



The Millbrook Power (Gas Fired Power Station) Order

6.2 Environmental Statement Appendices – Volume J Appendix 10.1 Ground Conditions

Planning Act 2008
The Infrastructure Planning
(Applications: Prescribed Forms and Procedure) Regulations 2009

PINS Reference Number: EN010068
Document Reference: 6.2
Regulation Number: 5(2)(a) & Infrastructure Planning
(Environmental Impact Assessment)
Regulations 2009
Author: Peter Brett Associates LLP

| Revision | Date | Description |
|----------|--------------|--------------------|
| 0 | October 2017 | Submission Version |



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10.1 - PBA Phase 1 Ground Conditions Report

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Millbrook Power Project

Phase 1 Ground Condition Assessment (Contamination and Geotechnical)

On behalf of **Millbrook Power Ltd**



Project Ref: 40335 | Rev: 00 | Date: September 2017



Document Control Sheet

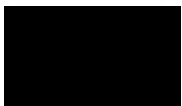


Project Name: Millbrook Power Project

Project Ref: 40335

Report Title: Phase 1 Ground Condition Assessment (Contamination and Geotechnical)

Doc Ref: Rev00

Date: September 2017

| | Name | Position | Signature | Date |
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| Revision | Date | Description | Prepared | Reviewed | Approved |
|----------|-----------|-------------|----------|----------|----------|
| 00 | Sept 2017 | Issue | NW | VKR | PJ |
| | | | | | |

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1 Introduction

1.1 Preamble

- 1.1.1 Peter Brett Associates LLP (PBA) has been instructed by Millbrook Power Ltd (the Applicant) to undertake a Phase 1 Ground Condition Assessment (GCA) for an area of land (the Project Site) that lies within and around the Rookery South clay pit, approximately 1km to the south of the village of Stewartby, in Marston Vale, Bedfordshire. A site location plan is presented as Figure 1.
- 1.1.2 This report has been prepared to support a Development Consent Order (DCO) application to develop the Project Site for the construction of a proposed gas fired electricity peaking plant.
- 1.1.3 The Project would comprise:
- a new Power Generation Plant in the form of an Open Cycle Gas Turbine (OCGT) peaking power generating station, fuelled by natural gas with a rated electrical output of up to 299 MW. This is the output of the generating station as a whole, measured at the terminals of the generating equipment. The Power Generation Plant comprises:
 - generating equipment including one Gas Turbine Generator with one exhaust gas flue stack and Balance of Plant (together referred to as the 'Generating Equipment'), which are located within the 'Generating Equipment Site';
 - a new purpose built access road from Green Lane to the Generating Equipment Site (the 'Access Road' or the 'Short Access Road');
 - a temporary construction compound required during construction only (the 'Laydown Area');
 - a new underground gas pipeline connection, approximately 1.8 km in length (the 'Pipeline') to bring natural gas to the Generating Equipment from the National Transmission System (the 'Gas Connection'). The Gas Connection also incorporates an Above Ground Installation (AGI) at the point of connection to the National Transmission System; and
 - a new electrical connection to export power from the Generating Equipment to the National Grid Electricity Transmission System (NETS) (the 'Electrical Connection'), comprising an underground double circuit Tee-in. This would require one new tower (which will replace an existing tower and be located in the existing Grendon – Sundon transmission route corridor, thereby resulting in no net additional towers). This option would require two SECs, one located on each side of the existing transmission line, and both circuits would then be connected via underground cables approximately 500 m in length to a new substation (the 'Substation').
- 1.1.4 The Generating Equipment, Access Road and Laydown Area are together known as the 'Power Generation Plant' and are located within the 'Power Generation Plant Site'. The Power Generation Plant Site is approximately 12.5 ha in area.
- 1.1.5 The Power Generation Plant, Gas Connection, and Electrical Connection, together with all access requirements are referred to as the 'Project'. The land upon which the Project would be developed, or which would be required in order to facilitate the development of the Project, is referred to as the 'Project Site'. The Project Site is approximately 48 ha in area. The Project is described in more detail in Chapter 3.
- 1.1.6 A full glossary of defined terms is presented in Appendix 1.1 of the ES (Document Reference 6.2).

1.2 Background

- 1.2.1 The Rookery South clay pit (comprising an area of approximately 95 ha) and adjoining Rookery North clay pit (approximately 70 ha), were previously used for clay extraction of the Oxford Clay Formation to use in brick manufacture at the Stewartby Brickworks. The former clay pits have been largely worked out (clay extraction ceased in 1986), with basal levels up until May 2017 in the Rookery South pit left largely as they were after excavation apart from some minor areas of reworked ground and partial buttressing of the pit edge side slopes to improve their stability. At the time of writing this report the Rookery South pit earthworks associated with the Low Level Restoration Scheme (LLRS) were ongoing having commenced in circa May 2017. A site layout plan indicating the current red line boundary is presented as **Figure 2**.
- 1.2.2 The Low Level Restoration Scheme (LLRS) is proposed to further restore and reshape the base and sides of the Rookery South pit to facilitate development within the pit and the proposals). The proposed LLRS will be implemented prior to the development of the Project Site described in this GCA and will involve the use of soils, overburden and a proportion of the remaining clay reserves within the Project Site to re-profile the base of the pit, and buttress the side slopes to improve their stability. These restoration works are described in more detail in **Section 1.5** below.
- 1.2.3 The wider site area has been the subject of several previous ground investigations and reports compiled by PBA and others. The following sections of the report draw upon previous studies and site investigation information primarily from the following reports:
- CLA 2000. Ground Investigation – Rookery South Proposed Landfill Site, Bedfordshire. Report no: 2690072. March 2000. CL Associates.
 - TC 2001. Terraconsult. Slope stability and Uplift Assessment Rookery South Landfill Site, Bedfordshire. May 2001. Ref. 00/039-1.
 - PBA 2003 Peter Brett Associates. Slope stability Review, Rookery South. Letter to O+H Hampton Ltd, dated 9 December 2003. Reference 14051/002/SNK/KB/DA.
 - PBA 2005. Peter Brett Associates. Strategic Slope Stability Review, November 2005. Reference 13231/CHB/KB/RHT.
 - PBA 2008. Peter Brett Associates. Rookery Pit (North and South) – Low Level Restoration Scheme – Geoenvironmental and Geotechnical Desk Study and Phase 1 Ground Condition Assessment. December 2008. Reference 14081 Geo Phase 1/rev 1.
 - PBA 2009. Peter Brett Associates. Rookery Pit – Low Level Restoration Scheme – Engineering Statement. April 2009. Reference 14081EngStat R2.
 - PBA 2009a. Peter Brett Associates Proposed Resource Recovery Centre – Rookery South, Stewartby. Geoenvironmental and Geotechnical Desk Study and Phase 1 Ground Condition Assessment. Ref 21780/016/DTS/Rev1.
 - PBA 2009b. Peter Brett Associates. Proposed Resource Recovery Centre – Rookery South, Stewartby. Report on Geotechnical and Geoenvironmental Ground Investigation. Ref 21780/016/GI/Rev1.

- PBA 2011. Peter Brett Associates. Rookery Pit Low Level Restoration Scheme Planning Permission Ref BC/CM/2000/8 Site Environmental Management Plan. Ref 14081/052/Rev 1.

1.3 Objectives

- 1.3.1 The primary aim of this assessment is to meet the requirements of the National Planning Policy Framework (NPPF) Clauses 120, 121 and 122 (DCLG, 2012). Under the definition 'Site Investigation Information' given in the NPPF, a Phase 1 Desk Study and contamination risk assessment is the minimum requirement under the NPPF to support any planning application on a site that might be potentially affected by contamination. Similarly, a desk study and site reconnaissance is the minimum information that should be provided for a site potentially at risk from ground instability.
- 1.3.2 This report presents a Phase 1 ground condition assessment comprising a desk study, site walkover and Tier 1 preliminary qualitative contamination risk assessment and preliminary geotechnical assessment.
- 1.3.3 The objective of the Phase 1 is to review readily available information to assess the likely ground conditions and environmental setting at the Project Site and in the immediate surrounding area in order to identify if there are potential geoenvironmental and geotechnical hazards and constraints that present a significant risk to The Project.
- 1.3.4 It should be noted that this Phase 1 assessment is a land condition assessment and does not purport to be an ecological, flood risk or archaeological survey and additional specific surveys may be required to support a planning application. Guidance on the use of this report is provided in **Section 9**.

1.4 Scope of Work/Terms of Reference

- 1.4.1 In accordance with the requirements of the NPPF (DCLoG, 2012), the assessment has been carried out in accordance with "established procedures" using current UK best practice and guidance as given in British Standard 10175 (2011), Contaminated Land Report 11 (EA, 2004) and NHBC Standards Chapter 4.1 (NHBC, 2016).
- 1.4.2 In order to identify the current conditions and land use on the Project Site and in the surrounding area, readily available information in the public domain has been obtained and reviewed, and a site reconnaissance walkover has been carried out. This report presents a review of the acquired information, together with the development of a Preliminary Conceptual Site Model (CSM) and the associated Tier 1 risk assessment. This report also presents a qualitative assessment of any hazards and constraints posed by the existing ground conditions to the proposed development and comments on any mitigation or remediation measures that may be required. The PBA Specification for Phase 1 Ground Condition Assessment is presented as Appendix 1.

1.5 Methodology

- 1.5.1 The PBA methodology for the assessment of potentially contaminated land is presented in **Appendix 1**.
- 1.5.2 The underlying principle is the evaluation of *pollutant linkages* in order to assess whether the presence of a source of contamination could potentially lead to harmful consequences. A pollutant linkage consists of the following three elements:
- A source of contamination or hazard that has the potential to cause harm or pollution;

- A pathway for the hazard to move along / generate exposure; and
- A receptor which is affected by the hazard.

1.5.3 For each potential pollutant linkage identified the risk is estimated through consideration of the magnitude of the potential consequences and the likelihood or probability of an event occurring.

1.5.4 This report is divided into chapters identifying potential sources (hazard identification), potential pathway and receptor identification and risk estimation and assessment.

1.6 Sources of Information

1.6.1 Information within PBA archives (See Section 1.2 above) and that readily available in the public domain has been reviewed in order to identify the likely ground conditions at the Project Site and in the surrounding area.

1.6.2 The following additional sources of information were used in the preparation of this report: -

- Landmark Information Group (LIG) was commissioned to provide historical maps (2014) and an Envirocheck report (2017) that includes environmental datasets and sensitivity information for the site and the surrounding area. The historical maps are presented as **Appendix 3** and the Envirocheck report is presented as **Appendix 4**
- PBA walkover inspection on 24th July 2017 – photographic plates are presented in **Appendix 2**
- Information published by the British Geological Survey (BGS) from 1:50,000 scale geological maps.
- Review of the National Artificial and Natural Cavities Databases managed and enhanced by Peter Brett Associates LLP.
- Environment Agency website 'What's in Your Back Yard?' accessed on the 22 May 2017.

2 Land Use Information

2.1 Introduction

- 2.1.1 This section presents a summary of current and historical land uses on and immediately adjacent to the Project Site. Land use is used to inform the hazard identification element of the risk assessment.
- 2.1.2 The current land use information is based on a walkover inspection undertaken by PBA on the 24th July 2017. Photographs taken during the site walkover (Plates 1 to 6) are presented in **Appendix 2**.
- 2.1.3 The historical land use information is based largely on archive information held by PBA, supplemented by historical Ordnance Survey maps and aerial photography provided by LIG and presented in **Appendix 3**.
- 2.1.4 For simplicity and ease of reading, the description of the Project Site has been split into four sections; the site of the generating equipment and power generation plant (Power Generation Plant Site) in the base of the Rookery South Pit (includes temporary laydown area), the Access Road providing connectivity between the Generating Equipment Site and Green Lane, the Electrical Connection, and the Gas Connection.

2.2 Site Location and Setting

- 2.2.1 The Project Site is approximately centred at National Grid Reference TL013 408, approximately 1km to south of the village of Stewartby, in Marston Vale, Bedfordshire.
- 2.2.2 The Project Site comprises part of a former clay pit and agricultural land between Stewartby in the north and the Millbrook proving ground to the south, the Marston Vale branch railway line to the west and the mainline London to Sheffield railway line to the east.
- 2.2.3 This site is currently accessed via a track leading from Green Lane to the Generating Equipment Site. A site location plan is presented as **Figure 1**.
- 2.2.4 A site layout plan, annotated with the areas discussed in this report is presented as **Figure 2**.

Power Generation Plant

- 2.2.5 The western boundary of the Power Generation Plant Site is formed by the Bedford to Bletchley ('Marston Vale') railway line and Pillinge Farm South.
- 2.2.6 The northern and eastern boundary is formed by the remainder of the Rookery South Pit.
- 2.2.7 The southern boundary is formed by the Electrical and Gas Connection area.

The Access Road

- 2.2.8 The Access Road runs in a southerly direction from Green Lane along the western perimeter of the Rookery North pit and then descends via an access ramp in the north-western corner of Rookery South pit meeting the northern boundary of the Generating Equipment Site.
- 2.2.9 The western boundary is formed by the Bedford to Bletchley ('Marston Vale') railway line.

Electrical and Gas Connection

- 2.2.10 An area of agricultural land south of and adjacent to the clay pit is included within the wider Project Site. This land will be utilised for an Electrical Connection to the existing 400kV power connection (Electrical Connection) and a link to the National Transmission System gas pipeline (Gas Connection). The furthest point of this area is located approximately 1.5km to the southeast of the Power Generation Plant Site.
- 2.2.11 South Pilling Farm is located to the immediate west of the Electrical Connection with the southern boundary formed by the Millbrook Vehicle Proving Ground. The Gas Connection forms the eastern boundary.
- 2.2.12 The Gas Connection is formed of a narrow corridor, approximately 50m wide, running south east for approximately 1.8 km. The route crosses Millbrook Road and reaches its furthest point adjacent to Lower Farm.
- 2.2.13 The Gas Connection is located across predominantly agricultural land and these form the boundaries of the area.

2.3 Current Land Use

Power Generation Plant Site

- 2.3.1 The Power Generation Plant Site lies partly within the base of the Rookery South clay pit. Topographically the pit lies some 15m lower than the natural surrounding ground level. The base of the pit in this area is roughly level and sparsely vegetated, with no features of note observed within the excavation.
- 2.3.2 The southern part of the Generating Equipment Site includes the southern bank of the clay pit, which is again sparsely vegetated. The western bank lies in close proximity of the north-western Project Site boundary and comprises a split-level pit edge slope adjacent to the access road.
- 2.3.3 At the time of the walkover inspection in July 2017 a number of earthwork activities were being undertaken within the base of the Rookery South clay pit as part of the ongoing LLRS earthworks, and as such stockpiles of topsoil and as dug callow clay are presented in the base of the pit, arising from material stripped from the southern enclave borrow pit area used to source materials for the wider LLRS earthworks
- 2.3.4 Off Site land uses is as follows:
- 2.3.5 North: The remainder of the Rookery South clay pit bounds the northern parts of the Generating Equipment Site, beyond which is the Rookery North pit, Green Lane and the redundant Stewartby Brickworks site. Stewartby Village lies adjacent to the north of the Rookery North pit some 1200m to the north of the Generating Equipment Site.
- 2.3.6 East: The remainder of the Rookery South Pit bounds arable land currently set to a cereal crop with a public footpath and the Midland Mainline railway beyond.
- 2.3.7 West: The western edge of the Rookery South Pit bounds lies in close proximity to the western boundary of the Generating Equipment Site with the Marston Vale railway line and the Marston Vale Millennium Country Park beyond.
- 2.3.8 South: South of the Power Generation Plant Site is entirely bounded by agricultural and the Electrical Connection and Gas Connection Areas.

Access Road

- 2.3.9 The Access Road is located toward the north-western corner of the Project Site and runs along the western Project Site boundary between Rookery North Pit and the Marston Vale railway line.
- 2.3.10 The Access Road meets Green Lane at its northernmost extent. The access road is orientated broadly north-east to south-west and extends approximately 1.27km between national grid references (NGR) 501590E, 242184N to 501590E, 242184N.

Electrical Connection and Gas Connection

- 2.3.11 This area of the Project Site predominantly comprises agricultural land located adjacent to the south and south-east of the Rookery South clay pit. However, the north-west corner of this area is situated within the south-western corner of the Rookery South pit as described above. The site areas are both elongate and irregular in shape, due to the connection requirements to the existing gas and electrical networks as shown on **Figure 2**.
- 2.3.12 The land rises to the crest of a hill some 400m to the south of the clay pit with maximum elevation of around 58m AOD. This higher ground is aligned generally in a north-west to southeastwardly direction, with levels reducing to the north towards the clay pit.
- 2.3.13 There are 33kV electricity pylons that cross part of the Electrical Connection. The pylons run in a north-westerly direction and exit the site boundary immediately to the south of South Pilling Farm.
- 2.3.14 The off-site land use information is as follows:
- 2.3.15 North: Power Generation Plant Site comprising the Rookery South pit and agricultural land to the east.
- 2.3.16 East: Predominantly agricultural land with the Millbrook Road and the Midland Mainline railway beyond.
- 2.3.17 South: Predominantly agricultural land.
- 2.3.18 West: South Pilling Farm, Station Lane, immediately beyond which Millbrook Vehicle Proving Ground is situated.

2.4 Summary of On-Site Historical Land Use

Electrical Connection and Gas Connection

- 2.4.1 The earliest available historical map (1883/1884) shows the Electrical Connection and Gas Connection to be undeveloped and comprise agricultural fields. Several drains running along field boundaries and tracks and footpaths cross the area.
- 2.4.2 No further on-site land-use changes could be identified until the map dated 1978, whereby electricity pylons and associated cables are marked crossing this part of the Project Site. The route of the pylons enters the Project Site along the southern boundary of the Gas Connection and runs in a north west, south east direction through the Electrical Connection.
- 2.4.3 The 2006 map indicates that some of the field boundaries have been removed to make way for larger fields. The field drainage is more clearly marked with a drain running from close to the railway bridge in a northerly direction to the edge of the Rookery South clay pit, then turning in a westerly direction towards South Pilling Farm, with another running along the southern boundary with the Vehicle Proving Ground and running across the Electrical Connection.

Power Generation Plant Site

- 2.4.4 The earliest available map (1883) indicates this area falls within agricultural fields. Two farm tracks originating from South Pilling Farm cross this area.
- 2.4.5 No land use changes are marked in this area of the site until the map dated 1976. This map shows that this part of the site is occupied by a clay pit, extending beyond the north of the Project Site and forming part of the wider Rookery South clay pit.
- 2.4.6 By the 1982-1983 map the clay pit is marked as disused with no features whatsoever marked within this part of the site except a drain running through the North Pit and into the South Pit in a northwest-southeast direction, understood to now occupy part of the base of the clay pit.
- 2.4.7 The map dated 2014 indicates that part of the site is occupied by water, expected to be the flooded base of the clay pit.
- 2.4.8 In 2009 however the LLRS was granted planning permission and at the time of the site inspection the water accumulated in the base of the pit had been removed and by May 2017 earthworks to Phase 1 if the LLRS had commenced.

Access Road

- 2.4.9 The earliest available map (1883-1884) shows the proposed route of the Access Road runs alongside the Bedford Branch of the London and Northwest Railway, through agricultural fields. No further features of note are marked within the Access Road.
- 2.4.10 No changes in on-site land use are marked until the map dated 1982. This area of the site now lies wholly within the clay pits of Rookery South and Rookery North (marked as disused). A conveyor and an access track are marked running along the western pit boundary, these fall within the boundary of the Access Road where it follows this part of the site. An electrical substation is also marked within this area located some 300m to the south of Green Lane adjacent to the Access Road.
- 2.4.11 The Map dated 2006 indicates that the part of the site which falls within the Rookery North pit is occupied by water, expected to be the flooded base of the clay pit. The conveyor remains along the western boundary although it is now shown to run in an easterly direction at the junction of the Rookery South and Rookery North pits. The base of the Rookery South pit is not shown to be flooded at this time.
- 2.4.12 By 2014 the conveyors have been removed and now form tracks, the base of the clay pit is still occupied by water.

2.5 Summary of Notable Off-Site Historical Land Uses

- 2.5.1 The earliest available Ordnance Survey maps from 1883 – 1884 show that the Project Site is situated in open agricultural land. The railway lines that border the Rookery Pits were already constructed and Millbrook Station has been developed in association with the western railway line. The Morteyne Arms Inn is also present adjacent to the station. The settlement of 'Wooton Pilling' is indicated approximately 1km to the northeast of the Project Site, and to the northwest of Wooton Pilling, the early stages of a Brickworks are shown adjacent to Randall's Sidings approximately 1km north of Green Lane. A group of buildings labelled as 'Pilling Farm South' are located adjacent to the southwest of the Power Generation Plant Site and 'Lower Farm' is situated adjacent to the southern boundary of the Gas Connection. A number of footpaths and land drains ran across the Project Site.
- 2.5.2 The maps from 1901-1902 show some small developments at the Millbrook Station with construction of a 'goods shed'. The 'Brickworks' are shown to have undergone expansion, with

clay pits shown adjacent to the railway line with numerous out buildings associated. With another 'Brickworks', being developed approximately 500m to the north of Green Lane.

- 2.5.3 Expansion of the 'Brickworks' site takes place over the subsequent decades, amalgamating and forming 'Pilling Brickworks' with an engine house and tramway marked by 1927. The clay pits adjacent to the west of the brickworks site are shown to have expanded and have reached their maximum extent by 1927. Continued expansion is shown up until the map dated 1983. By the 1982-1983 map the site occupies an area of some 700m x 1800m with numerous chimneys, tanks kilns and conveyors marked. The Brickworks site now bounds the land adjacent to the north of Green Lane.
- 2.5.4 The 1938 maps show the start of construction of the village of Stewartby immediately to the north of Rookery North. By 1960 Wootton Pilling becomes part of Stewartby, ceasing to exist in its own right.
- 2.5.5 The map dated 1960 shows the commencement of clay extraction west of the railway line which by the 1982-1983 map has been flooded and forms Stewartby Lake. A sewage works has been constructed to the south of Stewartby Lake. Further to the south of Stewartby Lake, and to the west of the Project Site, an additional lake is present. This area was further altered in the period between 1983 and 2006 when additional lakes had been created as wetland habitats (the 'Marston Vale Millennium Country Park').
- 2.5.6 Anecdotal accounts and review of historical aerial photographs suggest that the Rookery North pit was partially backfilled during the period from about 1971 to 1997.
- 2.5.7 The Envirocheck report has indicated that the Rookery North pit, and part of Rookery South pit was licensed as a 'co-disposal landfill'. Further details provided by the Environment Agency have indicated that non-hazardous organic waste from a variety of local industrial sources were mixed with surface waters from the Rookery Pit and 'Callow' deposits and pumped into the base of the pit. The licensed area for these operations covered all of the Rookery North pit and the northern third of the Rookery South pit. A copy of the Environment Agency plan showing the extent of the licence boundary shows details of the waste sources as follows: non-notifiable mineral wastes (including 'neosid' ferrite sludge, lime and water from water softening treatments and Hargreaves fertiliser waste), food wastes (from Coca Cola, Rosa Poultry, Telfers and Unilever), leather wastes and gelatine wastes from 'Croda'.
- 2.5.8 The 1978 shows the development of a vehicle proving ground to the south of the Project Site. The 1982-1983 maps show the expansion of the village of Stewartby.

2.6 Low Level Restoration Scheme (LLRS)

- 2.6.1 Prior to construction of the Project it is understood that the proposed LLRS for Rookery South will be completed and will therefore form the baseline conditions for the Project Site. Planning Permission has been granted for the LLRS under application numbers BC/CM/2000/9 and BC/CM/2000/8. In summary the LLRS for the Rookery South pit will comprise:
- Topsoil stripping from an area to the immediate south of Rookery South pit to enable further overburden and clay extraction from this area.
 - Excavation of soils, overburden and clay from the southern area to provide engineered clay fill and restoration soils for the re-profiling and buttressing works around the pit edges of Rookery South pit.
 - Re-profiling of the base of Rookery South pit, graded to falls, utilising clay won from the southern area.

- Construction of a new vehicular access track into the southwestern corner of the pit to provide low level access to the pit.
- Buttressing of slopes on the southern, eastern and northern sides of the Rookery South pit to provide a slope stabilisation solution to existing slopes.
- Provision of surface water management ditches in the reprofiled pit base discharging to an attenuation pond located in northwest corner of Rookery South pit. The surface water ditches and attenuation pond will include habitat mitigation and enhancement measures.
- Provision of a pumping station to enable discharge of collected waters from the attenuation pond to Stewartby Lake with additional provision of a pumped emergency flow to Rookery North and reverse flow drainage.

2.6.2 Works are ongoing at the time of the site inspection in August 2017 to facilitate Phase 1 of the LLRS and as such many of the listed items above were seen to be in progress.

3 Environmental Setting

3.1 Introduction

3.1.1 Information on the environmental setting is presented in this Section and the data is used to inform the Ground Stability Risk Assessment in **Section 4** and the Contamination Risk Assessment presented in **Section 6**.

3.2 Geology

Geological Map and Regional Geology

3.2.1 According to the British Geological Survey (BGS) Geological Maps (1:50,000 Sheet 203 and 1:10,000 Sheet TL 04 SW) the solid geology of the Project Site and surrounding area generally consists of the following sequence of strata:

- The Peterborough Member of the Oxford Clay Formation (highly plastic fossiliferous clay);
- The Kellaways Formation (sandy clays and clayey sands of the Kellaways Sand Member with an underlying stiff shelly clay called the Kellaways Clay Member);
- The Cornbrash Formation (limestone) and the Blisworth Clay Formation and Blisworth Limestone Formation at depth.

3.2.2 In the southern parts of the Electrical Connection and Gas Connection in the south of the Project Site, the geological map records unworked Oxford Clay comprising the Stewartby Member and the Weymouth Member which underlies the vast majority of this area. The Peterborough Member of the Oxford Clay is shown to outcrop in the north-western part of the Electrical Connection and northern part of the Gas Connection.

3.2.3 There are small areas of the west of the Project Site that are indicated to be underlain by superficial deposits of Alluvium, associated with the Mill Brook.

3.2.4 Superficial Head deposits comprising clay, silt, sand and gravel are also indicated to be present in some parts of the Project Site, namely along the southwestern boundary adjacent to South Pilling Farm.

Anthropogenic Effects

3.2.5 Superficial Deposits and weathered Oxford Clay were unsuitable for the brickmaking process and this material was removed and cast back into the Rookery South pit. Locally, it was called Callow and for the purposes of this report is called Callow when in-situ, and Callow Clay Fill, when disturbed and placed at a new location. The Callow Clay Fill sometimes contains brick fragments because broken brick rubble was used for making temporary pads and machinery stands. Generally, excavations left around 0.5 to 1.0m of remnant Oxford Clay in the base of the Rookery South Pit overlying the Kellaways Sand, although this was dependant on the workmanship of the machine operators and in places the layer of remnant clay is thicker or absent.

3.2.6 The unweathered Oxford Clay was called Knotts by the local brickmaking industry. The Oxford Clay Formation supported a major brickmaking industry locally because its high organic content reduced the amount of fuel required to 'fire' the clay, and its carbonate content was ideally suited to brickmaking.

- 3.2.7 Historical clay extraction from the Rookery Pit has resulted in ground levels in the base of the pit some 15m – 25m lower than the surrounding ground.

Site Specific Ground Conditions from Previous Ground Investigations

- 3.2.8 Information on the ground conditions at the Project site and in the surrounding area has been taken from CL Associates (2000) and with reference to wider BGS records. Other studies undertaken by PBA in the vicinity of the site, within Rookery South and North pits have also been used, including PBA (2009b) and PBA (2011). Copies of the exploratory hole records that are located within or close to the Project Site are presented in **Appendix 5**.

Electrical Connection and Gas Connection

- 3.2.9 Exploratory hole records for this area are only available for the north-western corner of this part of the Project Site and were taken by CL Associates, they include BH3 to BH6 and TP5, 6 and 13, as well as TP28 to TP34. The records indicate the presence of 'reworked topsoil' comprising soft brown slightly sandy slightly gravelly clay to around 0.2m bgl in the southern part of the Gas Connection, with 'reworked clay' comprising brown slightly sandy clay with some fine to coarse gravel and cobble size brick.
- 3.2.10 This was recorded to be underlain by weathered Oxford Clay comprising soft and firm light orange brown mottled slightly sandy clay proven to around 3.5m bgl, and then Oxford Clay described as firm dark green brown laminated very silty clay proven in the boreholes to depths of between 13.8m bgl (BH4) and 20.5m bgl (BH6).
- 3.2.11 The Kellaways Formation was identified underlying the Oxford Clay, recorded as interbedded dark grey sand and firm grey green clay with occasional shell fragments. The Kellaways Formation was proven to between 19.75m bgl and 24.65m bgl in the areas investigated.
- 3.2.12 The Cornbrash Formation was recorded as dark grey fine to medium grained muddy limestone was identified underlying the Kellaways Formation, and was proven to a maximum depth of 24.9m bgl (BH6).

Power Generation Plant Site

- 3.2.13 On the basis of the available exploratory hole records within PBA (2009b), the strata thicknesses in the base of the Rookery South Pit are expected to be variable, although the sequence of the strata is consistent.
- 3.2.14 Made Ground in the form of Callow Clay fill was reported in several of the exploratory holes proven to a maximum depth of 4.70m in TP14, although the full thickness of the Made Ground was not proven in this location. In general, the thicknesses of Made Ground (recorded as reworked clay comprising firm grey brown slightly gravelly cobbly clay) appears to be greater towards the centre of the pit. Where the exploratory holes are closer to the edges of the pit, the thicknesses of Made Ground are less or it is altogether absent. In BH102 Made Ground (Callow Clay Fill) was recorded to a depth of 3.00m bgl, underlain by Oxford Clay proven to a depth of 12.2m bgl. This was underlain by the Kellaways Formation proven to 17.6m bgl, and then by the Cornbrash Formation proven to a depth of 17.7m bgl. The base of the Cornbrash was not proven.
- 3.2.15 Since the base of the Rookery South Pit is roughly level, on the basis of the exploratory hole records it is anticipated to be underlain by a thickness of either around 3m of Callow Clay or remnant Oxford Clay or a combination of the two depending on the location within the base of the pit.
- 3.2.16 Current earthworks associated with the Phase1 LLRS development at the time of reporting have resulted in stockpiles of as dug topsoil and callow clay being temporarily stockpiled in the base of the pit.

Radon

- 3.2.17 Radon is a naturally occurring radioactive gas and emanates from certain geological formations to varying degrees, depending on the type, porosity and permeability. The Envirocheck Report indicates the Project Site is not located in a Radon Affected Area.

3.3 Hydrogeology

- 3.3.1 The aquifer designation map for the Project Site indicates that the Oxford Clay is considered to be an unproductive strata.
- 3.3.2 The Alluvium and Head Deposits are designated as secondary (undifferentiated) aquifers with intermediate soil leaching potential. However, the EA are currently in the process of updating the groundwater vulnerability maps (to reflect improvements in data mapping and understanding of the factors affecting vulnerability) and this designation should therefore be re-assessed once the new mapping and information is available.
- 3.3.3 The Kellaways Sand has previously been considered by the EA to be a secondary (previously minor) aquifer. However, a review of the Kellaways Sand properties concluded that the permeability of the stratum was very low (median value of 3.1×10^{-7} m/s) due to the high proportion of clays and silts in the stratum^[5] (Mather et al., 1998), and it is believed that the EA now consider that the formation has limited water resources potential.
- 3.3.4 Although the Cornbrash Formation is considered by the EA to be a secondary aquifer, it has limited thickness and is separated from the Blisworth Limestone by the Blisworth Clay (unproductive strata). It is considered that the formation has a very limited water resources potential^[6] (BGS 2000).
- 3.3.5 The Blisworth Limestone Formation is considered by the EA to be a Principal Aquifer. However, it is confined by overlying strata at this site and the BGS guide 'Geology of the Bedford district' (BGS 2010) indicates that where the formation is buried below the confining Oxford Clay Formation, yields and quality of groundwater deteriorate.
- 3.3.6 The clayey deposits of the Callow Clay Fill, Oxford Clay, Kellaways Clay and Blisworth Clay Formation have been shown to be of extremely low permeability and can be considered as being aquicludes. Whilst the Kellaways Sand and Cornbrash Formation are classified as secondary aquifers, they have previously been shown by extensive investigations for the brickmaking, landfill/waste deposition industry and other developments, to be insignificant for water resources purposes in this region due to their limited thickness, low permeability and poor water quality. These formations are considered herein to act as aquitards. The Blisworth Limestone Formation has been shown to be of a slightly higher permeability but also of naturally poor water quality.
- 3.3.7 The elevation of the base of the Rookery South Pit is between 27m and 30m AOD, and once the LLRS has been implemented the base of the pit is expected to lie between 31.6m and 31.0m AOD.
- 3.3.8 Piezometric levels beneath the base of the pit have historically been recorded at approximately 28m AOD to 29.5m AOD in the Kellaways Sand, approximately 27m AOD – 29.5m AOD in the Cornbrash Formation and approximately 30m AOD – 32m AOD in the Blisworth Limestone Formation. There is no evidence at all to suggest that hydraulic uplift (or heave) caused by groundwater pressures has occurred in the pit base in the past, and assessments of the potential for hydraulic uplift have shown that the factor of safety is acceptable and there is no risk of heave occurring once the LLRS has been implemented. These assessments are provided in PBA 2009 and PBA 2009b.
- 3.3.9 A summary of the permeabilities of the strata underlying the site and the respective groundwater elevations is presented in Table 3.2 below.

Table 3.2 Summary of Hydrogeological Information (Data from PBA 2009a)

| Strata | Recorded Groundwater Elevation (mAOD) | Recorded Permeability Range K (m/s) from PBA 2009b |
|-------------------------------|---------------------------------------|--|
| Callow Clay Fill | Limited perched water only | 1.5×10^{-10} to 9.5×10^{-11} |
| Oxford Clay Formation Knotts | | 1.1×10^{-10} to 5.2×10^{-11} |
| Kellaways Sand | 28.36m to 29.71 mAOD | 1.1×10^{-6} to 1.1×10^{-10} |
| Kellaways Clay | | 4.2×10^{-11} |
| Cornbrash Formation | 29.41 to 26.84 mAOD | $<9.4 \times 10^{-8}$ to 5×10^{-9} |
| Blisworth Clay Formation | | 5.7×10^{-11} to 6.1×10^{-12} |
| Blisworth Limestone Formation | 30.46 to 32.63 mAOD | 1.1×10^{-6} to 7.7×10^{-7} |

3.4 Groundwater Conditions

3.4.1 Refer to **Section 5** (Baseline Conditions).

3.5 Hydrology – Summary of Surface Water Monitoring Results.

3.5.1 Assessment of the quality of the surface water bodies in the vicinity of Rookery South Pit has been undertaken since 1999. During this time surface water samples have been taken from the lakes in Rookery South and Rookery North Pits, Harrowden Brook, Elstow Brook, the drainage ditches to the south (the Mill Brook tributary) and west (Mill Brook watercourse) of the Project Site and Stewartby Lake to the west of the Project Site. A summary of the historical data is presented in the PBA (2009b) report.

3.5.2 Monitoring of the surface water quality within the lake in Rookery South Pit, previously undertaken by CLA in 1999 – 2000, recorded elevated sulphate levels (1,500mg/l – 2,000mg/l) and electrical conductivity levels (2,800 μ S/cm – 3050 μ S/cm) but no other determinants tested were significantly elevated against the screening criteria such as cyanides, metals and potential organic contaminants. Similar conditions were recorded within the lake in the Rookery North pit at the same time. Monitoring of the surface waters within the ditches and brooks surrounding the Rookery Pits, undertaken at the same time, recorded similar conditions, albeit that the sulphate concentrations and electrical conductivity values were generally lower than within the lakes.

3.5.3 Monitoring of the surface water quality within Elstow Brook and the lakes in the Rookery North and Rookery South pits and the Stewartby Lake has previously been undertaken on four occasions by PBA (in June – August 2008, January 2009 and April 2011) as part of a study of the wider Marston Vale area. Water samples were analysed for suspended soils, copper, lead, zinc, phosphorus, dissolved oxygen, Biological Oxygen Demand, sulphate, ammonia, chloride, electrical conductivity, nitrate, pH and Total Petroleum Hydrocarbons. The results showed similar characteristics as the data collected previously by CLA, with electrical conductivity levels and sulphate concentrations elevated within the lakes on the Rookery North and Rookery South pits but lower concentrations within the surrounding water bodies. Based upon the recorded BOD and ammonia results, water quality at the time was classified as Class A (very good) according to the Environment Agency GQA scheme current at that time.

3.5.4 Refer to **Section 5** (Baseline Conditions) for surface water monitoring results from 2017.

3.6 Landfill Records

3.6.1 According to the Envirocheck Report there is a landfill marked within the footprint of the Rookery North and the northern third of the Rookery South pits. The licence is held by London Brick Landfill Ltd at Rookery Clay Pit. Input dates were between 1971 and 1987 with deposited waste including industrial and household waste and liquid sludge. No other landfills are noted within 500m of the Project Site.

3.6.2 Previous investigations confirm that the Rookery South pit was not used for landfilling of household waste or liquid sludge, although the base of the pit has been proven to be underlain

by a variable thickness of reworked clay in the form of Callow Clay Fill. It is understood a small area in the northeast corner of the Rookery South pit is underlain by a greater thickness of reworked clay that forms a lobe shaped feature. Extensive investigation of this feature (PBA 2011) suggests that it is inert and comprises reworked Callow Clay Fill, and does not include liquid wastes, sludges or household waste. Its origins are not entirely clear; however, it is possible that this feature formed as a result of a land slip or from deposited clay overburden.

- 3.6.3 Previous testing undertaken on the Callow Clay fill and lobe feature in Rookery South (PBA 2011) indicates that the materials are inert in nature with low concentrations of potential contaminants with regard to the proposed end-use.
- 3.6.4 The Envirocheck report indicates that there is an active licensed waste management facility (Licensed to FCC Waste Services UK Ltd) at Stewartby Landfill site approximately 600 m to the northwest of the Access Road, and another licensed to Veolia ES (UK) Ltd for a household, commercial and Industrial transfer station also approximately 600 m north west of the Access Road at Green Lane, Stewartby.
- 3.6.5 The EA website (what's in your backyard), access on the 24th July 2017, indicates that the former Pillinge/Stewartby brickworks located to the immediate north of the Access Road is a 'Historic Landfill', and that adjacent to that is another historic and also authorised landfill known as L Field Clay Pit (EPR/BV4576IK). The authorised landfill relates to the FCC Waste Services UK Ltd site described above.

3.7 Substantiated Pollution Incidents

- 3.7.1 The Envirocheck Report records six pollution incidents to controlled waters within 1 km of the Project Site, but only one within 500m of the Project Site. The incident was approximately 90m to the southwest and occurred 18 years ago. The incident is recorded as a Category 3 (minor incident) where treated sewage effluent affected Boiling Pot Brook.
- 3.7.2 There are no substantiated pollution incidents within 500 m of the Project Site.

3.8 Controlled Waters – Groundwater

- 3.8.1 The following table summarises information recorded in the Envirocheck report regarding hydrogeology and groundwater vulnerability.

Table 3.3 Summary of Hydrogeology and Groundwater Vulnerability Related Information

| Item | Details |
|------------------------------|---|
| Aquifer Classification | Superficial – Alluvium – Secondary (undifferentiated) Superficial – Head – Secondary (undifferentiated) Bedrock (Oxford Clay) – Unproductive Strata Kellaways Sand – Secondary A Aquifer Kellaways Clay – Unproductive Strata Cornbrash Formation – Secondary A Aquifer Blisworth Limestone – Secondary A Aquifer |
| Depth to Groundwater | Measured at 28.31m OD on 11/05/17 (BH102) |
| Groundwater Flow Direction | Unknown |
| Source Protection Zone (SPZ) | Not within 500m of a SPZ |
| Groundwater Abstraction | Not within 500m |

3.9 Controlled Waters – Surface Water

- 3.9.1 Table 3.4 summarises the information recorded in the Envirocheck Report regarding hydrology.

Table 3.4 Summary of Surface Water Related Information

| Item | Description |
|------|--|
| Name | Unnamed drains on-site classed as Inland Rivers. |

| | |
|--|---|
| | No Primary Rivers within 500m of the site boundary. |
| Quality | Unknown |
| Abstraction | None recorded on site. Seven water abstractions are recorded off-site within 1km of the site boundary. |
| Pollution Incidents | See Section 3.7 |
| Discharge Consents | Five discharge consents are recorded within 500m of the site boundary, primarily associated with treated effluent. It is understood that a discharge consent is also in force within the Project Site See Section 3.10 for further information. |
| River Flood Risk * | Site is not within a flood zone |
| Groundwater Flood Risk* | Unknown |
| * The scope of this report does not include a flood risk assessment. | |

3.10 Discharge Consents

3.10.1 The Envirocheck report indicates that there are two discharge consents located adjacent to the Access Road that are not indicated to have been revoked and may therefore still be active. These are for the discharge of trade effluent/process water from Rookery north and south pits to a partly culverted ditch (assumed from the location to be Mill Brook).

3.10.2 It is understood that there is an active discharge consent within the Project Site associated with the Rookery Pits (licensed to City and St James Property), although this record is not identified within the Envirocheck Report. Details of this “trade effluent” discharge consent relating to the Rookery South and Rookery North pits is contained within the PBA (2011) report. The consent understood to be currently in force, allows for pumping “trade effluent” (accumulated waters) from the Rookery Pits into the Mill Brook culvert beneath the railway line to the west of Rookery South and into Stewartby Lake. The points of note relating to this discharge consent are detailed below:

- The discharge must not contain any poisonous, noxious or polluting matter, or greater than 40mg/l suspended solids;
- The discharge takes place through a brick lined channel into a partly culverted ditch leading to Stewartby Lake through an outlet at National Grid Reference TL 0112 4131;
- Whilst pumping is underway from the Rookery pits, sulphate and suspended solids concentrations are to be measured once a week (albeit that no constraints on concentrations are identified on the formal consent); and,
- The maximum volume of discharge is not to exceed 2,000m³ in a 24-hour period.

4 Ground Stability Risk Assessment

4.1 Introduction

4.1.1 In accordance with the requirements of the National Planning Policy Framework (DCLoG, 2012), the potential for the Project to contribute to or to be adversely affected by land instability has been assessed. Accordingly, consideration is given below to the potential risk of ground instability arising from Naturally Occurring Geological Hazards, Natural and Mining Cavities and Slope Instability due to existing ground conditions across the Project Site, as identified in this report.

4.2 Naturally Occurring Geological Hazards

4.2.1 An assessment of potential geological hazards that may give rise to instability or adverse foundation or construction conditions as supplied by the British Geological Survey (BGS) from their National Geoscience Information Service (NGIS) are presented in the Envirocheck report reproduced in **Appendix 4**. The generic assessment is generated automatically based on digital geological maps and the scope and the accuracy is limited by the methods used to create the dataset and the excavations and landform modifications undertaken at the specific site. The BGS dataset is therefore only relevant for the search area.

4.2.2 The information contained in the Envirocheck Report has been reviewed and where considered necessary reassessed considering the specific information available for the Project Site. The modified assessment of the potential for geological hazards to be present on the Project Site is summarised in Table 4.1 below.

Table 4.1 Summary of Geological Hazards from Envirocheck Report

| Hazard | BGS-NGIS Assessed Hazard Potential | PBA Assessment |
|---------------------------------------|------------------------------------|-------------------|
| Coal Mining Affected Areas | Not Affected | Agree |
| Collapsible Ground Stability Hazards | No Hazard to Very Low | Agree |
| Compressible Ground Stability Hazards | No Hazard to Moderate | Agree – see below |
| Dissolution Hazard | No Hazard | Agree |
| Landslide Ground Stability | Very Low to Moderate | Agree – see below |
| Running Sand | No Hazard to Very Low | Agree |
| Shrinking or Swelling Clay | No Hazard to Moderate | Agree |

4.2.3 PBA would generally agree with the above assessments indicating that the Project Site generally has a low or very low potential for being affected by the majority of geological hazards.

4.2.4 The exceptions to this are hazards associated with compressible ground, anticipated to be related to the potential for Alluvium and Callow Clay Fill to be present in parts of the Project Site, landslide ground stability which is anticipated to be related to the slopes of the Rookery South clay pit that are partly within the Project Site and shrinking or swelling clay, related to the presence of Oxford Clay at the Project Site.

4.2.5 Given the implementation of the Low Level Restoration Scheme before commencement of the Project, this risk will be reduced to the level of very low through the regrading of the side slopes of the pit to a slope angle that will provide long term stability.

4.2.6 Compressible ground stability hazards are highlighted as moderate owing to the presence of Alluvium associated with the watercourses and Callow Clay Fill within the base of the Rookery South pit. Some of this fill will be in its 'as placed' un-engineered condition and will be susceptible to long term consolidation settlement under its self-weight and/or any surface applied loads. Some engineered fill will be placed over the areas of Callow Clay Fill to deliver the LLRS. PBA

would agree with this assessment on the basis of the potential for variable proportions of compressible Callow Clay Fill underlying parts of the 'Power Generation Plant' part of the Project Site

4.3 Natural and Mining Cavities

- 4.3.1 The National Natural and Mining Cavities Database maintained and updated by PBA has been searched for relevant natural and mining cavity records. No record was found of natural and mining cavities within a 2.0 km radius of the Project Site. Whilst the absence of existing records does not, in itself, demonstrate that natural or mining cavities are not present, the geology and geomorphological setting of the Project Site is such that the potential for such features to be present is considered to be Very Low.

4.4 Slope Stability

- 4.4.1 The sections below present a description of the slopes around both Rookery South and Rookery North pits, and comments on the stability of those slopes, prior to commencement of the LLRS. The LLRS commenced in May 2017 and therefore modifications to the slopes will be undertaken in accordance with the details provided in the LLRS Planning Permission.

Rookery South

- 4.4.2 Prior to commencement of the LLRS, the majority of the western face of the Rookery South pit was observed to be formed at angles of 1Vertical(V):2Horizontal(H) to 1V:3H. The slope rose from the base of the pit at approximately 26m AOD to 28m AOD to a bench level at approximately 38m AOD. The upper bench was approximately 30m in width, with a second slope further westwards rising to the perimeter level at approximately 42m AOD at an angle of approximately 1V:2.5H.
- 4.4.3 On the northern section of the western face, the slope profile was formed at characteristically lower gradients. The toe of the slope was situated along the same alignment as the section further south but the width of the upper bench reduced from 30m to approximately 12m. The resultant slope was at a lower gradient than that further south and was formed at angles of 1V:3.5H to 1V:4H.
- 4.4.4 Inspection of the western pit face did not at the time reveal the presence of significant failures other than minor slope wash and sloughing in the exposed face in places.

Rookery North

- 4.4.5 Within the Rookery North pit, the southern and eastern pit faces were both historically modified by the placement of sludge fill material covered with Callow Clay Fill in the base of the pit, forming shallow gradient slopes of around 1V:16H, that fan out from apparent deposition locations in the south-eastern parts of the pit. These deposits typically extended part way up the pit faces but in the south-eastern corner of the pit, the bank of deposits extended up to the level of the central causeway at approximately 52m AOD. The western and north-western faces, where they bound the access road, appeared to be at their 'as cut' angles of approximately 1V:2H to 1V:3H. However, the full height of these faces was obscured by the water body in the pit and only the Callow faces could be seen.
- 4.4.6 Several small scale failures were noted within the exposed Callow faces along the central parts of the northern wall, i.e. to the east of the new junction and access road. These small scale features had resulted in near vertical back scars of typically 1m – 2m in height. These failures coincided with the water levels within the lake and appeared to represent a wave cut platform formed as a result of wave erosion affecting the stability of the Callow material.

5 Baseline Conditions – Groundwater Analysis

5.1 Introduction

5.1.1 In November 2014, samples of groundwater and surface water were obtained from the Project Site to enable an assessment of the quality of the waters to be carried out, and a summary of the surface water results is presented in **Section 3.5**. A review of the 2014 groundwater quality assessment is provided in **Section 5.4.6** below. For the purposes of this report, additional groundwater and surface water samples were obtained as discussed in the Sections below, to enable an assessment of the current quality of the waters.

5.1.2 On the 24th July 2017 the Project Site was visited to obtain surface water and groundwater samples from several locations in order to assess the surface water and groundwater quality. Where possible these locations are the same as the sampling undertaken in 2014. Samples were obtained from the following locations and strata/source:

- Rookery North Pit (SW)
- Mill Brook (SW)
- Tributary to Mill Brook (SW)
- BH102 (GW - Kellaways Sand)
- BH103 (GW - Kellaways Sand)
- BH206 (GW – Cornbrash Formation)

5.1.3 It was not possible to obtain water samples from Rookery South Pit as this location has been pumped dry as part of the commencement of the LLRS. It was also not possible to obtain samples from BH's 104, 105B, 5, 6 or 12 as these boreholes have been lost as part of the ongoing LLRS works.

5.2 Rationale

Laboratory Selection

5.2.1 Geoenvironmental testing was performed by Chemtest Ltd. The designated laboratory is one approved by PBA and holds UKAS and MCERTS accreditations.

5.2.2 Analytical testing for potential contaminants that might be associated with the past use of the Project Site were scheduled on groundwater and surface water samples recovered from the Project Site. In addition, reference was also made to the historical testing undertaken at the site to enable comparison of the previous and current data.

5.2.3 Table 5.1 details the geoenvironmental water testing scheduled by PBA.

Table 5.1 Summary of Geoenvironmental Analysis Scheduled

| Number of Tests | Description |
|-----------------|---|
| 6 | Metals: Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Nickel, Selenium, Zinc, Sodium, Potassium, Calcium, Magnesium. Hex Chrome, Iron |
| 6 | PAH: Speciated Poly-aromatic Hydrocarbons (PAH) |
| 6 | TPH CWG: Total Petroleum Hydrocarbons Criteria Working Group |

| | |
|---|---|
| 6 | Anions: Chloride, Fluoride, Nitrate, Sulphate, Phosphate |
| 6 | General Suite: pH, Electrical Conductivity, Alkalinity, Ammoniacal Nitrogen, Biological Oxygen Demand, Chemical Oxygen Demand, Dissolved Oxygen, Phosphorus, Total Suspended Solids, Dissolved Organic Carbon, Ionic Balance |

QA/QC Measures for Groundwater Sampling

- 5.2.4 Separate sampling bailers were used in each of the boreholes sampled to mitigate the potential for cross contamination.
- 5.2.5 The standpipes were purged (where possible) to ensure representative sampling of the groundwater body by removing three well volumes; this included both the volume of water within the standpipe itself and the volume contained within any filter pack placed around the standpipe.
- 5.2.6 The water samples were stored in cool boxes containing ice packs pending transportation and were transported to the laboratory by courier.

5.3 Hydrogeological Conditions

Groundwater Levels

- 5.3.1 Table 5.2 summarises the groundwater elevations recorded in the boreholes during the historical and recent monitoring rounds.

Table 5.2 Summary of Groundwater Elevations

| BH No | Borehole Elevation (mAOD) | March 2009 | November 2009 | November 2014 | | May 2017 | |
|--------|---------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|
| | | Groundwater Elevation (mAOD) | Groundwater Elevation (mAOD) | Depth to Groundwater (m bgl) | Groundwater Elevation (mAOD) | Depth to Groundwater (m bgl) | Groundwater Elevation (mAOD) |
| BH102 | 38.41 | 30.84 | - | 8.465 | 29.945 | 10.1 | 28.31 |
| BH103 | 28.94 | 28.71 | - | 0.315 | 28.625 | 0.93 | 28.01 |
| BH104 | 28.89 | 28.59 | - | 0.395 | 28.495 | - | - |
| BH105B | 28.96 | 28.79 | - | 1.210 | 27.750 | - | - |
| BH206 | 28.90 | 23.80 | - | 5.410 | 23.490 | 5.95 | 23.01 |
| BH5 | 49.097 | - | 39.92 | 9.884 | 39.213 | - | - |
| BH6 | 47.282 | - | 34.28 | 13.800 | 33.482 | - | - |
| BH12 | 43.667 | - | 32.06 | 12.318 | 31.349 | - | - |

5.4 Review of Chemical Testing Results

Selection of Tier 2 Assessment Criteria

- 5.4.1 The rationale for selection of generic assessment criteria routinely used by PBA has been used and a copy is presented in **Appendix 6**.
- 5.4.2 There are no groundwater abstractions for potable use within at least 1km of the Project Site and the Project Site is not located within a groundwater source protection zone and therefore Fresh Water/Inland Surface Waters screening criteria (Parts 2 and 3 of Schedule 3 of the WFD, 2015) have been selected for both groundwater and surface water.

Review of Historical Testing Results - General

- 5.4.3 In general, groundwater quality in the Kellaways Sand, the Cornbrash Formation and the Blisworth Limestone Formation in the region has been identified as being poor with saline conditions reported from the majority of reports and investigations (PBA, 2009b).
- 5.4.4 Historical monitoring of water quality within the Kellaways Formation and the Blisworth Limestone Formation (undertaken on 15 occasions during the period February 2000 – November 2002 by CLA within the monitoring boreholes installed as part of the CLA (2000) investigations) has confirmed that the quality of the groundwater within the Kellaways Formation and the Blisworth Limestone Formation is similar in nature, and is generally poor with elevated concentrations of electrical conductivity, chloride, sulphate, ammoniacal nitrogen, boron and zinc when compared to the relevant assessment criteria at the time.
- 5.4.5 The historical groundwater monitoring data was supplemented by groundwater samples taken from the Kellaways Formation as part of the PBA 2010 investigation from a total of three locations on two occasions. In general, the recent 2010 quality data was similar to that previously recorded by CLA. During the PBA 2010 investigation, hydrocarbon analysis of the groundwater retained from the Kellaways Formation from BH103 (on one occasion) recorded a concentration of 0.026mg/l. A subsequent sample was taken from the same borehole and the result showed a concentration below the detection limit. It is likely that the initial concentration was the result of remnant dilute drilling fluid within the borehole at the time of sampling on the first occasion, which has now been removed by the sampling and purging process.

Review of Historical Testing Results - 2014

- 5.4.6 In 2014, a total of nine groundwater samples and three surface water samples were obtained from the Project Site and submitted for geoenvironmental laboratory testing for a wide range of potential contaminants including metals, PAH's, EPH and a general suite. The results of the 2014 testing compared to screening criteria at the time indicated that generally the water quality data was similar to historical data (see Sections 5.4.3 to 5.4.5 above) and that there were no indicators of significant anthropogenic contamination.

Review of Recent Testing Results – General

- 5.4.7 In 2017, a total of three groundwater samples (Kellaways Formation and Cornbrash Formation) and three surface water samples were obtained from the Project Site and submitted for geoenvironmental laboratory testing as described in Sections 5.1 and 5.2 above. The laboratory results are presented in **Appendix 8**.
- 5.4.8 The results of the surface water are generally similar in nature to previous testing with higher concentrations/readings of electrical conductivity and sulphate in Rookery North than in the other surface water ditches. Similarly, in the groundwaters, concentrations/readings of electrical conductivity, sulphate, chloride, ammoniacal nitrogen and zinc indicate generally poor quality.

Review of Recent Testing Results – WFD Schedule 3 Part 2 – Specific Pollutants

- 5.4.9 Arsenic concentrations recorded in the groundwater and surface water from the Project Site in 2017 are presented in Table 5.3. The results indicate concentrations below the specified standard.
- 5.4.10 Hexavalent chromium concentrations in the groundwater and surface water were all recorded below the laboratory limit of detection.
- 5.4.11 Copper concentrations in the groundwater and surface water were recorded at between 1.4ug/l and 4.4ug/l. The WFD identifies that the standard for copper is 1ug/l bioavailable. Calculations of bioavailable copper concentrations have been carried out and the results indicate that the

bioavailable concentrations of copper at all monitoring locations are below the assessment standard.

- 5.4.12 The concentrations of Iron recorded in 2017 are presented in Table 5.3, and all of the results exceed the WFD assessment standard for Iron.
- 5.4.13 Zinc concentrations in the groundwater and surface water from the Project Site in 2017 were recorded at between 5.8ug/l and 48ug/l. The WFD identifies that the standard for Zinc is 0.0109ug/l bioavailable, plus the Ambient Background Concentration dissolved (3.1ug/l for Great Ouse). Calculations of bioavailable zinc concentrations have been carried out and the results indicate that the bioavailable concentrations of zinc at all monitoring locations except BH206 are below the assessment standard. At BH206 the bioavailable zinc concentration was calculated at 13.92ug/l with a risk characterisation ratio of 1.28.

Review of Recent Testing Results – WFD Schedule 3 Part 3 – Priority Substances

- 5.4.14 Speciated polycyclic aromatic hydrocarbon (PAH) concentrations were all recorded below the laboratory limit of detection.
- 5.4.15 Nickel concentrations in the groundwater and surface water from the Project Site in 2017 were recorded at between 1.2ug/l and 9.7ug/l. The WFD identifies that the standard for nickel is 4ug/l bioavailable. Calculations of bioavailable nickel have been carried out and the results indicate that the bioavailable concentration of nickel at all the monitoring locations is below the assessment standard.
- 5.4.16 The concentrations of cadmium in the groundwater and surface water in 2017 were all recorded below the laboratory limit of detection.
- 5.4.17 The concentrations of lead in the groundwater and surface water in 2017 were all recorded below the laboratory limit of detection.
- 5.4.18 The concentrations of mercury in the groundwater and surface water in 2017 were all recorded below the laboratory limit of detection.

Review of Recent Testing Results – Other Determinands

- 5.4.19 The results of the testing for the Total Petroleum Hydrocarbons Criteria Working Group were below the laboratory limit of detection at all monitoring locations.

Table 5.3 – Summary of Geoenvironmental Testing

| Determinand | Concentration Range | Assessment Criteria/Standard | Exceedance |
|---------------|--|------------------------------|------------|
| Arsenic | <1.0 – 3.8ug/l | 50ug/l | No |
| Chromium (VI) | <20ug/l (LOD) | - | No |
| Copper | 1.4-4.4ug/l (bioavailable concentrations 0.05ug/l to 0.16ug/l) | 1ug/l bioavailable | No |
| Iron | 170-880ug/l | 1ug/l | Yes |

| | | | |
|---------|---|-----------------------|-----------------|
| Zinc | 7.3-48ug/l (bioavailable concentrations 1.26ug/l to 13.92ug/l) | 10.9ug/l bioavailable | Yes (1 – BH206) |
| Cadmium | <0.08ug/l (LOD) | - | No |
| Lead | <1.0ug/l (LOD) | - | No |
| Mercury | <0.50ug/l (LOD) | - | No |
| Nickel | 1.2-9.7ug/l (bioavailable concentrations 0.27- 1.63ug/l) | 4ug/l bioavailable | No |
| PAH's | <0.2ug/l (LOD) | - | No |
| TPH CWG | <10ug/l (LOD) | - | No |

- 5.4.20 A full copy of the geoenvironmental test results for surface water and groundwater samples obtained in July 2017 is presented in **Appendix 8**. In general, the recent results are broadly similar to the available historical data from 2010 and 2014 and many of the determinands were recorded below the laboratory limit of detection.
- 5.4.21 The recent testing results indicate that the concentrations of Iron exceeded the assessment standard at all monitoring locations in both surface water and groundwater, and there was one exceedance of the bioavailable standard for Zinc at BH206. However, it is considered that the results of the testing are typical of naturally occurring conditions and that there is no indication of anthropogenic contamination.

6 Tier 1 Preliminary Risk Assessment

6.1 Introduction

- 6.1.1 The methodology developed and adopted by PBA for the assessment of ground conditions is presented in **Appendix 1**. In accordance with guidance presented in CLR 11 (EA Model Procedures for the Management of Land Contamination) we adopt a staged approach to risk assessment and this report presents a Tier 1 Preliminary Risk Assessment.
- 6.1.2 The underlying principle to ground condition assessment is the identification of pollutant linkages in order to evaluate whether the presence of a source of contamination could potentially lead to harmful consequences.

6.2 Conceptual Site Model

- 6.2.1 The Tier 1 Preliminary Risk Assessment includes the development of a conceptual site model (CSM). The CSM describes the types and locations of potential contamination sources, the identification of potential receptors and the identification of potential transport/migration pathways.
- 6.2.2 For a pollutant linkage to be identified a connection between all three elements (source-pathway-receptor) is required.

6.3 Geoenvironmental Hazard Identification

On-Site - Electrical Connection and Gas Connection

- 6.3.1 This part of the Project Site predominantly comprises farmland, and historical map evidence indicates that these areas have been farmland since the earliest available historical map. The proposed end use of this part of the Project Site to provide an electrical and gas connection is not considered to introduce new sensitive receptors in this area. Since no significant plausible contamination sources have been identified and the end use will not introduce any new receptors, it is considered that there are no plausible pollutant linkages. Therefore, this part of the Project Site has not been taken forward through the risk assessment.

On-site – Power Generation Plant Site

- 6.3.2 The brickworks manufacturing operation was located approximately 1.3km to the north of the Project Site, and consequently any potential contamination sources linked to the process of manufacturing and firing of bricks are considered to be located far enough away to not affect the Project Site.
- 6.3.3 A notable thickness of Callow Clay Fill (CCF) typically around 2.5m thick (PBA, 2009b), but possibly in excess of 4.7m thick has been confirmed to be present across the Generating Equipment Site. This CCF has been typically described as reworked clay with occasional brick fragments and is therefore not expected to contain any significantly elevated concentrations of potential contaminants. The previous ground investigations include geoenvironmental data from exploratory holes within the Power Generation Plant Site and also from other exploratory holes within the wider Rookery South pit. The results of contamination testing undertaken by both CLA 2000 and by PBA 2009b for the consented Covanta RRF scheme are considered to be representative of the Power Generation Plant Site, even where they are from exploratory holes outside of the area because the historical and geographical setting of the area is identical to that of the wider pit. Testing from the exploratory holes within and immediately adjacent to the Power Generation Plant Site did not show any evidence of elevated concentrations of potential contaminants.

- 6.3.4 Whilst there is the potential for small pockets of sporadic and discreet localised contamination to be present within the CCF, it is considered that the frequency and magnitude of any such localised contamination will be very small based upon the current available information.
- 6.3.5 Experience in contaminated land assessment by PBA of many other brickmaking sites from the same era in the former London Brick Company (LBC) landholding has indicated that the historical industrial activity of clay excavation and casting back of overburden, with reprofiling/landscaping carried out at these sites does not in itself give rise to significant levels of potential contamination.
- 6.3.6 The potential for contamination to be present based on the past and present site use is assessed as classification score '2'; **Low**. (see Table 1, **Appendix 1**).

Ground gases

- 6.3.7 The previous ground investigations have not encountered any significant quantities of organic materials within the deposits underlying the Project Site; however, the Oxford Clay Formation is known to contain organic matter and carbonates, which can degrade to produce gases such as carbon dioxide and methane. Ground gas monitoring has been carried out for many previous developments on Oxford Clay and the gas generation potential is well established. It is considered that the hazard level in areas of Oxford Clay and CCF is **Low to Moderate**.
- 6.3.8 Low concentrations of carbon dioxide and potentially methane may be associated with the very localised deposits of Alluvium, associated typically with the Mill Brook, and it considered that the localised hazard level in these areas is **Low to Moderate**.
- 6.3.9 There is potential for hazardous ground gases associated with the adjacent former Stewartby Landfill site, however it is considered that there is low potential for any ground gas present to affect buildings associated with the Project Site due to both the migration distance and generally low permeability of the ground conditions.

Groundwater

- 6.3.10 In general, groundwater quality in the Kellaways Sand, the Cornbrash Formation and the Blisworth Limestone Formation in the region has been identified as being poor with saline conditions reported from the majority of reports and investigations. In particular, historically, the Environmental Quality Standard (EQS) screening criteria have been exceeded for ammoniacal nitrogen, boron, electrical conductivity and chloride. The concentrations recorded are considered to be naturally occurring and typical of baseline conditions in similar geological settings, and not a result of the on-site ground conditions. There are no indicators of anthropogenic contamination, and hydrocarbons have not been recorded above the screening criteria in the recent analyses undertaken.

Surface Water

- 6.3.11 Similarly, previous testing undertaken in 2010 and 2014 on the surface waters that form part of the wider area indicate that elevated sulphate and electrical conductivity levels were present in the surface waters at the site. These were the only parameters that exceeded the screening criteria, and based on the results of the BOD and ammonia results the surface water quality was assessed at the time as Class A (Very Good) according to the Environment Agency CQA Scheme.
- 6.3.12 More recent testing undertaken in 2017 indicates that concentrations of hydrocarbons and metals such as lead, mercury, hexavalent chromium and cadmium were all recorded below the laboratory limit of detection. Concentrations of Iron exceeded the assessment standard at each monitoring location and there was an exceedance of the bioavailable standard for Zinc at BH206.

- 6.3.13 In general, the surface water monitoring data largely reflects the chemistry of the groundwater data and shows that whilst some naturally occurring substances are elevated, there is no evidence of significant anthropogenic contamination of the surface waters and groundwater.

Off-Site

- 6.3.14 The Project Site lies within a predominantly agricultural setting and consequently potential off-site sources of significant contamination have not been identified. The exception to this is the Pillinge (Stewartby) Brickworks site and the Stewartby Landfill (located adjacent to the Access Road), the railway lines and sidings adjacent to parts of the Project Site and Pillinge Farm South.
- 6.3.15 Millbrook Vehicle Proving Ground is located adjacent to the southwest boundary of the Electrical Connection; however, there are no records of any pollution incidents arising from this facility within the Envirocheck Report.
- 6.3.16 it is considered that the risk to the Project Site associated with potential off-site contamination generation based on the past and present off-site land-use is assessed as classification score '4'; **High**. (see Table 1, **Appendix 1**).
- 6.3.17 Given the observations made during the previous investigations and the groundwater and surface water quality data that has been previously collected from the wider Marston Vale area, and the distance of these sources from the Project Site in conjunction with the expected low permeability of the underlying geology means that any off-site contamination (if present) is not likely to affect the Project Site, because there are not expected to be any plausible pathways.

6.4 Hazard Assessment

- 6.4.1 In order to determine whether the identified hazards pose a risk it is necessary to identify the presence of potential receptors and pathways by which they can be exposed to the hazard.

Identification of Potential Receptors

- 6.4.2 Potential receptors identified by this assessment and determination of the sensitivity/value are presented in Table 6.1 below.

Table 6.1 – Potential Receptors

| Item | Comment | Receptor/Sensitivity |
|-----------------------|---|----------------------|
| Human Health Current | Undeveloped – Receptors not Present | No - Eliminated |
| Human Health Future | Commercial /Industrial | Yes – 4 |
| Off-site Human Health | Lower Farm, Pillinge South Farm and Vehicle Proving Ground. | Yes – 4 |
| Construction Workers | Construction Activities Expected | Yes – 4 |
| Groundwater | Principal aquifer present | Yes – 4 |
| Surface Water | Mill Brook and Mill Brook Tributary | Yes – 2 |
| Buildings | Requires DCO | Yes – 4 |
| Animals and crops | Large parts of the Project Site are farmland | Yes - 2 |
| Ecological Systems | No designated sites within 500m | No - Eliminated |

Identification of Potential Pathways and Pollutant Linkages

- 6.4.3 Table 3 in the PBA methodology describes possible pathways for each receptor type. The assessment of the potential pollutant linkages identified using information on potential sources, receptors and exposure pathways is presented as a table within **Appendix 7**.

6.5 Risk Estimation

- 6.5.1 Risk estimation involves predicting the likely consequence (what degree of harm might result) and the probability that the consequences will arise (how likely the outcome is). The table in **Appendix 7** summarises the estimated risks for the identified pollutant linkages.
- 6.5.2 When there is a pollutant linkage (and therefore some measure of risk) it is necessary to determine whether the risk matters and therefore whether further action is required. Risk estimation involves predicting the likely consequence (what degree of harm might result) and the probability that the consequences will arise (how likely the outcome is).
- 6.5.3 The table in **Appendix 7** presents an assessment of consequence and probability for each potential pollutant linkage identified. Based on the information available, and assuming a worst case scenario, the estimated risks have been designated as follows:
- Human Health Future Users – Low
 - Human Health – Off Site - Low
 - Human Health Construction Workers – Very Low
 - Groundwater – Low
 - Surface Water – Very Low
 - Buildings / Services – Low
 - Animals and Crops – Very Low
- 6.5.4 During construction phase the underlying ground will be exposed and there is an enhanced short term risk, particularly to construction workers, however it is considered that this will be mitigated by the adoption of appropriate training and use of Personal Protective Equipment by site workers.
- 6.5.5 The highest estimated risk of Low for human health is a function of:
- The relatively low sensitivity of the proposed end use with regard to human health.
 - The relatively low potential for significant sources of potential contamination to be present.
 - The relatively low sensitivity of the environmental setting around the Project Site.
- 6.5.6 A low risk is defined as where ‘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.’

Ground Gases

- 6.5.7 It is anticipated that ground investigation including ground gas monitoring will be required at the Project Site, to confirm the actual ground gas conditions and any protection measures that may be required in the construction of the proposed development.

6.6 Risk Evaluation

- 6.6.1 Possible pollutant linkages are determined using professional judgement. If a linkage is considered possible, it is considered that this represents a potentially ‘unacceptable risk’ and

therefore requires further consideration. This may be through remediation or mitigation or through further tiers of assessment.

6.7 Confidence and Uncertainty

- 6.7.1 The assessment presented herein is based on publically available information on land use and third party reports on intrusive investigations. Whilst the third party reports provide comfort that there is not likely to be site-wide significant contamination, further site specific data from intrusive ground investigation will be required in due course and prior to commencement of development to confirm the risk estimation.

7 Preliminary Geotechnical Assessment

7.1 Introduction

- 7.1.1 The following assessments have been undertaken in accordance with the NPPF, in order to determine whether there are any land stability constraints at the Project Site and identify any appropriate remedial, preventative or precautionary measures, as required. The assessments include consideration of the potential for unstable slopes, ground compressibility and shrinkage/heave in the context of the proposed development and the local geographical environment.
- 7.1.2 The following sections of the report are based upon the geological / geotechnical information that has been collated from previous ground investigations and published information.

7.2 Implications of Proposed Low Level Restoration Scheme (LLRS)

- 7.2.1 It is recognised that the proposed LLRS will take place prior to commencement of construction of the Project. The LLRS will include regrading levels within the base of the Rookery South pit by cut and placement of engineered fill, including the winning of clay fill from parts of the wider area.
- 7.2.2 The earthworks in the base of the pit will be undertaken by placing Oxford Clay Fill in layers to raise ground levels and produce a fall across the pit towards an attenuation pond in the northern part of the Rookery South pit. It is proposed that the resulting topographic levels beneath the Generating Equipment Site will be approximately 30m AOD – 31m AOD, which equates to a limited thickness of fill above current levels of circa 0.5m in places and cut of up to 1.2m.

7.3 Potential Ground Settlement

- 7.3.1 Historically the Callow Clay Fill was placed in the base of the pit without any compaction or surcharge control measures having been implemented, and will have settled under its self-weight since placement. Parts of the Rookery South Pit have previously become inundated with water, and these areas may affect the proposed Power Generation Plant Area and Access Road. These deposits may therefore currently be present in a relatively soft and compressible nature. Any new fill placed in the base as part of the LLRS will therefore induce additional consolidation settlement of the underlying historical Callow Clay Fill.
- 7.3.2 PBA have previously undertaken detailed research and analysis of the potential for settlements to be induced by loading of historical Callow Clay Fill in the base of similar pits excavated in the Oxford Clay. Assessments have included one dimensional consolidation analysis in the laboratory and monitoring of in-situ settlements caused by surcharge loading. Results of one-dimensional consolidation testing showed M_v values, which describe the total magnitude of settlement, generally in the range 0.3 m^2/MN to 0.4 m^2/MN . Corresponding C_v values, which describe the time required for settlement to occur, ranged from 0.2 $m^2/year$ to 1.4 $m^2/year$. It has, however, been recognised that the C_v values from consolidation tests show considerable variation and estimates of the time required for settlement to occur are sensitive to these variations. Back-analysis of the in-situ settlement recorded in association with the construction of an earth embankment over Callow Clay Fill estimated actual C_v values in the range 1.6 $m^2/year$ to 3 $m^2/year$.
- 7.3.3 Utilising relatively conservative values, with an M_v value of 0.4 m^2/Mn and a C_v value of 2 $m^2/year$, preliminary calculations show that for 0.5m of engineered fill placed over 2.5m Callow Clay Fill total settlements of about less than 20mm can be expected. In areas where thicker deposits of Callow Clay Fill have been recorded, or alternatively where thicker deposits of engineered fill will be placed, larger settlements will take place. It is, however, recognised that

some areas of relatively thick Callow Clay Fill form topographic high points and will therefore require less engineered fill in order to produce the required platform levels.

- 7.3.4 The currently envisaged programme for the placement of engineered fill as part of the LLRS and the subsequent development works suggests that construction will commence almost immediately after completion of the earthworks for the LLRS in the Power Generation Plant Area and will be largely completed within 12 months. Given this timescale, settlement of the Callow Clay Fill induced by placement of any residual engineered fill will not be fully mobilised prior to construction and recognition of such should therefore be made in respect of the design of hard-surfacing and infrastructure not founded upon deeper naturally occurring materials, particularly in respect of any differential settlement that might occur. It may be necessary to incorporate mitigation measures into the design such as ground improvement or geogrid re-enforcement to stiffen the ground present. It is also recognised that the area is currently being used as a temporary stockpile of materials during the LLRS development and as such some preloading of the area is being undertaken as a result which will in effect allow some initial settlement to be induced, reducing the effects of settlement as a result of achieving the subsequent final levels in the development area.
- 7.3.5 Particular attention will need to be given to any areas where the characteristics and thicknesses of the underlying deposits vary across short distances such as at the edges of the pit. Here, there may be a considerable thickness of unimproved Callow Clay Fill banked against the relatively incompressible natural ground forming the steep original pit edge. Infrastructure such as roads, pavements and utilities could be at risk from unacceptably high magnitudes of differential settlement and careful consideration should be made of this risk in their design.

7.4 Access Road and Green Lane Junction

- 7.4.1 The Project includes for provision of a new vehicular access junction from Green Lane into the existing open access area adjacent to the north-western corner of the Rookery North pit. In order to facilitate the required turning arcs for large construction vehicles the access road may pass relatively close to the perimeter crest of the pit. The design of the access road must therefore include assessment of the slope angle, the distance between the road and the slope and the resultant slope stability.

7.5 Foundations

- 7.5.1 The ground conditions at the Project Site, are in general, expected to form a suitable platform for the construction of the proposed Project. For very lightly loaded elements and elements that are able to tolerate differential movements, shallow spread footings constructed within the remaining Oxford Clay, and possibly in the overlying Callow Clay Fill and engineered development platform fill, may be feasible.

7.6 Floor Slabs and Pavements

- 7.6.1 Based upon the expected ground conditions present in the Power Generation Plant Site, comprising Callow Clay Fill overlain by a limited thickness of engineered fill placed in the base of the pit as part of the LLRS, it is expected that lightly loaded ground bearing floor slabs and pavements constructed on a suitable depth of capping/sub-base and reinforced by geogrid as necessary will prove adequate.
- 7.6.2 However, given the relatively soft nature of the Callow Clay Fill, any heavily loaded floor slabs will either need to be suspended on to piles or the ground will require improvement before the slabs are cast. Potential ground improvement techniques could include preloading and surcharging of the Callow Clay Fill in order to accelerate the settlement, or improvement of soft materials by in-situ ground improvement techniques, such as the installation of vibratory stone or concrete columns. It should be recognised; however, that surcharging is a process that requires a certain period of time for porewater pressures to dissipate and for primary settlements

to take place and it may be necessary to install additional drainage such as vertical sand drains for this to take place during an acceptable timescale.

7.7 Clay Volume Change Potential

- 7.7.1 Due to the highly plastic nature of the Oxford Clay, and the Callow deposits derived from it, the soils are liable to shrink or swell in response to changes in moisture content. Such changes in moisture content can occur due to seasonal or climatic effects but more commonly structural damage can occur when trees and hedgerows remove moisture from the soil at depth. Conversely removal of trees can cause swelling and structural damage as the soils re-saturate.
- 7.7.2 Guidance on foundation design in such circumstances is given in BRE Digests 240, 241, 242, 298 and 412, and also in NHBC Standards Chapter 4.2, which can be applied as equally as appropriate to industrial buildings as houses. The historical laboratory testing on the soils present indicates that the in-situ Callow deposits exhibit a high volume change potential whilst the Callow Clay Fill and the Knotts exhibit a generally moderate volume change potential. It is recommended that a high volume change potential is assumed for those fill deposits that will be placed into the base of the pit as part of the LLRS. Particular attention will need to be given to the design of any foundations within the tree root zone of influence of the extensive tree screen proposed as part of the landscaping of the Project.
- 7.7.3 NHBC Chapter 4.2 recommends that for foundations outside of the zone of influence of any proposed trees or shrubs a minimum foundation depth of 1.0m should be adopted for high volume change potential soils. For any foundations inside the potential zone of influence of any proposed trees or shrubs foundation depths of 1.5m are appropriate, providing that absolute limits are agreed within the planting schedules to exclude any tree planting within a certain distance of the foundations. The reader is referred to the NHBC guidance for further details regarding the zone of influence identified for a variety of different tree species.

7.8 Chemical Attack on Buried Concrete

- 7.8.1 It should be recognised that the Oxford Clay is known to be sulphate and pyrite bearing and can therefore be corrosive to buried concrete. Groundwater and surface water monitoring data has also indicated that the waters present at the Project Site are characterised by high chloride and high sulphate concentrations. It is recommended that checks on site specific conditions should be made prior to construction and the mix design of buried concrete should follow the recommendations of BRE Special Digest 1: Concrete in Aggressive ground (2005 with amendments in 2017). Generally, a design sulphate class of DS4 is required in Oxford Clay terrain and subject to groundwater considerations an ACEC class of AC-4 is adopted for mobile groundwater conditions.

7.9 Slope Stability

- 7.9.1 A number of both small scale and large scale instability features have been noted within the Callow and Knotts slopes of the Rookery South pit. A review of the stability of the slopes in the pit was previously carried out (PBA, 2005) and the review identified the potential for slope stability issues to occur in the future as pore water pressures within the former pit faces dissipate over time.
- 7.9.2 The proposed scope of works for the LLRS includes provision of buttresses as required to the slopes within Rookery South pit, to facilitate long term stability, and this work will be completed prior to development of the Project Site.
- 7.9.3 The results of a survey of the slope condition on motorway earthworks (Perry, 1989) indicates that slopes greater than 2.5m high, constructed using material sourced from the Oxford Clay Formation, should have a gradient no steeper than 1V:3.5H to limit the risk of slope failure to less than 1 per cent within 20 years of construction. Where the slopes are formed at a gradient

steeper than 1V:3.5H, weathering and progressive softening of the near-surface soils on the slope may result in shallow translational and flow movements through the soils near the base of the root system of the vegetation on the slope. For slopes at about 1V:2.5H, the risk of such failures occurring within about 10 years of construction was reported to be about 20%.

- 7.9.4 The proposed slope gradients following the implementation of the LLRS are approximately 1V:3.5H.

7.10 Potential for Hydraulic Uplift

- 7.10.1 When the piezometric pressure in a relatively permeable stratum exceeds the confining overburden pressure of the relatively impermeable strata overlying it, then there is a theoretical risk of heave or hydraulic uplift. However, the inherent strength and cohesion of the confining strata (rather than just its downward acting mass) can also contribute to the resisting downward forces acting against the uplift. Therefore, with essentially impermeable deposits (remnant Oxford Clay and Callow Clay Fill) overlying slightly more permeable deposits (Kellaways Sand), and with relatively high piezometric levels recorded in boreholes around the perimeter of the Project Site, there might be a risk that hydraulic uplift may occur in the pit base where the thickness of the overlying impermeable deposits has been reduced by excavation works and overburden pressures therefore reduced. It should be noted that hydraulic uplift has not occurred in the Rookery South Pit although the theoretical possibility remains.
- 7.10.2 Previous groundwater monitoring undertaken at the Project Site has shown that piezometric levels within the Kellaways Sand are at, or close to, the topographic levels currently present within the base of the pit. However, the permeability of the Kellaways Sand has been shown by historical investigations to be relatively low (2.4×10^{-6} m/s to 5.1×10^{-7} m/s) and the potential for significant hydraulic pressure to build up is therefore considered to be very low.
- 7.10.3 Calculations of the potential for basal heave have been undertaken using stratigraphical information collected during historical ground investigations undertaken at the Project Site and wider area by CL Associates in 2000 (CLA, 2000) and maximum recorded piezometric levels based on hydrogeological information collected during groundwater monitoring undertaken by CLA between 2000 and 2002 and by PBA in June and September 2008. The factor of safety against the potential for heave to occur as a result of piezometric pressures within the Kellaways Sand, Cornbrash Formation and the Blisworth Limestone Formation, has been calculated by comparing the uplift pressure from each respective groundwater body, measured at boreholes located within the base of the pit, to the vertical overburden pressure applied by the overlying deposits based on the proposed basal formation levels at these locations. The results show that a factor of safety against basal heave of 1.5 or more is present and basal heave is therefore considered unlikely to occur.
- 7.10.4 The proposed regrading works included as part of the LLRS will result in a platform at approximately 30m AOD – 31m AOD. These works will effectively require placement of fill in places but removal of soil in other areas where ground levels are currently slightly higher than the proposed platform levels. In general, comparing the depth to the Kellaways Sand Formation, recorded during previous ground investigations, with the proposed development platform level indicates that the Kellaways Sand will be overlain by approximately 5m – 10m of very low permeability in-situ Oxford Clay and re-worked Callow Clay Fill and basal heave is considered highly unlikely to occur.

7.11 Surface Water Disposal

- 7.11.1 The Oxford Clay and underlying Kellaways Sand are of a very low permeability and there is therefore no scope for the use of infiltration drainage within the Project Site. As a result, the LLRS includes development of a surface water attenuation pond and associated pumping station in order to control the surface waters within the pits.

- 7.11.2 It is understood that the drainage of the Project Site will be via a series of surface water interceptor channels flowing under gravity to the surface water attenuation pond. Levels within the attenuation pond will be controlled by stage pumping any accumulated waters via an existing culvert into Mill Brook and ultimately Stewartby Lake.

8 Conclusions and Recommendations

8.1 Conclusions

- 8.1.1 The Project Site includes part of the Rookery South former clay extraction pit, and also includes the Electrical Connection and Gas Connection that lie outside of the clay pit. The Generating Equipment Site is located within the south and west part of the Rookery South clay pit that provided clay to the nearby Stewartby brickworks. It is understood that clay extraction from this area ceased in 1986. At the time of reporting the pit is currently undergoing earthworks associated with the delivery of the Low Level Restoration Scheme (LLRS). The remaining parts of the Project Site lie to the south of the clay pit and comprise agricultural land that forms part of the Electrical Connection and Gas Connection. Evidence from historical maps suggests that this land has always been in agricultural use.
- 8.1.2 From a review of the available desk based information it is likely that Callow Clay Fill in the form of reworked clay underlies the base of the Rookery South clay pit. Indications are that this could be in excess of 4.5m deep in some parts although more typically around 2.5m thick. Geoenvironmental testing data from within the actual Project Site area and from samples taken elsewhere within the wider confines of Rookery South Pit indicate that the material is typical of reworked clay with rare inclusions of brick, and consequently this is not expected to represent a potential source of significant contamination.
- 8.1.3 With regard to the Electrical Connection and Gas Connection, there are not expected to be any new receptors introduced. Furthermore, there are not expected to be any notable on-site or plausible off-site sources of contamination in this area and potential hazards associated with ground contamination have not been identified in this part of the Project Site. Therefore, these areas have not been taken forward in the risk assessment.
- 8.1.4 Whilst it is possible that the reworked Callow Clay Fill within the base of the Rookery South pit may contain occasional, discrete and localised elevated concentrations of potential contaminants, this is considered unlikely on the basis of the testing carried out elsewhere on the Project Site. Furthermore, the low sensitivity of the proposed end-use in this area and the ground conditions identified means that even if any localised contamination is present, it is unlikely that any pollutant linkages between the end-users and these potential sources would be realised.
- 8.1.5 Nevertheless, the presence of Oxford Clay and materials derived from the Oxford Clay such as Callow Clay Fill presents a **Low to Moderate** potential risk of ground gases such as Carbon Dioxide being present at the Project Site. It is anticipated that ground investigation including ground gas monitoring will be required at the Project Site, to confirm the actual ground gas conditions and any protection measures that may be required in the construction of the Project.
- 8.1.6 Potential pollutant linkages have been identified within the Power Generation Plant Site only. Using the information on potential sources (contaminant types), receptors and exposure pathways the estimated risks for the identified pollutant linkages have been assessed as **Low** in all cases (human health and controlled waters), with the exception of potential ground gas as described above.
- 8.1.7 It is therefore considered that the site is unlikely to be designated as “contaminated land” under Part IIA.
- 8.1.8 Possible pollutant linkages have been identified in the Power Generation Plant Site only, but these risks have been assessed to be **Low**. It is considered that the risks can be managed and reduced through a combination of mitigation, remediation, design and adoption of good practice measures during construction.

8.2 Geotechnical Considerations

- 8.2.1 It is recognised that the LLRS will take place prior to commencement of the construction of the Project, works in that regard are ongoing at the time of reporting. The LLRS will include regrading levels within the base of the pit by cut and placement of engineered fill, including the winning of clay material from parts of the wider site area. The earthworks in the base of the pit will be undertaken by placing Oxford Clay Fill in layers to raise ground levels and produce a fall across the pit towards an attenuation pond in the northern part of the Rookery South pit. It is proposed that the resulting topographic levels beneath the Generating Equipment Site will be approximately 30m AOD – 31m AOD, which equates to a limited thickness of fill above current levels of circa 0.5m in places and cut of up to 1.2m. In the western parts of the Power Generation Plant Area, the proposed slope gradient as a result of the LLRS earthworks will provide a resultant slope gradient equivalent to approximately 1V:3.5H to limit the risk of slope failure to less than 1 per cent within 20 years of construction.
- 8.2.2 The ground conditions on the Project Site are, in general, expected to form a suitable platform for the construction of the Project. For very lightly loaded elements of the Project and elements that are able to tolerate differential movements, shallow spread footings constructed within the remaining Oxford Clay, and possibly in the overlying Callow Clay Fill and engineered development platform fill, could be feasible.
- 8.2.3 It should be recognised that the Oxford Clay is known to be sulphate and pyrite bearing and can therefore be corrosive to buried concrete. Generally, a design sulphate class of DS4 is required in Oxford Clay terrain and subject to groundwater considerations an ACEC class of AC-4 is adopted for mobile groundwater conditions.

8.3 Recommendations

- 8.3.1 It is recommended that a Geotechnical Ground Investigation is carried out within the Power Generation Plant Site to inform the foundation design of the separate elements of the Project within that area. The ground investigation should primarily target the parts of the area that fall within the base of the Rookery South pit to ascertain the nature and extent of the Callow Clay Fill present.
- 8.3.2 Given the anticipated low level of contamination risk throughout the Project Site and its proposed end-use, it is anticipated that the requirement to carry out a bespoke Phase 2 geoenvironmental intrusive investigation is not required.
- 8.3.3 It may however be prudent to obtain soil samples for geoenvironmental screening during the geotechnical ground investigation in the Power Generation Plant Site, and to simultaneously install groundwater/gas monitoring standpipes during these works. This should be followed up by a robust groundwater/gas monitoring programme. It is expected that any requirement for contamination testing can be satisfactorily dealt with by planning conditions incorporated in any granted Consent.
- 8.3.4 It is nevertheless recommended that a programme of groundwater and surface water monitoring is carried out for the Project Site to provide information on the current baseline conditions prior to construction of the Project.

9 Essential Guidance for Report Readers

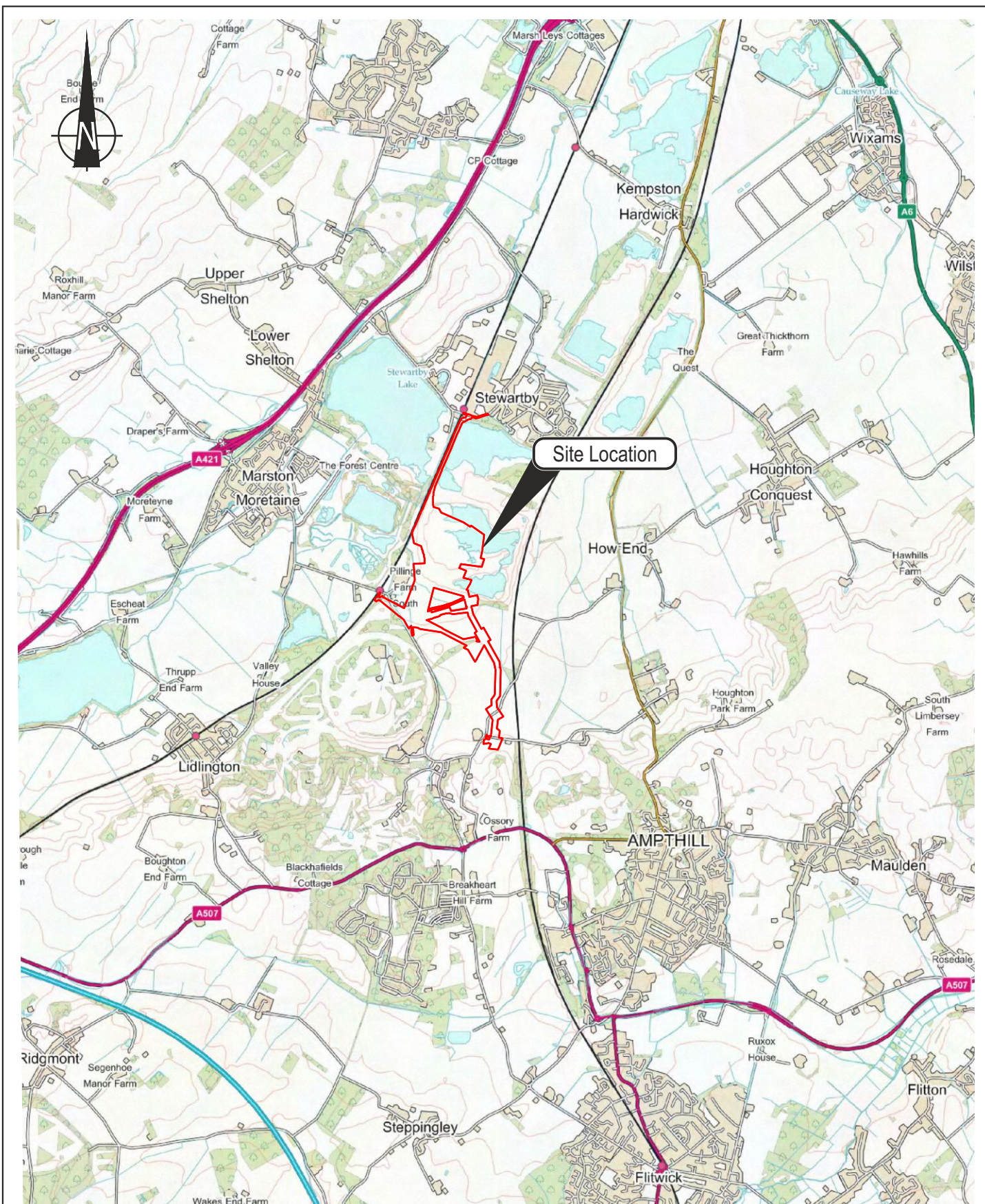
This report has been prepared within an agreed timeframe and to an agreed budget that will necessarily apply some constraints on its content and usage. The remarks below are presented to assist the reader in understanding the context of this report and any general limitations or constraints. If there are any specific limitations and constraints, they are described in the report text.

