Metres above Ordnance Datum
PAH's	Polycyclic Aromatic Hydrocarbons
PHE	Public Health England
PID	Photo-Ionisation Detector
PQRA	Preliminary Quantitative Risk Assessment
PSD	Particle Size Distribution Test
RMS	Remediation Method Statement
S4UL	Suitable for Use Level
SOM	Soil Organic Matter
SPZ	Source Protection Zone
SPT	Standard Penetration Test
SSSI	Sites of Special Scientific Interest
ST-WEL	Short Term Workplace Exposure Limit
SVOC's	Semi-Volatile Organic Compounds
TPH	Total Petroleum Hydrocarbons
TRRL / TRL	Transport Road Research Laboratory
TWA-WEL	Time Weighted Average Workplace Exposure Limit
UK HBF	United Kingdom House Building Federation
VOC's	Volatile Organic Compounds
WAC	Waste Acceptance Criteria



Site Border



TITLE:	Site Location Plan	REF:	LS8882	PREPARED:	JM
PROJECT:	Beckley Stud, Reeds Lane, Southwater RH13 9DQ	FIGURE:	1	CHECKED:	MR
CLIENT:	Equine America	DATE:	09/10/2025	VERSION	V1



	TITLE: Site Layout	REF: LS8882	PREPARED: JM
	PROJECT: Beckley Stud, Reeds Lane, Southwater RH13 9DQ	FIGURE: 2	CHECKED: MR
	CLIENT: Equine America	DATE: 09/10/2025	VERSION: V1

APPENDIX A

SITE WALKOVER RECORD



The walkover is restricted only to aspects related to the Land Science report and the stated objectives therein. The walkover does not replace other surveys such as asbestos, arboriculture, ecology, utilities etc which the client should consider. The client should review the walkover and provide any further relevant information where available.

SITE DETAILS			
Project	Beckley Stud, Reeds Lane, RH13 9DQ		
Reference	LS8882	Date of walkover	01/10/2025
Engineer	Joe Williamson		
CURRENT USE			
Existing land uses	Commercial – A large equestrian centre consisting of a small office structure, various paddocks with small stables, a larger modern stable complex and warehouse structure with associated storage and parking facilities. A large open training area called the “sand school” was to be the site of a new barn structure. Three shipping containers were present at the northern area of the site, intended to be removed once the barn was built.		
Status	Active and occupied		
Suspected asbestos	No immediate evidence		
Below ground structures	Informed of extensive drainage underneath the sand school.		
Hardstandings	The warehouse and stables contained a poured concrete floor with paving around the exterior. The parking and storage areas were metalled gravel.		
Soft landscaping	A large bund was noted in the northwest corner of the larger site, far from the areas of interest. The sand school appeared to be raised on the southeastern corner, evidently to keep it level compared to the adjoining land.		
General condition	Modern, well-kept and very tidy.		
Boundaries	Marked by fence lines and hedgerows denoting the site and individual paddocks/fields.		
Adjacent land uses	- Immediately to the north is a similar facility with equestrian and vet amenities. - To the south are residential properties with large gardens. - To the west is a large golf course with a small industrial complex just beyond that and southwest.		
TOPOGRAPHY			
General lie of the land	Located on a relatively flat plain with a gentle slope towards the west.		
General lie of the site	As above, very flat with slight changes in elevation, fields gently undulating.		
Abrupt changes in slope	None		
Excavations and Depressions	None		

Raised ground	<i>A large bund was present off-site to northwest, and the southeast corner of the sand school was elevated above the adjoining land to keep it level.</i>
GROUND STABILITY	
Signs of landslip	<i>None</i>
Cracking in buildings and walls etc.	<i>None</i>
Subsidence on ground surface	<i>None</i>
GROUND CONDITIONS	
Possible filled-in ground	<i>None</i>
Possible built-up ground	<i>Southeastern corner of sand school has been raised.</i>
Exposed soils	<i>None</i>
Desiccation	<i>None</i>
Disturbance	<i>None</i>
WATER CONDITIONS	
Wet boggy ground	<i>None</i>
Wells and ditches	<i>None</i>
Ponds or ponding	<i>None</i>
Streams / Rivers	<i>None</i>
ECOLOGY	
Burrows	<i>None</i>
VEGETATION	
Reeds or water loving plants	<i>None</i>
Sparse growth or die back	<i>None</i>
Invasive species	<i>None</i>
TREES	
Relevant trees height/species	<i>None</i>
Off-site	<i>The north and west site borders contain a number of large trees (approx. 10-15m), containing a variety of species but mostly oak, elm and sycamore.</i>
Hedgerows	<i>Well-kept hedgerows mark out the borders between the various paddocks.</i>
Recent felling and older stumps	<i>Three large logs were stacked in one of the paddocks, each around 4m long.</i>
CONTAMINATION	
Tipped materials	- <i>One shipping container could be accessed; it contained general office goods and staff uniforms, although there was a small amount of scrap metal piled on top.</i> - <i>Three old fridges/dishwashers were noted behind the containers along with a small amount of scrap metal.</i> - <i>The warehouse contained a large quantity of various horse products such as feed and treatments but no hazardous chemicals or storage means.</i> - <i>A rusty water tank was spotted south of the site.</i>

Areas of possible fill	<i>None</i>
Discolouration/sheens of waterbodies	<i>None</i>
Surface staining	<i>None</i>
Chemicals storage	- <i>One tub of denatured alcohol was found in the warehouse, partially full.</i> - <i>An empty bottle of hydraulic oil was found left by the shipping containers.</i>
Drums and tanks	<i>None</i>
Petrol interceptor	<i>None</i>
Soakaways	<i>None</i>
LOCAL INFORMATION	
Place/road names	
3rd party information	<i>Discussions with the owner revealed that no chemicals or drugs are kept on the site in line with certain equestrian certifications. He also noted that the land has always remained in this configuration and the site as it appears today has been the only development in its history.</i>
OTHER INFORMATION	

APPENDIX B



TITLE:	Site Photographs	REF:	LS8882	PREPARED:	JM
PROJECT:	Beckley Stud, Reeds Lane, Southwater RH13 9DQ	SHEET:	1	CHECKED:	MR
CLIENT:	Equine America	DATE:	09/10/2025	VERSION	V1



TITLE:	Site Photographs	REF:	LS8882	PREPARED:	JM
PROJECT:	Beckley Stud, Reeds Lane, Southwater RH13 9DQ	SHEET:	2	CHECKED:	MR
CLIENT:	Equine America	DATE:	09/10/2025	VERSION	V1

WWW.LANDSCIENCE.CO.UK

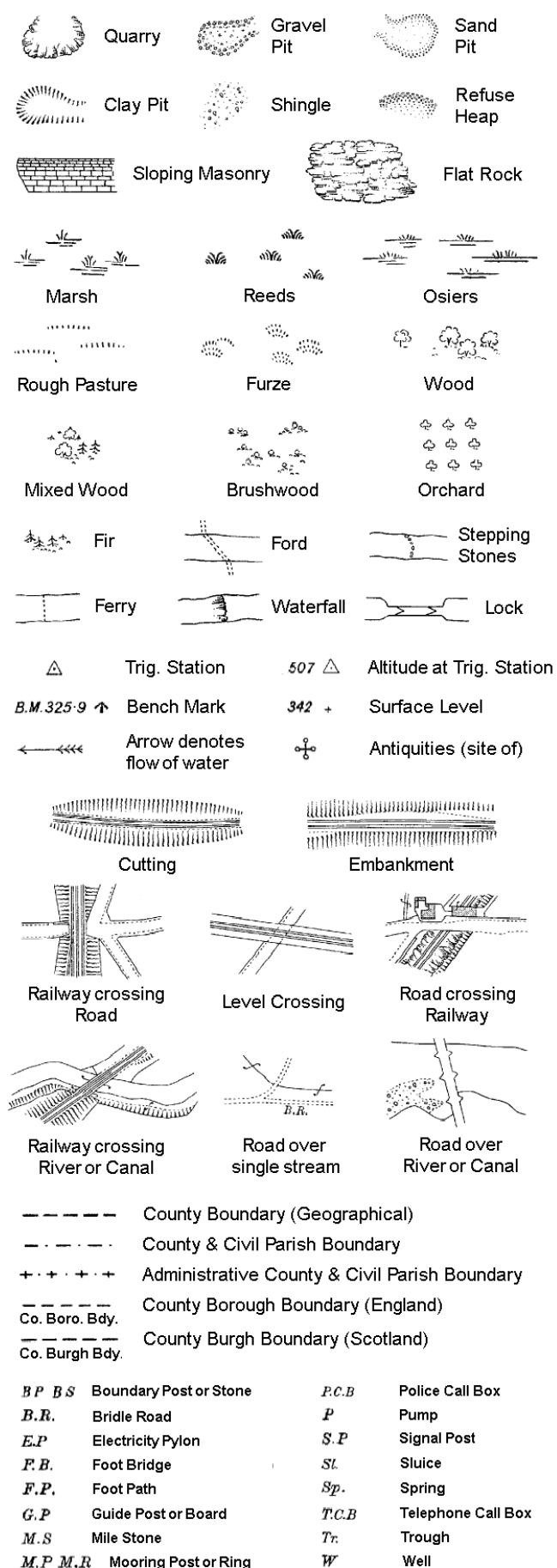
0345 604 6494

UNIT 10, 19 ALBERT DRIVE BURGESS HILL, WEST SUSSEX, RH15 9TN

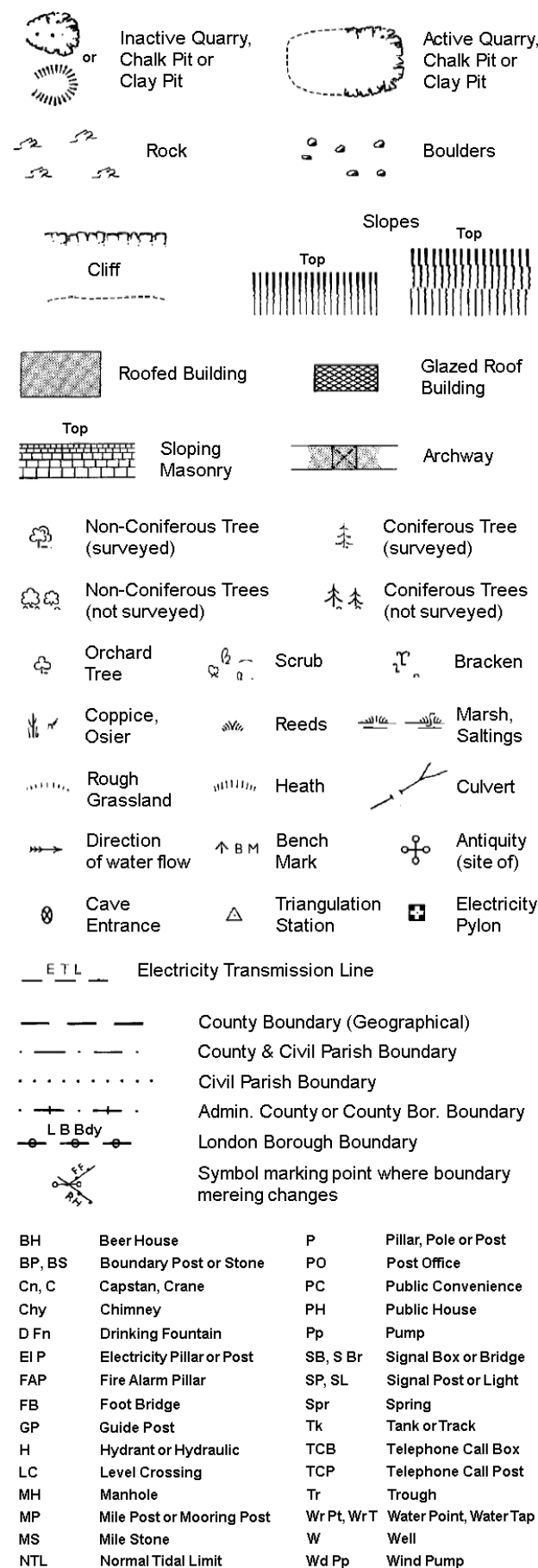
APPENDIX C

Historical Mapping Legends

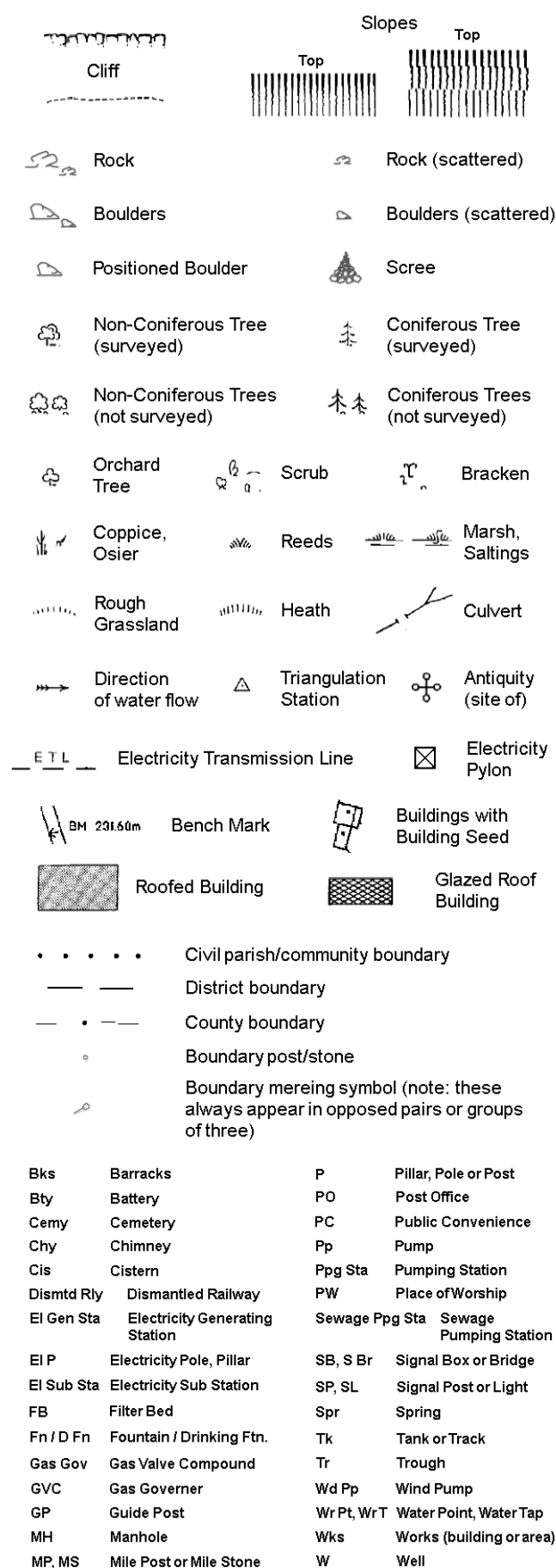
Ordnance Survey County Series and Ordnance Survey Plan 1:2,500