1. The opinions and recommendations expressed in this report are based on statute, guidance, and appropriate practice current at the date of its preparation. Peter Brett Associates LLP (PBA) does not accept any liability whatsoever for the consequences of any future legislative changes or the release of subsequent guidance documentation, etc. Such changes may render some of the opinions and advice in this report inappropriate or incorrect and we will be pleased to advise if any report requires revision due to changing circumstances, especially those over one-year-old. Following delivery of any report PBA has no obligation to advise the Client or any other party of such changes or their repercussions.
2. Some of the conclusions in this report may be based on third party data. No guarantee can be given for the accuracy or completeness of any of the third party data used. Historical maps and aerial photographs provide a “snap shot” in time about conditions or activities at the site and cannot be relied upon as indicators of any events or activities that may have taken place at other times.
3. The conclusions and recommendations made in this report and the opinions expressed are based on the information reviewed and/or the ground conditions encountered in exploratory holes and the results of any field or laboratory testing undertaken. There may be ground conditions at the site that have not been disclosed by the information reviewed or by the investigative work undertaken. Such undisclosed conditions cannot be taken into account in any analysis and reporting.
4. It should be noted that groundwater levels, groundwater chemistry, surface water levels, surface water chemistry, soil gas concentrations and soil gas flow rates can vary due to seasonal, climatic, tidal and man-made effects.
5. If the report indicates that asbestos has been identified within the ground, any work that involves, or is likely to involve, contact with asbestos must be undertaken in accordance with the Control of Asbestos Regulations 2012, particularly in regard to risk assessment, licencing and training. Risk assessment should be carried out prior to any activities that could lead to the disturbance of asbestos materials, either buried or on the ground surface and should include appropriate mitigation measures, such as damping down to prevent the spread of asbestos, air monitoring and minimum PPE and/or RPE requirements for the work proposed.
6. This report has been written for the sole use of the Client stated at the front of the report in relation to a specific development or scheme. The conclusions and recommendations presented herein are only relevant to the scheme or the phase of project under consideration. This report shall not be relied upon or transferred to any other party without the express written authorisation of PBA. Any such party relies upon the report at its own risk.
7. The interpretation carried out in this report is based on scientific and engineering appraisal carried out by suitably experienced and qualified technical consultants based on the scope of our engagement. We have not taken into account the perceptions of, for example, banks, insurers, other funders, lay people, etc, unless the report has been prepared specifically for that purpose. Advice from other specialists may be required such as the legal, planning and architecture professions, whether specifically recommended in our report or not.
8. Public or legal consultations or enquiries, or consultation with any Regulatory Bodies (such as the Environment Agency, Natural England or Local Authority) have taken place only as part of this work where specifically stated.

10 Reference

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Figures



This drawing has been produced in colour. Reproduction in black and white may result in misinterpretation of the data and features being presented.

Site Grid Ref: TL 013 408
 Approximate Site Boundary

Client
Millbrook Power Ltd

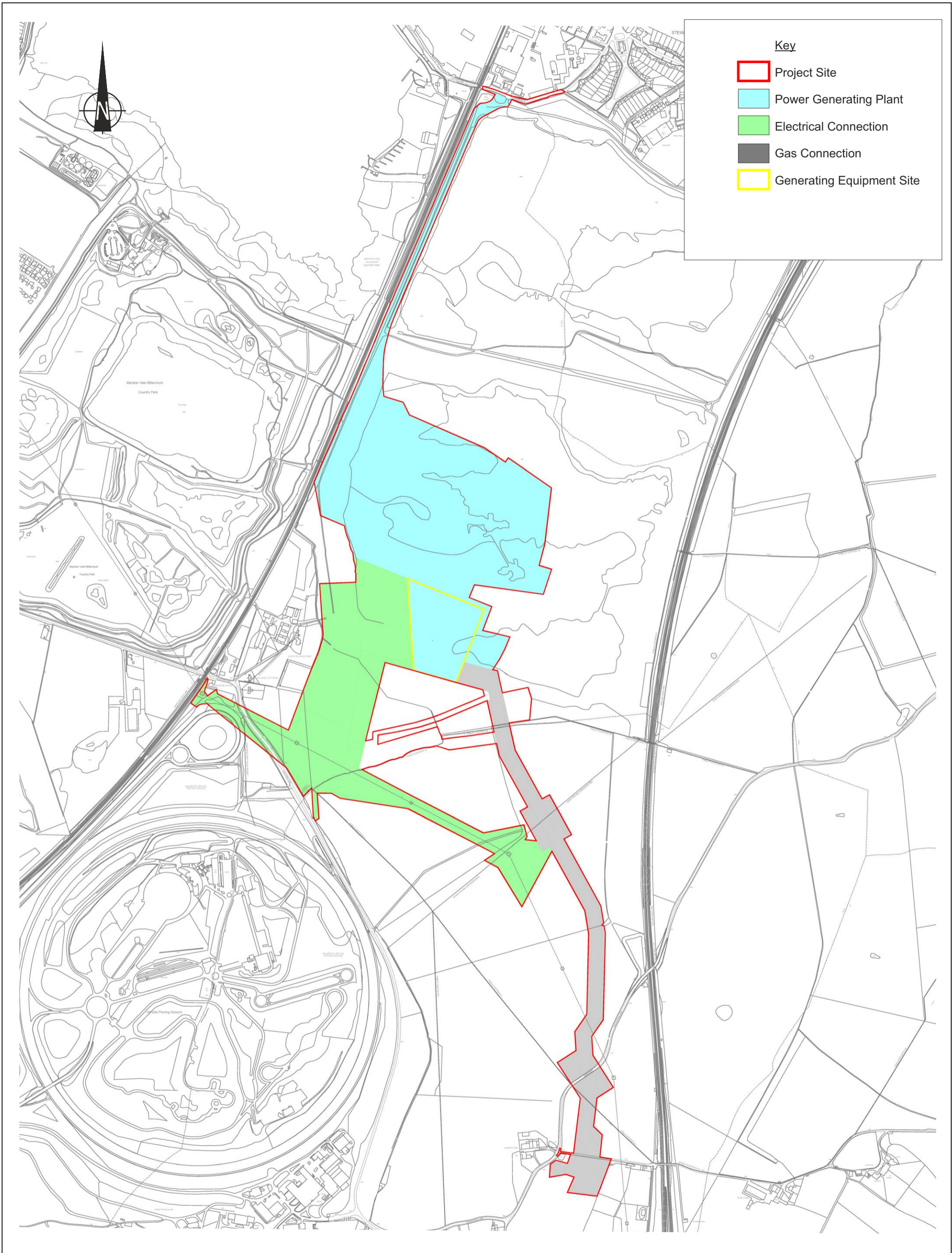
Contains Ordnance Survey data © Crown copyright and database right 2017.

MILLBROOK POWER PROJECT

SITE LOCATION PLAN

| | |
|------------|------------|
| Date | 18.09.2017 |
| A4 Scale | 1:50 000 |
| Drawn by | davco |
| Checked by | NW |
| Revision | 0 |

FIGURE 1



Key

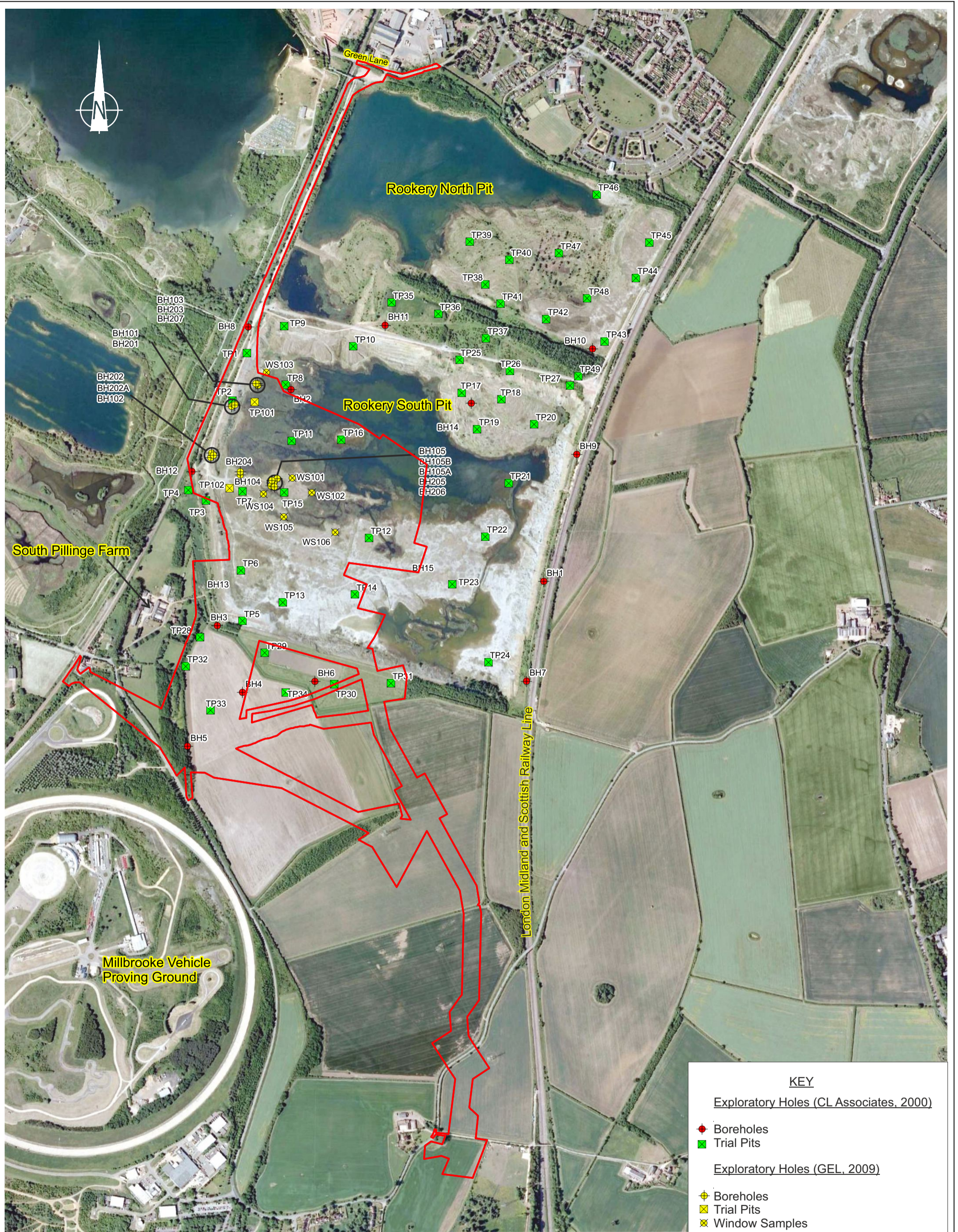
- Project Site
- Power Generating Plant
- Electrical Connection
- Gas Connection
- Generating Equipment Site

Client
Millbrook Power Ltd

MILLBROOK POWER PROJECT
SITE LAYOUT PLAN

| | |
|------------|------------|
| Date | 10.08.2017 |
| Scale | 1:10 000 |
| Drawn by | davco |
| Checked by | NW |
| Revision | 0 |

FIGURE 2



| KEY | |
|---|----------------|
| Exploratory Holes (CL Associates, 2000) | |
| ● | Boreholes |
| ■ | Trial Pits |
| Exploratory Holes (GEL, 2009) | |
| ⊕ | Boreholes |
| ■ | Trial Pits |
| ✕ | Window Samples |



Client
Millbrook Power Ltd

Google Earth
 © 2014 Infoterra Ltd & Bluesky
 Imagery Date: June 2009

MILLBROOK POWER PROJECT

SITE LAYOUT AND EXPLORATORY HOLE LOCATION PLAN

| | |
|------------|------------|
| Date | 10.08.2017 |
| Scale | 1:10 000 |
| Drawn by | davco |
| Checked by | NW |
| Revision | 0 |

FIGURE 3

Appendix 1. PBA Methodology

PBA Methodology for Assessing Land Contamination in England

1 Introduction

This document defines the approach adopted by PBA in relation to the assessment of land contamination in England. The aim is for the approach to (i) be systematic and objective, (ii) provide for the assessment of uncertainty and (iii) provide a rational, consistent, transparent framework.

When preparing our methodology we have made reference to various technical guidance documents and legislation referenced in Section 7 of which the principal documents are (i) Contaminated Land Statutory Guidance (Defra 2012), (ii) the Model Procedures for the Management of Contamination (CLR 11) (EA 2004), (iii) Contaminated Land risk assessment: A guide to good practice (C552) (CIRIA 2001) and (iv) National Planning Policy Framework (DCLG 2012).

2 Dealing with Land Contamination

Government policy on land contamination aims to prevent new contaminated land from being created and promotes a risk based approach to addressing historical contamination. With regard to historical contamination, regulatory intervention is held in reserve for land that meets the legal definition and cannot be dealt with through any other means, including through planning. Land is only considered to be “contaminated land” in the legal sense if it poses an unacceptable risk.

UK legislation on contaminated land is principally contained in Part 2A of the Environmental Protection Act, 1990 (which was inserted into the 1990 Act by section 57 of the Environment Act 1995). Part 2A was introduced in England on 1 April 2000 and provides a risk-based approach to the identification and remediation of land where contamination poses an unacceptable risk to human health or the environment. In 2004 the Model Procedures for the Management of Contamination (CLR 11) were published providing guidance on how the statutory requirements were to be delivered. The approach, concepts and principles for land contamination management promoted by CLR 11 are applied to the determination of planning applications.

Other legislative regimes may also provide a means of dealing with land contamination issues, such as the regimes for waste, water, environmental permitting, and environmental damage. Further, the law of statutory nuisance may result in contaminants being unacceptable to third parties whilst not attracting action under Part 2A or other environmental legislation.

2.1 Part 2A

The Regulations and Statutory Guidance that accompanied the Act, including the Contaminated Land (England) Regulations 2006, has been revised with the issue of The Contaminated Land (England) (Amendment) Regulations 2012 (SI 2012/263) and the Contaminated Land Statutory Guidance for England 2012.

Part 2A defines contaminated land as “*land which appears to the Local Authority in whose area it is situated to be in such a condition that, by reason of substances in, on or under the land that significant harm is being caused, or there is a significant*

possibility that such harm could be caused, or pollution of controlled waters is being, or likely to be, caused”.

Harm is defined as “*harm to the health of living organisms or other interference with the ecological systems of which they form part, and in the case of man, includes harm to his property*”.

For the purposes of Part 2A, land is contaminated if it poses a significant possibility of significant harm (SPOSH).

Part 2A provides a means of dealing with unacceptable risks posed by land contamination to human health and the environment, and under the guidance enforcing authorities should seek to find and deal with such land. It states that “*under Part 2A the starting point should be that land is not contaminated land unless there is reason to consider otherwise. Only land where unacceptable risks are clearly identified, after a risk assessment has been undertaken in accordance with the Guidance, should be considered as meeting the Part 2A definition of contaminated land*”. Further the guidance makes it clear that “*regulatory decisions should be based on what is reasonably likely, not what is hypothetically possible*”.

The overarching objectives of the Government’s policy on contaminated land and the Part 2A regime are:

- “(a) *To identify and remove unacceptable risks to human health and the environment.*
- (a) *To seek to ensure that contaminated land is made suitable for its current use.*
- (b) *To ensure that the burdens faced by individuals, companies and society as a whole are proportionate, manageable and compatible with the principles of sustainable development*”.

The enforcing authority may need to decide whether and how to act in situations where decisions are not straight forward, and where there is uncertainty. “*In so doing, the authority should use its judgement to strike a reasonable balance between: (a) dealing with risks raised by contaminants in land and the benefits of remediating land to remove or reduce those risks; and (b) the potential impacts of regulatory intervention including financial costs to whoever will pay for remediation, health and environmental impacts of taking action, property blight, and burdens on affected people*”. The authority is required to “*take a precautionary approach to the risks raised by contamination, whilst avoiding a disproportionate approach given the circumstances of each case*”. The aim is “*that the regime produces net benefits, taking account of local circumstances*”.

The guidance recognises that “*normal levels of contaminants in soils should not be considered to cause land to qualify as contaminated land, unless there is a particular reason to consider otherwise*”.

Normal levels are quoted as:

- “(a) *natural presence of contaminants’ such as from underlying geology ‘that have not been shown to pose an unacceptable risk to health and the environment*
- (b) *...low level diffuse pollution, and common human activity...*”

PBA Methodology for Assessment of Potentially Contaminated Land

Similarly the guidance states that significant pollution of controlled waters is required for land to be considered contaminated and the “*fact that substances are merely entering water*” or “*where discharge from land is not discernible at a location immediately downstream*” does not constitute contaminated land.

To help achieve a more targeted approach to identifying and managing contaminated land in relation to the risk (or possibility) of harm to human health, the revised Statutory Guidance presented a new four category system for considering land under Part 2A, ranging from Category 4, where there is no risk that land poses a significant possibility of significant harm (SPOSH), or the level of risk is low, to Category 1, where the risk that land poses a significant possibility of significant harm (SPOSH) is unacceptably high.

For land that cannot be readily placed into Categories 1 or 4 further assessment is required. If there is a sufficiently strong case that the risks are of sufficient concern to cause significant harm/pollution or have the significant possibility of significant harm/pollution the land is to be placed into Category 2. If the concern is not met land is considered Category 3.

The technical guidance clearly states that the currently published SGV and GAC's represent “*cautious estimates of level of contaminants in soils*” which should be considered “*no risk to health or, at most, a minimal risk*”. These values do not represent the boundary between categories 3 and 4 and “*should be considered to be comfortably within Category 4*”.

At the end of 2013 technical guidance in support of Defra's revised Statutory Guidance (SG) was published (CL:AIRE 2013) which provided:

- A methodology for deriving C4SLs for four generic land-uses comprising residential, commercial, allotments and public open space; and
- A demonstration of the methodology, via the derivation of C4SLs for six substances – arsenic, benzene, benzo(a)pyrene, cadmium, chromium (VI) and lead.

2.2 Planning

The Local Planning Authority (LPA) is responsible for the control of development, and in doing so it has a duty to take account of all material considerations, including contamination.

Section 11, Paragraph 109 of the National Planning Policy Framework (NPPF) (DCLG 2012) states the planning system should contribute to and enhance the natural and local environment by “*preventing both new and existing developments from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water pollution*” and “*remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate*”. Paragraphs 120 and 121 describe the policy considerations the Government expects LPA to have in regard to land affected by contamination when preparing policies for development plans and in taking decisions on applications.

For planning purposes, the NPPF requires that the assessment of risks arising from contamination and remediation requirements should be considered on the

basis of the current environmental setting, the current land use, and the circumstances of its proposed new use. The NPPF stipulates that planning policies and decisions should ensure that “the site is suitable for its new use taking account of ground conditions and land instability, including from natural hazards or former activities from previous uses and any proposals for mitigation including land remediation or impacts on the natural environment arising from that remediation”; and that “after remediation, as a minimum, land should not be capable of being determined as contaminated land under Part 2A of the Environmental Protection Act 1990; and adequate site investigation information, prepared by a competent person, is presented.”

The level at which contamination is deemed to be unacceptable, or, gives rise to adverse effects under a planning context has not been identified but is envisaged to be more precautionary than the level required to determine land as contaminated under Part 2A.

In paragraph 121 the developer is required to ensure that land, after development, is not capable of being determined as contaminated land under Part 2A of the EPA 1990.

The principal planning objective is to ensure that any unacceptable risks to human health, buildings and other property and the natural and historical environment from the contaminated condition of the land are identified so that appropriate action can be considered and taken to address those risks. In order to grant a planning permission the Local Planning Authority (LPA) has to be satisfied that there is sufficient information about the condition of the land, its impacts and the availability of viable remedial options. NPPF Paragraph 21 states that “*planning policies and decisions should also ensure that adequate site investigation information, prepared by a competent person, is presented*”. Site investigation information is further defined in the NPPF Glossary page 56 and that also states that investigations should be carried out in accordance with established procedures, including BS10175 (BSI 2011) that in turn links procedure to the requirements of CLR11.

A key distinction between the Soil Guideline Values (SGVs) and the C4SLs is the level of risk that they describe. As described by the Environment Agency (2009a):

“*SGVs are guidelines on the level of long-term human exposure to individual chemicals in soil that, unless stated otherwise, are tolerable or pose a minimal risk to human health.*”

A letter from Lord de Mauley dated 3rd September 2014 provides more explicit direction to local authorities on the use of the C4SL in a planning context. The letter identifies four key points:

- 1) that the screening values were developed expressly with the planning regime in mind
- 2) their use is recommended in DCLG's planning guidance
- 3) soil concentrations below a C4SL limit are considered to be ‘definitely not contaminated’ under Part IIA of the 1990 Environmental Protection Act and pose at most a ‘low level of toxicological concern’ and
- 4) exceedance of a C4SL screening value does not mean that land is definitely contaminated, just that further investigation may be warranted.

PBA Methodology for Assessment of Potentially Contaminated Land

2.3 Building Control

The building control department of the local authority or private sector approved inspectors are responsible for the operation and enforcement of the Building Regulations (DCLG 2010) to protect the health, safety and welfare of people in and around buildings. Approved Document C requires the protection of buildings and associated land from the effects of contamination, to be applied (non-exclusively) in all changes of use from commercial or industrial premises, to residential property.

3 Approach

CLR 11 recommends a phased or tiered approach to risk assessment with the three tiers being:-

- Tier 1 - preliminary – a qualitative assessment forming part of a Phase 1 report,
- Tier 2 - generic - a quantitative assessment using published criteria to screen site specific ground condition data forming part of a Phase 2 report
- Tier 3 - detailed – a quantitative assessment involving the generation of site specific assessment criteria

Each tier of risk assessment comprises the following four stages:-

1. Hazard Identification – identifying potential contaminant sources on and off site;
2. Hazard Assessment – assessing the potential for unacceptable risks by identifying what pathways and receptors could be present, and what pollutant linkages could result (forming the Conceptual Site Model (CSM));
3. Risk Estimation – estimating the magnitude and probability of the possible consequences (what degree of harm might result to a defined receptor and how likely); and
4. Risk Evaluation – evaluating whether the risk needs to be, and can be, managed.

A PBA Phase 1 report normally comprises a desk study, walkover and Tier 1 risk assessment (the project specific offer defines the actual scope of work). This is the minimum requirement as defined by the NPPF, pp56. At Tier 1 the PBA approach to risk estimation involves identifying the magnitude of the potential consequence (taking into account both the potential severity of the hazard and the sensitivity of the receptor) and the magnitude of the likelihood i.e. the probability (taking into account the presence of the hazard and the receptor and the integrity of the pathway). This approach is promoted in current guidance such as R&D 66 (NHBC 2008).

The PBA approach is that if a pollution linkage is identified then it represents a potential risk which requires further consideration and either (1) remediation / direct risk management or (2) further tiers of assessment.

A PBA preliminary Phase 2 report comprises an intrusive investigation to collect site specific information, a Tier 2 quantitative generic risk assessment and a refinement of the CSM using the site specific data. Depending on the findings further investigation and/or progression to Tier 3 risk assessment and the generation of site specific assessment criteria may be required.

The PBA methodology provides an estimate of the level of risk, it does not identify a risk level at which the risk is considered “significant” and/or “unacceptable” as this is dependant on the view of the individual / stakeholder. For example; to a risk adverse stakeholder even a risk level of “very low” may be considered unacceptable and as such this stakeholder may require risk management options to be implemented.

4 Identification of Pollutant Linkages and Conceptual Site Model (CSM)

For all Tiers the underlying principle to ground condition assessment is the identification of *pollutant linkages* in order to evaluate whether the presence of a source of contamination could potentially lead to harmful consequences. A pollutant linkage consists of the following three elements:-

- A source/hazard – a substance or situation which has the potential to cause harm or pollution;
- A pathway – a means by which the hazard moves along / generates exposure; and
- A receptor/target – an entity which is vulnerable to the potential adverse effects of the hazard.

The *Conceptual Site Model* identifies the types and locations of potential contaminant sources/hazards and potential receptors and potential migration/transportation pathway(s). The CSM is refined as the assessment progresses through the Tiers.

4.1 Hazard Identification

A hazard is a substance or situation that has the potential to cause harm. Hazards may be chemical, biological or physical (e.g. explosive gases).

At Tier 1 the potential for hazards to be present is determined from consideration of the previous or ongoing activities on or near to the site in accordance with the criteria presented in the **Table 1**.

Based on the land use information Potential Contaminants of Concern (PCOC) are identified. The PCOC direct the scope of the collection of site specific data and the analytical testing selected for subsequent Tiers.

At Tier 2 the site specific data is screened using published assessment criteria (refer to PBA document entitled Rationale for the Selection of Tier 2 Assessment Criteria). In general, published criteria have been developed using highly conservative assumptions and therefore if the screening criterion is not exceeded then the PCOC is eliminated as a potential Hazard. It should be noted that exceedance does not necessarily indicate that a site is contaminated and/or unsuitable for use only that the PCOC is retained as a potential Hazard. Published criteria are generated using models based on numerous and complex assumptions. Whether or not these assumptions are appropriate in a site-specific context requires confirmation on a project by project basis and would form part of a Tier 3 assessment.

When reviewing or assessing site specific data PBA utilise published guidance on comparing contamination

PBA Methodology for Assessment of Potentially Contaminated Land

data with a critical concentration (CL:AIRE/CIEH 2008) which presents a structured process for employing statistical techniques for data assessment purposes. The benefit of the statistical tool is uncertainty is quantified and decisions are made knowing the strength of the evidence. Correct decision probability is a function of sample size, difference in the mean and the critical concentration, variation in measured values and the significance level.

4.2 Receptor and Pathway Identification

For all Tiers the potential receptors (for both on site and adjoining land) that will be considered are:

- Human Health – including current and future occupiers, construction and future maintenance workers, and neighbouring properties/third parties;
- Ecological systems; *1
- Controlled waters *2 – including surface water and groundwater;
- Property, Animal or Crop (existing or proposed) - including buildings, service lines and pipes, crops, livestock, pets, woodland; and
- Archaeological sites and ancient monuments.

*1 International or nationally designated sites (as defined in the statutory guidance (Defra Circular 04/12)) “in the local area” will be identified as potential ecological receptors. A search radius of 1, 2 or 5km will be utilised depending on the site specific circumstances (see also pathway identification). The Environment Agency has published an ecological risk assessment framework (EA 2008) which promotes (as opposed to statutorily enforces) consideration of additional receptors to include locally protected sites and protected or notable species. These additional potential receptors will only be considered if a Phase 1 habitat survey, undertaken in accordance with guidance (JNCC 1993), is commissioned and the data provided to PBA. It should be noted that without such a survey the Tier 1 risk assessment may conclude that the identification of potential ecological receptors is inconclusive (refer to PBA Specification for Phase 1).

*2 the definition of “pollution of controlled water” was amended by the introduction of Section 86 of the Water Act 2003. For the purposes of Part 2A groundwater does not include waters above the saturated zone and our assessment does not therefore address perched water other than where development causes a pathway to develop.

If a receptor is taken forward for further assessment it will be classified in terms of its sensitivity, the criteria for which are presented in **Table 2**. Table 2 has been generated using descriptions of environmental receptor importance/value given in various guidance documents including R&D 66 (NHBC 2008) and Transport Analysis Guidance (based on DETR 2000). Human health and buildings classifications have been generated by PBA using the attribute description for each class.

The exposure pathway and modes of transport that will be considered are presented in **Table 3**.

4.3 Note regarding Ecological Systems

The Environment Agency (EA) has developed an ecological risk assessment framework which aims to provide a structured approach for assessing the risks to ecology from chemical contaminants in soils (EA 2008). In circumstances where contaminants in water represent a potential risk to aquatic ecosystems then risk assessors will need to consider this separately.

The framework consists of a three tiered process:-

- Tier 1 is a screening step where the site soils chemical data is compared to a soil screening value (SSV)
- Tier 2 uses various tools (including surveys and biological testing) to gather evidence for any harm to the ecological receptors
- Tier 3 seeks to attribute the harm to the chemical contamination

Tier 1 is preceded by a desk study to collate information about the site and the nature of the contamination to assess whether pollutant linkages are feasible. The framework presents ten steps for ecological desk studies and development of a conceptual site model as follows.

- 1 Establish Regulatory Context
- 2 Collate and Assess Documentary Information
- 3 Summarise Documentary Information
- 4 Identify Potential Contaminants of Concern
- 5 Identify Likely Fate Transport of Contaminants
- 6 Identify Potential Receptors of Concern
- 7 Identify Potential Pathways of Concern
- 8 Create a Conceptual Site Model
- 9 Identify Assessment and Measurement Endpoints
- 10 Identify Gaps and Uncertainties

The information in a standard PBA Phase 1 report covers Steps 1 to 4 inclusive. Step 5 considers fate and transport of contaminants and it should be noted that our standard report adopts a simplified approach considering only transport mechanisms. A simplified approach has also been adopted in respect of Steps 6 and 7 receptors (a detailed review of the ecological attributes has not been undertaken) and pathways (a food chain assessment has not been undertaken). Step 9 is outside the scope of our standard Phase 1 report.

It should be noted that the Tier 1 assessment for ecological systems (i.e. where designated sites are identified) as part of a Phase 1 report will assess the viability of the mode of transport given the site specific circumstances not specific pathways.

The Tier 1 risk assessment may conclude that the risk to potential ecological receptors is inconclusive (see PBA Specification for Phase 1).

4.4 Note regarding Controlled Waters

Controlled Waters are rivers, estuaries, coastal waters, lakes and groundwaters, but not perched waters.

The EU Water Framework Directive (WFD) 2000/60/EC provides for the protection of sub-surface, surface, coastal and territorial waters through a framework of river basin management. The EU Updated Water Framework Standards Directive 2014/101/EU amended the EU WFD to update the international standards therein; it enters into force on 20 November 2014 and its provisions must be transposed in Member State law by 20 May 2016. Other EU Directives in the European water management framework include:

- the EU Priority Substances Directive 2013/39/EU;

PBA Methodology for Assessment of Potentially Contaminated Land

- EU Groundwater Pollutants Threshold Values Directive 2014/80/EU amending the EU Groundwater Directive 2006/118/EC; and
- EU Biological Monitoring Directive 2014/101/EU.

The Ground Water Daughter Directive (GWDD) was enacted by the Groundwater Regulations (2009), which were subsumed by the Environmental Permitting Regulations (2010) which provide essential clarification including on the four objectives specifically for groundwater quality in the WFD:-

- Achieve 'Good' groundwater chemical status by 2015, commonly referred to as 'status objective';
- Achieve Drinking Water Protected Area Objectives;
- Implement measures to reverse any significant and sustained upward trend in groundwater quality, referred to as 'trend objective'; and
- Prevent or limit the inputs of pollutants into groundwater, commonly referred to as 'prevent or limit' objectives

The Water Act 2003 (Commencement No.11) Order 2012 amends the test for 'contaminated land' which relates to water pollution so that pollution of controlled waters must now be "significant" to meet the definition of contaminated land.

River Basin Management Plans (RBMP) have been developed for the 11 River Basin Districts in England and Wales. These were released by Defra in 2009 (Defra 2009).

These RBMP's establish the current status of waters within the catchments of the respective Districts and the current status of adjoining waters identified. As part of a Tier 2 risk assessment water quality data is screened against the WFD assessment criteria. Compare to the RBMP's current status of waters for the catchment under consideration would form part of a Tier 3 assessment.

5 Risk Estimation

Risk estimation classifies what degree of harm might result to a receptor (defined as consequence) and how likely it is that such harm might arise (probability).

At Tier 1 the consequence classification is generated by multiplying the hazard classification score and the receptor sensitivity score. This approach follows that presented in the republished R&D 66 (NHBC 2008).

The criteria for classifying probability are set out in **Table 4** and have been taken directly from Table 6.4 CIRIA C552 (CIRIA 2001). Probability considers the integrity of the exposure pathway.

The consequence classifications detailed in **Table 5** have been adapted from Table 6.3 presented in C552 and R&D 66 (Annex 4 Table A4.3).

The Tier 1 risk classification is estimated for each pollutant linkage using the matrix given in **Table 6** which is taken directly from C552 (Table 6.5). Subsequent Tiers refine the CSM through retention or elimination of potential hazards and pollutant linkages.

6 Risk Evaluation

In order to put the Tier 1 risk classification into context the likely actions are described in **Table 7** which is taken directly from C552 (Table 6.6). Subsequent Tiers identify potential risk management options through remediation and/or mitigation measures.

7 References

BSI 2007 BS 8485 Code of Practice for characterisation and remediation from ground gas in affected developments.

BSI 2011 BS 10175 (2011) Code of practice - Investigation of potentially contaminated sites

CIRIA 2001: Contaminated land risk assessment – a guide to good practice C552.

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CL:AIRE 2013 SP1010 – Development of Category 4 Screening Levels for Assessment of Land Affected by Contamination. Final Project Report published by Contaminated Land: Applications in Real Environments (CL:AIRE) 20th December 2013

DCLG 2010 Building Regulations 2010 Approved Document C Site preparation and resistance to contaminants and moisture.

DCLG 2012 National Planning Policy Framework.

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Defra Circular 04/2012 Environmental Protection Act 1990: Part 2A. Contaminated Land Statutory Guidance.

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EA 2004: The Model Procedures for the Management of Land Contamination CRL 11 published by the Environment Agency (EA).

EA 2008 Ecological Risk Assessment Science Report Series SC070009 published by the Environment Agency (EA).

JNCC 1993 Handbook for Phase 1 Habitat Survey – A Technical for Environmental Audit prepared by the Joint Nature Conservancy Council (JNCC)

NHBC/EA/CIEH 2008: R&D Publication 66 Guidance for the safe development of housing on land affected by contamination.

Table 1: Criteria for Classifying Hazards / Potential for Generating Contamination

| Classification/Score | Potential for generating contamination/gas based on land use |
|----------------------|--|
| Very Low 1 | Land Use: greenfield Contamination: None. Gas generation potential : Inert Made Ground |
| Low 2 | Land Use: residential, retail or office use, recent small scale industrial. Contamination: None or locally slightly elevated concentrations. Gas generation potential : Shallow thickness of Alluvium |
| Moderate 3 | Land Use: railway yards, collieries, scrap yards, light industry, engineering works. Contamination: Locally elevated concentrations. Gas generation potential : Dock silt and substantial thickness of organic alluvium/peat |
| High 4 | Land Use: gas works, chemical works, heavy industry, non-hazardous landfills. Contamination: Possible widespread elevated concentrations. Gas generation potential : Shallow mine workings Pre 1960's landfill |
| Very High 5 | Land Use: hazardous waste landfills. Contamination: Likely widespread elevated concentrations. Gas generation potential: Domestic landfill post 1960 |

“Greenfield” is land which has not been developed including not used for crop production or animal husbandry and no contamination source therefore no pollutant linkages.

Table 2: Criteria for Classifying Receptor Sensitivity/Value

| Classification/Score | Definition |
|----------------------|---|
| Very Low 1 | Receptor of limited importance Groundwater: Non aquifer Surface water: Water body within 25m or eliminate Ecology: No local designation Buildings: Replaceable Human health: Unoccupied/limited access |
| Low 2 | Receptor of local or county importance with potential for replacement Groundwater: Secondary B aquifer or Secondary Undifferentiated Surface water: Tertiary water body immediately adjacent Ecology: local habitat resources Buildings: Local value Human health: Minimum score 4 where human health identified as potential receptor |
| Moderate 3 | Receptor of local or county importance with potential for replacement Groundwater: Secondary A aquifer Surface water: Secondary water body immediately adjacent Ecology: County wildlife sites, Areas of Outstanding Natural Beauty (AONB) Buildings: Area of Historic Character Human health: Minimum score 4 where human health identified as potential receptor |
| High 4 | Receptor of county or regional importance with limited potential for replacement Groundwater: Principal aquifer Surface water: Primary water body immediately adjacent Ecology: SSSI, National or Marine Nature Reserve (NNR or MNR) Buildings: Conservation Area Human health: Minimum score 4 where human health identified as potential receptor |
| Very High 5 | Receptor of national or international importance Groundwater: Source Protection Zone Surface water: Primary water body on site Ecology: Special Areas of Conservation (SAC and candidates), Special Protection Areas (SPA and potentials) or wetlands of international importance (RAMSAR) Buildings: World Heritage site Human health: Residential, open spaces and uses where children are present |

Table 3: Exposure Pathway and Modes of Transport

| Receptor | Pathway | Mode of transport |
|---------------------------|-------------------|--|
| Human health | Ingestion | Fruit or vegetable leaf or roots |
| | | Contaminated water |
| | | Soil/dust indoors |
| | | Soil/dust outdoors |
| | Inhalation | Particles (dust / soil) – outdoor |
| | | Particles (dust / soil) - indoor |
| | | Vapours – outdoor - migration via natural or anthropogenic pathways |
| | | Vapours - indoor - migration via natural or anthropogenic pathways |
| | Dermal absorption | Direct contact with soil |
| | | Direct contact with waters (swimming / showering) |
| Irradiation | | |
| Groundwater | Leaching | Gravity / permeation |
| | Migration | Natural – groundwater as pathway Anthropogenic (e.g. boreholes, culverts, pipelines etc.) |
| Surface Water | Direct | Runoff or discharges from pipes |
| | Indirect | Recharge from groundwater |
| | Indirect | Deposition of wind blown dust |
| Buildings | Direct contact | Sulphate attack on concrete, hydrocarbon corrosion of plastics |
| | Gas ingress | Migration via natural or anthropogenic paths |
| Ecological systems | See Notes | Runoff/discharge to surface water body |
| | See Notes | Windblown dust |
| | See Notes | Groundwater migration |
| | See Notes | At point of contaminant source |
| Animal and crop | Direct | Wind blown or flood deposited particles / dust / sediments |
| | Indirect | Plants via root up take or irrigation. Animals through watering |
| | Inhalation | By livestock / fish - gas / vapour / particulates / dust |
| | Ingestion | Consumption of vegetation / water / soil by animals |

Table 4: Classification of Probability

| Classification | Definition |
|------------------------|---|
| High likelihood | There is a pollution linkage and an event either appears very likely in the short-term and almost inevitable over the long-term, or there is already evidence at the receptor of harm / pollution. |
| Likely | There is a pollution linkage and all the elements are present and in the right place, which means that it is probable that an event will occur. Circumstances are such that an event is not inevitable, but possible in the short-term and likely over the long-term. |
| Low likelihood | There is a pollution linkage and circumstances are possible under which an event could occur. However, it is by no means certain that even over a longer period such event would take place, and is less likely in the shorter-term. |
| Unlikely | There is a pollution linkage but circumstances are such that it is improbable that an event would occur even in the very long-term. |

PBA Methodology for Assessment of Potentially Contaminated Land

Table 5: Classification of Consequence (score = magnitude of hazard Table 1 and sensitivity of receptor Table 2)

| Classification / Score | Examples |
|--|--|
| Severe 17-25 (3 out of 25 outcomes) | <p>Human health effect - exposure likely to result in "significant harm". Significant harm to humans is defined in circular 01/2006 as death, disease, serious injury, genetic mutation, birth defects or impairment of reproductive function.</p> <p>Controlled water effect - short-term risk of pollution (note: Water Resources Act contains no scope for considering significance of pollution) of sensitive water resource. Equivalent to EA Category 1 incident (persistent and/or extensive effects on water quality leading to closure of potable abstraction point or loss of amenity, agriculture or commercial value. Major fish kill.</p> <p>Ecological effect - short-term exposure likely to result in a substantial adverse effect.</p> <p>Catastrophic damage to crops, buildings or property</p> |
| Medium 10-16 (7 out of 25 outcomes) | <p>Human health effect - exposure could result in "significant harm". Significant harm to humans is defined in circular 01/2006 as death, disease, serious injury, genetic mutation, birth defects or impairment of reproductive function.</p> <p>Controlled water effect - equivalent to EA Category 2 incident requiring notification of abstractor</p> <p>Ecological effect - short-term exposure may result in a substantial adverse effect.</p> <p>Damage to crops, buildings or property</p> |
| Mild 5-9 (7 out of 25 outcomes) | <p>Human health effect - exposure may result in "significant harm". Significant harm to humans is defined in circular 01/2006 as death, disease, serious injury, genetic mutation, birth defects or impairment of reproductive function.</p> <p>Controlled water effect - equivalent to EA Category 3 incident (short lived and/or minimal effects on water quality).</p> <p>Ecological effect - unlikely to result in a substantial adverse effect.</p> <p>Minor damage to crops, buildings or property. Damage to building rendering it unsafe to occupy (for example foundation damage resulting in instability).</p> |
| Minor 1-4 (8 out of 25 outcomes) | <p>No measurable effect on humans. Protective equipment is not required during site works.</p> <p>Equivalent to insubstantial pollution incident with no observed effect on water quality or ecosystems.</p> <p>Repairable effects to crops, buildings or property. The loss of plants in a landscaping scheme. Discolouration of concrete.</p> |

Table 6: Classification of Risk (Combination of Consequence Table 5 and Probability Table 4)

| Probability | Consequence | | | |
|------------------------|-------------|----------|-----------|----------|
| | Severe | Medium | Mild | Minor |
| High likelihood | Very high | High | Moderate | Low |
| Likely | High | Moderate | Moderate/ | Low |
| Low likelihood | Moderate | Moderate | Low | Very low |
| Unlikely | Low | Low | Very low | Very low |

Table 7: Description of Risks and Likely Action Required

| Risk Classification | Description |
|-----------------------|---|
| 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 undertaken already) and remediation is likely to be required in the short term. |
| 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 undertaken already) is required and remedial 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. Investigation (if not already undertaken) is normally required to clarify the risk and to determine the potential liability. Some remedial works may be required in the longer-term. |
| 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 a low possibility that harm could arise to a receptor. In the event of such harm being realised it is not likely to be severe. |

Appendix 2. Site Photographs



Photograph 1 – Facing broadly south-east across the base of Rookery South Pit.



Photograph 2 – Facing broadly east at vegetated and terraced eastern slope face of Rookery South Pit.



Caversham Bridge House, Waterman Place, Reading, NN7 RG1 8DN
Tel 01865 410000

Client
Millbrook Power Limited

Millbrook Power Project
Site Photographs

| | |
|----------|-------------|
| Date | August 2017 |
| A4 Scale | NTS |
| Draw n | CB |
| Checked | - |





Photograph 3 – Facing broadly west at the Millbrook Tributary intersecting the Electricity Generation Area.



Photograph 4 – Facing broadly south-east from the Electricity Generation Area.



Client
Millbrook Power Limited

Millbrook Power Project
Site Photographs

| | |
|----------|-------------|
| Date | August 2017 |
| A4 Scale | NTS |
| Draw n | CB |
| Checked | - |



Caversham Bridge House, Waterman Place, Reading, NN7 RG1 8DN
Tel 01865 410000



Photograph 5 – Facing south along the Access Road to the Site.



Photograph 6 – Facing north along the Access Road to the Site with adjacent railway.



Client
Millbrook Power Limited

Millbrook Power Project
Site Photographs

| | |
|----------|-------------|
| Date | August 2017 |
| A4 Scale | NTS |
| Draw n | CB |
| Checked | - |



Caversham Bridge House, Waterman Place, Reading, NN7 RG1 8DN
Tel 01865 410000

Appendix 3. Historical Maps

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
- 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
- Ch** Church
- CH** Club House
- F E Sta** Fire Engine Station
- FB** Foot Bridge
- Fn** Fountain
- GP** Guide Post
- MP** Mile Post
- MS** Mile Stone
- Pol Sta** Police Station
- PO** Post Office
- PC** Public Convenience
- PH** Public House
- SB** Signal Box
- Spr** Spring
- TCB** Telephone Call Box
- TCP** Telephone Call Post
- W** Well

1:10,000 Raster Mapping

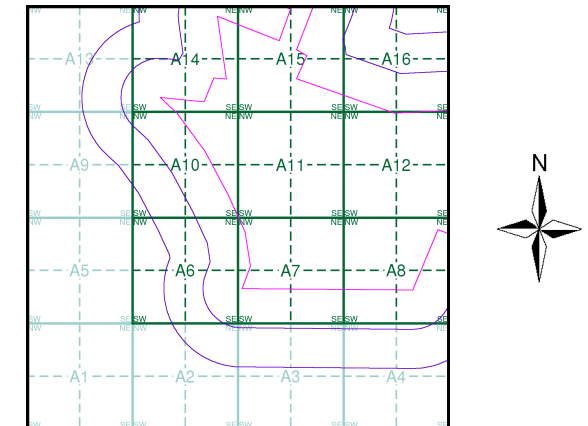
- Gravel Pit
- Rock
- Boulders
- Shingle
- Sand
- Slopes
- General detail
- Overhead detail
- Multi-track railway
- County boundary (England only)
- District, Unitary, Metropolitan, London Borough boundary
- Refuse tip or slag heap
- Rock (scattered)
- Boulders (scattered)
- Mud
- Sand Pit
- Top of cliff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



Historical Mapping & Photography included:

| Mapping Type | Scale | Date | Pg |
|----------------------|----------|-------------|----|
| Bedfordshire | 1:10,560 | 1883 - 1884 | 2 |
| Buckinghamshire | 1:10,560 | 1885 | 3 |
| Bedfordshire | 1:10,560 | 1901 - 1902 | 4 |
| Bedfordshire | 1:10,560 | 1927 | 5 |
| Bedfordshire | 1:10,560 | 1938 - 1947 | 6 |
| Bedfordshire | 1:10,560 | 1947 - 1948 | 7 |
| Ordnance Survey Plan | 1:10,000 | 1960 | 8 |
| Ordnance Survey Plan | 1:10,000 | 1978 | 9 |
| Ordnance Survey Plan | 1:10,000 | 1982 - 1983 | 10 |
| Ordnance Survey Plan | 1:10,000 | 1990 | 11 |
| 10K Raster Mapping | 1:10,000 | 2006 | 12 |
| VectorMap Local | 1:10,000 | 2014 | 13 |

Historical Map - Slice A



Order Details

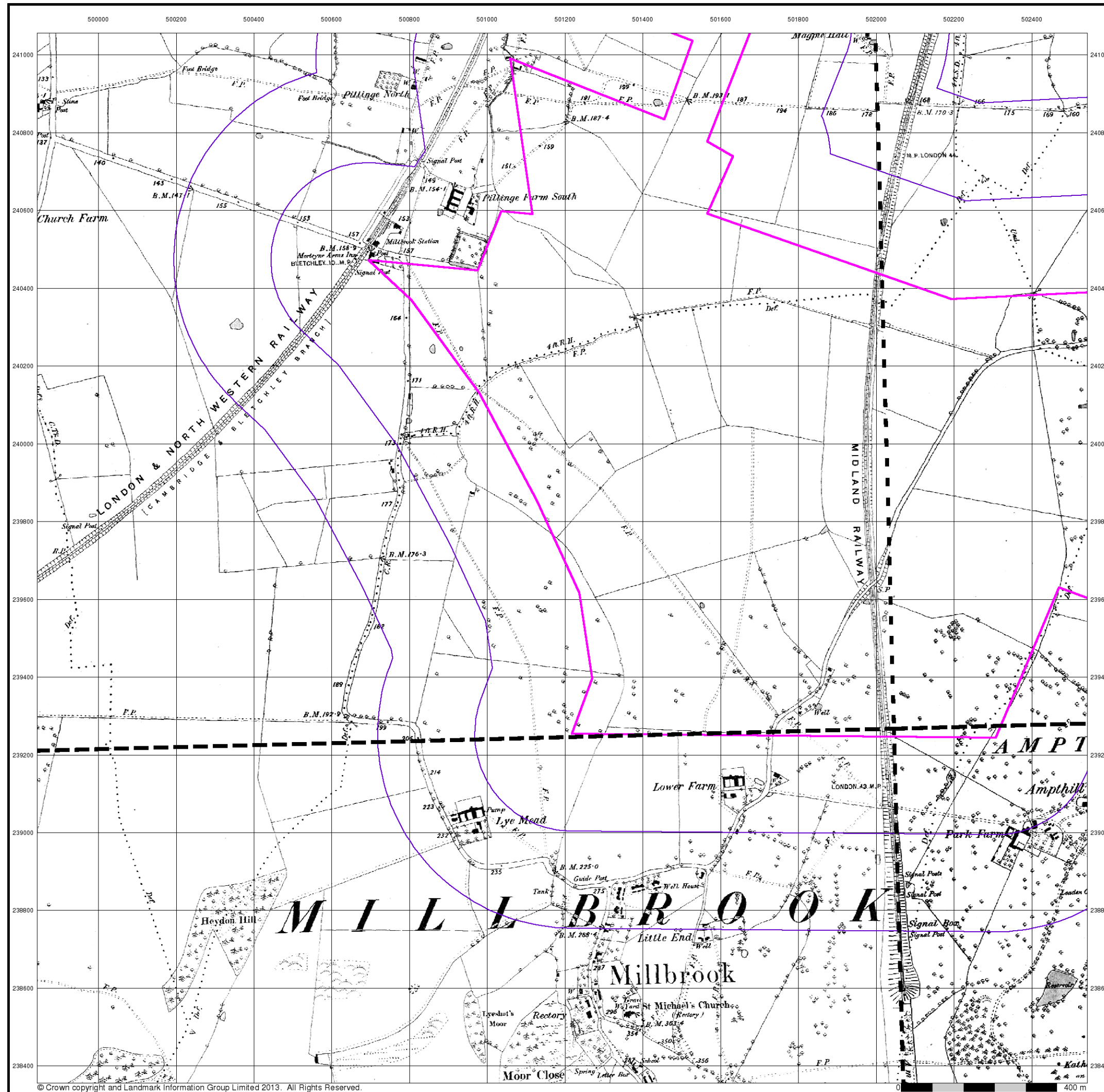
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 Search Buffer (m): 500

Site Details

Millbrook Power Project, Green Lane, Stewartby



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 Web: www.envirocheck.co.uk



Bedfordshire

Published 1883 - 1884

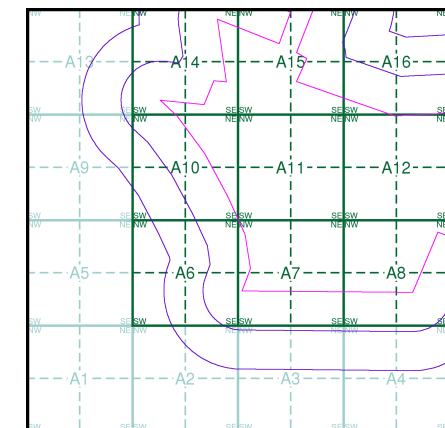
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The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. 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)

| | |
|---------------------------|---------------------------|
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| 021SW 1883 1:10,560 | 021SE 1884 1:10,560 |

Historical Map - Slice A



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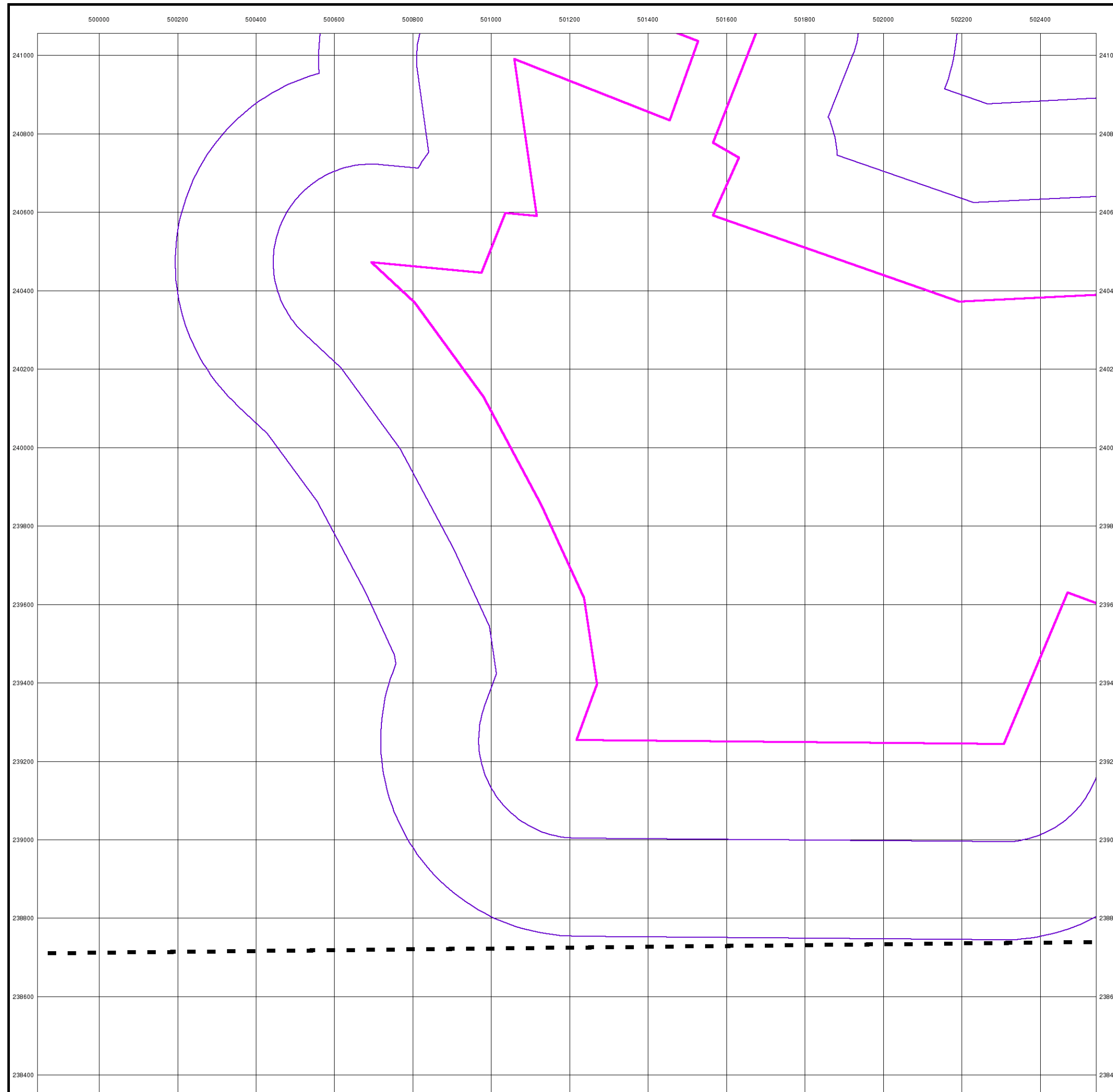
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 Slice: A
 Site Area (Ha): 240.61
 Search Buffer (m): 500

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0 400 m



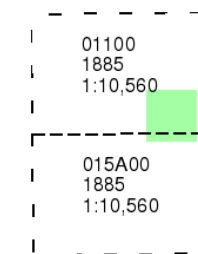
Buckinghamshire

Published 1885

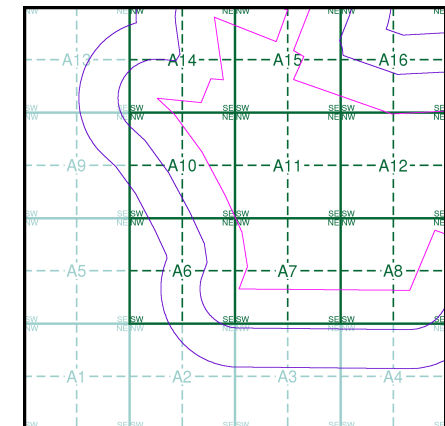
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Map Name(s) and Date(s)



Historical Map - Slice A



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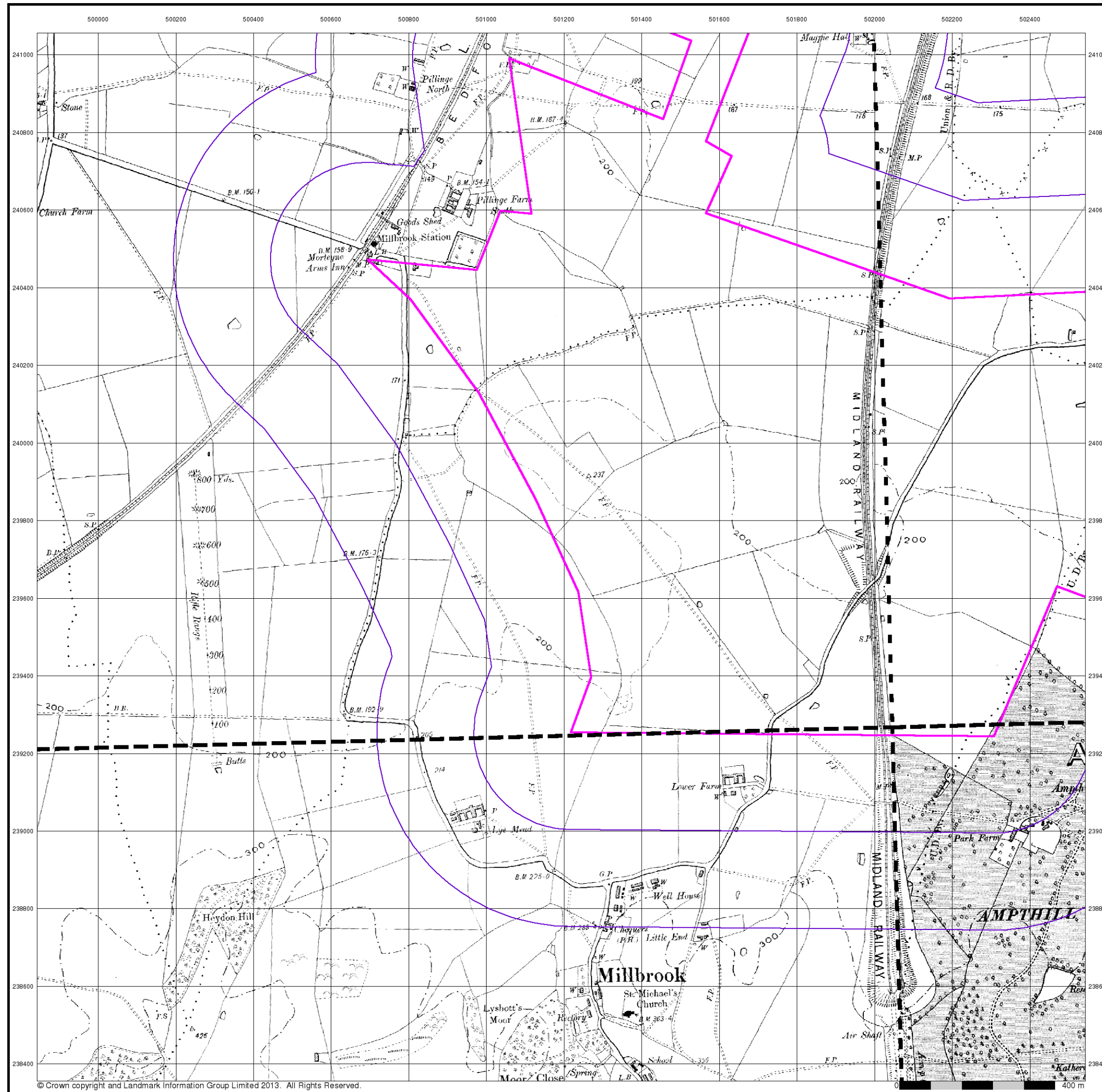
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 Search Buffer (m): 500

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Bedfordshire

Published 1901 - 1902

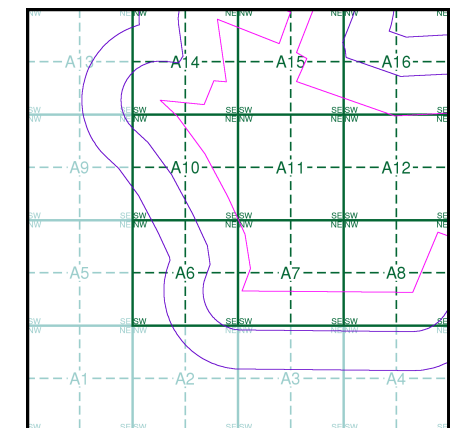
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The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. 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)

| | |
|---------------------------|---------------------------|
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| 021SW 1902 1:10,560 | 021SE 1902 1:10,560 |

Historical Map - Slice A



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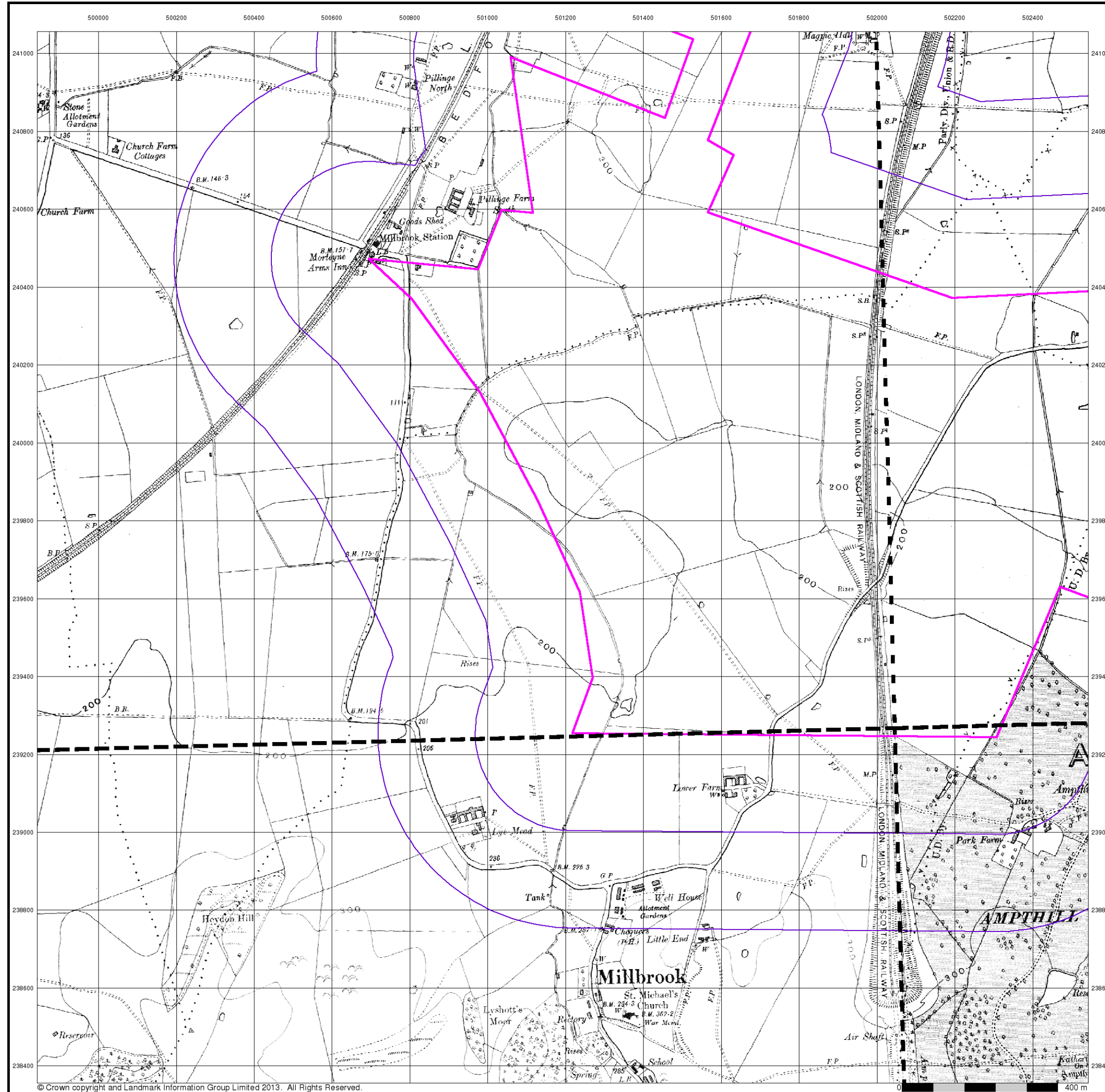
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 Search Buffer (m): 500

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Bedfordshire

Published 1927

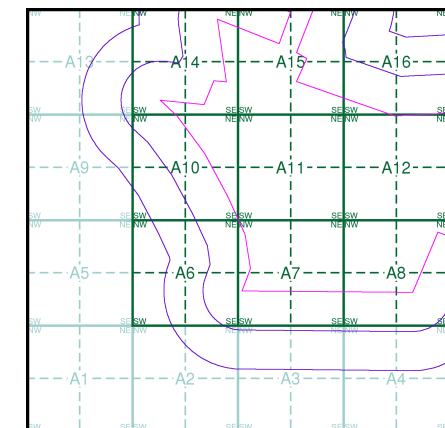
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Map Name(s) and Date(s)

| | |
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| 021SW 1927 1:10,560 | 021SE 1927 1:10,560 |

Historical Map - Slice A



Order Details

Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501510, 239960
 Slice: A
 Site Area (Ha): 240.61
 Search Buffer (m): 500

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Bedfordshire

Published 1938 - 1947

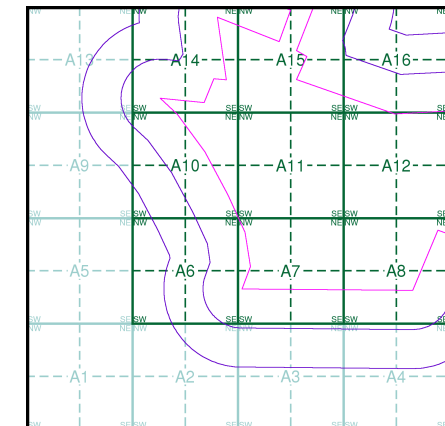
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The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. 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)

| | |
|---------------------------|---------------------------|
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| 021SW 1947 1:10,560 | 021SE 1938 1:10,560 |

Historical Map - Slice A



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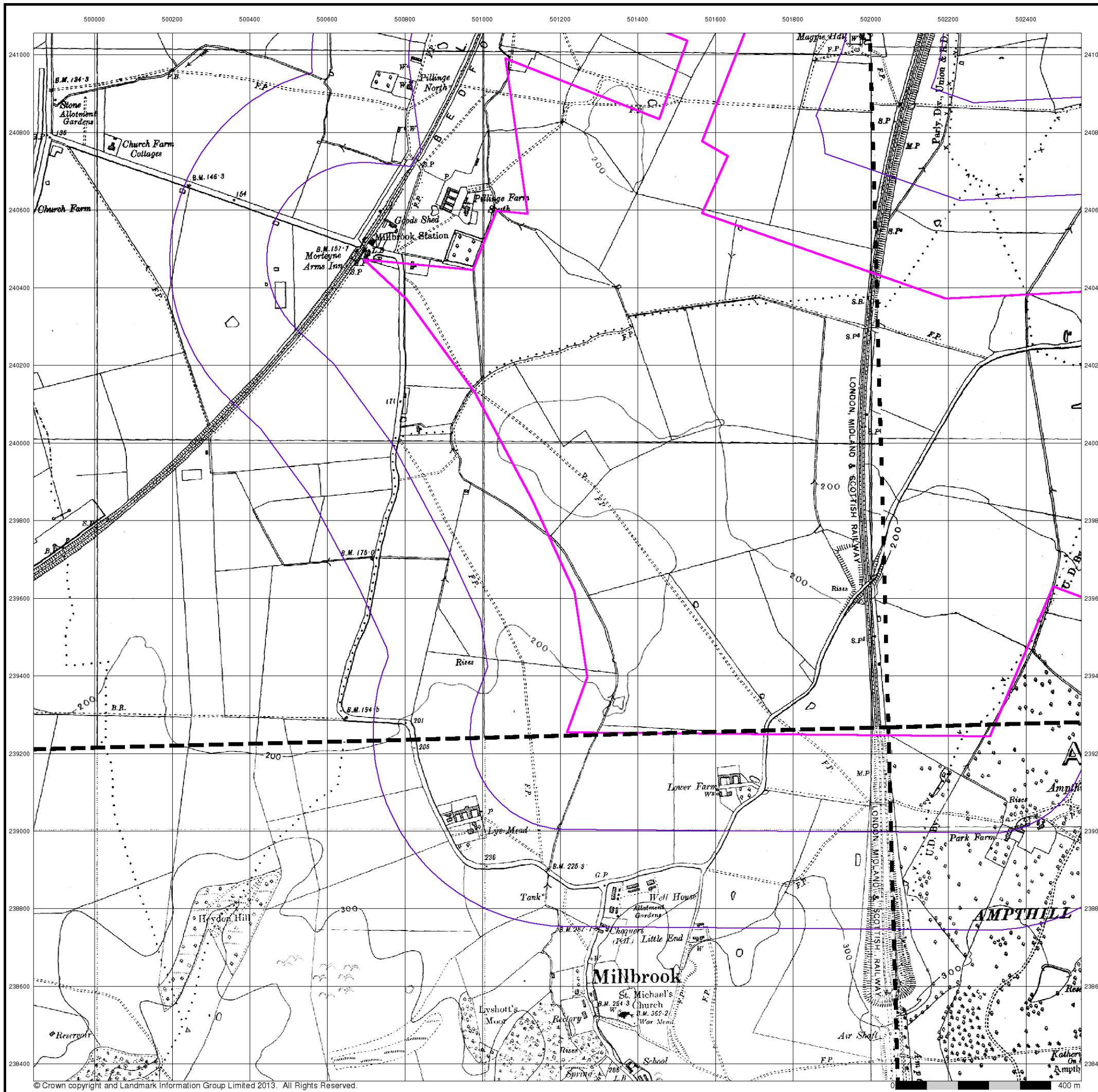
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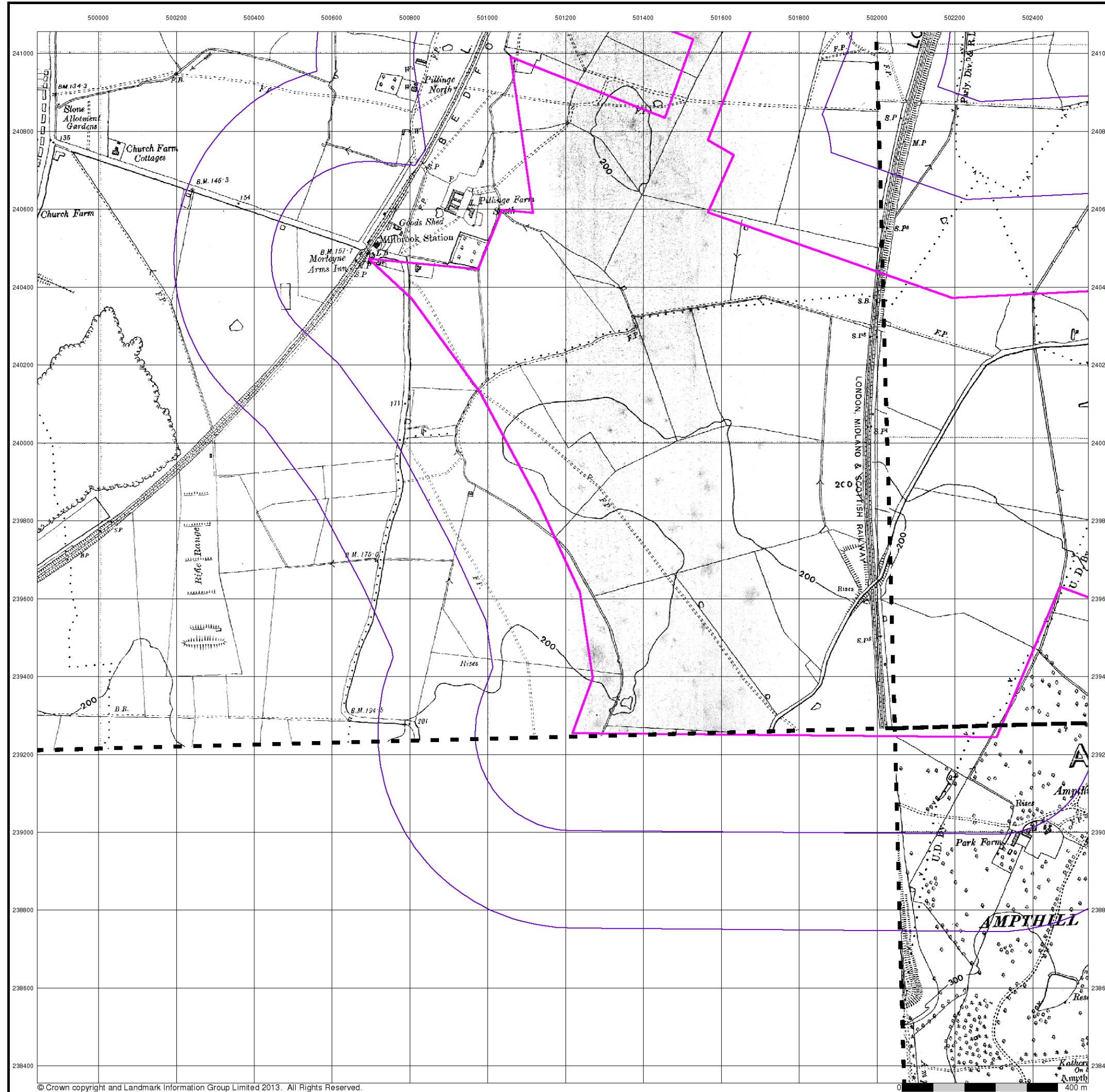
Site Details

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Bedfordshire

Published 1947 - 1948

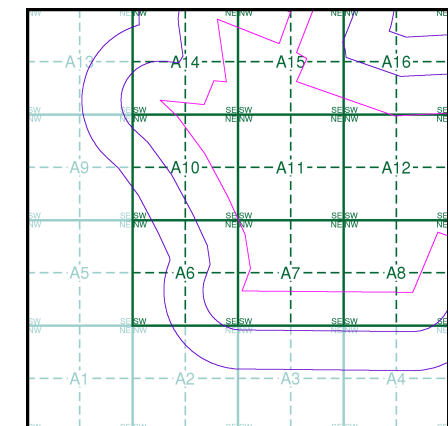
Source map scale - 1:10,560

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)

| | |
|---------------------------|---------------------------|
| 021NW 1947 1:10,560 | 021NE 1948 1:10,560 |
| | 021SE 1947 1:10,560 |

Historical Map - Slice A



Order Details

Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501510, 239960
 Slice: A
 Site Area (Ha): 240.61
 Search Buffer (m): 500

Site Details

Millbrook Power Project, Green Lane, Stewartby



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



Ordnance Survey Plan

Published 1960

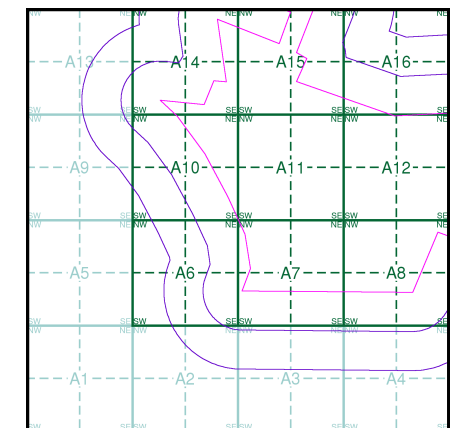
Source map scale - 1:10,000

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

Map Name(s) and Date(s)

| | |
|----------|----------|
| SP94SE | TL04SW |
| 1960 | 1960 |
| 1:10,560 | 1:10,560 |
| SP93NE | TL03NW |
| 1960 | 1960 |
| 1:10,560 | 1:10,560 |

Historical Map - Slice A



Order Details

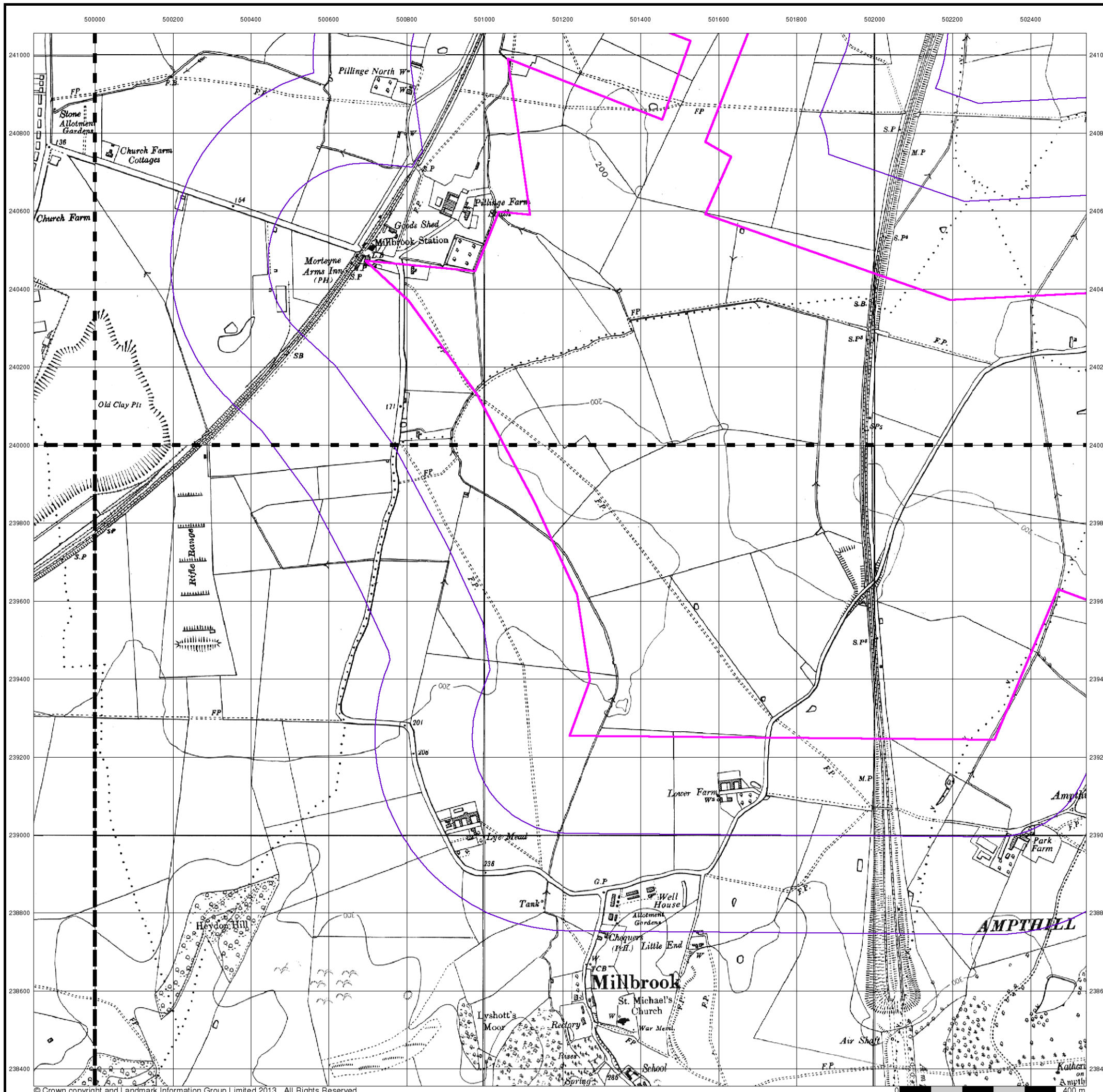
Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501510, 239960
 Slice: A
 Site Area (Ha): 240.61
 Search Buffer (m): 500

Site Details

Millbrook Power Project, Green Lane, Stewartby



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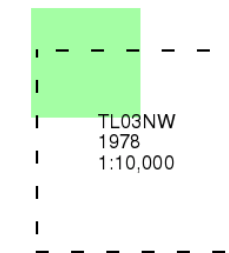
Ordnance Survey Plan

Published 1978

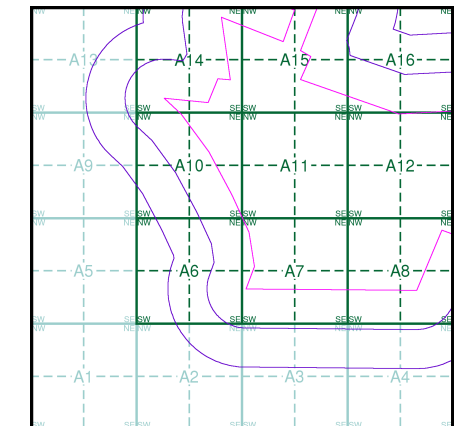
Source map scale - 1:10,000

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

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

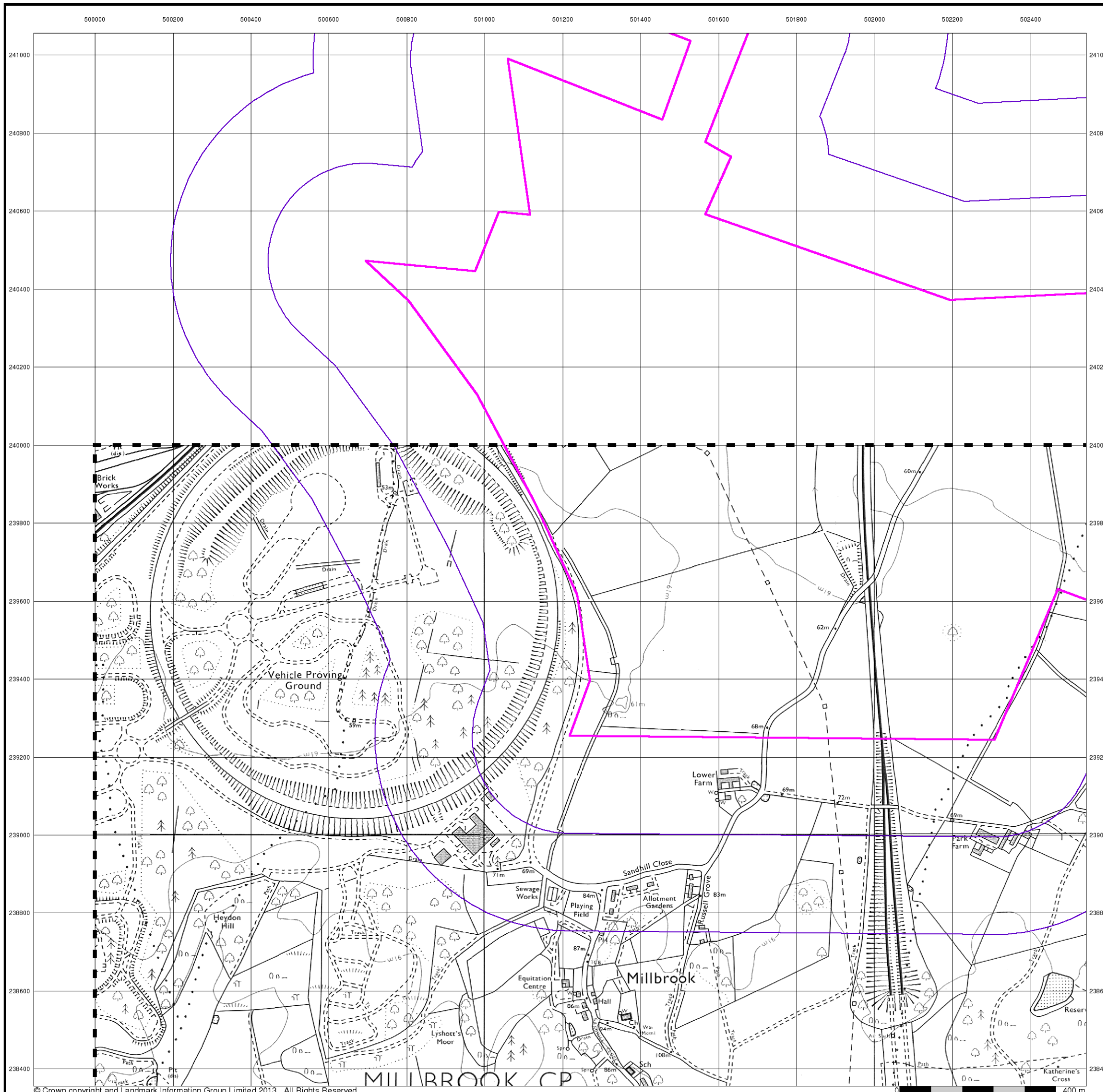
Order Number: 60770728_1_1
Customer Ref: 31116
National Grid Reference: 501510, 239960
Slice: A
Site Area (Ha): 240.61
Search Buffer (m): 500

Site Details

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Ordnance Survey Plan

Published 1982 - 1983

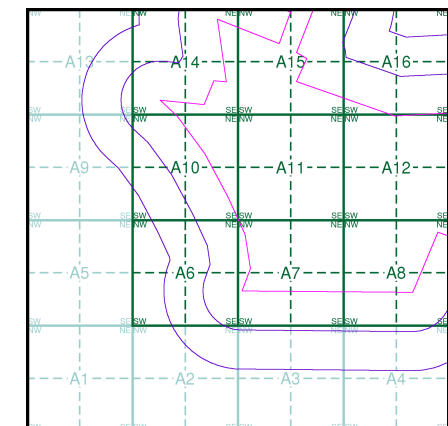
Source map scale - 1:10,000

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

Map Name(s) and Date(s)

| | |
|----------|----------|
| SP94SE | TL04SW |
| 1983 | 1982 |
| 1:10,000 | 1:10,000 |
| SP93NE | |
| 1982 | |
| 1:10,000 | |

Historical Map - Slice A



Order Details

Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501510, 239960
 Slice: A
 Site Area (Ha): 240.61
 Search Buffer (m): 500

Site Details

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Ordnance Survey Plan

Published 1990

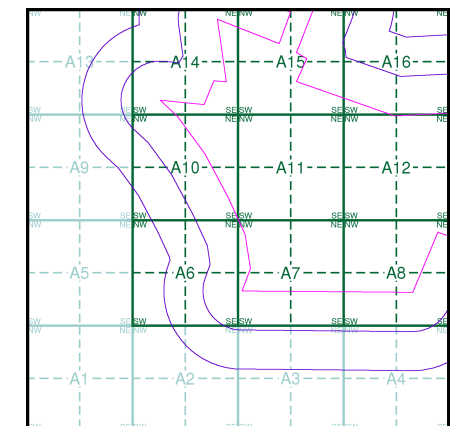
Source map scale - 1:10,000

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

Map Name(s) and Date(s)

| | |
|----------|----------|
| SP94SE | TL04SW |
| 1990 | 1990 |
| 1:10,000 | 1:10,000 |
| SP93NE | TL03NW |
| 1990 | 1990 |
| 1:10,000 | 1:10,000 |