Ordinance Survey Plan, Additional SIMs and Supply of Unpublished Survey Information



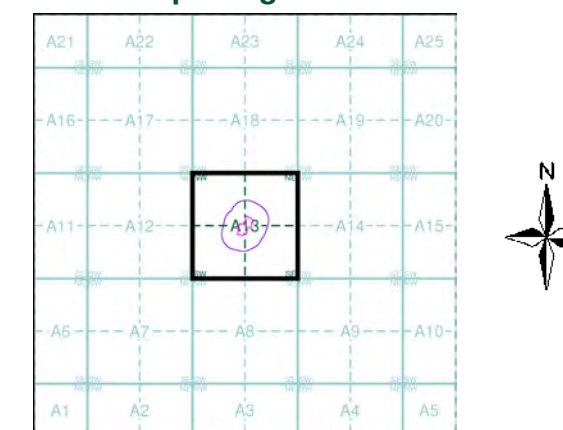
Large-Scale National Grid Data 1:2,500 and 1:1,250



Historical Mapping & Photography included:

Mapping Type	Scale	Date	Page
Sussex	1:2,500	1875	2
Sussex	1:2,500	1897	3
Sussex	1:2,500	1911	4
Sussex	1:2,500	1932 - 1933	5
Ordnance Survey Plan	1:2,500	1976 - 1977	6
Additional SIMs	1:2,500	1984	7
Large-Scale National Grid Data	1:2,500	1993	8
Large-Scale National Grid Data	1:2,500	1995	9
Large-Scale National Grid Data	1:2,500	1996	10
Large-Scale National Grid Data	1:2,500	1996	11
Large-Scale National Grid Data	1:2,500	1996	12
Large-Scale National Grid Data	1:2,500	1996	13
Historical Aerial Photography	1:2,500	1999	14

Historical Map - Segment A13

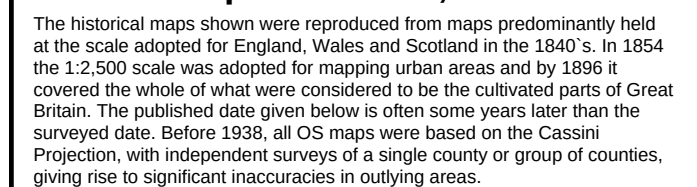


Order Details

Order Number: 387151192_1_1
Customer Ref: LS8882
National Grid Reference: 516750, 127850
Slice: A
Site Area (Ha): 0.63
Search Buffer (m): 100

Site Details

Beckley Stud, Reeds Lane, Southwater, HORSHAM, RH13 9DO



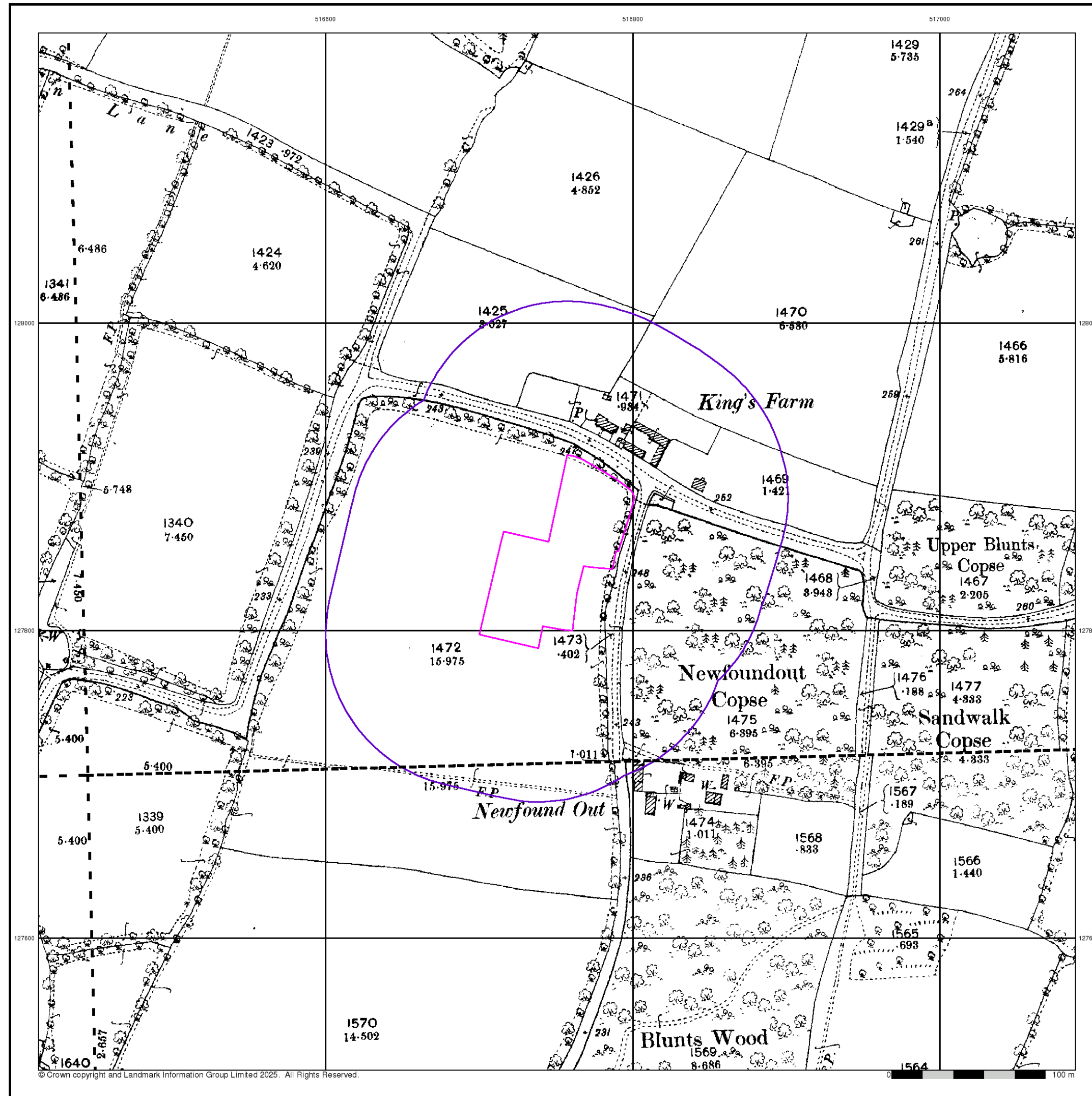
The figure shows a 5x5 grid of cells. The columns are labeled A1 through A5 at the bottom, and the rows are labeled A1 through A5 on the left. Cell A13, located at the intersection of column A3 and row A13, is highlighted with a thick black border and a purple circle.



Order Number: 387151192_1_1
Customer Ref: LS8882
National Grid Reference: 516750, 127850
Slice: A
Site Area (Ha): 0.63
Search Buffer (m): 100

Beckley Stud, Reeds Lane, Southwater, HORSHAM, RH13 9DQ





Sussex

Published 1897

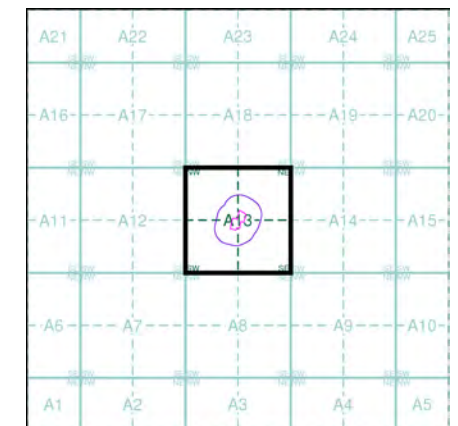
Source map scale - 1:2,500

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)

013_15 1897 1:2,500	013_16 1897 1:2,500
024_03 1897 1:2,500	024_04 1897 1:2,500

Historical Map - Segment A13



Order Details

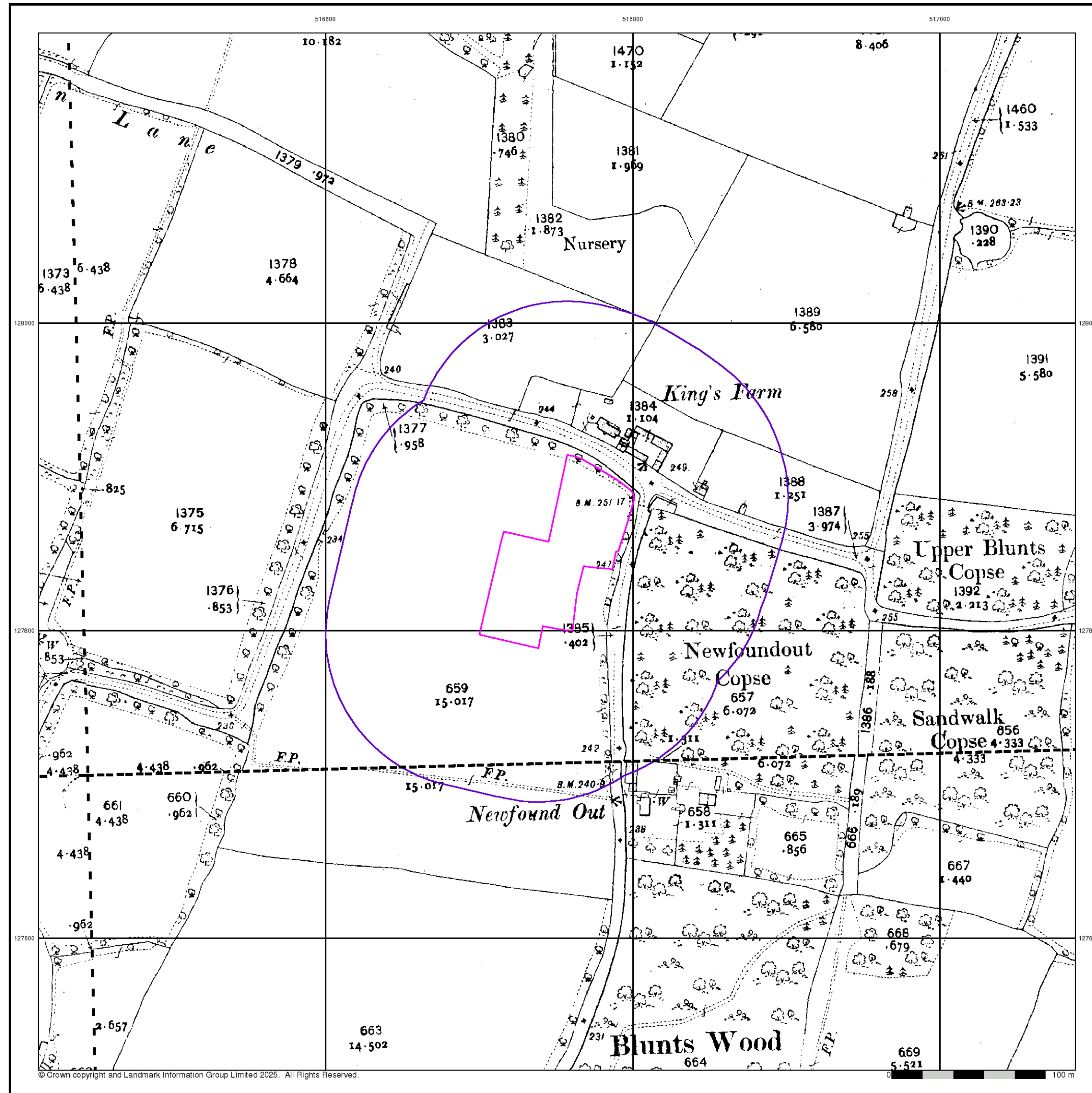
Order Number: 387151192_1_1
Customer Ref: LS8882
National Grid Reference: 516750, 127850
Slice: A
Site Area (Ha): 0.63
Search Buffer (m): 100