Historical Map - Slice A



Order Details

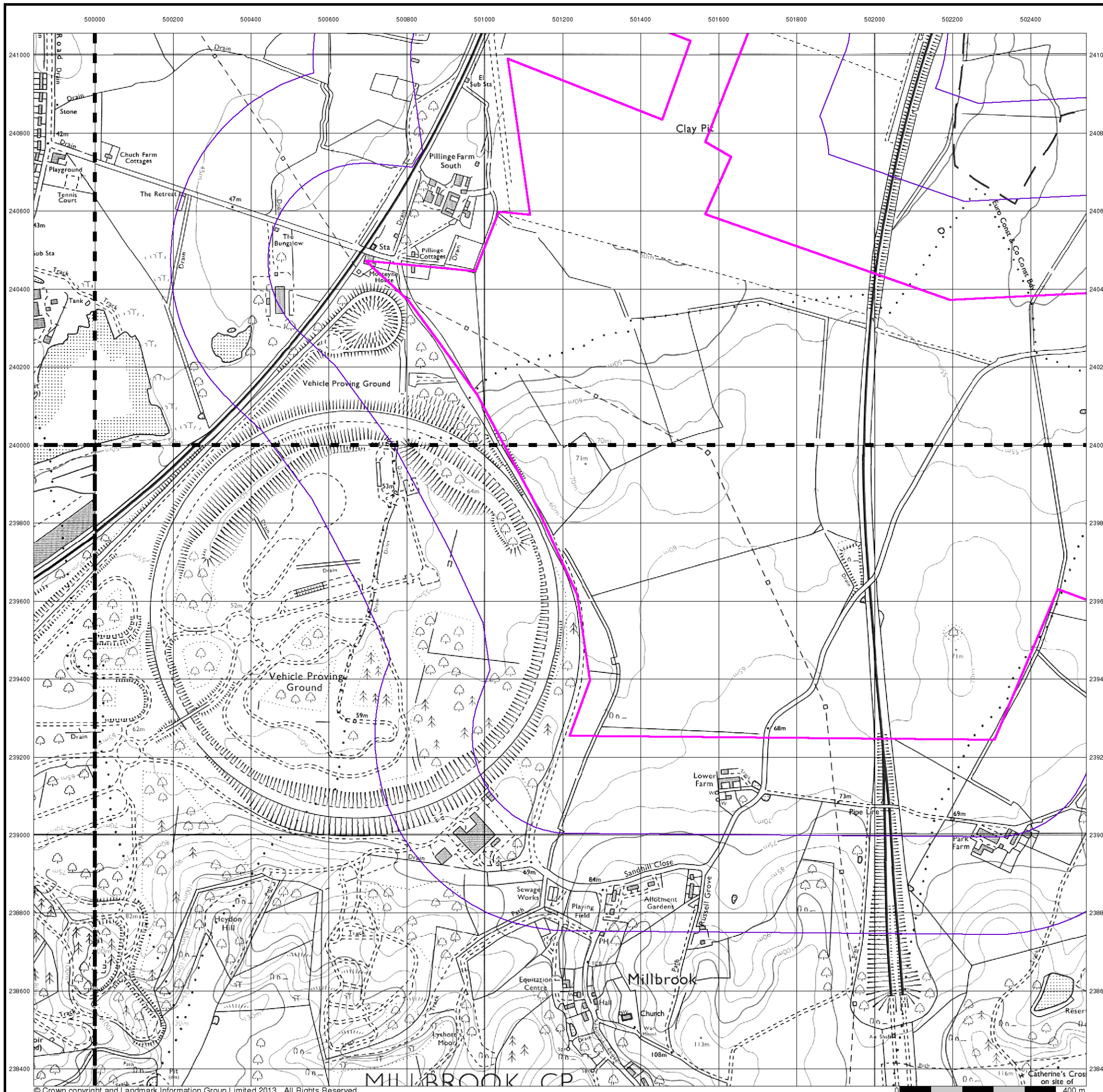
Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501510, 239960
 Slice: A
 Site Area (Ha): 240.61
 Search Buffer (m): 500

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10k Raster Mapping

Published 2006

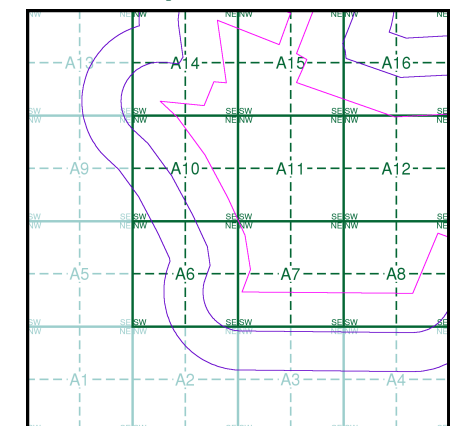
Source map scale - 1:10,000

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)

| | |
|----------|----------|
| SP94SE | TL04SW |
| 2006 | 2006 |
| 1:10,000 | 1:10,000 |
| SP93NE | TL03NW |
| 2006 | 2006 |
| 1:10,000 | 1:10,000 |

Historical Map - Slice A



Order Details

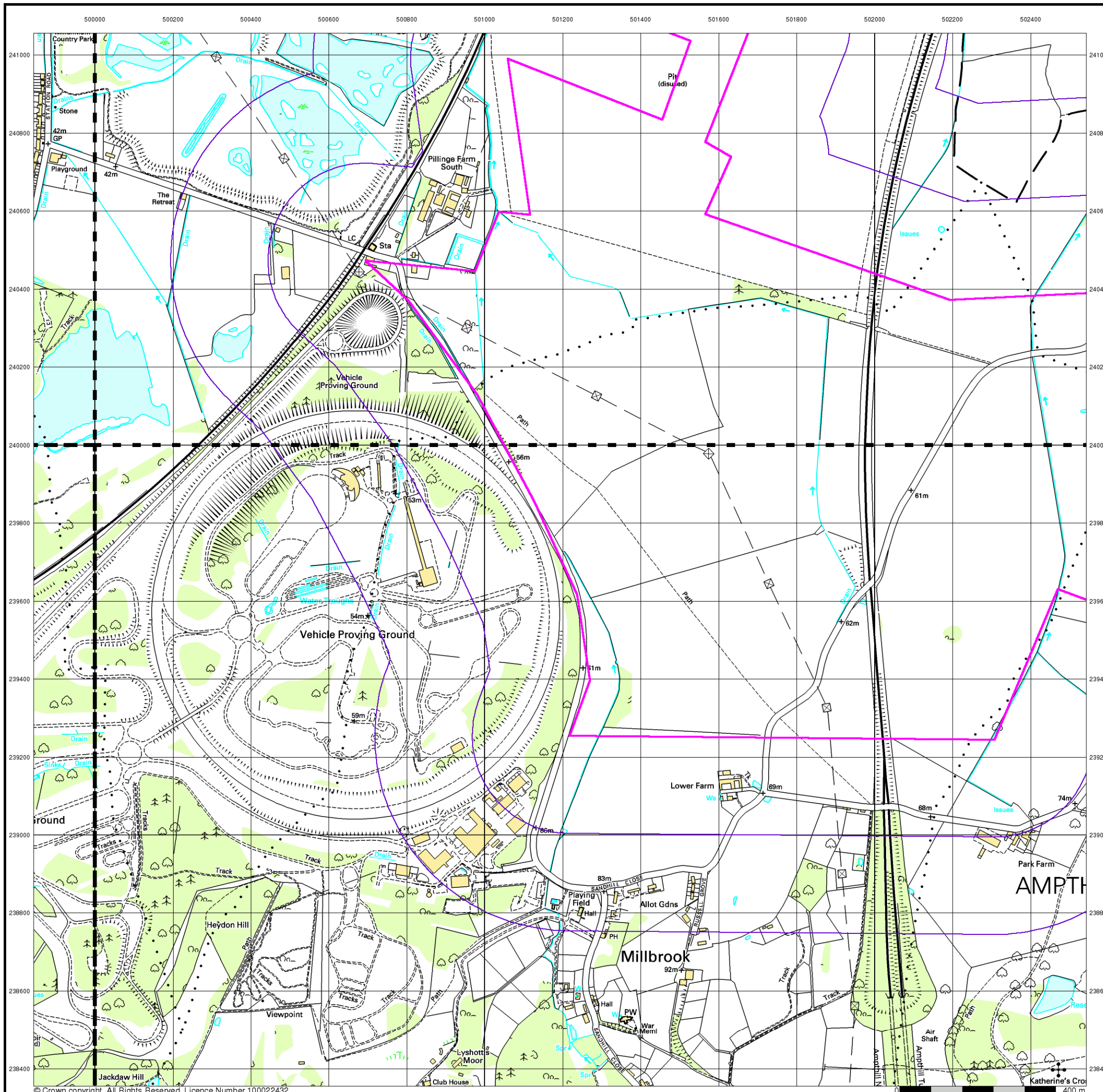
Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501510, 239960
 Slice: A
 Site Area (Ha): 240.61
 Search Buffer (m): 500

Site Details

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VectorMap Local

Published 2014

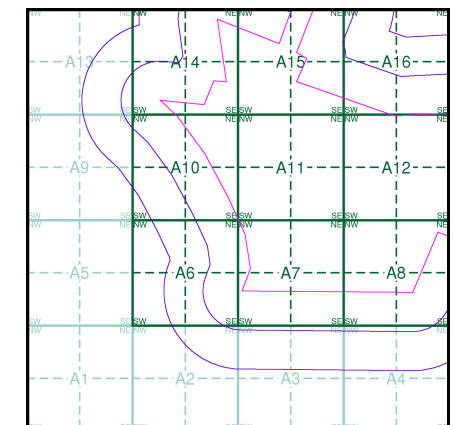
Source map scale - 1:10,000

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)

| | |
|----------------------------|----------------------------|
| SP94SE 2014 Variable | TL04SW 2014 Variable |
| SP93NE 2014 Variable | TL03NW 2014 Variable |

Historical Map - Slice A



Order Details

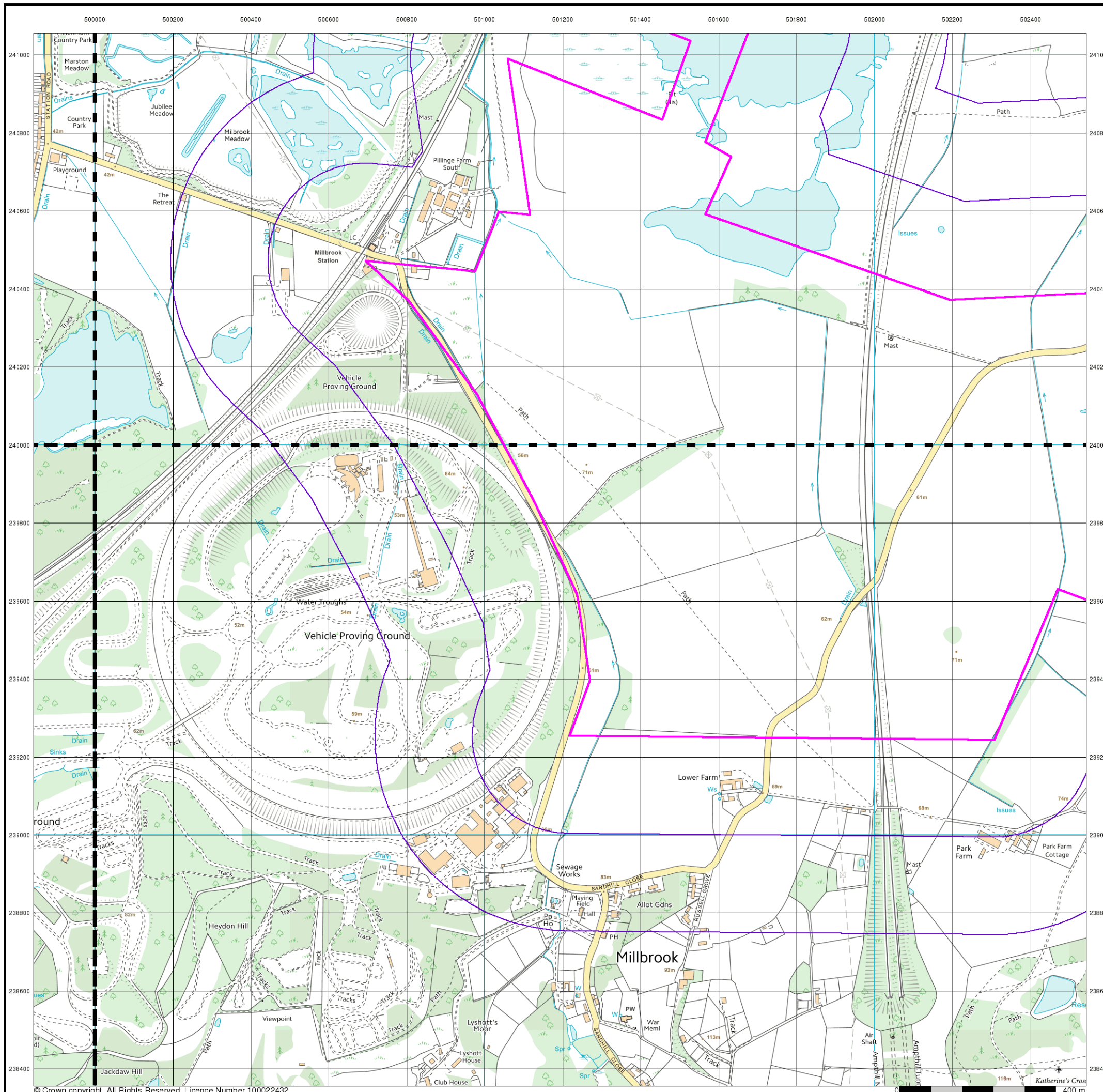
Order Number: 60770728_1_1
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 National Grid Reference: 501510, 239960
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Historical Mapping Legends

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

Quarry **Gravel Pit** **Sand Pit**
Clay Pit **Shingle** **Refuse Heap**
Sloping Masonry **Flat Rock**
Marsh **Reeds** **Osiers**
Rough Pasture **Furze** **Wood**
Mixed Wood **Brushwood** **Orchard**
Fir **Ford** **Stepping Stones**
Ferry **Waterfall** **Lock**
Trig. Station **Altitude at Trig. Station**
B.M. 325.9 **Bench Mark** **Surface Level**
Arrow denotes flow of water **Antiquities (site of)**
Cutting **Embankment**
Railway crossing Road **Level Crossing** **Road crossing Railway**
Railway crossing River or Canal **Road over single stream** **Road over River or Canal**
County Boundary (Geographical)
County & Civil Parish Boundary
Administrative County & Civil Parish Boundary
County Borough Boundary (England)
County Burgh Boundary (Scotland)
Co. Boro. Bdy.
Co. Burgh Bdy.
BP BS Boundary Post or Stone **P.C.B** Police Call Box
B.R. Bridle Road **P** Pump
E.P Electricity Pylon **S.P** Signal Post
F.B. Foot Bridge **SL** Sluice
F.P. Foot Path **Sp.** Spring
G.P Guide Post or Board **T.C.B** Telephone Call Box
M.S Mile Stone **Tr.** Trough
M.P M.R Mooring Post or Ring **W** Well

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

Inactive Quarry, Chalk Pit or Clay Pit **Active Quarry, Chalk Pit or Clay Pit**
Rock **Boulders**
Cliff **Slopes** **Top**
Roofed Building **Glazed Roof Building**
Sloping Masonry **Archway**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Bench Mark** **Antiquity (site of)**
Cave Entrance **Triangulation Station** **Electricity Pylon**
Electricity Transmission Line
County Boundary (Geographical)
County & Civil Parish Boundary
Civil Parish Boundary
Admin. County or County Bor. Boundary
London Borough Boundary
Symbol marking point where boundary mereing changes
BH Beer House **P** Pillar, Pole or Post
BP, BS Boundary Post or Stone **PO** Post Office
Cn, C Capstan, Crane **PC** Public Convenience
Chy Chimney **PH** Public House
D Fn Drinking Fountain **Pp** Pump
EI P Electricity Pillar or Post **SB, S Br** Signal Box or Bridge
FAP Fire Alarm Pillar **SP, SL** Signal Post or Light
FB Foot Bridge **Spr** Spring
GP Guide Post **Tk** Tank or Track
H Hydrant or Hydraulic **TCB** Telephone Call Box
LC Level Crossing **TCP** Telephone Call Post
MH Manhole **Tr** Trough
MP Mile Post or Mooring Post **Wr Pt, Wr T** Water Point, Water Tap
MS Mile Stone **W** Well
NTL Normal Tidal Limit **Wd Pp** Wind Pump

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

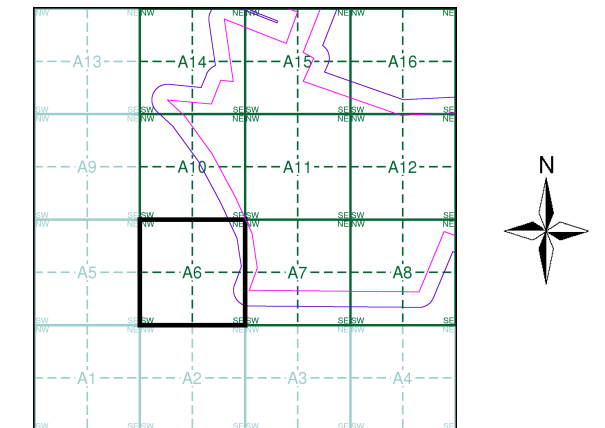
Cliff **Slopes** **Top**
Rock **Rock (scattered)**
Boulders **Boulders (scattered)**
Positioned Boulder **Scree**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Triangulation Station** **Antiquity (site of)**
Electricity Transmission Line **Electricity Pylon**
B.M. 231.60m Bench Mark **Buildings with Building Seed**
Roofed Building **Glazed Roof Building**
Civil parish/community boundary
District boundary
County boundary
Boundary post/stone
Boundary mereing symbol (note: these always appear in opposed pairs or groups of three)
Bks Barracks **P** Pillar, Pole or Post
Bty Battery **PO** Post Office
Cemy Cemetery **PC** Public Convenience
Chy Chimney **Pp** Pump
Cis Cistern **Ppg Sta** Pumping Station
Dismtd Rly Dismantled Railway **PW** Place of Worship
EI Gen Sta Electricity Generating Station **Sewage Ppg Sta** Sewage Pumping Station
EI P Electricity Pole, Pillar **SB, S Br** Signal Box or Bridge
EI Sub Sta Electricity Sub Station **SP, SL** Signal Post or Light
FB Filter Bed **Spr** Spring
Fn / D Fn Fountain / Drinking Ftn. **Tk** Tank or Track
Gas Gov Gas Valve Compound **Tr** Trough
GVC Gas Governor **Wd Pp** Wind Pump
GP Guide Post **Wr Pt, Wr T** Water Point, Water Tap
MH Manhole **Wks** Works (building or area)
MP, MS Mile Post or Mile Stone **W** Well



Historical Mapping & Photography included:

| Mapping Type | Scale | Date | Pg |
|--|---------|------|----|
| Bedfordshire | 1:2,500 | 1883 | 2 |
| Bedfordshire | 1:2,500 | 1901 | 3 |
| Bedfordshire | 1:2,500 | 1925 | 4 |
| Ordnance Survey Plan | 1:2,500 | 1972 | 5 |
| Supply of Unpublished Survey Information | 1:2,500 | 1976 | 6 |
| Large-Scale National Grid Data | 1:2,500 | 1993 | 7 |

Historical Map - Segment A6



Order Details

Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501510, 239960
 Slice: A
 Site Area (Ha): 240.61
 Search Buffer (m): 100

Site Details

Millbrook Power Project, Green Lane, Stewartby



Tel: 0844 844 9952
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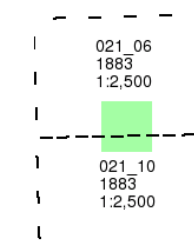


Bedfordshire
Published 1883

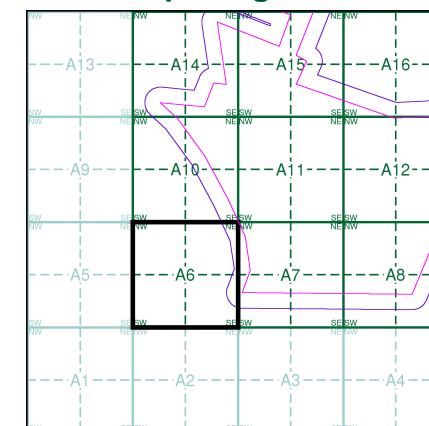
Source map scale - 1:2,500

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 A6



Order Details

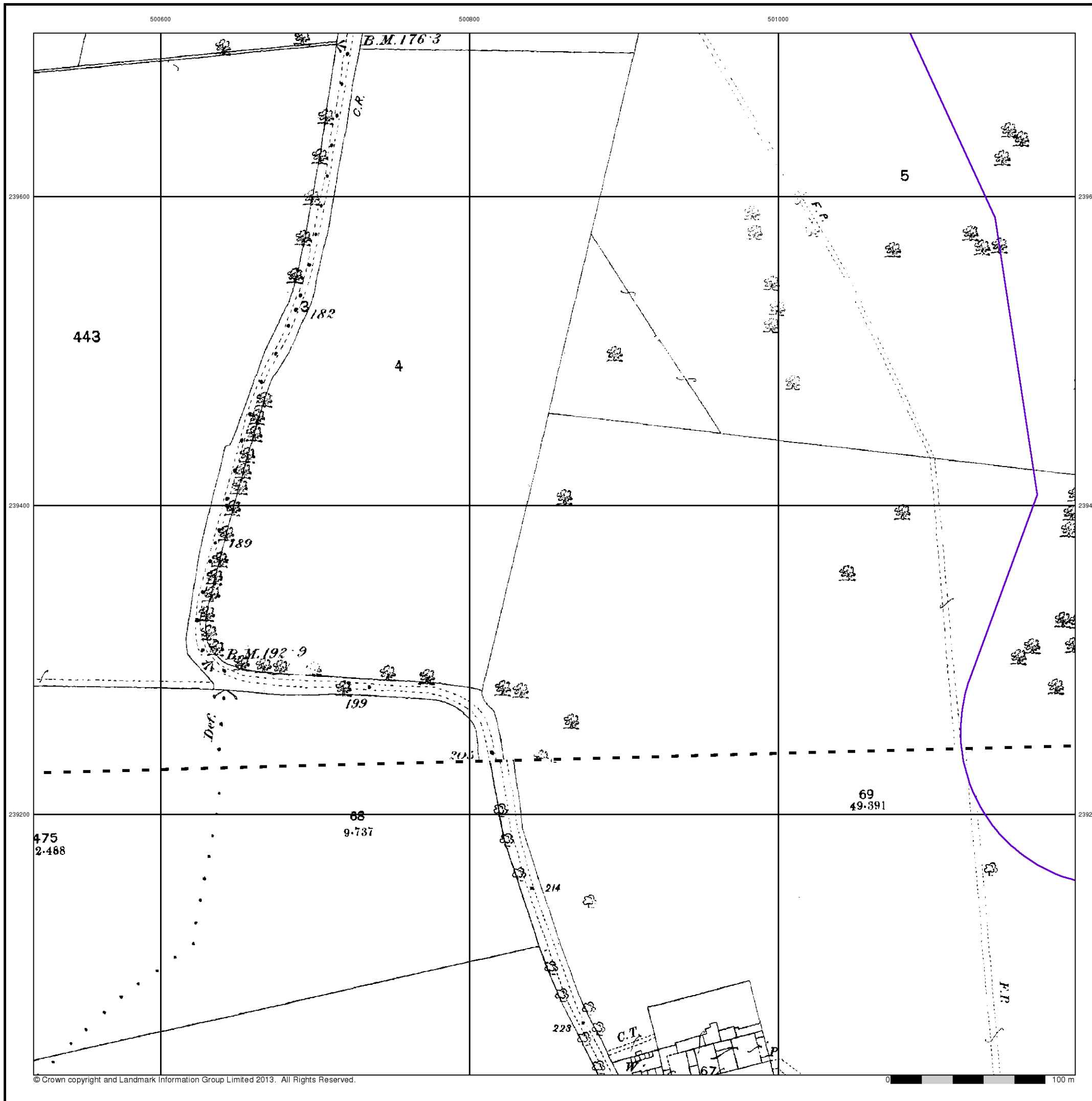
Order Number: 60770728_1_1
Customer Ref: 31116
National Grid Reference: 501510, 239960
Slice: A
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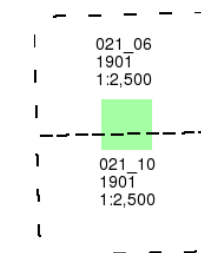
Bedfordshire

Published 1901

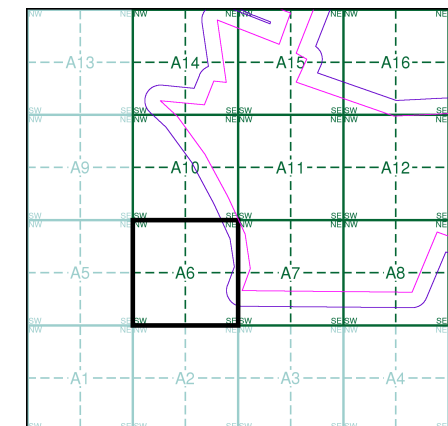
Source map scale - 1:2,500

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 A6



Order Details

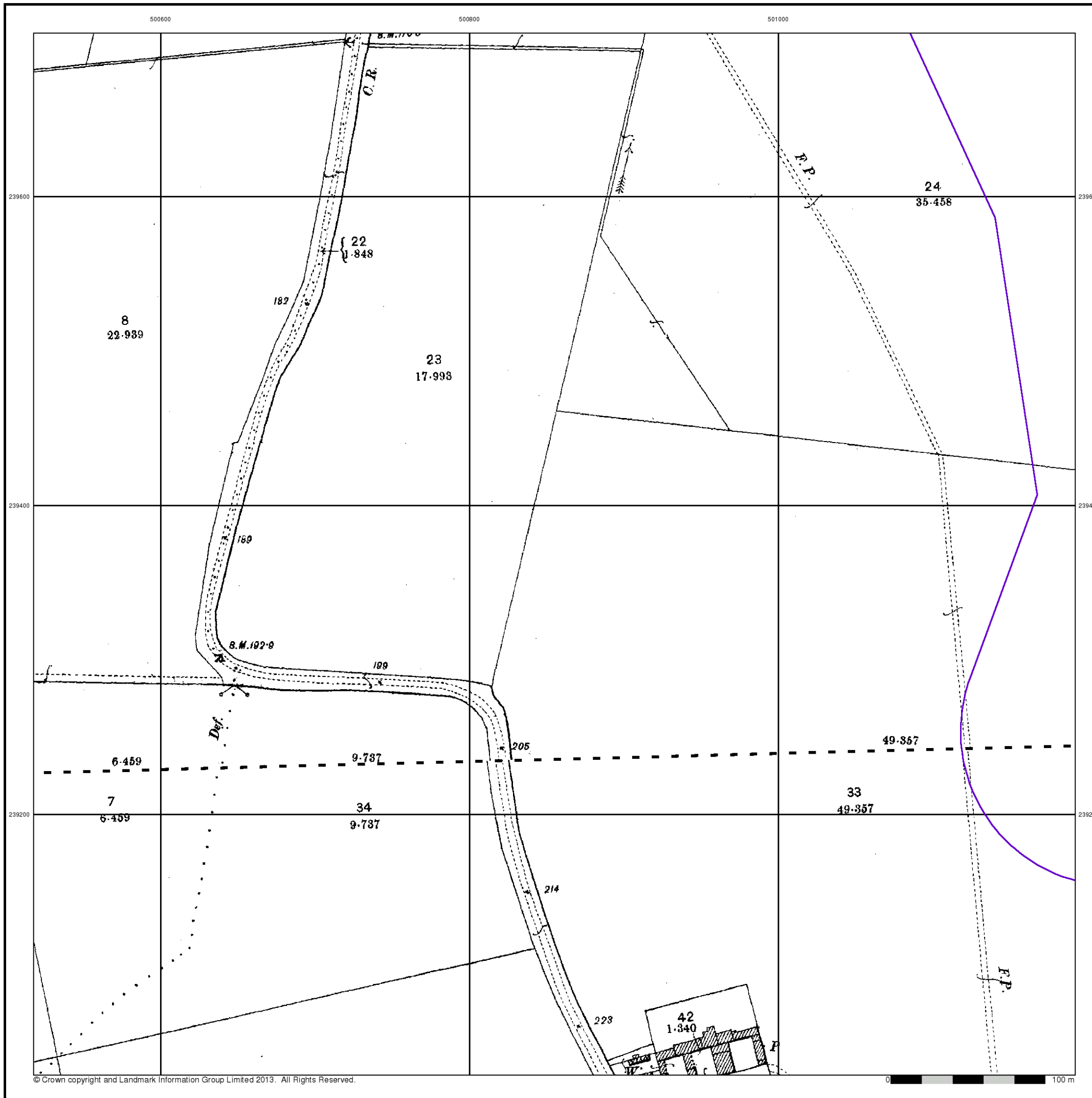
Order Number: 60770728_1_1
Customer Ref: 31116
National Grid Reference: 501510, 239960
Slice: A
Site Area (Ha): 240.61
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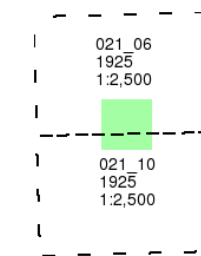
Bedfordshire

Published 1925

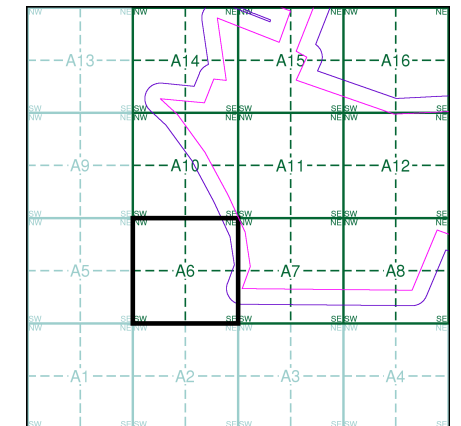
Source map scale - 1:2,500

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 A6



Order Details

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Customer Ref: 31116
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Site Details

Millbrook Power Project, Green Lane, Stewartby

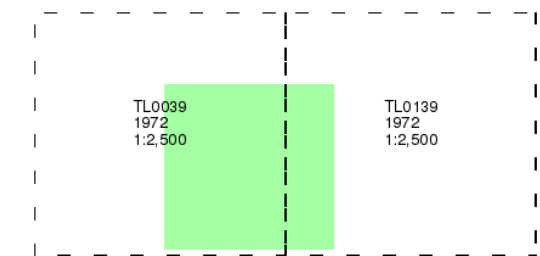


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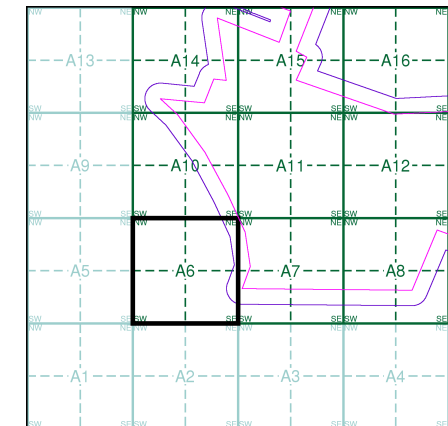


The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. 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 A6

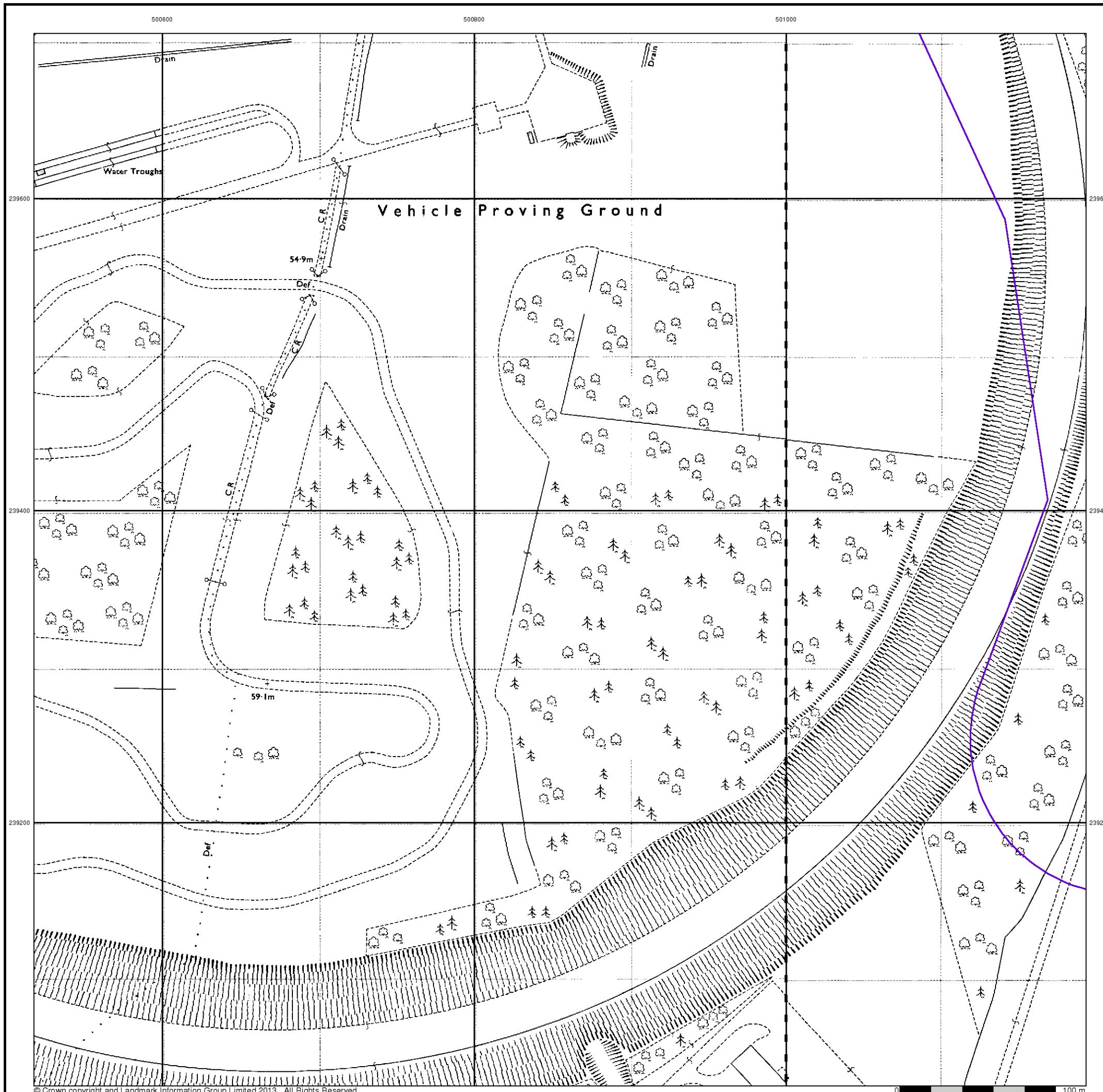


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Order Number: 60770728_1_1
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 Site Area (Ha): 240.61
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Site Details

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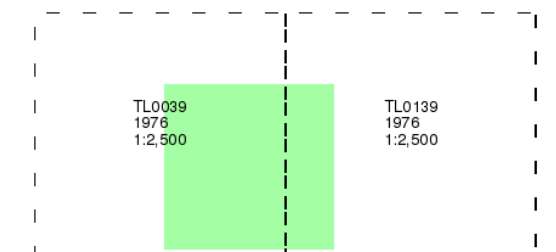
Supply of Unpublished Survey Information

Published 1976

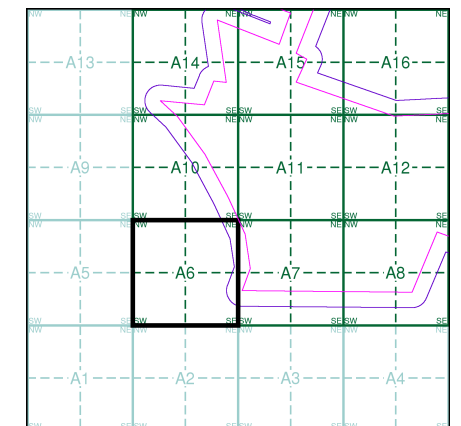
Source map scale - 1:2,500

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)



Historical Map - Segment A6

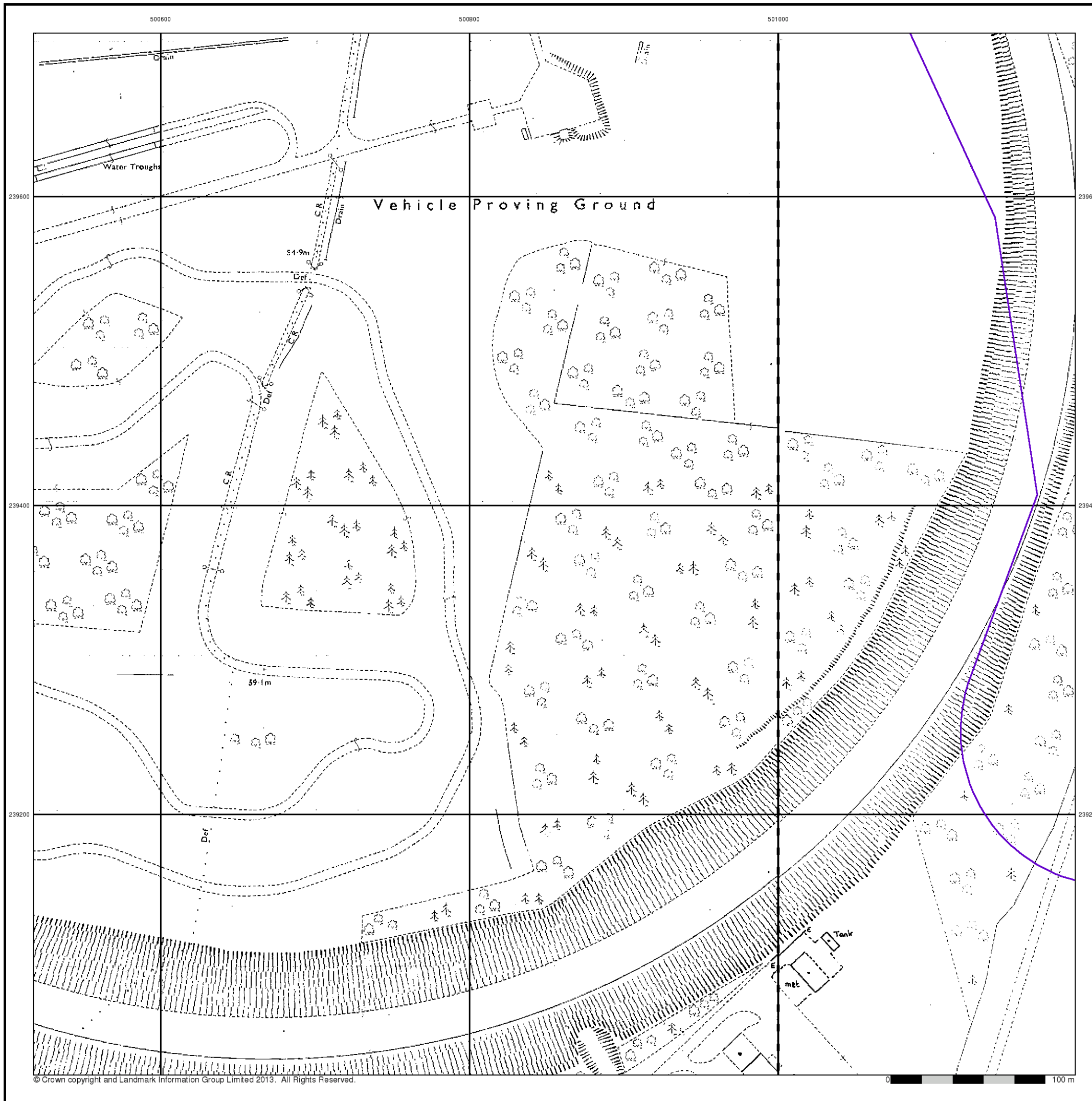


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Millbrook Power Project, Green Lane, Stewartby





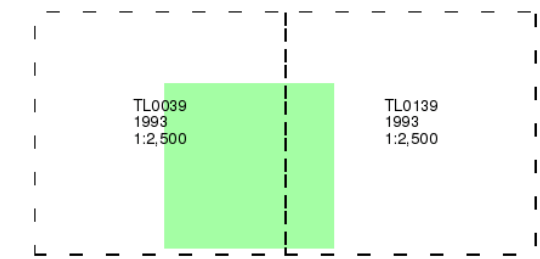
Large-Scale National Grid Data

Published 1993

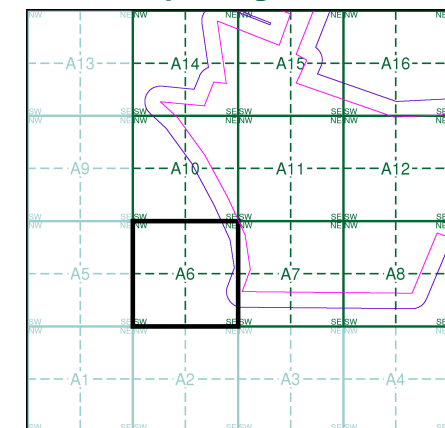
Source map scale - 1:2,500

'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 A6



Order Details

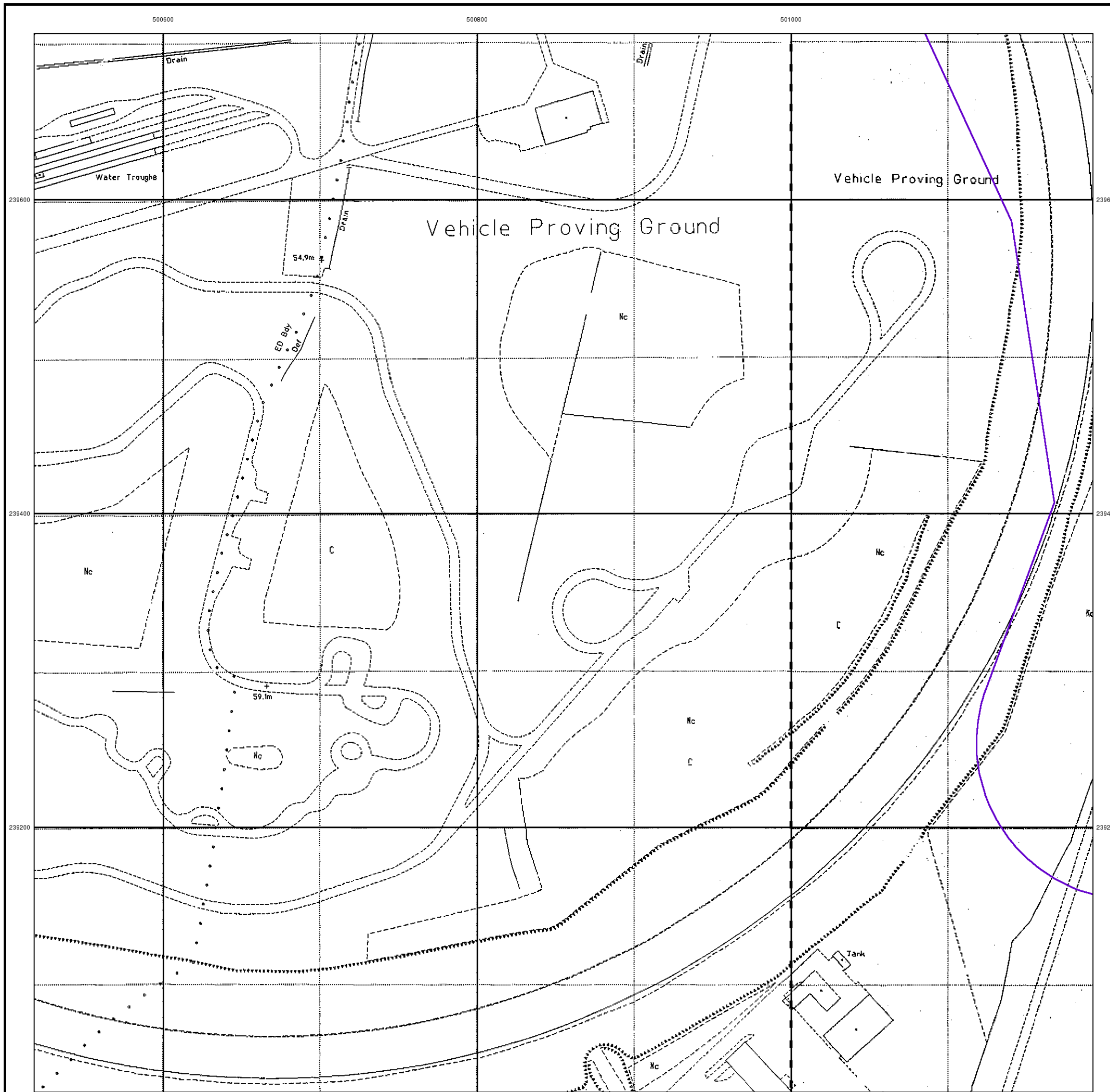
Order Number: 60770728_1_1
Customer Ref: 31116
National Grid Reference: 501510, 239960
Slice: A
Site Area (Ha): 240.61
Search Buffer (m): 100

Site Details

Millbrook Power Project, Green Lane, Stewartby



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

Quarry **Gravel Pit** **Sand Pit**
Clay Pit **Shingle** **Refuse Heap**
Sloping Masonry **Flat Rock**
Marsh **Reeds** **Osiers**
Rough Pasture **Furze** **Wood**
Mixed Wood **Brushwood** **Orchard**
Fir **Ford** **Stepping Stones**
Ferry **Waterfall** **Lock**
Trig. Station **Altitude at Trig. Station**
B.M. 325.9 **Bench Mark** **Surface Level**
Arrow denotes flow of water **Antiquities (site of)**
Cutting **Embankment**
Railway crossing Road **Level Crossing** **Road crossing Railway**
Railway crossing River or Canal **Road over single stream** **Road over River or Canal**
County Boundary (Geographical)
County & Civil Parish Boundary
Administrative County & Civil Parish Boundary
County Borough Boundary (England)
County Burgh Boundary (Scotland)
Co. Boro. Bdy.
Co. Burgh Bdy.
BP BS Boundary Post or Stone **P.C.B** Police Call Box
B.R. Bridle Road **P** Pump
E.P Electricity Pylon **S.P** Signal Post
F.B. Foot Bridge **SL** Sluice
F.P. Foot Path **Sp.** Spring
G.P Guide Post or Board **T.C.B** Telephone Call Box
M.S Mile Stone **Tr.** Trough
M.P M.R Mooring Post or Ring **W** Well

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

Inactive Quarry, Chalk Pit or Clay Pit **Active Quarry, Chalk Pit or Clay Pit**
Rock **Boulders**
Cliff **Slopes** **Top**
Roofed Building **Glazed Roof Building**
Sloping Masonry **Archway**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Bench Mark** **Antiquity (site of)**
Cave Entrance **Triangulation Station** **Electricity Pylon**
Electricity Transmission Line
County Boundary (Geographical)
County & Civil Parish Boundary
Civil Parish Boundary
Admin. County or County Bor. Boundary
London Borough Boundary
Symbol marking point where boundary mereing changes
BH Beer House **P** Pillar, Pole or Post
BP, BS Boundary Post or Stone **PO** Post Office
Cn, C Capstan, Crane **PC** Public Convenience
Chy Chimney **PH** Public House
D Fn Drinking Fountain **Pp** Pump
EI P Electricity Pillar or Post **SB, S Br** Signal Box or Bridge
FAP Fire Alarm Pillar **SP, SL** Signal Post or Light
FB Foot Bridge **Spr** Spring
GP Guide Post **Tk** Tank or Track
H Hydrant or Hydraulic **TCB** Telephone Call Box
LC Level Crossing **TCP** Telephone Call Post
MH Manhole **Tr** Trough
MP Mile Post or Mooring Post **Wr Pt, Wr T** Water Point, Water Tap
MS Mile Stone **W** Well
NTL Normal Tidal Limit **Wd Pp** Wind Pump

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

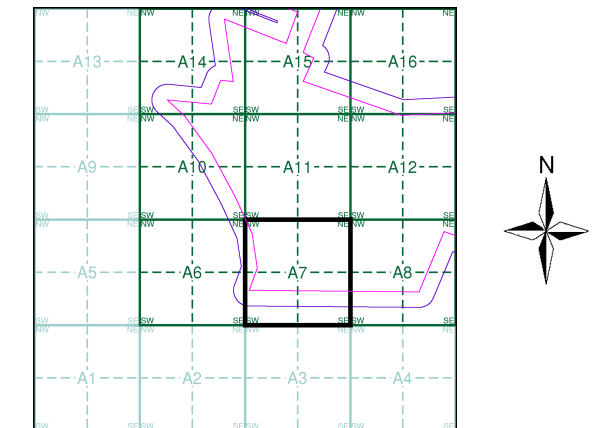
Cliff **Slopes** **Top**
Rock **Rock (scattered)**
Boulders **Boulders (scattered)**
Positioned Boulder **Scree**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Triangulation Station** **Antiquity (site of)**
Electricity Transmission Line **Electricity Pylon**
B.M. 231.60m Bench Mark **Buildings with Building Seed**
Roofed Building **Glazed Roof Building**
Civil parish/community boundary
District boundary
County boundary
Boundary post/stone
Boundary mereing symbol (note: these always appear in opposed pairs or groups of three)
Bks Barracks **P** Pillar, Pole or Post
Bty Battery **PO** Post Office
Cemy Cemetery **PC** Public Convenience
Chy Chimney **Pp** Pump
Cis Cistern **Ppg Sta** Pumping Station
Dismtd Rly Dismantled Railway **PW** Place of Worship
EI Gen Sta Electricity Generating Station **Sewage Ppg Sta** Sewage Pumping Station
EI P Electricity Pole, Pillar **SB, S Br** Signal Box or Bridge
EI Sub Sta Electricity Sub Station **SP, SL** Signal Post or Light
FB Filter Bed **Spr** Spring
Fn / D Fn Fountain / Drinking Ftn. **Tk** Tank or Track
Gas Gov Gas Valve Compound **Tr** Trough
GVC Gas Governor **Wd Pp** Wind Pump
GP Guide Post **Wr Pt, Wr T** Water Point, Water Tap
MH Manhole **Wks** Works (building or area)
MP, MS Mile Post or Mile Stone **W** Well



Historical Mapping & Photography included:

| Mapping Type | Scale | Date | Pg |
|--|---------|------|----|
| Bedfordshire | 1:2,500 | 1883 | 2 |
| Bedfordshire | 1:2,500 | 1901 | 3 |
| Bedfordshire | 1:2,500 | 1925 | 4 |
| Ordnance Survey Plan | 1:2,500 | 1972 | 5 |
| Supply of Unpublished Survey Information | 1:2,500 | 1976 | 6 |
| Large-Scale National Grid Data | 1:2,500 | 1993 | 7 |

Historical Map - Segment A7



Order Details

Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501510, 239960
 Slice: A
 Site Area (Ha): 240.61
 Search Buffer (m): 100

Site Details

Millbrook Power Project, Green Lane, Stewartby



Tel: 0844 844 9952
 Fax: 0844 844 9951
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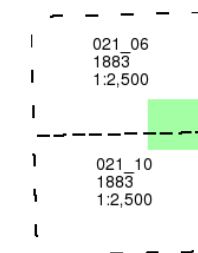


Bedfordshire
Published 1883

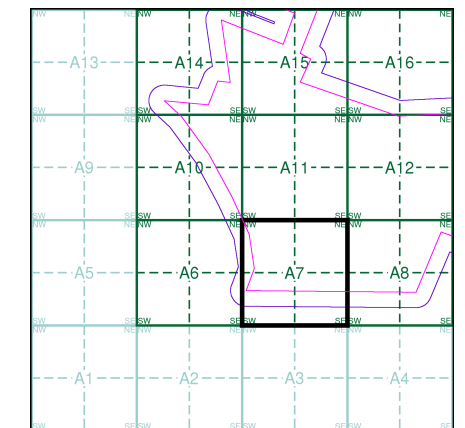
Source map scale - 1:2,500

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 A7



Order Details

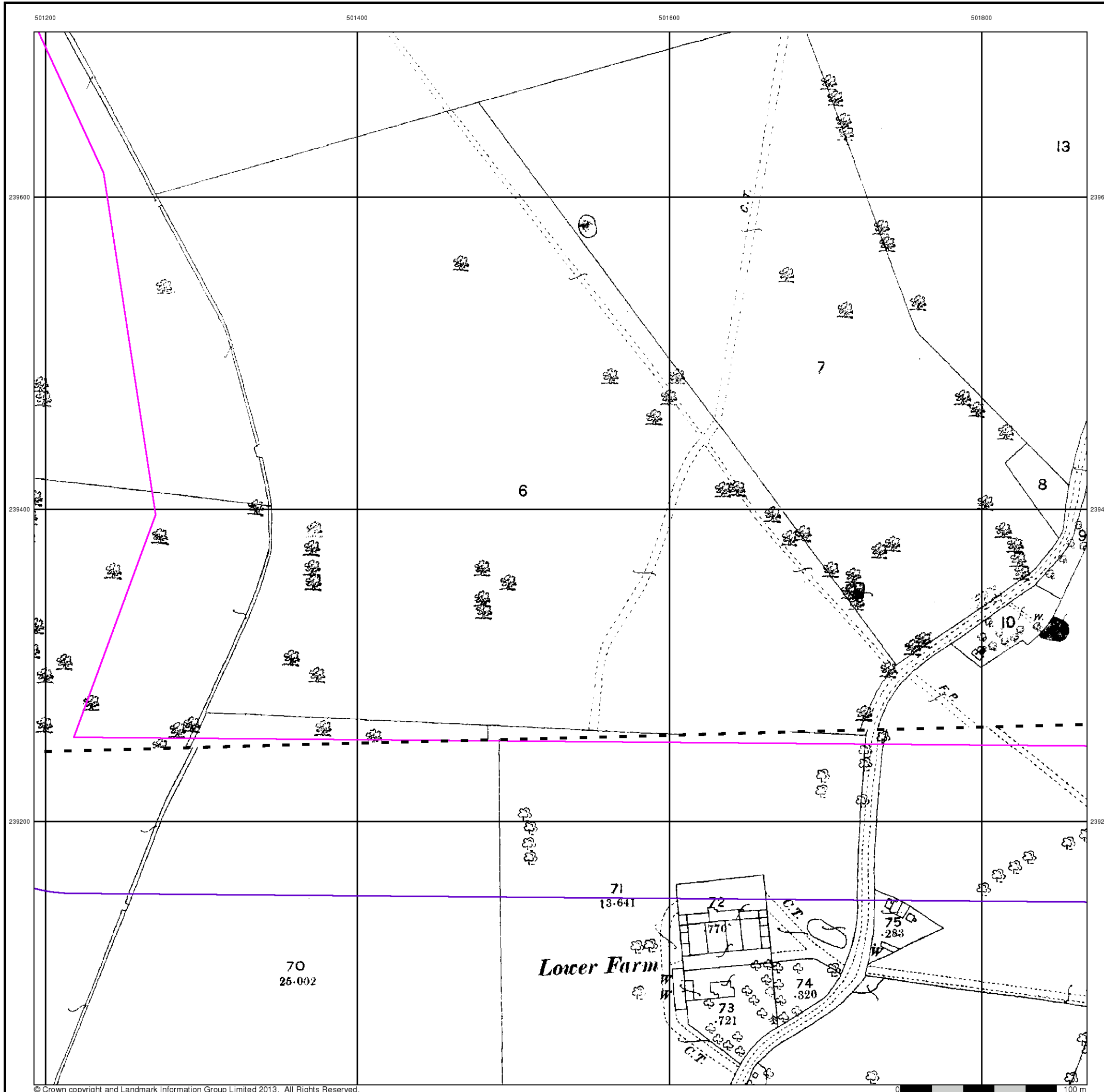
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Customer Ref: 31116
National Grid Reference: 501510, 239960
Slice: A
Site Area (Ha): 240.61
Search Buffer (m): 100

Site Details

Millbrook Power Project, Green Lane, Stewartby

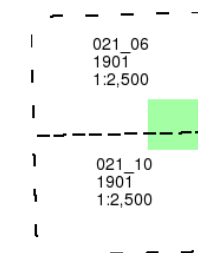


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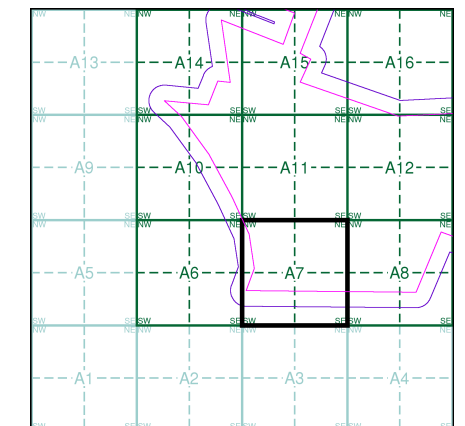


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Map Name(s) and Date(s)



Historical Map - Segment A7

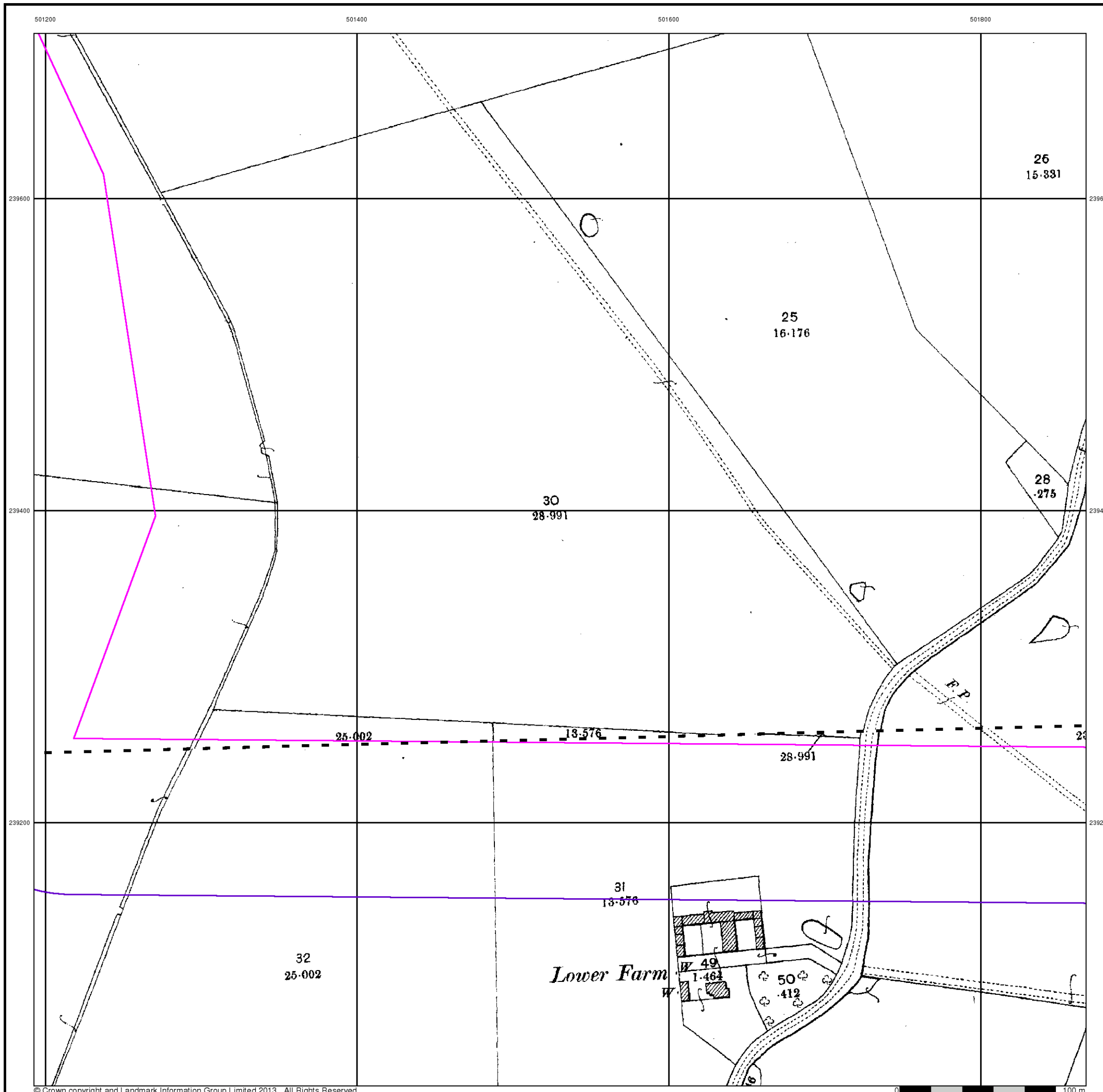


Order Details

Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501510, 239960
 Slice: A
 Site Area (Ha): 240.61
 Search Buffer (m): 100

Site Details

Millbrook Power Project, Green Lane, Stewartby





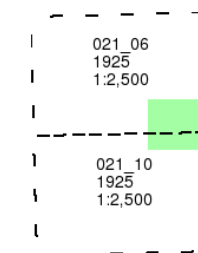
Bedfordshire

Published 1925

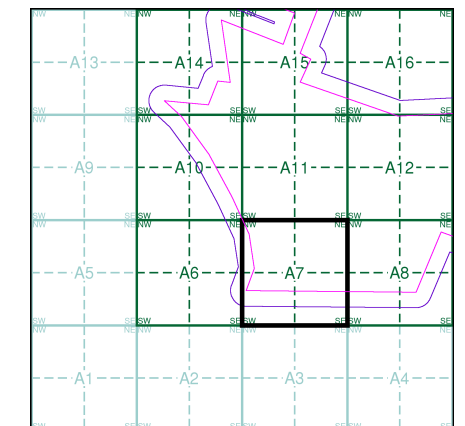
Source map scale - 1:2,500

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 A7



Order Details

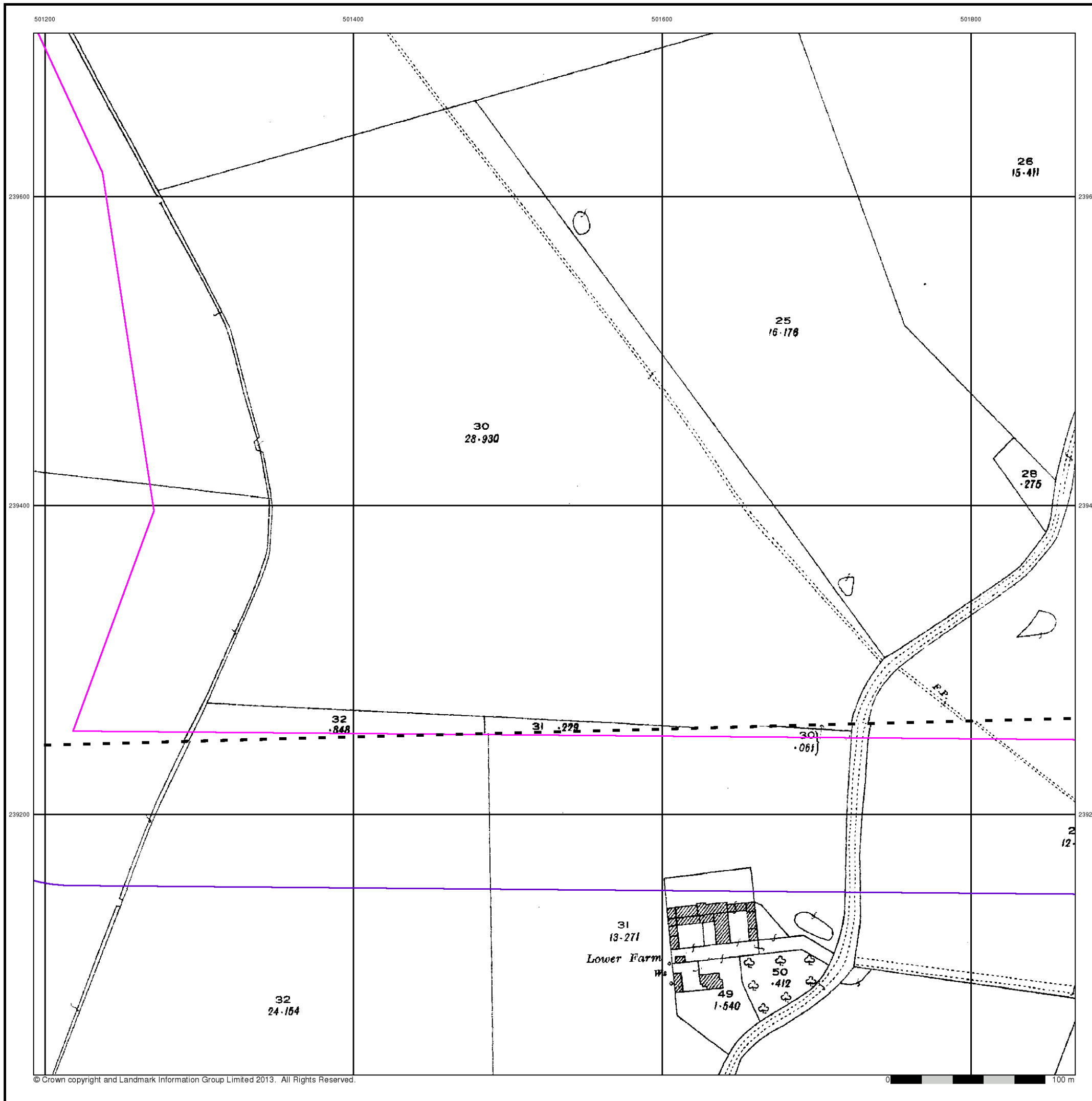
Order Number: 60770728_1_1
Customer Ref: 31116
National Grid Reference: 501510, 239960
Slice: A
Site Area (Ha): 240.61
Search Buffer (m): 100

Site Details

Millbrook Power Project, Green Lane, Stewartby

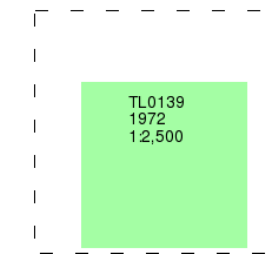


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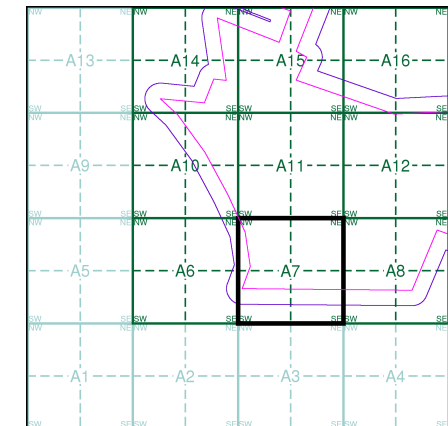


The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. 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 A7

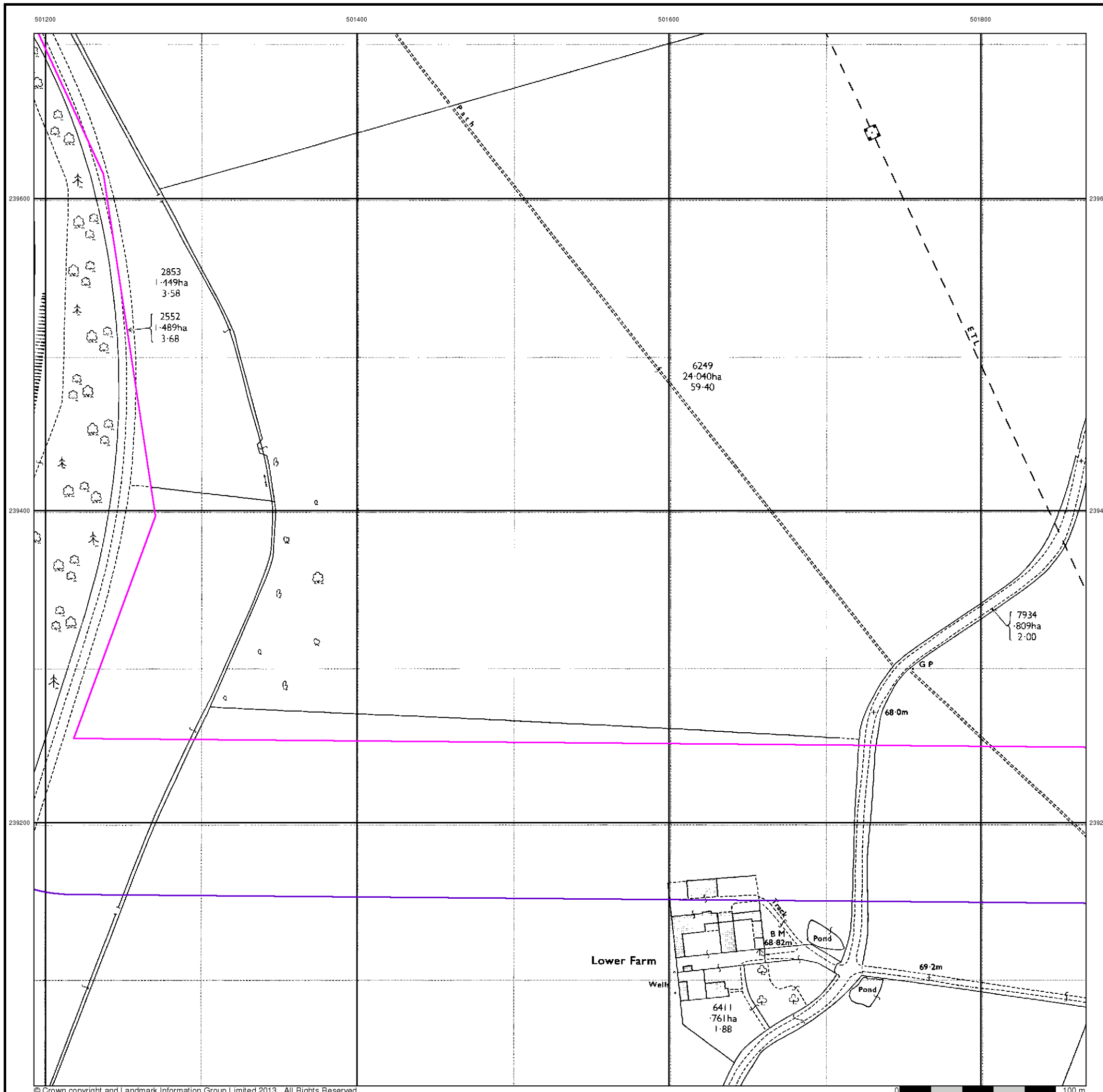


Order Details

Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501510, 239960
 Slice: A
 Site Area (Ha): 240.61
 Search Buffer (m): 100

Site Details

Millbrook Power Project, Green Lane, Stewartby





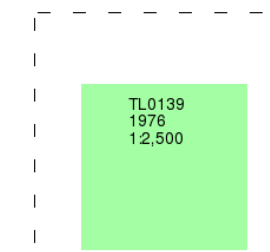
Supply of Unpublished Survey Information

Published 1976

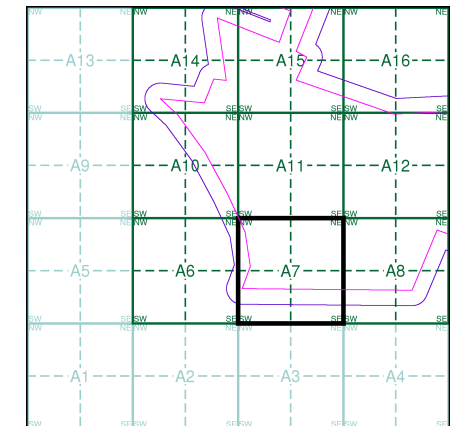
Source map scale - 1:2,500

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)



Historical Map - Segment A7



Order Details

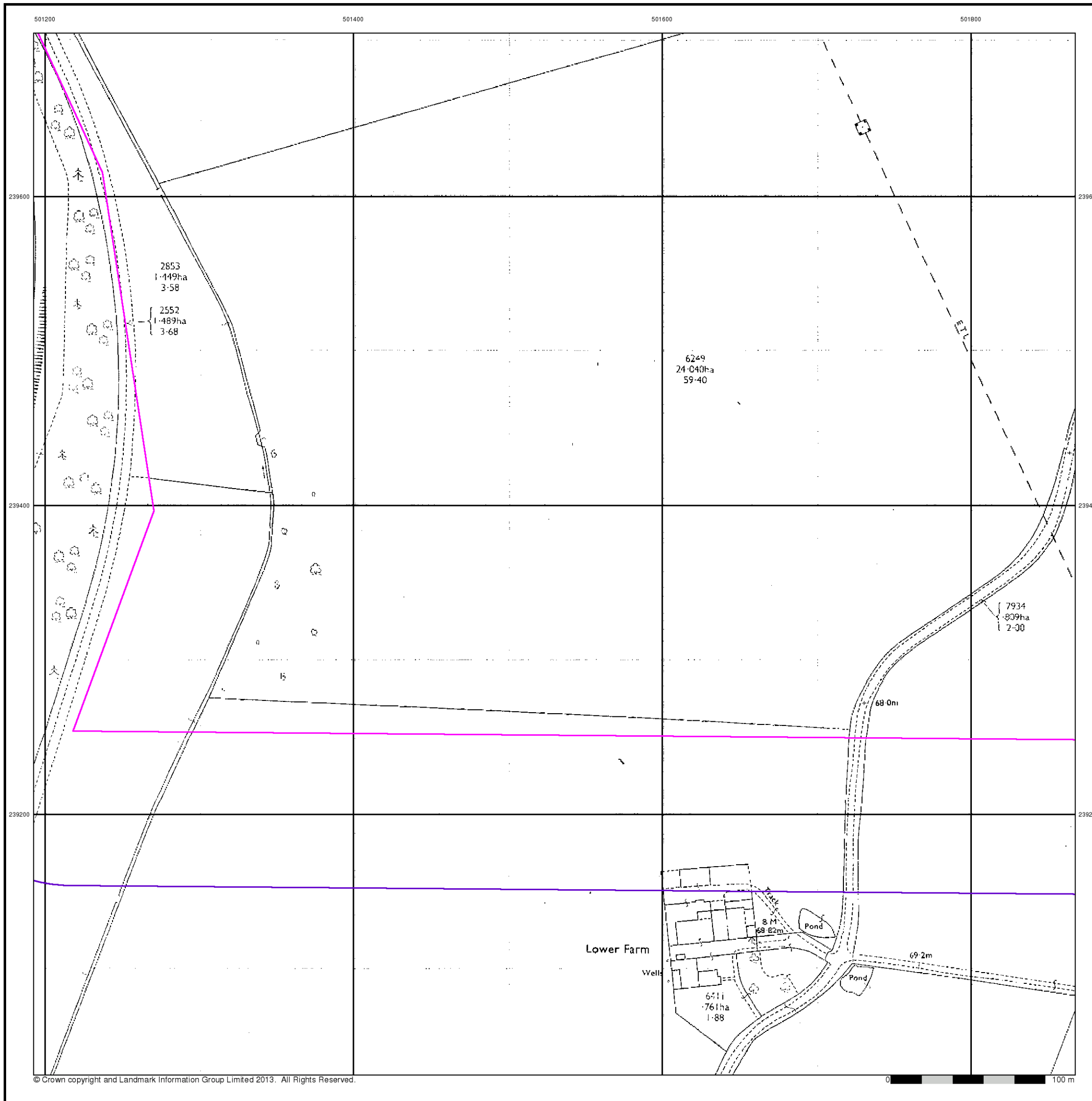
Order Number: 60770728_1_1
Customer Ref: 31116
National Grid Reference: 501510, 239960
Slice: A
Site Area (Ha): 240.61
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Site Details

Millbrook Power Project, Green Lane, Stewartby



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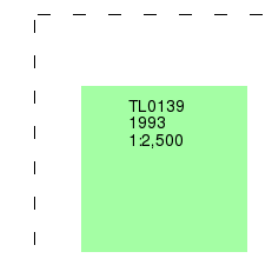
Large-Scale National Grid Data

Published 1993

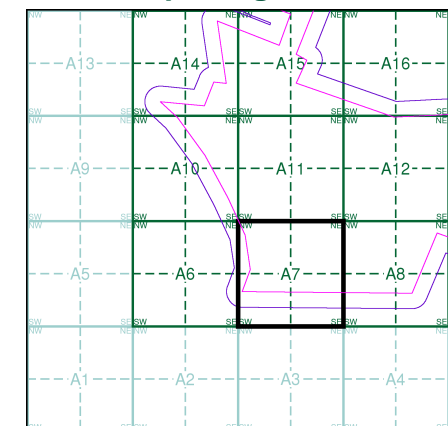
Source map scale - 1:2,500

'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 A7



Order Details

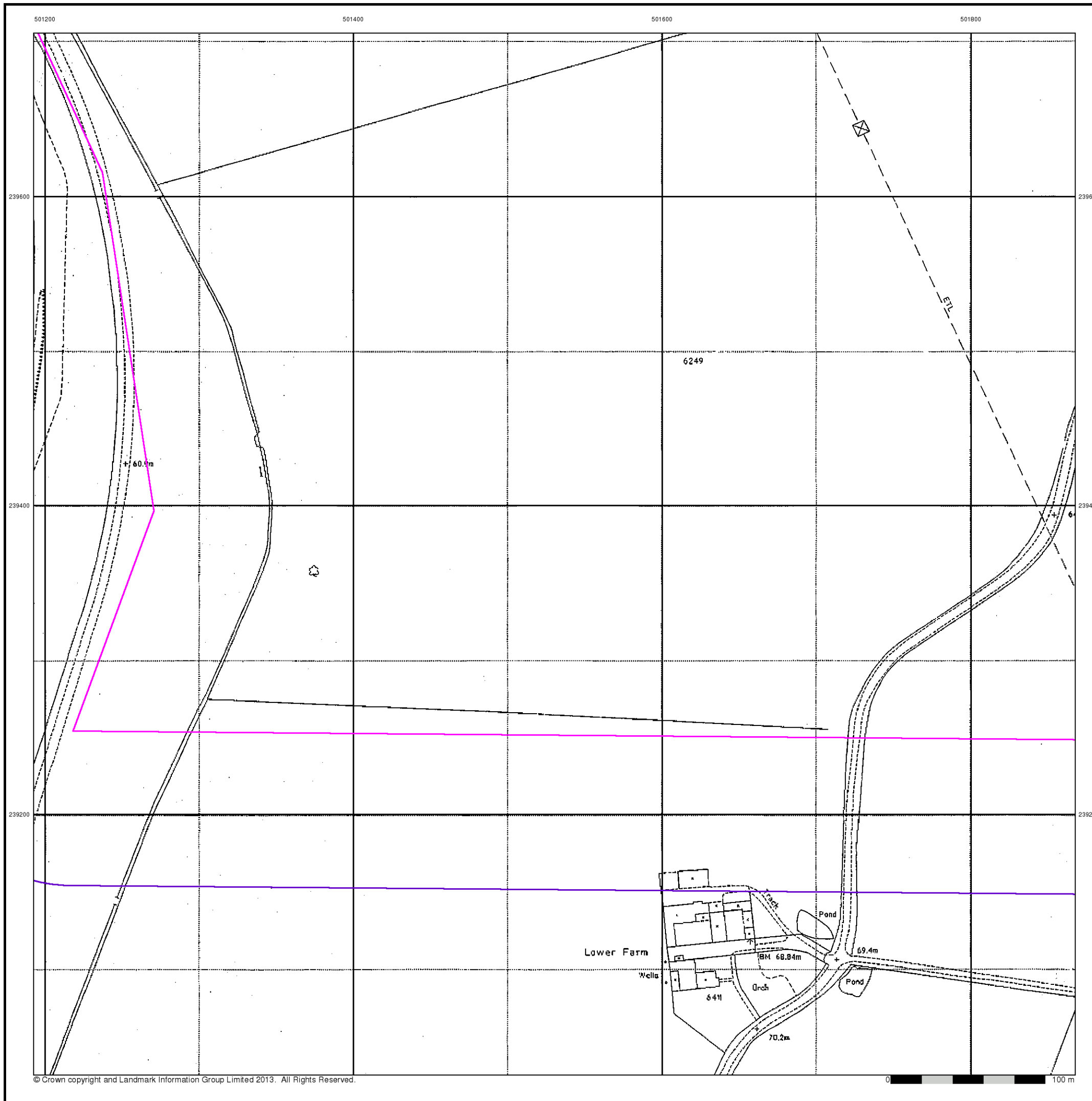
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|--------------------------|----------------|
| Order Number: | 60770728_1_1 |
| Customer Ref: | 31116 |
| National Grid Reference: | 501510, 239960 |
| Slice: | A |
| Site Area (Ha): | 240.61 |
| Search Buffer (m): | 100 |

Site Details

Millbrook Power Project, Green Lane, Stewartby



| | |
|------|-----------------------|
| 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

Quarry **Gravel Pit** **Sand Pit**
Clay Pit **Shingle** **Refuse Heap**
Sloping Masonry **Flat Rock**
Marsh **Reeds** **Osiers**
Rough Pasture **Furze** **Wood**
Mixed Wood **Brushwood** **Orchard**
Fir **Ford** **Stepping Stones**
Ferry **Waterfall** **Lock**
Trig. Station **Altitude at Trig. Station**
B.M. 325.9 **Bench Mark** **Surface Level**
Arrow denotes flow of water **Antiquities (site of)**
Cutting **Embankment**
Railway crossing Road **Level Crossing** **Road crossing Railway**
Railway crossing River or Canal **Road over single stream** **Road over River or Canal**
County Boundary (Geographical)
County & Civil Parish Boundary
Administrative County & Civil Parish Boundary
County Borough Boundary (England)
County Burgh Boundary (Scotland)
Co. Boro. Bdy.
Co. Burgh Bdy.
BP BS Boundary Post or Stone **P.C.B** Police Call Box
B.R. Bridle Road **P** Pump
E.P Electricity Pylon **S.P** Signal Post
F.B. Foot Bridge **SL** Sluice
F.P. Foot Path **Sp.** Spring
G.P Guide Post or Board **T.C.B** Telephone Call Box
M.S Mile Stone **Tr.** Trough
M.P M.R Mooring Post or Ring **W** Well

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

Inactive Quarry, Chalk Pit or Clay Pit **Active Quarry, Chalk Pit or Clay Pit**
Rock **Boulders**
Cliff **Slopes** **Top**
Roofed Building **Glazed Roof Building**
Sloping Masonry **Archway**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Bench Mark** **Antiquity (site of)**
Cave Entrance **Triangulation Station** **Electricity Pylon**
Electricity Transmission Line
County Boundary (Geographical)
County & Civil Parish Boundary
Civil Parish Boundary
Admin. County or County Bor. Boundary
London Borough Boundary
Symbol marking point where boundary mereing changes
BH Beer House **P** Pillar, Pole or Post
BP, BS Boundary Post or Stone **PO** Post Office
Cn, C Capstan, Crane **PC** Public Convenience
Chy Chimney **PH** Public House
D Fn Drinking Fountain **Pp** Pump
EI P Electricity Pillar or Post **SB, S Br** Signal Box or Bridge
FAP Fire Alarm Pillar **SP, SL** Signal Post or Light
FB Foot Bridge **Spr** Spring
GP Guide Post **Tk** Tank or Track
H Hydrant or Hydraulic **TCB** Telephone Call Box
LC Level Crossing **TCP** Telephone Call Post
MH Manhole **Tr** Trough
MP Mile Post or Mooring Post **Wr Pt, Wr T** Water Point, Water Tap
MS Mile Stone **W** Well
NTL Normal Tidal Limit **Wd Pp** Wind Pump

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

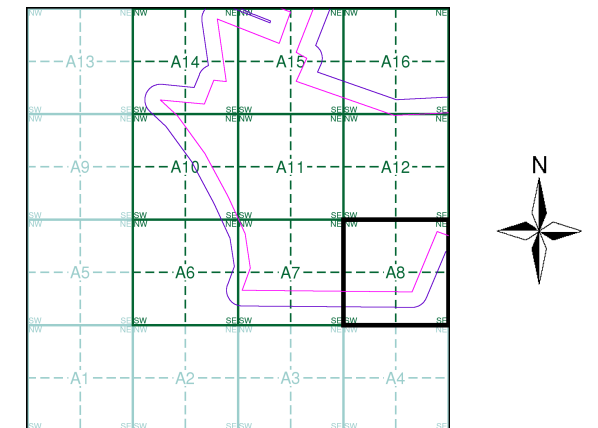
Cliff **Slopes** **Top**
Rock **Rock (scattered)**
Boulders **Boulders (scattered)**
Positioned Boulder **Scree**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Triangulation Station** **Antiquity (site of)**
Electricity Transmission Line **Electricity Pylon**
B.M. 231.60m Bench Mark **Buildings with Building Seed**
Roofed Building **Glazed Roof Building**
Civil parish/community boundary
District boundary
County boundary
Boundary post/stone
Boundary mereing symbol (note: these always appear in opposed pairs or groups of three)
Bks Barracks **P** Pillar, Pole or Post
Bty Battery **PO** Post Office
Cemy Cemetery **PC** Public Convenience
Chy Chimney **Pp** Pump
Cis Cistern **Ppg Sta** Pumping Station
Dismtd Rly Dismantled Railway **PW** Place of Worship
EI Gen Sta Electricity Generating Station **Sewage Ppg Sta** Sewage Pumping Station
EI P Electricity Pole, Pillar **SB, S Br** Signal Box or Bridge
EI Sub Sta Electricity Sub Station **SP, SL** Signal Post or Light
FB Filter Bed **Spr** Spring
Fn / D Fn Fountain / Drinking Ftn. **Tk** Tank or Track
Gas Gov Gas Valve Compound **Tr** Trough
GVC Gas Governor **Wd Pp** Wind Pump
GP Guide Post **Wr Pt, Wr T** Water Point, Water Tap
MH Manhole **Wks** Works (building or area)
MP, MS Mile Post or Mile Stone **W** Well



Historical Mapping & Photography included:

| Mapping Type | Scale | Date | Pg |
|--|---------|------|----|
| Bedfordshire | 1:2,500 | 1883 | 2 |
| Bedfordshire | 1:2,500 | 1901 | 3 |
| Bedfordshire | 1:2,500 | 1925 | 4 |
| Ordnance Survey Plan | 1:2,500 | 1972 | 5 |
| Supply of Unpublished Survey Information | 1:2,500 | 1976 | 6 |
| Large-Scale National Grid Data | 1:2,500 | 1993 | 7 |

Historical Map - Segment A8



Order Details

Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501510, 239960
 Slice: A
 Site Area (Ha): 240.61
 Search Buffer (m): 100

Site Details

Millbrook Power Project, Green Lane, Stewartby



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



Bedfordshire
Published 1883

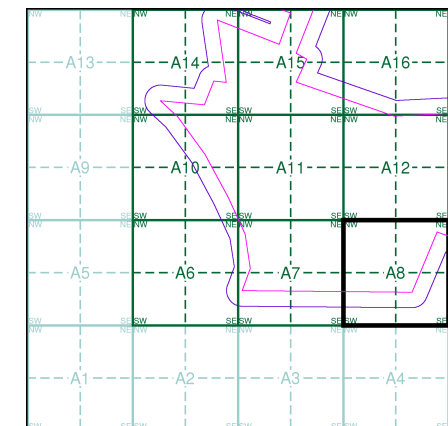
Source map scale - 1:2,500

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)

| | |
|---------------------------|---------------------------|
| 021_06 1883 1:2,500 | 021_07 1883 1:2,500 |
| 021_10 1883 1:2,500 | 021_11 1883 1:2,500 |

Historical Map - Segment A8



Order Details

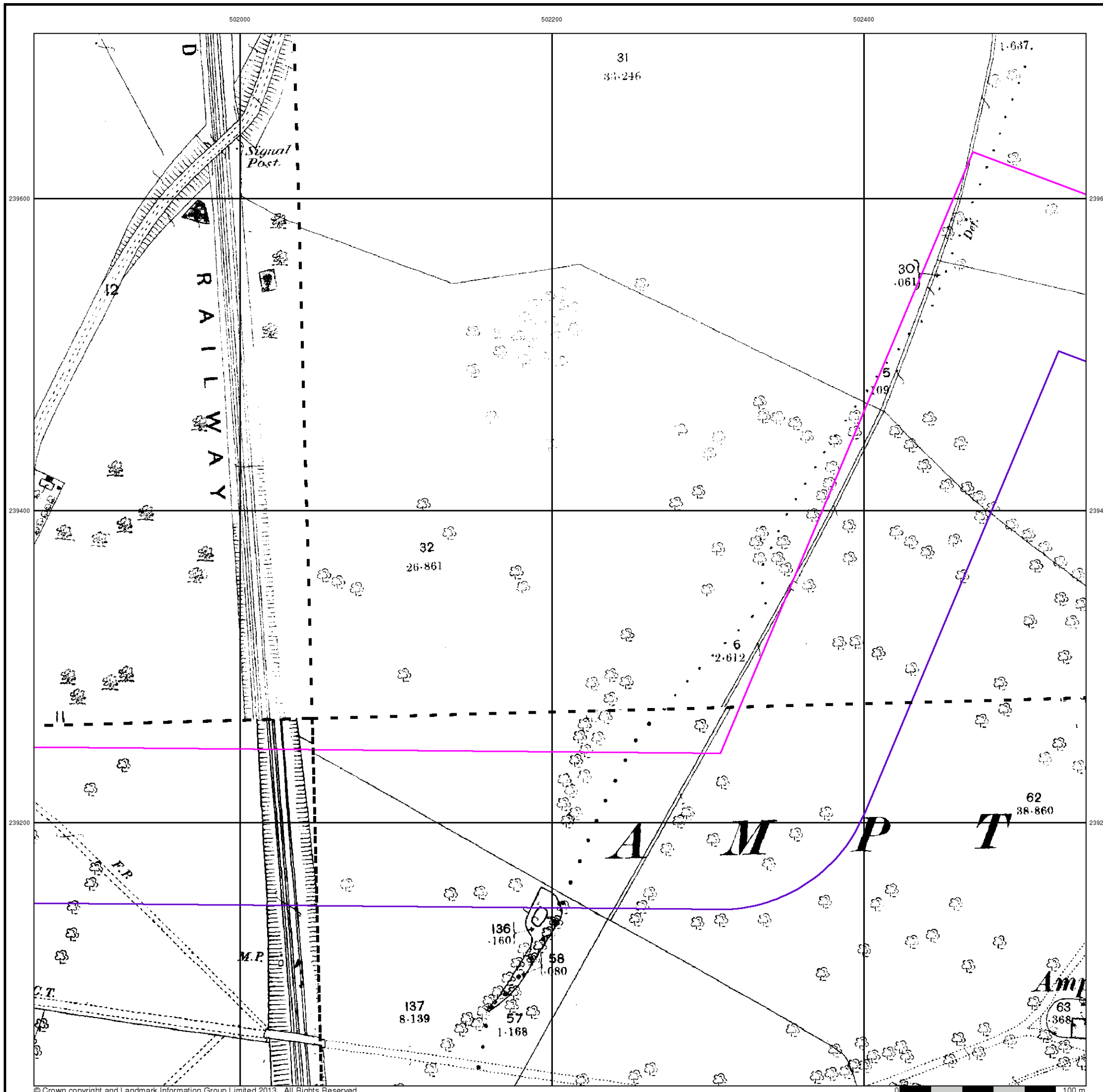
Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501510, 239960
 Slice: A
 Site Area (Ha): 240.61
 Search Buffer (m): 100