Site Details

Beckley Stud, Reeds Lane, Southwater, HORSHAM, RH13 9DQ



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



Sussex

Published 1911

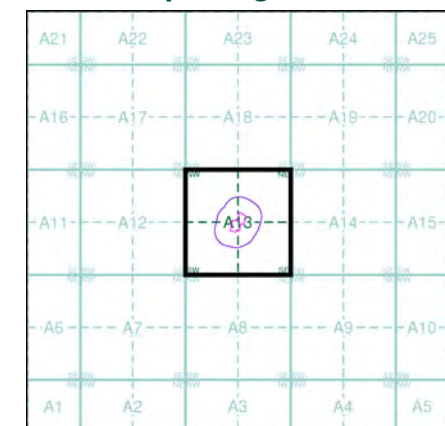
Source map scale - 1:2,500

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)

013_15 1911 1:2,500	013_16 1911 1:2,500
024_03 1911 1:2,500	024_04 1911 1:2,500

Historical Map - Segment A13



Order Details

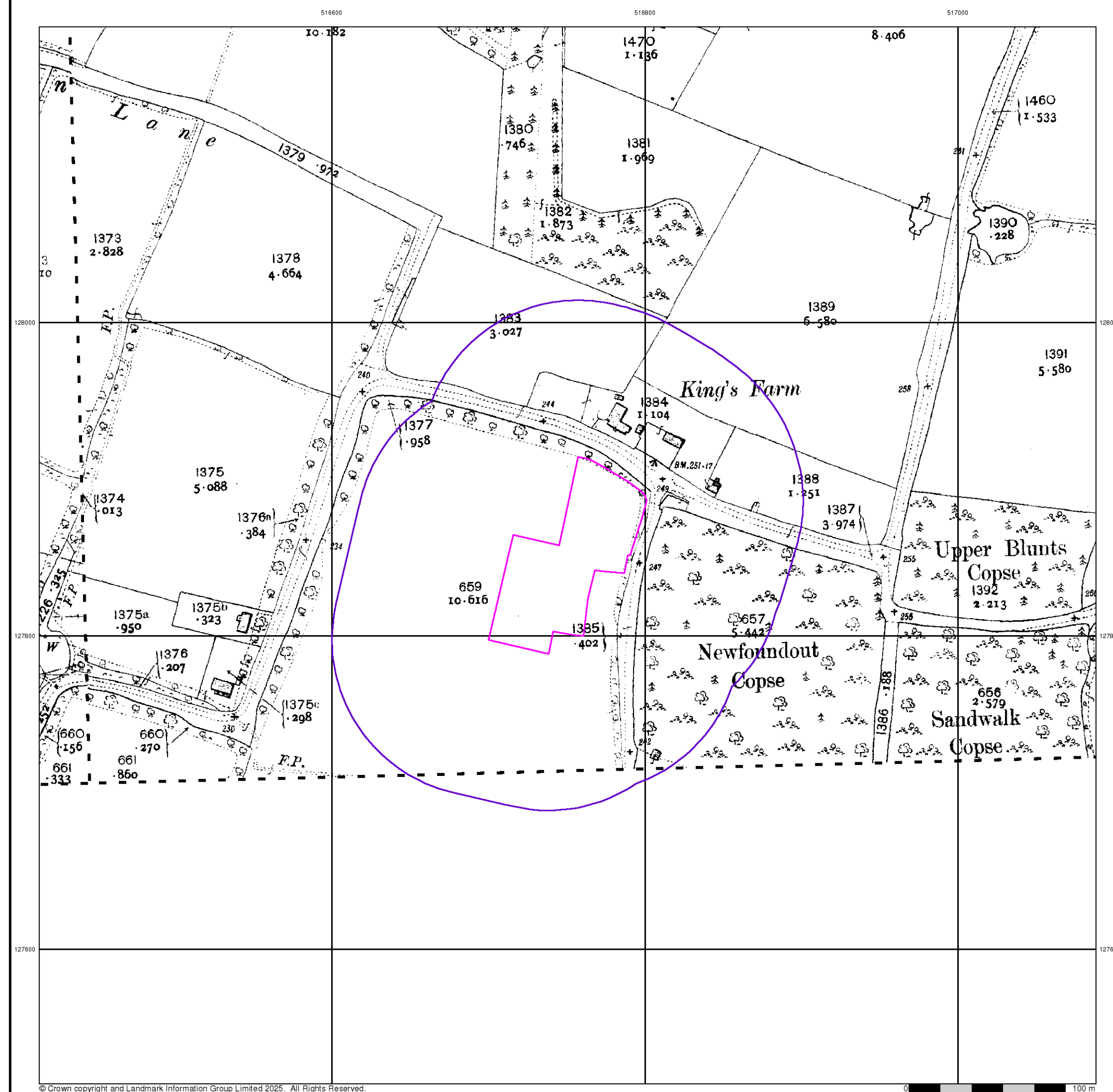
Order Number: 387151192_1_1
Customer Ref: LS8882
National Grid Reference: 516750, 127850
Slice: A
Site Area (Ha): 0.63
Search Buffer (m): 100

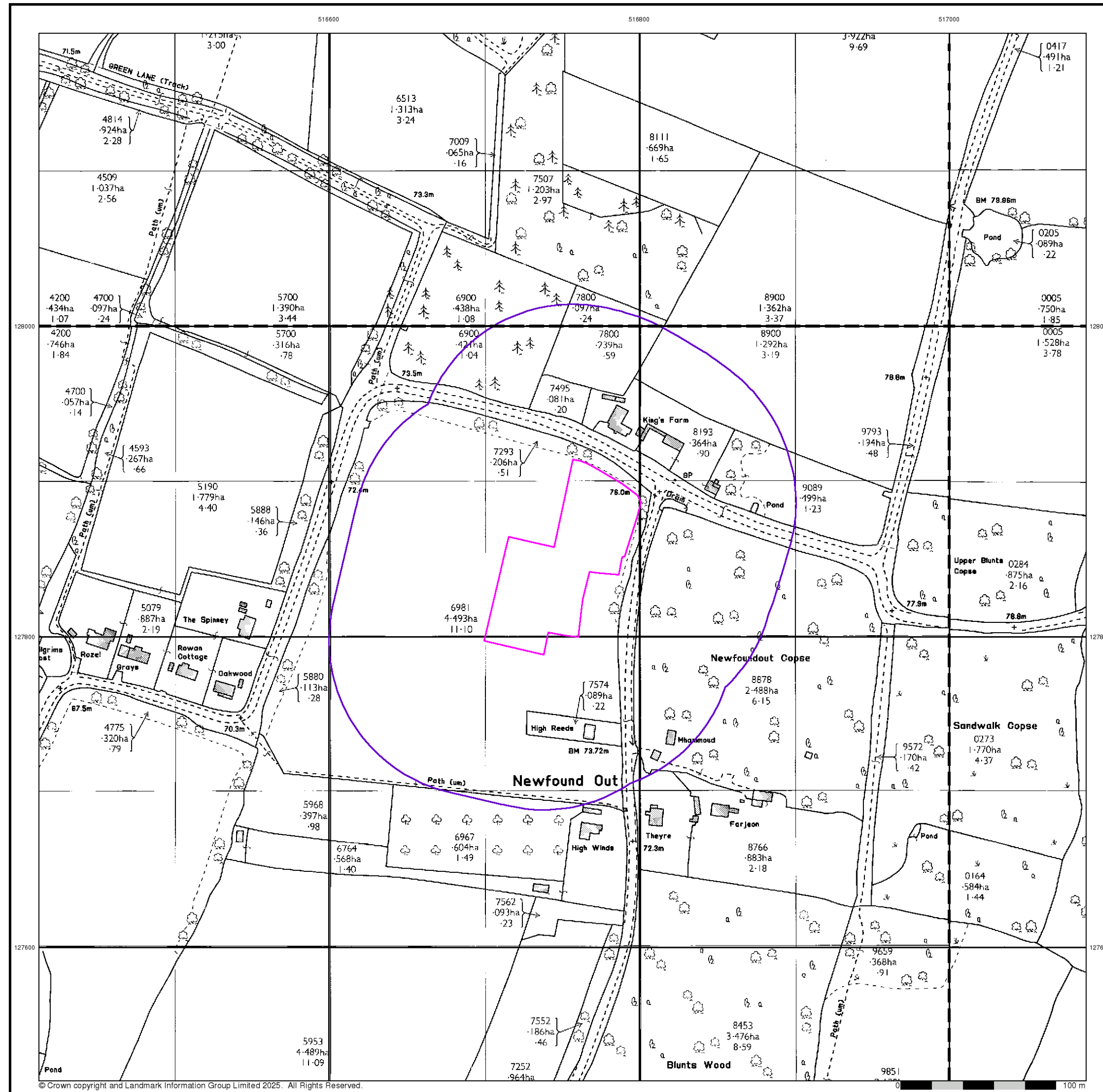
Site Details

Beckley Stud, Reeds Lane, Southwater, HORSHAM, RH13 9DQ



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





Ordnance Survey Plan

Published 1976 - 1977

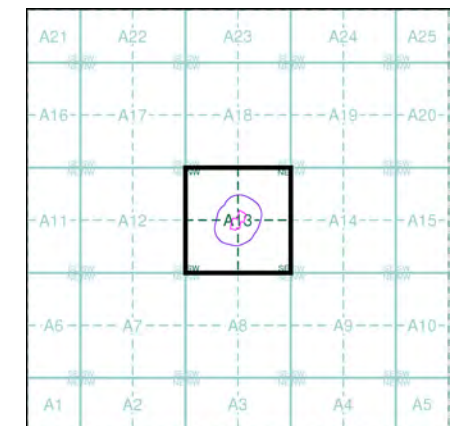
Source map scale - 1:2,500

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)

TQ1628 1977 12,500	TQ1728 1977 12,500
TQ1627 1976 12,500	TQ1727 1976 12,500

Historical Map - Segment A13



Order Details

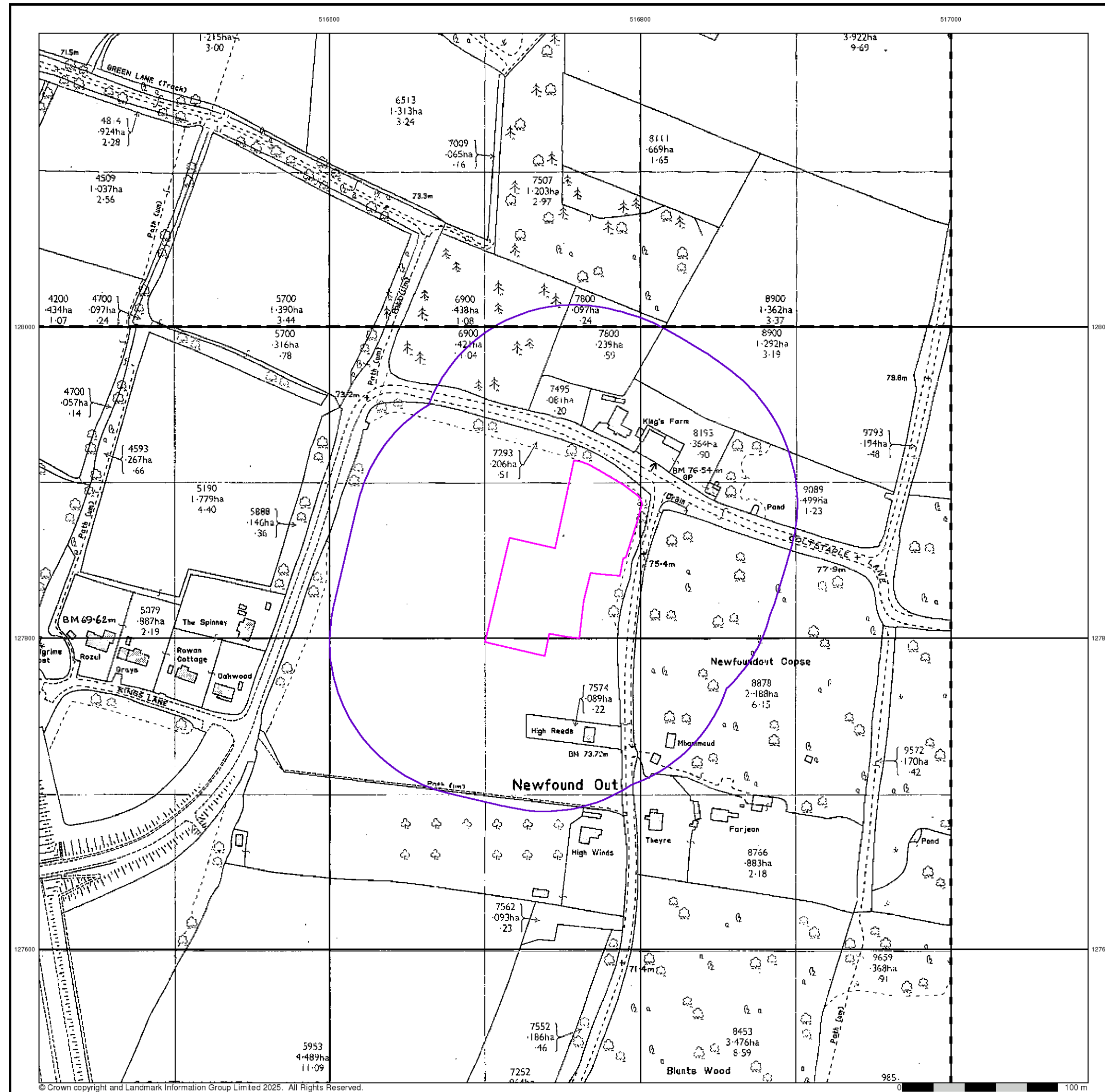
Order Number: 387151192_1_1
Customer Ref: LS8882
National Grid Reference: 516750, 127850
Slice: A
Site Area (Ha): 0.63
Search Buffer (m): 100