Site Details

Millbrook Power Project, Green Lane, Stewartby



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





Bedfordshire
Published 1925

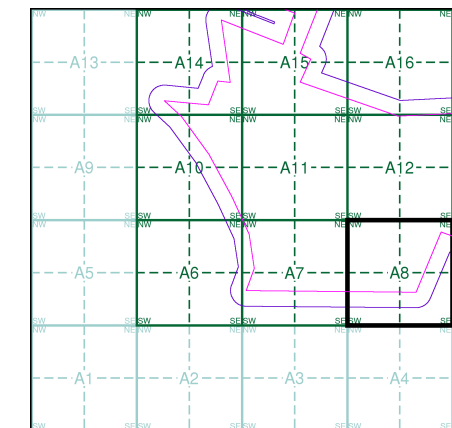
Source map scale - 1:2,500

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)

| | |
|---------------------------|---------------------------|
| 021_06 1925 1:2,500 | 021_07 1925 1:2,500 |
| 021_10 1925 1:2,500 | 021_11 1925 1:2,500 |

Historical Map - Segment A8



Order Details

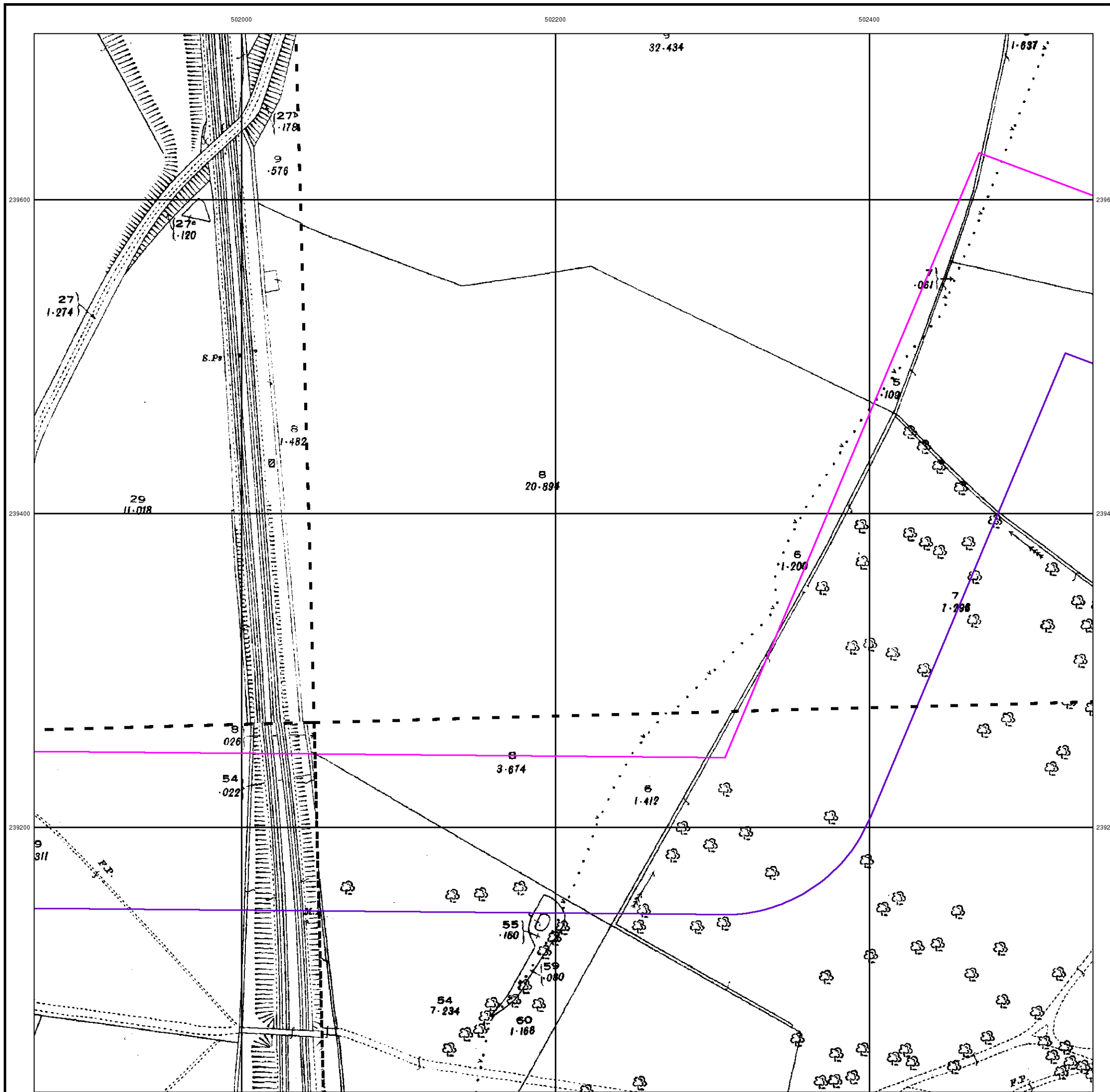
Order Number: 60770728_1_1
Customer Ref: 31116
National Grid Reference: 501510, 239960
Slice: A
Site Area (Ha): 240.61
Search Buffer (m): 100

Site Details

Millbrook Power Project, Green Lane, Stewartby

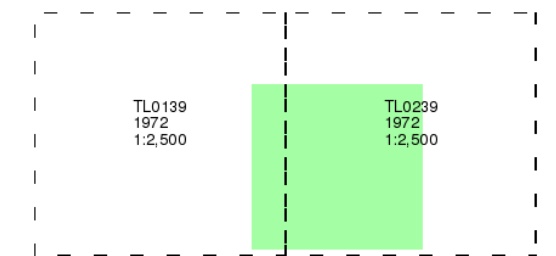


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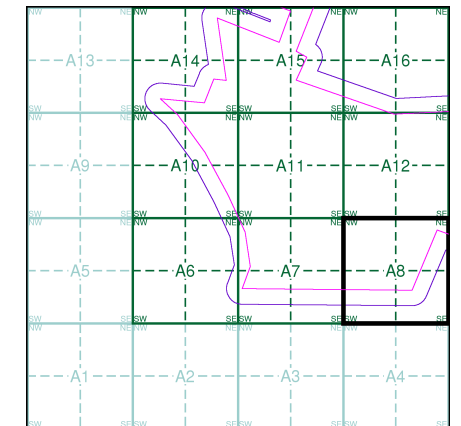


The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. 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 A8

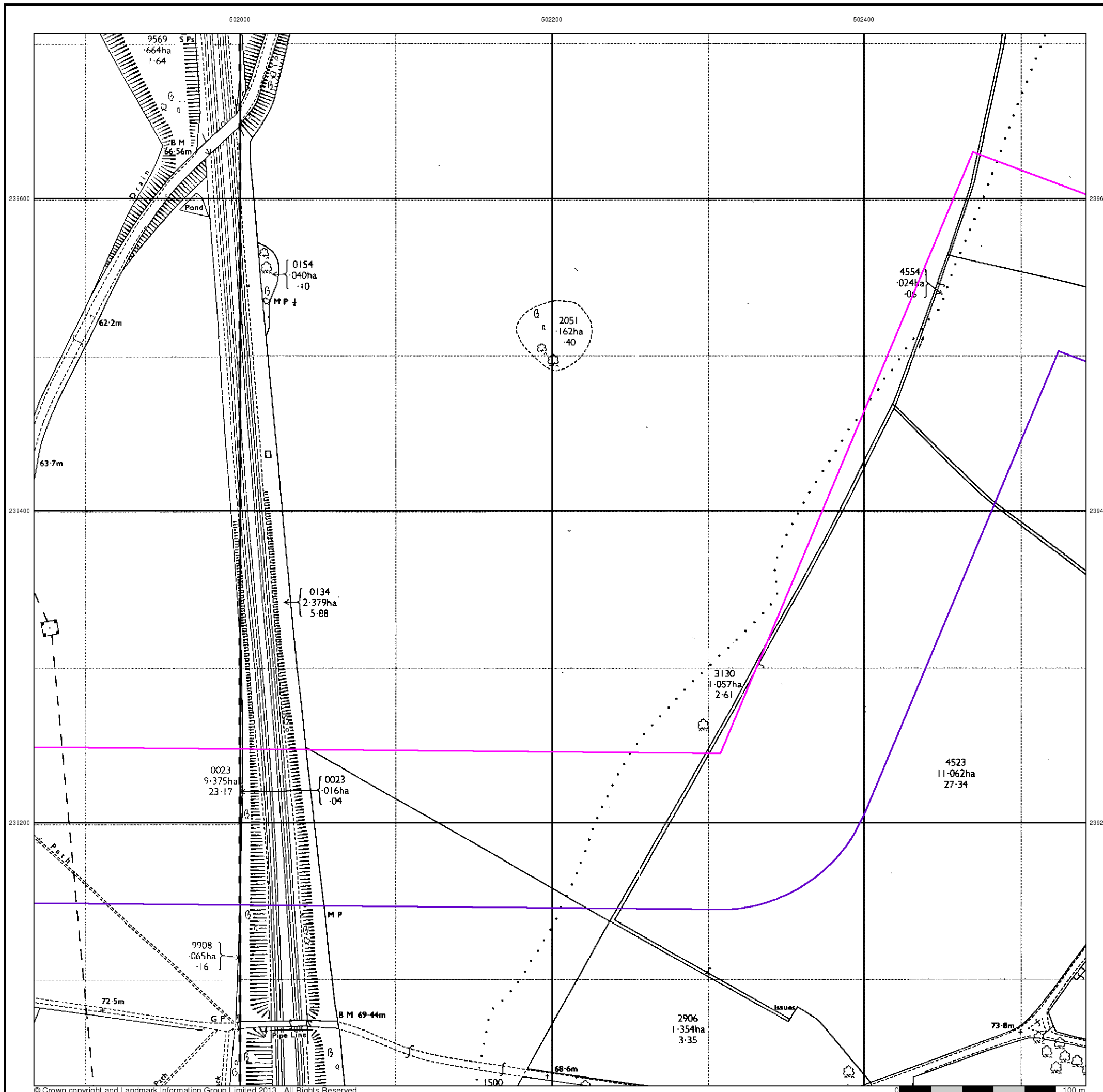


Order Details

Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501510, 239960
 Slice: A
 Site Area (Ha): 240.61
 Search Buffer (m): 100

Site Details

Millbrook Power Project, Green Lane, Stewartby



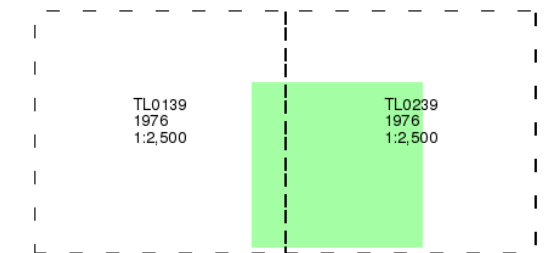
Supply of Unpublished Survey Information

Published 1976

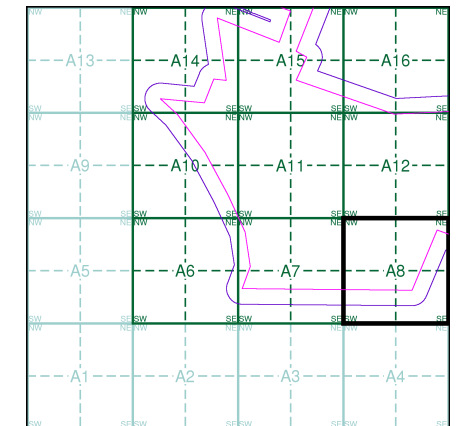
Source map scale - 1:2,500

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)



Historical Map - Segment A8

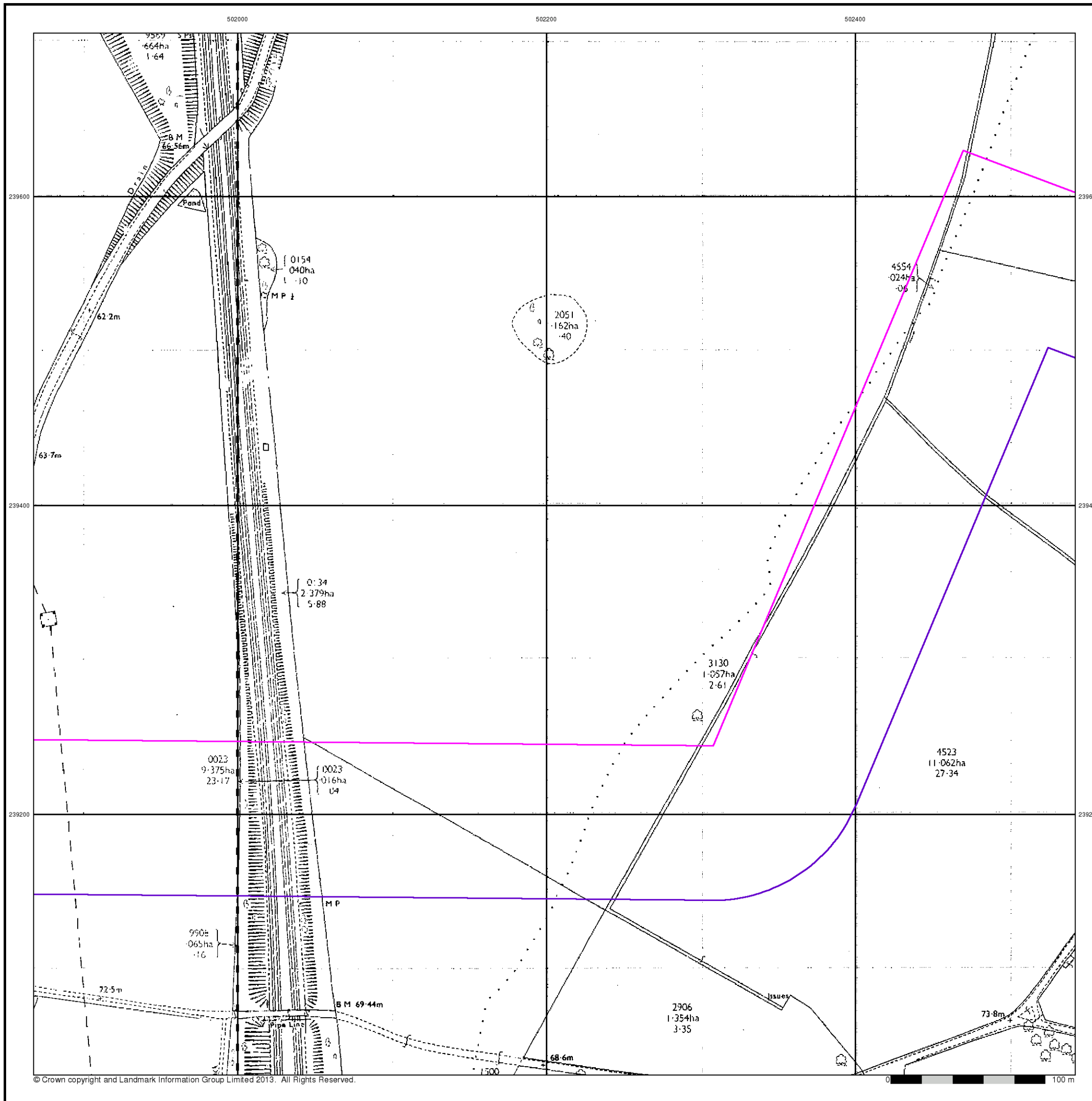


Order Details

Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501510, 239960
 Slice: A
 Site Area (Ha): 240.61
 Search Buffer (m): 100

Site Details

Millbrook Power Project, Green Lane, Stewartby



Historical Mapping Legends

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

Quarry **Gravel Pit** **Sand Pit**
Clay Pit **Shingle** **Refuse Heap**
Sloping Masonry **Flat Rock**
Marsh **Reeds** **Osiers**
Rough Pasture **Furze** **Wood**
Mixed Wood **Brushwood** **Orchard**
Fir **Ford** **Stepping Stones**
Ferry **Waterfall** **Lock**
Trig. Station **Altitude at Trig. Station**
B.M. 325.9 **Bench Mark** **Surface Level**
Arrow denotes flow of water **Antiquities (site of)**
Cutting **Embankment**
Railway crossing Road **Level Crossing** **Road crossing Railway**
Railway crossing River or Canal **Road over single stream** **Road over River or Canal**
County Boundary (Geographical)
County & Civil Parish Boundary
Administrative County & Civil Parish Boundary
County Borough Boundary (England)
County Burgh Boundary (Scotland)
Boundary Post or Stone **Police Call Box**
B.R. Bridle Road **Pump**
E.P. Electricity Pylon **S.P. Signal Post**
F.B. Foot Bridge **Sluice**
F.P. Foot Path **Spring**
G.P. Guide Post or Board **T.C.B. Telephone Call Box**
M.S. Mile Stone **Tr. Trough**
M.P. M.R. Mooring Post or Ring **W. Well**

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

Inactive Quarry, Chalk Pit or Clay Pit **Active Quarry, Chalk Pit or Clay Pit**
Rock **Boulders**
Cliff **Slopes** **Top**
Roofed Building **Glazed Roof Building**
Sloping Masonry **Archway**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Bench Mark** **Antiquity (site of)**
Cave Entrance **Triangulation Station** **Electricity Pylon**
Electricity Transmission Line
County Boundary (Geographical)
County & Civil Parish Boundary
Civil Parish Boundary
Admin. County or County Bor. Boundary
London Borough Boundary
Symbol marking point where boundary mereing changes
Beer House **Pillar, Pole or Post**
Boundary Post or Stone **Post Office**
Capstan, Crane **Public Convenience**
Chimney **Public House**
Drinking Fountain **Pump**
Electricity Pillar or Post **Signal Box or Bridge**
Fire Alarm Pillar **Signal Post or Light**
Foot Bridge **Spring**
Guide Post **Tank or Track**
Hydrant or Hydraulic **Telephone Call Box**
Level Crossing **Telephone Call Post**
Manhole **Trough**
Mile Post or Mooring Post **Water Point, Water Tap**
Mile Stone **Well**
Normal Tidal Limit **Wind Pump**

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

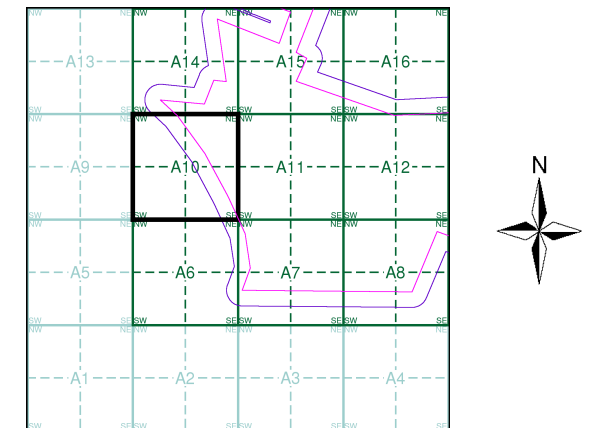
Cliff **Slopes** **Top**
Rock **Rock (scattered)**
Boulders **Boulders (scattered)**
Positioned Boulder **Scree**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Triangulation Station** **Antiquity (site of)**
Electricity Transmission Line **Electricity Pylon**
Bench Mark **Buildings with Building Seed**
Roofed Building **Glazed Roof Building**
Civil parish/community boundary
District boundary
County boundary
Boundary post/stone
Boundary mereing symbol (note: these always appear in opposed pairs or groups of three)
Barracks **Pillar, Pole or Post**
Battery **Post Office**
Cemetery **Public Convenience**
Chimney **Pump**
Cistern **Pumping Station**
Dismtd Rly **Place of Worship**
Electricity Generating Station **Sewage Ppg Sta** **Sewage Pumping Station**
Electricity Pole, Pillar **Signal Box or Bridge**
Electricity Sub Station **Signal Post or Light**
Filter Bed **Spring**
Fountain / Drinking Ftn. **Tank or Track**
Gas Valve Compound **Trough**
Gas Governor **Wind Pump**
Guide Post **Water Point, Water Tap**
Manhole **Works (building or area)**
Mile Post or Mile Stone **Well**



Historical Mapping & Photography included:

| Mapping Type | Scale | Date | Pg |
|--|---------|-------------|----|
| Bedfordshire | 1:2,500 | 1883 | 2 |
| Bedfordshire | 1:2,500 | 1901 | 3 |
| Bedfordshire | 1:2,500 | 1925 | 4 |
| Ordnance Survey Plan | 1:2,500 | 1972 - 1976 | 5 |
| Supply of Unpublished Survey Information | 1:2,500 | 1976 | 6 |
| Large-Scale National Grid Data | 1:2,500 | 1993 | 7 |

Historical Map - Segment A10



Order Details

Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501510, 239960
 Slice: A
 Site Area (Ha): 240.61
 Search Buffer (m): 100

Site Details

Millbrook Power Project, Green Lane, Stewartby



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

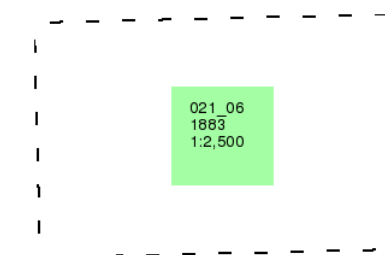


Bedfordshire
Published 1883

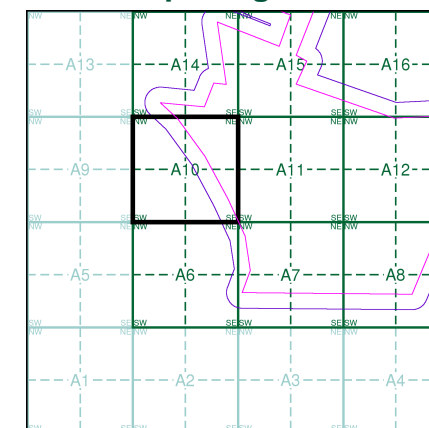
Source map scale - 1:2,500

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 A10



Order Details

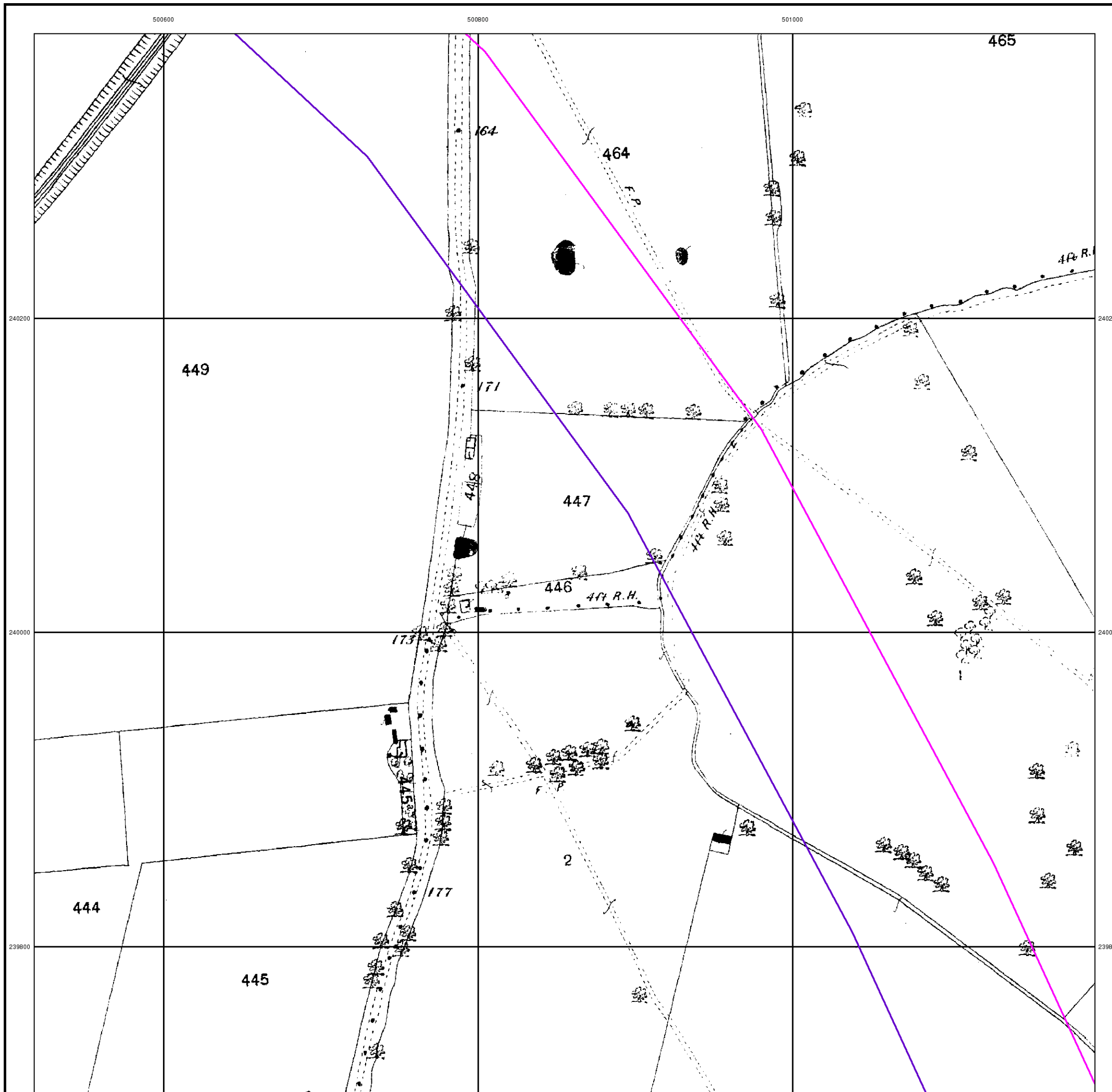
Order Number: 60770728_1_1
Customer Ref: 31116
National Grid Reference: 501510, 239960
Slice: A
Site Area (Ha): 240.61
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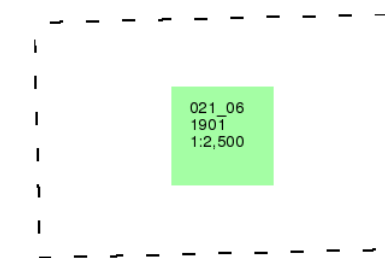
Bedfordshire

Published 1901

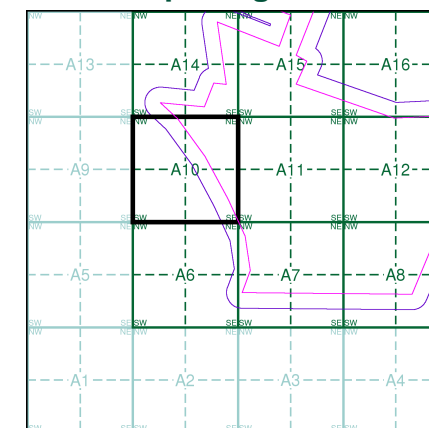
Source map scale - 1:2,500

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 A10



Order Details

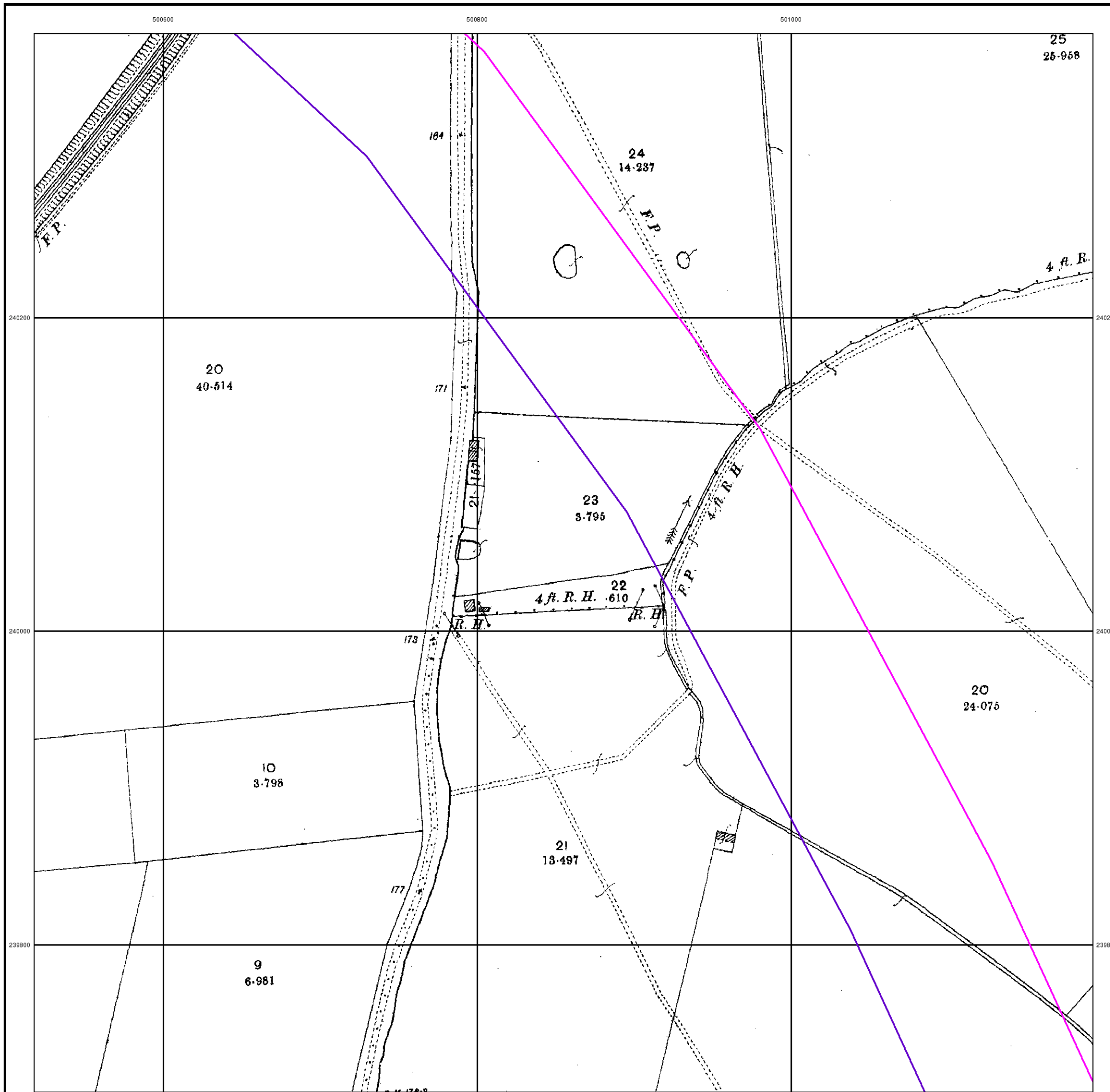
Order Number: 60770728_1_1
Customer Ref: 31116
National Grid Reference: 501510, 239960
Slice: A
Site Area (Ha): 240.61
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Site Details

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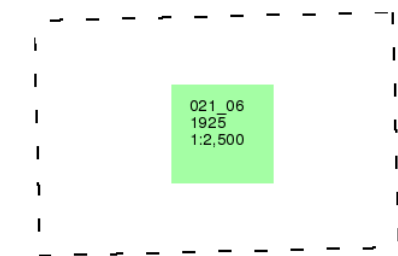


Bedfordshire
Published 1925

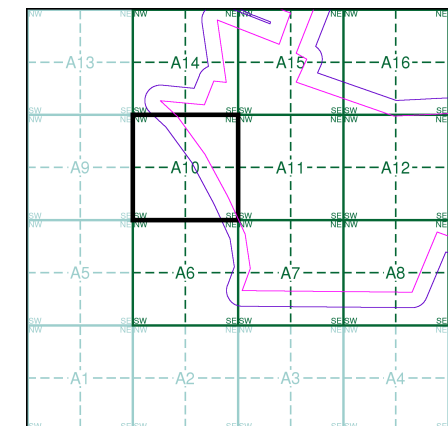
Source map scale - 1:2,500

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 A10



Order Details

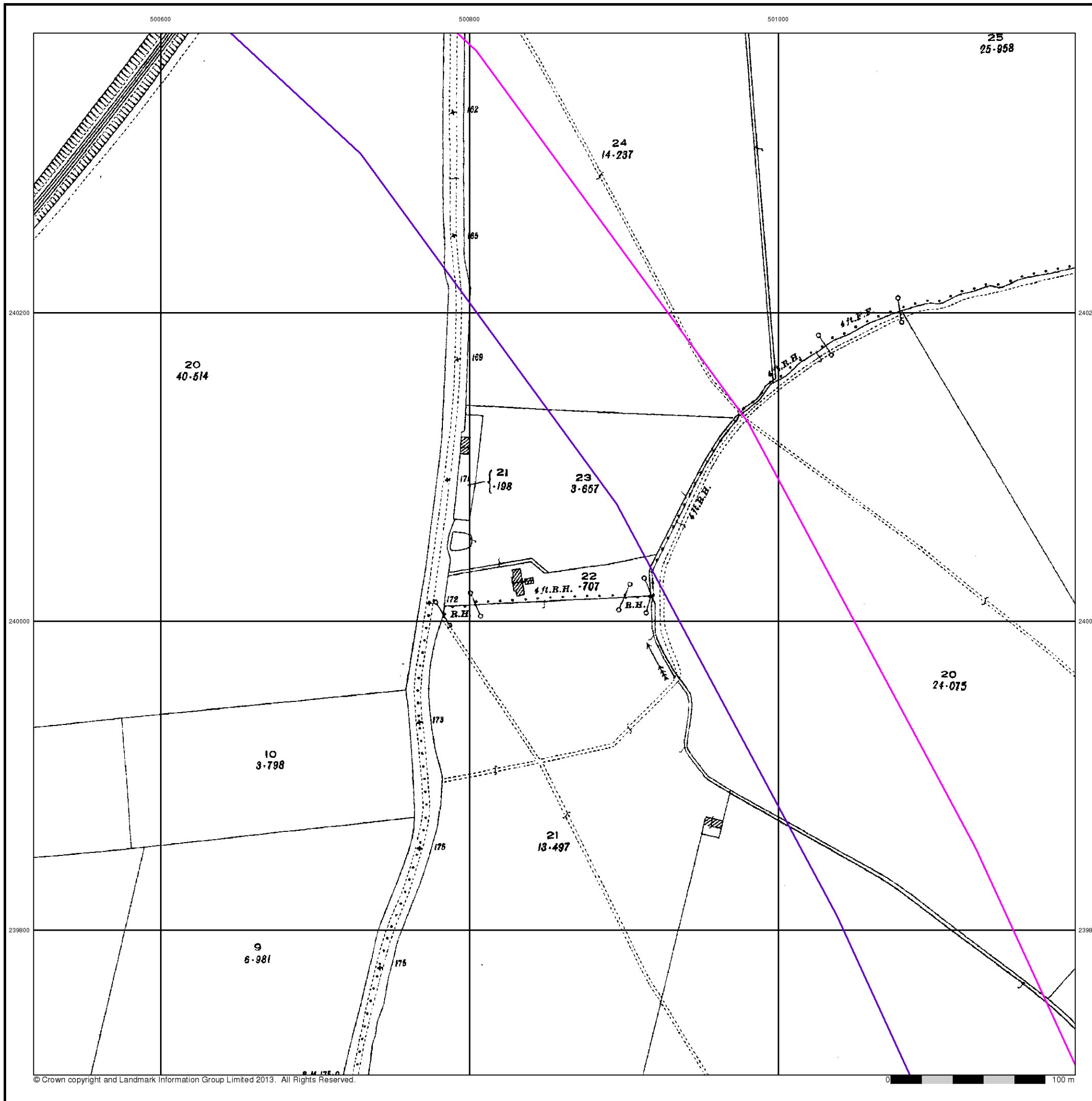
Order Number: 60770728_1_1
Customer Ref: 31116
National Grid Reference: 501510, 239960
Slice: A
Site Area (Ha): 240.61
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Site Details

Millbrook Power Project, Green Lane, Stewartby



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Ordnance Survey Plan

Published 1972 - 1976

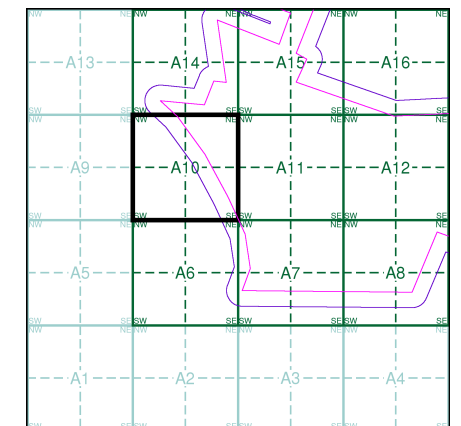
Source map scale - 1:2,500

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)

| | |
|--------------------------|--------------------------|
| TL0040 1976 12,500 | TL0140 1976 12,500 |
| TL0039 1972 12,500 | TL0139 1972 12,500 |

Historical Map - Segment A10

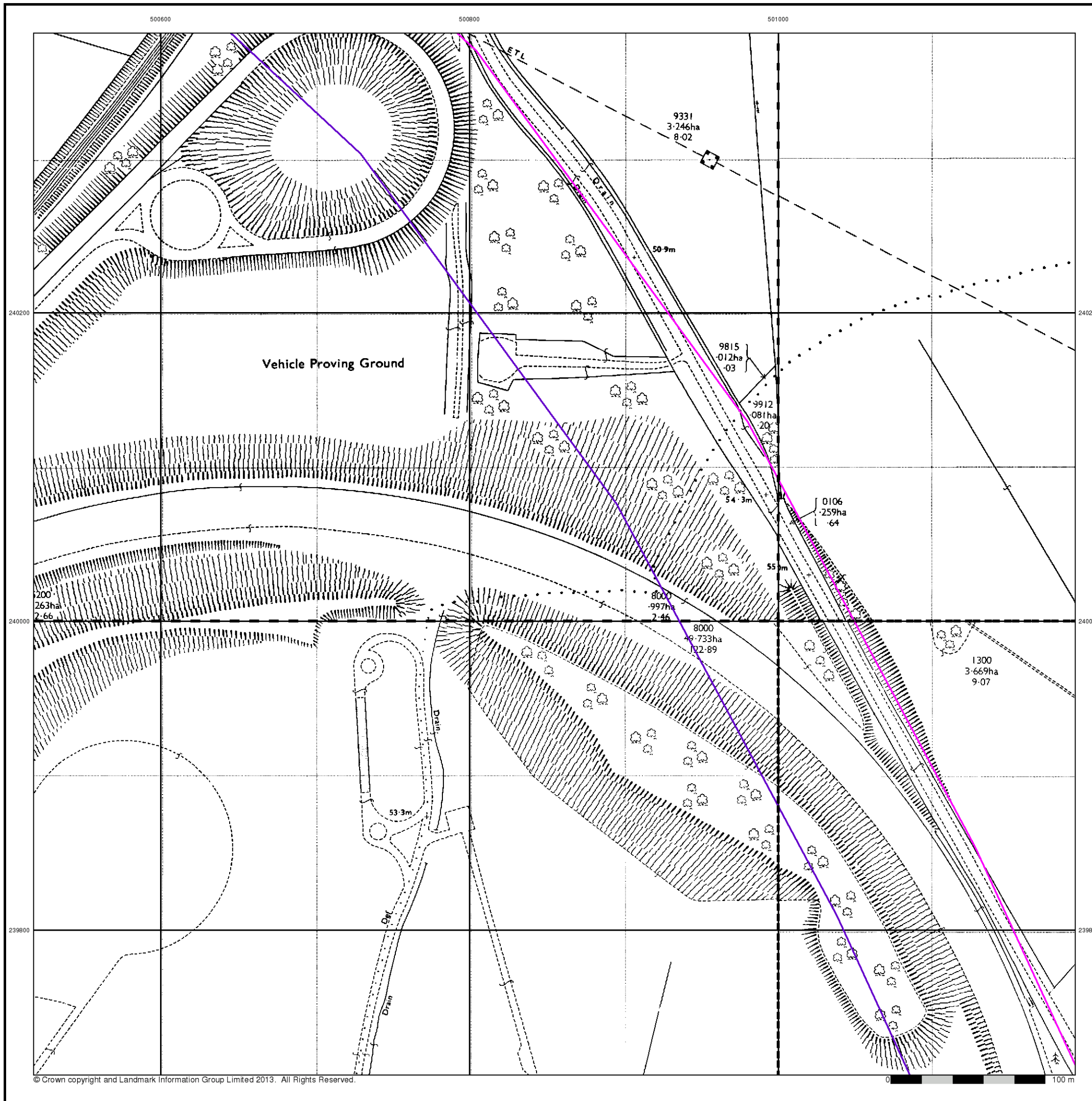


Order Details

Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501510, 239960
 Slice: A
 Site Area (Ha): 240.61
 Search Buffer (m): 100

Site Details

Millbrook Power Project, Green Lane, Stewartby





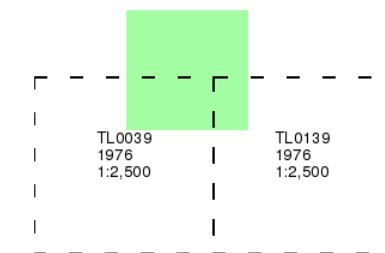
Supply of Unpublished Survey Information

Published 1976

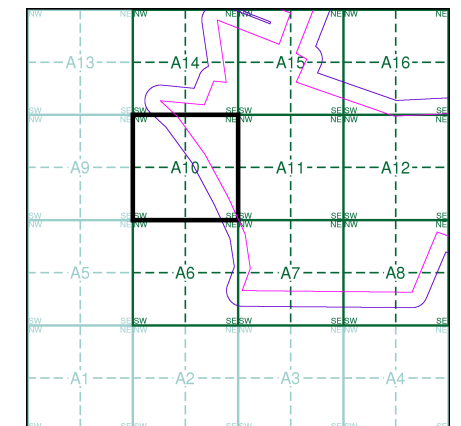
Source map scale - 1:2,500

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)



Historical Map - Segment A10



Order Details

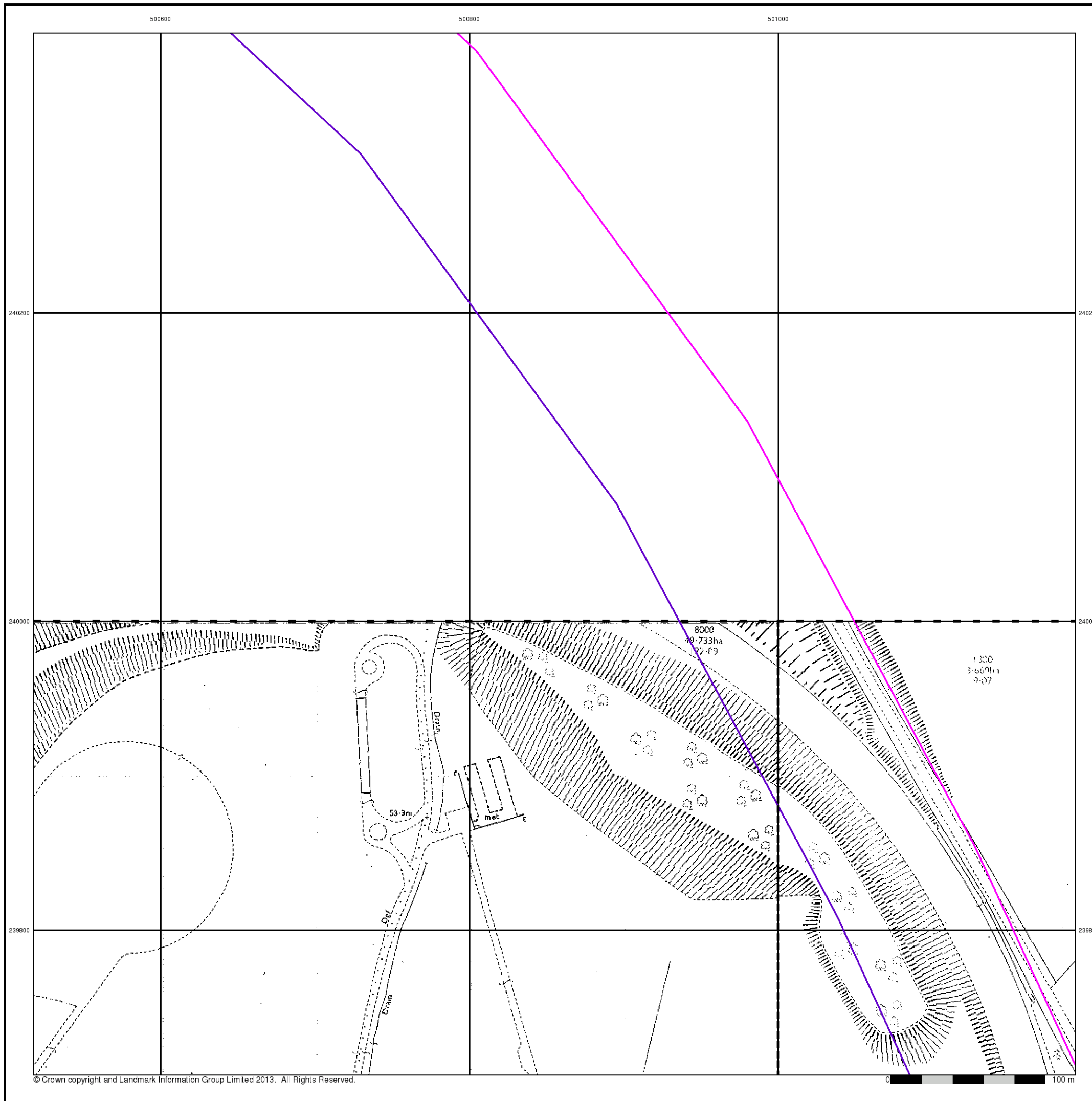
Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501510, 239960
 Slice: A
 Site Area (Ha): 240.61
 Search Buffer (m): 100

Site Details

Millbrook Power Project, Green Lane, Stewartby



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Large-Scale National Grid Data

Published 1993

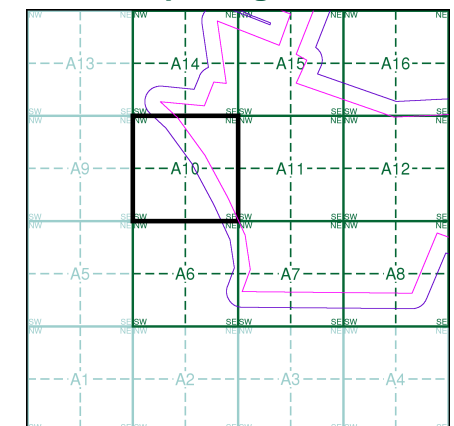
Source map scale - 1:2,500

'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)

| | |
|--------------------------|--------------------------|
| TL0040 1993 12,500 | TL0140 1993 12,500 |
| TL0039 1993 12,500 | TL0139 1993 12,500 |

Historical Map - Segment A10



Order Details

Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501510, 239960
 Slice: A
 Site Area (Ha): 240.61
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Historical Mapping Legends

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

Quarry **Gravel Pit** **Sand Pit**
Clay Pit **Shingle** **Refuse Heap**
Sloping Masonry **Flat Rock**
Marsh **Reeds** **Osiers**
Rough Pasture **Furze** **Wood**
Mixed Wood **Brushwood** **Orchard**
Fir **Ford** **Stepping Stones**
Ferry **Waterfall** **Lock**
Trig. Station **Altitude at Trig. Station**
B.M. 325.9 **Bench Mark** **Surface Level**
Arrow denotes flow of water **Antiquities (site of)**
Cutting **Embankment**
Railway crossing Road **Level Crossing** **Road crossing Railway**
Railway crossing River or Canal **Road over single stream** **Road over River or Canal**
County Boundary (Geographical)
County & Civil Parish Boundary
Administrative County & Civil Parish Boundary
County Borough Boundary (England)
County Burgh Boundary (Scotland)
Co. Boro. Bdy.
Co. Burgh Bdy.
BP BS Boundary Post or Stone **P.C.B** Police Call Box
B.R. Bridle Road **P** Pump
E.P Electricity Pylon **S.P** Signal Post
F.B. Foot Bridge **SL** Sluice
F.P. Foot Path **Sp.** Spring
G.P Guide Post or Board **T.C.B** Telephone Call Box
M.S Mile Stone **Tr.** Trough
M.P M.R Mooring Post or Ring **W** Well

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

Inactive Quarry, Chalk Pit or Clay Pit **Active Quarry, Chalk Pit or Clay Pit**
Rock **Boulders**
Cliff **Slopes** **Top**
Roofed Building **Glazed Roof Building**
Sloping Masonry **Archway**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Bench Mark** **Antiquity (site of)**
Cave Entrance **Triangulation Station** **Electricity Pylon**
Electricity Transmission Line
County Boundary (Geographical)
County & Civil Parish Boundary
Civil Parish Boundary
Admin. County or County Bor. Boundary
London Borough Boundary
Symbol marking point where boundary mereing changes
BH Beer House **P** Pillar, Pole or Post
BP, BS Boundary Post or Stone **PO** Post Office
Cn, C Capstan, Crane **PC** Public Convenience
Chy Chimney **PH** Public House
D Fn Drinking Fountain **Pp** Pump
EI P Electricity Pillar or Post **SB, S Br** Signal Box or Bridge
FAP Fire Alarm Pillar **SP, SL** Signal Post or Light
FB Foot Bridge **Spr** Spring
GP Guide Post **Tk** Tank or Track
H Hydrant or Hydraulic **TCB** Telephone Call Box
LC Level Crossing **TCP** Telephone Call Post
MH Manhole **Tr** Trough
MP Mile Post or Mooring Post **Wr Pt, Wr T** Water Point, Water Tap
MS Mile Stone **W** Well
NTL Normal Tidal Limit **Wd Pp** Wind Pump

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

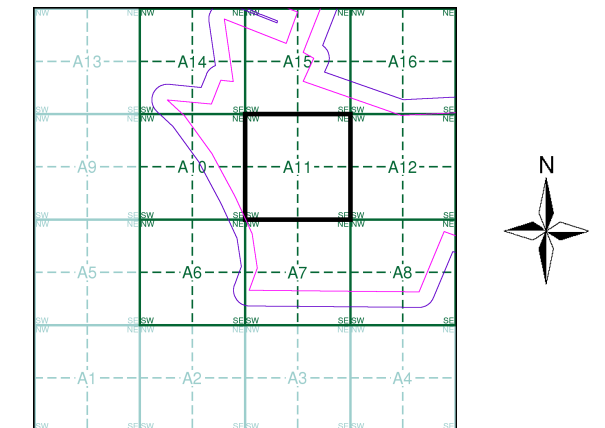
Cliff **Slopes** **Top**
Rock **Rock (scattered)**
Boulders **Boulders (scattered)**
Positioned Boulder **Scree**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Triangulation Station** **Antiquity (site of)**
Electricity Transmission Line **Electricity Pylon**
B.M. 231.60m Bench Mark **Buildings with Building Seed**
Roofed Building **Glazed Roof Building**
Civil parish/community boundary
District boundary
County boundary
Boundary post/stone
Boundary mereing symbol (note: these always appear in opposed pairs or groups of three)
Bks Barracks **P** Pillar, Pole or Post
Bty Battery **PO** Post Office
Cemy Cemetery **PC** Public Convenience
Chy Chimney **Pp** Pump
Cis Cistern **Ppg Sta** Pumping Station
Dismtd Rly Dismantled Railway **PW** Place of Worship
EI Gen Sta Electricity Generating Station **Sewage Ppg Sta** Sewage Pumping Station
EI P Electricity Pole, Pillar **SB, S Br** Signal Box or Bridge
EI Sub Sta Electricity Sub Station **SP, SL** Signal Post or Light
FB Filter Bed **Spr** Spring
Fn / D Fn Fountain / Drinking Ftn. **Tk** Tank or Track
Gas Gov Gas Valve Compound **Tr** Trough
GVC Gas Governor **Wd Pp** Wind Pump
GP Guide Post **Wr Pt, Wr T** Water Point, Water Tap
MH Manhole **Wks** Works (building or area)
MP, MS Mile Post or Mile Stone **W** Well



Historical Mapping & Photography included:

| Mapping Type | Scale | Date | Pg |
|--|---------|-------------|----|
| Bedfordshire | 1:2,500 | 1883 | 2 |
| Bedfordshire | 1:2,500 | 1901 | 3 |
| Bedfordshire | 1:2,500 | 1925 | 4 |
| Ordnance Survey Plan | 1:2,500 | 1972 - 1976 | 5 |
| Supply of Unpublished Survey Information | 1:2,500 | 1976 | 6 |
| Large-Scale National Grid Data | 1:2,500 | 1993 | 7 |

Historical Map - Segment A11



Order Details

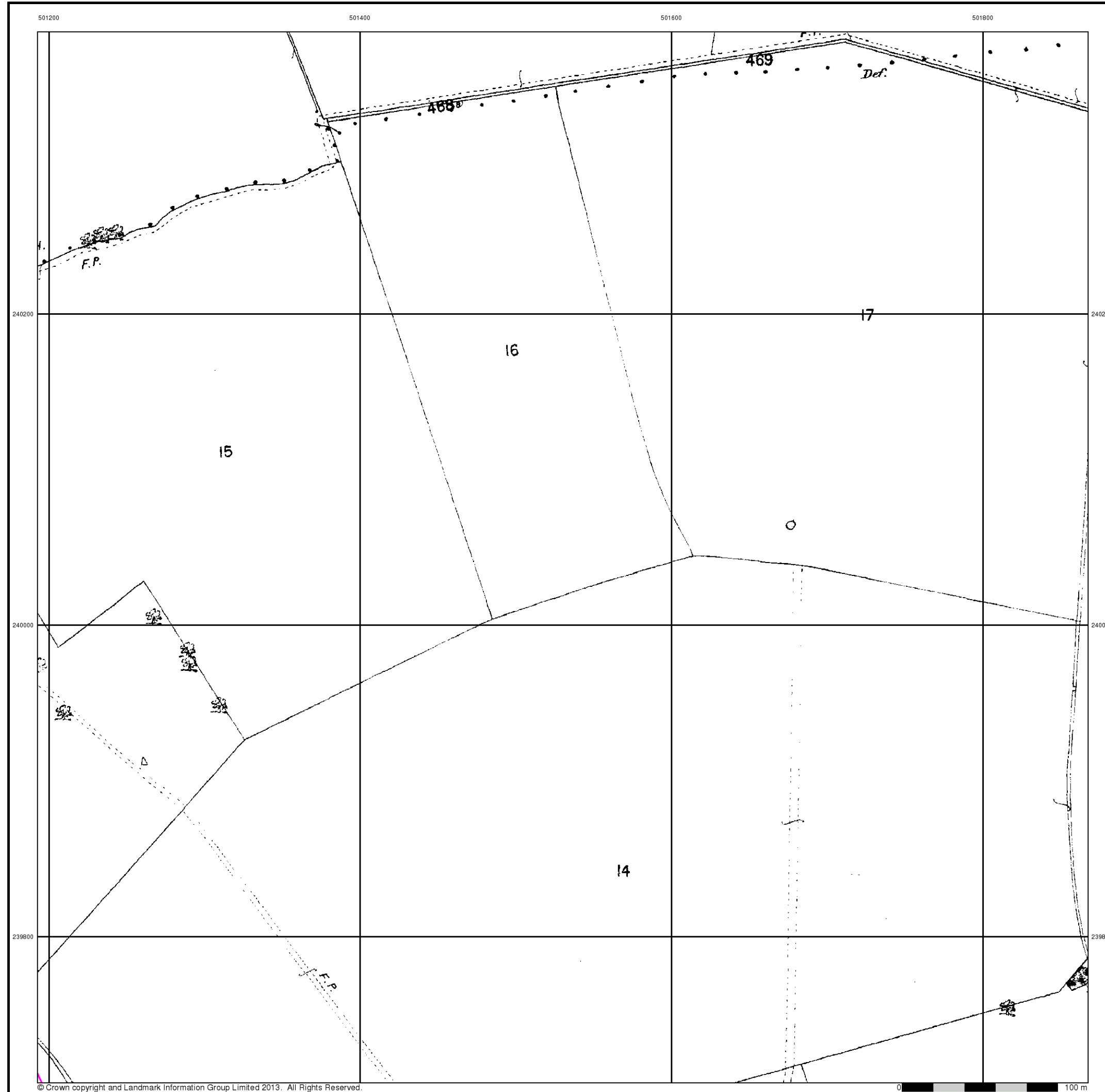
Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501510, 239960
 Slice: A
 Site Area (Ha): 240.61
 Search Buffer (m): 100

Site Details

Millbrook Power Project, Green Lane, Stewartby



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



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0 100 m

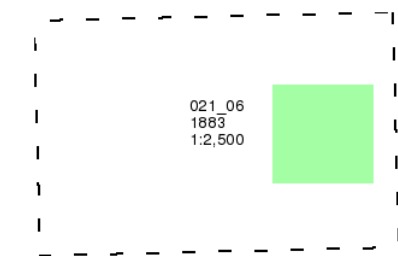


Bedfordshire
Published 1883

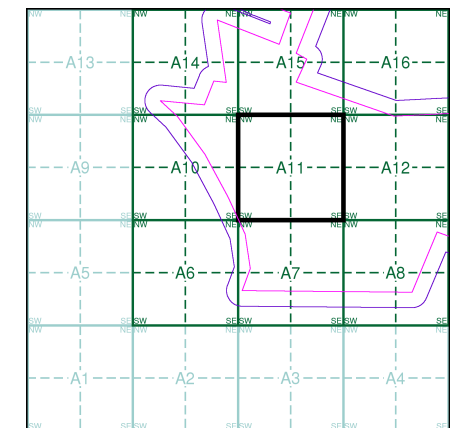
Source map scale - 1:2,500

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 A11



Order Details

Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501510, 239960
 Slice: A
 Site Area (Ha): 240.61
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Site Details

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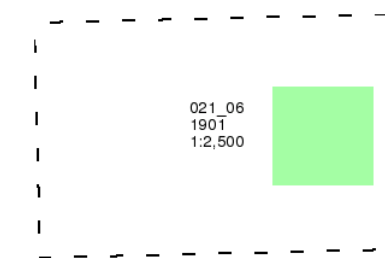
Bedfordshire

Published 1901

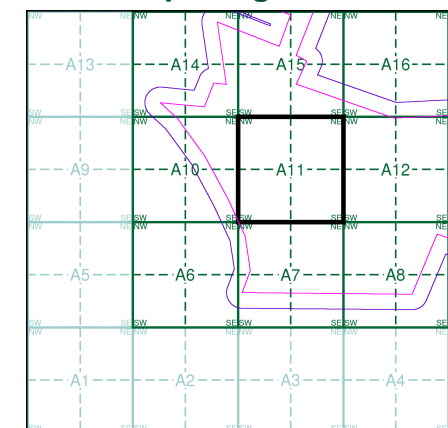
Source map scale - 1:2,500

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 A11



Order Details

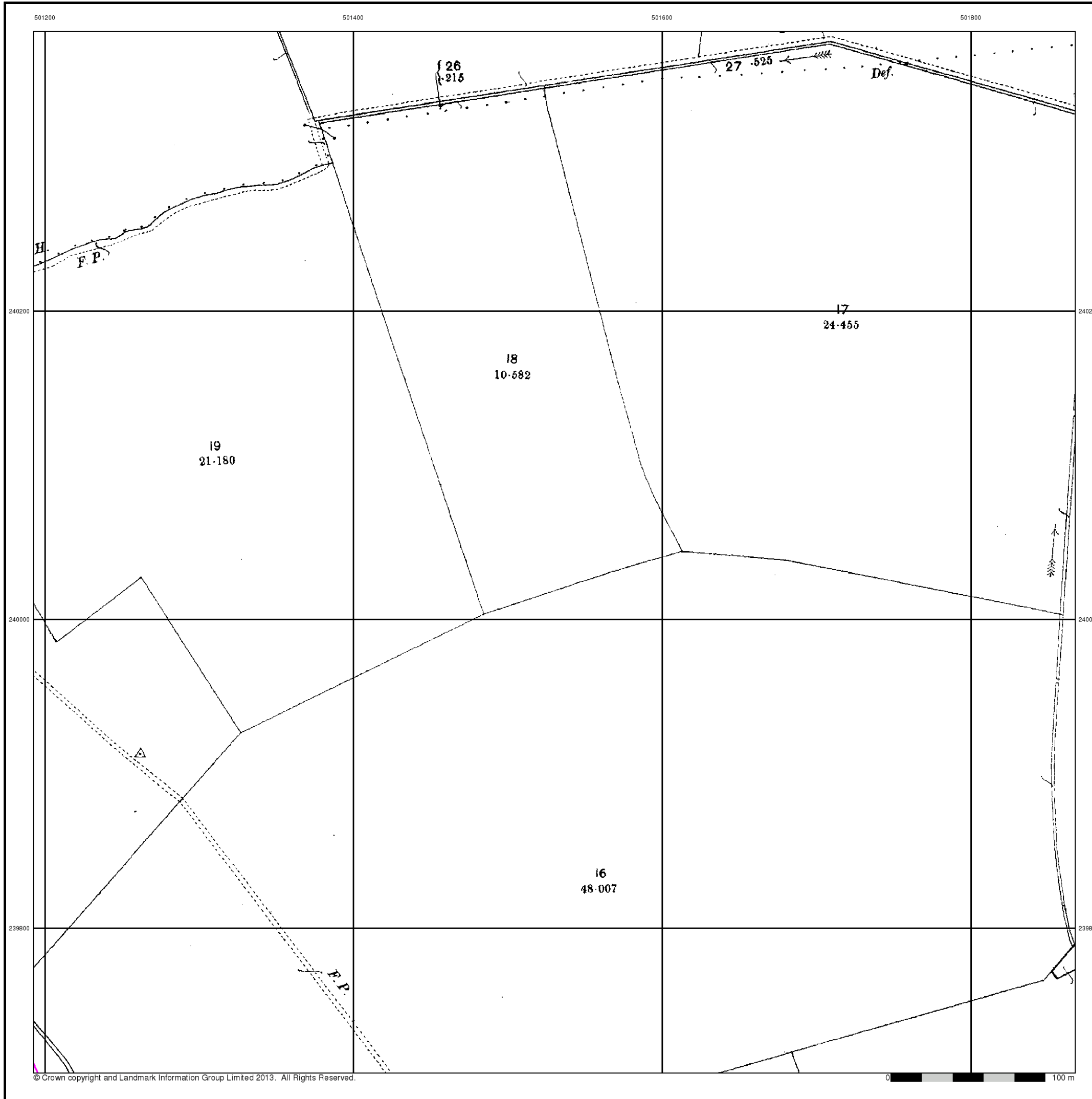
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Customer Ref: 31116
National Grid Reference: 501510, 239960
Slice: A
Site Area (Ha): 240.61
Search Buffer (m): 100

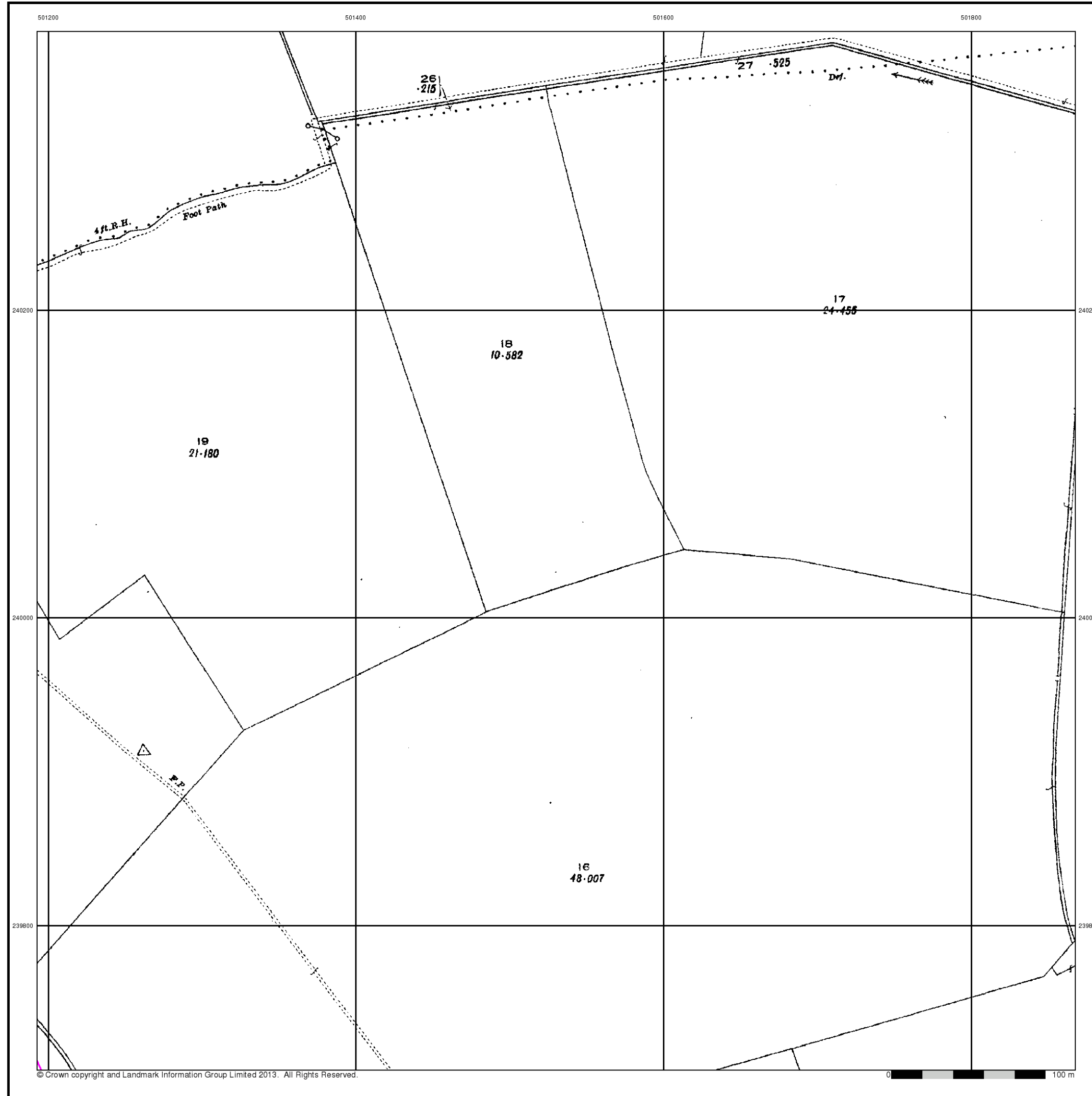
Site Details

Millbrook Power Project, Green Lane, Stewartby



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





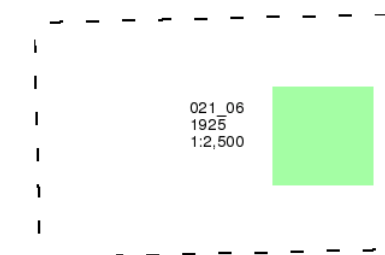
Bedfordshire

Published 1925

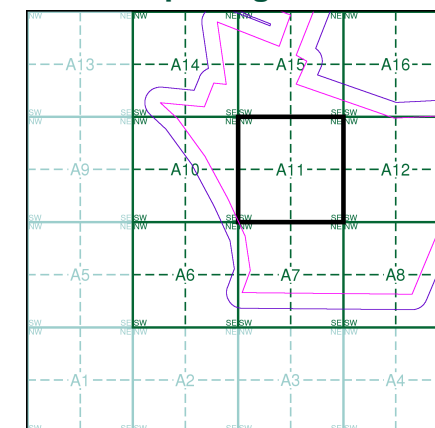
Source map scale - 1:2,500

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 A11



Order Details

Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501510, 239960
 Slice: A
 Site Area (Ha): 240.61
 Search Buffer (m): 100

Site Details

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Ordnance Survey Plan

Published 1972 - 1976

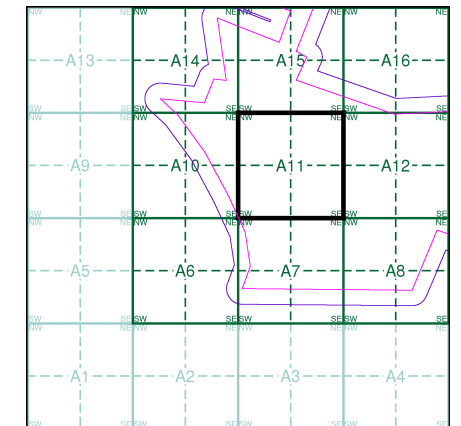
Source map scale - 1:2,500

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)

| |
|---------|
| TL0140 |
| 1976 |
| 1:2,500 |
| TL0139 |
| 1972 |
| 1:2,500 |

Historical Map - Segment A11



Order Details

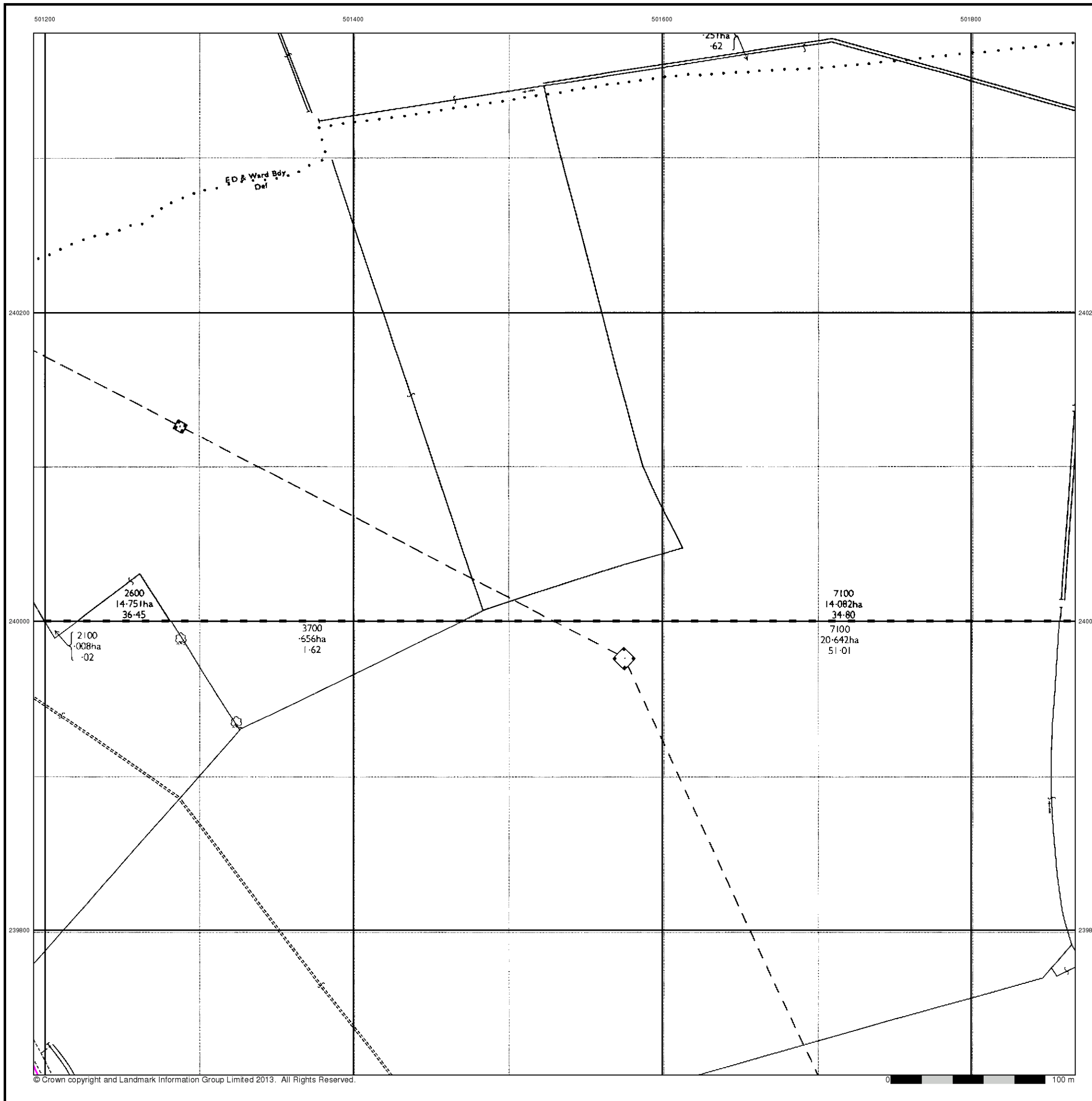
Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501510, 239960
 Slice: A
 Site Area (Ha): 240.61
 Search Buffer (m): 100

Site Details

Millbrook Power Project, Green Lane, Stewartby



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501200

501400

501600

501800



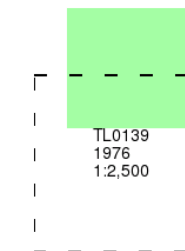
Supply of Unpublished Survey Information

Published 1976

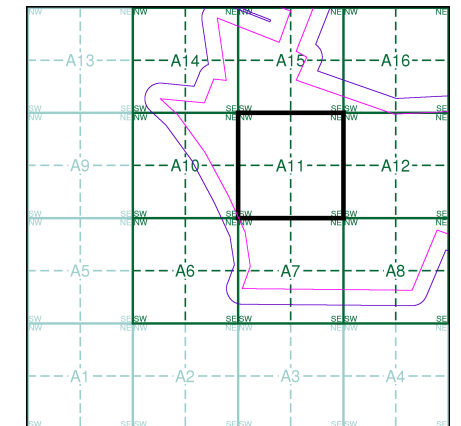
Source map scale - 1:2,500

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)



Historical Map - Segment A11



Order Details

Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501510, 239960
 Slice: A
 Site Area (Ha): 240.61
 Search Buffer (m): 100

Site Details

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 Web: www.envirocheck.co.uk

240200

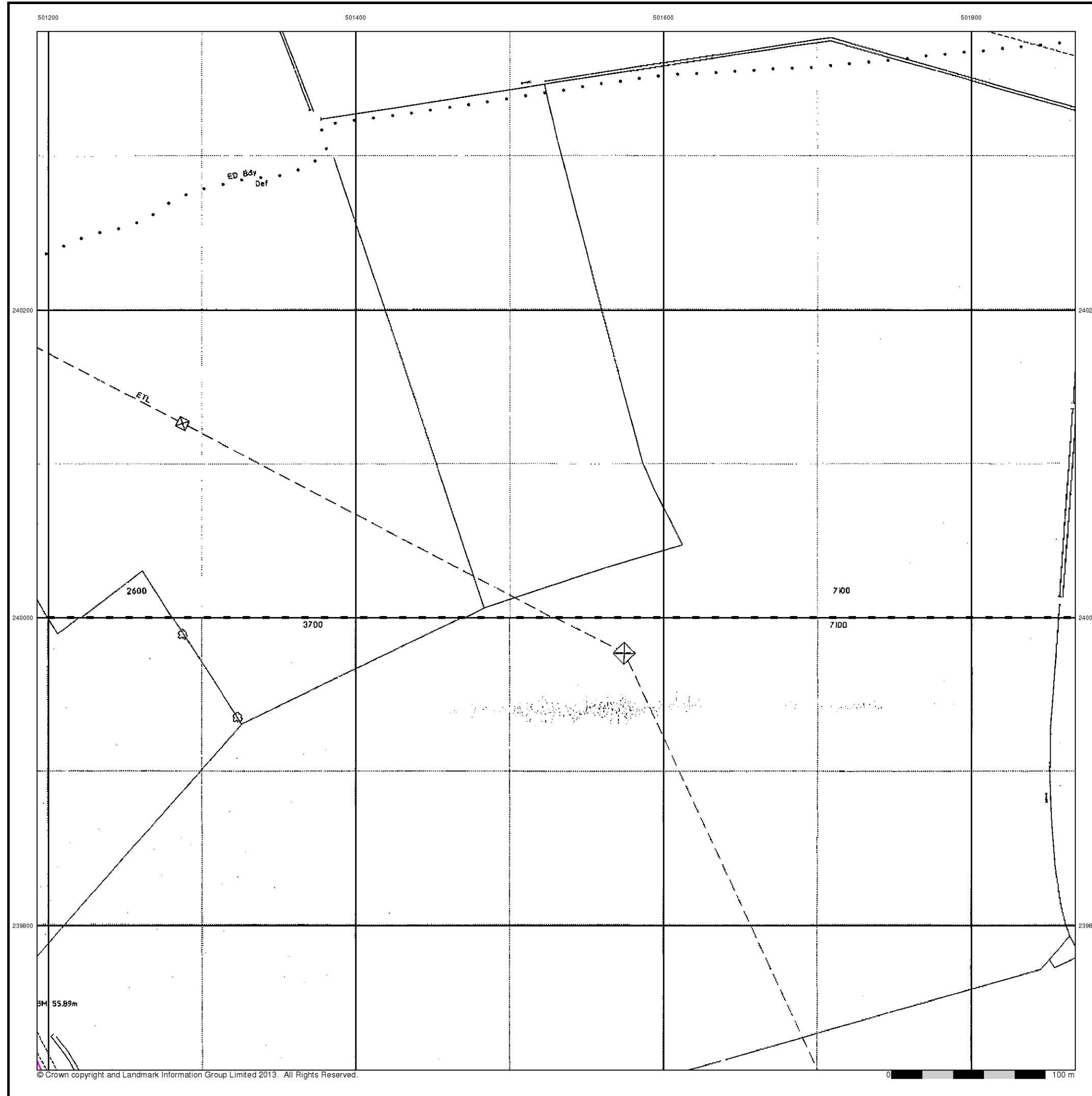
240200

240000

240000

239800

239800



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Large-Scale National Grid Data

Published 1993

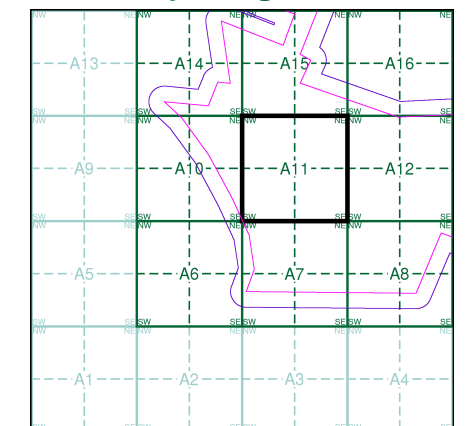
Source map scale - 1:2,500

'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)

| | | |
|--------|------|---------|
| TL0140 | 1993 | 1:2,500 |
| TL0139 | 1993 | 1:2,500 |

Historical Map - Segment A11



Order Details

Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501510, 239960
 Slice: A
 Site Area (Ha): 240.61
 Search Buffer (m): 100

Site Details

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Historical Mapping Legends

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

Quarry **Gravel Pit** **Sand Pit**
Clay Pit **Shingle** **Refuse Heap**
Sloping Masonry **Flat Rock**
Marsh **Reeds** **Osiers**
Rough Pasture **Furze** **Wood**
Mixed Wood **Brushwood** **Orchard**
Fir **Ford** **Stepping Stones**
Ferry **Waterfall** **Lock**
Trig. Station **Altitude at Trig. Station**
B.M. 325.9 **Bench Mark** **Surface Level**
Arrow denotes flow of water **Antiquities (site of)**
Cutting **Embankment**
Railway crossing Road **Level Crossing** **Road crossing Railway**
Railway crossing River or Canal **Road over single stream** **Road over River or Canal**
County Boundary (Geographical)
County & Civil Parish Boundary
Administrative County & Civil Parish Boundary
County Borough Boundary (England)
County Burgh Boundary (Scotland)
Co. Boro. Bdy.
Co. Burgh Bdy.
BP BS Boundary Post or Stone **P.C.B** Police Call Box
B.R. Bridle Road **P** Pump
E.P Electricity Pylon **S.P** Signal Post
F.B. Foot Bridge **SL** Sluice
F.P. Foot Path **Sp.** Spring
G.P Guide Post or Board **T.C.B** Telephone Call Box
M.S Mile Stone **Tr.** Trough
M.P M.R Mooring Post or Ring **W** Well

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

Inactive Quarry, Chalk Pit or Clay Pit **Active Quarry, Chalk Pit or Clay Pit**
Rock **Boulders**
Cliff **Slopes** **Top**
Roofed Building **Glazed Roof Building**
Sloping Masonry **Archway**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Bench Mark** **Antiquity (site of)**
Cave Entrance **Triangulation Station** **Electricity Pylon**
Electricity Transmission Line
County Boundary (Geographical)
County & Civil Parish Boundary
Civil Parish Boundary
Admin. County or County Bor. Boundary
London Borough Boundary
Symbol marking point where boundary mereing changes
BH Beer House **P** Pillar, Pole or Post
BP, BS Boundary Post or Stone **PO** Post Office
Cn, C Capstan, Crane **PC** Public Convenience
Chy Chimney **PH** Public House
D Fn Drinking Fountain **Pp** Pump
EI P Electricity Pillar or Post **SB, S Br** Signal Box or Bridge
FAP Fire Alarm Pillar **SP, SL** Signal Post or Light
FB Foot Bridge **Spr** Spring
GP Guide Post **Tk** Tank or Track
H Hydrant or Hydraulic **TCB** Telephone Call Box
LC Level Crossing **TCP** Telephone Call Post
MH Manhole **Tr** Trough
MP Mile Post or Mooring Post **Wr Pt, Wr T** Water Point, Water Tap
MS Mile Stone **W** Well
NTL Normal Tidal Limit **Wd Pp** Wind Pump

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

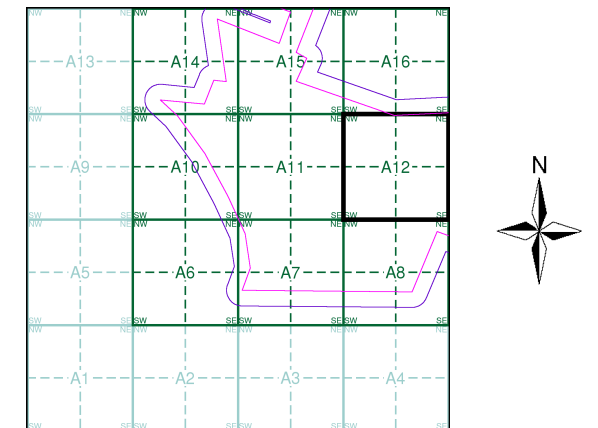
Cliff **Slopes** **Top**
Rock **Rock (scattered)**
Boulders **Boulders (scattered)**
Positioned Boulder **Scree**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Triangulation Station** **Antiquity (site of)**
Electricity Transmission Line **Electricity Pylon**
B.M. 231.60m Bench Mark **Buildings with Building Seed**
Roofed Building **Glazed Roof Building**
Civil parish/community boundary
District boundary
County boundary
Boundary post/stone
Boundary mereing symbol (note: these always appear in opposed pairs or groups of three)
Bks Barracks **P** Pillar, Pole or Post
Bty Battery **PO** Post Office
Cemy Cemetery **PC** Public Convenience
Chy Chimney **Pp** Pump
Cis Cistern **Ppg Sta** Pumping Station
Dismtd Rly Dismantled Railway **PW** Place of Worship
EI Gen Sta Electricity Generating Station **Sewage Ppg Sta** Sewage Pumping Station
EI P Electricity Pole, Pillar **SB, S Br** Signal Box or Bridge
EI Sub Sta Electricity Sub Station **SP, SL** Signal Post or Light
FB Filter Bed **Spr** Spring
Fn / D Fn Fountain / Drinking Ftn. **Tk** Tank or Track
Gas Gov Gas Valve Compound **Tr** Trough
GVC Gas Governor **Wd Pp** Wind Pump
GP Guide Post **Wr Pt, Wr T** Water Point, Water Tap
MH Manhole **Wks** Works (building or area)
MP, MS Mile Post or Mile Stone **W** Well



Historical Mapping & Photography included:

| Mapping Type | Scale | Date | Pg |
|--|---------|-------------|----|
| Bedfordshire | 1:2,500 | 1883 | 2 |
| Bedfordshire | 1:2,500 | 1901 | 3 |
| Bedfordshire | 1:2,500 | 1925 | 4 |
| Ordnance Survey Plan | 1:2,500 | 1972 - 1976 | 5 |
| Supply of Unpublished Survey Information | 1:2,500 | 1976 | 6 |
| Large-Scale National Grid Data | 1:2,500 | 1993 | 7 |

Historical Map - Segment A12



Order Details

Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501510, 239960
 Slice: A
 Site Area (Ha): 240.61
 Search Buffer (m): 100

Site Details

Millbrook Power Project, Green Lane, Stewartby



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

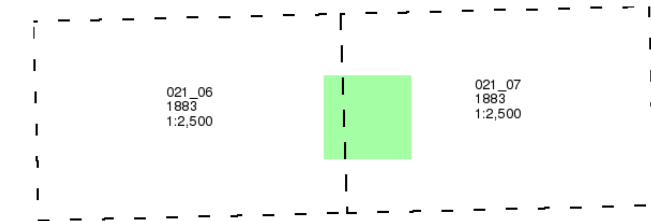


Bedfordshire
Published 1883

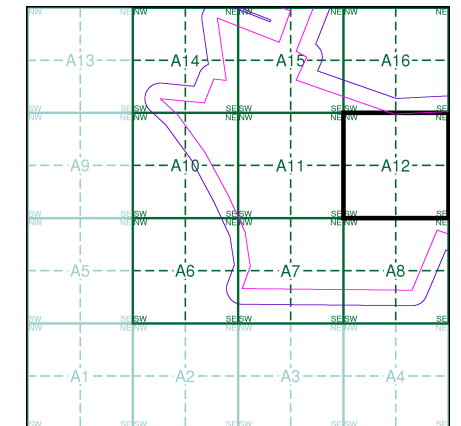
Source map scale - 1:2,500

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 A12



Order Details

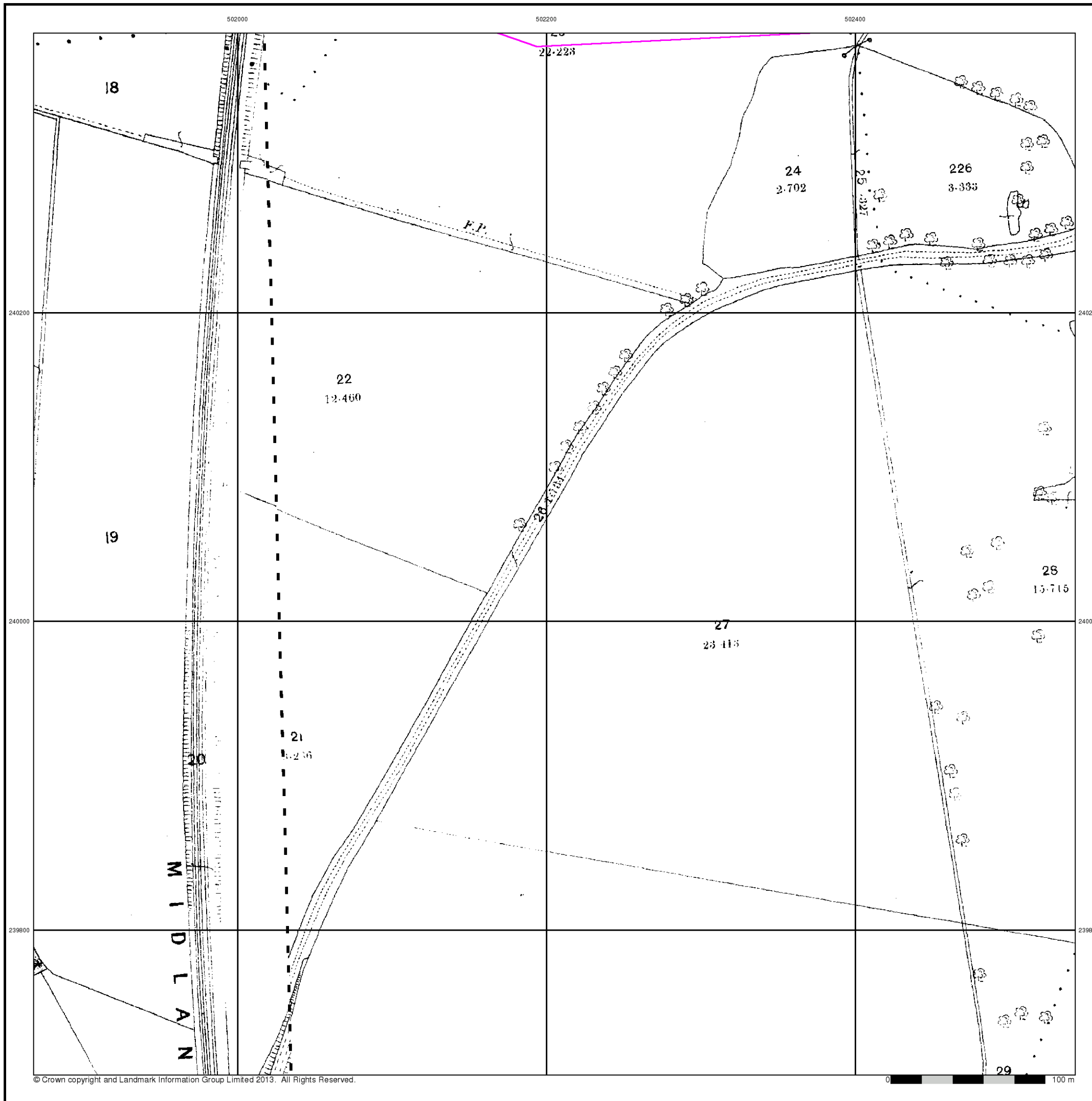
Order Number: 60770728_1_1
Customer Ref: 31116
National Grid Reference: 501510, 239960
Slice: A
Site Area (Ha): 240.61
Search Buffer (m): 100

Site Details

Millbrook Power Project, Green Lane, Stewartby

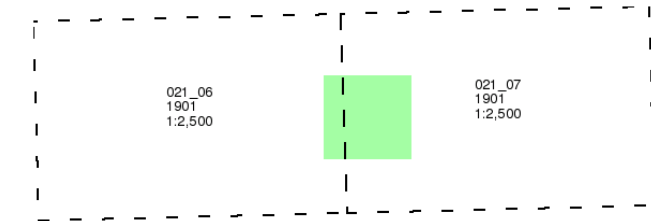


Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

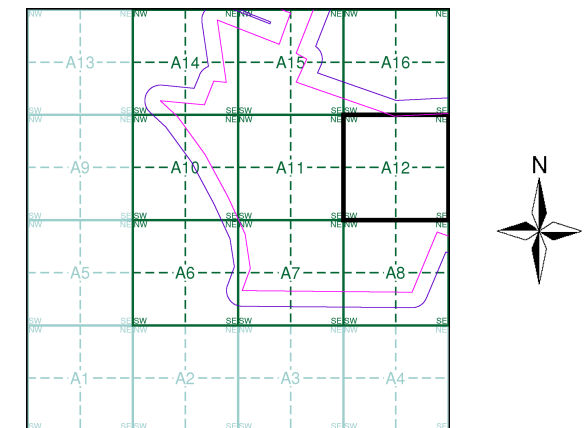


The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. 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 A12

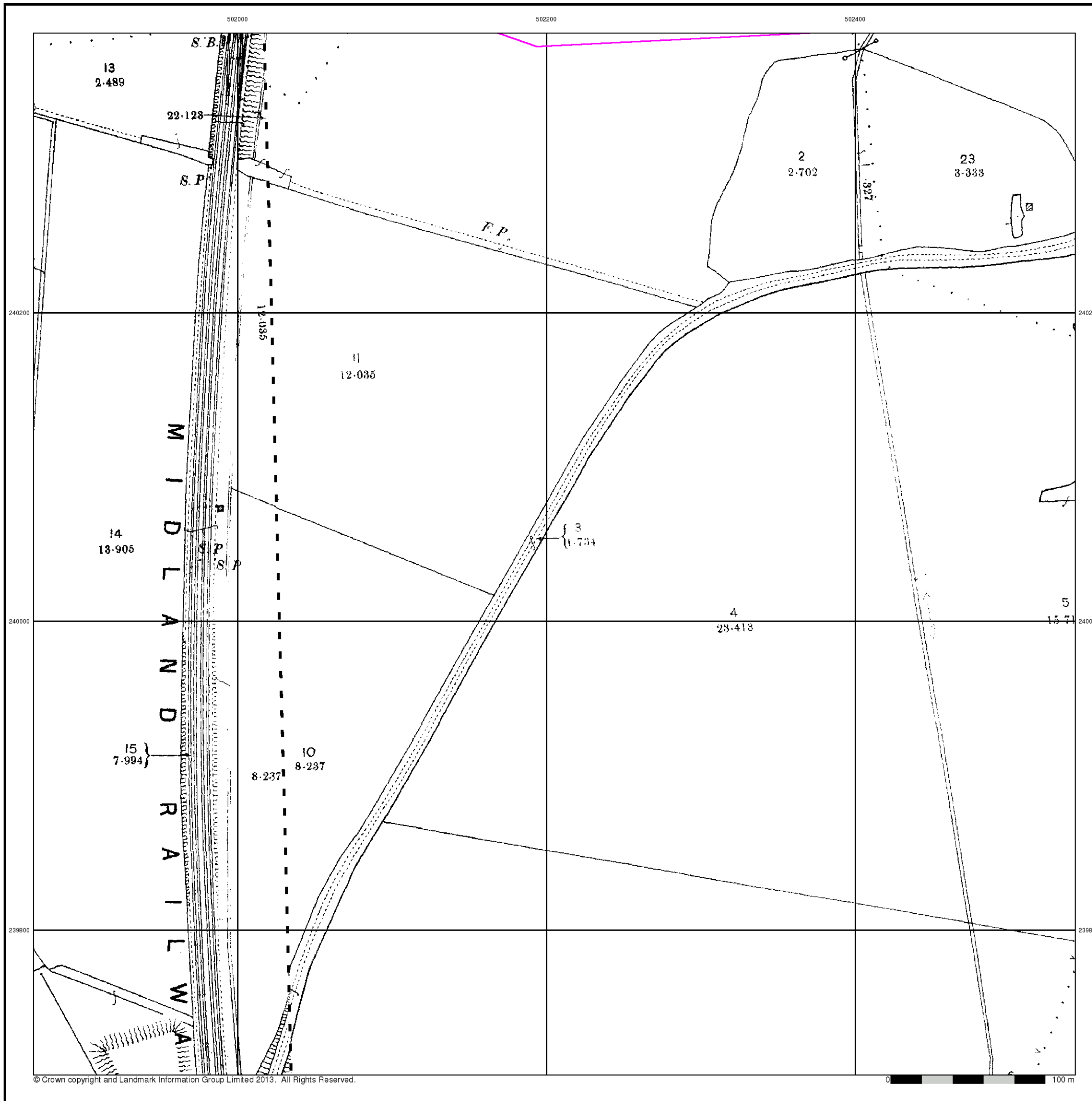


Order Details

Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501510, 239960
 Slice: A
 Site Area (Ha): 240.61
 Search Buffer (m): 100

Site Details

Millbrook Power Project, Green Lane, Stewartby



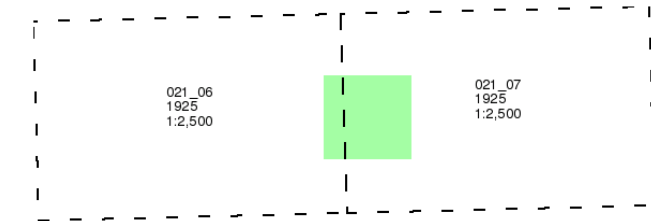


Bedfordshire
Published 1925

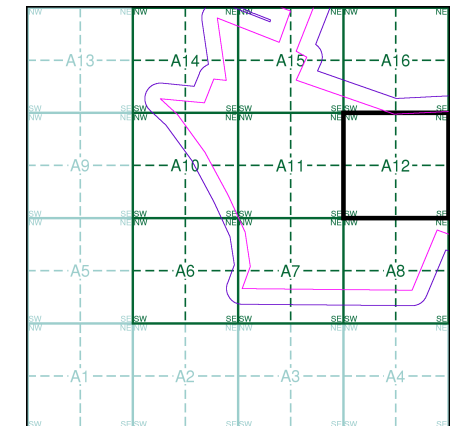
Source map scale - 1:2,500

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 A12



Order Details

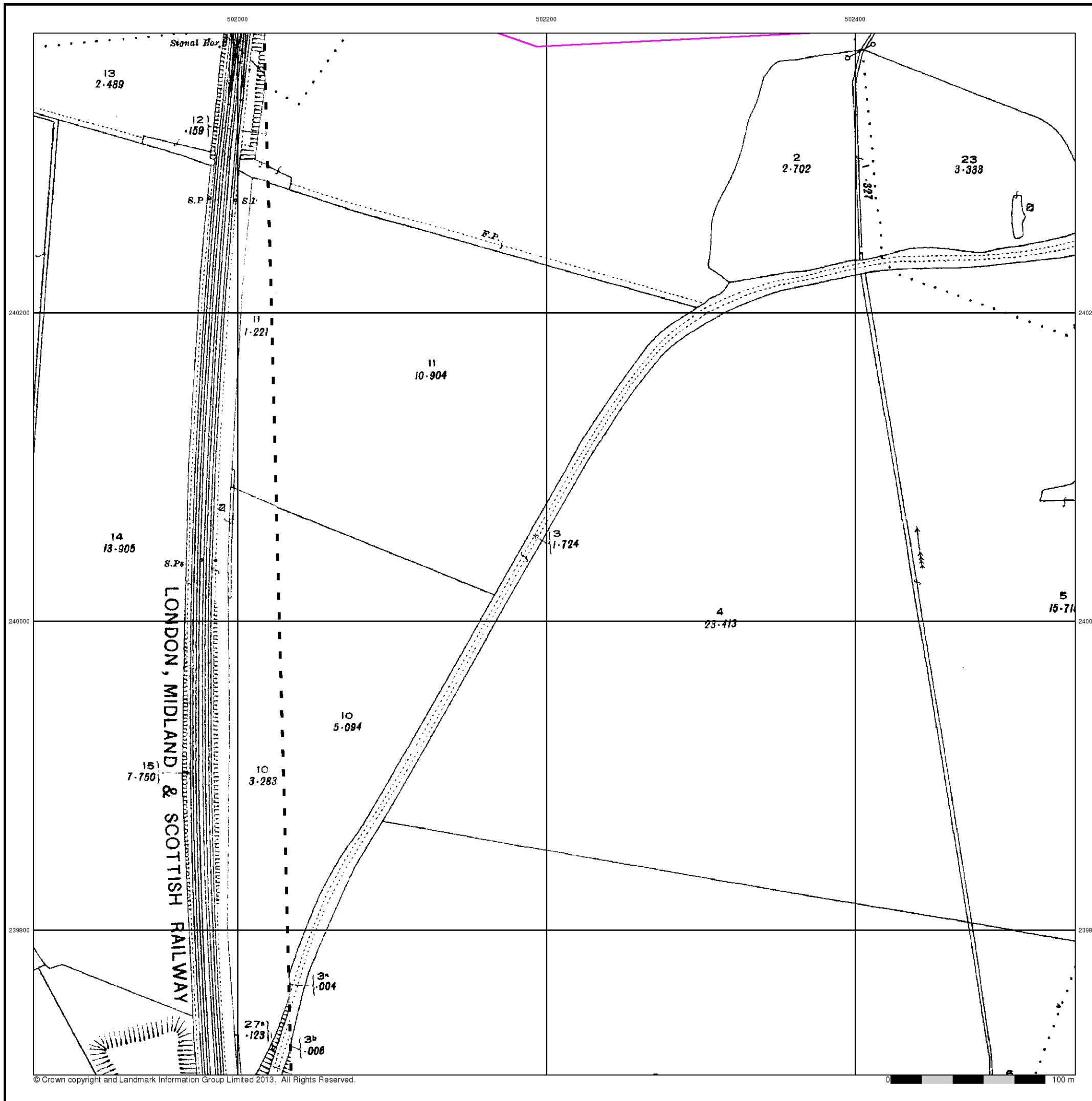
Order Number: 60770728_1_1
Customer Ref: 31116
National Grid Reference: 501510, 239960
Slice: A
Site Area (Ha): 240.61
Search Buffer (m): 100

Site Details

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Ordnance Survey Plan

Published 1972 - 1976

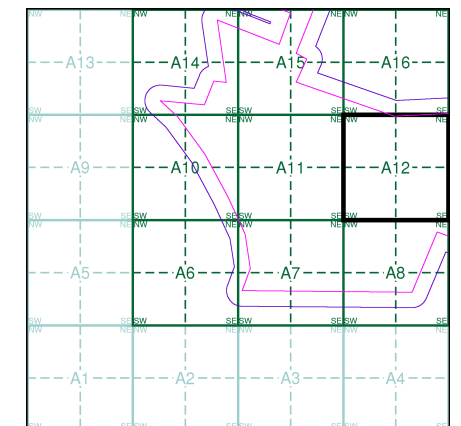
Source map scale - 1:2,500

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)

| | |
|--------------------------|--------------------------|
| TL0140 1976 12,500 | TL0240 1975 12,500 |
| TL0139 1972 12,500 | TL0239 1972 12,500 |

Historical Map - Segment A12

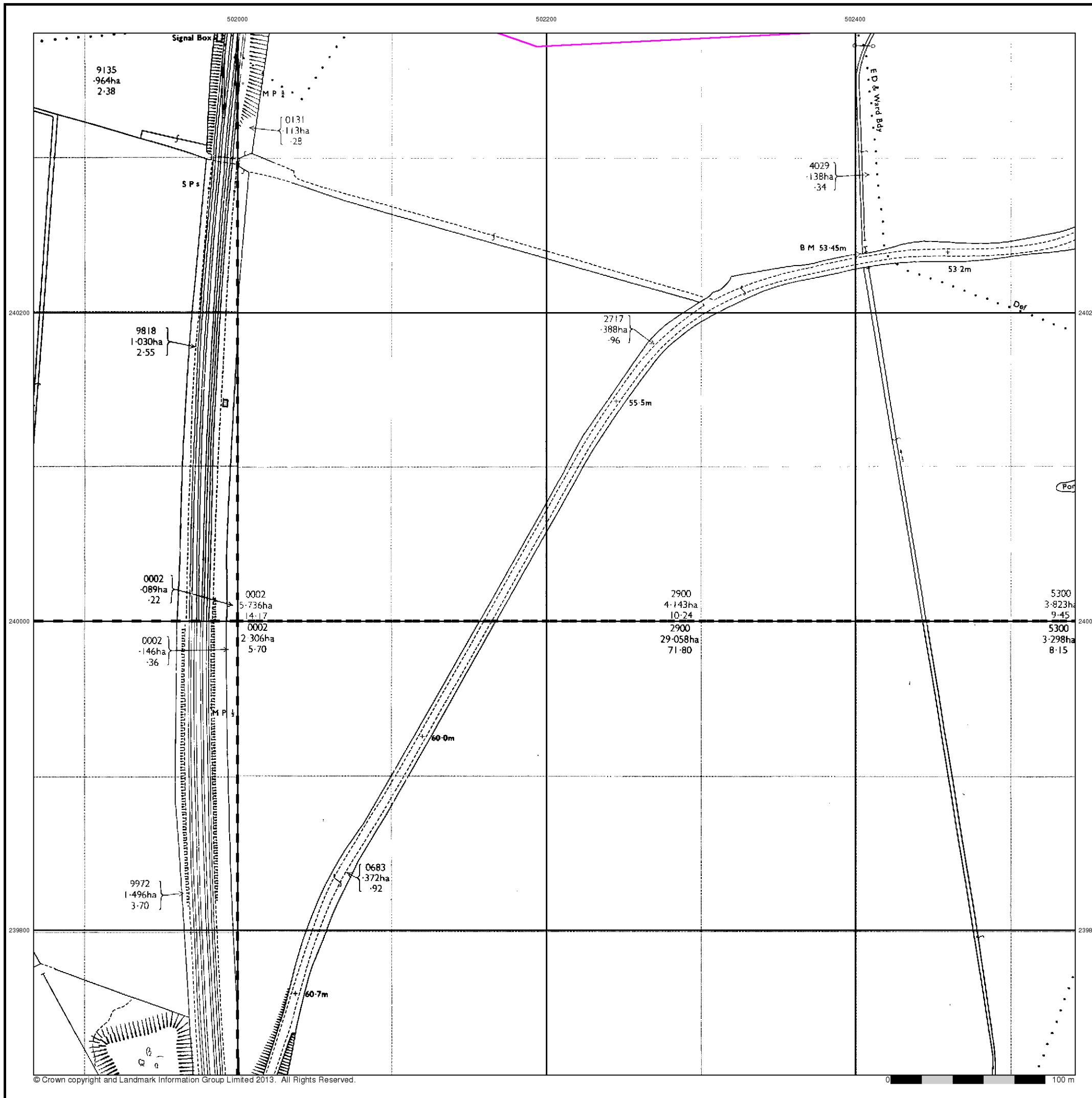


Order Details

Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501510, 239960
 Slice: A
 Site Area (Ha): 240.61
 Search Buffer (m): 100

Site Details

Millbrook Power Project, Green Lane, Stewartby





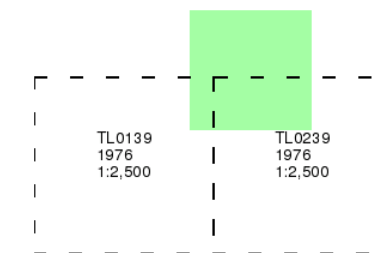
Supply of Unpublished Survey Information

Published 1976

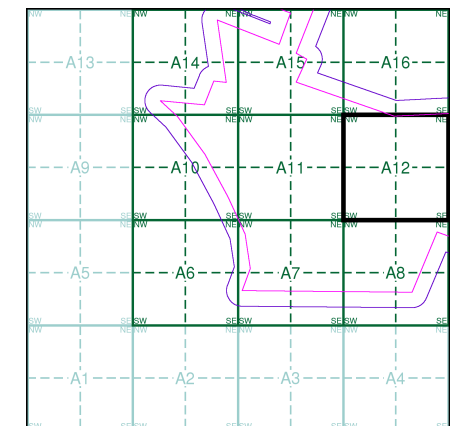
Source map scale - 1:2,500

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)



Historical Map - Segment A12



Order Details

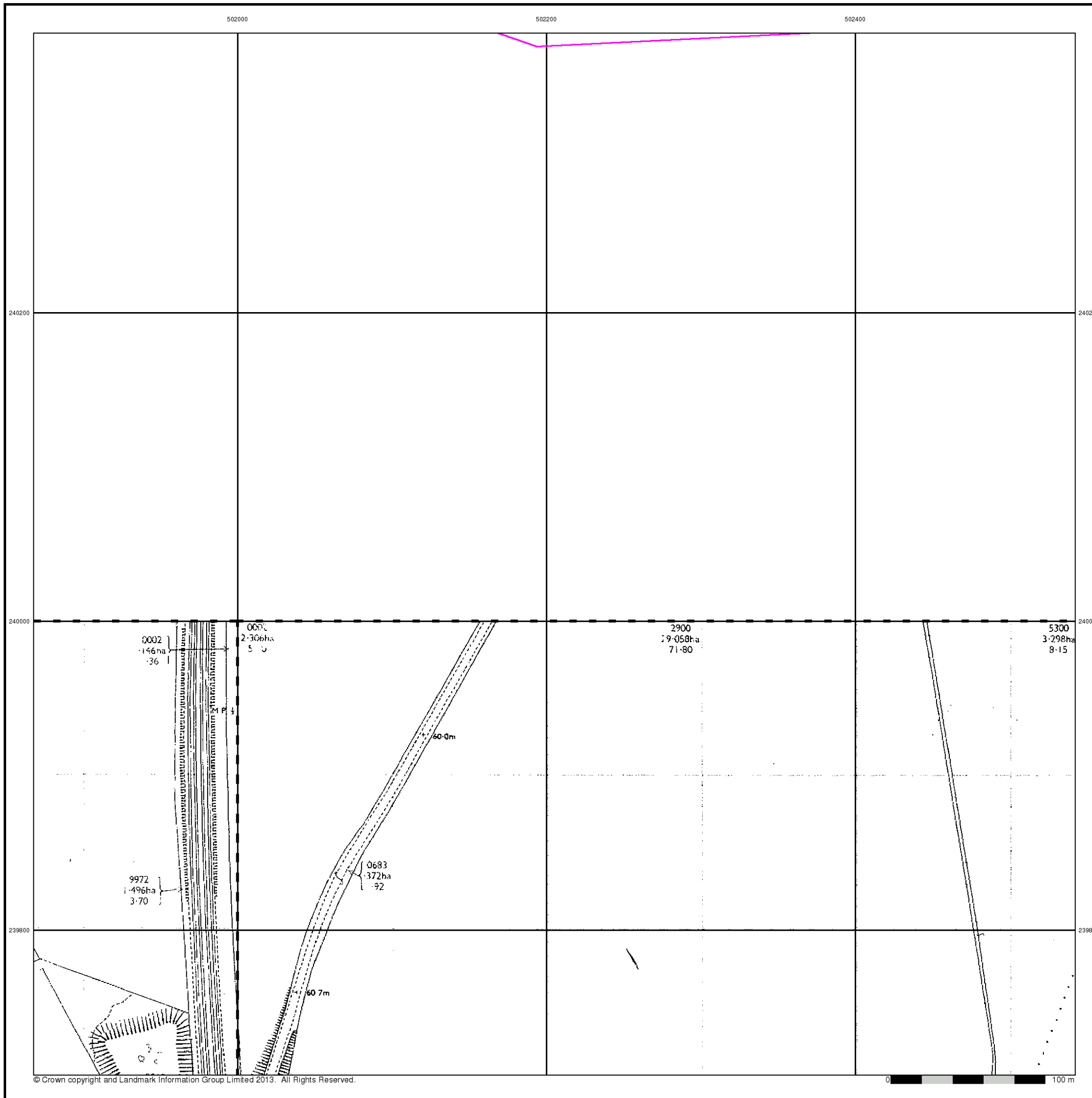
Order Number: 60770728_1_1
Customer Ref: 31116
National Grid Reference: 501510, 239960
Slice: A
Site Area (Ha): 240.61
Search Buffer (m): 100

Site Details

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Large-Scale National Grid Data

Published 1993

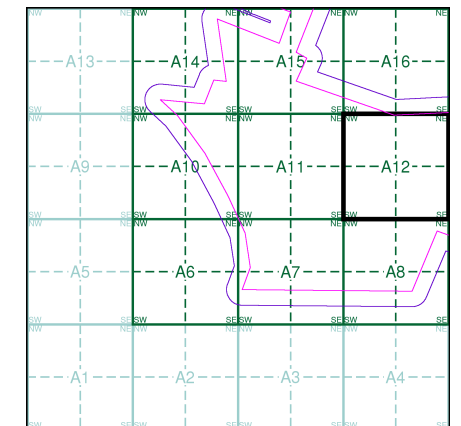
Source map scale - 1:2,500

'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)

| | |
|---------------------------|---------------------------|
| TL0140 1993 1:2,500 | TL0240 1993 1:2,500 |
| TL0139 1993 1:2,500 | TL0239 1993 1:2,500 |

Historical Map - Segment A12



Order Details

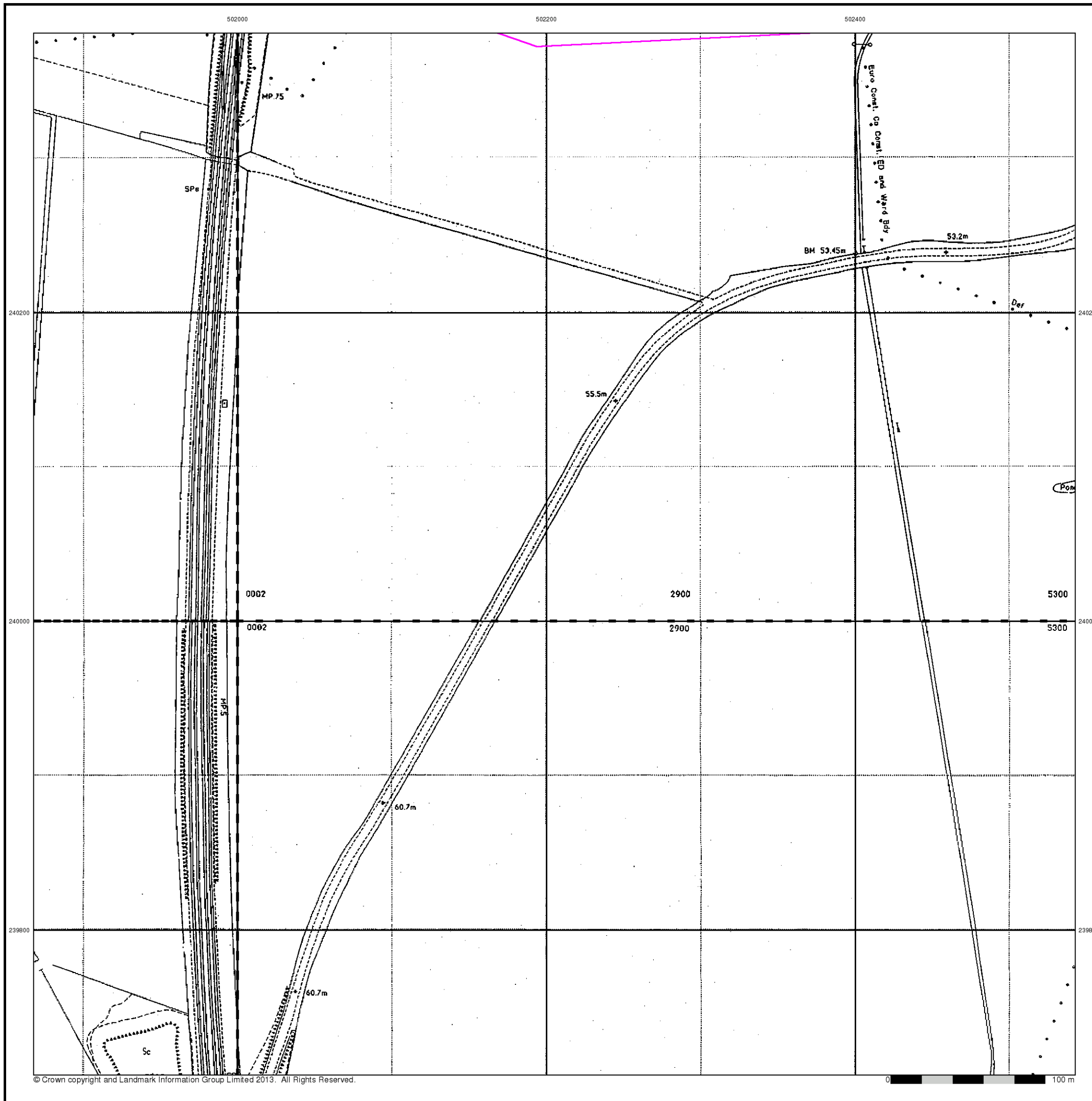
Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501510, 239960
 Slice: A
 Site Area (Ha): 240.61
 Search Buffer (m): 100

Site Details

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Historical Mapping Legends

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

Quarry **Gravel Pit** **Sand Pit**
Clay Pit **Shingle** **Refuse Heap**
Sloping Masonry **Flat Rock**
Marsh **Reeds** **Osiers**
Rough Pasture **Furze** **Wood**
Mixed Wood **Brushwood** **Orchard**
Fir **Ford** **Stepping Stones**
Ferry **Waterfall** **Lock**
Trig. Station **Altitude at Trig. Station**
B.M. 325.9 **Bench Mark** **Surface Level**
Arrow denotes flow of water **Antiquities (site of)**
Cutting **Embankment**
Railway crossing Road **Level Crossing** **Road crossing Railway**
Railway crossing River or Canal **Road over single stream** **Road over River or Canal**
County Boundary (Geographical)
County & Civil Parish Boundary
Administrative County & Civil Parish Boundary
County Borough Boundary (England)
County Burgh Boundary (Scotland)
Co. Boro. Bdy.
Co. Burgh Bdy.
BP BS Boundary Post or Stone **P.C.B** Police Call Box
B.R. Bridle Road **P** Pump
E.P Electricity Pylon **S.P** Signal Post
F.B. Foot Bridge **SL** Sluice
F.P. Foot Path **Sp.** Spring
G.P Guide Post or Board **T.C.B** Telephone Call Box
M.S Mile Stone **Tr.** Trough
M.P M.R Mooring Post or Ring **W** Well

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

Inactive Quarry, Chalk Pit or Clay Pit **Active Quarry, Chalk Pit or Clay Pit**
Rock **Boulders**
Cliff **Slopes** **Top**
Roofed Building **Glazed Roof Building**
Sloping Masonry **Archway**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Bench Mark** **Antiquity (site of)**
Cave Entrance **Triangulation Station** **Electricity Pylon**
Electricity Transmission Line
County Boundary (Geographical)
County & Civil Parish Boundary
Civil Parish Boundary
Admin. County or County Bor. Boundary
London Borough Boundary
Symbol marking point where boundary mereing changes
BH Beer House **P** Pillar, Pole or Post
BP, BS Boundary Post or Stone **PO** Post Office
Cn, C Capstan, Crane **PC** Public Convenience
Chy Chimney **PH** Public House
D Fn Drinking Fountain **Pp** Pump
EI P Electricity Pillar or Post **SB, S Br** Signal Box or Bridge
FAP Fire Alarm Pillar **SP, SL** Signal Post or Light
FB Foot Bridge **Spr** Spring
GP Guide Post **Tk** Tank or Track
H Hydrant or Hydraulic **TCB** Telephone Call Box
LC Level Crossing **TCP** Telephone Call Post
MH Manhole **Tr** Trough
MP Mile Post or Mooring Post **Wr Pt, Wr T** Water Point, Water Tap
MS Mile Stone **W** Well
NTL Normal Tidal Limit **Wd Pp** Wind Pump

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

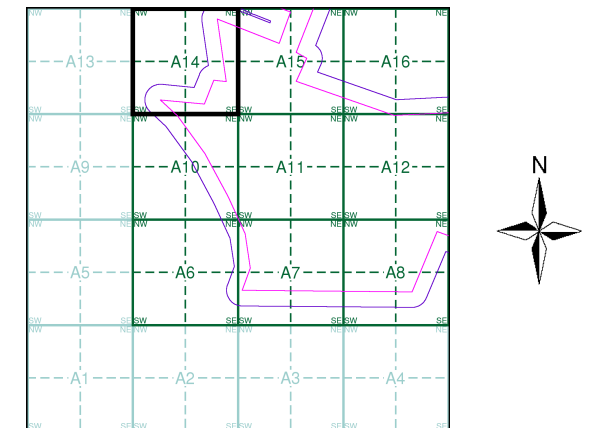
Cliff **Slopes** **Top**
Rock **Rock (scattered)**
Boulders **Boulders (scattered)**
Positioned Boulder **Scree**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Triangulation Station** **Antiquity (site of)**
Electricity Transmission Line **Electricity Pylon**
B.M. 231.60m Bench Mark **Buildings with Building Seed**
Roofed Building **Glazed Roof Building**
Civil parish/community boundary
District boundary
County boundary
Boundary post/stone
Boundary mereing symbol (note: these always appear in opposed pairs or groups of three)
Bks Barracks **P** Pillar, Pole or Post
Bty Battery **PO** Post Office
Cemy Cemetery **PC** Public Convenience
Chy Chimney **Pp** Pump
Cis Cistern **Ppg Sta** Pumping Station
Dismtd Rly Dismantled Railway **PW** Place of Worship
EI Gen Sta Electricity Generating Station **Sewage Ppg Sta** Sewage Pumping Station
EI P Electricity Pole, Pillar **SB, S Br** Signal Box or Bridge
EI Sub Sta Electricity Sub Station **SP, SL** Signal Post or Light
FB Filter Bed **Spr** Spring
Fn / D Fn Fountain / Drinking Ftn. **Tk** Tank or Track
Gas Gov Gas Valve Compound **Tr** Trough
GVC Gas Governor **Wd Pp** Wind Pump
GP Guide Post **Wr Pt, Wr T** Water Point, Water Tap
MH Manhole **Wks** Works (building or area)
MP, MS Mile Post or Mile Stone **W** Well



Historical Mapping & Photography included:

| Mapping Type | Scale | Date | Pg |
|--------------------------------|---------|------|----|
| Bedfordshire | 1:2,500 | 1883 | 2 |
| Bedfordshire | 1:2,500 | 1901 | 3 |
| Bedfordshire | 1:2,500 | 1925 | 4 |
| Ordnance Survey Plan | 1:2,500 | 1976 | 5 |
| Large-Scale National Grid Data | 1:2,500 | 1993 | 6 |

Historical Map - Segment A14



Order Details

Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501510, 239960
 Slice: A
 Site Area (Ha): 240.61
 Search Buffer (m): 100

Site Details

Millbrook Power Project, Green Lane, Stewartby



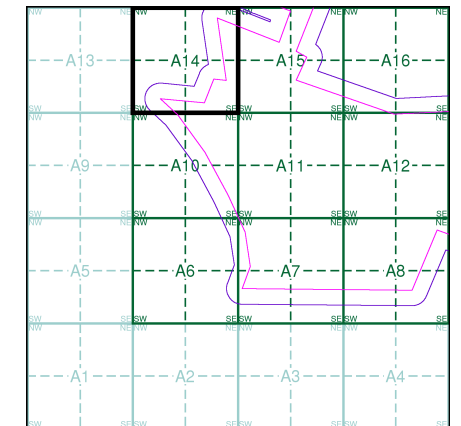
Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk

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)

| |
|---------|
| 021_02 |
| 1883 |
| 1:2,500 |
| 021_06 |
| 1883 |
| 1:2,500 |

Historical Map - Segment A14

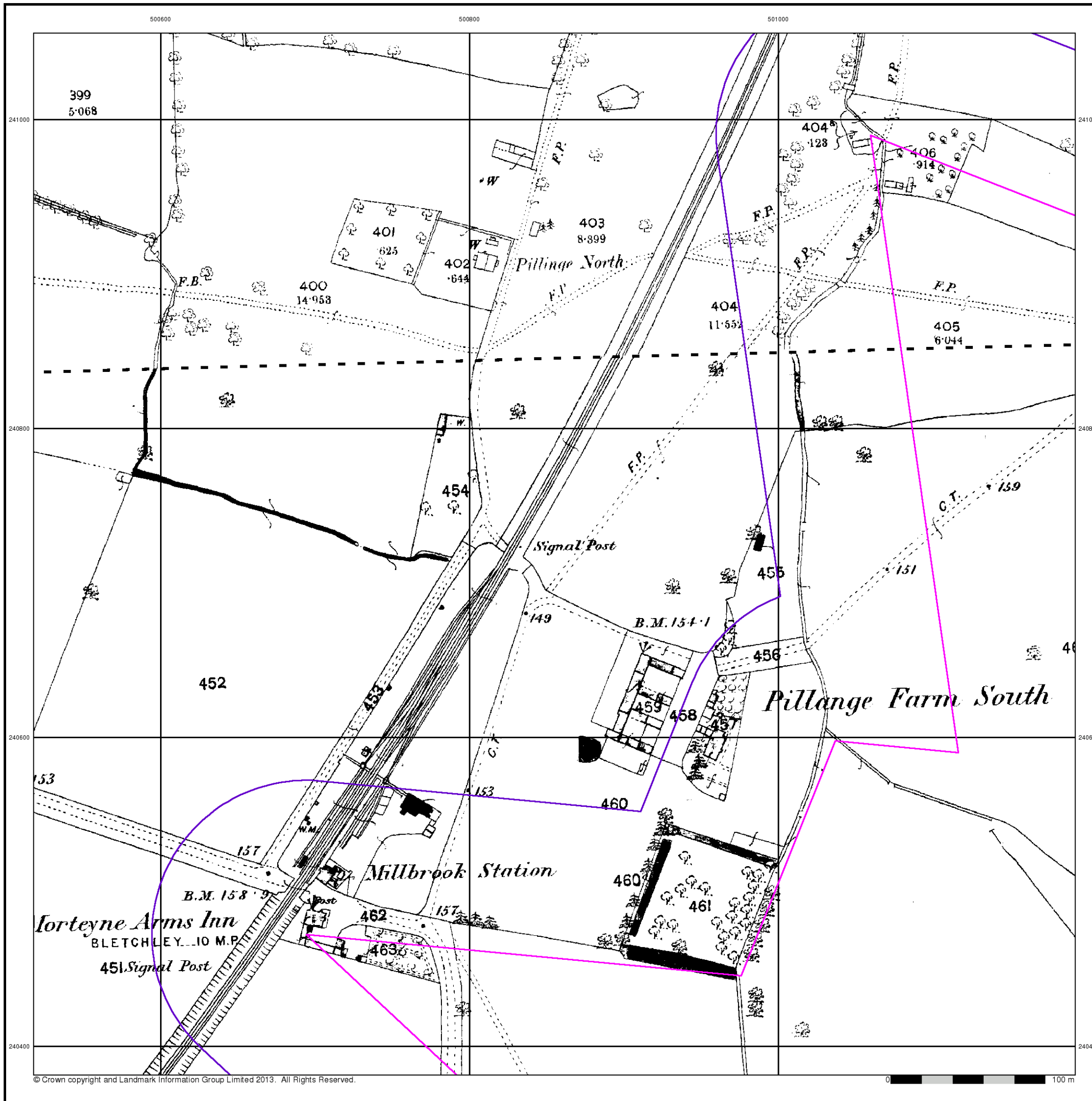


Order Details

Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501510, 239960
 Slice: A
 Site Area (Ha): 240.61
 Search Buffer (m): 100

Site Details

Millbrook Power Project, Green Lane, Stewartby

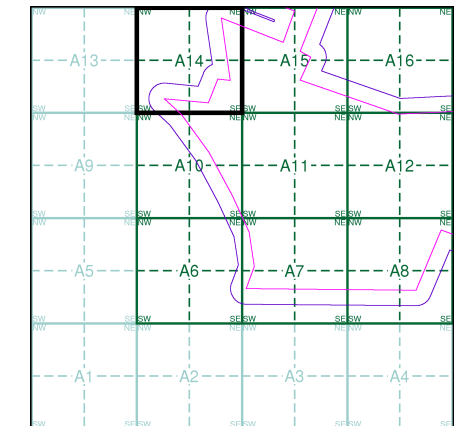


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Map Name(s) and Date(s)

| |
|---------|
| 021_02 |
| 1901 |
| 1:2,500 |
| 021_06 |
| 1901 |
| 1:2,500 |

Historical Map - Segment A14

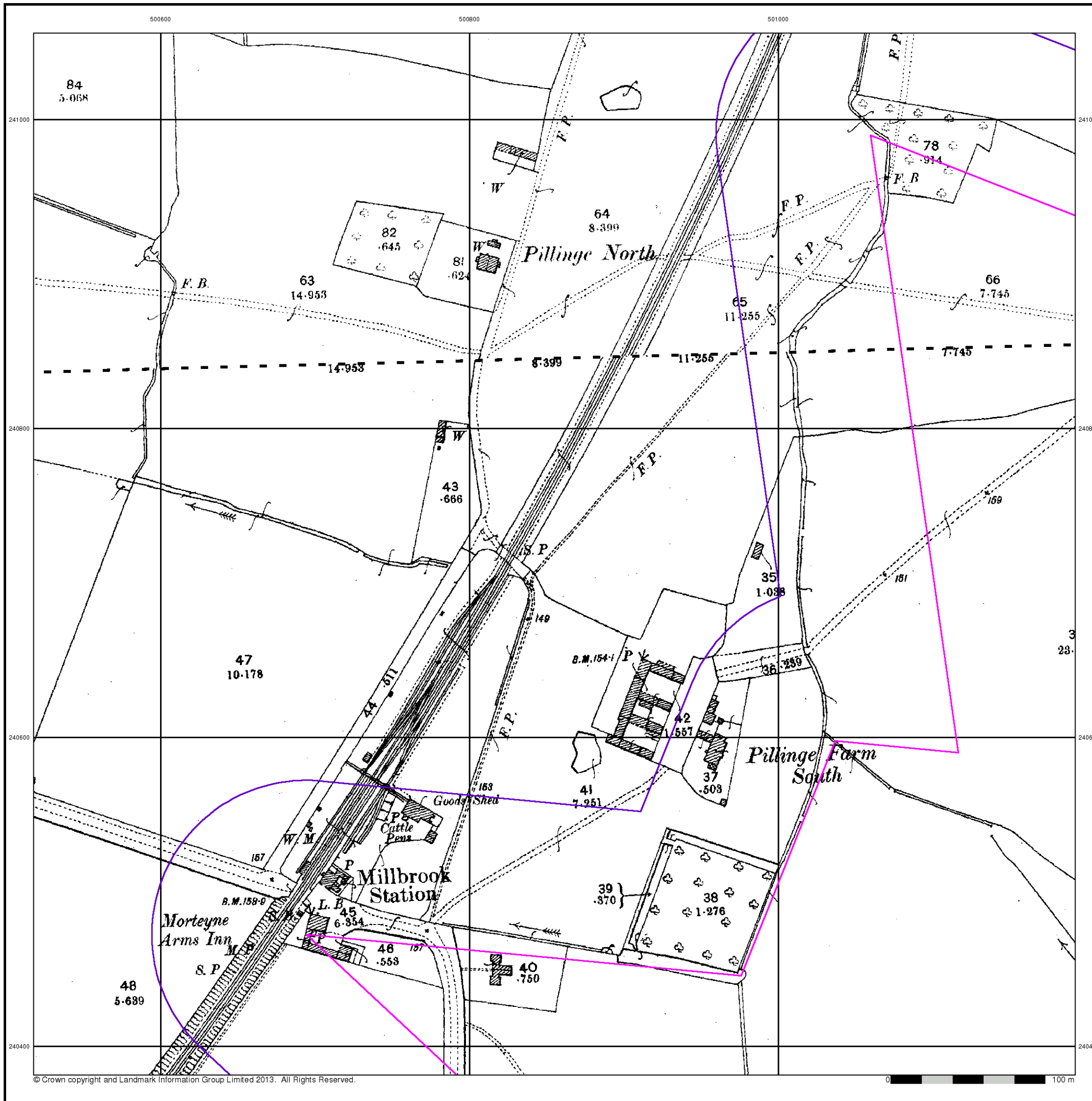


Order Details

Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501510, 239960
 Slice: A
 Site Area (Ha): 240.61
 Search Buffer (m): 100

Site Details

Millbrook Power Project, Green Lane, Stewartby

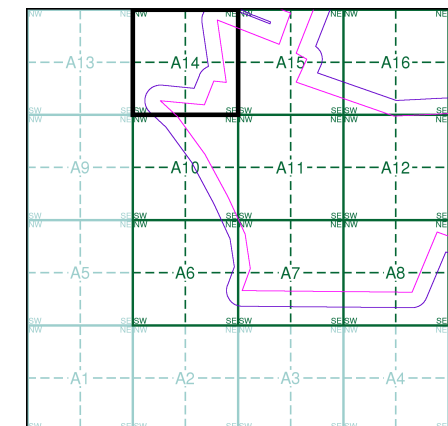


The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. 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)

| |
|---------|
| 021_02 |
| 1925 |
| 1:2,500 |
| 021_06 |
| 1925 |
| 1:2,500 |

Historical Map - Segment A14

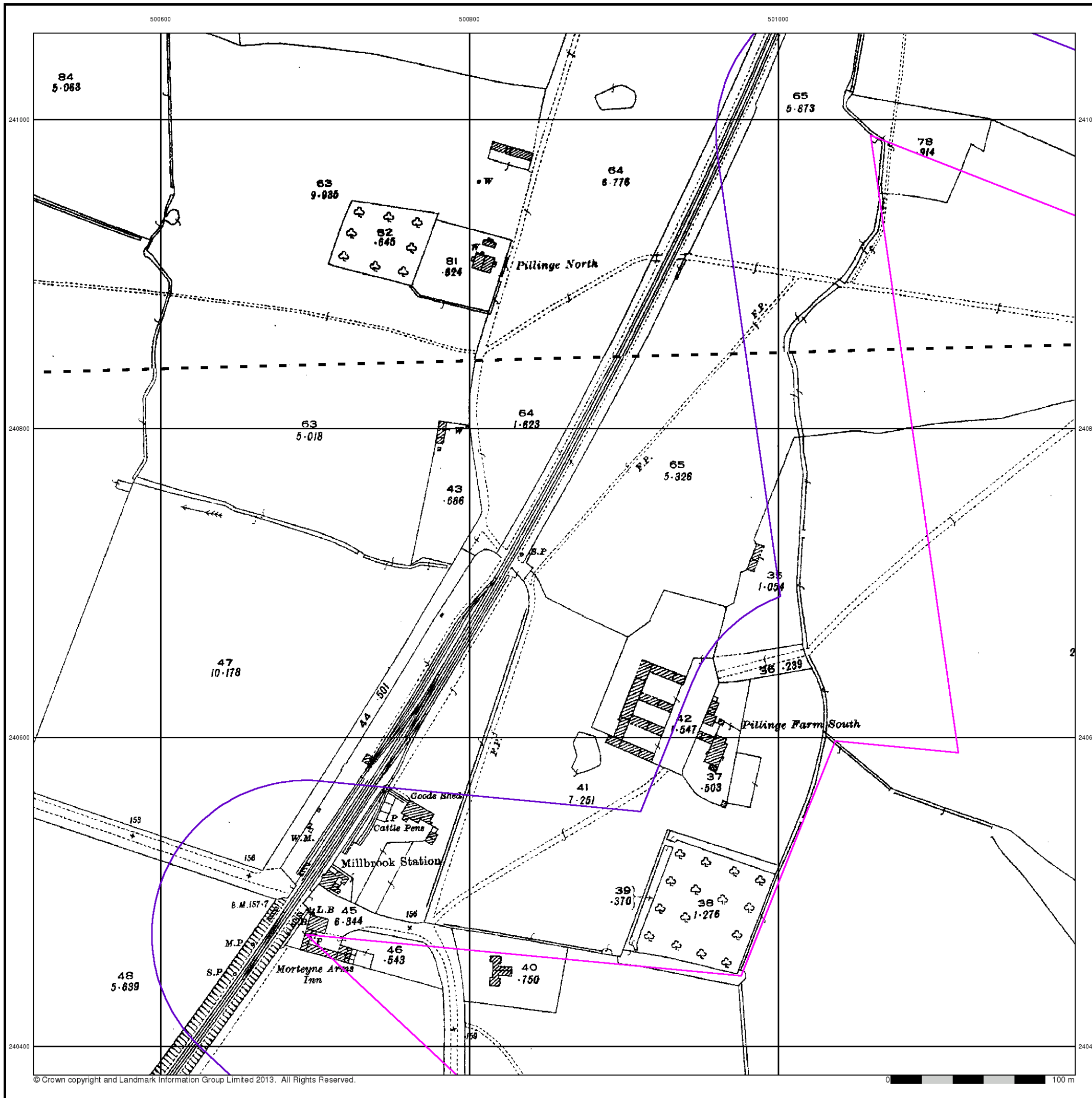


Order Details

Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501510, 239960
 Slice: A
 Site Area (Ha): 240.61
 Search Buffer (m): 100

Site Details

Millbrook Power Project, Green Lane, Stewartby



Ordnance Survey Plan

Published 1976

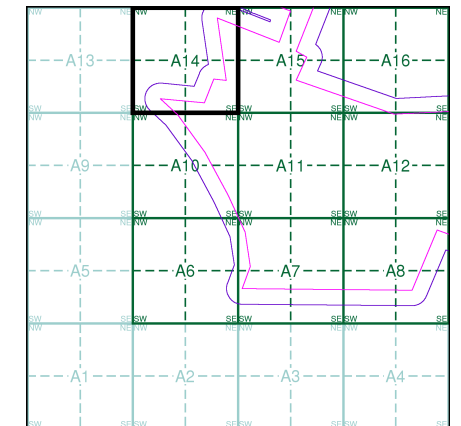
Source map scale - 1:2,500

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)

| | |
|---------------------------|---------------------------|
| TL0041 1976 1:2,500 | TL0141 1976 1:2,500 |
| TL0040 1976 1:2,500 | TL0140 1976 1:2,500 |

Historical Map - Segment A14

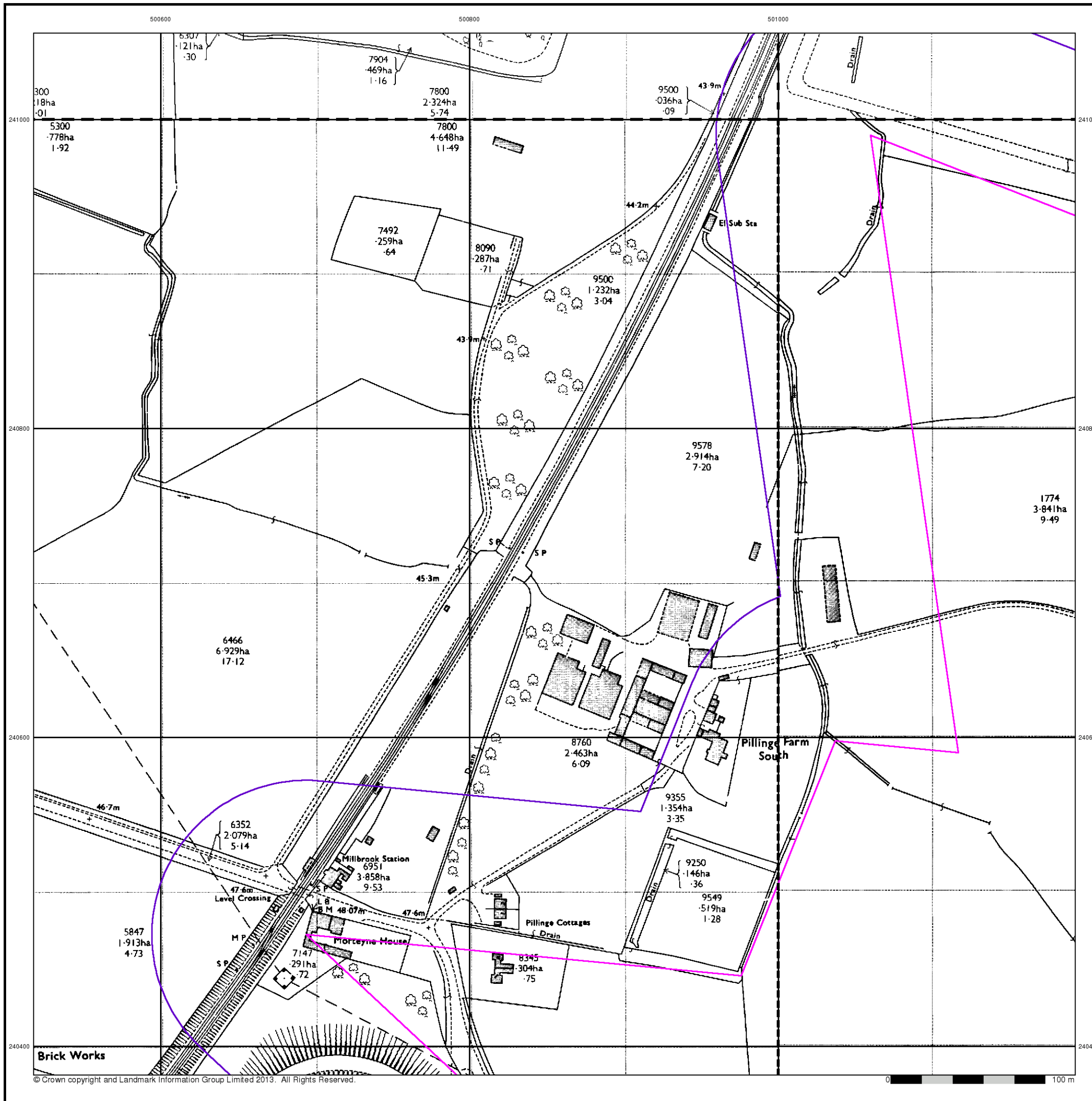


Order Details

Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501510, 239960
 Slice: A
 Site Area (Ha): 240.61
 Search Buffer (m): 100

Site Details

Millbrook Power Project, Green Lane, Stewartby





Large-Scale National Grid Data

Published 1993

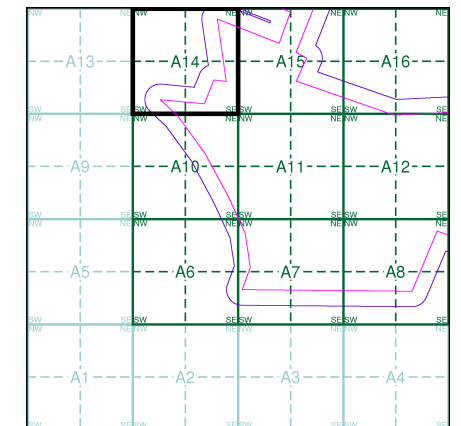
Source map scale - 1:2,500

'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)

| | |
|---------------------------|---------------------------|
| TL0041 1993 1:2,500 | TL0141 1993 1:2,500 |
| TL0040 1993 1:2,500 | TL0140 1993 1:2,500 |

Historical Map - Segment A14



Order Details

Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501510, 239960
 Slice: A
 Site Area (Ha): 240.61
 Search Buffer (m): 100

Site Details

Millbrook Power Project, Green Lane, Stewartby



Tel: 0844 844 9952
 Fax: 0844 844 9951
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Historical Mapping Legends

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

Quarry **Gravel Pit** **Sand Pit**
Clay Pit **Shingle** **Refuse Heap**
Sloping Masonry **Flat Rock**
Marsh **Reeds** **Osiers**
Rough Pasture **Furze** **Wood**
Mixed Wood **Brushwood** **Orchard**
Fir **Ford** **Stepping Stones**
Ferry **Waterfall** **Lock**
Trig. Station **Altitude at Trig. Station**
B.M. 325.9 **Bench Mark** **Surface Level**
Arrow denotes flow of water **Antiquities (site of)**
Cutting **Embankment**
Railway crossing Road **Level Crossing** **Road crossing Railway**
Railway crossing River or Canal **Road over single stream** **Road over River or Canal**
County Boundary (Geographical)
County & Civil Parish Boundary
Administrative County & Civil Parish Boundary
County Borough Boundary (England)
County Burgh Boundary (Scotland)
Boundary Post or Stone **Police Call Box**
B.R. Bridle Road **Pump**
E.P. Electricity Pylon **S.P. Signal Post**
F.B. Foot Bridge **Sl. Sluice**
F.P. Foot Path **Sp. Spring**
G.P. Guide Post or Board **T.C.B. Telephone Call Box**
M.S. Mile Stone **Tr. Trough**
M.P. M.R. Mooring Post or Ring **W. Well**

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

Inactive Quarry, Chalk Pit or Clay Pit **Active Quarry, Chalk Pit or Clay Pit**
Rock **Boulders**
Cliff **Slopes** **Top**
Roofed Building **Glazed Roof Building**
Sloping Masonry **Archway**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Bench Mark** **Antiquity (site of)**
Cave Entrance **Triangulation Station** **Electricity Pylon**
Electricity Transmission Line
County Boundary (Geographical)
County & Civil Parish Boundary
Civil Parish Boundary
Admin. County or County Bor. Boundary
London Borough Boundary
Symbol marking point where boundary mereing changes
Beer House **Pillar, Pole or Post**
Boundary Post or Stone **Post Office**
Capstan, Crane **Public Convenience**
Chimney **Public House**
Drinking Fountain **Pump**
Electricity Pillar or Post **Signal Box or Bridge**
Fire Alarm Pillar **Signal Post or Light**
Foot Bridge **Spring**
Guide Post **Tank or Track**
Hydrant or Hydraulic **Telephone Call Box**
Level Crossing **Telephone Call Post**
Manhole **Trough**
Mile Post or Mooring Post **Water Point, Water Tap**
Mile Stone **Well**
Normal Tidal Limit **Wind Pump**

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

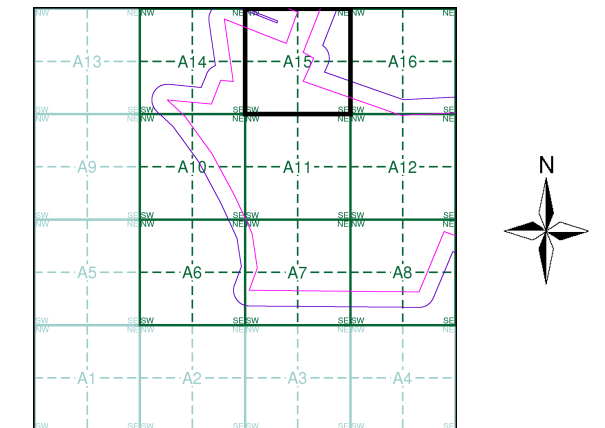
Cliff **Slopes** **Top**
Rock **Rock (scattered)**
Boulders **Boulders (scattered)**
Positioned Boulder **Scree**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Triangulation Station** **Antiquity (site of)**
Electricity Transmission Line **Electricity Pylon**
Bench Mark **Buildings with Building Seed**
Roofed Building **Glazed Roof Building**
Civil parish/community boundary
District boundary
County boundary
Boundary post/stone
Boundary mereing symbol (note: these always appear in opposed pairs or groups of three)
Barracks **Pillar, Pole or Post**
Battery **Post Office**
Cemetery **Public Convenience**
Chimney **Pump**
Cistern **Pumping Station**
Dismtd Rly **Place of Worship**
Electricity Generating Station **Sewage Ppg Sta** **Sewage Pumping Station**
Electricity Pole, Pillar **Signal Box or Bridge**
Electricity Sub Station **Signal Post or Light**
Filter Bed **Spring**
Fountain / Drinking Ftn. **Tank or Track**
Gas Valve Compound **Trough**
Gas Governor **Wind Pump**
Guide Post **Water Point, Water Tap**
Manhole **Works (building or area)**
Mile Post or Mile Stone **Well**



Historical Mapping & Photography included:

| Mapping Type | Scale | Date | Pg |
|--------------------------------|---------|------|----|
| Bedfordshire | 1:2,500 | 1883 | 2 |
| Bedfordshire | 1:2,500 | 1901 | 3 |
| Bedfordshire | 1:2,500 | 1925 | 4 |
| Ordnance Survey Plan | 1:2,500 | 1976 | 5 |
| Large-Scale National Grid Data | 1:2,500 | 1993 | 6 |

Historical Map - Segment A15



Order Details

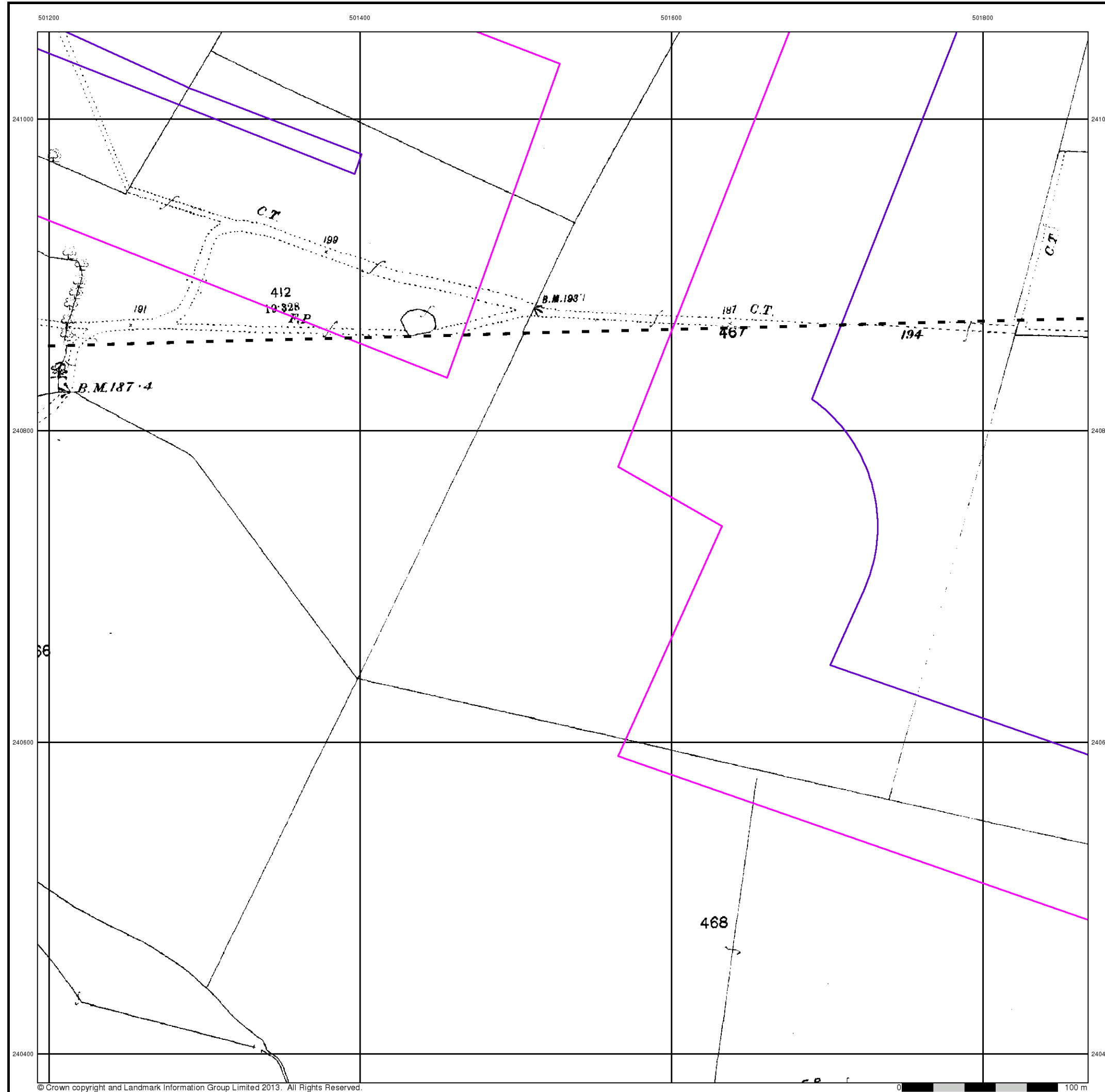
Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501510, 239960
 Slice: A
 Site Area (Ha): 240.61
 Search Buffer (m): 100

Site Details

Millbrook Power Project, Green Lane, Stewartby



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

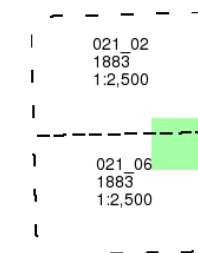


Bedfordshire
Published 1883

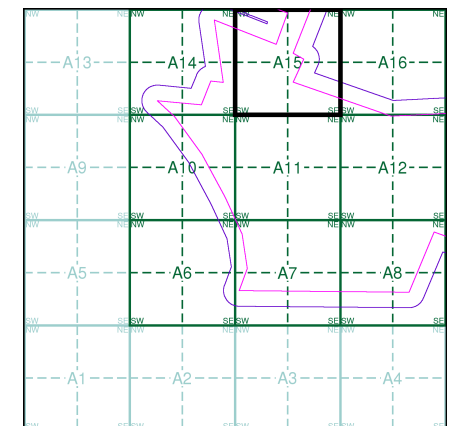
Source map scale - 1:2,500

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 A15



Order Details

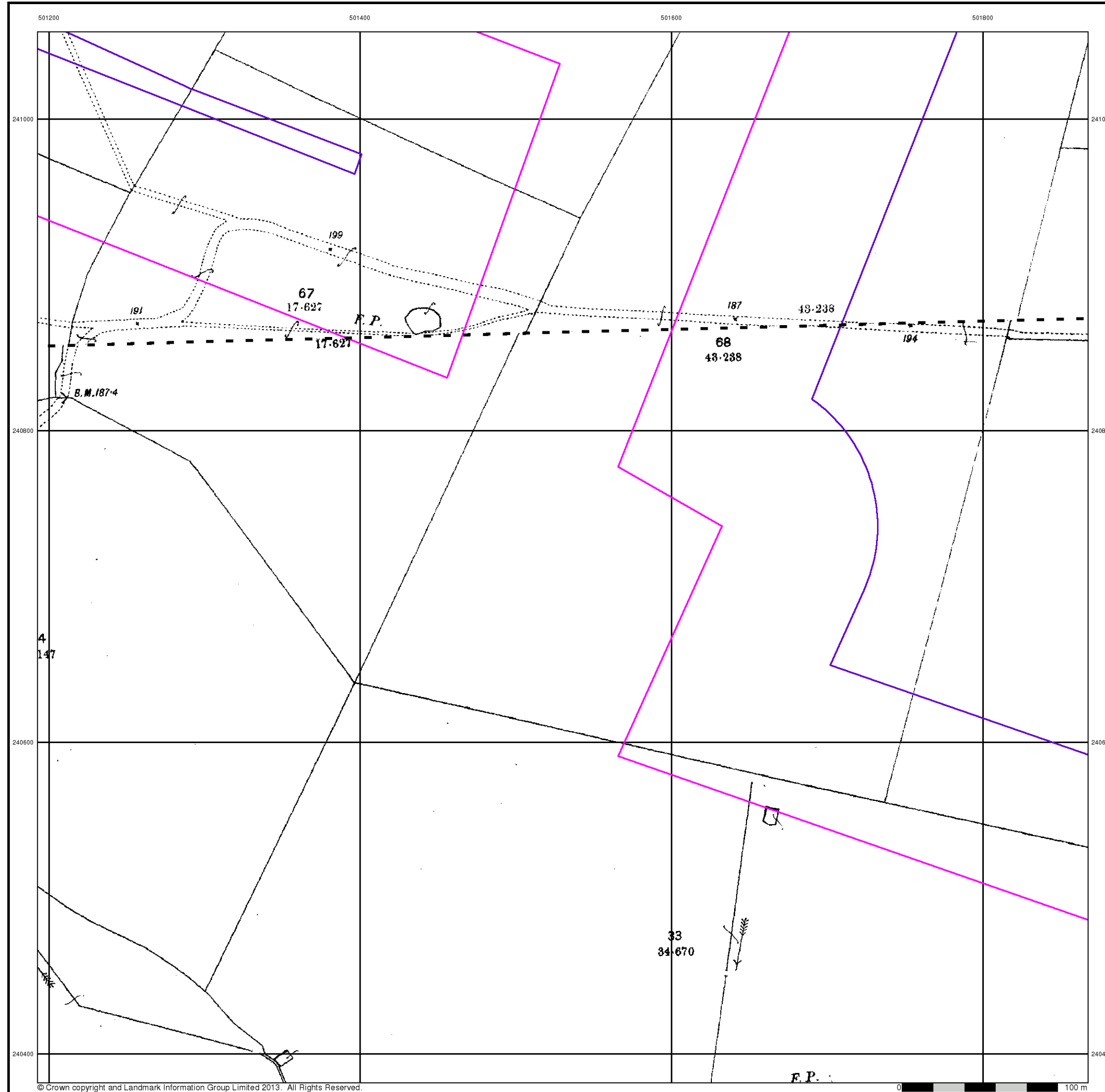
Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501510, 239960
 Slice: A
 Site Area (Ha): 240.61
 Search Buffer (m): 100

Site Details

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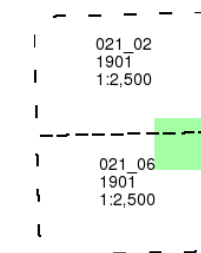


Bedfordshire
Published 1901

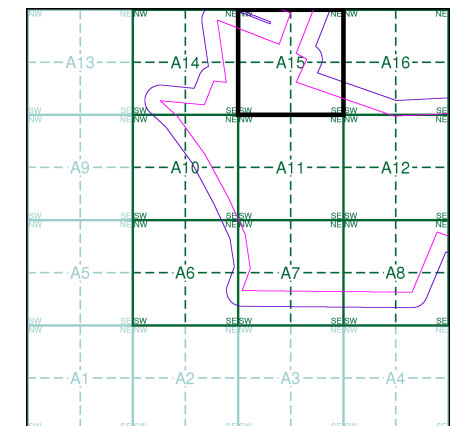
Source map scale - 1:2,500

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 A15



Order Details

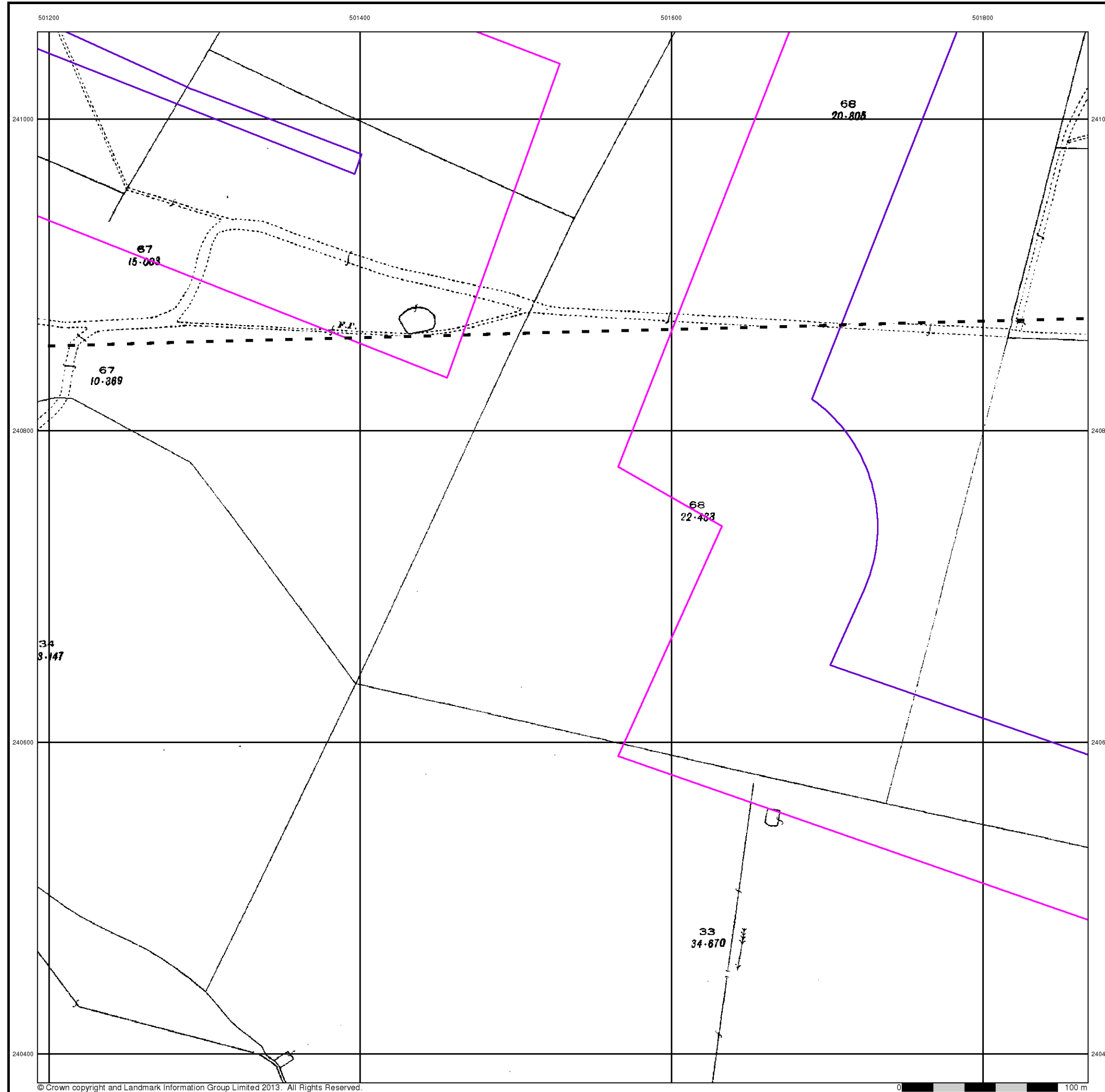
Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501510, 239960
 Slice: A
 Site Area (Ha): 240.61
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0 100 m

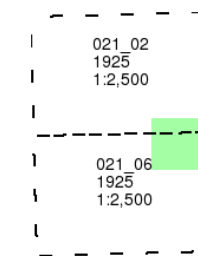


Bedfordshire
Published 1925

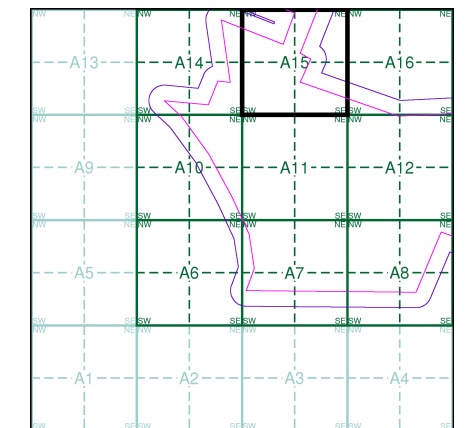
Source map scale - 1:2,500

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 A15



Order Details

Order Number: 60770728_1_1
 Customer Ref: 31116
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 Site Area (Ha): 240.61
 Search Buffer (m): 100

Site Details

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Ordnance Survey Plan

Published 1976

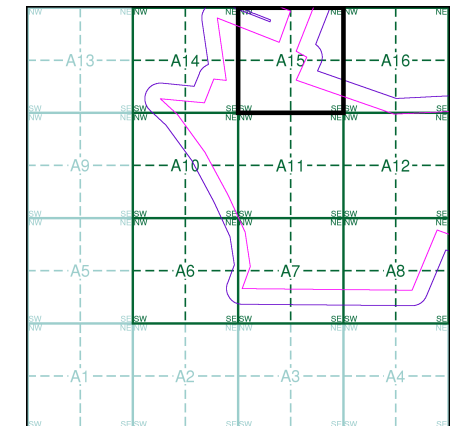
Source map scale - 1:2,500

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)

| |
|---------------------------|
| TL0141 1976 1:2,500 |
| TL0140 1976 1:2,500 |

Historical Map - Segment A15



Order Details

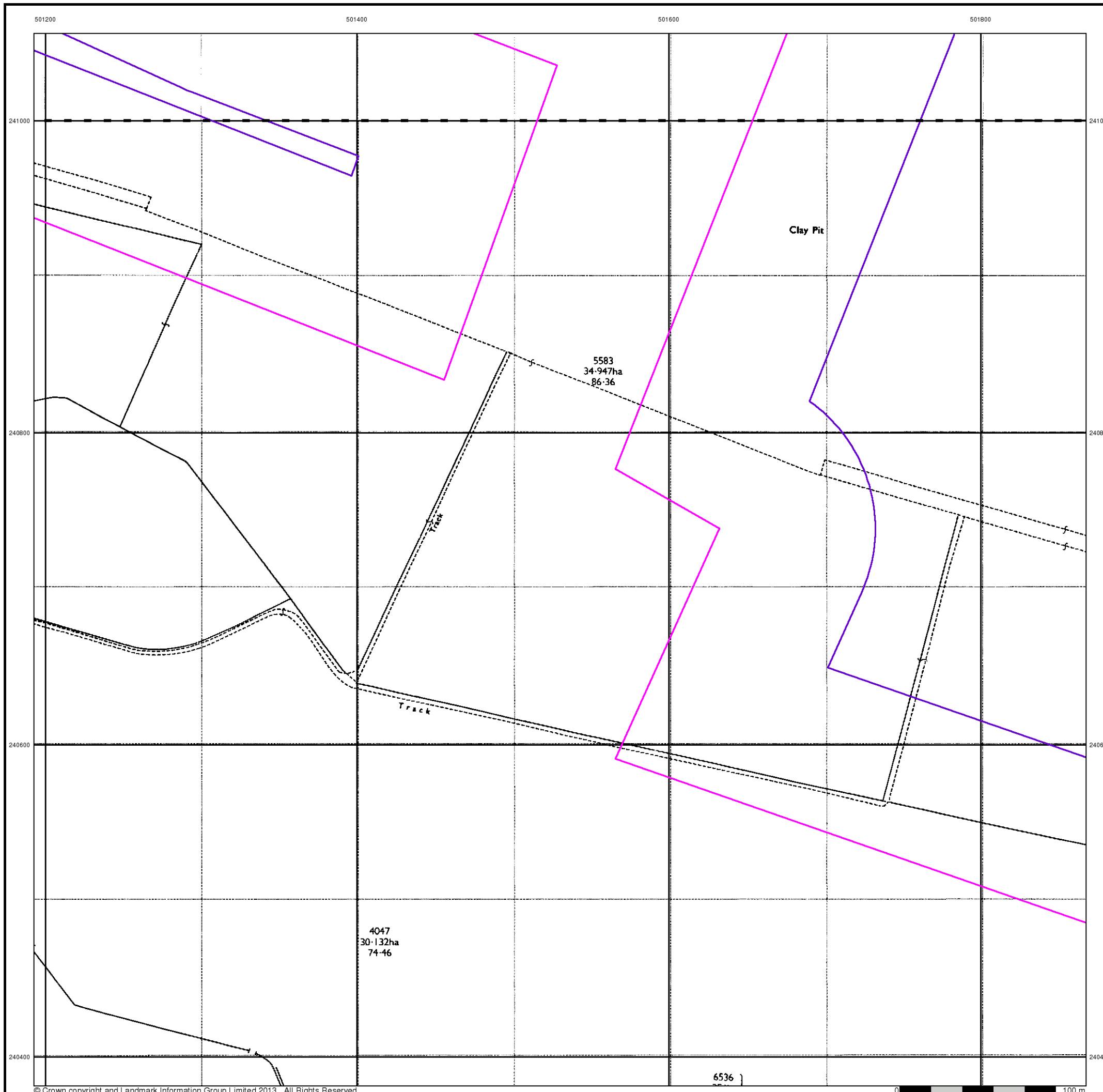
Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501510, 239960
 Slice: A
 Site Area (Ha): 240.61
 Search Buffer (m): 100

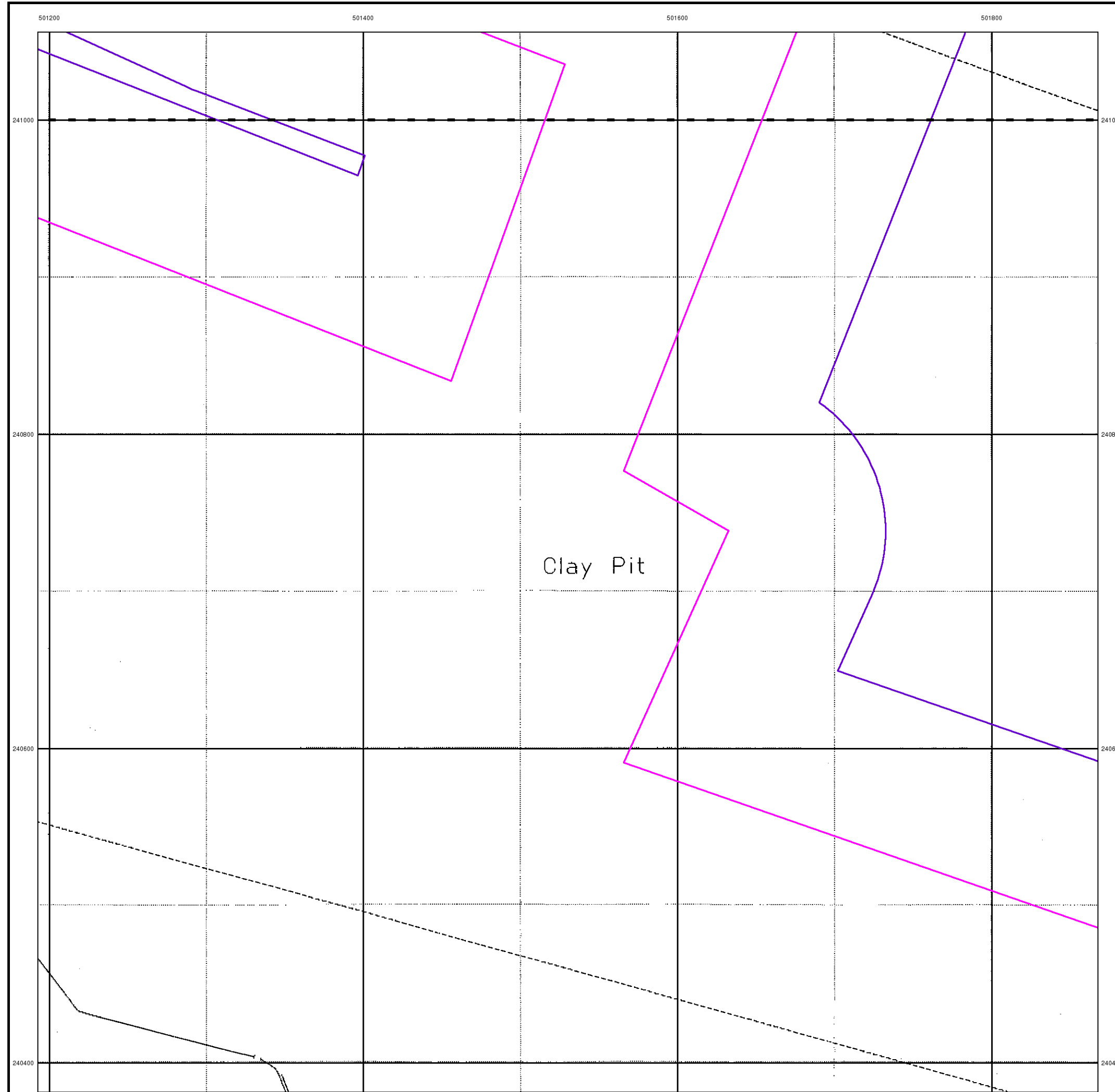
Site Details

Millbrook Power Project, Green Lane, Stewartby



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Large-Scale National Grid Data

Published 1993

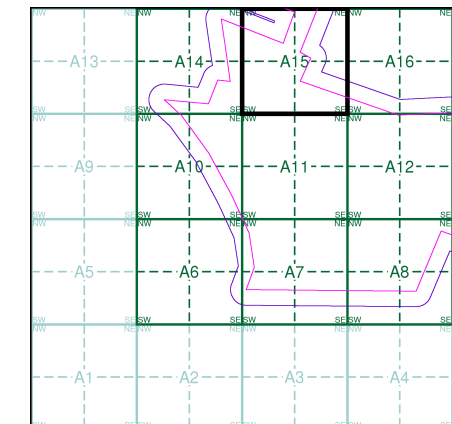
Source map scale - 1:2,500

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Map Name(s) and Date(s)

| | | |
|--------|------|---------|
| TL0141 | 1993 | 1:2,500 |
| TL0140 | 1993 | 1:2,500 |

Historical Map - Segment A15



Order Details

Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501510, 239960
 Slice: A
 Site Area (Ha): 240.61
 Search Buffer (m): 100

Site Details

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Historical Mapping Legends

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

Quarry **Gravel Pit** **Sand Pit**
Clay Pit **Shingle** **Refuse Heap**
Sloping Masonry **Flat Rock**
Marsh **Reeds** **Osiers**
Rough Pasture **Furze** **Wood**
Mixed Wood **Brushwood** **Orchard**
Fir **Ford** **Stepping Stones**
Ferry **Waterfall** **Lock**
Trig. Station **Altitude at Trig. Station**
B.M. 325.9 **Bench Mark** **Surface Level**
Arrow denotes flow of water **Antiquities (site of)**
Cutting **Embankment**
Railway crossing Road **Level Crossing** **Road crossing Railway**
Railway crossing River or Canal **Road over single stream** **Road over River or Canal**
County Boundary (Geographical)
County & Civil Parish Boundary
Administrative County & Civil Parish Boundary
County Borough Boundary (England)
County Burgh Boundary (Scotland)
Co. Boro. Bdy.
Co. Burgh Bdy.
BP BS Boundary Post or Stone **P.C.B** Police Call Box
B.R. Bridle Road **P** Pump
E.P Electricity Pylon **S.P** Signal Post
F.B. Foot Bridge **SL** Sluice
F.P. Foot Path **Sp.** Spring
G.P Guide Post or Board **T.C.B** Telephone Call Box
M.S Mile Stone **Tr.** Trough
M.P M.R Mooring Post or Ring **W** Well

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

Inactive Quarry, Chalk Pit or Clay Pit **Active Quarry, Chalk Pit or Clay Pit**
Rock **Boulders**
Cliff **Slopes** **Top**
Roofed Building **Glazed Roof Building**
Sloping Masonry **Archway**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Bench Mark** **Antiquity (site of)**
Cave Entrance **Triangulation Station** **Electricity Pylon**
Electricity Transmission Line
County Boundary (Geographical)
County & Civil Parish Boundary
Civil Parish Boundary
Admin. County or County Bor. Boundary
London Borough Boundary
Symbol marking point where boundary mereing changes
BH Beer House **P** Pillar, Pole or Post
BP, BS Boundary Post or Stone **PO** Post Office
Cn, C Capstan, Crane **PC** Public Convenience
Chy Chimney **PH** Public House
D Fn Drinking Fountain **Pp** Pump
EI P Electricity Pillar or Post **SB, S Br** Signal Box or Bridge
FAP Fire Alarm Pillar **SP, SL** Signal Post or Light
FB Foot Bridge **Spr** Spring
GP Guide Post **Tk** Tank or Track
H Hydrant or Hydraulic **TCB** Telephone Call Box
LC Level Crossing **TCP** Telephone Call Post
MH Manhole **Tr** Trough
MP Mile Post or Mooring Post **Wr Pt, Wr T** Water Point, Water Tap
MS Mile Stone **W** Well
NTL Normal Tidal Limit **Wd Pp** Wind Pump

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

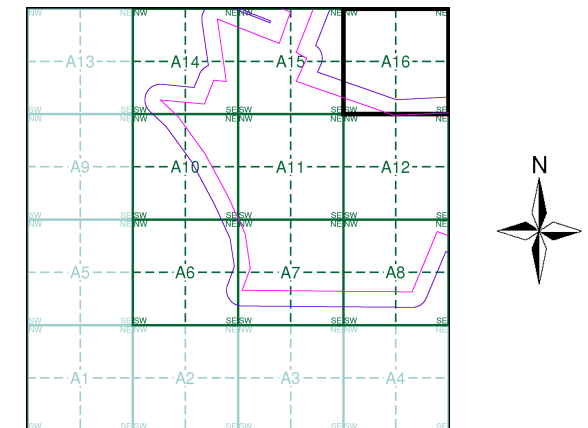
Cliff **Slopes** **Top**
Rock **Rock (scattered)**
Boulders **Boulders (scattered)**
Positioned Boulder **Scree**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Triangulation Station** **Antiquity (site of)**
Electricity Transmission Line **Electricity Pylon**
B.M. 231.60m Bench Mark **Buildings with Building Seed**
Roofed Building **Glazed Roof Building**
Civil parish/community boundary
District boundary
County boundary
Boundary post/stone
Boundary mereing symbol (note: these always appear in opposed pairs or groups of three)
Bks Barracks **P** Pillar, Pole or Post
Bty Battery **PO** Post Office
Cemy Cemetery **PC** Public Convenience
Chy Chimney **Pp** Pump
Cis Cistern **Ppg Sta** Pumping Station
Dismtd Rly Dismantled Railway **PW** Place of Worship
EI Gen Sta Electricity Generating Station **Sewage Ppg Sta** Sewage Pumping Station
EI P Electricity Pole, Pillar **SB, S Br** Signal Box or Bridge
EI Sub Sta Electricity Sub Station **SP, SL** Signal Post or Light
FB Filter Bed **Spr** Spring
Fn / D Fn Fountain / Drinking Ftn. **Tk** Tank or Track
Gas Gov Gas Valve Compound **Tr** Trough
GVC Gas Governor **Wd Pp** Wind Pump
GP Guide Post **Wr Pt, Wr T** Water Point, Water Tap
MH Manhole **Wks** Works (building or area)
MP, MS Mile Post or Mile Stone **W** Well



Historical Mapping & Photography included:

| Mapping Type | Scale | Date | Pg |
|--------------------------------|---------|-------------|----|
| Bedfordshire | 1:2,500 | 1883 | 2 |
| Bedfordshire | 1:2,500 | 1901 | 3 |
| Bedfordshire | 1:2,500 | 1925 | 4 |
| Ordnance Survey Plan | 1:2,500 | 1975 - 1976 | 5 |
| Large-Scale National Grid Data | 1:2,500 | 1993 | 6 |

Historical Map - Segment A16



Order Details

Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501510, 239960
 Slice: A
 Site Area (Ha): 240.61
 Search Buffer (m): 100

Site Details

Millbrook Power Project, Green Lane, Stewartby



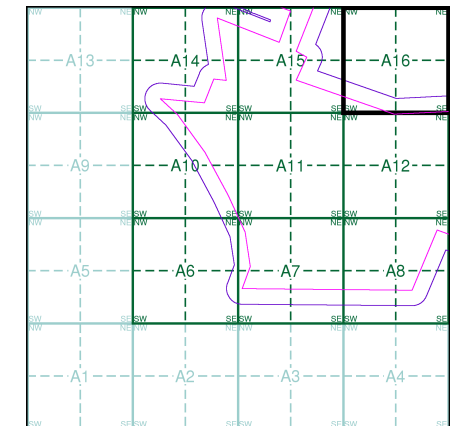
Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk

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)

| | |
|---------------------------|---------------------------|
| 021_02 1883 1:2,500 | 021_03 1883 1:2,500 |
| 021_06 1883 1:2,500 | 021_07 1883 1:2,500 |

Historical Map - Segment A16

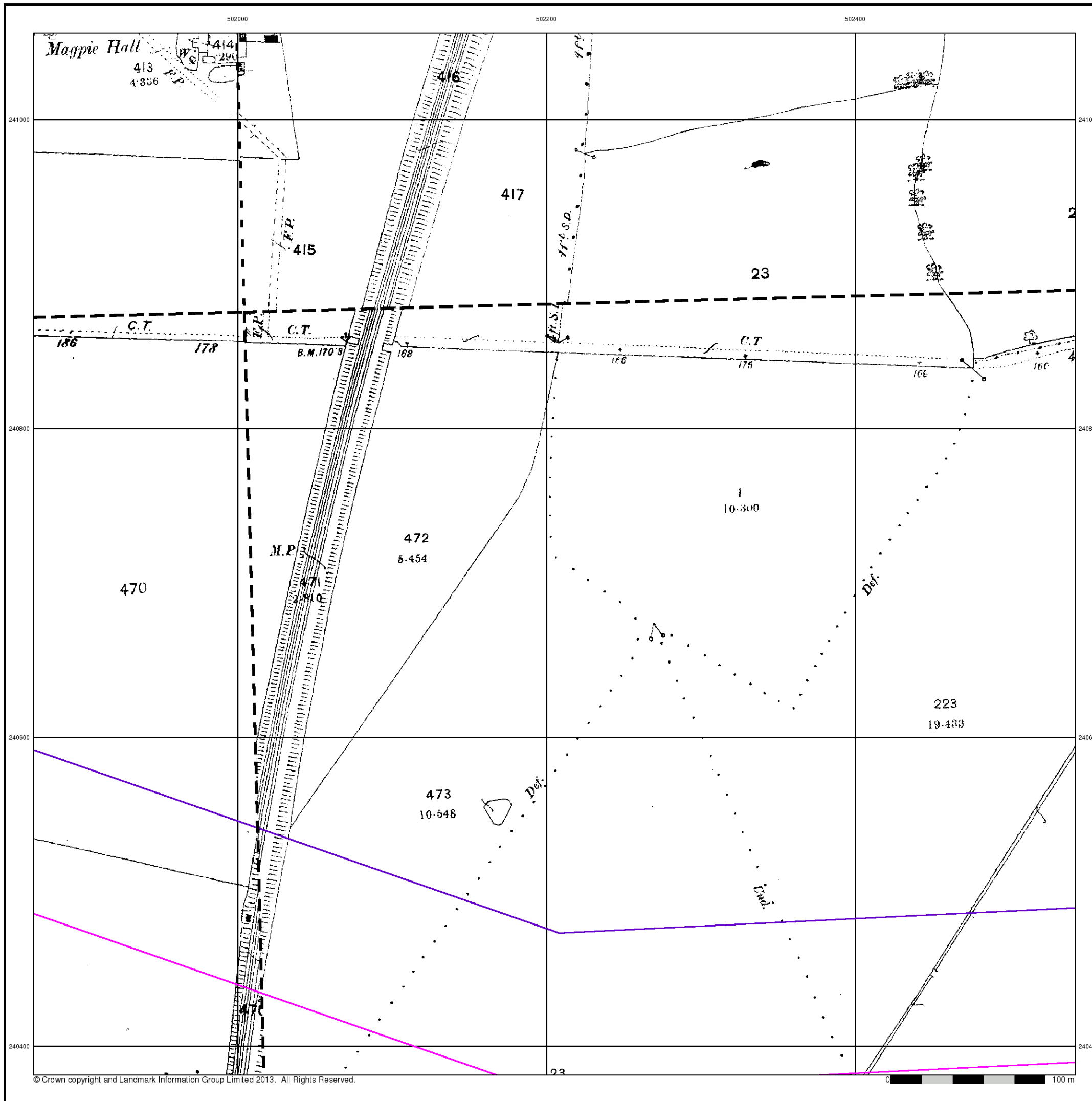


Order Details

Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501510, 239960
 Slice: A
 Site Area (Ha): 240.61
 Search Buffer (m): 100