Site Details

Beckley Stud, Reeds Lane, Southwater, HORSHAM, RH13 9DQ



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



Land
Science

Additional SIMs

Published 1984

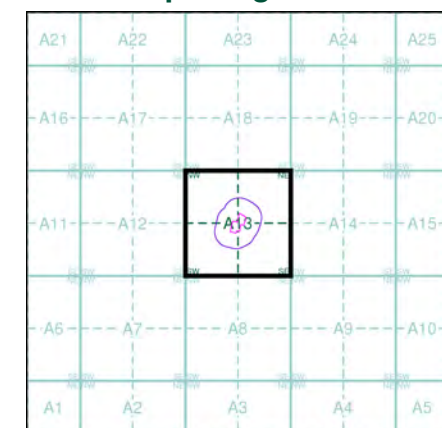
Source map scale - 1:2,500

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)

TQ1628	1984	1:2,500
TQ1627	1984	1:2,500

Historical Map - Segment A13



Order Details

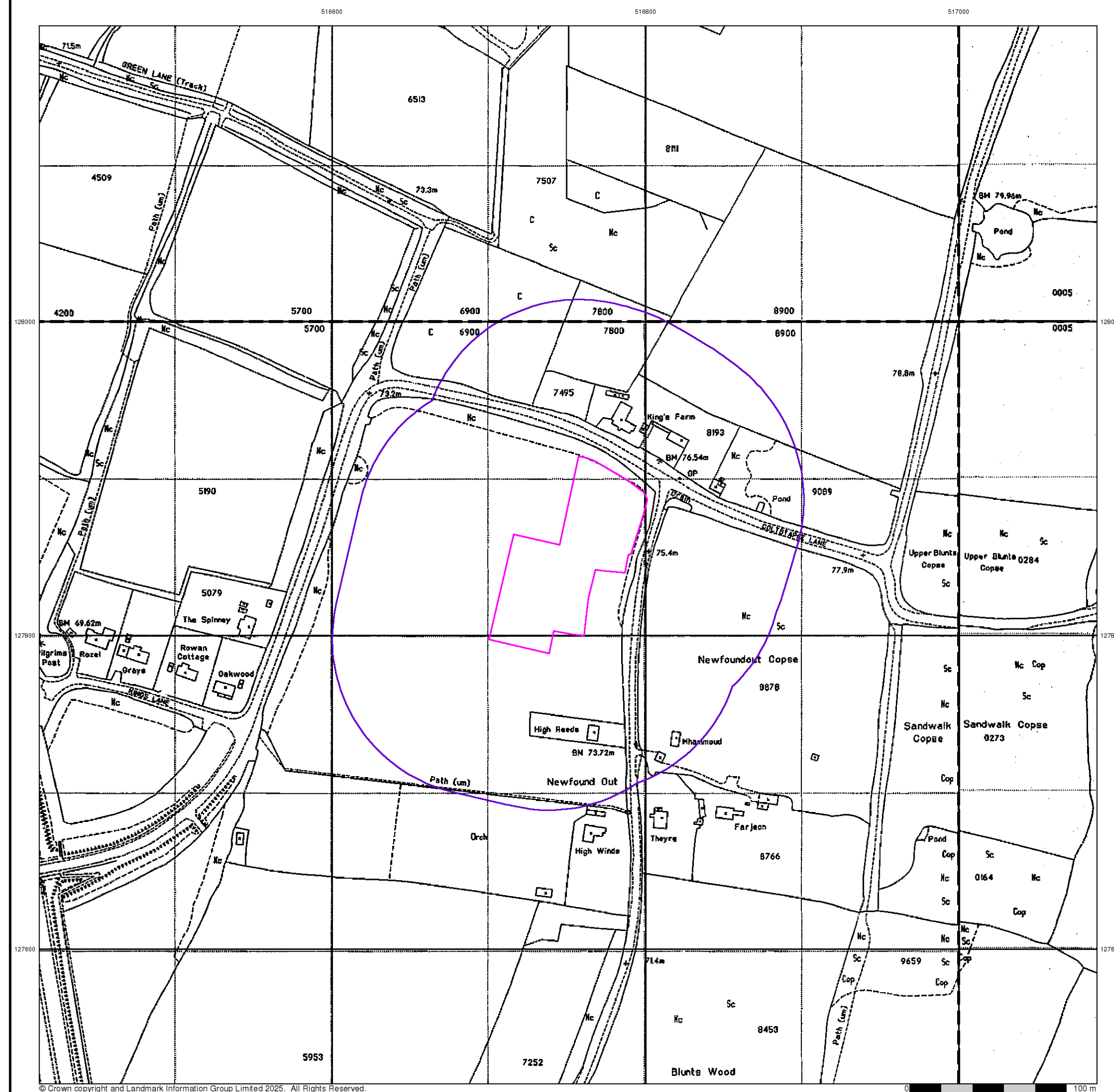
Order Number: 387151192_1_1
Customer Ref: LS8882
National Grid Reference: 516750, 127850
Slice: A
Site Area (Ha): 0.63
Search Buffer (m): 100

Site Details

Beckley Stud, Reeds Lane, Southwater, HORSHAM, RH13 9DQ

Landmark
INFORMATION GROUP

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



Large-Scale National Grid Data

Published 1993

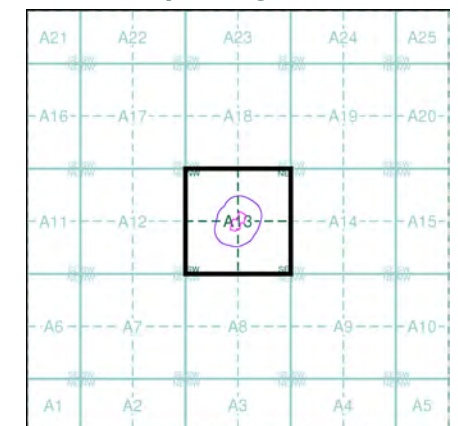
Source map scale - 1:2,500

'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)

TQ1628	TQ1728
1993	1993
12,500	12,500
TQ1627	TQ1727
1993	1993
12,500	12,500

Historical Map - Segment A13



Order Details

Order Number: 387151192_1_1
Customer Ref: LS8882
National Grid Reference: 516750, 127850
Slice: A
Site Area (Ha): 0.63
Search Buffer (m): 100

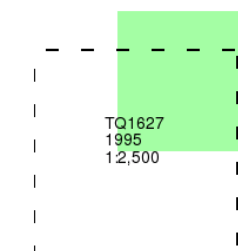
Site Details

Beckley Stud, Reeds Lane, Southwater, HORSHAM, RH13
9DQ

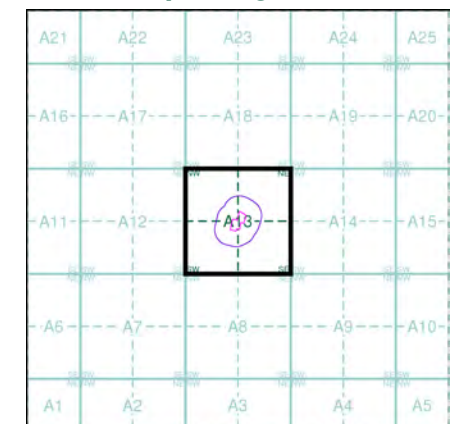


Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

Map Name(s) and Date(s)



Historical Map - Segment A13

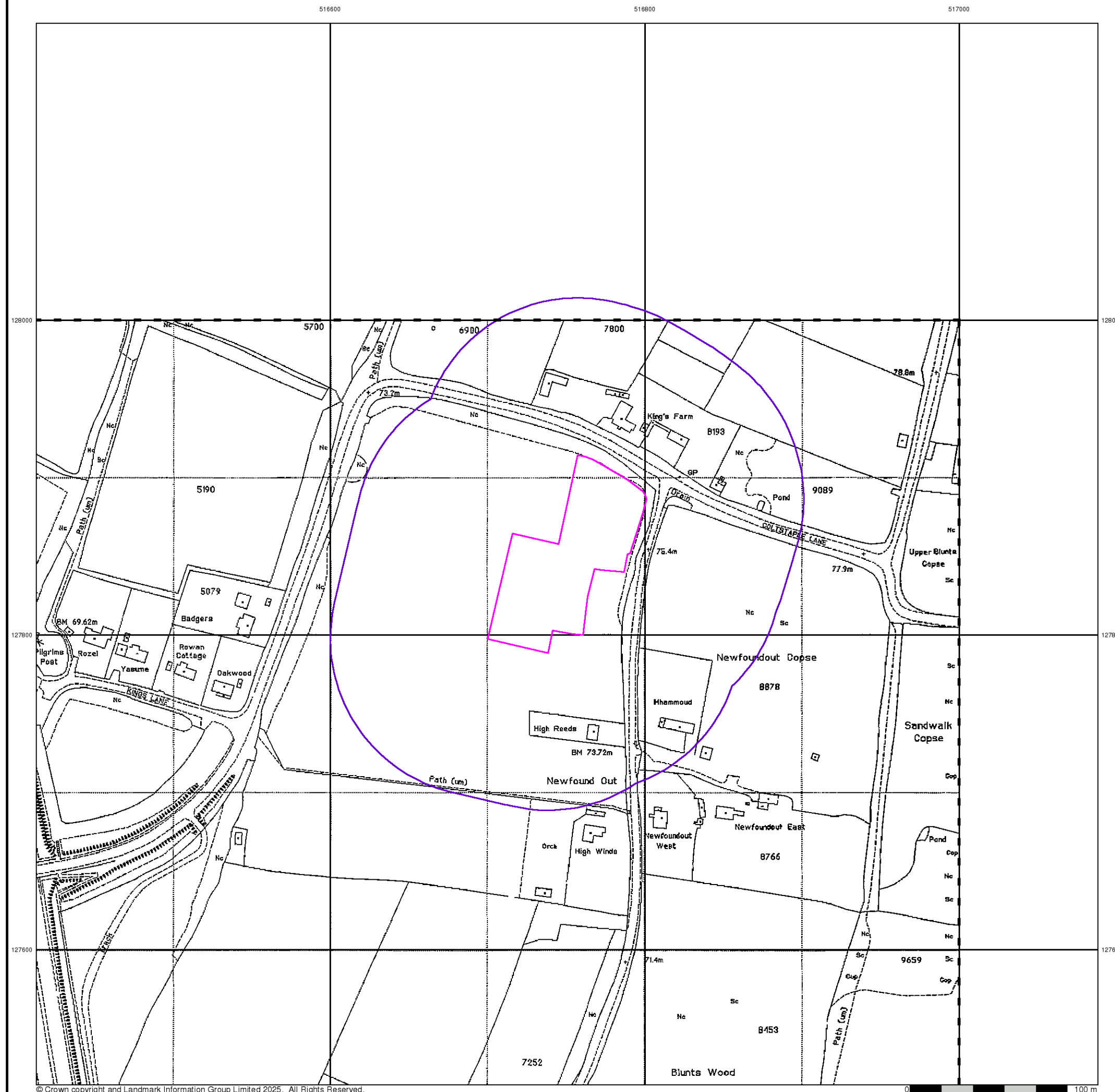


Order Details

Order Number: 387151192_1_1
 Customer Ref: LS8882
 National Grid Reference: 516750, 127850
 Slice: A
 Site Area (Ha): 0.63
 Search Buffer (m): 100

Site Details

Beckley Stud, Reeds Lane, Southwater, HORSHAM, RH13 9DQ







Land Science

Large-Scale National Grid Data

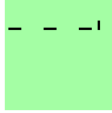
Published 1996

Source map scale - 1:2,500

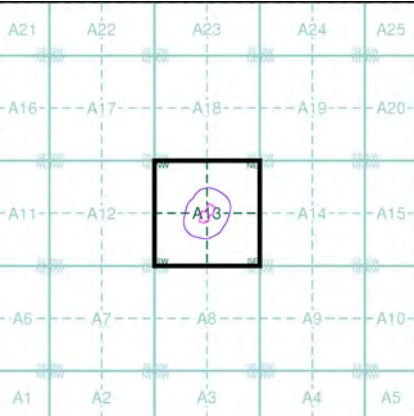
'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic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

Map Name(s) and Date(s)

TQ1628
1996
1:2,500



Historical Map - Segment A13



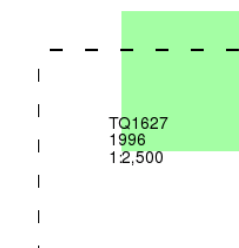
Order Details

Order Number:	387151192_1_1
Customer Ref:	LS8882
National Grid Reference:	516750, 127850
Slice:	A
Site Area (Ha):	0.63
Search Buffer (m):	100

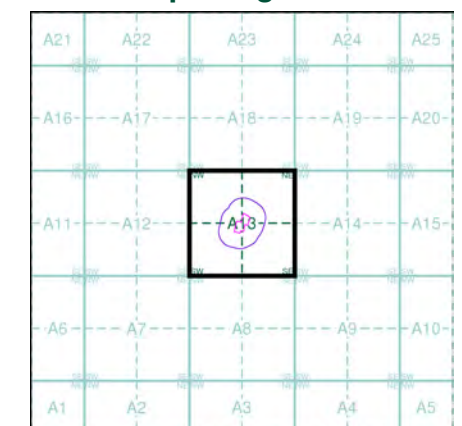
Site Details

Beckley Stud, Reeds Lane, Southwater, HORSHAM, RH13 9DQ

Map Name(s) and Date(s)