Site Details

Millbrook Power Project, Green Lane, Stewartby





Bedfordshire

Published 1901

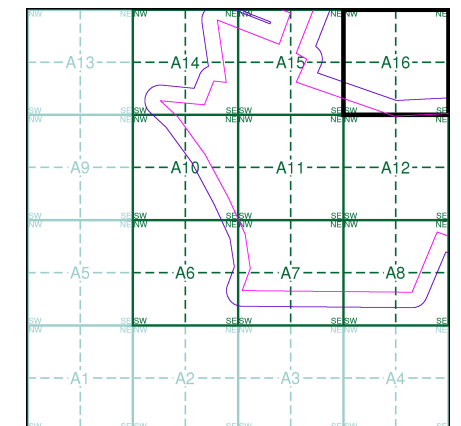
Source map scale - 1:2,500

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)

| | |
|---------------------------|---------------------------|
| 021_02 1901 1:2,500 | 021_03 1901 1:2,500 |
| 021_06 1901 1:2,500 | 021_07 1901 1:2,500 |

Historical Map - Segment A16



Order Details

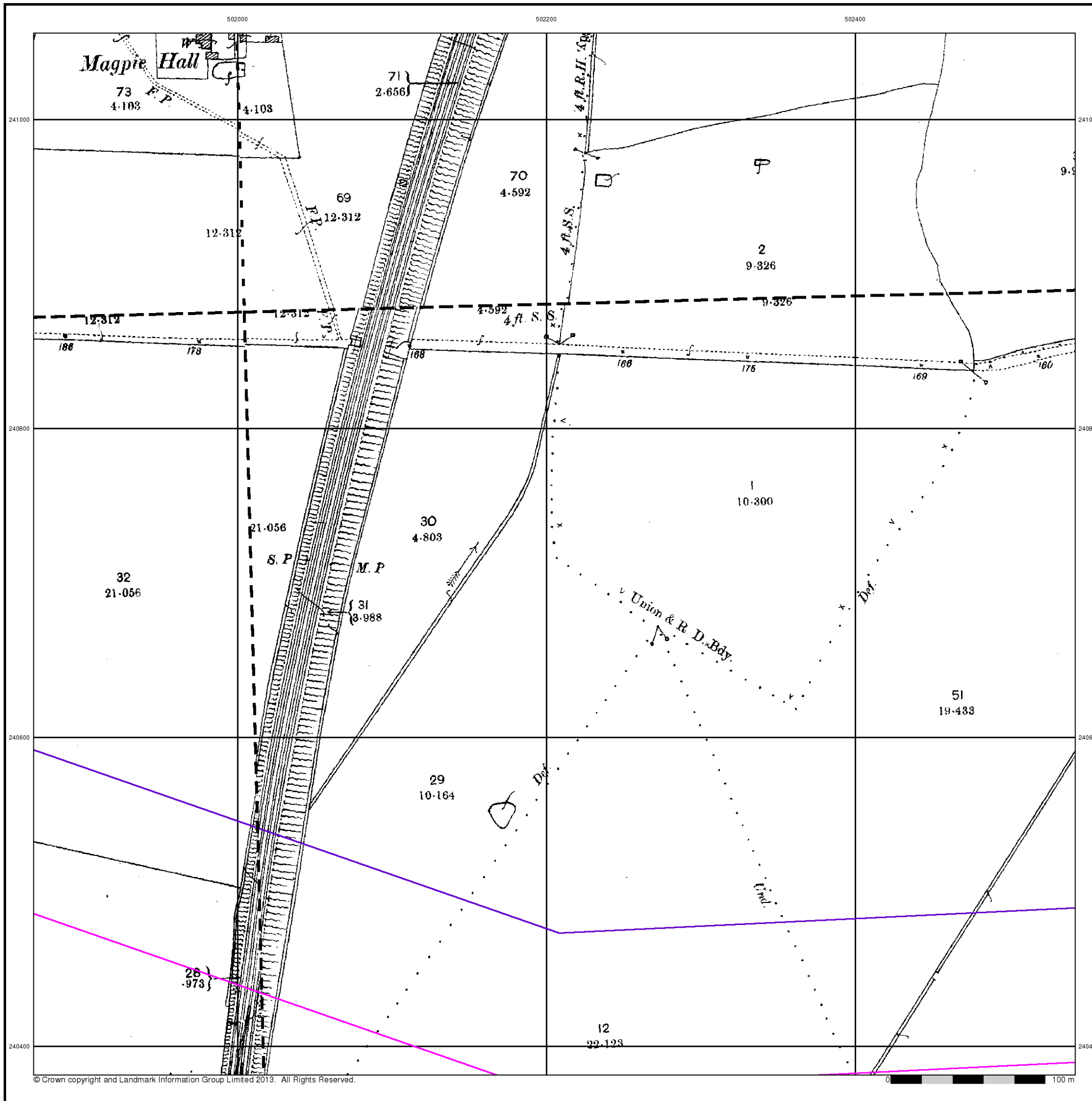
Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501510, 239960
 Slice: A
 Site Area (Ha): 240.61
 Search Buffer (m): 100

Site Details

Millbrook Power Project, Green Lane, Stewartby



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Bedfordshire Published 1925

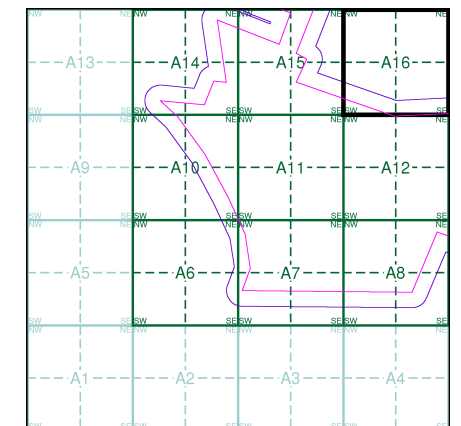
Source map scale - 1:2,500

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)

| | |
|---------------------------|---------------------------|
| 021_02 1925 1:2,500 | 021_03 1925 1:2,500 |
| 021_06 1925 1:2,500 | 021_07 1925 1:2,500 |

Historical Map - Segment A16



Order Details

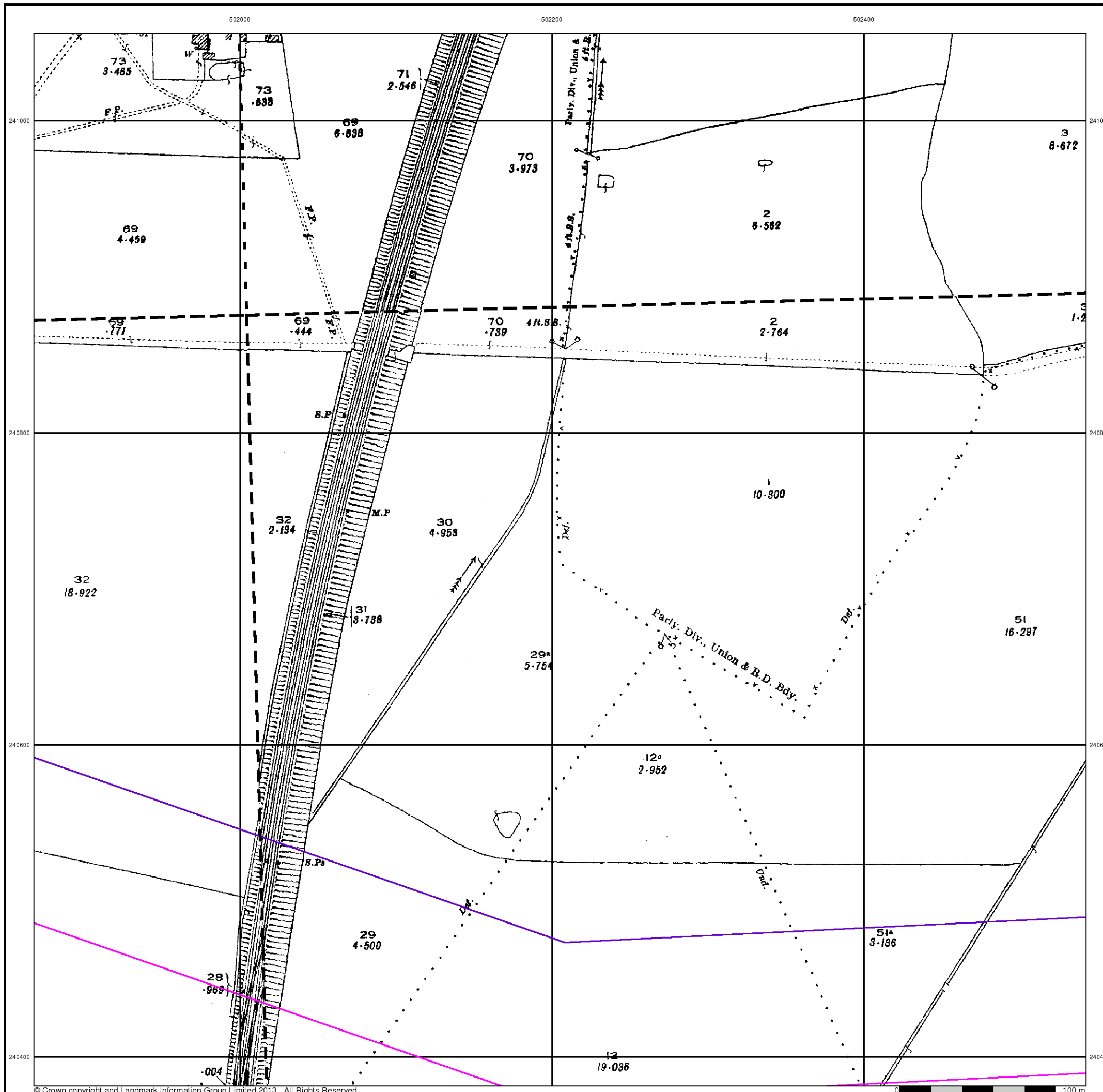
Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501510, 239960
 Slice: A
 Site Area (Ha): 240.61
 Search Buffer (m): 100

Site Details

Millbrook Power Project, Green Lane, Stewartby



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Ordnance Survey Plan

Published 1975 - 1976

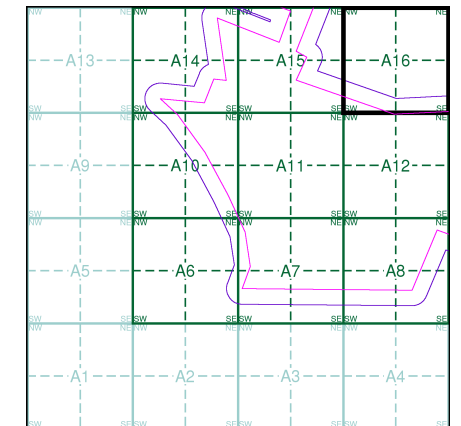
Source map scale - 1:2,500

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)

| | |
|--------------------------|--------------------------|
| TL0141 1976 12,500 | TL0241 1975 12,500 |
| TL0140 1976 12,500 | TL0240 1975 12,500 |

Historical Map - Segment A16



Order Details

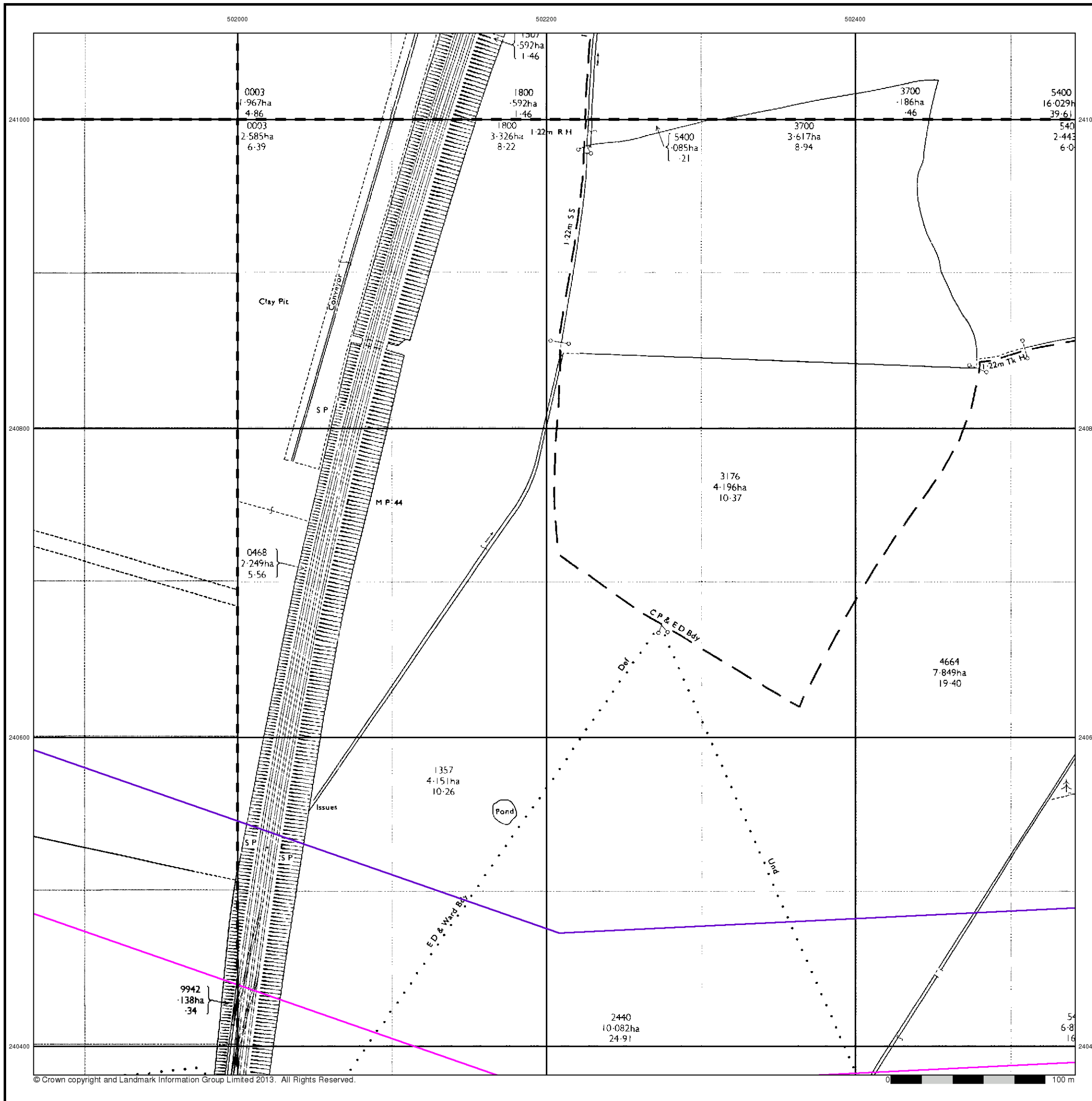
Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501510, 239960
 Slice: A
 Site Area (Ha): 240.61
 Search Buffer (m): 100

Site Details

Millbrook Power Project, Green Lane, Stewartby



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Large-Scale National Grid Data

Published 1993

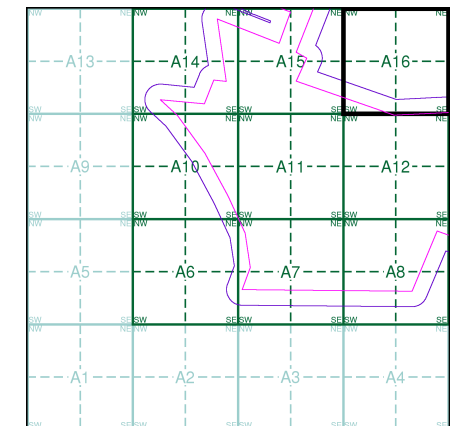
Source map scale - 1:2,500

'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)

| | |
|---------------------------|---------------------------|
| TL0141 1993 1:2,500 | TL0241 1993 1:2,500 |
| TL0140 1993 1:2,500 | TL0240 1993 1:2,500 |

Historical Map - Segment A16



Order Details

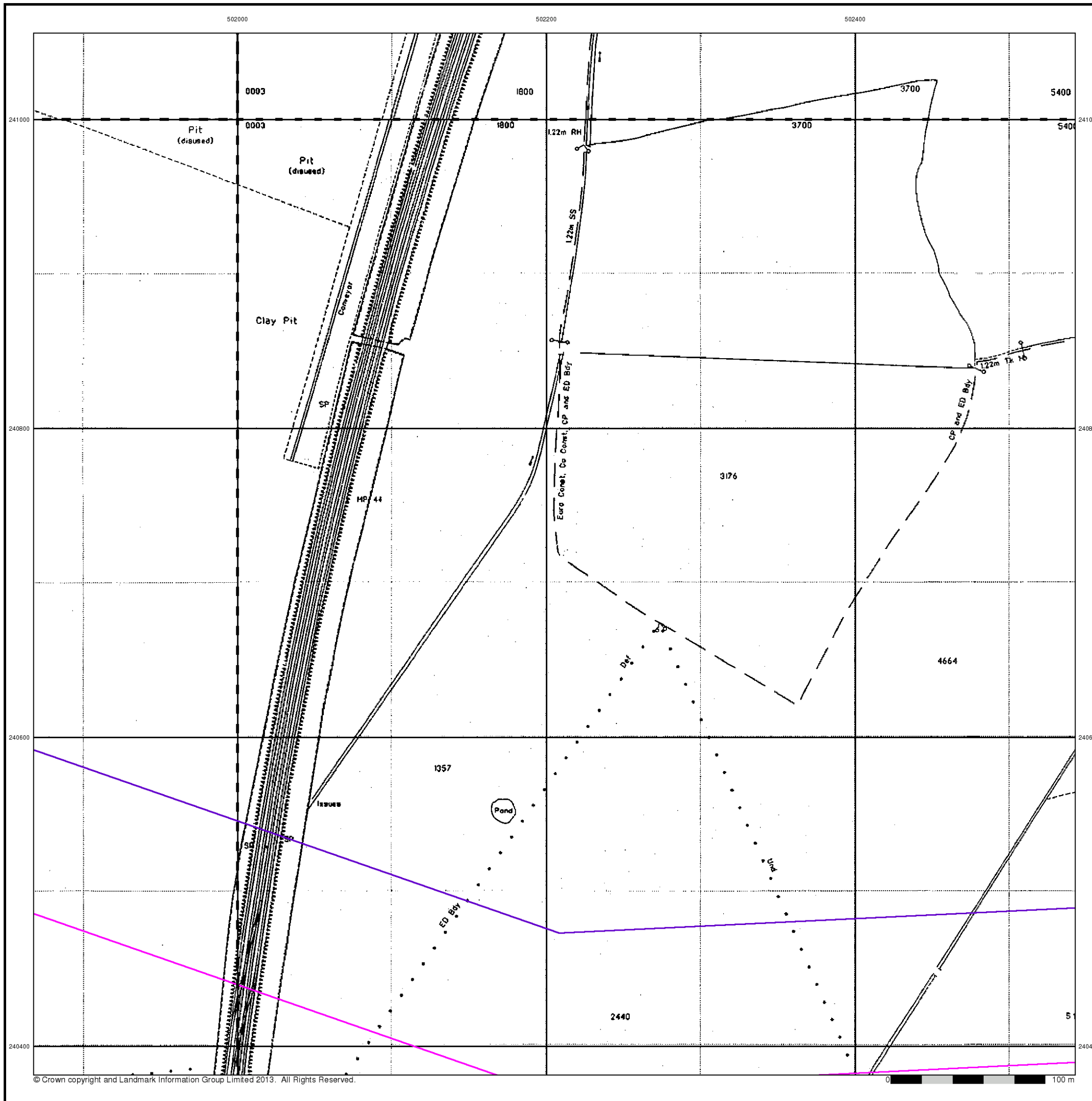
Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501510, 239960
 Slice: A
 Site Area (Ha): 240.61
 Search Buffer (m): 100

Site Details

Millbrook Power Project, Green Lane, Stewartby



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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 |
| | 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

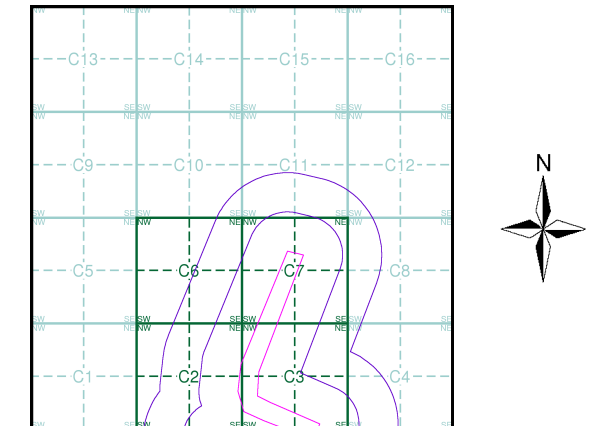
| | | | |
|--|--|--|--|
| | Gravel Pit | | Refuse tip or slag heap |
| | Rock | | Rock (scattered) |
| | Boulders | | Boulders (scattered) |
| | Shingle | | Mud |
| | Sand | | Sand Pit |
| | Slopes | | Top of cliff |
| | General detail | | Underground detail |
| | Overhead detail | | Narrow gauge railway |
| | 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 |



Historical Mapping & Photography included:

| Mapping Type | Scale | Date | Pg |
|----------------------|----------|-------------|----|
| Bedfordshire | 1:10,560 | 1883 - 1884 | 2 |
| Buckinghamshire | 1:10,560 | 1885 | 3 |
| Bedfordshire | 1:10,560 | 1901 - 1902 | 4 |
| Bedfordshire | 1:10,560 | 1927 | 5 |
| Bedfordshire | 1:10,560 | 1938 | 6 |
| Bedfordshire | 1:10,560 | 1946 - 1948 | 7 |
| Ordnance Survey Plan | 1:10,000 | 1960 | 8 |
| Ordnance Survey Plan | 1:10,000 | 1982 - 1983 | 9 |
| Ordnance Survey Plan | 1:10,000 | 1990 | 10 |
| 10K Raster Mapping | 1:10,000 | 2006 | 11 |
| VectorMap Local | 1:10,000 | 2014 | 12 |

Historical Map - Slice C



Order Details

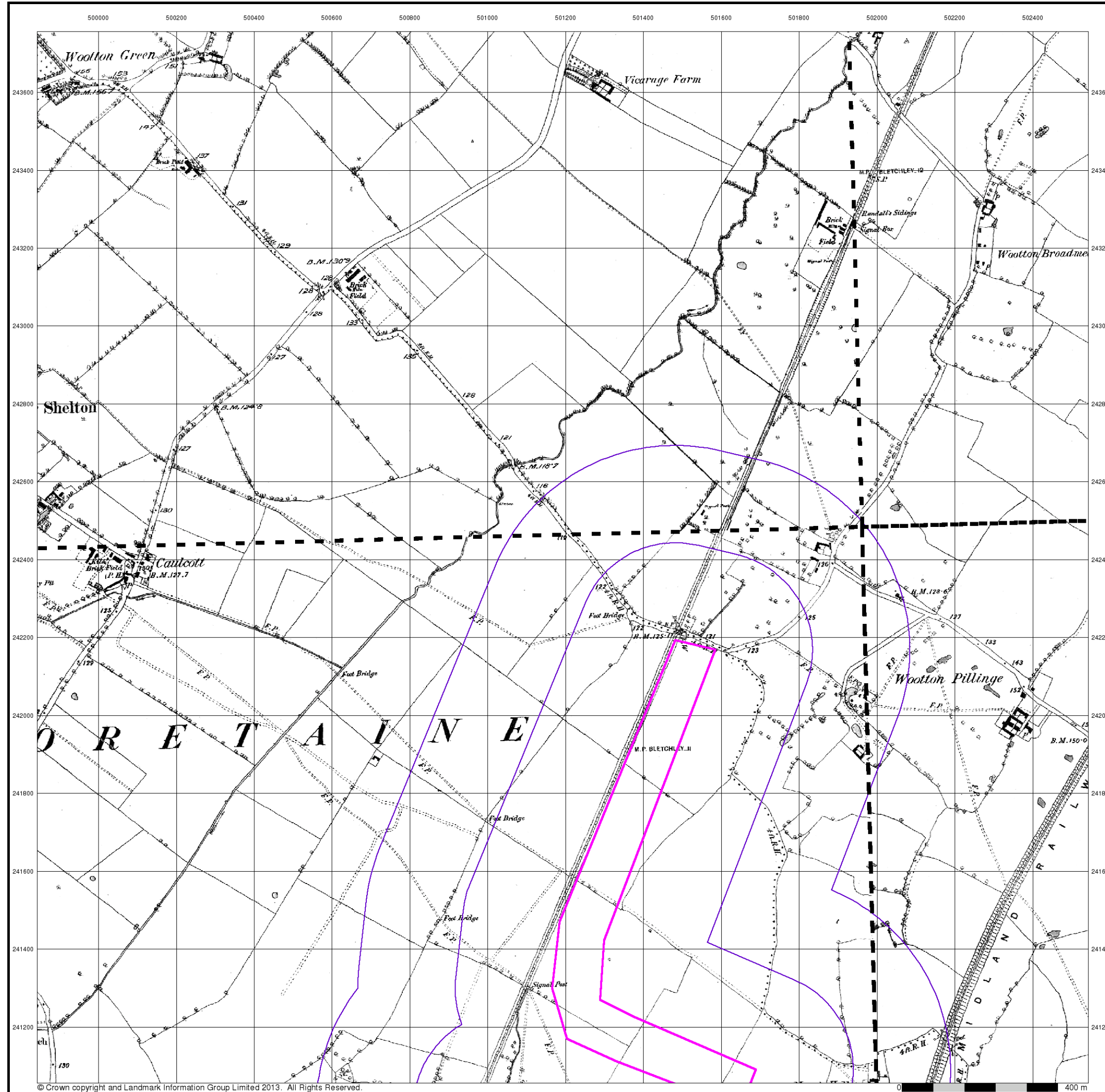
Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501420, 241770
 Slice: C
 Site Area (Ha): 240.61
 Search Buffer (m): 500

Site Details

Millbrook Power Project, Green Lane, Stewartby



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



Bedfordshire

Published 1883 - 1884

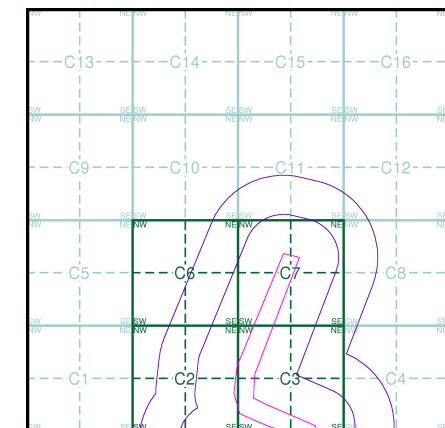
Source map scale - 1:10,560

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)

| | |
|---------------------------|---------------------------|
| 016SW 1884 1:10,560 | 016SE 1883 1:10,560 |
| 021NW 1883 1:10,560 | 021NE 1884 1:10,560 |

Historical Map - Slice C



Order Details

Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501420, 241770
 Slice: C
 Site Area (Ha): 240.61
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500000 500200 500400 500600 500800 501000 501200 501400 501600 501800 502000 502200 502400



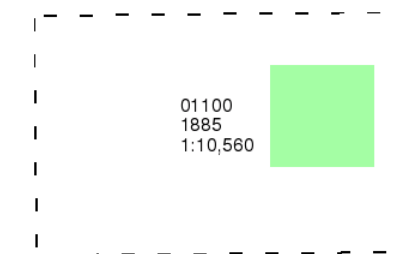
Buckinghamshire

Published 1885

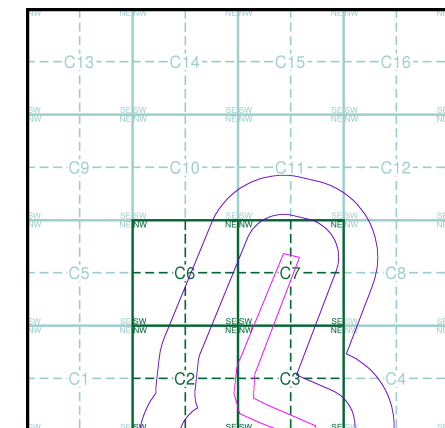
Source map scale - 1:10,560

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 C



Order Details

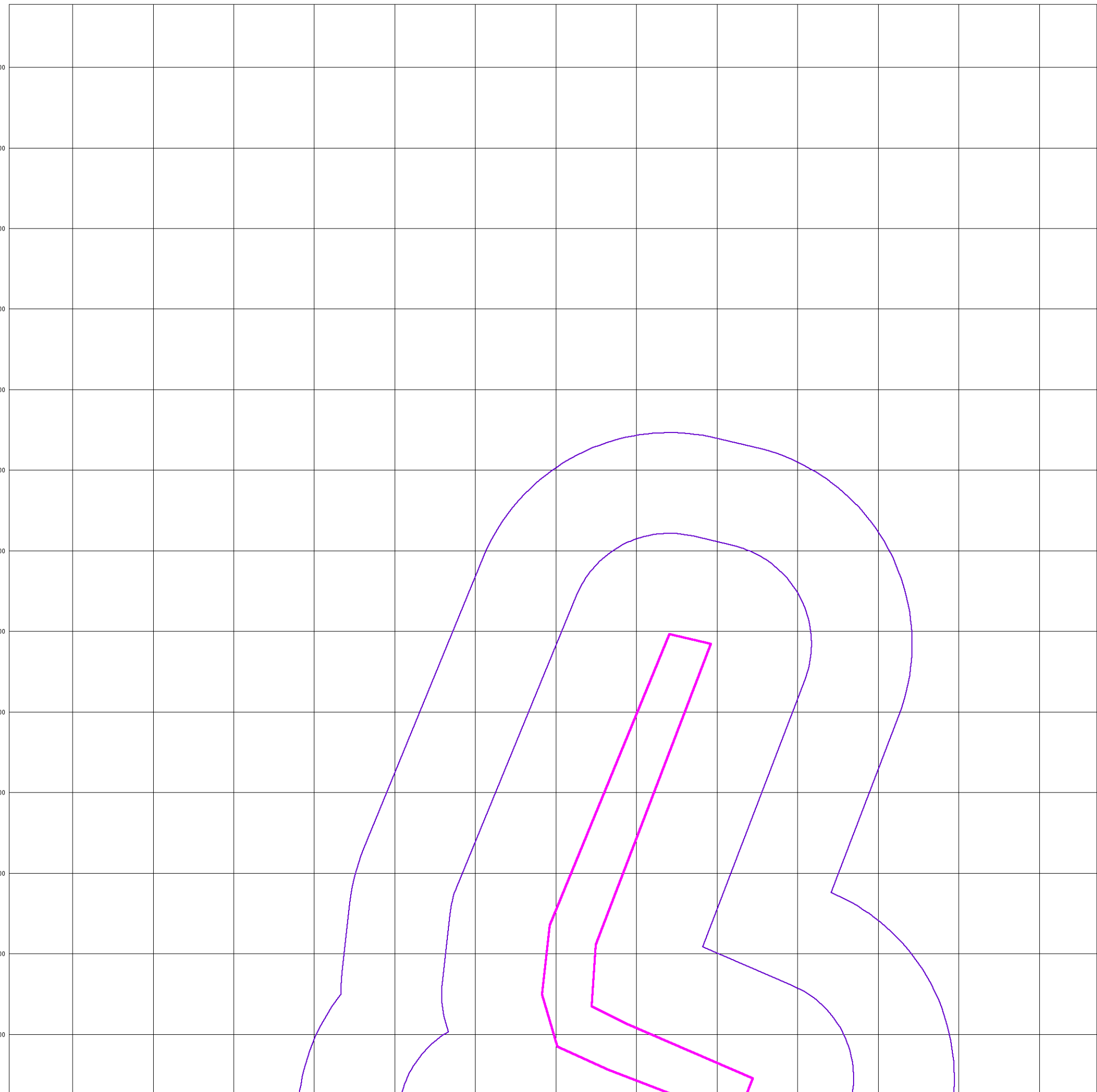
Order Number: 60770728_1_1
Customer Ref: 31116
National Grid Reference: 501420, 241770
Slice: C
Site Area (Ha): 240.61
Search Buffer (m): 500

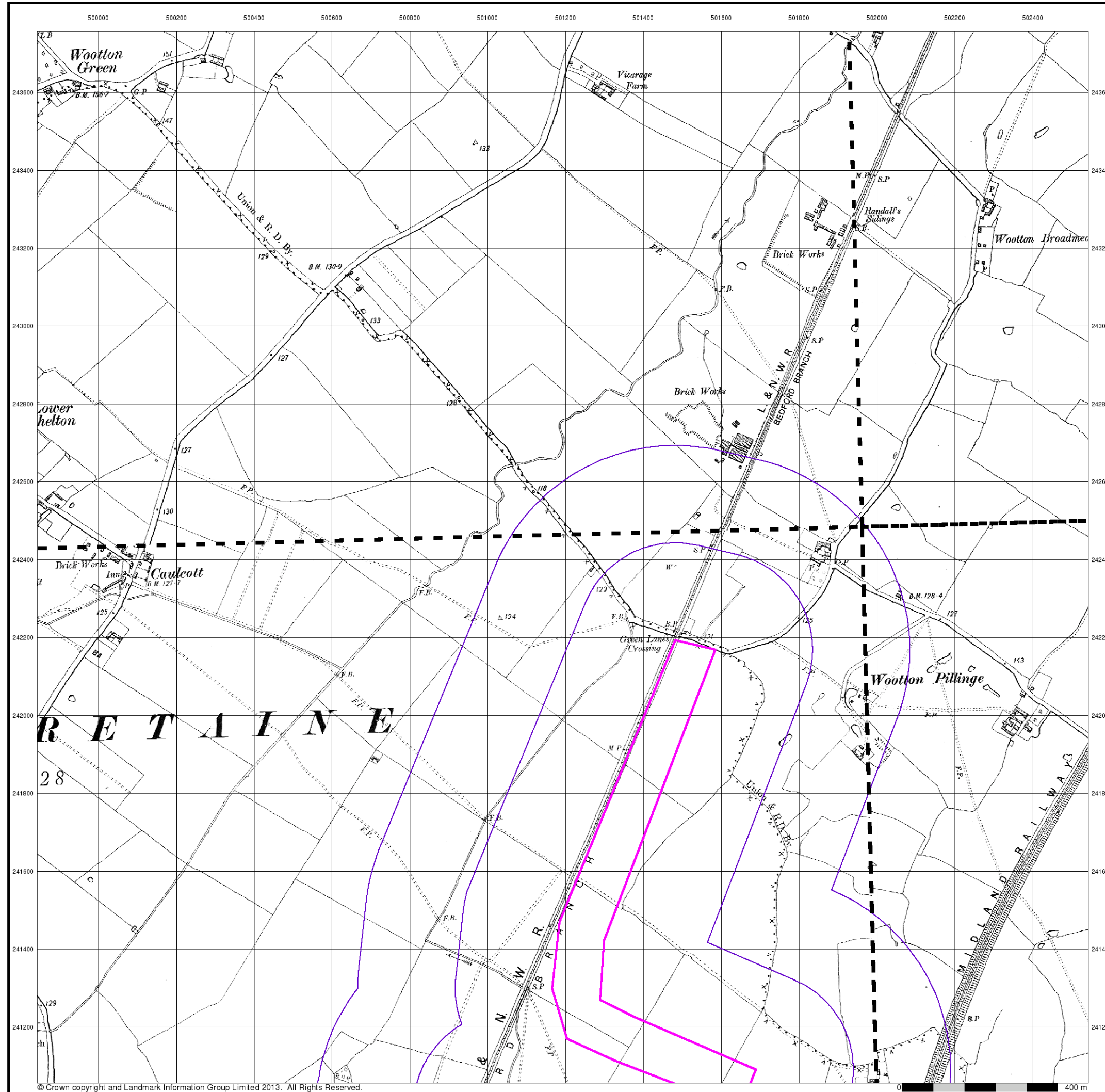
Site Details

Millbrook Power Project, Green Lane, Stewartby



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Web: www.envirocheck.co.uk





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Bedfordshire

Published 1901 - 1902

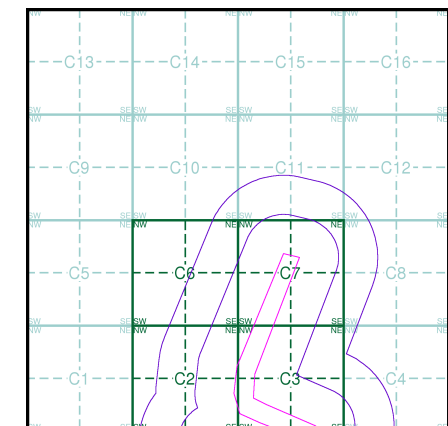
Source map scale - 1:10,560

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)

| | |
|---------------------------|---------------------------|
| 016SW 1902 1:10,560 | 016SE 1902 1:10,560 |
| 021NW 1901 1:10,560 | 021NE 1901 1:10,560 |

Historical Map - Slice C



Order Details

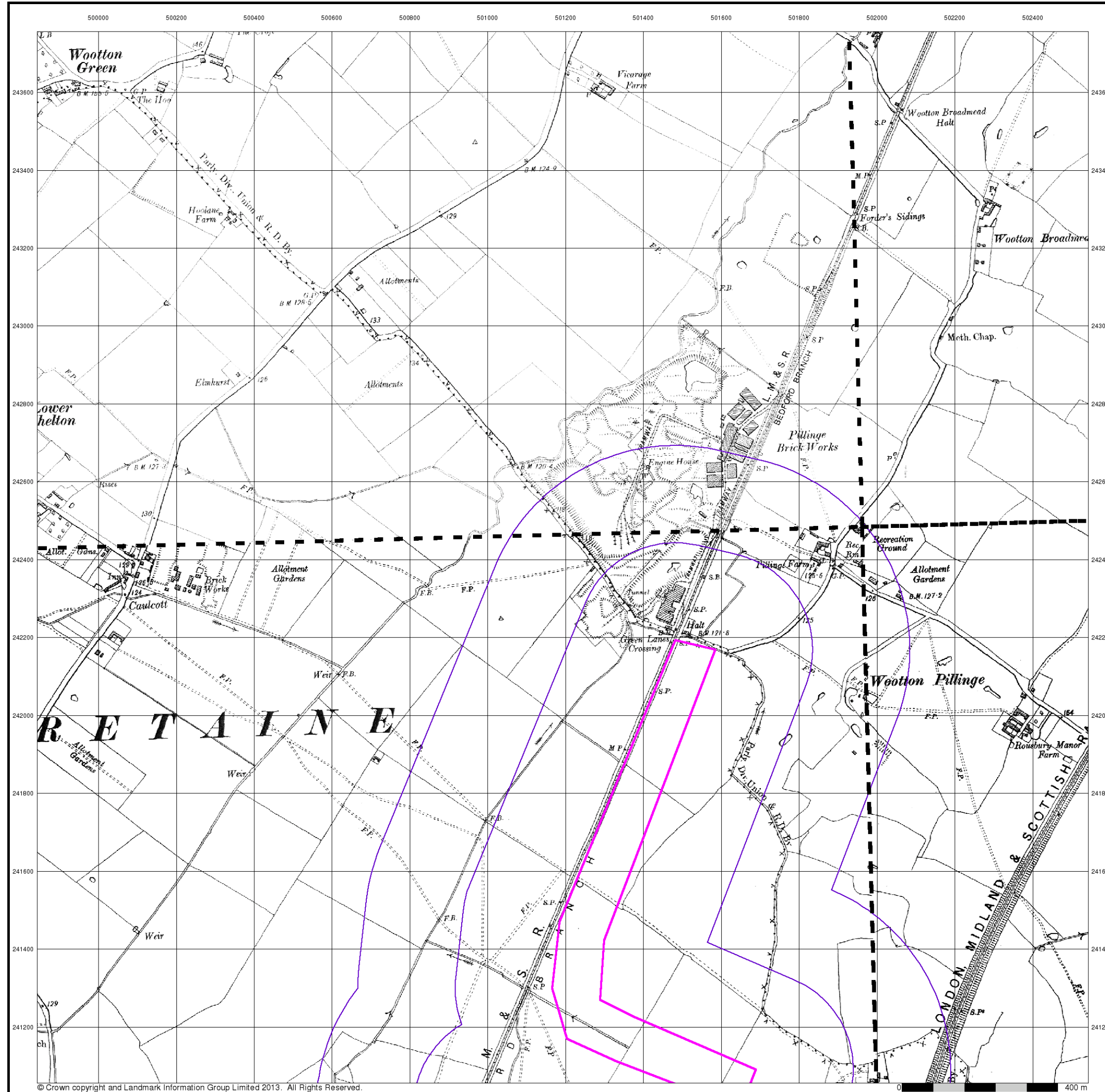
Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501420, 241770
 Slice: C
 Site Area (Ha): 240.61
 Search Buffer (m): 500

Site Details

Millbrook Power Project, Green Lane, Stewartby



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Bedfordshire
Published 1927

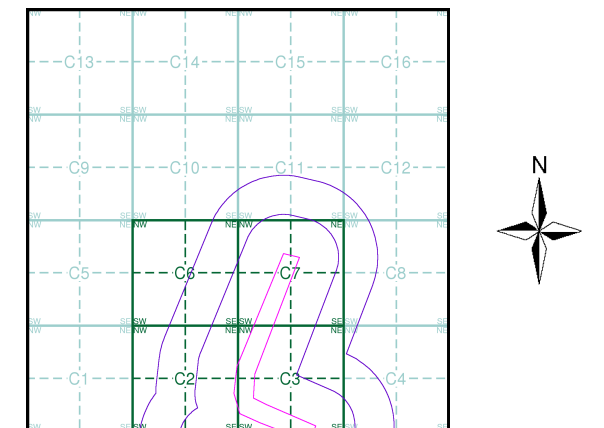
Source map scale - 1:10,560

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)

| | |
|---------------------------|---------------------------|
| 016SW 1927 1:10,560 | 016SE 1927 1:10,560 |
| 021NW 1927 1:10,560 | 021NE 1927 1:10,560 |

Historical Map - Slice C



Order Details

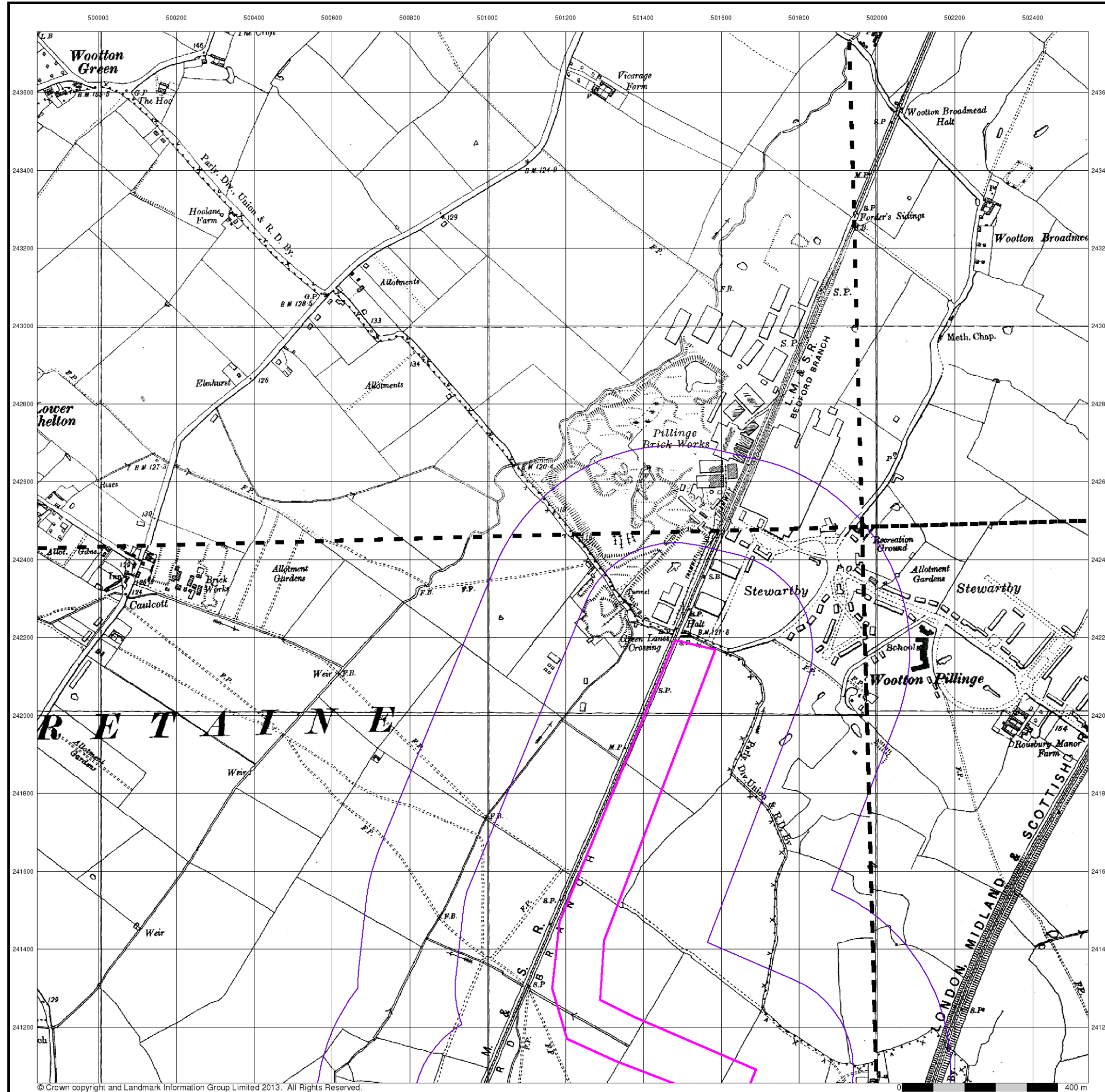
Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501420, 241770
 Slice: C
 Site Area (Ha): 240.61
 Search Buffer (m): 500

Site Details

Millbrook Power Project, Green Lane, Stewartby



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



Bedfordshire
Published 1938

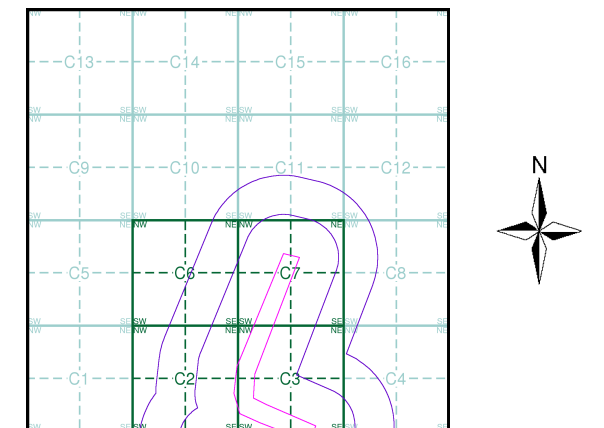
Source map scale - 1:10,560

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)

| | |
|---------------------------|---------------------------|
| 016SW 1938 1:10,560 | 016SE 1938 1:10,560 |
| 021NW 1938 1:10,560 | 021NE 1938 1:10,560 |

Historical Map - Slice C



Order Details

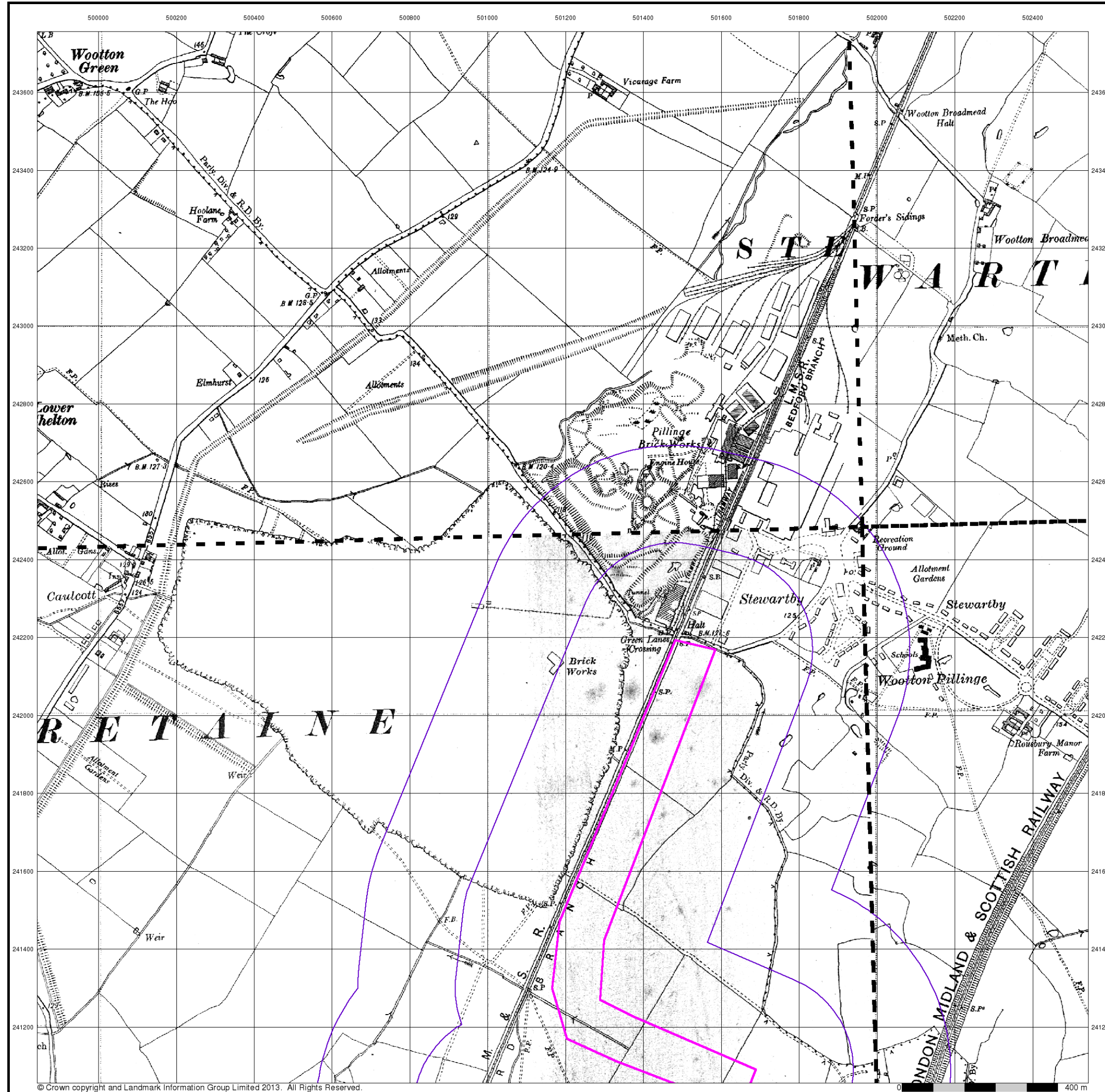
Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501420, 241770
 Slice: C
 Site Area (Ha): 240.61
 Search Buffer (m): 500

Site Details

Millbrook Power Project, Green Lane, Stewartby



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



Bedfordshire

Published 1946 - 1948

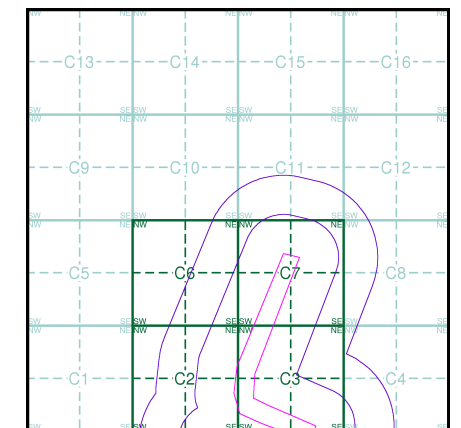
Source map scale - 1:10,560

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)

| | |
|---------------------------|---------------------------|
| 016SW 1946 1:10,560 | 016SE 1948 1:10,560 |
| 021NW 1947 1:10,560 | 021NE 1948 1:10,560 |

Historical Map - Slice C



Order Details

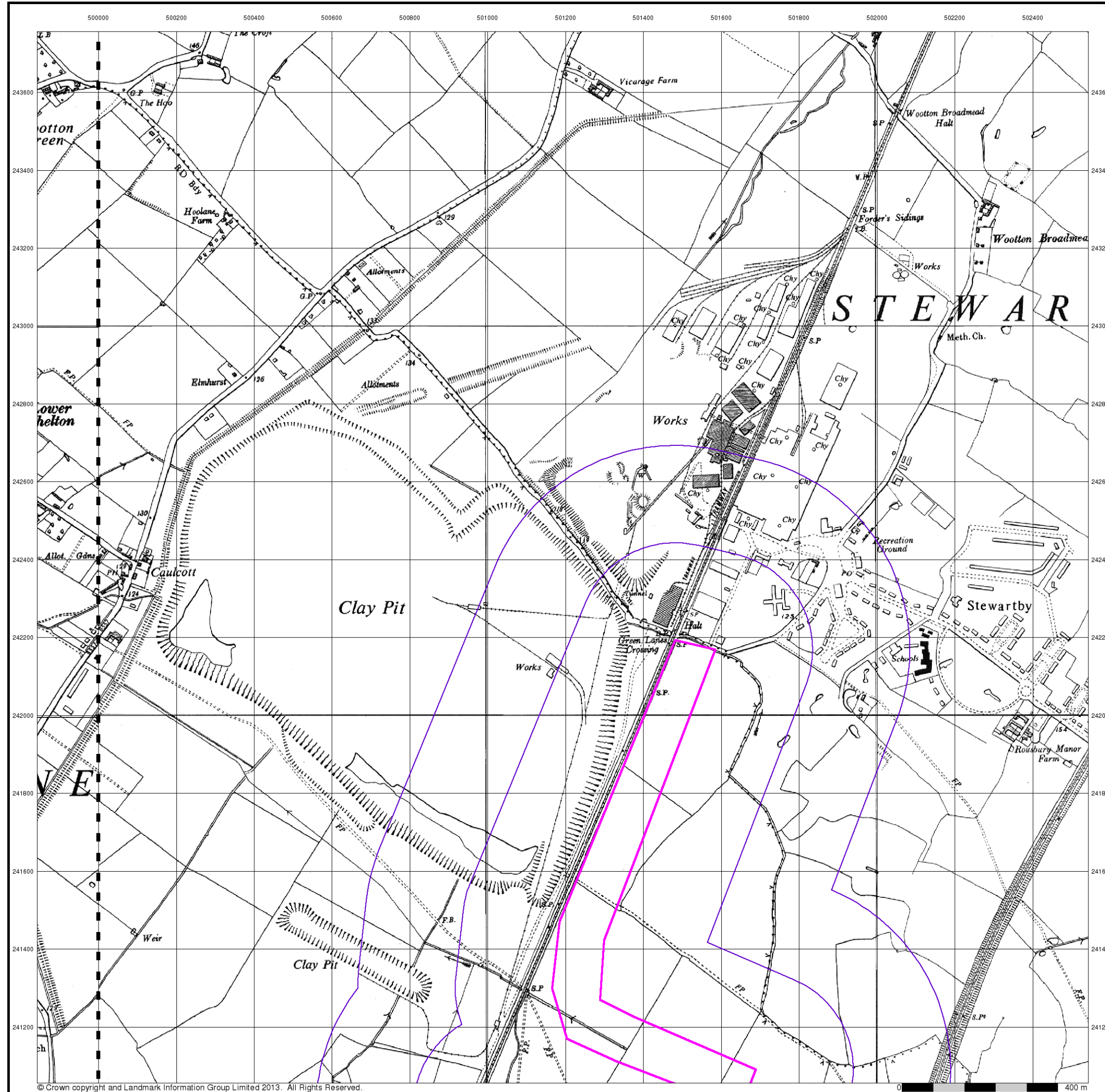
Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501420, 241770
 Slice: C
 Site Area (Ha): 240.61
 Search Buffer (m): 500

Site Details

Millbrook Power Project, Green Lane, Stewartby



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



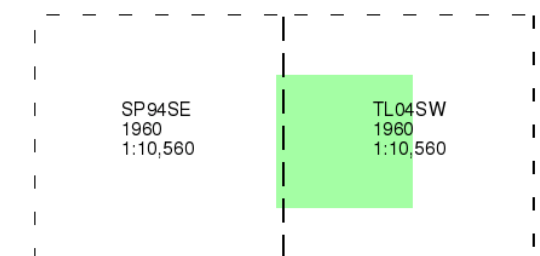
Ordnance Survey Plan

Published 1960

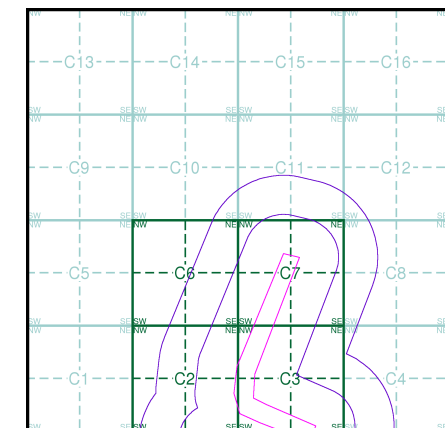
Source map scale - 1:10,000

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

Map Name(s) and Date(s)



Historical Map - Slice C



Order Details

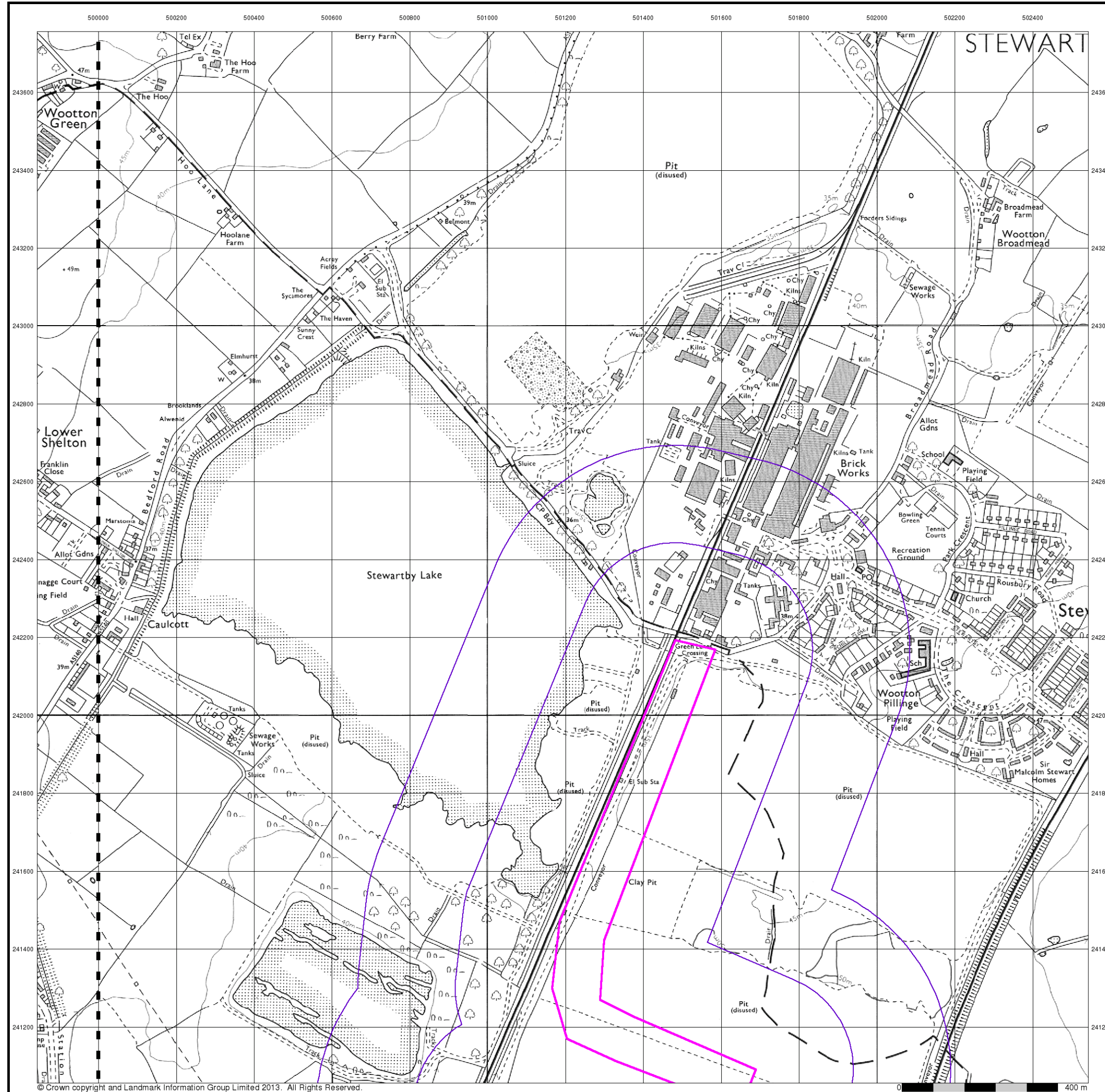
Order Number: 60770728_1_1
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Site Details

Millbrook Power Project, Green Lane, Stewartby



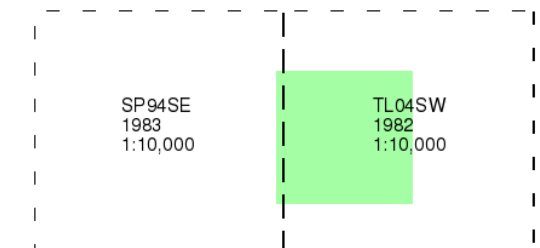
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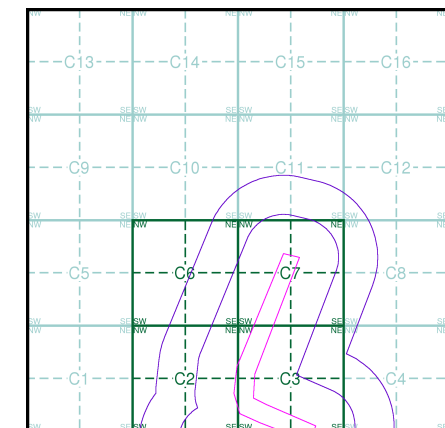
Ordnance Survey Plan
Published 1982 - 1983
Source map scale - 1:10,000

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

Map Name(s) and Date(s)



Historical Map - Slice C



Order Details

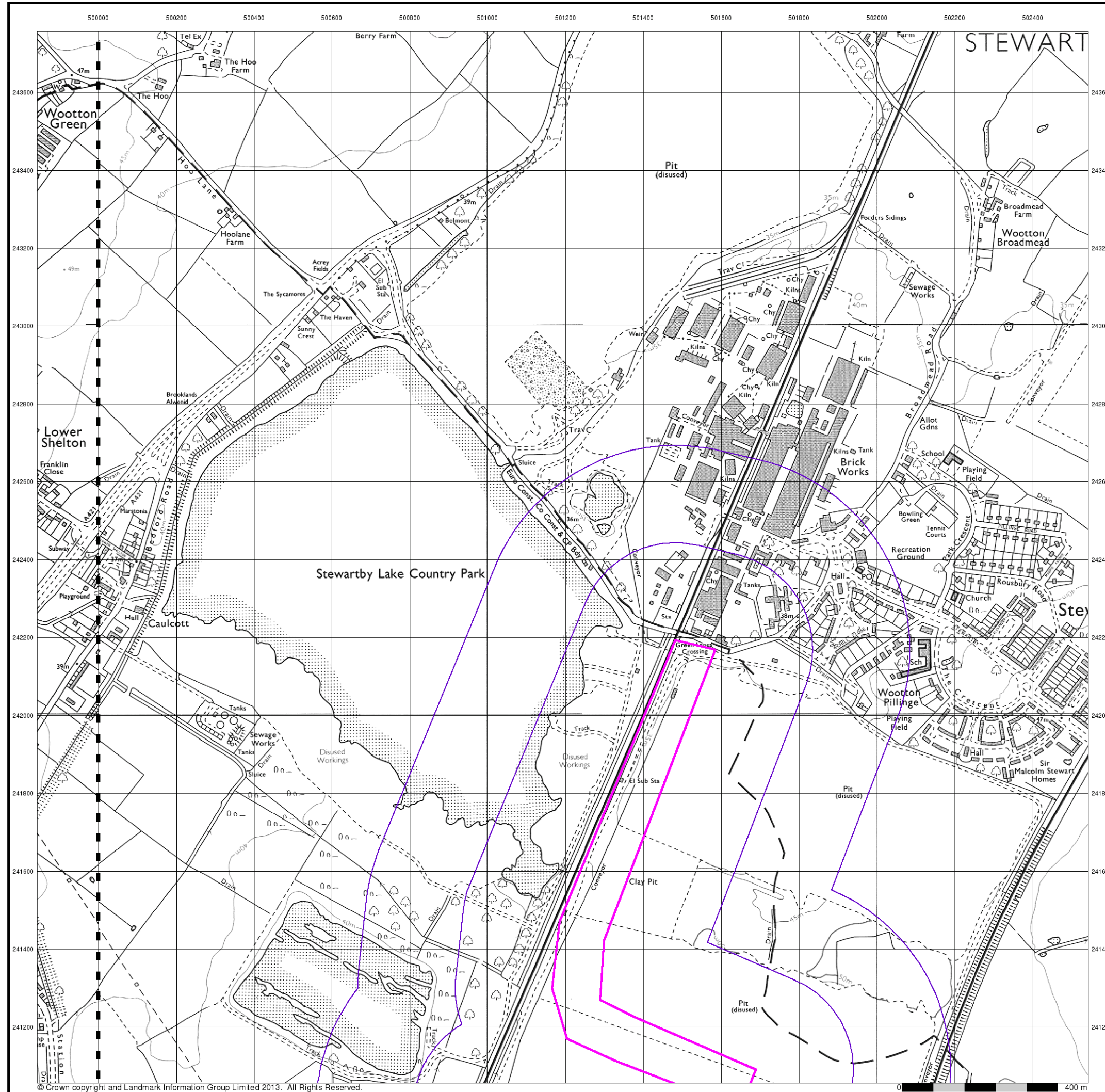
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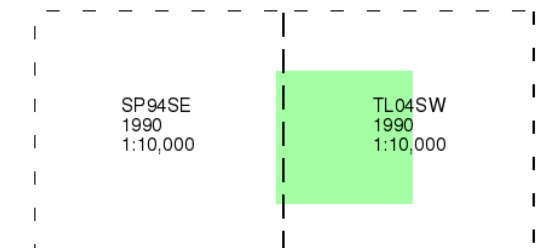
Ordnance Survey Plan

Published 1990

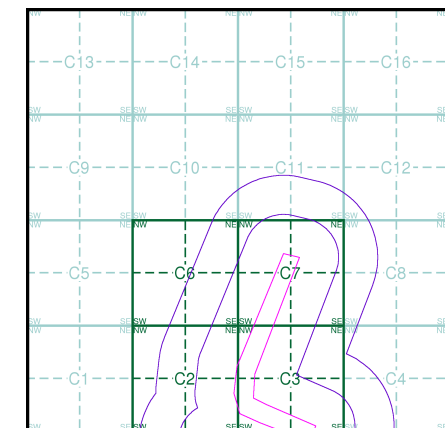
Source map scale - 1:10,000

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

Map Name(s) and Date(s)



Historical Map - Slice C



Order Details

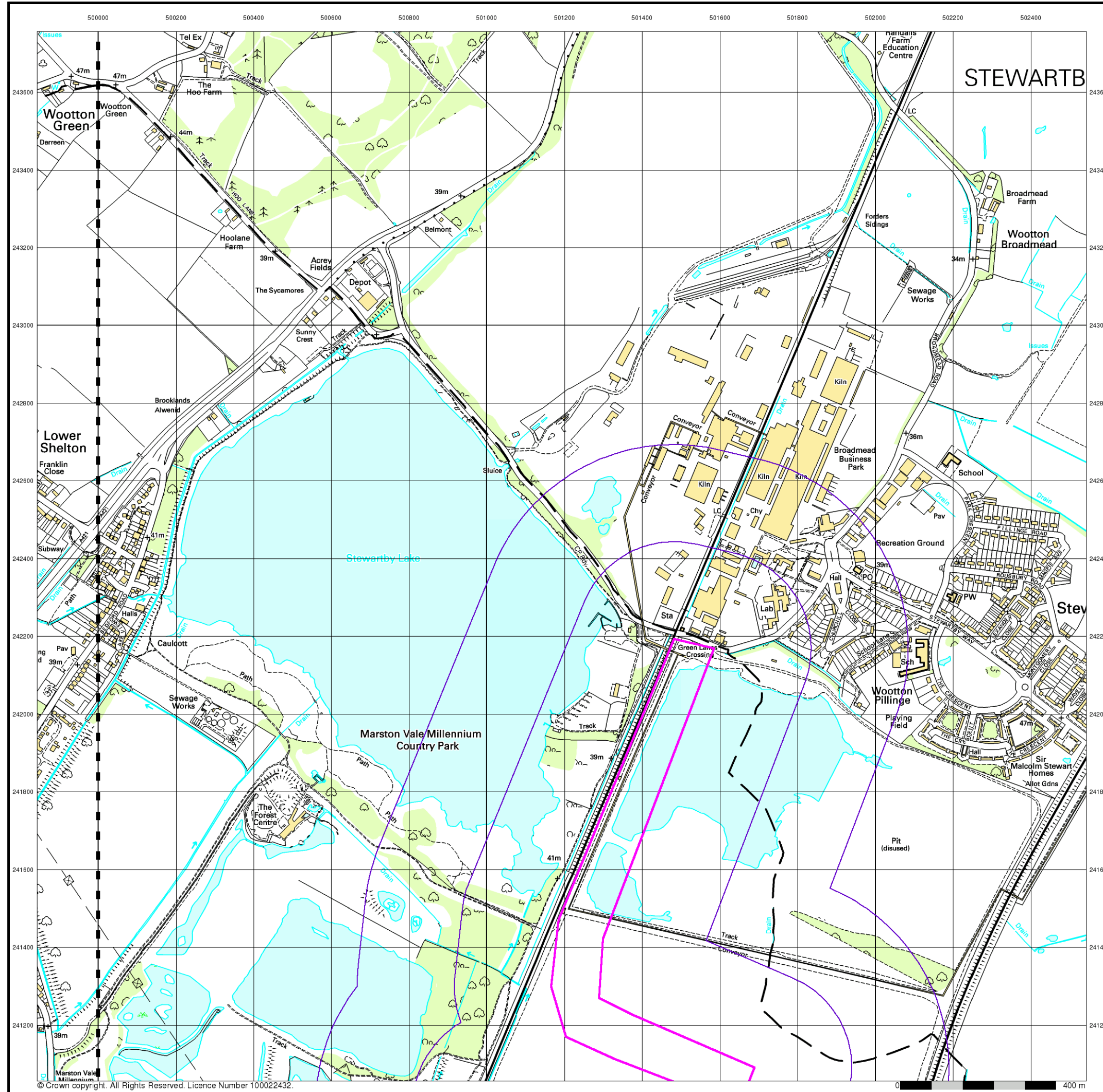
Order Number: 60770728_1_1
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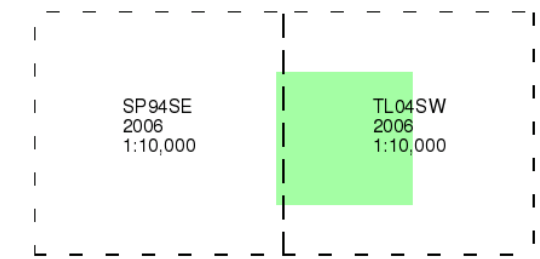
10k Raster Mapping

Published 2006

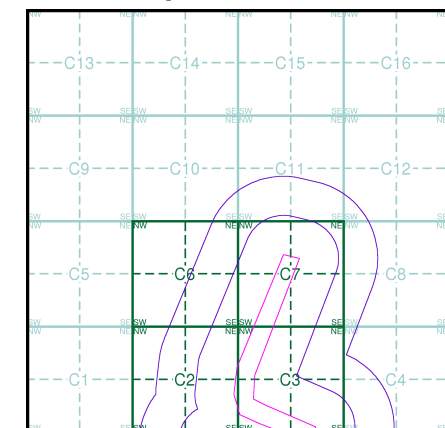
Source map scale - 1:10,000

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 C



Order Details

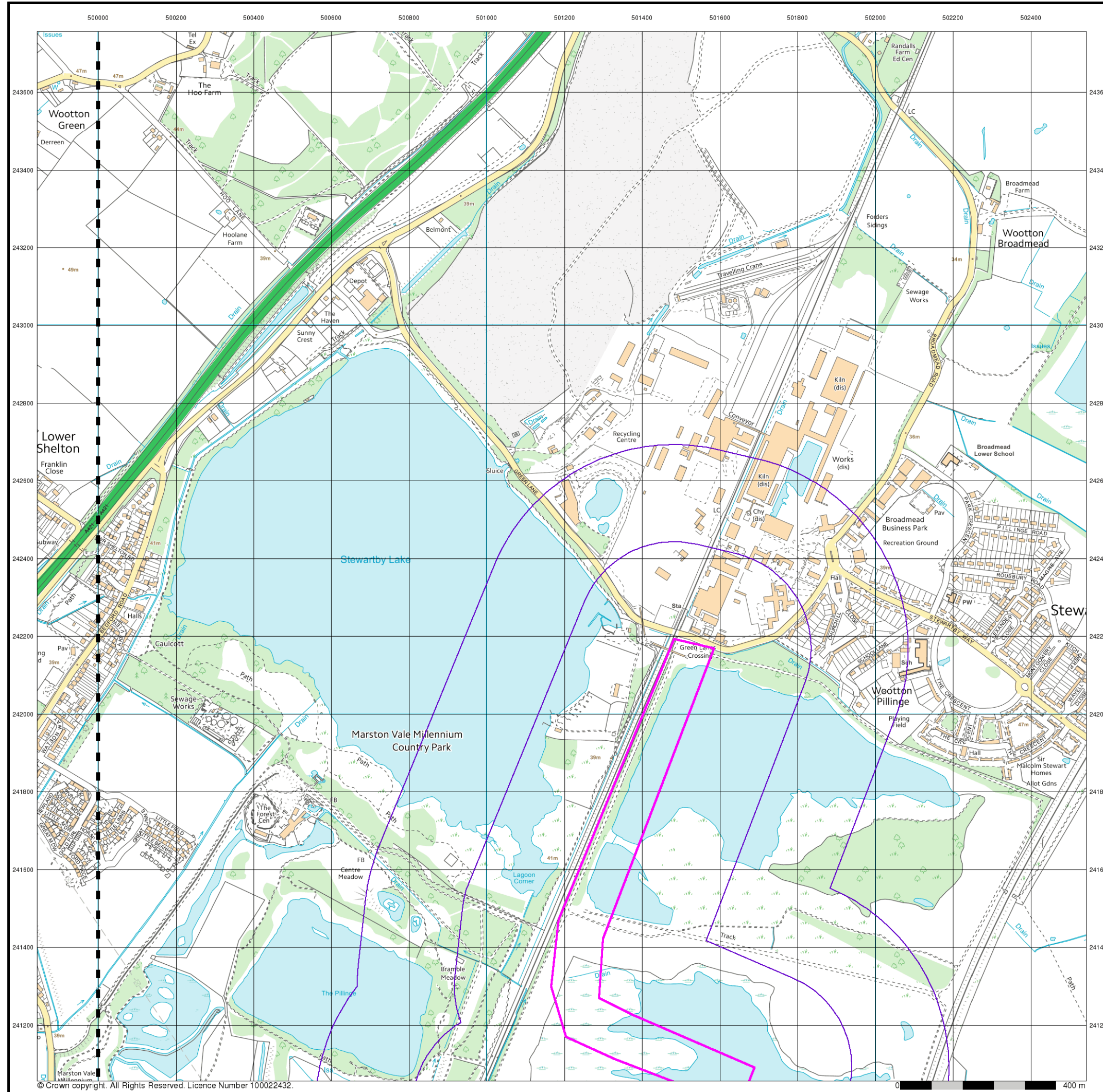
Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501420, 241770
 Slice: C
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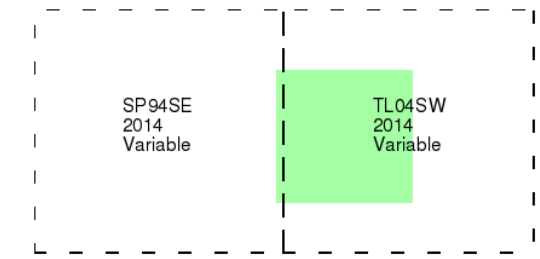
VectorMap Local

Published 2014

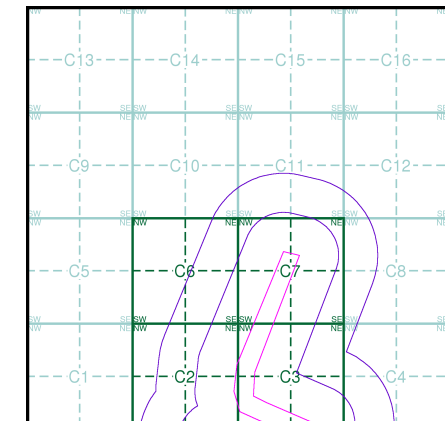
Source map scale - 1:10,000

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 C



Order Details

Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501420, 241770
 Slice: C
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Site Details

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Historical Mapping Legends

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

Quarry **Gravel Pit** **Sand Pit**
Clay Pit **Shingle** **Refuse Heap**
Sloping Masonry **Flat Rock**
Marsh **Reeds** **Osiers**
Rough Pasture **Furze** **Wood**
Mixed Wood **Brushwood** **Orchard**
Fir **Ford** **Stepping Stones**
Ferry **Waterfall** **Lock**
Trig. Station **Altitude at Trig. Station**
B.M. 325.9 **Bench Mark** **Surface Level**
Arrow denotes flow of water **Antiquities (site of)**
Cutting **Embankment**
Railway crossing Road **Level Crossing** **Road crossing Railway**
Railway crossing River or Canal **Road over single stream** **Road over River or Canal**
County Boundary (Geographical)
County & Civil Parish Boundary
Administrative County & Civil Parish Boundary
County Borough Boundary (England)
County Burgh Boundary (Scotland)
Co. Boro. Bdy.
Co. Burgh Bdy.
BP BS Boundary Post or Stone **P.C.B** Police Call Box
B.R. Bridle Road **P** Pump
E.P Electricity Pylon **S.P** Signal Post
F.B. Foot Bridge **SL** Sluice
F.P. Foot Path **Sp.** Spring
G.P Guide Post or Board **T.C.B** Telephone Call Box
M.S Mile Stone **Tr.** Trough
M.P M.R Mooring Post or Ring **W** Well

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

Inactive Quarry, Chalk Pit or Clay Pit **Active Quarry, Chalk Pit or Clay Pit**
Rock **Boulders**
Cliff **Slopes** **Top**
Roofed Building **Glazed Roof Building**
Sloping Masonry **Archway**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Bench Mark** **Antiquity (site of)**
Cave Entrance **Triangulation Station** **Electricity Pylon**
Electricity Transmission Line
County Boundary (Geographical)
County & Civil Parish Boundary
Civil Parish Boundary
Admin. County or County Bor. Boundary
London Borough Boundary
Symbol marking point where boundary mereing changes
BH Beer House **P** Pillar, Pole or Post
BP, BS Boundary Post or Stone **PO** Post Office
Cn, C Capstan, Crane **PC** Public Convenience
Chy Chimney **PH** Public House
D Fn Drinking Fountain **Pp** Pump
EI P Electricity Pillar or Post **SB, S Br** Signal Box or Bridge
FAP Fire Alarm Pillar **SP, SL** Signal Post or Light
FB Foot Bridge **Spr** Spring
GP Guide Post **Tk** Tank or Track
H Hydrant or Hydraulic **TCB** Telephone Call Box
LC Level Crossing **TCP** Telephone Call Post
MH Manhole **Tr** Trough
MP Mile Post or Mooring Post **Wr Pt, Wr T** Water Point, Water Tap
MS Mile Stone **W** Well
NTL Normal Tidal Limit **Wd Pp** Wind Pump

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

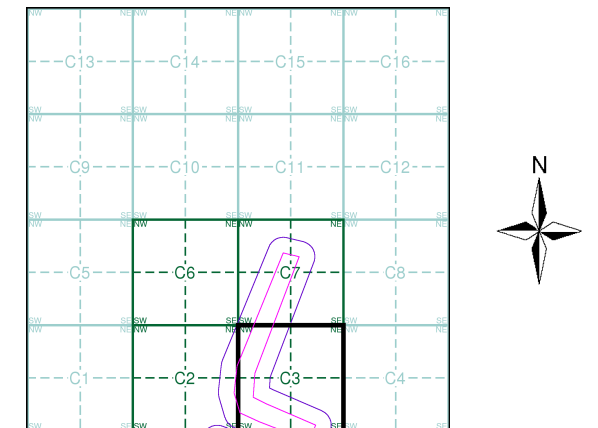
Cliff **Slopes** **Top**
Rock **Rock (scattered)**
Boulders **Boulders (scattered)**
Positioned Boulder **Scree**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Triangulation Station** **Antiquity (site of)**
Electricity Transmission Line **Electricity Pylon**
BM 231.60m Bench Mark **Buildings with Building Seed**
Roofed Building **Glazed Roof Building**
Civil parish/community boundary
District boundary
County boundary
Boundary post/stone
Boundary mereing symbol (note: these always appear in opposed pairs or groups of three)
Bks Barracks **P** Pillar, Pole or Post
Bty Battery **PO** Post Office
Cemy Cemetery **PC** Public Convenience
Chy Chimney **Pp** Pump
Cis Cistern **Ppg Sta** Pumping Station
Dismtd Rly Dismantled Railway **PW** Place of Worship
EI Gen Sta Electricity Generating Station **Sewage Ppg Sta** Sewage Pumping Station
EI P Electricity Pole, Pillar **SB, S Br** Signal Box or Bridge
EI Sub Sta Electricity Sub Station **SP, SL** Signal Post or Light
FB Filter Bed **Spr** Spring
Fn / D Fn Fountain / Drinking Ftn. **Tk** Tank or Track
Gas Gov Gas Valve Compound **Tr** Trough
GVC Gas Governor **Wd Pp** Wind Pump
GP Guide Post **Wr Pt, Wr T** Water Point, Water Tap
MH Manhole **Wks** Works (building or area)
MP, MS Mile Post or Mile Stone **W** Well



Historical Mapping & Photography included:

| Mapping Type | Scale | Date | Pg |
|--------------------------------|---------|------|----|
| Bedfordshire | 1:2,500 | 1883 | 2 |
| Bedfordshire | 1:2,500 | 1901 | 3 |
| Bedfordshire | 1:2,500 | 1925 | 4 |
| Ordnance Survey Plan | 1:2,500 | 1976 | 5 |
| Large-Scale National Grid Data | 1:2,500 | 1993 | 6 |

Historical Map - Segment C3



Order Details

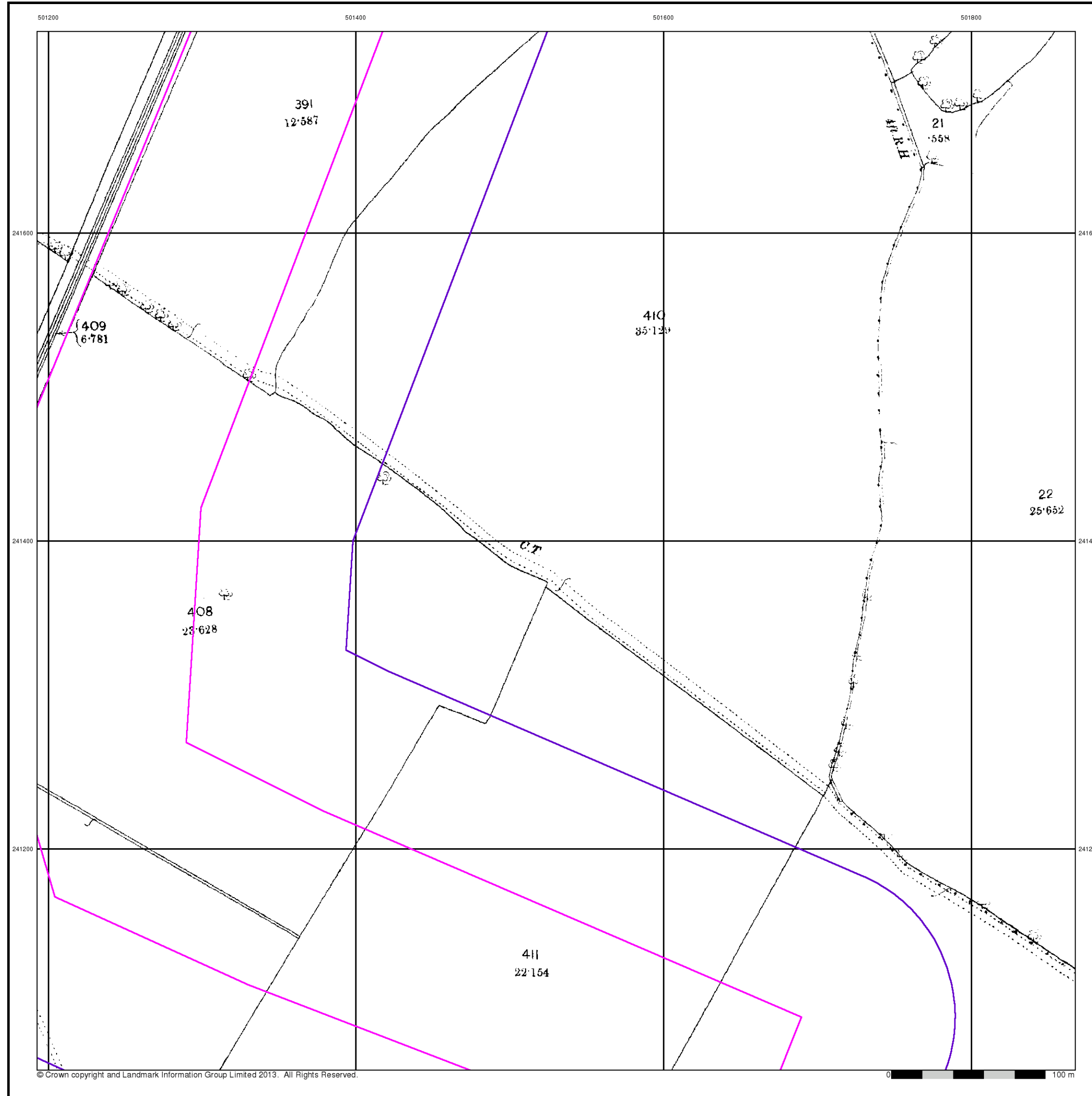
Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501420, 241770
 Slice: C
 Site Area (Ha): 240.61
 Search Buffer (m): 100

Site Details

Millbrook Power Project, Green Lane, Stewartby



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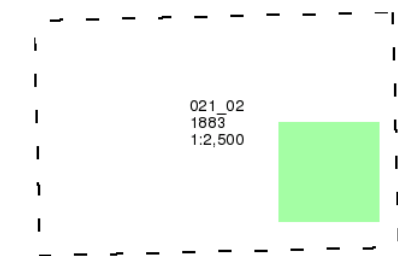