Historical Map - Segment A13

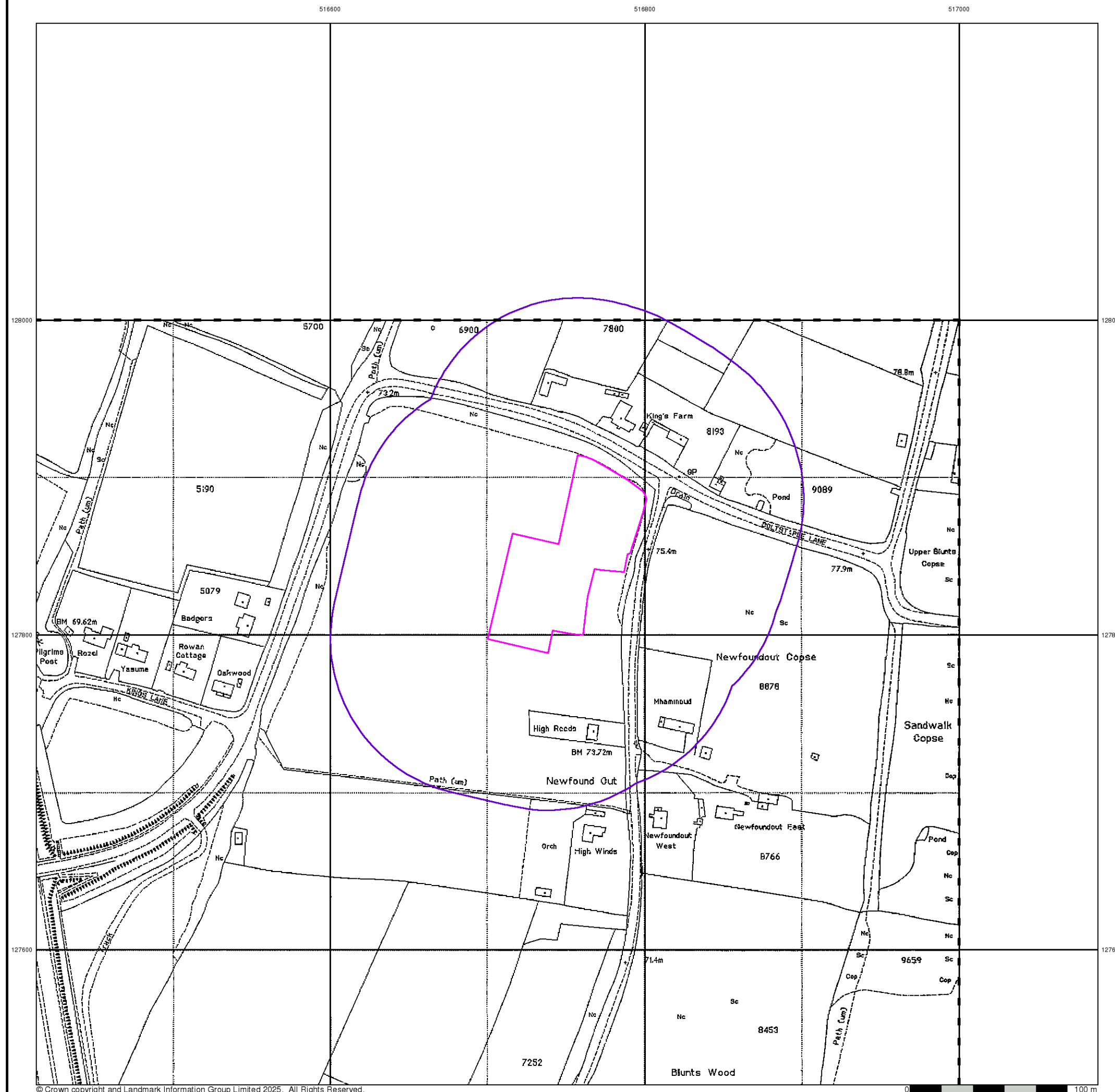


Order Details

Order Number: 387151192_1_1
 Customer Ref: LS8882
 National Grid Reference: 516750, 127850
 Slice: A
 Site Area (Ha): 0.63
 Search Buffer (m): 100

Site Details

Beckley Stud, Reeds Lane, Southwater, HORSHAM, RH13 9DQ





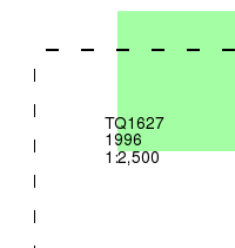
Large-Scale National Grid Data

Published 1996

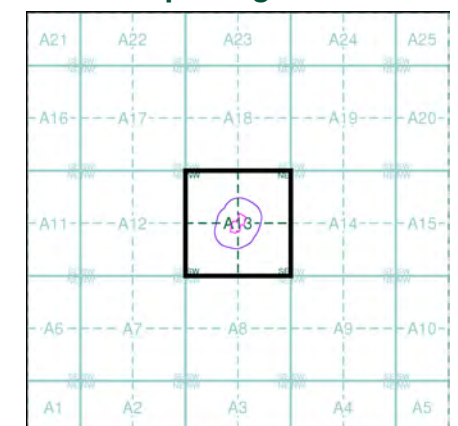
Source map scale - 1:2,500

'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

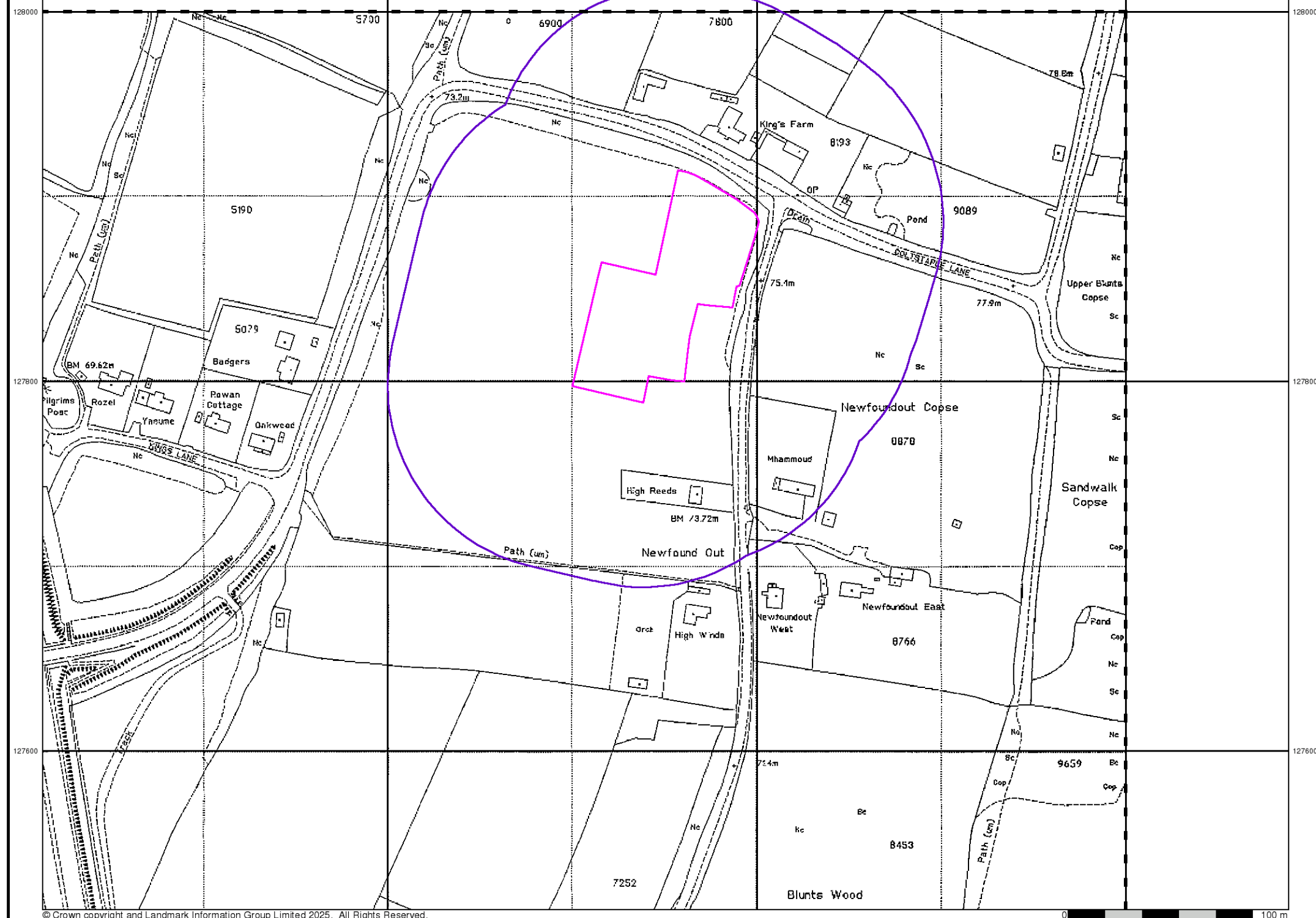
Order Number: 387151192_1_1
Customer Ref: LS8882
National Grid Reference: 516750, 127850
Slice: A
Site Area (Ha): 0.63
Search Buffer (m): 100

Site Details

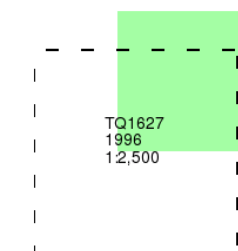
Beckley Stud, Reeds Lane, Southwater, HORSHAM, RH13 9DQ



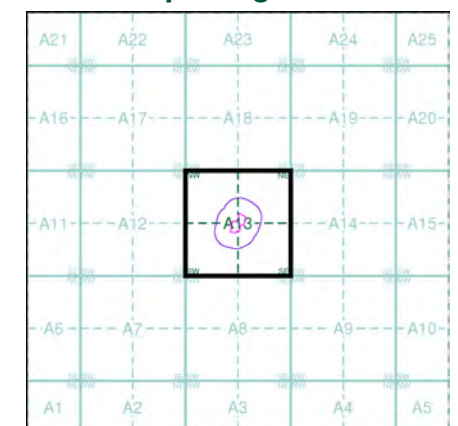
Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



Map Name(s) and Date(s)



Historical Map - Segment A13

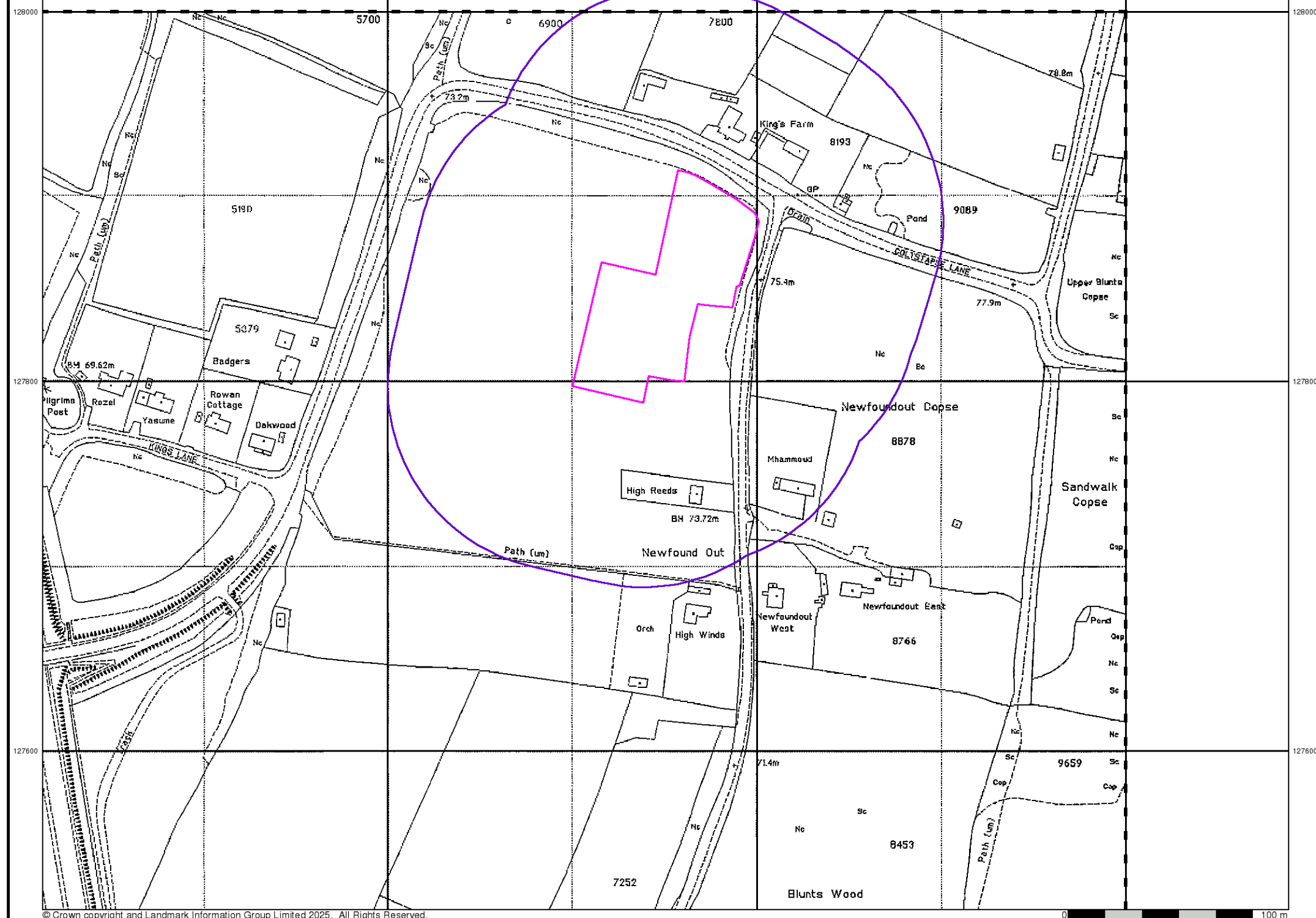


Order Details

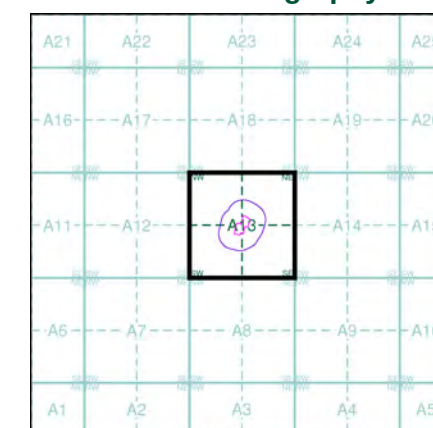
Order Number: 387151192_1_1
 Customer Ref: LS8882
 National Grid Reference: 516750, 127850
 Slice: A
 Site Area (Ha): 0.63
 Search Buffer (m): 100

Site Details

Beckley Stud, Reeds Lane, Southwater, HORSHAM, RH13 9DQ



Historical Aerial Photography - Segment A13



Order Details

Order Number: 387151192_1_1
Customer Ref: LS8882
National Grid Reference: 516750, 127850
Slice: A
Site Area (Ha): 0.63
Search Buffer (m): 100

Site Details

Beckley Stud, Reeds Lane, Southwater, HORSHAM, RH13 9DQ

128000

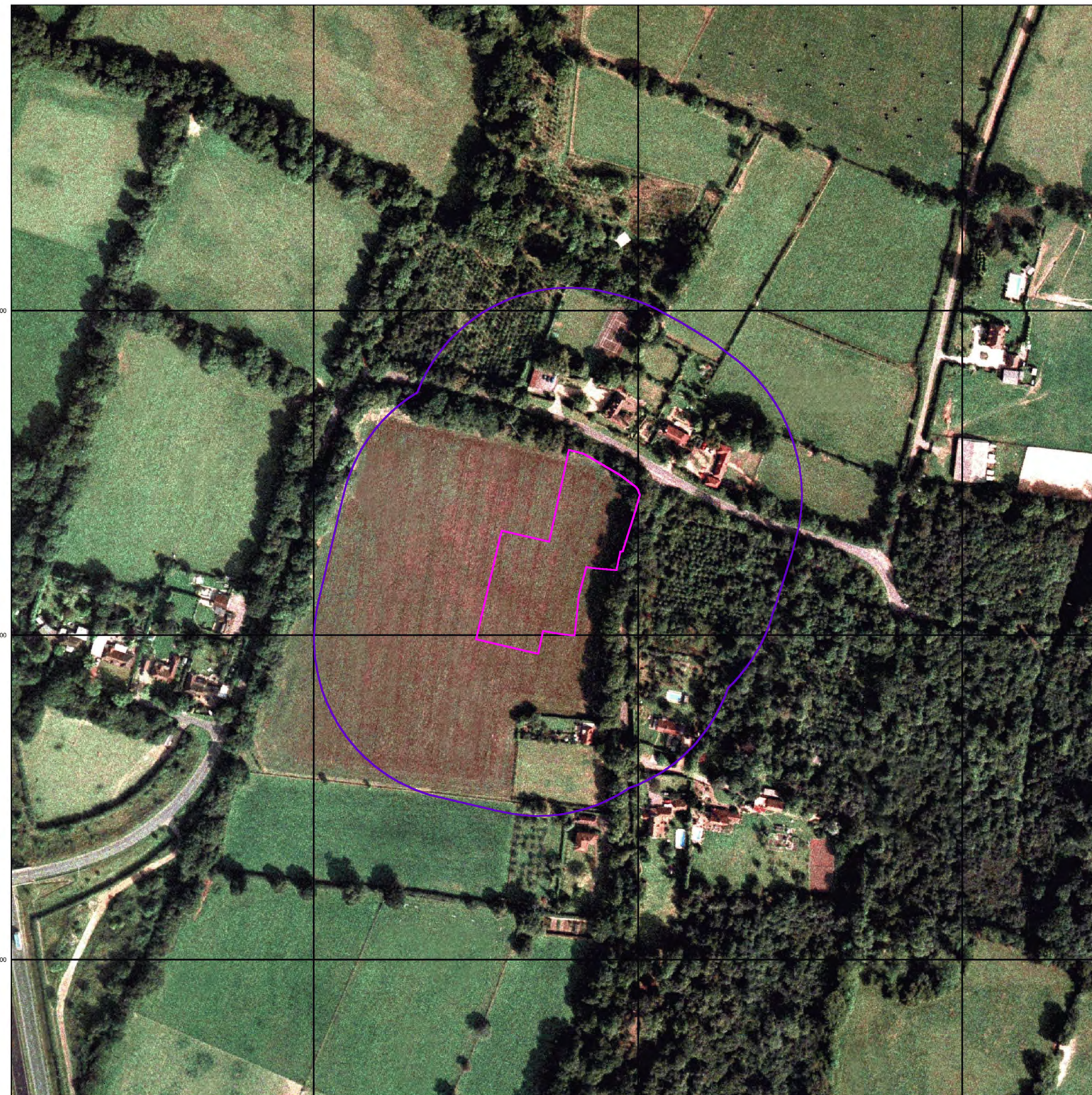
127800

127600

516600

516800

517000



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 Fenced/Un-Fenced		Minor Roads Fenced/Un-Fenced		
	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
	Bracken		Heath
	Marsh		Reeds
	Building		Glasshouse
	Sloping Masonry		Pylon
	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
	Civil Parish		
	BP, BS Boundary Post or Stone		Police Station
	Church		Post Office
	Club House		Public Convenience
	Fire Engine Station		Public House
	Foot Bridge		Signal Box
	Fountain		Spring
	Guide Post		Telephone Call Box
	Mile Post		Telephone Call Post
	Mile Stone		Well

1:10,000 Raster Mapping

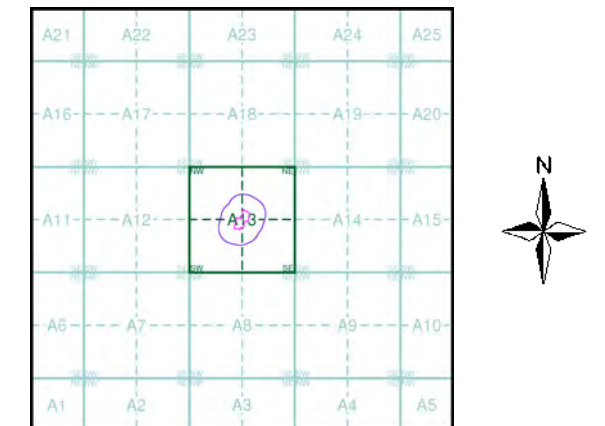
	Gravel Pit		Refuse tip or slag heap
	Rock		Rock (scattered)
	Boulders		Boulders (scattered)
	Shingle		Mud
	Sand		Sand Pit
	Slopes		Top of cliff
	General detail		Underground detail
	Overhead detail		Narrow gauge railway
	Multi-track railway		Single track railway
	County boundary (England only)		Civil, 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
	Mean high water (springs)		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



Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Sussex	1:10,560	1879 - 1880	2
Sussex	1:10,560	1898	3
Sussex	1:10,560	1912	4
Sussex	1:10,560	1912	5
Sussex	1:10,560	1933	6
Sussex	1:10,560	1938	7
Historical Aerial Photography	1:10,560	1947	8
Ordnance Survey Plan	1:10,000	1961	9
Ordnance Survey Plan	1:10,000	1967	10
Ordnance Survey Plan	1:10,000	1983	11
Ordnance Survey Plan	1:10,000	1993	12
10K Raster Mapping	1:10,000	2000	13
10K Raster Mapping	1:10,000	2006	14
VectorMap Local	1:10,000	2025	15

Historical Map - Slice A



Order Details

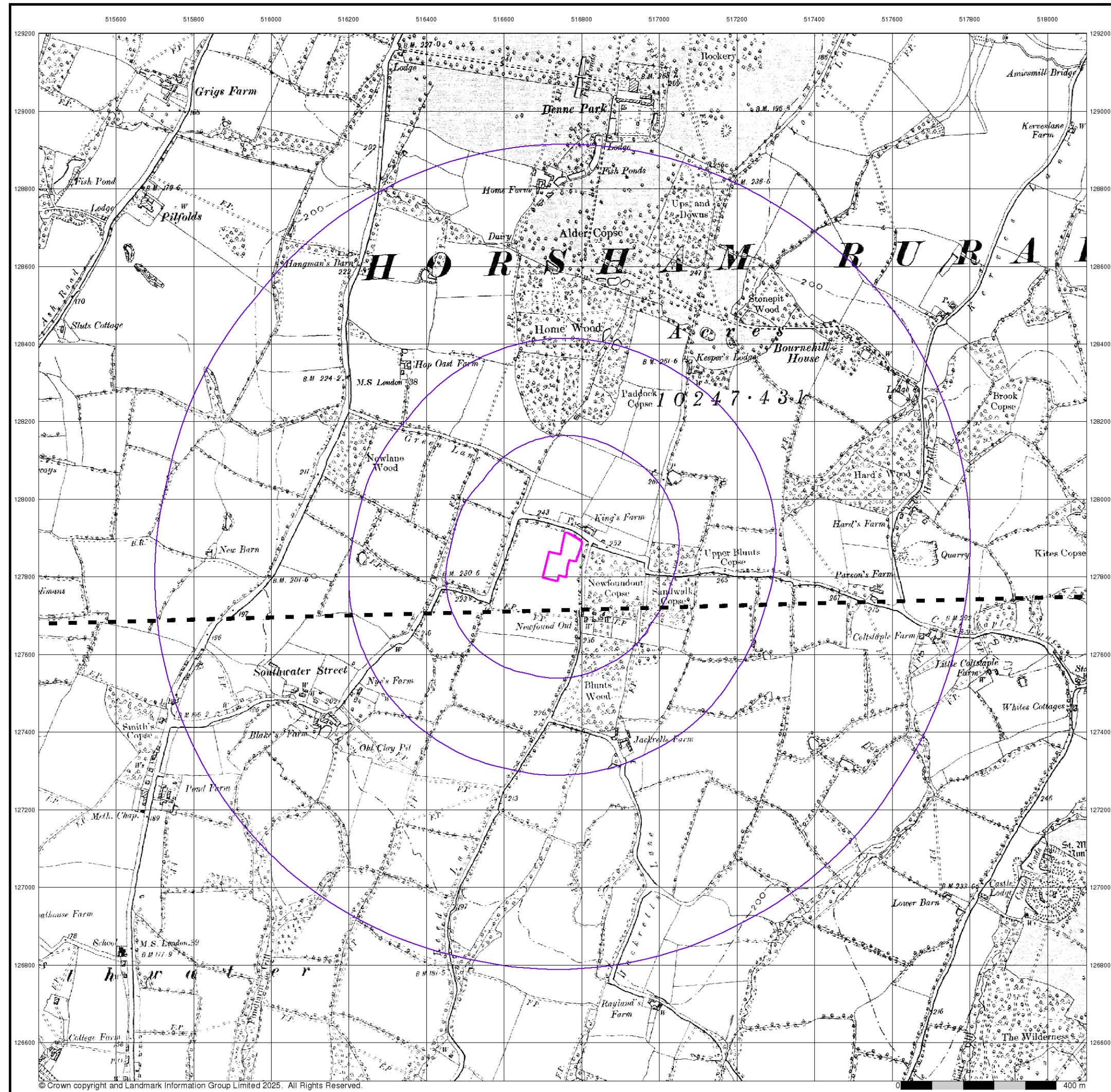
Order Number: 387151192_1_1
Customer Ref: LS8882
National Grid Reference: 516750, 127850
Slice: A
Site Area (Ha): 0.63
Search Buffer (m): 1000