Bedfordshire
Published 1883

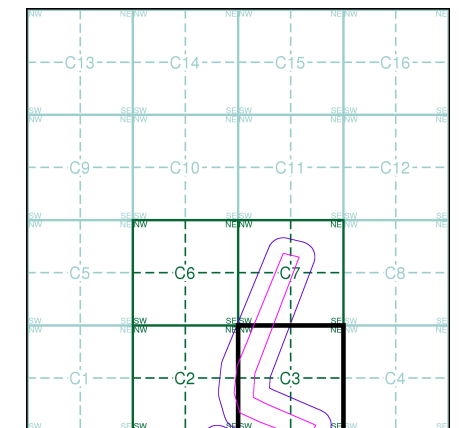
Source map scale - 1:2,500

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 C3



Order Details

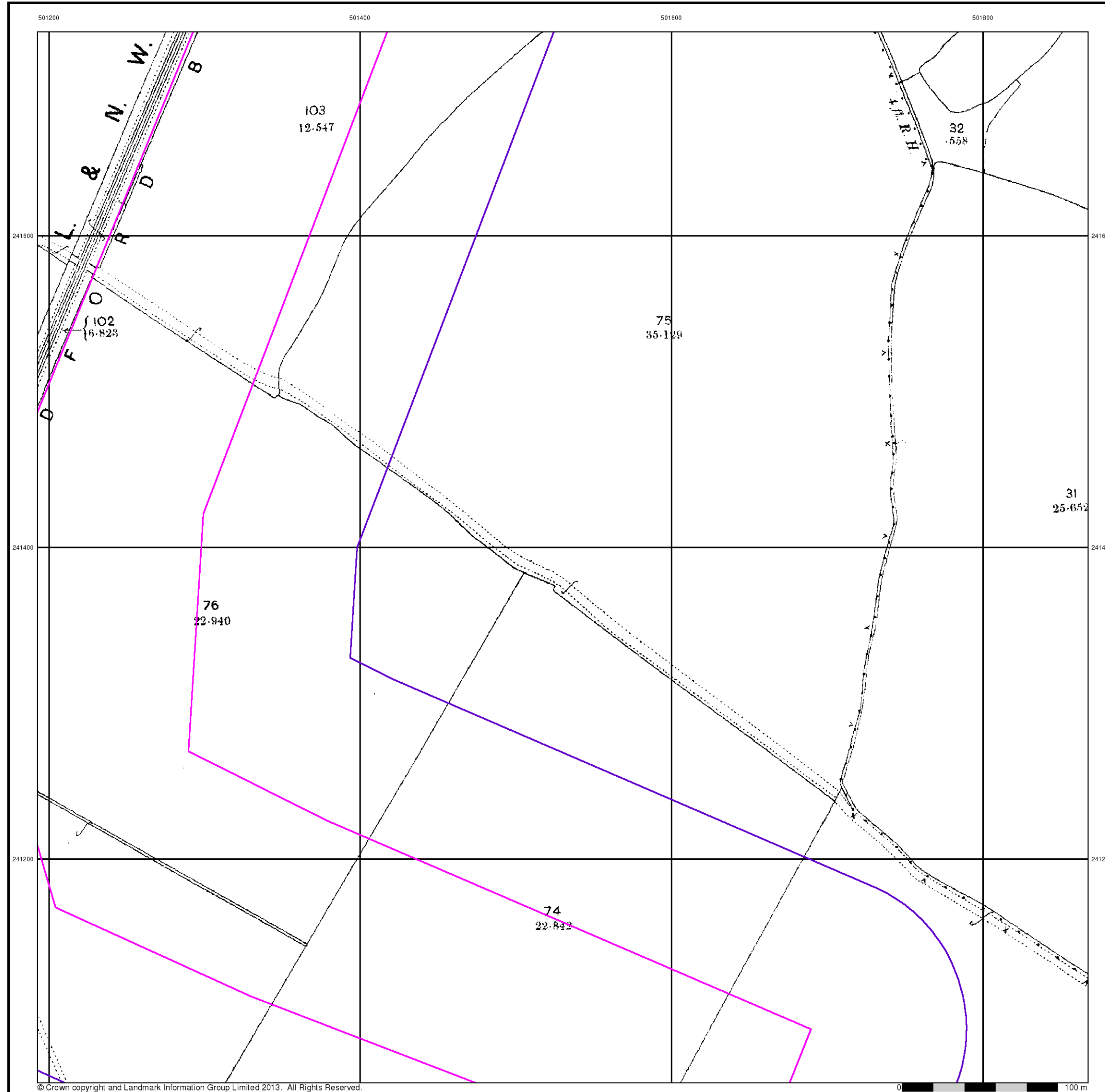
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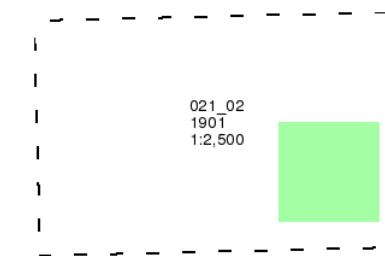
Bedfordshire

Published 1901

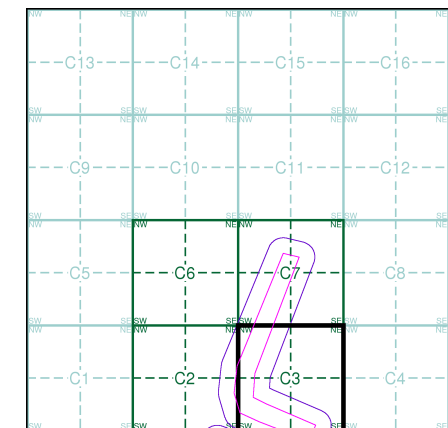
Source map scale - 1:2,500

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Map Name(s) and Date(s)



Historical Map - Segment C3



Order Details

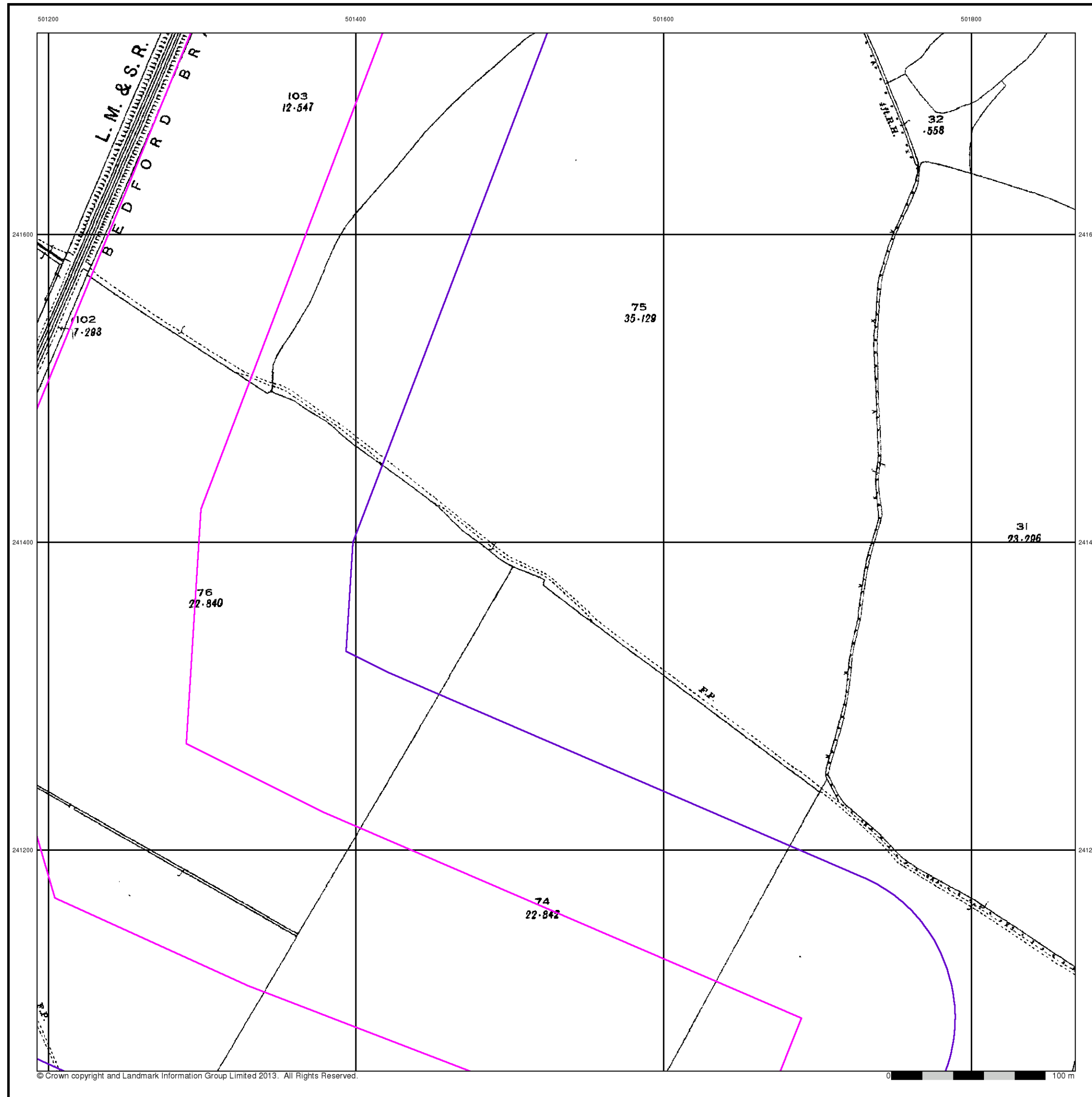
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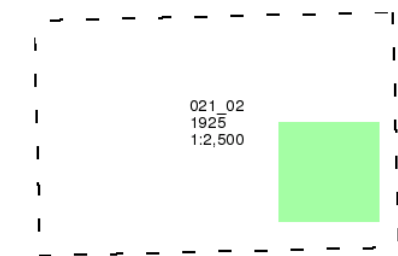


Bedfordshire
Published 1925

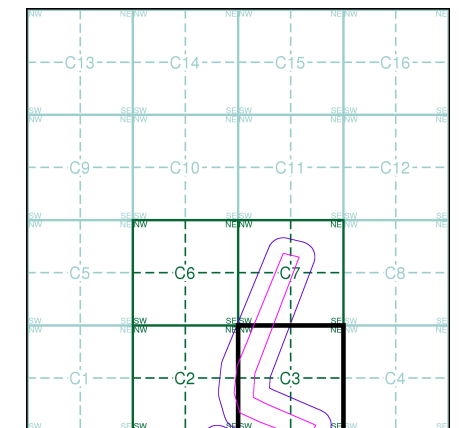
Source map scale - 1:2,500

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 C3



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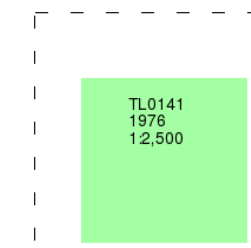
Ordnance Survey Plan

Published 1976

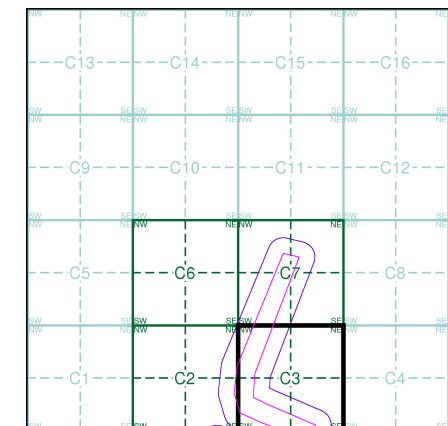
Source map scale - 1:2,500

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 C3



Order Details

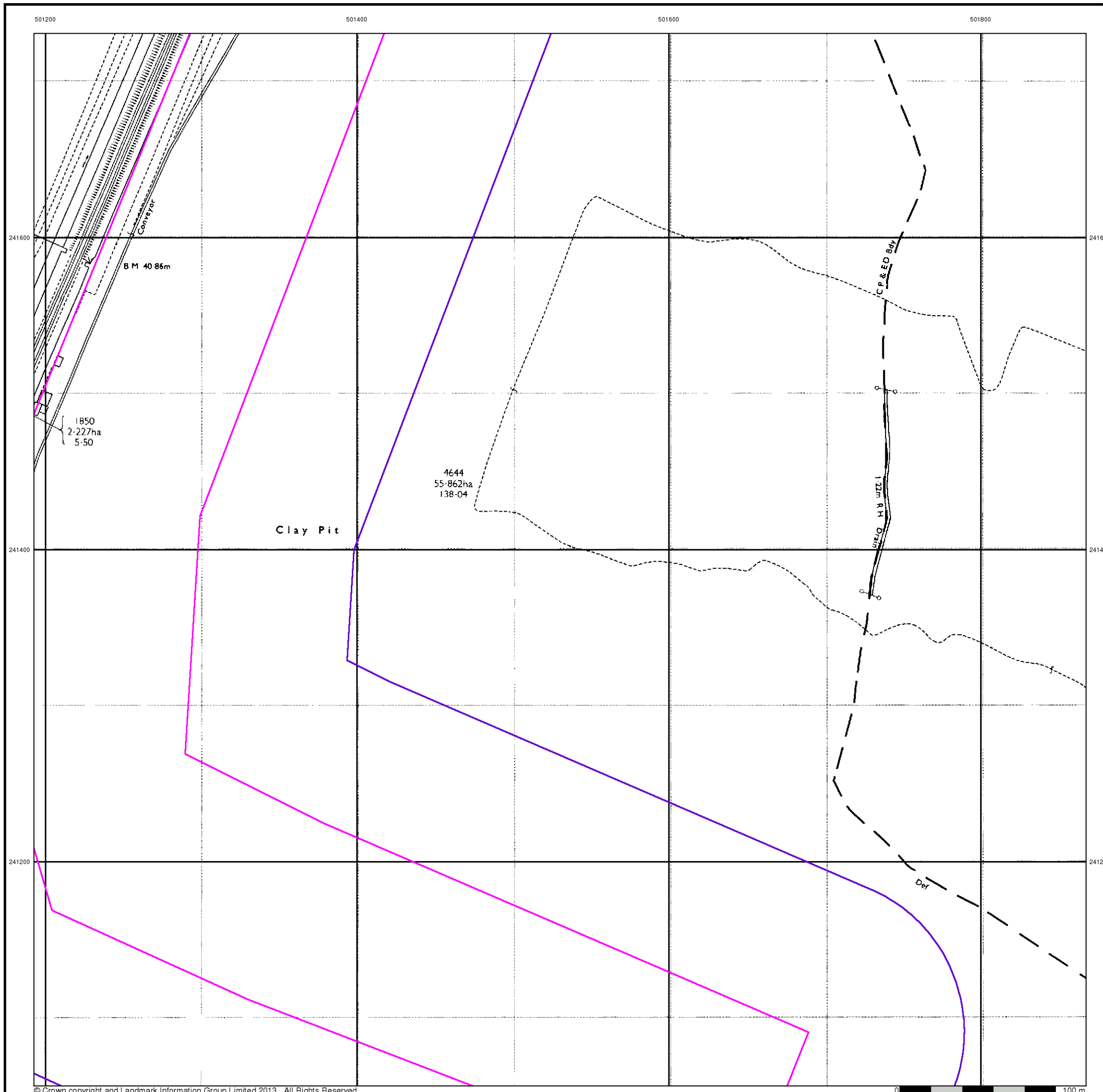
Order Number: 60770728_1_1
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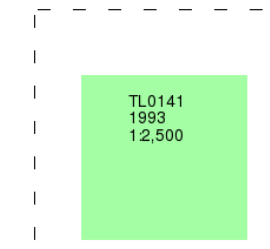


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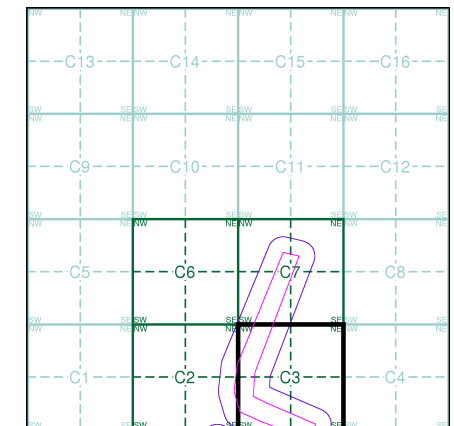


'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic 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 C3

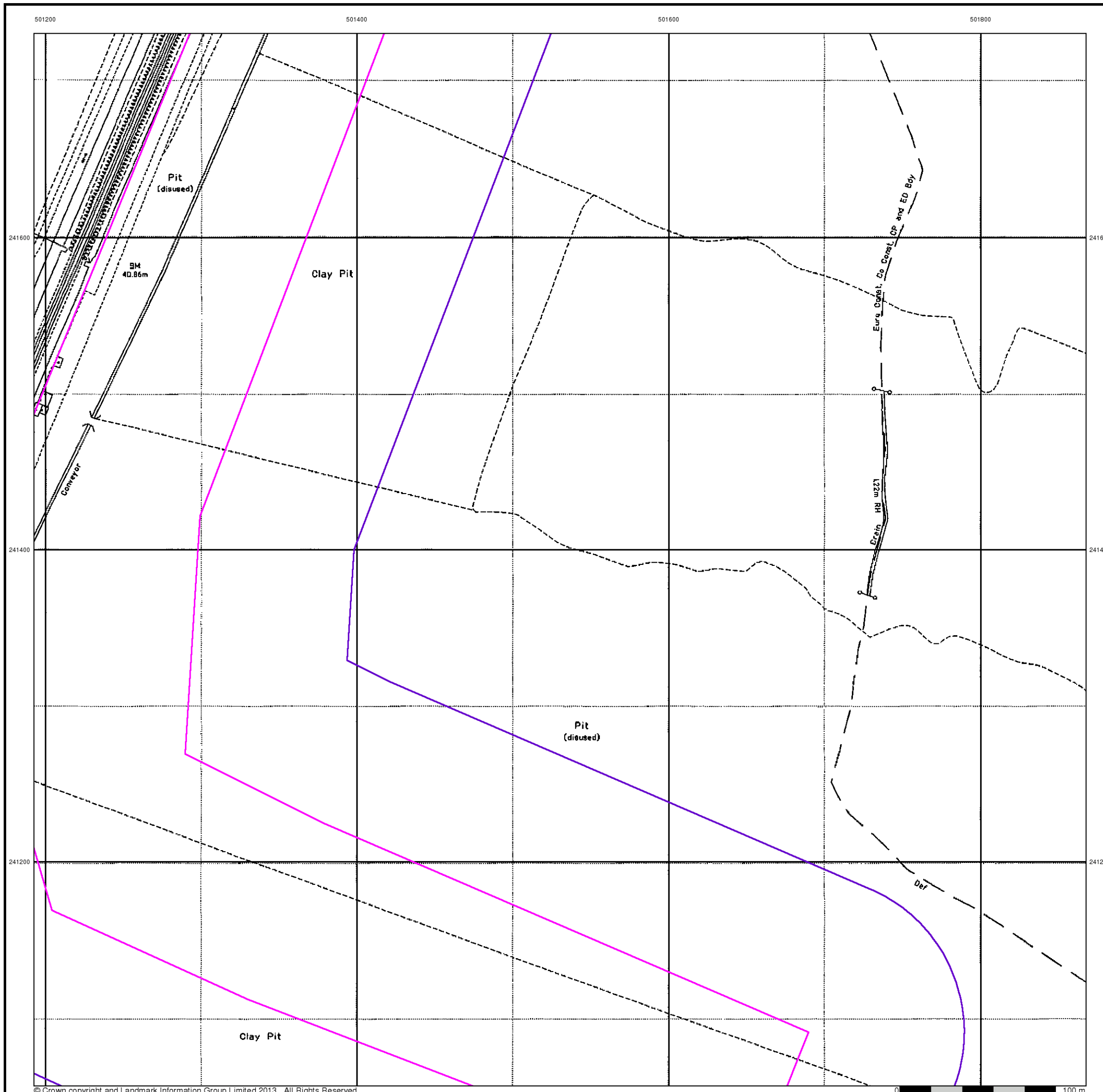


Order Details

Order Number: 60770728_1_1
 Customer Ref: 31116
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 Slice: C
 Site Area (Ha): 240.61
 Search Buffer (m): 100

Site Details

Millbrook Power Project, Green Lane, Stewartby



Historical Mapping Legends

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

Quarry **Gravel Pit** **Sand Pit**
Clay Pit **Shingle** **Refuse Heap**
Sloping Masonry **Flat Rock**
Marsh **Reeds** **Osiers**
Rough Pasture **Furze** **Wood**
Mixed Wood **Brushwood** **Orchard**
Fir **Ford** **Stepping Stones**
Ferry **Waterfall** **Lock**
Trig. Station **Altitude at Trig. Station**
B.M. 325.9 **Bench Mark** **Surface Level**
Arrow denotes flow of water **Antiquities (site of)**
Cutting **Embankment**
Railway crossing Road **Level Crossing** **Road crossing Railway**
Railway crossing River or Canal **Road over single stream** **Road over River or Canal**
County Boundary (Geographical)
County & Civil Parish Boundary
Administrative County & Civil Parish Boundary
County Borough Boundary (England)
County Burgh Boundary (Scotland)
Co. Boro. Bdy.
Co. Burgh Bdy.
BP BS Boundary Post or Stone **P.C.B** Police Call Box
B.R. Bridle Road **P** Pump
E.P Electricity Pylon **S.P** Signal Post
F.B. Foot Bridge **SL** Sluice
F.P. Foot Path **Sp.** Spring
G.P Guide Post or Board **T.C.B** Telephone Call Box
M.S Mile Stone **Tr.** Trough
M.P M.R Mooring Post or Ring **W** Well

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

Inactive Quarry, Chalk Pit or Clay Pit **Active Quarry, Chalk Pit or Clay Pit**
Rock **Boulders**
Cliff **Slopes** **Top**
Roofed Building **Glazed Roof Building**
Sloping Masonry **Archway**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Bench Mark** **Antiquity (site of)**
Cave Entrance **Triangulation Station** **Electricity Pylon**
Electricity Transmission Line
County Boundary (Geographical)
County & Civil Parish Boundary
Civil Parish Boundary
Admin. County or County Bor. Boundary
London Borough Boundary
Symbol marking point where boundary mereing changes
BH Beer House **P** Pillar, Pole or Post
BP, BS Boundary Post or Stone **PO** Post Office
Cn, C Capstan, Crane **PC** Public Convenience
Chy Chimney **PH** Public House
D Fn Drinking Fountain **Pp** Pump
EI P Electricity Pillar or Post **SB, S Br** Signal Box or Bridge
FAP Fire Alarm Pillar **SP, SL** Signal Post or Light
FB Foot Bridge **Spr** Spring
GP Guide Post **Tk** Tank or Track
H Hydrant or Hydraulic **TCB** Telephone Call Box
LC Level Crossing **TCP** Telephone Call Post
MH Manhole **Tr** Trough
MP Mile Post or Mooring Post **Wr Pt, Wr T** Water Point, Water Tap
MS Mile Stone **W** Well
NTL Normal Tidal Limit **Wd Pp** Wind Pump

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

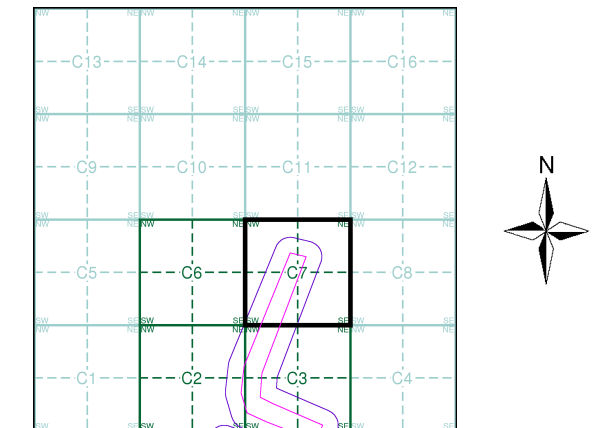
Cliff **Slopes** **Top**
Rock **Rock (scattered)**
Boulders **Boulders (scattered)**
Positioned Boulder **Scree**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Triangulation Station** **Antiquity (site of)**
Electricity Transmission Line **Electricity Pylon**
B.M. 231.60m Bench Mark **Buildings with Building Seed**
Roofed Building **Glazed Roof Building**
Civil parish/community boundary
District boundary
County boundary
Boundary post/stone
Boundary mereing symbol (note: these always appear in opposed pairs or groups of three)
Bks Barracks **P** Pillar, Pole or Post
Bty Battery **PO** Post Office
Cemy Cemetery **PC** Public Convenience
Chy Chimney **Pp** Pump
Cis Cistern **Ppg Sta** Pumping Station
Dismtd Rly Dismantled Railway **PW** Place of Worship
EI Gen Sta Electricity Generating Station **Sewage Ppg Sta** Sewage Pumping Station
EI P Electricity Pole, Pillar **SB, S Br** Signal Box or Bridge
EI Sub Sta Electricity Sub Station **SP, SL** Signal Post or Light
FB Filter Bed **Spr** Spring
Fn / D Fn Fountain / Drinking Ftn. **Tk** Tank or Track
Gas Gov Gas Valve Compound **Tr** Trough
GVC Gas Governor **Wd Pp** Wind Pump
GP Guide Post **Wr Pt, Wr T** Water Point, Water Tap
MH Manhole **Wks** Works (building or area)
MP, MS Mile Post or Mile Stone **W** Well



Historical Mapping & Photography included:

| Mapping Type | Scale | Date | Pg |
|--------------------------------|---------|------|----|
| Bedfordshire | 1:2,500 | 1883 | 2 |
| Bedfordshire | 1:2,500 | 1901 | 3 |
| Bedfordshire | 1:2,500 | 1925 | 4 |
| Ordnance Survey Plan | 1:2,500 | 1976 | 5 |
| Large-Scale National Grid Data | 1:2,500 | 1993 | 6 |
| Large-Scale National Grid Data | 1:2,500 | 1994 | 7 |

Historical Map - Segment C7



Order Details

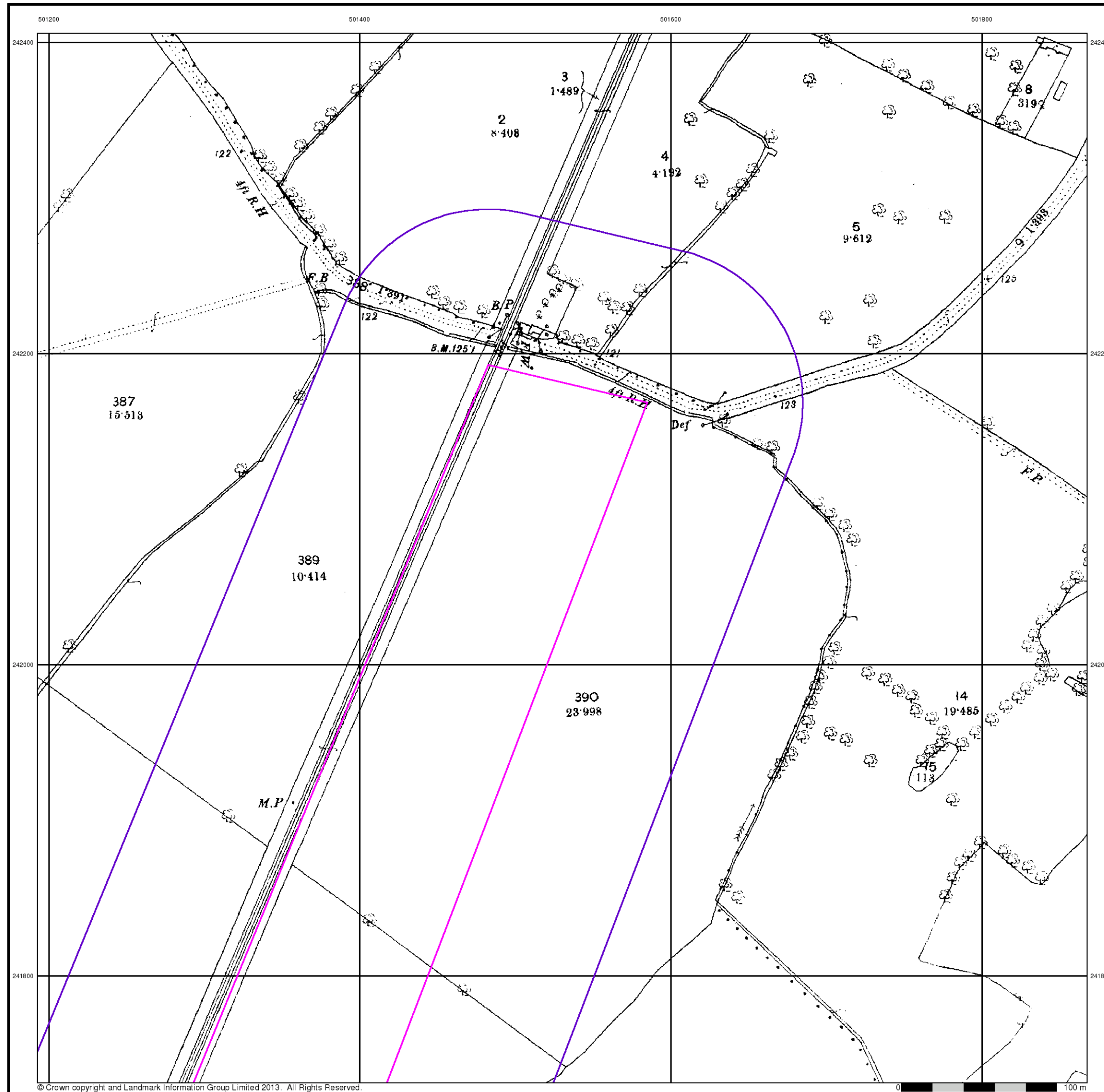
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 Customer Ref: 31116
 National Grid Reference: 501420, 241770
 Slice: C
 Site Area (Ha): 240.61
 Search Buffer (m): 100

Site Details

Millbrook Power Project, Green Lane, Stewartby



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



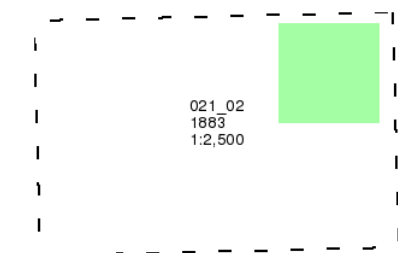
Bedfordshire

Published 1883

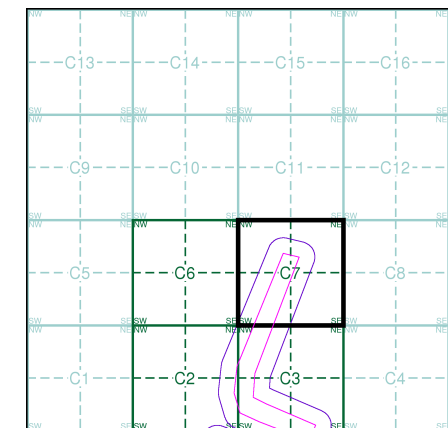
Source map scale - 1:2,500

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 C7



Order Details

Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501420, 241770
 Slice: C
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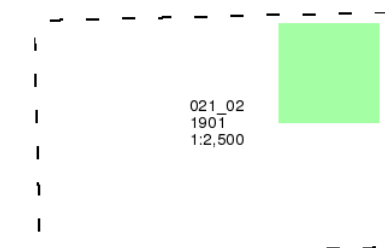
Bedfordshire

Published 1901

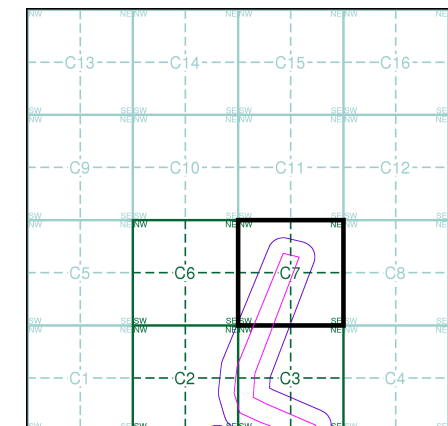
Source map scale - 1:2,500

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 C7



Order Details

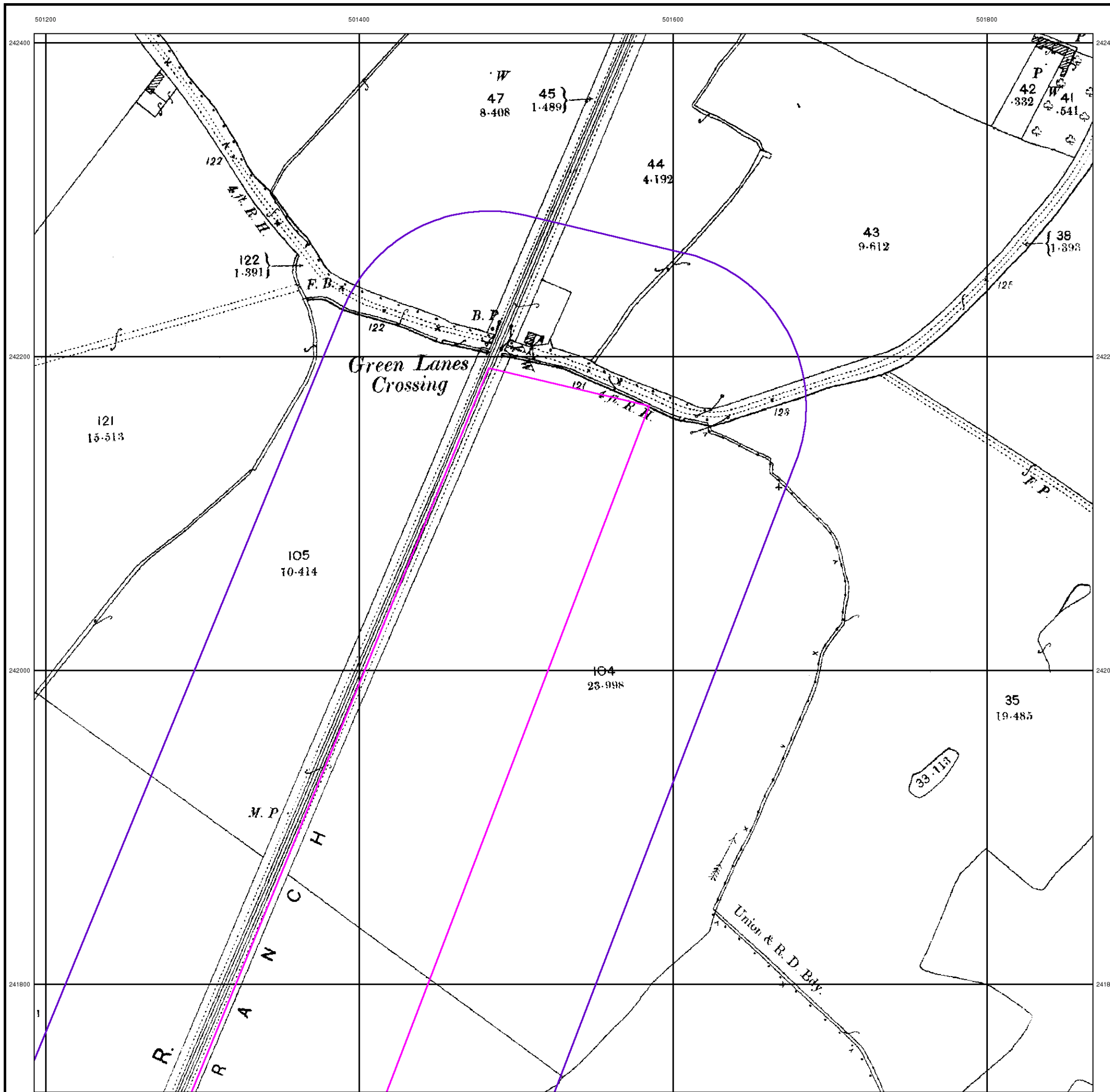
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Customer Ref: 31116
National Grid Reference: 501420, 241770
Slice: C
Site Area (Ha): 240.61
Search Buffer (m): 100

Site Details

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Web: www.envirocheck.co.uk



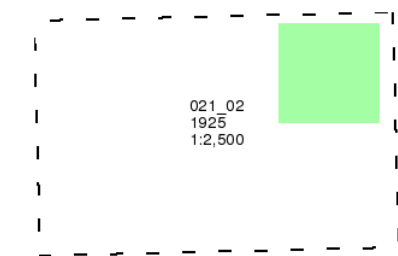


Bedfordshire
Published 1925

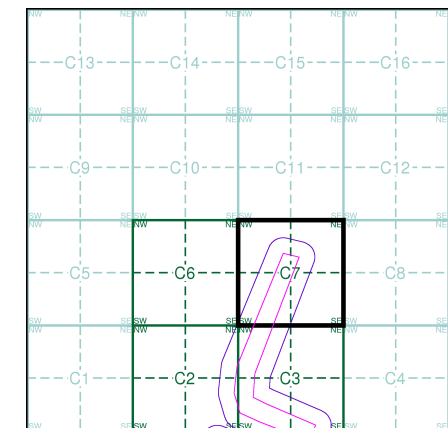
Source map scale - 1:2,500

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 C7



Order Details

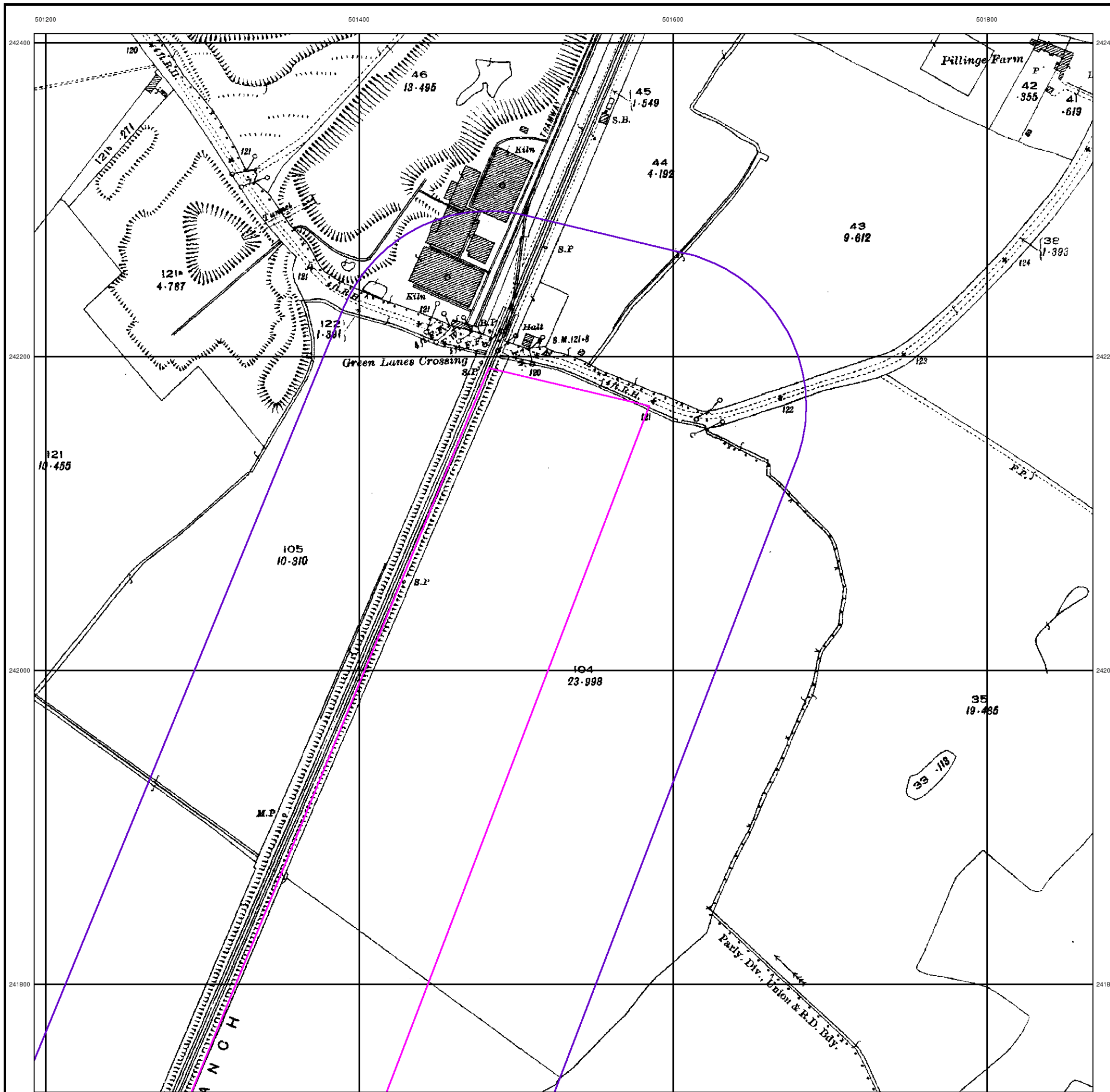
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Slice: C
Site Area (Ha): 240.61
Search Buffer (m): 100

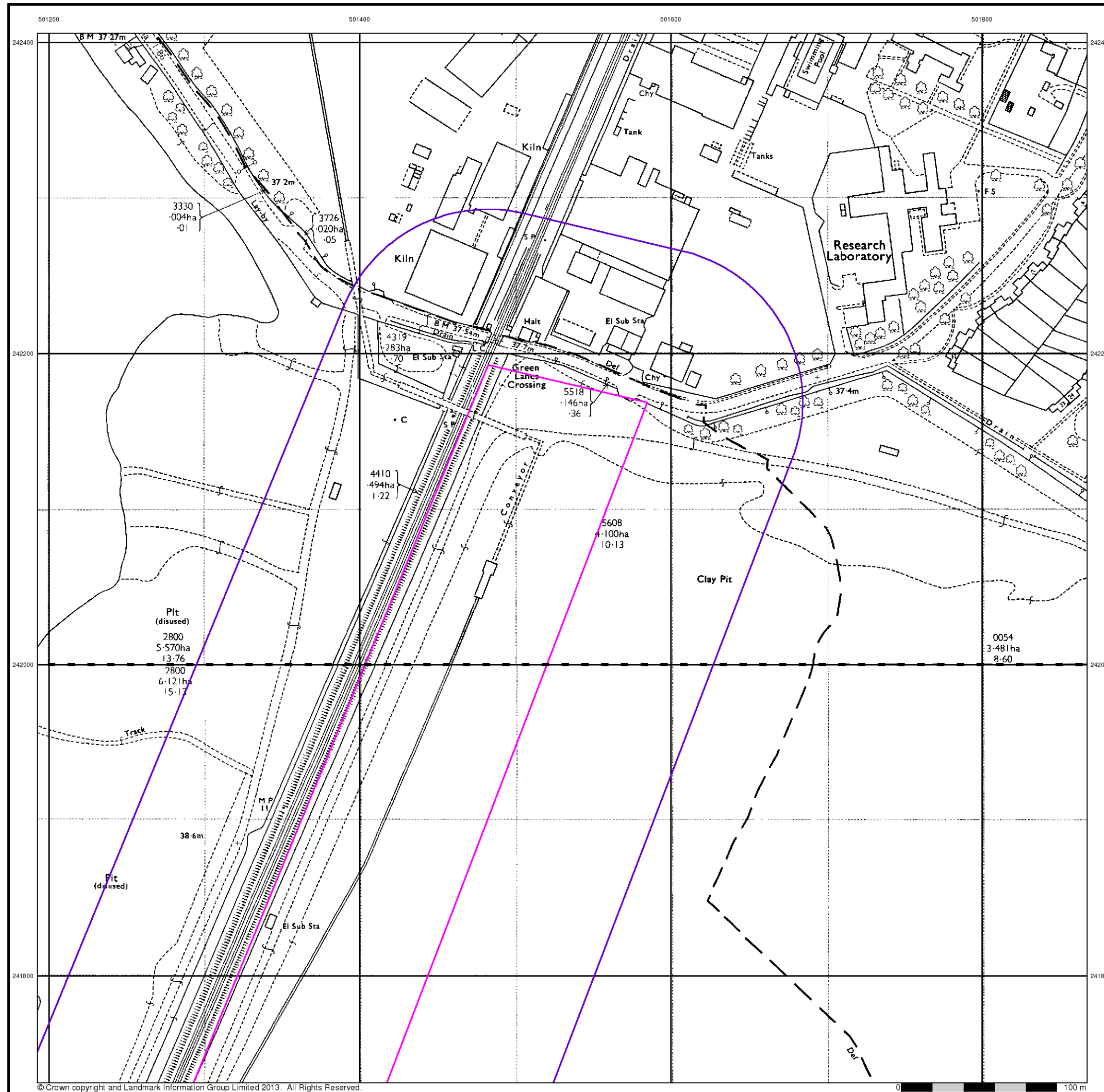
Site Details

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Ordnance Survey Plan

Published 1976

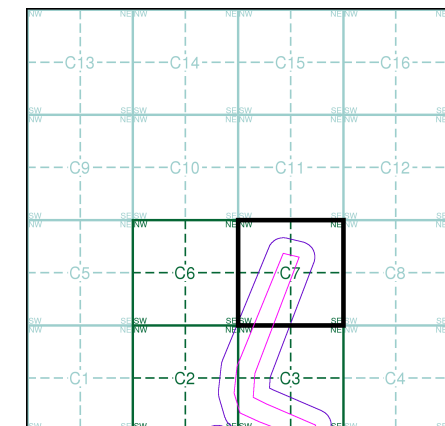
Source map scale - 1:2,500

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)

| | | |
|--------|------|---------|
| TL0142 | 1976 | 1:2,500 |
| TL0141 | 1976 | 1:2,500 |

Historical Map - Segment C7



Order Details

Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501420, 241770
 Slice: C
 Site Area (Ha): 240.61
 Search Buffer (m): 100

Site Details

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Large-Scale National Grid Data

Published 1993

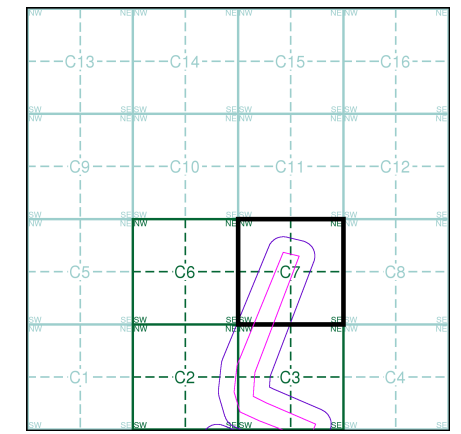
Source map scale - 1:2,500

'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)

| | |
|---------|--|
| TL0142 | |
| 1993 | |
| 1:2,500 | |
| | |
| TL0141 | |
| 1993 | |
| 1:2,500 | |

Historical Map - Segment C7



Order Details

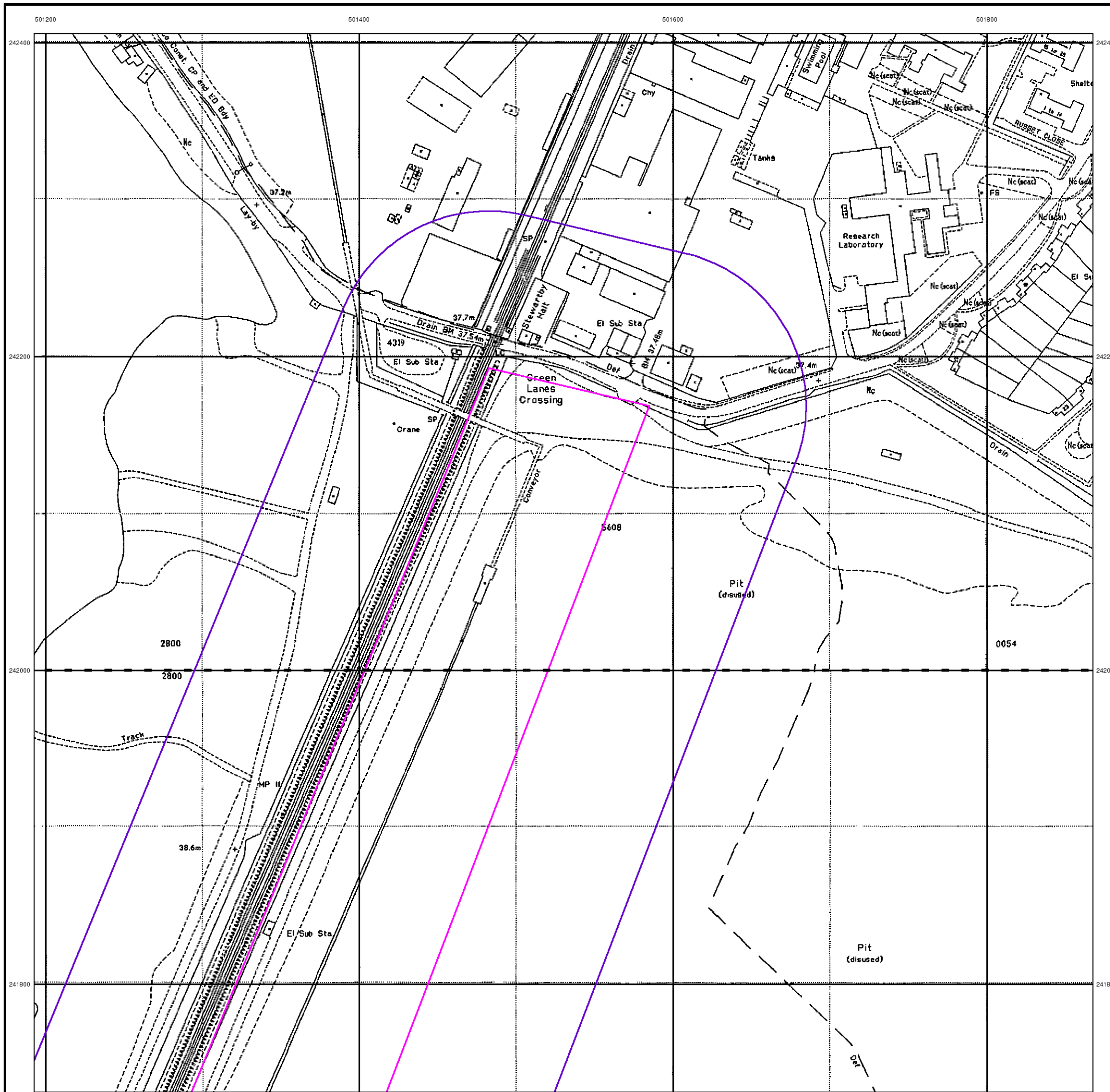
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 Customer Ref: 31116
 National Grid Reference: 501420, 241770
 Slice: C
 Site Area (Ha): 240.61
 Search Buffer (m): 100

Site Details

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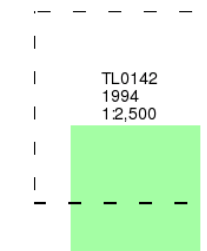
Large-Scale National Grid Data

Published 1994

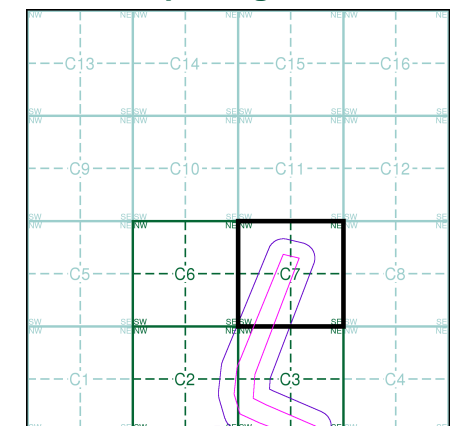
Source map scale - 1:2,500

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

Map Name(s) and Date(s)



Historical Map - Segment C7



Order Details

Order Number: 60770728_1_1
 Customer Ref: 31116
 National Grid Reference: 501420, 241770
 Slice: C
 Site Area (Ha): 240.61
 Search Buffer (m): 100

Site Details

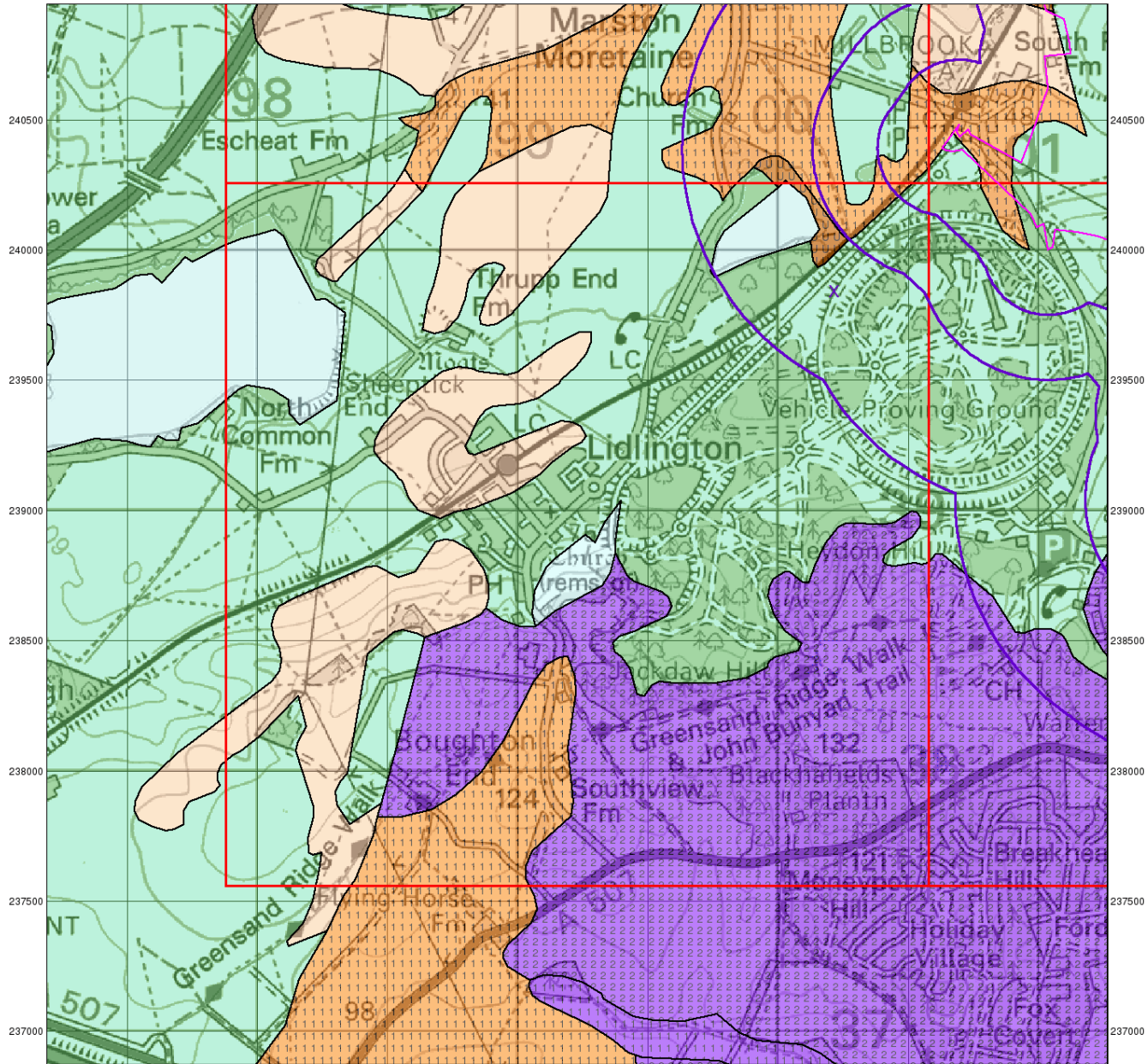
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Appendix 4. Envirocheck Report

497500 498000 498500 499000 499500 500000 500500 501000



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0 1 km



Groundwater Vulnerability

General

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

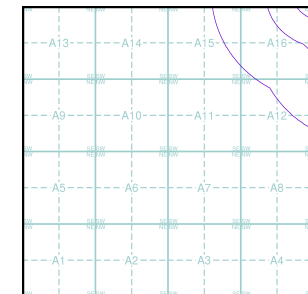
Agency and Hydrological

Geological Classes

- | | |
|---|--|
| Major Aquifer (Highly Permeable) | <ul style="list-style-type: none"> High (H) 1, 2, 3, U Intermediate (I) 1, 2 Low |
| Minor Aquifer (Variably Permeable) | <ul style="list-style-type: none"> High (H) 1, 2, 3, U Intermediate (I) 1, 2 Low |
| Non Aquifer (Negligibly Permeable) | |
| Water or Sea | |
| Drift Deposit | |

Soil Classes

Site Sensitivity Context Map - Slice A



Order Details

Order Number: 125070033_1_1
 Customer Ref: 40335 Millbrook
 National Grid Reference: 500220, 239840
 Slice: A
 Site Area (Ha): 87.86
 Search Buffer (m): 1000

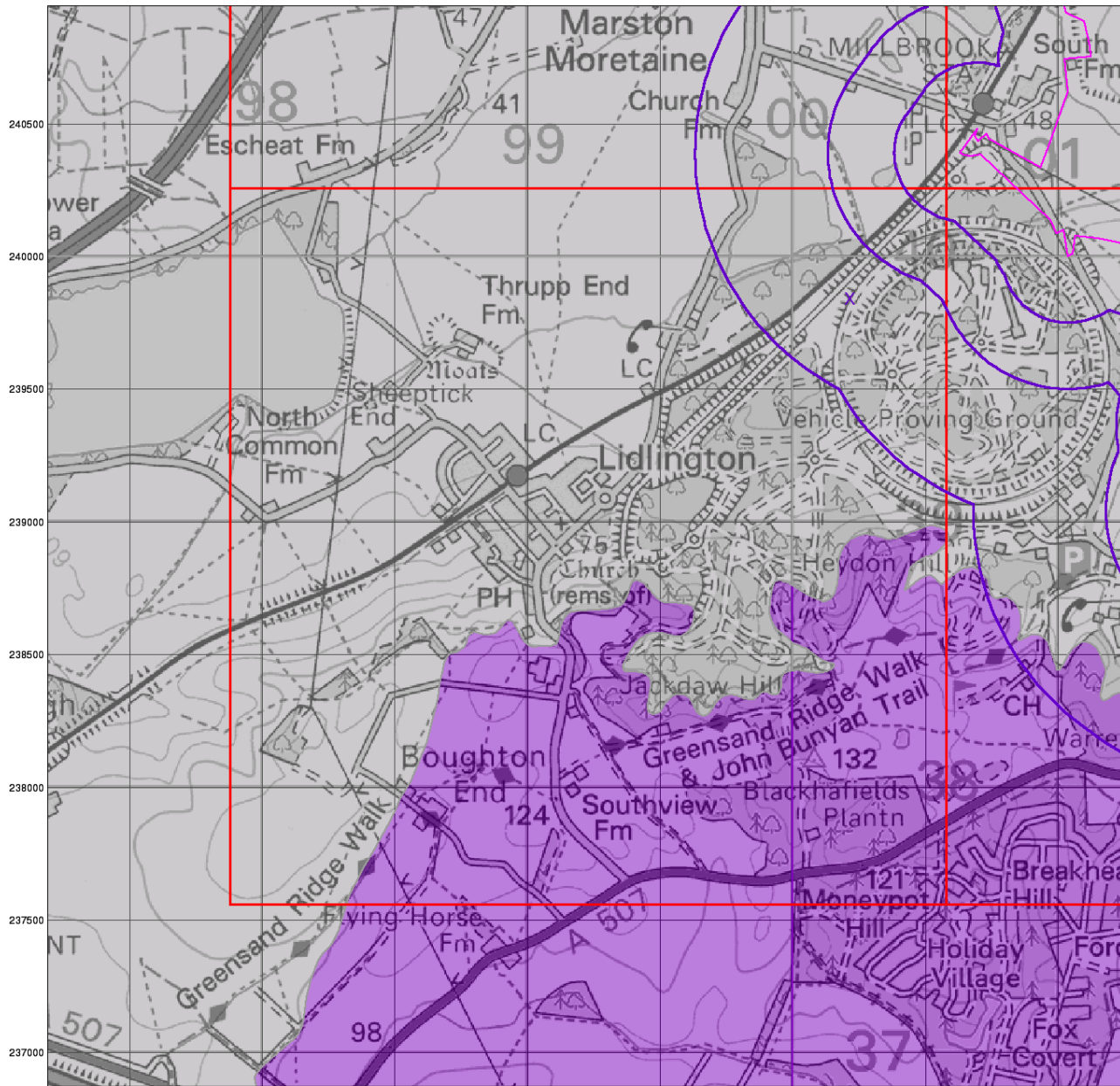
Site Details

Stewartby



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497500 498000 498500 499000 499500 500000 500500 501000



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0 1 km



Bedrock Aquifer Designation

General

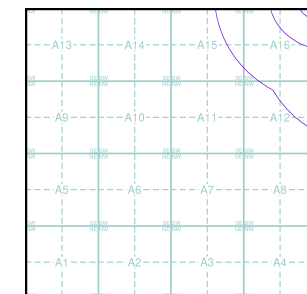
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice A



Order Details

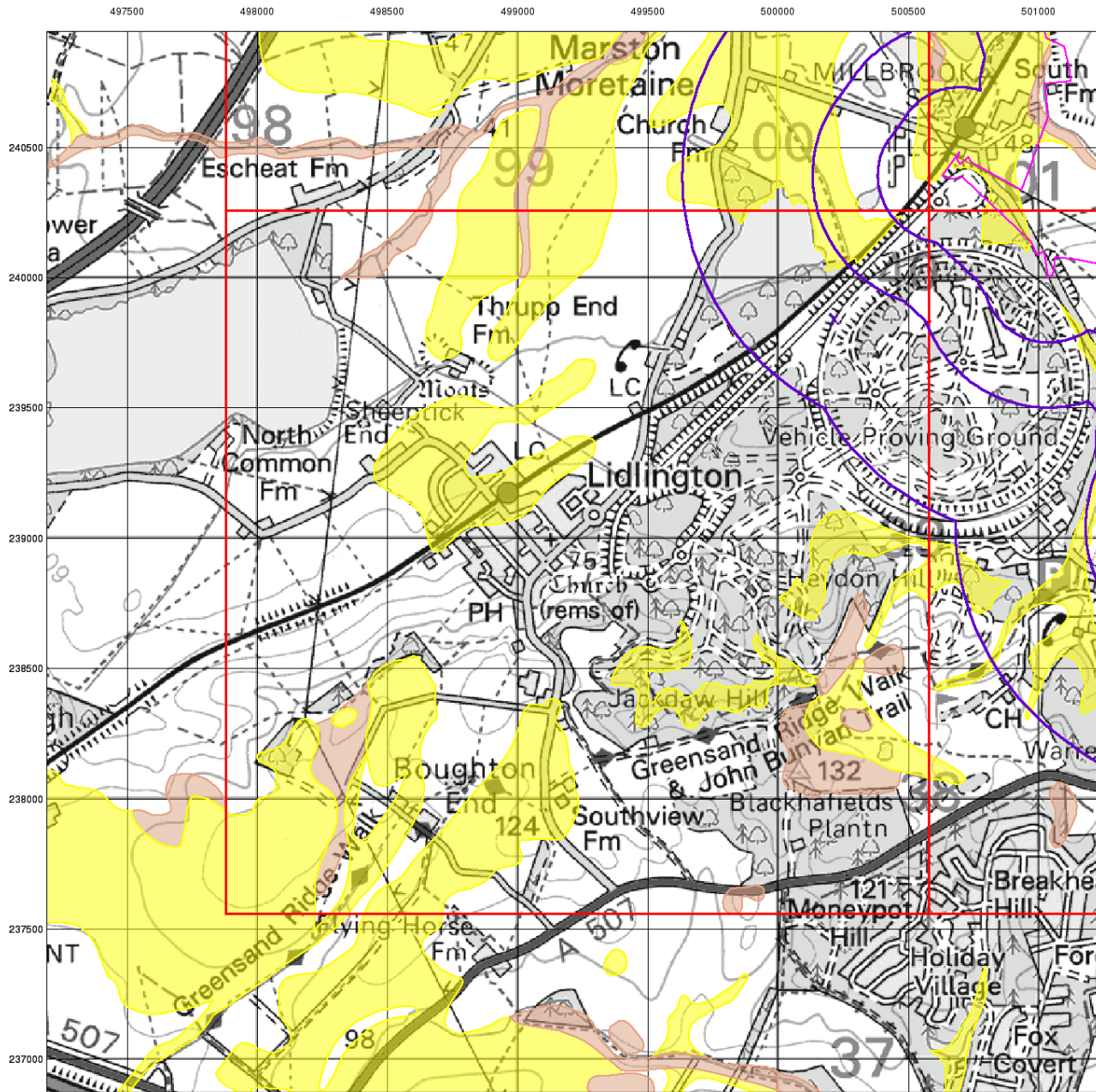
Order Number: 125070033_1_1
 Customer Ref: 40335 Millbrook
 National Grid Reference: 500220, 239840
 Slice: A
 Site Area (Ha): 87.86
 Search Buffer (m): 1000

Site Details

Stewartby



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Superficial Aquifer Designation

General

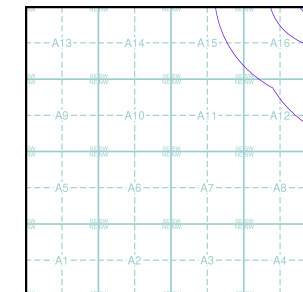
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice A



Order Details

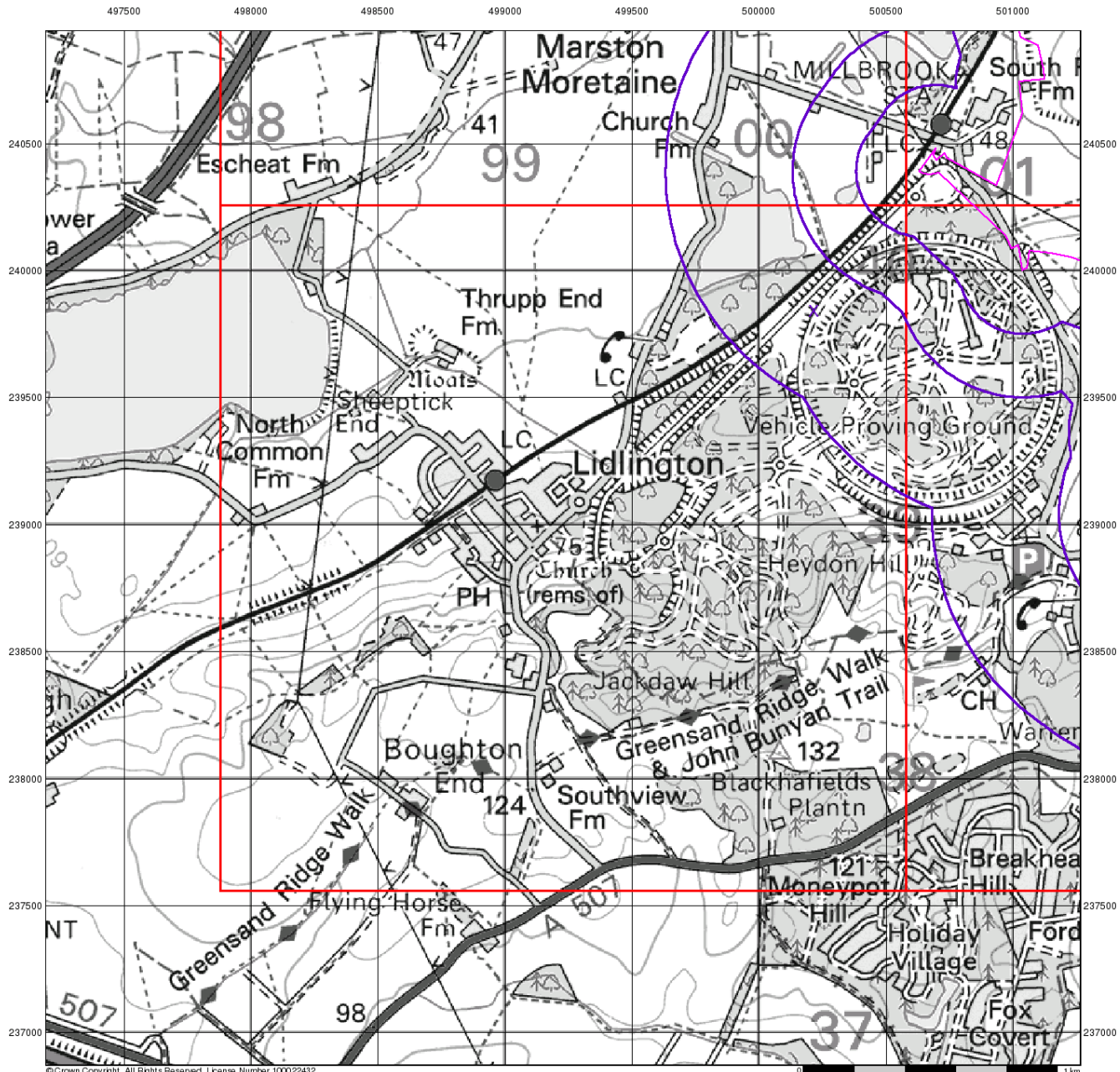
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 Customer Ref: 40335 Millbrook
 National Grid Reference: 500220, 239840
 Slice: A
 Site Area (Ha): 87.86
 Search Buffer (m): 1000

Site Details

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









Source Protection Zones

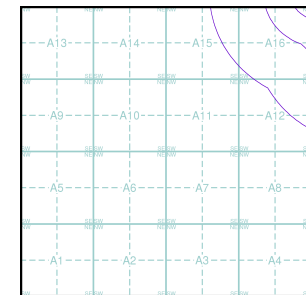
General

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

Agency and Hydrological

-  Inner zone (Zone 1)
-  Inner zone - subsurface activity only (Zone 1c)
-  Outer zone (Zone 2)
-  Outer zone - subsurface activity only (Zone 2c)
-  Total catchment (Zone 3)
-  Total catchment - subsurface activity only (Zone 3c)
-  Special interest (Zone 4)
-  Source Protection Zone Borehole

Site Sensitivity Context Map - Slice A



Order Details

Order Number: 125070033_1_1
 Customer Ref: 40335 Millbrook
 National Grid Reference: 500220, 239840
 Slice: A
 Site Area (Ha): 87.86
 Search Buffer (m): 1000

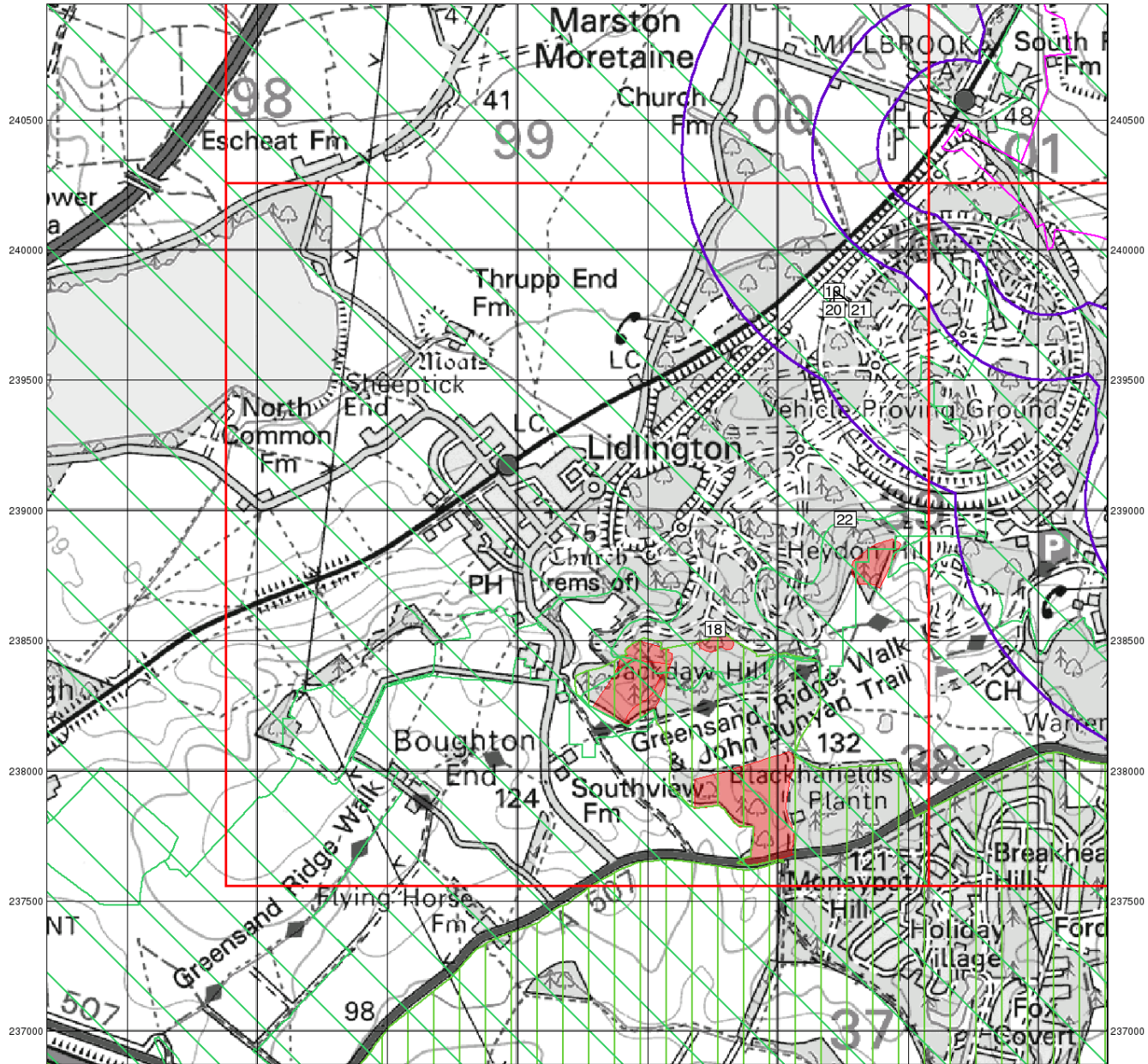
Site Details

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Sensitive Land Uses

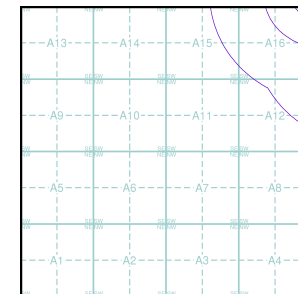
General

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

Sensitive Land Uses

-  Ancient Woodland
-  Area of Adopted Green Belt
-  Area of Unadopted Green Belt
-  Area of Outstanding Natural Beauty
-  Environmentally Sensitive Area
-  Forest Park
-  Local Nature Reserve
-  Marine Nature Reserve
-  National Nature Reserve
-  National Park
-  Nitrate Sensitive Area
-  Nitrate Vulnerable Zone
-  Ramsar Site
-  Site of Special Scientific Interest
-  Special Area of Conservation
-  Special Protection Area
-  World Heritage Sites

Site Sensitivity Context Map - Slice A



Order Details

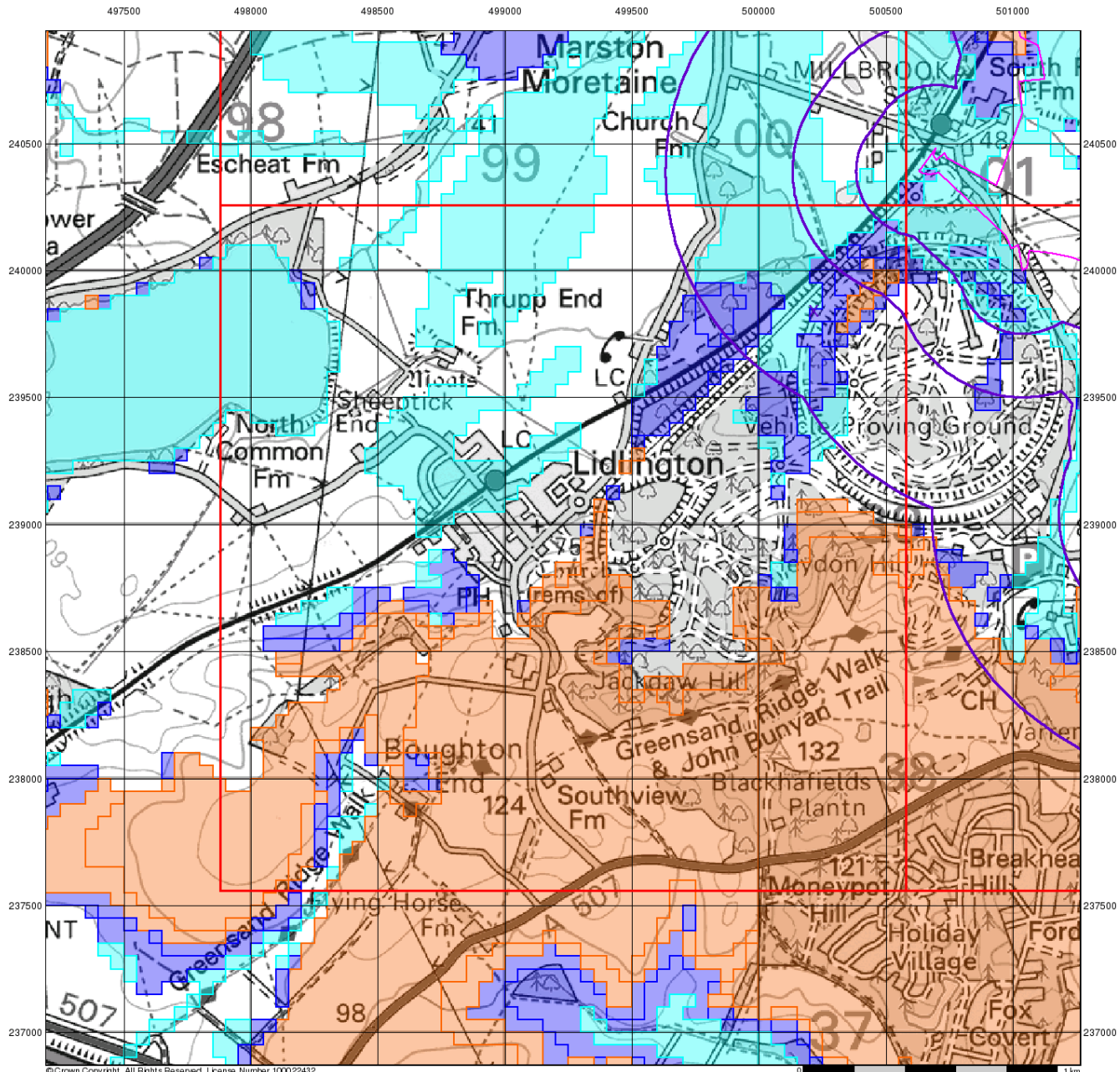
Order Number: 125070033_1_1
 Customer Ref: 40335 Millbrook
 National Grid Reference: 500220, 239840
 Slice: A
 Site Area (Ha): 87.86
 Search Buffer (m): 1000

Site Details

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BGS Flood GFS Data

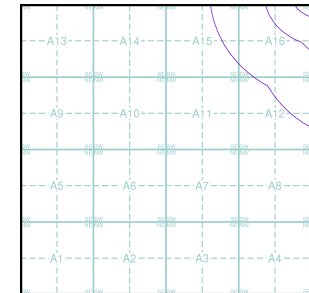
General

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

Agency and Hydrological (Flood)

- Limited Potential for Groundwater Flooding to Occur
- Potential for Groundwater Flooding of Property Situated Below Ground Level
- Potential for Groundwater Flooding to Occur at Surface

Site Sensitivity Context Map - Slice A



Order Details

Order Number: 125070033_1_1
 Customer Ref: 40335 Millbrook
 National Grid Reference: 500220, 239840
 Slice: A
 Site Area (Ha): 87.86
 Search Buffer (m): 1000

Site Details

Stewartby



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 Web: www.envirocheck.co.uk

Envirocheck[®] Report:

Datasheet

Order Details:

Order Number:

125070033_1_1

Customer Reference:

40335 Millbrook

National Grid Reference:

500220, 239840

Slice:

A

Site Area (Ha):

87.86

Search Buffer (m):

1000

Site Details:

Stewartby

Client Details:

Ms K Riley
Peter Brett Associates LLP
Caversham Bridge House
Waterman Place
Reading
Berkshire
RG1 8DN

| Report Section | Page Number |
|-----------------------|-------------|
| Summary | - |
| Agency & Hydrological | 1 |
| Waste | 6 |
| Hazardous Substances | - |
| Geological | 7 |
| Industrial Land Use | - |
| Sensitive Land Use | 9 |
| Data Currency | 10 |
| Data Suppliers | 14 |
| Useful Contacts | 15 |

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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Information supplied from a joint dataset compiled by The British Geological Survey and Public Health England.