Site Details

Beckley Stud, Reeds Lane, Southwater, HORSHAM, RH13 9DQ



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



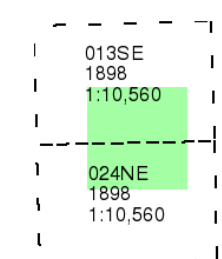
Sussex

Published 1898

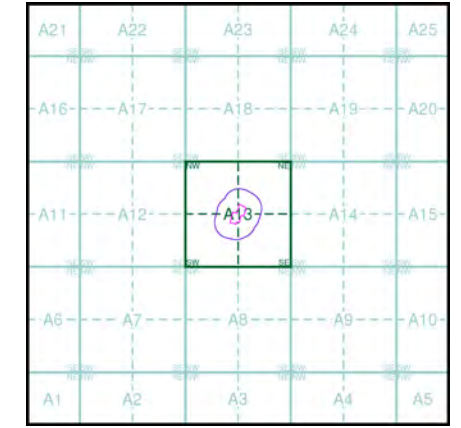
Source map scale - 1:10,560

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

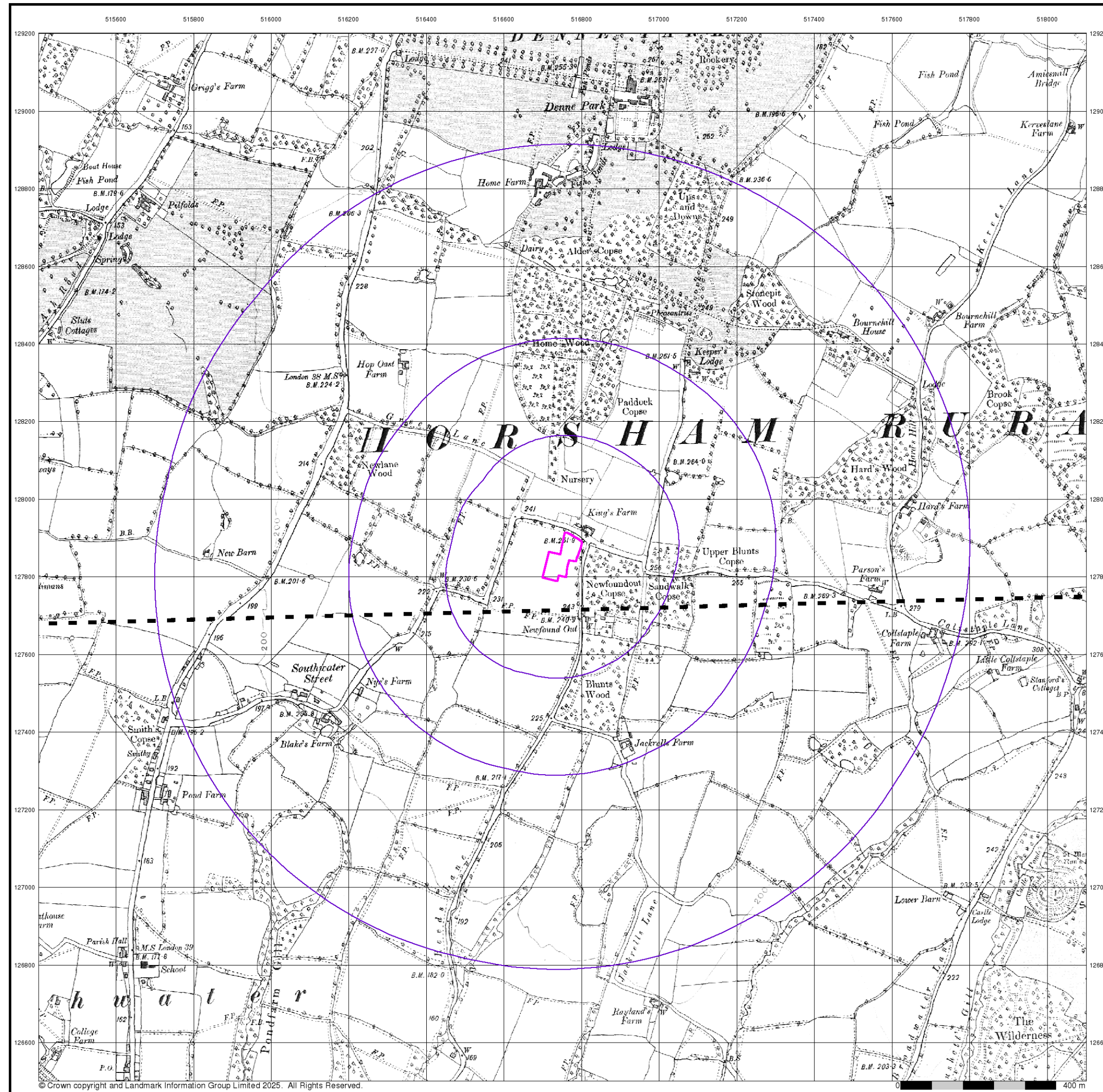
Order Number: 387151192_1_1
Customer Ref: LS8882
National Grid Reference: 516750, 127850
Slice: A
Site Area (Ha): 0.63
Search Buffer (m): 1000

Site Details

Beckley Stud, Reeds Lane, Southwater, HORSHAM, RH13 9DQ



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



© Crown copyright and Landmark Information Group Limited 2025. All Rights Reserved.



Sussex

Published 1912

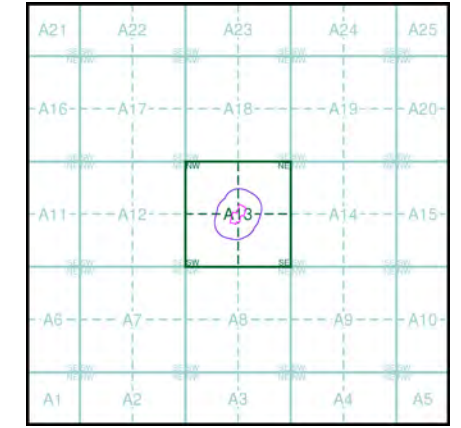
Source map scale - 1:10,560

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)

013SE	1912
1:10,560	
024NE	1912
1:10,560	

Historical Map - Slice A



Order Details

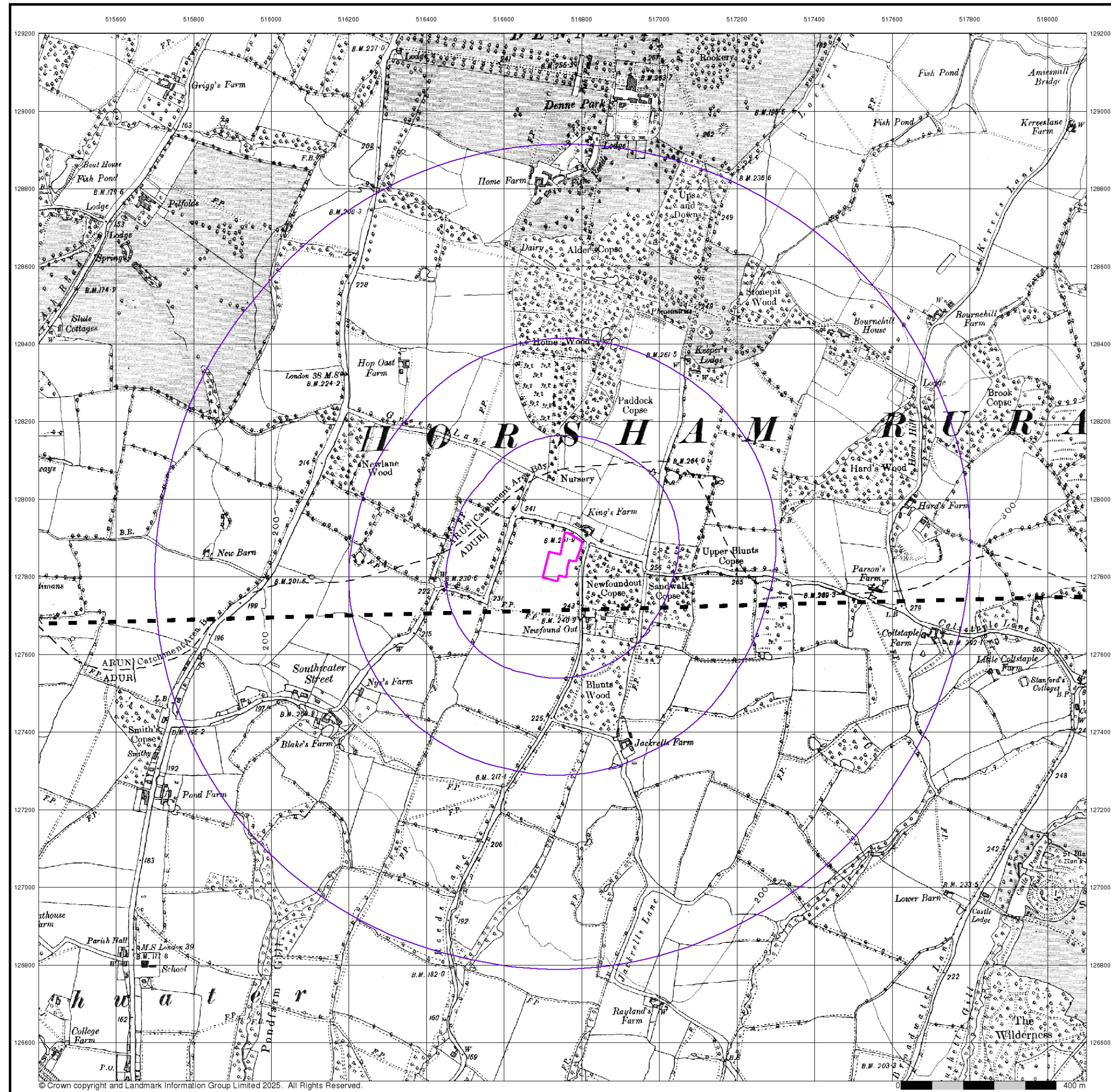
Order Number: 387151192_1_1
Customer Ref: LS8882
National Grid Reference: 516750, 127850
Slice: A
Site Area (Ha): 0.63
Search Buffer (m): 1000

Site Details

Beckley Stud, Reeds Lane, Southwater, HORSHAM, RH13 9DQ



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



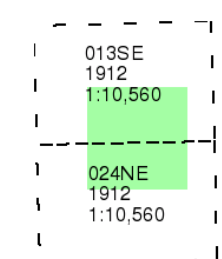
Sussex

Published 1912

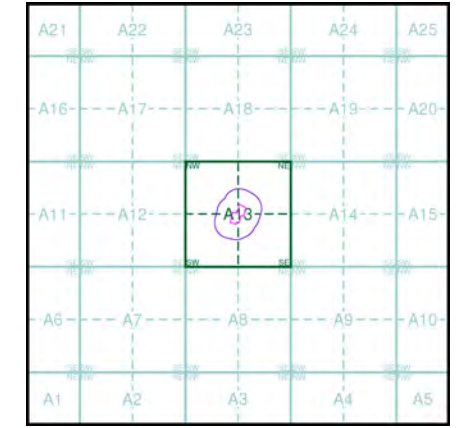
Source map scale - 1:10,560

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

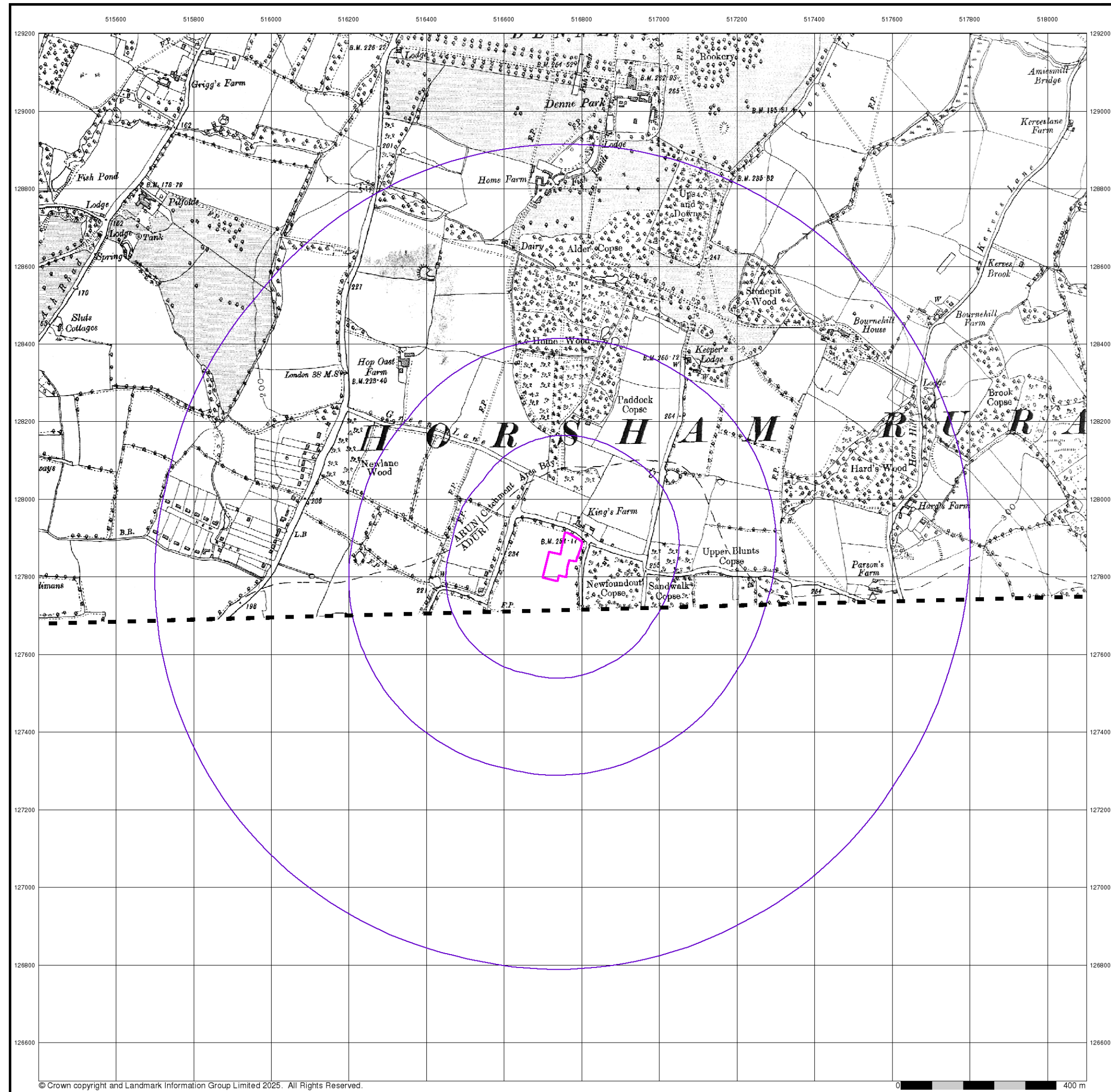
Order Number: 387151192_1_1
Customer Ref: LS8882
National Grid Reference: 516750, 127850
Slice: A
Site Area (Ha): 0.63
Search Buffer (m): 1000

Site Details

Beckley Stud, Reeds Lane, Southwater, HORSHAM, RH13 9DQ



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



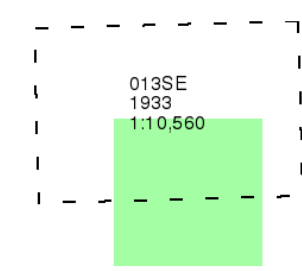
Sussex

Published 1933

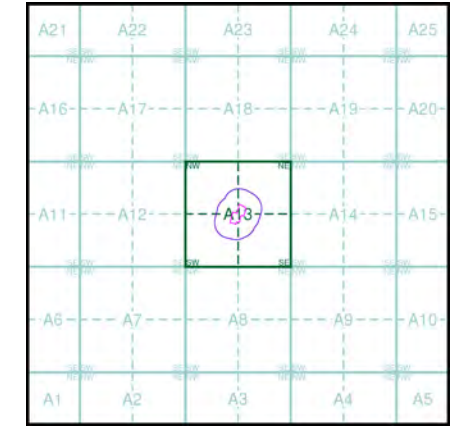
Source map scale - 1:10,560

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

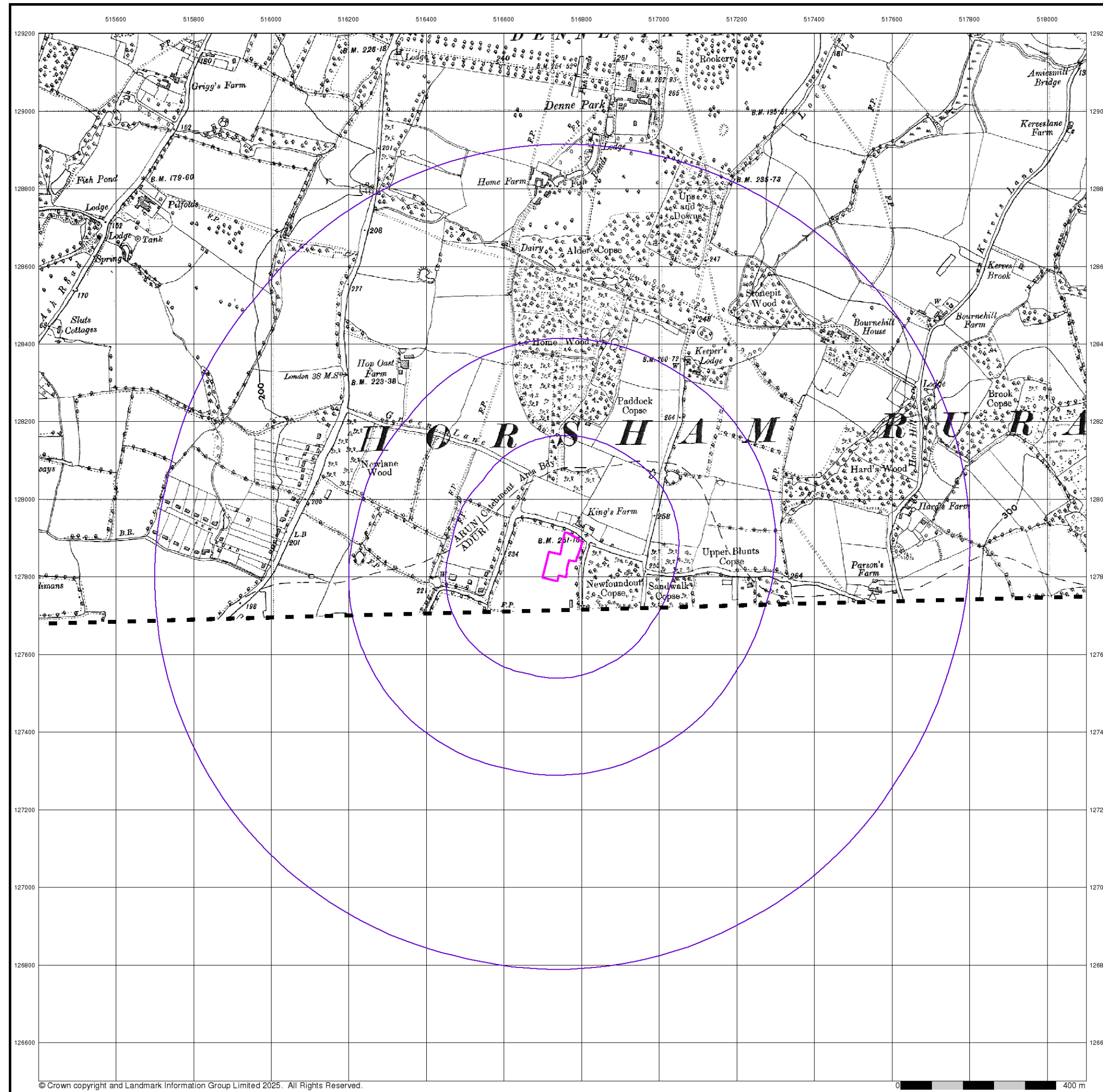
Order Number: 387151192_1_1
Customer Ref: LS8882
National Grid Reference: 516750, 127850
Slice: A
Site Area (Ha): 0.63
Search Buffer (m): 1000

Site Details

Beckley Stud, Reeds Lane, Southwater, HORSHAM, RH13 9DQ



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



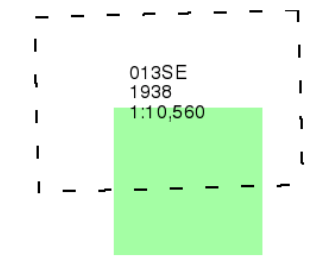
Sussex

Published 1938

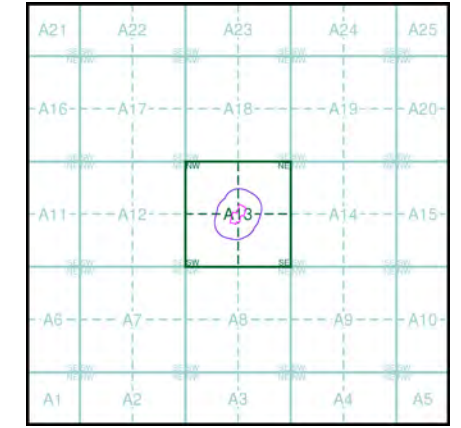
Source map scale - 1:10,560

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

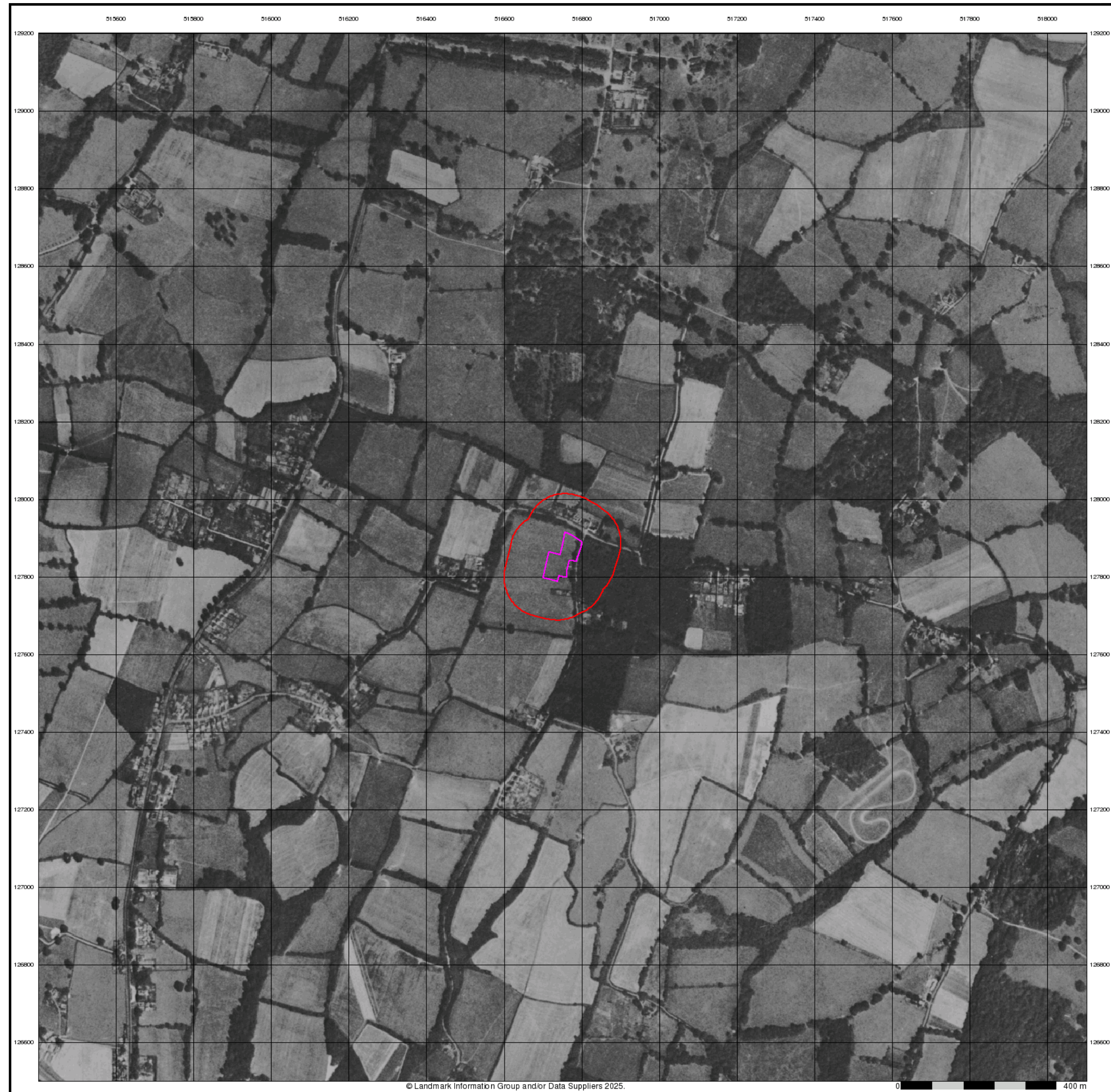
Order Number: 387151192_1_1
Customer Ref: LS8882
National Grid Reference: 516750, 127850
Slice: A
Site Area (Ha): 0.63
Search Buffer (m): 1000

Site Details

Beckley Stud, Reeds Lane, Southwater, HORSHAM, RH13 9DQ



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



Historical Aerial Photography

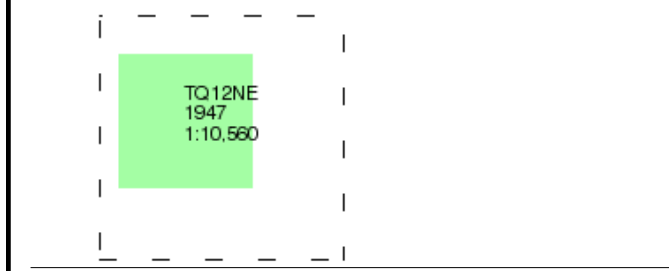
Published 1947

Source map scale - 1:10,560

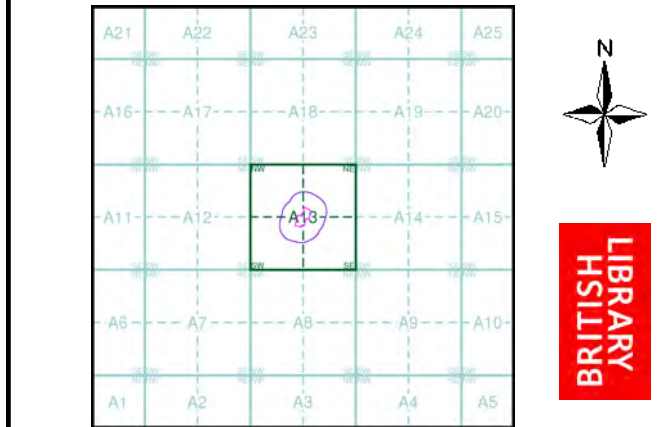
The Historical Aerial Photos were produced by the Ordnance Survey at a scale of 1:1,250 and 1:10,560 from Air Force photography. They were produced between 1944 and 1951 as an interim measure, pending preparation of conventional mapping, due to post war resource shortages. New security measures in the 1950's meant that every photograph was re-checked for potentially unsafe information with security sites replaced by fake fields or clouds. The original editions were withdrawn and only later made available after a period of fifty years although due to the accuracy of the editing, without viewing both revisions it is not easy to spot the edits. Where available Landmark have included both revisions.

© Landmark Information Group and/or Data Suppliers 2010.

Map Name(s) and Date(s)



Historical Aerial Photography - Slice A



Order Details
Order Number: 387151192_1_1
Customer Ref: LS8882
National Grid Reference: 516750, 127850
Slice: A
Site Area (Ha): 0.63
Search Buffer (m): 1000

Site Details
Beckley Stud, Reeds Lane, Southwater, HORSHAM, RH13 9DQ