Report Version v53.0

| 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 | | | | | |
| Prosecutions Relating to Controlled Waters | | | n/a | n/a | n/a |
| Enforcement and Prohibition Notices | | | | | |
| Integrated Pollution Controls | | | | | |
| Integrated Pollution Prevention And Control | | | | | |
| Local Authority Integrated Pollution Prevention And Control | | | | | |
| Local Authority Pollution Prevention and Controls | | | | | |
| Local Authority Pollution Prevention and Control Enforcements | | | | | |
| Nearest Surface Water Feature | pg 2 | | Yes | | |
| Pollution Incidents to Controlled Waters | | | | | |
| Prosecutions Relating to Authorised Processes | | | | | |
| Registered Radioactive Substances | | | | | |
| River Quality | | | | | |
| River Quality Biology Sampling Points | | | | | |
| River Quality Chemistry Sampling Points | | | | | |
| Substantiated Pollution Incident Register | | | | | |
| Water Abstractions | pg 3 | | | | (*2) |
| Water Industry Act Referrals | | | | | |
| Groundwater Vulnerability | pg 3 | Yes | n/a | n/a | n/a |
| Drift Deposits | | | n/a | n/a | n/a |
| Bedrock Aquifer Designations | pg 3 | Yes | n/a | n/a | n/a |
| Superficial Aquifer Designations | pg 3 | Yes | n/a | n/a | n/a |
| Source Protection Zones | | | | | |
| Extreme Flooding from Rivers or Sea without Defences | | | | n/a | n/a |
| Flooding from Rivers or Sea without Defences | | | | n/a | n/a |
| Areas Benefiting from Flood Defences | | | | n/a | n/a |
| Flood Water Storage Areas | | | | n/a | n/a |
| Flood Defences | | | | n/a | n/a |
| OS Water Network Lines | pg 4 | | | 2 | 10 |

| Data Type | Page Number | On Site | 0 to 250m | 251 to 500m | 501 to 1000m (*up to 2000m) |
|---|-------------|---------|-----------|-------------|-----------------------------|
| Waste | | | | | |
| BGS Recorded Landfill Sites | pg 6 | | | | 1 |
| Historical Landfill Sites | pg 6 | | | | 2 |
| Integrated Pollution Control Registered Waste Sites | | | | | |
| Licensed Waste Management Facilities (Landfill Boundaries) | | | | | |
| Licensed Waste Management Facilities (Locations) | | | | | |
| Local Authority Landfill Coverage | pg 6 | 2 | n/a | n/a | n/a |
| Local Authority Recorded Landfill Sites | | | | | |
| Registered Landfill Sites | pg 6 | | | | 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 | | | | | |
| Planning Hazardous Substance Enforcements | | | | | |
| Geological | | | | | |
| BGS 1:625,000 Solid Geology | pg 7 | Yes | n/a | n/a | n/a |
| BGS Recorded Mineral Sites | pg 7 | | | | 1 |
| CBSCB Compensation District | | | 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 7 | Yes | | n/a | n/a |
| Potential for Compressible Ground Stability Hazards | pg 7 | Yes | Yes | n/a | n/a |
| Potential for Ground Dissolution Stability Hazards | | | | n/a | n/a |
| Potential for Landslide Ground Stability Hazards | pg 7 | Yes | | n/a | n/a |
| Potential for Running Sand Ground Stability Hazards | pg 7 | Yes | Yes | n/a | n/a |
| Potential for Shrinking or Swelling Clay Ground Stability Hazards | pg 7 | 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 |

| Data Type | Page Number | On Site | 0 to 250m | 251 to 500m | 501 to 1000m (*up to 2000m) |
|--------------------------------------|-------------|---------|-----------|-------------|-----------------------------|
| Industrial Land Use | | | | | |
| Contemporary Trade Directory Entries | | | | | |
| Fuel Station Entries | | | | | |
| Gas Pipelines | | | | | |
| Underground Electrical Cables | | | | | |
| Sensitive Land Use | | | | | |
| Ancient Woodland | | | | | |
| Areas of Adopted Green Belt | pg 9 | | | | 1 |
| 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 9 | 3 | 1 | | |
| 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 of Property Situated Below Ground Level | (NE) | 0 | 1 | 500650 240350 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (NE) | 0 | 1 | 501200 240550 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | (NE) | 0 | 1 | 500900 240900 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (NE) | 0 | 1 | 501050 240850 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface | (NE) | 0 | 1 | 501150 240450 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface | (NE) | 0 | 1 | 501200 240400 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (NE) | 0 | 1 | 501250 240400 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface | A16NW (N) | 0 | 1 | 500200 240000 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (E) | 2 | 1 | 501000 239950 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (NE) | 9 | 1 | 500850 240600 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A16NE (NE) | 32 | 1 | 500550 240250 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (NE) | 36 | 1 | 500900 240850 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface | (E) | 38 | 1 | 500850 239950 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (E) | 58 | 1 | 500900 240000 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (E) | 77 | 1 | 500750 240050 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (NE) | 99 | 1 | 500850 240900 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (E) | 103 | 1 | 500900 239900 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (E) | 109 | 1 | 500950 239842 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | A12SE (S) | 127 | 1 | 500500 239000 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (E) | 135 | 1 | 500900 239850 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (E) | 148 | 1 | 500850 239900 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (E) | 169 | 1 | 500800 239950 |

| 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 | (E) | 172 | 1 | 500800 239850 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A16NE (NE) | 206 | 1 | 500400 240050 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface | (E) | 213 | 1 | 500750 239950 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (E) | 255 | 1 | 500950 239750 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A16NE (NE) | 282 | 1 | 500500 240000 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A16NE (E) | 286 | 1 | 500550 239950 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A16NE (NE) | 299 | 1 | 500500 240050 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface | (E) | 334 | 1 | 501250 239650 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A16NE (NE) | 363 | 1 | 500450 240000 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SE) | 363 | 1 | 500850 239550 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A16NE (NE) | 373 | 1 | 500350 240050 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | A16NE (NE) | 386 | 1 | 500400 240000 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | A16SE (E) | 389 | 1 | 500350 239842 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A16NW (N) | 406 | 1 | 500217 240000 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A16SE (E) | 425 | 1 | 500500 239900 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (E) | 429 | 1 | 501250 239500 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A16SE (NE) | 430 | 1 | 500300 239900 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A16SE (E) | 496 | 1 | 500450 239850 |
| | Nearest Surface Water Feature | A16NE (N) | 248 | - | 500331 240211 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|--|--|------------------------------|---------|------------------|
| | Water Abstractions Operator: Anglian Water Services Ltd Licence Number: 6/33/12/gS/021 Permit Version: Not Supplied Location: Spring At, LIDLINGTON Authority: Environment Agency, Anglian Region Abstraction: Public Water Supply Abstraction Type: Not Supplied Source: Stream Daily Rate (m3): 22 Yearly Rate (m3): 6820 Details: Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m | A7SE (S) | 1889 | 2 | 499880 238470 |
| | Water Abstractions Operator: Anglian Water Services Ltd Licence Number: 6/33/12/*g/021 Permit Version: Not Supplied Location: Spring, LIDLINGTON Authority: Environment Agency, Anglian Region Abstraction: Public Water Supply Abstraction Type: Not Supplied Source: Groundwater Daily Rate (m3): 7 Yearly Rate (m3): 22730 Details: Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m | A7SE (S) | 1890 | 2 | 499880 238465 |
| | Groundwater Vulnerability Soil Classification: Not classified Map Sheet: Sheet 31 Bedfordshire Scale: 1:100,000 | A16SW (N) | 0 | 2 | 500217 239842 |
| | Groundwater Vulnerability Soil Classification: Soils of Intermediate Leaching Potential (I1) - Soils which can possibly transmit a wide range of pollutants Map Sheet: Sheet 31 Bedfordshire Scale: 1:100,000 | A16NE (N) | 0 | 2 | 500272 240038 |
| | Groundwater Vulnerability Soil Classification: Soils of Low Leaching Potential - Soils in which pollutants are unlikely to penetrate the soil layer because water movement is largely horizontal or they have large ability to attenuate diffuse pollutants. Lateral flow from these soils contribute to groundwater recharge elsewhere in the catchment Map Sheet: Sheet 31 Bedfordshire Scale: 1:100,000 | (NE) | 0 | 2 | 500635 240602 |
| | Groundwater Vulnerability Soil Classification: Soils of High Leaching Potential (U) - Soil information for restored mineral workings and urban areas is based on fewer observations than elsewhere. A worst case vulnerability classification (H) assumed, until proved otherwise Map Sheet: Sheet 31 Bedfordshire Scale: 1:100,000 | (NE) | 0 | 2 | 500782 240993 |
| | Drift Deposits None | | | | |
| | Bedrock Aquifer Designations Aquifer Designation: Unproductive Strata | A16NW (N) | 0 | 1 | 500217 240000 |
| | Bedrock Aquifer Designations Aquifer Designation: Unproductive Strata | A16SW (N) | 0 | 1 | 500217 239842 |
| | Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - Undifferentiated | (NE) | 0 | 1 | 500528 240386 |
| | Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - A | (NE) | 0 | 1 | 500983 240594 |
| | Extreme Flooding from Rivers or Sea without Defences None | | | | |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|------------------|
| | Flooding from Rivers or Sea without Defences None | | | | |
| | Areas Benefiting from Flood Defences None | | | | |
| | Flood Water Storage Areas None | | | | |
| | Flood Defences None | | | | |
| 1 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 300.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | A16NE (N) | 435 | 3 | 500283 240067 |
| 2 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 128.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | A16SE (SE) | 468 | 3 | 500555 239686 |
| 3 | OS Water Network Lines Watercourse Form: Lake Watercourse Length: 136.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | A16NW (NW) | 537 | 3 | 500068 240151 |
| 4 | OS Water Network Lines Watercourse Form: Lake Watercourse Length: 110.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 2 | A16NW (NW) | 590 | 3 | 500100 240069 |
| 5 | OS Water Network Lines Watercourse Form: Lake Watercourse Length: 221.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | A16NW (NW) | 613 | 3 | 500068 240151 |
| 6 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 67.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | A16SE (E) | 621 | 3 | 500412 239808 |
| 7 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 257.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 2 | A16NW (NW) | 623 | 3 | 500087 240057 |
| 8 | OS Water Network Lines Watercourse Form: Lake Watercourse Length: 171.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | A15NE (NW) | 835 | 3 | 499864 240065 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|------------------|
| 9 | OS Water Network Lines Watercourse Form: Lake Watercourse Length: 63.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 2 | A15NE (NW) | 835 | 3 | 499877 240003 |
| 10 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 54.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | A15NE (NW) | 848 | 3 | 499809 240189 |
| 11 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 215.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | A15NE (NW) | 857 | 3 | 499787 240237 |
| 12 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 418.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | A15NE (NW) | 859 | 3 | 499729 240053 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|--|--|------------------------------|---------|---------------|
| 13 | BGS Recorded Landfill Sites Site Name: London Brick Co Location: Marston Road, Lidlington, BEDFORD, Bedfordshire Authority: British Geological Survey, National Geoscience Information Service Ground Water: Information not available Surface Water: Information not available Geology: N/A Positional Accuracy: Positioned by the supplier Boundary Accuracy: Good | A16NW (NW) | 531 | - | 500148 239928 |
| 14 | Historical Landfill Sites Licence Holder: London Brick Company Limited Location: Lidlington Name: Lidlington Brickworks Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD01153 First Input Date: 13th December 1973 Last Input Date: 13th June 1977 Specified Waste Type: Deposited Waste included Industrial, Commercial and Household Waste EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 0200/0035 BGS Ref: 2069 Other Ref: 10/1976 | A16NW (NW) | 529 | 2 | 500146 239927 |
| 15 | Historical Landfill Sites Licence Holder: British Rail Location: Lidlington, Bedfordshire Name: Marston Road Claypit Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD00999 First Input Date: 1st January 1962 Last Input Date: 17th April 1991 Specified Waste Type: Deposited Waste included Inert, Commercial and Household Waste EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 0200/0036 BGS Ref: Not Supplied Other Ref: 4/1977, PIT 78 | A16NW (N) | 529 | 2 | 500179 240024 |
| | Local Authority Landfill Coverage Name: Mid Bedfordshire District Council - Has supplied landfill data | | 0 | 4 | 500217 239842 |
| | Local Authority Landfill Coverage Name: Bedfordshire County Council - Has no landfill data to supply | | 0 | 5 | 500217 239842 |
| 16 | Registered Landfill Sites Licence Holder: B.R. Licence Reference: 4/1977 Site Location: Clay Pit At Marston Road, Lidlington, Bedford, Bedfordshire Licence Easting: 500000 Licence Northing: 240050 Operator Location: Melton House, 65/67 Clarendon Road, Watford, Hertfordshire Authority: Environment Agency - Anglian Region, Central Area Site Category: Landfill Max Input Rate: Large (Equal to or greater than 75,000 and less than 250,000 tonnes per year) Waste Source: Waste produced/controlled by licence holder Restrictions: Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 13th June 1977 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the road within the address or location Boundary Accuracy: Not Applicable Authorised Waste: Construction And Demolition Wastes | A16NW (NW) | 719 | 2 | 500000 240050 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|--|--|------------------------------|---------|---------------|
| | BGS 1:625,000 Solid Geology Description: Kellaways Formation And Oxford Clay Formation (Undifferentiated) | A16SW (N) | 0 | 1 | 500217 239842 |
| 17 | BGS Recorded Mineral Sites Site Name: Thrupp End Location: , Marston Morteyne, Bedford Source: British Geological Survey, National Geoscience Information Service Reference: 228 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Jurassic Geology: Peterborough Member (Lower Oxford Clay) Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m | A16NW (NW) | 667 | 1 | 500000 240180 |
| | 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 | A16SW (N) | 0 | 1 | 500217 239842 |
| | Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service | A16NW (N) | 0 | 1 | 500217 240000 |
| | Potential for Compressible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service | A16NW (N) | 0 | 1 | 500217 240000 |
| | Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | A16SE (SE) | 0 | 1 | 500364 239737 |
| | Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | A16NW (N) | 0 | 1 | 500210 240028 |
| | Potential for Compressible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service | A16SW (N) | 12 | 1 | 500217 239842 |
| | Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | A16NW (N) | 0 | 1 | 500217 240000 |
| | Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | A16SW (N) | 0 | 1 | 500217 239842 |
| | Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service | A16NW (N) | 0 | 1 | 500217 240000 |
| | Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service | A16SW (N) | 0 | 1 | 500217 239842 |
| | Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service | A16NW (N) | 0 | 1 | 500217 240000 |
| | Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service | A16SW (N) | 12 | 1 | 500217 239842 |
| | Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | A16NE (N) | 37 | 1 | 500334 240213 |
| | Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | A16SE (SE) | 200 | 1 | 500364 239737 |
| | Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service | A16NW (N) | 0 | 1 | 500217 240000 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|---------------|
| | Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service | A16SW (N) | 0 | 1 | 500217 239842 |
| | Radon Potential - Radon Affected Areas Affected Area: The property is in a Lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service | A16SW (N) | 0 | 1 | 500217 239842 |
| | Radon Potential - Radon Affected Areas Affected Area: The property is in a Lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service | A16NW (N) | 0 | 1 | 500217 240001 |
| | 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 | A16SW (N) | 0 | 1 | 500217 239842 |
| | 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 | A16NW (N) | 0 | 1 | 500217 240001 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|------------------|
| 18 | Areas of Adopted Green Belt Authority: Central Bedfordshire Council, Planning Department Plan Name: Proposal Map - North Area Status: Adopted Plan Date: 19th November 2009 | A7SE (S) | 781 | 7 | 499760 238543 |
| 19 | Nitrate Vulnerable Zones Name: Not Supplied Description: Eutrophic Water Source: Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA) | A16SW (N) | 0 | 8 | 500217 239842 |
| 20 | Nitrate Vulnerable Zones Name: Not Supplied Description: Surface Water Source: Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA) | A16SW (N) | 0 | 8 | 500217 239842 |
| 21 | Nitrate Vulnerable Zones Name: Not Supplied Description: Groundwater Source: Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA) | A16SW (N) | 0 | 8 | 500217 239842 |
| 22 | Nitrate Vulnerable Zones Name: Not Supplied Description: Groundwater Source: Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA) | A12SE (S) | 142 | 8 | 500261 238965 |

| Agency & Hydrological | Version | Update Cycle |
|--|--------------------------------|----------------------------|
| Contaminated Land Register Entries and Notices Central Bedfordshire Council - Environmental Health Department Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department | December 2013 July 2008 | Annually Not Applicable |
| Discharge Consents Environment Agency - Anglian Region | January 2017 | Quarterly |
| Enforcement and Prohibition Notices Environment Agency - Anglian Region | March 2013 | As notified |
| Integrated Pollution Controls Environment Agency - Anglian Region | October 2008 | Not Applicable |
| Integrated Pollution Prevention And Control Environment Agency - Anglian Region | April 2017 | Quarterly |
| Local Authority Integrated Pollution Prevention And Control Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department Central Bedfordshire Council - Environmental Health Department | December 2008 November 2014 | Not Applicable Annually |
| Local Authority Pollution Prevention and Controls Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department Central Bedfordshire Council - Environmental Health Department | December 2008 November 2014 | Not Applicable Annually |
| Local Authority Pollution Prevention and Control Enforcements Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department Central Bedfordshire Council - Environmental Health Department | December 2008 November 2014 | Not Applicable Annually |
| Nearest Surface Water Feature Ordnance Survey | March 2017 | |
| Pollution Incidents to Controlled Waters Environment Agency - Anglian Region | September 1999 | Not Applicable |
| Prosecutions Relating to Authorised Processes Environment Agency - Anglian Region | March 2013 | As notified |
| Prosecutions Relating to Controlled Waters Environment Agency - Anglian Region | March 2013 | As notified |
| Registered Radioactive Substances Environment Agency - Anglian Region | January 2015 | |
| 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 - Anglian Region - Central Area | April 2017 | Quarterly |
| Water Abstractions Environment Agency - Anglian Region | October 2016 | Quarterly |
| Water Industry Act Referrals Environment Agency - Anglian Region | April 2017 | 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 |

| Agency & Hydrological | Version | Update Cycle |
|--|----------------------|----------------------------------|
| Superficial Aquifer Designations British Geological Survey - National Geoscience Information Service | August 2015 | As notified |
| Source Protection Zones Environment Agency - Head Office | April 2017 | Quarterly |
| Extreme Flooding from Rivers or Sea without Defences Environment Agency - Head Office | February 2017 | Quarterly |
| Flooding from Rivers or Sea without Defences Environment Agency - Head Office | February 2017 | Quarterly |
| Areas Benefiting from Flood Defences Environment Agency - Head Office | February 2017 | Quarterly |
| Flood Water Storage Areas Environment Agency - Head Office | February 2017 | Quarterly |
| Flood Defences Environment Agency - Head Office | February 2017 | Quarterly |
| OS Water Network Lines Ordnance Survey | January 2017 | 6 Weekly |
| 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 | January 2017 | Quarterly |
| Integrated Pollution Control Registered Waste Sites Environment Agency - Anglian Region | October 2008 | Not Applicable |
| Licensed Waste Management Facilities (Landfill Boundaries) Environment Agency - Anglian Region - Central Area | August 2016 | Quarterly |
| Licensed Waste Management Facilities (Locations) Environment Agency - Anglian Region - Central Area | October 2016 | Quarterly |
| Local Authority Landfill Coverage Bedfordshire County Council (now part of Central Bedfordshire Council) Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department | May 2000 May 2000 | Not Applicable Not Applicable |
| Local Authority Recorded Landfill Sites Bedfordshire County Council (now part of Central Bedfordshire Council) Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department | May 2000 May 2000 | Not Applicable Not Applicable |
| Registered Landfill Sites Environment Agency - Anglian Region - Central Area | March 2003 | Not Applicable |
| Registered Waste Transfer Sites Environment Agency - Anglian Region - Central Area | March 2003 | Not Applicable |
| Registered Waste Treatment or Disposal Sites Environment Agency - Anglian Region - Central Area | March 2003 | Not Applicable |

| Hazardous Substances | Version | Update Cycle |
|--|--|---|
| Control of Major Accident Hazards Sites (COMAH) Health and Safety Executive | March 2017 | Bi-Annually |
| Explosive Sites Health and Safety Executive | March 2017 | Bi-Annually |
| Notification of Installations Handling Hazardous Substances (NIHHS) Health and Safety Executive | November 2000 | Not Applicable |
| Planning Hazardous Substance Enforcements Central Bedfordshire Council - Planning Department Bedfordshire County Council (now part of Central Bedfordshire Council) Mid Bedfordshire District Council (now part of Central Bedfordshire Council) | February 2016 July 2008 May 2008 | Annually Annual Rolling Update Not Applicable |
| Planning Hazardous Substance Consents Central Bedfordshire Council - Planning Department Bedfordshire County Council (now part of Central Bedfordshire Council) Mid Bedfordshire District Council (now part of Central Bedfordshire Council) | February 2016 July 2008 May 2008 | Annually Annual Rolling Update Not Applicable |
| Geological | Version | Update Cycle |
| BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service | January 2009 | Not Applicable |
| BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service | April 2017 | Bi-Annually |
| CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB) | August 2011 | Not Applicable |
| Coal Mining Affected Areas The Coal Authority - Property Searches | March 2014 | 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 |

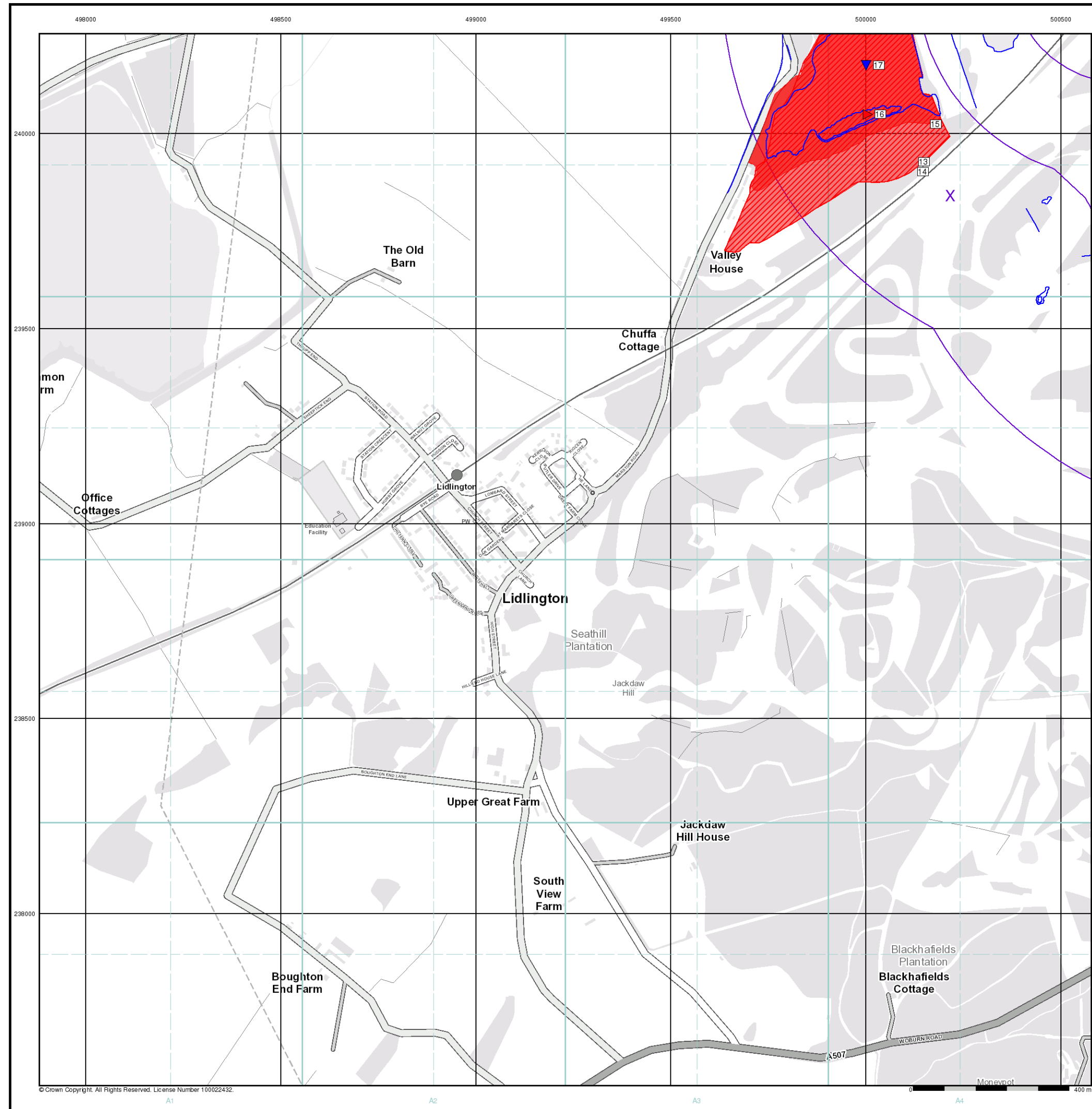
| Industrial Land Use | Version | Update Cycle |
|--|---------------------------|----------------------------|
| Contemporary Trade Directory Entries Thomson Directories | March 2017 | Quarterly |
| Fuel Station Entries Catalist Ltd - Experian | February 2017 | Quarterly |
| Gas Pipelines National Grid | July 2014 | Quarterly |
| Underground Electrical Cables National Grid | December 2015 | Bi-Annually |
| Sensitive Land Use | Version | Update Cycle |
| Ancient Woodland Natural England | August 2016 | Bi-Annually |
| Areas of Adopted Green Belt Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department Central Bedfordshire Council - Planning Department | February 2017 May 2011 | As notified As notified |
| Areas of Unadopted Green Belt Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department Central Bedfordshire Council - Planning Department | February 2017 May 2011 | As notified As notified |
| Areas of Outstanding Natural Beauty Natural England | January 2017 | Bi-Annually |
| Environmentally Sensitive Areas Natural England | January 2017 | Annually |
| Forest Parks Forestry Commission | April 1997 | Not Applicable |
| Local Nature Reserves Natural England | January 2017 | Bi-Annually |
| Marine Nature Reserves Natural England | January 2017 | Bi-Annually |
| National Nature Reserves Natural England | January 2017 | Bi-Annually |
| National Parks Natural England | February 2017 | Bi-Annually |
| Nitrate Vulnerable Zones Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA) | October 2015 | Annually |
| Ramsar Sites Natural England | January 2017 | Bi-Annually |
| Sites of Special Scientific Interest Natural England | January 2017 | Bi-Annually |
| Special Areas of Conservation Natural England | January 2017 | Bi-Annually |
| Special Protection Areas Natural England | January 2017 | Bi-Annually |
| World Heritage Sites English Heritage - National Monument Record Centre | May 2017 | 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 |  <p>British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL</p> |
| Centre for Ecology and Hydrology |  <p>Centre for Ecology & Hydrology NATURAL ENVIRONMENT RESEARCH COUNCIL</p> |
| Natural Resources Wales |  |
| Scottish Natural Heritage |  |
| Natural England |  |
| Public Health England |  |
| Ove Arup |  |
| Peter Brett Associates |  |

| Contact | Name and Address | Contact Details |
|---------|---|---|
| 1 | 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 |
| 2 | Environment Agency - National Customer Contact Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY | Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk |
| 3 | Ordnance Survey Adanac Drive, Southampton, Hampshire, SO16 0AS | Telephone: 023 8079 2000 Email: enquires@ordsvy.gov.uk Website: www.ordnancesurvey.gov.uk |
| 4 | Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department Priory House, Monks Walk, Chicksands, Shefford, Bedfordshire, SG17 5TQ | Telephone: 0300 300 8301 Email: customers@centralbedfordshire.gov.uk Website: www.centralbedfordshire.gov.uk |
| 5 | Bedfordshire County Council (now part of Central Bedfordshire Council) Priory House, Monks Walk, Chicksands, Shefford, Bedfordshire, SG17 5TQ | Telephone: 0300 300 8301 Email: www.centralbedfordshire.gov.uk Website: www.centralbedfordshire.gov.uk |
| 6 | Natural England County Hall, Spetchley Road, Worcester, WR5 2NP | Telephone: 0300 060 3900 Email: enquiries@naturalengland.org.uk Website: www.naturalengland.org.uk |
| 7 | Central Bedfordshire Council - Planning Department Priory House, Monks Walk, Chicksands, Shefford, Bedfordshire, SG17 5TQ | Telephone: 0300 300 8000 Email: info@centralbedfordshire.gov.uk Website: www.centralbedfordshire.gov.uk |
| 8 | 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 |
| - | 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.

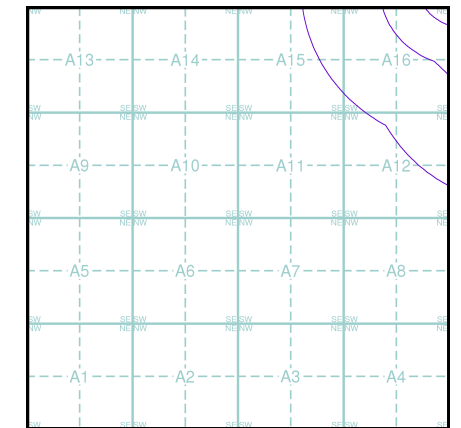


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- General**
- Specified Site
 - Specified Buffer(s)
 - Bearing Reference Point
 - Map ID
 - Several of Type at Location
- Agency and Hydrological**
- Contaminated Land Register Entry or Notice (Location)
 - Contaminated Land Register Entry or Notice
 - 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
- 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)
 - Local Authority Recorded Landfill Site (Location)
 - Local Authority Recorded Landfill Site
 - 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
- Industrial Land Use**
- Contemporary Trade Directory Entry
 - Fuel Station Entry

Site Sensitivity Map - Slice A



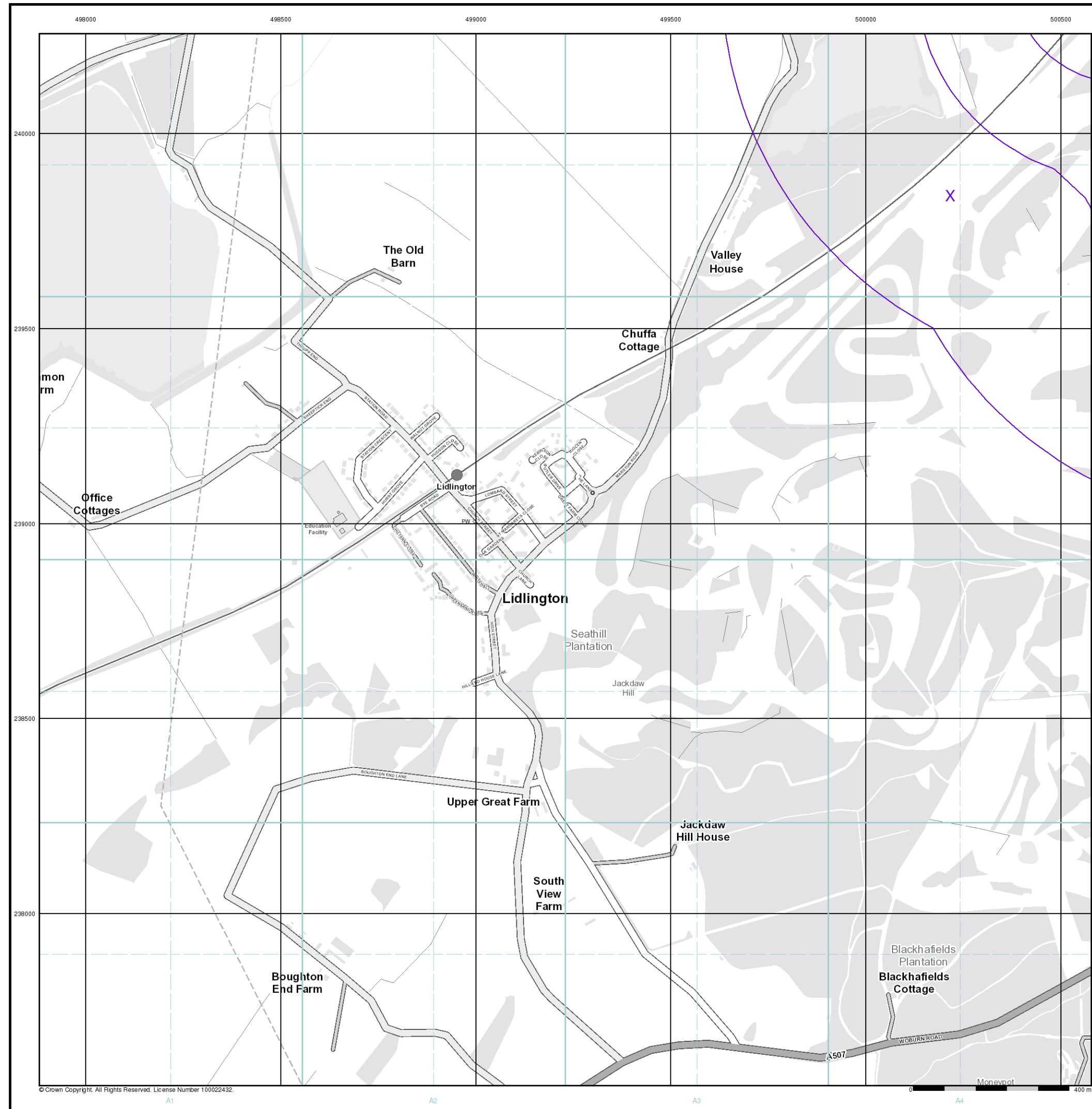
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Order Number: 125070033_1_1
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 National Grid Reference: 500220, 239840
 Slice: A
 Site Area (Ha): 87.86
 Search Buffer (m): 1000

Site Details
 Stewartby

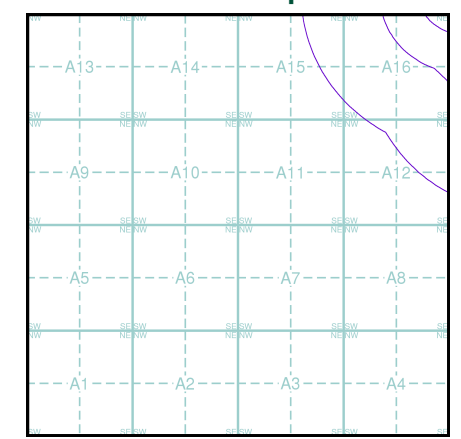
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 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk



- General**
- Specified Site
 - Specified Buffer(s)
 - Bearing Reference Point
 - Slice
 - Map ID
- Industrial Land Use**
- Contemporary Trade Directory Entry
 - Fuel Station Entry
 - Gas Pipeline
 - Underground Electrical Cables

Industrial Land Use Map - Slice A



Order Details

Order Number: 125070033_1_1
 Customer Ref: 40335 Millbrook
 National Grid Reference: 500220, 239840
 Slice: A
 Site Area (Ha): 87.86
 Search Buffer (m): 1000

Site Details
 Stewartby



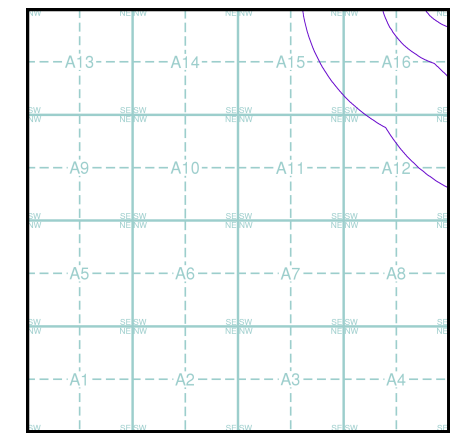
General

- 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: 125070033_1_1
 Customer Ref: 40335 Millbrook
 National Grid Reference: 500220, 239840
 Slice: A
 Site Area (Ha): 87.86
 Search Buffer (m): 1000

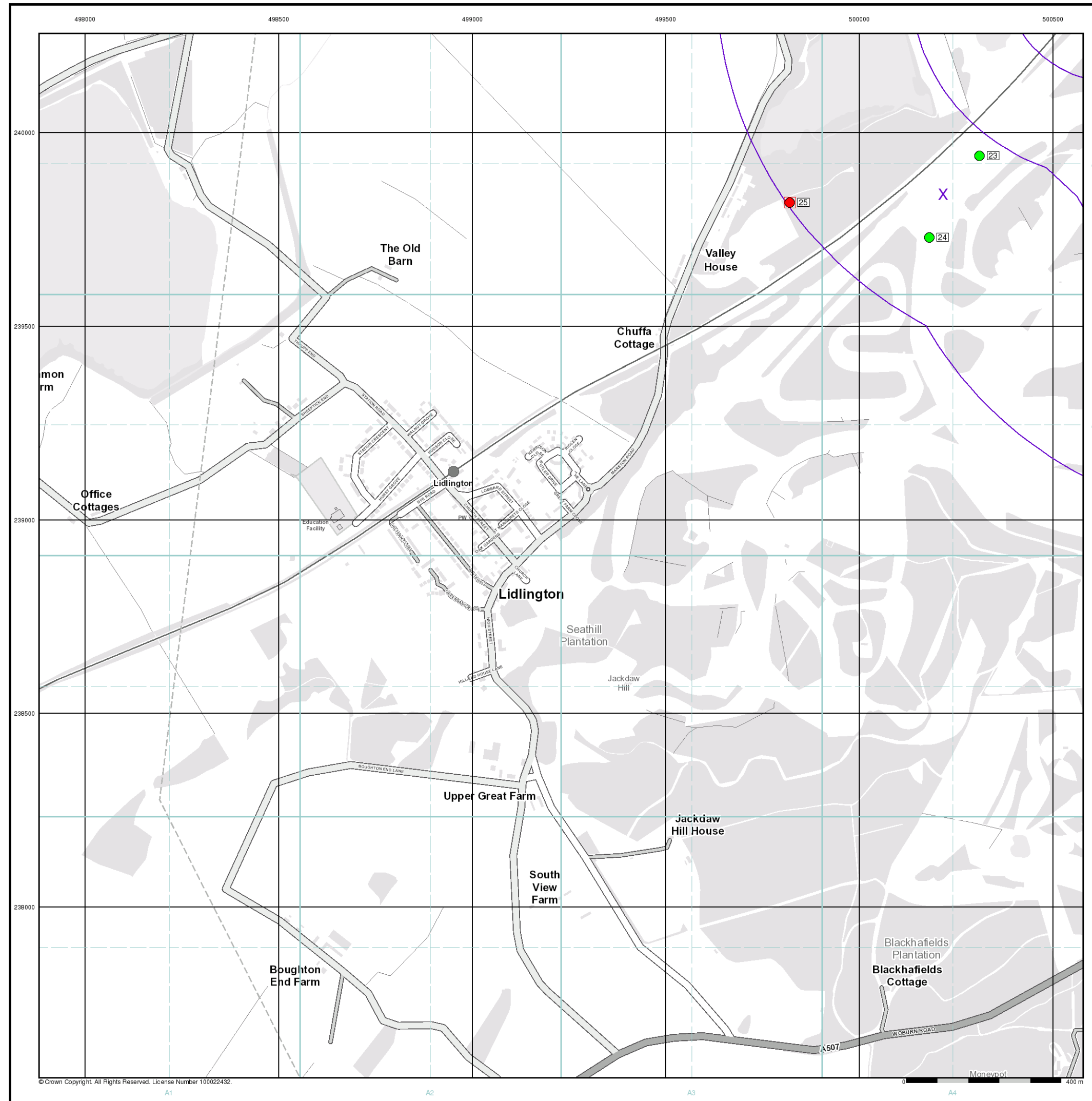
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General

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

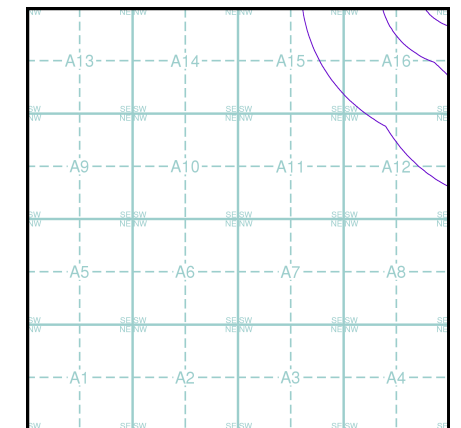
Agency and Hydrological (Boreholes)

- 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

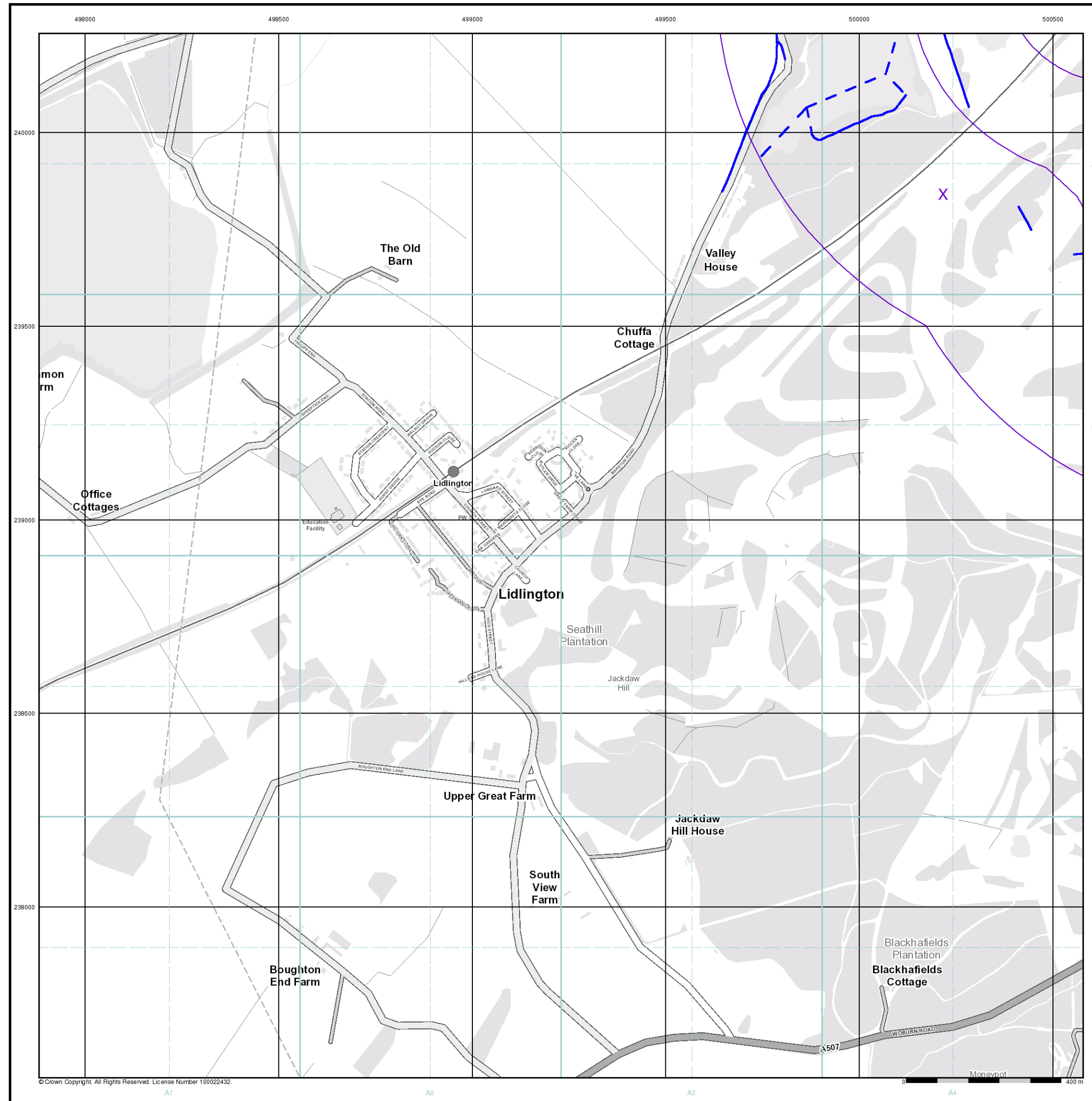
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 Customer Ref: 40335 Millbrook
 National Grid Reference: 500220, 239840
 Slice: A
 Site Area (Ha): 87.86
 Search Buffer (m): 1000

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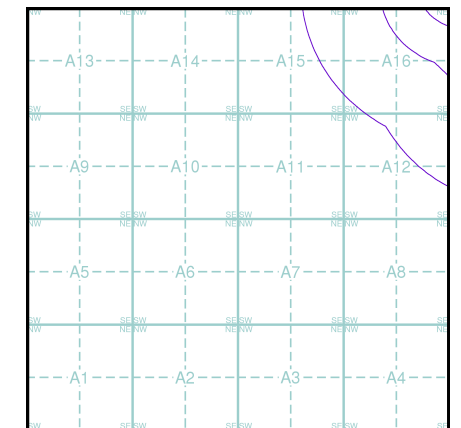
General

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

OS Water Network Data

- | | |
|--------------|-------------------------|
| Canal | Drain |
| Reservoir | Other |
| Foreshore | Lake |
| Marsh | Transfer |
| Tidal River | Lock Or Flight Of Locks |
| Inland River | Sea |

OS Water Network Map - Slice A



Order Details

Order Number: 125070033_1_1
 Customer Ref: 40335 Millbrook
 National Grid Reference: 500220, 239840
 Slice: A
 Site Area (Ha): 87.86
 Search Buffer (m): 1000

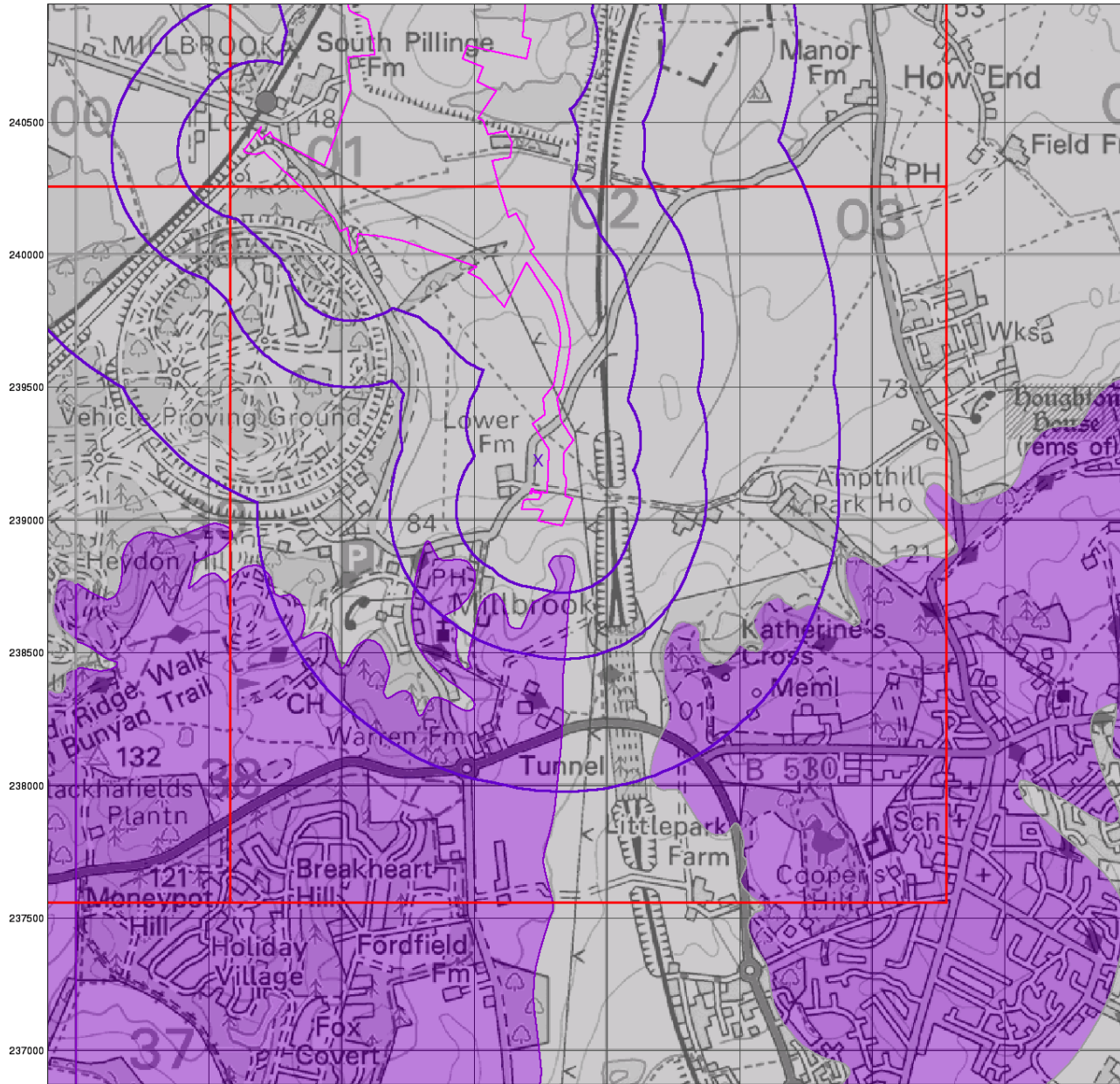
Site Details

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500000 500500 501000 501500 502000 502500 503000 503500



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0 1 km



Bedrock Aquifer Designation

General

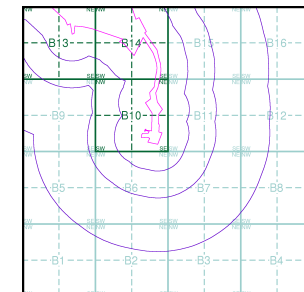
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice B



Order Details

Order Number: 125070033_1_1
 Customer Ref: 40335 Millbrook
 National Grid Reference: 501740, 239230
 Slice: B
 Site Area (Ha): 87.86
 Search Buffer (m): 1000

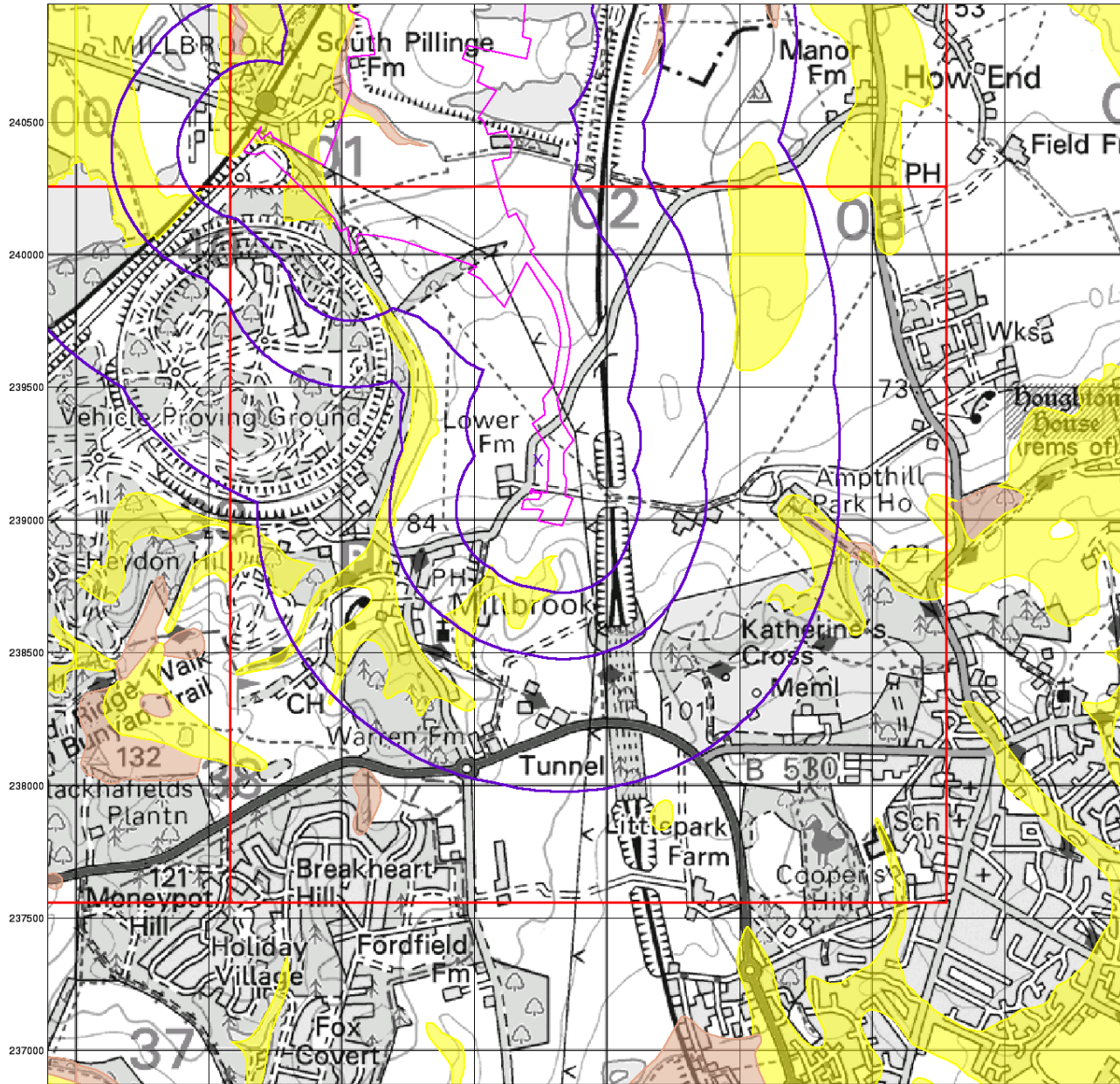
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Superficial Aquifer Designation

General

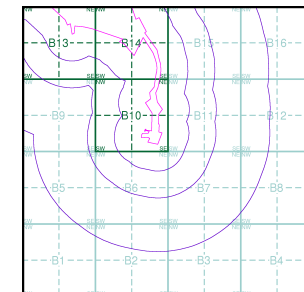
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice B



Order Details

Order Number: 125070033_1_1
 Customer Ref: 40335 Millbrook
 National Grid Reference: 501740, 239230
 Slice: B
 Site Area (Ha): 87.86
 Search Buffer (m): 1000

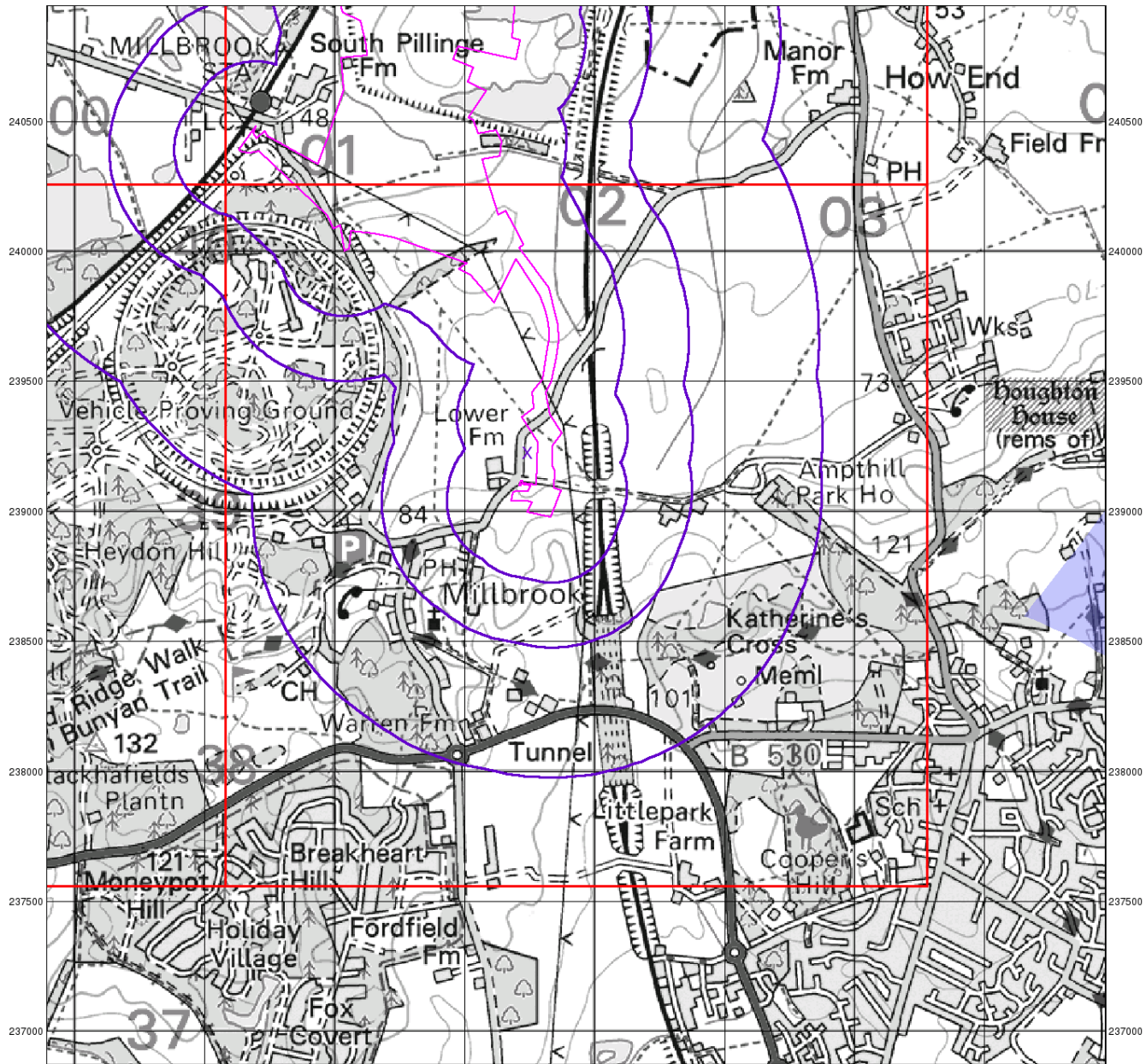
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Source Protection Zones

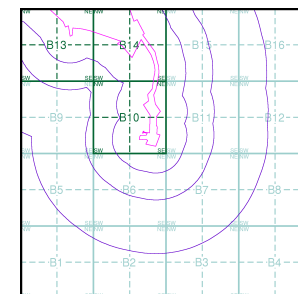
General

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

Agency and Hydrological

- Inner zone (Zone 1)
- Inner zone - subsurface activity only (Zone 1c)
- Outer zone (Zone 2)
- Outer zone - subsurface activity only (Zone 2c)
- Total catchment (Zone 3)
- Total catchment - subsurface activity only (Zone 3c)
- Special interest (Zone 4)
- Source Protection Zone Borehole

Site Sensitivity Context Map - Slice B



Order Details

Order Number: 125070033_1_1
 Customer Ref: 40335 Millbrook
 National Grid Reference: 501740, 239230
 Slice: B
 Site Area (Ha): 87.86
 Search Buffer (m): 1000

Site Details

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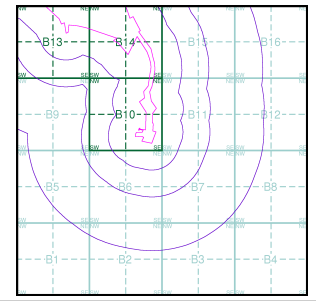


Sensitive Land Uses

- General**
- ◇ Specified Site
 - Specified Buffer(s)
 - X Bearing Reference Point
 - Slice
 - B Map ID

- Sensitive Land Uses**
- Ancient Woodland
 - Area of Adopted Green Belt
 - Area of Unadopted Green Belt
 - Area of Outstanding Natural Beauty
 - Environmentally Sensitive Area
 - Forest Park
 - Local Nature Reserve
 - Marine Nature Reserve
 - National Nature Reserve
 - National Park
 - Nitrate Sensitive Area
 - Nitrate Vulnerable Zone
 - Ramsar Site
 - Site of Special Scientific Interest
 - Special Area of Conservation
 - Special Protection Area
 - World Heritage Sites

Site Sensitivity Context Map - Slice B



Order Details

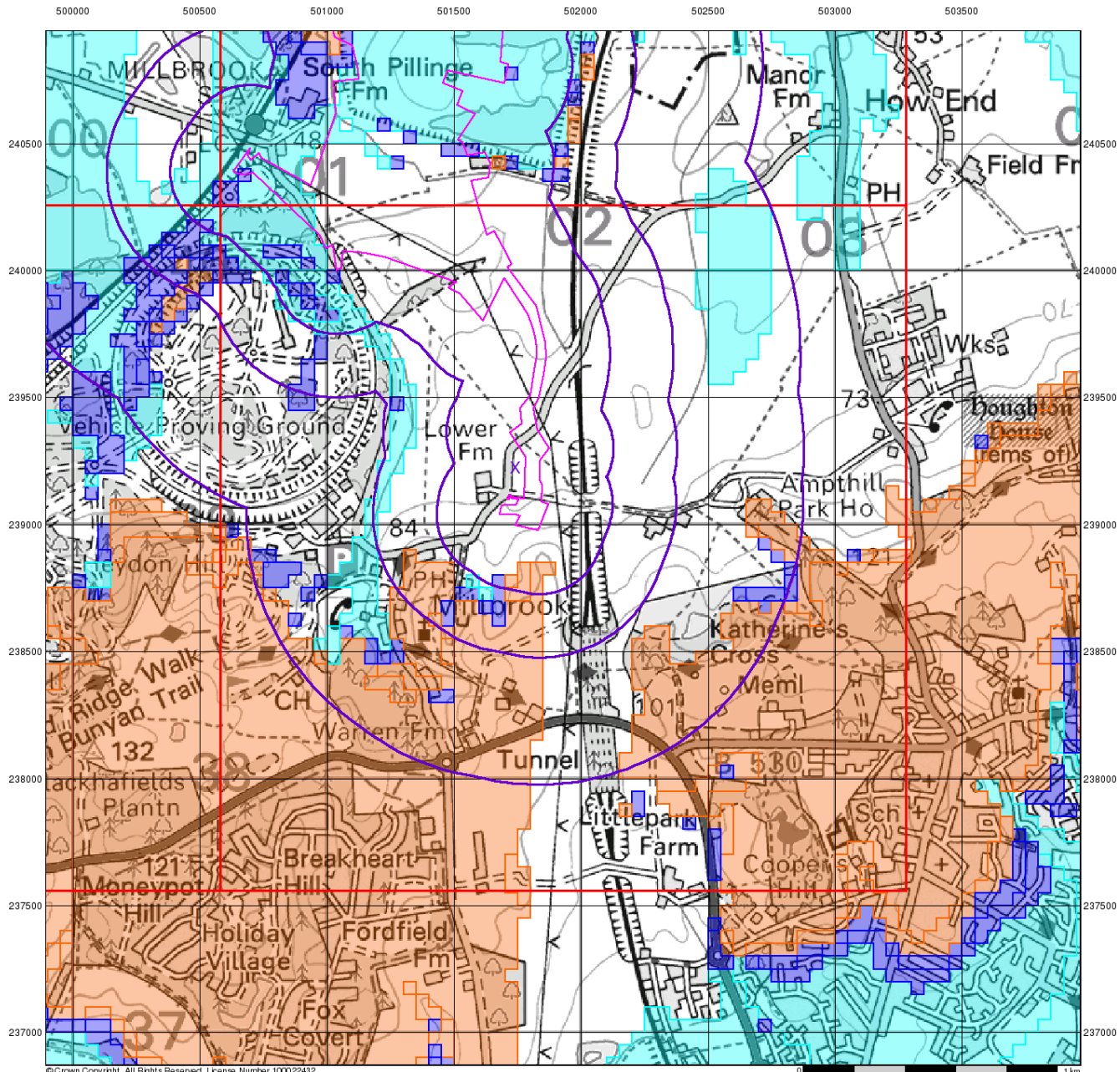
Order Number: 125070033_1_1
 Customer Ref: 40335 Millbrook
 National Grid Reference: 501740, 239230
 Slice: B
 Site Area (Ha): 87.86
 Search Buffer (m): 1000

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BGS Flood GFS Data

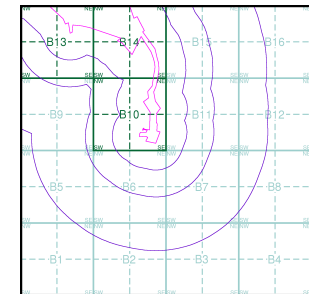
General

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

Agency and Hydrological (Flood)

- Limited Potential for Groundwater Flooding to Occur
- Potential for Groundwater Flooding of Property Situated Below Ground Level
- Potential for Groundwater Flooding to Occur at Surface

Site Sensitivity Context Map - Slice B



Order Details

Order Number: 125070033_1_1
 Customer Ref: 40335 Millbrook
 National Grid Reference: 501740, 239230
 Slice: B
 Site Area (Ha): 87.86
 Search Buffer (m): 1000

Site Details

Stewartby



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Envirocheck[®] Report:

Datasheet

Order Details:

Order Number:

125070033_1_1

Customer Reference:

40335 Millbrook

National Grid Reference:

501740, 239230

Slice:

B

Site Area (Ha):

87.86

Search Buffer (m):

1000

Site Details:

Stewartby

Client Details:

Ms K Riley
Peter Brett Associates LLP
Caversham Bridge House
Waterman Place
Reading
Berkshire
RG1 8DN

| Report Section | Page Number |
|-----------------------|-------------|
| Summary | - |
| Agency & Hydrological | 1 |
| Waste | 15 |
| Hazardous Substances | - |
| Geological | 16 |
| Industrial Land Use | 18 |
| Sensitive Land Use | 19 |
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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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Information supplied from a joint dataset compiled by The British Geological Survey and Public Health England.

Report Version v53.0

| 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 4 | | | 1 | 8 |
| Prosecutions Relating to Controlled Waters | | | n/a | n/a | n/a |
| Enforcement and Prohibition Notices | | | | | |
| Integrated Pollution Controls | | | | | |
| Integrated Pollution Prevention And Control | | | | | |
| Local Authority Integrated Pollution Prevention And Control | | | | | |
| Local Authority Pollution Prevention and Controls | pg 6 | | 1 | | |
| Local Authority Pollution Prevention and Control Enforcements | | | | | |
| Nearest Surface Water Feature | pg 6 | Yes | | | |
| Pollution Incidents to Controlled Waters | pg 6 | | 1 | | 2 |
| Prosecutions Relating to Authorised Processes | | | | | |
| Registered Radioactive Substances | | | | | |
| River Quality | | | | | |
| River Quality Biology Sampling Points | | | | | |
| River Quality Chemistry Sampling Points | | | | | |
| Substantiated Pollution Incident Register | pg 6 | | | | 1 |
| Water Abstractions | pg 7 | | | 1 | 3 |
| 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 8 | Yes | n/a | n/a | n/a |
| Superficial Aquifer Designations | pg 8 | Yes | n/a | n/a | n/a |
| Source Protection Zones | | | | | |
| 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 |
| OS Water Network Lines | pg 8 | 5 | 3 | 13 | 34 |

| Data Type | Page Number | On Site | 0 to 250m | 251 to 500m | 501 to 1000m (*up to 2000m) |
|---|-------------|---------|-----------|-------------|-----------------------------|
| Waste | | | | | |
| BGS Recorded Landfill Sites | | | | | |
| Historical Landfill Sites | | | | | |
| Integrated Pollution Control Registered Waste Sites | | | | | |
| Licensed Waste Management Facilities (Landfill Boundaries) | | | | | |
| Licensed Waste Management Facilities (Locations) | | | | | |
| Local Authority Landfill Coverage | pg 15 | 2 | n/a | n/a | n/a |
| Local Authority Recorded Landfill Sites | | | | | |
| Registered Landfill Sites | | | | | |
| Registered Waste Transfer Sites | | | | | |
| Registered Waste Treatment or Disposal Sites | | | | | |
| Hazardous Substances | | | | | |
| Control of Major Accident Hazards Sites (COMAH) | | | | | |
| Explosive Sites | | | | | |
| Notification of Installations Handling Hazardous Substances (NIHHS) | | | | | |
| Planning Hazardous Substance Consents | | | | | |
| Planning Hazardous Substance Enforcements | | | | | |
| Geological | | | | | |
| BGS 1:625,000 Solid Geology | pg 16 | Yes | n/a | n/a | n/a |
| BGS Recorded Mineral Sites | pg 16 | | | | 1 |
| CBSCB Compensation District | | | 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 16 | Yes | | n/a | n/a |
| Potential for Compressible Ground Stability Hazards | pg 16 | Yes | Yes | n/a | n/a |
| Potential for Ground Dissolution Stability Hazards | | | | n/a | n/a |
| Potential for Landslide Ground Stability Hazards | pg 16 | Yes | Yes | n/a | n/a |
| Potential for Running Sand Ground Stability Hazards | pg 17 | Yes | Yes | n/a | n/a |
| Potential for Shrinking or Swelling Clay Ground Stability Hazards | pg 17 | 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 |

| Data Type | Page Number | On Site | 0 to 250m | 251 to 500m | 501 to 1000m (*up to 2000m) |
|--------------------------------------|-------------|---------|-----------|-------------|-----------------------------|
| Industrial Land Use | | | | | |
| Contemporary Trade Directory Entries | pg 18 | | | | 7 |
| Fuel Station Entries | | | | | |
| Gas Pipelines | pg 18 | 1 | | 2 | |
| Underground Electrical Cables | | | | | |
| Sensitive Land Use | | | | | |
| Ancient Woodland | | | | | |
| Areas of Adopted Green Belt | pg 19 | | | | 1 |
| 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 19 | 3 | 1 | | |
| 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 of Property Situated Below Ground Level | (N) | 0 | 1 | 501740 240750 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (NW) | 0 | 1 | 500700 240350 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (N) | 0 | 1 | 501250 240550 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | (NW) | 0 | 1 | 501050 240850 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (N) | 0 | 1 | 501100 240850 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface | (NW) | 0 | 1 | 501200 240450 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (N) | 0 | 1 | 501600 240450 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface | (NW) | 0 | 1 | 501250 240400 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (N) | 0 | 1 | 501300 240400 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (N) | 0 | 1 | 501350 240500 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface | B13NE (NW) | 0 | 1 | 501000 240000 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | B13NE (NW) | 2 | 1 | 501050 239950 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (NW) | 9 | 1 | 500950 240600 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | (N) | 9 | 1 | 501700 240400 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | B13NW (NW) | 32 | 1 | 500650 240250 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (NW) | 36 | 1 | 501000 240850 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface | B13SE (NW) | 38 | 1 | 501250 239650 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | B13NE (NW) | 58 | 1 | 500950 240000 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (N) | 59 | 1 | 501740 240400 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | B13NW (NW) | 77 | 1 | 500900 240050 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (NW) | 99 | 1 | 500900 240900 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | B13SE (NW) | 103 | 1 | 500950 239900 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|------------------|
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | B13SE (NW) | 109 | 1 | 501050 239800 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | B6NE (S) | 127 | 1 | 501800 238850 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | B6NE (S) | 131 | 1 | 501750 238850 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | B13SE (NW) | 135 | 1 | 500950 239850 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | B13SW (NW) | 148 | 1 | 500900 239900 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | B13NW (NW) | 169 | 1 | 500850 239950 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface | B13SE (NW) | 172 | 1 | 500950 239800 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | B6NE (S) | 190 | 1 | 501740 238800 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | B6NE (S) | 200 | 1 | 501700 238800 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (NW) | 206 | 1 | 500500 240050 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (N) | 210 | 1 | 501850 240350 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface | B13NW (NW) | 213 | 1 | 500800 239950 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface | B6NE (S) | 241 | 1 | 501600 238800 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (N) | 244 | 1 | 501950 240700 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | B13SE (NW) | 255 | 1 | 501000 239650 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (N) | 256 | 1 | 501950 240650 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | (N) | 259 | 1 | 501900 240400 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (N) | 260 | 1 | 501900 240450 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface | B6NE (S) | 262 | 1 | 501650 238750 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | (N) | 269 | 1 | 501950 240600 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | B13NW (NW) | 282 | 1 | 500650 240000 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | B6NE (S) | 283 | 1 | 501600 238750 |

| 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 | (N) | 285 | 1 | 502000 240800 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | (N) | 286 | 1 | 502000 240750 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | B13NW (NW) | 286 | 1 | 500700 239950 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (N) | 288 | 1 | 502000 240850 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | (N) | 290 | 1 | 501950 240500 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (NW) | 299 | 1 | 500550 240050 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | B6NE (S) | 309 | 1 | 501650 238700 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface | B10NW (W) | 334 | 1 | 501350 239300 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (NW) | 363 | 1 | 500500 240000 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | B9NE (W) | 363 | 1 | 500950 239450 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (NW) | 373 | 1 | 500400 240050 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | B6NW (SW) | 381 | 1 | 501500 238700 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | (NW) | 386 | 1 | 500450 240000 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | (NW) | 389 | 1 | 500550 239950 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (NW) | 406 | 1 | 500400 240000 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (NW) | 425 | 1 | 500550 239900 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | B10NW (NW) | 429 | 1 | 501300 239450 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (NW) | 430 | 1 | 500450 239950 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | B6NW (SW) | 452 | 1 | 501450 238650 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | B6NW (S) | 463 | 1 | 501500 238600 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface | (N) | 493 | 1 | 502200 240900 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (NW) | 496 | 1 | 500500 239850 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|--|--|------------------------------|---------|------------------|
| 1 | <p>Discharge Consents</p> <p>Operator: Millbrook Proving Ground Ltd Property Type: MAKING OF MOTOR VEHICLES+TRAILERS/CARS/CARAVANS Location: Millbrook Bedfordshire, Millbrook, Bedford, Mk45 Authority: Environment Agency, Anglian Region Catchment Area: Mid River Ouse / Elstow Brook Reference: Pr1nf2148 Permit Version: 1 Effective Date: 17th September 1985 Issued Date: 17th September 1985 Revocation Date: Not Supplied Discharge Type: Discharge Of Other Matter-Surface Water Discharge: Freshwater Stream/River Environment: Receiving Water: Trib Elstow Brook Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989 Positional Accuracy: Located by supplier to within 100m</p> | B10NW (W) | 421 | 2 | 501300 239400 |
| 2 | <p>Discharge Consents</p> <p>Operator: Anglian Water Services Limited Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY) Location: Millbrook Stw Sandhill Close, Millbrook, Bedford, Mk45 2jd Authority: Environment Agency, Anglian Region Catchment Area: Mid River Ouse / Elstow Brook Reference: Aw1nf792 Permit Version: 3 Effective Date: 15th June 1985 Issued Date: 15th June 1985 Revocation Date: 15th August 1991 Discharge Type: Unknown Discharge: Freshwater Stream/River Environment: Receiving Water: Boiling Pot Br Elstow Br River Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989 Positional Accuracy: Located by supplier to within 100m</p> | B5NE (SW) | 501 | 2 | 501200 238900 |
| 2 | <p>Discharge Consents</p> <p>Operator: Anglian Water Services Ltd. Property Type: Undefined Or Other Location: Millbrook Stw Authority: Environment Agency, Anglian Region Catchment Area: Mid River Ouse / Elstow Brook Reference: Aw1nf792 Permit Version: 1 Effective Date: 15th June 1985 Issued Date: 15th June 1985 Revocation Date: 15th August 1991 Discharge Type: Unknown Discharge: Freshwater Stream/River Environment: Receiving Water: Boiling Pot Br Elstow Br River Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989 Positional Accuracy: Located by supplier to within 100m</p> | B5NE (SW) | 501 | 2 | 501200 238900 |
| 2 | <p>Discharge Consents</p> <p>Operator: Anglian Water Services Limited Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY) Location: Millbrook Stw Sandhill Close, Millbrook, Bedford, Mk45 2jd Authority: Environment Agency, Anglian Region Catchment Area: Mid River Ouse / Elstow Brook Reference: Aw1nf792 Permit Version: 2 Effective Date: 21st October 1981 Issued Date: 21st October 1981 Revocation Date: 14th June 1985 Discharge Type: Unknown Discharge: Freshwater Stream/River Environment: Receiving Water: Boiling Pot Br Elstow Br River Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989 Positional Accuracy: Located by supplier to within 100m</p> | B5NE (SW) | 501 | 2 | 501200 238900 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|------------------|
| 2 | <p>Discharge Consents</p> <p>Operator: Anglian Water Services Limited Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY) Location: Millbrook Stw Sandhill Close, Millbrook, Bedford, Mk45 2jd Authority: Environment Agency, Anglian Region Catchment Area: Mid River Ouse / Elstow Brook Reference: Awcnf10501 Permit Version: 3 Effective Date: 1st January 2010 Issued Date: 24th September 2009 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Boiling Pot Brook Status: Post National Rivers Authority Legislation where issue date > 31/08/1989 Positional Accuracy: Located by supplier to within 10m</p> | B5NE (SW) | 548 | 2 | 501160 238870 |
| 2 | <p>Discharge Consents</p> <p>Operator: Anglian Water Services Limited Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY) Location: Millbrook Stw Sandhill Close, Millbrook, Bedford, Mk45 2jd Authority: Environment Agency, Anglian Region Catchment Area: Mid River Ouse / Elstow Brook Reference: Awcnf10501 Permit Version: 2 Effective Date: 27th June 1995 Issued Date: 27th June 1995 Revocation Date: 31st December 2009 Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Boiling Pot Brook Status: Post National Rivers Authority Legislation where issue date > 31/08/1989 Positional Accuracy: Located by supplier to within 100m</p> | B5NE (SW) | 548 | 2 | 501160 238870 |
| 2 | <p>Discharge Consents</p> <p>Operator: Anglian Water Services Limited Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY) Location: Millbrook Stw Sandhill Close, Millbrook, Bedford, Mk45 2jd Authority: Environment Agency, Anglian Region Catchment Area: Mid River Ouse / Elstow Brook Reference: Awcnf10501 Permit Version: 1 Effective Date: 15th August 1991 Issued Date: 15th August 1991 Revocation Date: 26th June 1995 Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Boiling Pot Brook Status: Post National Rivers Authority Legislation where issue date > 31/08/1989 Positional Accuracy: Located by supplier to within 10m</p> | B5NE (SW) | 548 | 2 | 501160 238870 |
| 3 | <p>Discharge Consents</p> <p>Operator: Anglian Water Services Limited Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY) Location: Millbrook Stw Sandhill Close, Millbrook, Bedford, Mk45 2jd Authority: Environment Agency, Anglian Region Catchment Area: Mid River Ouse / Elstow Brook Reference: Aw1nf792 Permit Version: 1 Effective Date: 31st December 1970 Issued Date: 31st December 1970 Revocation Date: 20th October 1981 Discharge Type: Unknown Discharge: Freshwater Stream/River Environment: Receiving Water: Boiling Pot Br Elstow Br River Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989 Positional Accuracy: Located by supplier to within 100m</p> | B5NE (SW) | 537 | 2 | 501200 238800 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|--|--|------------------------------|---------|------------------|
| 4 | Discharge Consents Operator: A.G. Fuller Property Type: WWTW (NOT WATER CO) (NOT STP AT A PRIVATE PREMISES) Location: Manor Park Farm Ampthill Road, Millbrook, Beds Authority: Environment Agency, Anglian Region Catchment Area: Not Supplied Reference: Prclf03904 Permit Version: 1 Effective Date: 5th November 1990 Issued Date: 5th November 1990 Revocation Date: 1st October 1996 Discharge Type: Unknown Discharge: Not Supplied Environment: Receiving Water: Not Supplied Status: Post National Rivers Authority Legislation where issue date > 31/08/1989 Positional Accuracy: Located by supplier to within 10m | B2NE (S) | 794 | 2 | 501620 238210 |
| 5 | Local Authority Pollution Prevention and Controls Name: Millbrook Proving Ground Location: Station Road, Millbrook, BEDFORD, Bedfordshire, MK45 2JQ Authority: Central Bedfordshire Council, Environmental Health Department Permit Reference: EP/CB/44 Dated: 1st July 1999 Process Type: Local Authority Pollution Prevention and Control Description: PG1/14 Petrol filling station Status: Permitted Positional Accuracy: Manually positioned to the address or location | B13NW (NW) | 116 | 3 | 500786 240153 |
| | Nearest Surface Water Feature | B14NE (N) | 0 | - | 501858 240012 |
| 6 | Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Sewage Treatment Works Location: Bedford District, MILLBROOK, Bedfordshire Authority: Environment Agency, Anglian Region Pollutant: Sewage - Treated Effluent Note: Boiling Pot Brook Incident Date: 29th January 1999 Incident Reference: 4434 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Other Cause Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m | B10SE (SW) | 90 | 2 | 501600 239000 |
| 7 | Pollution Incidents to Controlled Waters Property Type: Road Location: Bedford District Authority: Environment Agency, Anglian Region Pollutant: Oils - Diesel (Including Agricultural) Note: Millbrook Incident Date: 21st August 1993 Incident Reference: 1992 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Other Cause Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m | B6SW (SW) | 661 | 2 | 501300 238500 |
| 8 | Pollution Incidents to Controlled Waters Property Type: Not Applicable Location: Bedford District, AMPHILL, Bedfordshire Authority: Environment Agency, Anglian Region Pollutant: Miscellaneous - Natural Note: Pond Incident Date: 31st May 1999 Incident Reference: 4549 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Algal Bloom Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m | B7SE (SE) | 742 | 2 | 502400 238500 |
| 9 | Substantiated Pollution Incident Register Authority: Environment Agency - Anglian Region, Central Area Incident Date: 11th August 2009 Incident Reference: 706364 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 : Natural Organic Material | B7SW (S) | 793 | 2 | 502112 238235 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|--|--|------------------------------|---------|------------------|
| 10 | <p>Water Abstractions</p> <p>Operator: R J Parrish & Son Licence Number: 6/33/12/*S/0067 Permit Version: 100 Location: Catchpit At Ampthill Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Status: Perpetuity Authorised Start: 01 April Authorised End: 30 September Permit Start Date: 1st November 1996 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p> | B10NW (NW) | 436 | 2 | 501300 239500 |
| 11 | <p>Water Abstractions</p> <p>Operator: R J Parrish & Son Licence Number: 6/33/12/*S/0067 Permit Version: 100 Location: Catchpit At Ampthill Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Status: Perpetuity Authorised Start: 01 April Authorised End: 30 September Permit Start Date: 1st November 1996 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p> | B9SE (W) | 582 | 2 | 501100 239000 |
| 12 | <p>Water Abstractions</p> <p>Operator: Messrs A J Woodward And Co Licence Number: 6/33/12/*s/028 Permit Version: Not Supplied Location: Elstow Brook At, MILLBROOK Authority: Environment Agency, Anglian Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Stream Daily Rate (m3): 11 Yearly Rate (m3): 245450 Details: Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p> | B5NE (SW) | 589 | 2 | 501200 238700 |
| 13 | <p>Water Abstractions</p> <p>Operator: R J Parrish & Son Licence Number: 6/33/12/*S/0067 Permit Version: 100 Location: Pond At Ampthill Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Status: Perpetuity Authorised Start: 01 April Authorised End: 30 September Permit Start Date: 1st November 1996 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p> | B16SW (NE) | 839 | 2 | 502700 239695 |
| | <p>Groundwater Vulnerability</p> <p>Soil Classification: Not classified Map Sheet: Sheet 31 Bedfordshire Scale: 1:100,000</p> | B10SE (S) | 0 | 2 | 501740 239226 |
| | <p>Groundwater Vulnerability</p> <p>Soil Classification: Soils of Intermediate Leaching Potential (I1) - Soils which can possibly transmit a wide range of pollutants Map Sheet: Sheet 31 Bedfordshire Scale: 1:100,000</p> | B13NE (NW) | 0 | 2 | 500965 240001 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
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| | Groundwater Vulnerability Soil Classification: Soils of Low Leaching Potential - Soils in which pollutants are unlikely to penetrate the soil layer because water movement is largely horizontal or they have large ability to attenuate diffuse pollutants. Lateral flow from these soils contribute to groundwater recharge elsewhere in the catchment Map Sheet: Sheet 31 Bedfordshire Scale: 1:100,000 | (NW) | 0 | 2 | 501148 240568 |
| | Groundwater Vulnerability Soil Classification: Soils of High Leaching Potential (U) - Soil information for restored mineral workings and urban areas is based on fewer observations than elsewhere. A worst case vulnerability classification (H) assumed, until proved otherwise Map Sheet: Sheet 31 Bedfordshire Scale: 1:100,000 | (N) | 0 | 2 | 501058 240915 |
| | Drift Deposits None | | | | |
| | Bedrock Aquifer Designations Aquifer Designation: Unproductive Strata | B14NE (N) | 0 | 1 | 501740 240000 |
| | Bedrock Aquifer Designations Aquifer Designation: Unproductive Strata | B10SE (S) | 0 | 1 | 501740 239226 |
| | Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - Undifferentiated | B13NE (NW) | 0 | 1 | 500956 240098 |
| | Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - A | (N) | 0 | 1 | 501323 240409 |
| | 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 | | | | |
| 14 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1750.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B10NE (NE) | 0 | 4 | 501909 239541 |
| 15 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 402.9 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B13SE (NW) | 0 | 4 | 501203 239727 |
| 16 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 536.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B13NE (NW) | 0 | 4 | 501004 240077 |
| 17 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 359.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B13NE (NW) | 0 | 4 | 500991 240105 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
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| 18 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 242.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B13NE (NW) | 0 | 4 | 500928 240174 |
| 19 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 223.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B13NW (NW) | 3 | 4 | 500802 240027 |
| 20 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 190.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B13SW (NW) | 226 | 4 | 500764 239818 |
| 21 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 102.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B13SW (NW) | 241 | 4 | 500913 239797 |
| 22 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 13.0 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B13SW (NW) | 286 | 4 | 500818 239819 |
| 23 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 49.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B13SW (NW) | 299 | 4 | 500803 239807 |
| 24 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 142.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B14SW (NW) | 315 | 4 | 501273 239603 |
| 25 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 107.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B13SW (NW) | 331 | 4 | 500737 239714 |
| 26 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 500.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B11SW (E) | 374 | 4 | 502242 239137 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
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| 27 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 486.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B10NW (W) | 374 | 4 | 501343 239364 |
| 28 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.1 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B14SW (NW) | 388 | 4 | 501276 239599 |
| 29 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 53.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B13SW (NW) | 417 | 4 | 500727 239662 |
| 30 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 56.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B13SW (NW) | 417 | 4 | 500737 239714 |
| 31 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 266.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B9SE (W) | 445 | 4 | 501246 239142 |
| 32 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.8 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B9SE (W) | 445 | 4 | 501248 239146 |
| 33 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 68.3 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B13SW (W) | 461 | 4 | 500715 239595 |
| 34 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 128.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B13SW (NW) | 468 | 4 | 500683 239699 |
| 35 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 41.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B9NW (W) | 520 | 4 | 500706 239555 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
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| 36 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 18.2 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B5NE (SW) | 530 | 4 | 501168 238905 |
| 37 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 116.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B5NE (SW) | 539 | 4 | 501164 238887 |
| 38 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 6.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B5NE (SW) | 545 | 4 | 501191 238800 |
| 39 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B5NE (SW) | 548 | 4 | 501192 238794 |
| 40 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 9.2 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B5NE (SW) | 550 | 4 | 501192 238788 |
| 41 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 79.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B5NE (SW) | 552 | 4 | 501194 238779 |
| 42 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 522.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B11NE (E) | 566 | 4 | 502418 239463 |
| 43 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1250.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B11NE (E) | 566 | 4 | 502418 239463 |
| 44 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.4 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B5NE (SW) | 611 | 4 | 501167 238709 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
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| 45 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 75.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B5NE (SW) | 616 | 4 | 501164 238705 |
| 46 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 59.0 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B5NE (SW) | 639 | 4 | 501177 238646 |
| 47 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 89.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B5NE (SW) | 678 | 4 | 501176 238587 |
| 48 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 65.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B6SW (SW) | 679 | 4 | 501285 238488 |
| 49 | OS Water Network Lines Watercourse Form: Lake Watercourse Length: 19.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B5SE (SW) | 702 | 4 | 501220 238510 |
| 50 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 10.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B5SE (SW) | 702 | 4 | 501220 238510 |
| 51 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 49.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B5SE (SW) | 703 | 4 | 501212 238516 |
| 52 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 27.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B6SW (SW) | 712 | 4 | 501299 238437 |
| 53 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 33.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B6SW (SW) | 713 | 4 | 501315 238423 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
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| 54 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 77.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B5SE (SW) | 733 | 4 | 501225 238466 |
| 55 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 2 | B5SE (SW) | 733 | 4 | 501225 238466 |
| 56 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 17.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B5SE (SW) | 735 | 4 | 501220 238468 |
| 57 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 21.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B6SW (SW) | 738 | 4 | 501278 238422 |
| 58 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 14.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B6SW (SW) | 744 | 4 | 501290 238404 |
| 59 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 27.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B2NE (S) | 892 | 4 | 501660 238102 |
| 60 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 11.1 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B2NE (S) | 908 | 4 | 501635 238090 |
| 61 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 33.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B9SW (W) | 914 | 4 | 500773 238932 |
| 62 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 10.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B2NE (S) | 915 | 4 | 501625 238086 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
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| 63 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 14.6 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B2NE (S) | 921 | 4 | 501616 238081 |
| 64 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 78.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B2NE (S) | 929 | 4 | 501603 238075 |
| 65 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 6.9 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B9SW (W) | 947 | 4 | 500740 238937 |
| 66 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 27.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B9SW (W) | 953 | 4 | 500733 238938 |
| 67 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.9 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B12SW (E) | 968 | 4 | 502836 239169 |
| 68 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 60.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | B12SW (E) | 969 | 4 | 502838 239164 |

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| | Local Authority Landfill Coverage Name: Mid Bedfordshire District Council - Has supplied landfill data | | 0 | 5 | 501740 239226 |
| | Local Authority Landfill Coverage Name: Bedfordshire County Council - Has no landfill data to supply | | 0 | 6 | 501740 239226 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
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| | BGS 1:625,000 Solid Geology Description: Kellaways Formation And Oxford Clay Formation (Undifferentiated) | B10SE (S) | 0 | 1 | 501740 239226 |
| 69 | BGS Recorded Mineral Sites Site Name: Warren Farm Sand Pit Location: Warren Farm, Lidlington, Kempston, Bedfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 36657 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Cretaceous Geology: Woburn Sands Formation Commodity: Sand Positional Accuracy: Located by supplier to within 10m | B2NW (S) | 963 | 1 | 501400 238095 |
| | 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 | B10SE (S) | 0 | 1 | 501740 239226 |
| | Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service | B14NE (N) | 0 | 1 | 501740 240000 |
| | Potential for Compressible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service | B13NE (NW) | 0 | 1 | 501026 240000 |
| | Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | B10SE (S) | 0 | 1 | 501740 239226 |
| | Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | B14NE (N) | 0 | 1 | 501740 240000 |
| | Potential for Compressible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service | B13SE (NW) | 12 | 1 | 501149 239741 |
| | Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | B14NE (N) | 0 | 1 | 501740 240000 |
| | Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | B10SE (S) | 0 | 1 | 501740 239226 |
| | Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service | B10SE (S) | 0 | 1 | 501780 238999 |
| | Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service | B14NE (N) | 0 | 1 | 501740 240000 |
| | Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service | B14NW (NW) | 0 | 1 | 501277 240065 |
| | Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service | B10SE (S) | 0 | 1 | 501740 239226 |
| | Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service | B13SE (NW) | 10 | 1 | 501069 239920 |
| | Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service | B6NE (S) | 109 | 1 | 501882 238879 |
| | Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service | B11SW (SE) | 110 | 1 | 501993 239077 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
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| | Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service | B14SW (NW) | 116 | 1 | 501316 239840 |
| | Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service | B6NE (S) | 143 | 1 | 501763 238844 |
| | Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | B14NE (N) | 0 | 1 | 501740 240000 |
| | Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | B10SE (S) | 0 | 1 | 501740 239226 |
| | Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service | B13NE (NW) | 0 | 1 | 501026 240000 |
| | Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service | B10NW (W) | 12 | 1 | 501362 239334 |
| | Potential for Running Sand Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service | B6NE (S) | 108 | 1 | 501818 238868 |
| | Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service | B6NE (S) | 110 | 1 | 501801 238867 |
| | Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | B10NW (W) | 200 | 1 | 501257 239337 |
| | Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service | B14NE (N) | 0 | 1 | 501740 240000 |
| | Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service | B10SE (S) | 0 | 1 | 501740 239226 |
| | Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | B6NE (S) | 108 | 1 | 501818 238868 |
| | Radon Potential - Radon Affected Areas Affected Area: The property is in a Lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service | B10SE (S) | 0 | 1 | 501740 239226 |
| | Radon Potential - Radon Affected Areas Affected Area: The property is in a Lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service | B14NE (N) | 0 | 1 | 501740 240001 |
| | 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 | B10SE (S) | 0 | 1 | 501740 239226 |
| | 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 | B14NE (N) | 0 | 1 | 501740 240001 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|--|--|------------------------------|---------|---------------|
| 70 | Contemporary Trade Directory Entries Name: Millbrook Location: Station Lane, Millbrook, Bedford, MK45 2JQ Classification: Engineers - General Status: Active Positional Accuracy: Automatically positioned to the address | B9SE (W) | 709 | - | 500974 238986 |
| 70 | Contemporary Trade Directory Entries Name: Innospec Ltd Location: Station Lane, Millbrook, Bedford, Bedfordshire, MK45 2JQ Classification: Fuel Injection Services Status: Active Positional Accuracy: Manually positioned within the geographical locality | B9SE (W) | 709 | - | 500974 238986 |
| 70 | Contemporary Trade Directory Entries Name: Allison Transmission Location: Station Lane, Millbrook, Bedford, Bedfordshire, MK45 2JQ Classification: Commercial Vehicle Component Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address | B9SE (W) | 709 | - | 500974 238986 |
| 70 | Contemporary Trade Directory Entries Name: Millbrook Proving Ground Ltd Location: Station Lane, Millbrook, Bedford, Bedfordshire, MK45 2JQ Classification: Car Customisation & Conversion Specialists Status: Inactive Positional Accuracy: Automatically positioned to the address | B9SE (W) | 709 | - | 500974 238986 |
| 71 | Contemporary Trade Directory Entries Name: First Line Event Hire Location: Warren Farm, Bedford, Bedfordshire, MK45 2HY Classification: Catering Equipment Status: Inactive Positional Accuracy: Manually positioned within the geographical locality | B2NE (S) | 762 | - | 501802 238215 |
| 72 | Contemporary Trade Directory Entries Name: Wixted Cleaning Ltd Location: Warren Farm, Woburn Street, Millbrook, BEDFORD, MK45 2HY Classification: Commercial Cleaning Services Status: Active Positional Accuracy: Automatically positioned to the address | B2NW (S) | 857 | - | 501590 238152 |
| 73 | Contemporary Trade Directory Entries Name: Maulden Dairies Ltd Location: Warren Farm, Woburn Street, Millbrook, Bedford, MK45 2HY Classification: Dairies Status: Active Positional Accuracy: Automatically positioned to the address | B2NW (S) | 897 | - | 501547 238120 |
| 74 | Gas Pipelines Name: FM09 - Huntingdon to Steppingley Nat Grid: Owned By National Grid Diameter (mm): 900 Building Proximity: 81 Distance (m): Status: Active Pipe Length (m): 42431.6 Pipe Number: Feeder 9 | B10SE (SE) | 0 | 7 | 501828 239172 |
| 75 | Gas Pipelines Name: FM26 - Huntingdon to Steppingley Nat Grid: Owned By National Grid Diameter (mm): 900 Building Proximity: 81 Distance (m): Status: Active Pipe Length (m): 43212.2 Pipe Number: Feeder 26 | B11SW (E) | 271 | 7 | 502147 239229 |
| 76 | Gas Pipelines Name: FM07 - Old Warden to Chalgrove Nat Grid: Owned By National Grid Diameter (mm): 900 Building Proximity: 81 Distance (m): Status: Active Pipe Length (m): 82247.8 Pipe Number: Feeder 7 | B11NW (E) | 292 | 7 | 502169 239247 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|------------------|
| 77 | Areas of Adopted Green Belt Authority: Central Bedfordshire Council, Planning Department Plan Name: Proposal Map - North Area Status: Adopted Plan Date: 19th November 2009 | B3NW (S) | 781 | 9 | 501951 238204 |
| 78 | Nitrate Vulnerable Zones Name: Not Supplied Description: Eutrophic Water Source: Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA) | B9SW (W) | 0 | 10 | 500800 239150 |
| 79 | Nitrate Vulnerable Zones Name: Not Supplied Description: Surface Water Source: Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA) | B10SE (S) | 0 | 10 | 501740 239226 |
| 80 | Nitrate Vulnerable Zones Name: Not Supplied Description: Groundwater Source: Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA) | B10SE (S) | 0 | 10 | 501740 239226 |
| 81 | Nitrate Vulnerable Zones Name: Not Supplied Description: Groundwater Source: Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA) | B6NE (S) | 142 | 10 | 501786 238841 |

| Agency & Hydrological | Version | Update Cycle |
|--|--------------------------------|----------------------------|
| Contaminated Land Register Entries and Notices Central Bedfordshire Council - Environmental Health Department Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department | December 2013 July 2008 | Annually Not Applicable |
| Discharge Consents Environment Agency - Anglian Region | January 2017 | Quarterly |
| Enforcement and Prohibition Notices Environment Agency - Anglian Region | March 2013 | As notified |
| Integrated Pollution Controls Environment Agency - Anglian Region | October 2008 | Not Applicable |
| Integrated Pollution Prevention And Control Environment Agency - Anglian Region | April 2017 | Quarterly |
| Local Authority Integrated Pollution Prevention And Control Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department Central Bedfordshire Council - Environmental Health Department | December 2008 November 2014 | Not Applicable Annually |
| Local Authority Pollution Prevention and Controls Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department Central Bedfordshire Council - Environmental Health Department | December 2008 November 2014 | Not Applicable Annually |
| Local Authority Pollution Prevention and Control Enforcements Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department Central Bedfordshire Council - Environmental Health Department | December 2008 November 2014 | Not Applicable Annually |
| Nearest Surface Water Feature Ordnance Survey | March 2017 | |
| Pollution Incidents to Controlled Waters Environment Agency - Anglian Region | September 1999 | Not Applicable |
| Prosecutions Relating to Authorised Processes Environment Agency - Anglian Region | March 2013 | As notified |
| Prosecutions Relating to Controlled Waters Environment Agency - Anglian Region | March 2013 | As notified |
| Registered Radioactive Substances Environment Agency - Anglian Region | January 2015 | |
| 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 - Anglian Region - Central Area | April 2017 | Quarterly |
| Water Abstractions Environment Agency - Anglian Region | October 2016 | Quarterly |
| Water Industry Act Referrals Environment Agency - Anglian Region | April 2017 | 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 |

| Agency & Hydrological | Version | Update Cycle |
|--|----------------------|----------------------------------|
| Superficial Aquifer Designations British Geological Survey - National Geoscience Information Service | August 2015 | As notified |
| Source Protection Zones Environment Agency - Head Office | April 2017 | Quarterly |
| Extreme Flooding from Rivers or Sea without Defences Environment Agency - Head Office | February 2017 | Quarterly |
| Flooding from Rivers or Sea without Defences Environment Agency - Head Office | February 2017 | Quarterly |
| Areas Benefiting from Flood Defences Environment Agency - Head Office | February 2017 | Quarterly |
| Flood Water Storage Areas Environment Agency - Head Office | February 2017 | Quarterly |
| Flood Defences Environment Agency - Head Office | February 2017 | Quarterly |
| OS Water Network Lines Ordnance Survey | January 2017 | 6 Weekly |
| 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 | January 2017 | Quarterly |
| Integrated Pollution Control Registered Waste Sites Environment Agency - Anglian Region | October 2008 | Not Applicable |
| Licensed Waste Management Facilities (Landfill Boundaries) Environment Agency - Anglian Region - Central Area | August 2016 | Quarterly |
| Licensed Waste Management Facilities (Locations) Environment Agency - Anglian Region - Central Area | October 2016 | Quarterly |
| Local Authority Landfill Coverage Bedfordshire County Council (now part of Central Bedfordshire Council) Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department | May 2000 May 2000 | Not Applicable Not Applicable |
| Local Authority Recorded Landfill Sites Bedfordshire County Council (now part of Central Bedfordshire Council) Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department | May 2000 May 2000 | Not Applicable Not Applicable |
| Registered Landfill Sites Environment Agency - Anglian Region - Central Area | March 2003 | Not Applicable |
| Registered Waste Transfer Sites Environment Agency - Anglian Region - Central Area | March 2003 | Not Applicable |
| Registered Waste Treatment or Disposal Sites Environment Agency - Anglian Region - Central Area | March 2003 | Not Applicable |

| Hazardous Substances | Version | Update Cycle |
|--|--|---|
| Control of Major Accident Hazards Sites (COMAH) Health and Safety Executive | March 2017 | Bi-Annually |
| Explosive Sites Health and Safety Executive | March 2017 | Bi-Annually |
| Notification of Installations Handling Hazardous Substances (NIHHS) Health and Safety Executive | November 2000 | Not Applicable |
| Planning Hazardous Substance Enforcements Central Bedfordshire Council - Planning Department Bedfordshire County Council (now part of Central Bedfordshire Council) Mid Bedfordshire District Council (now part of Central Bedfordshire Council) | February 2016 July 2008 May 2008 | Annually Annual Rolling Update Not Applicable |
| Planning Hazardous Substance Consents Central Bedfordshire Council - Planning Department Bedfordshire County Council (now part of Central Bedfordshire Council) Mid Bedfordshire District Council (now part of Central Bedfordshire Council) | February 2016 July 2008 May 2008 | Annually Annual Rolling Update Not Applicable |
| Geological | Version | Update Cycle |
| BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service | January 2009 | Not Applicable |
| BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service | April 2017 | Bi-Annually |
| CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB) | August 2011 | Not Applicable |
| Coal Mining Affected Areas The Coal Authority - Property Searches | March 2014 | 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 |

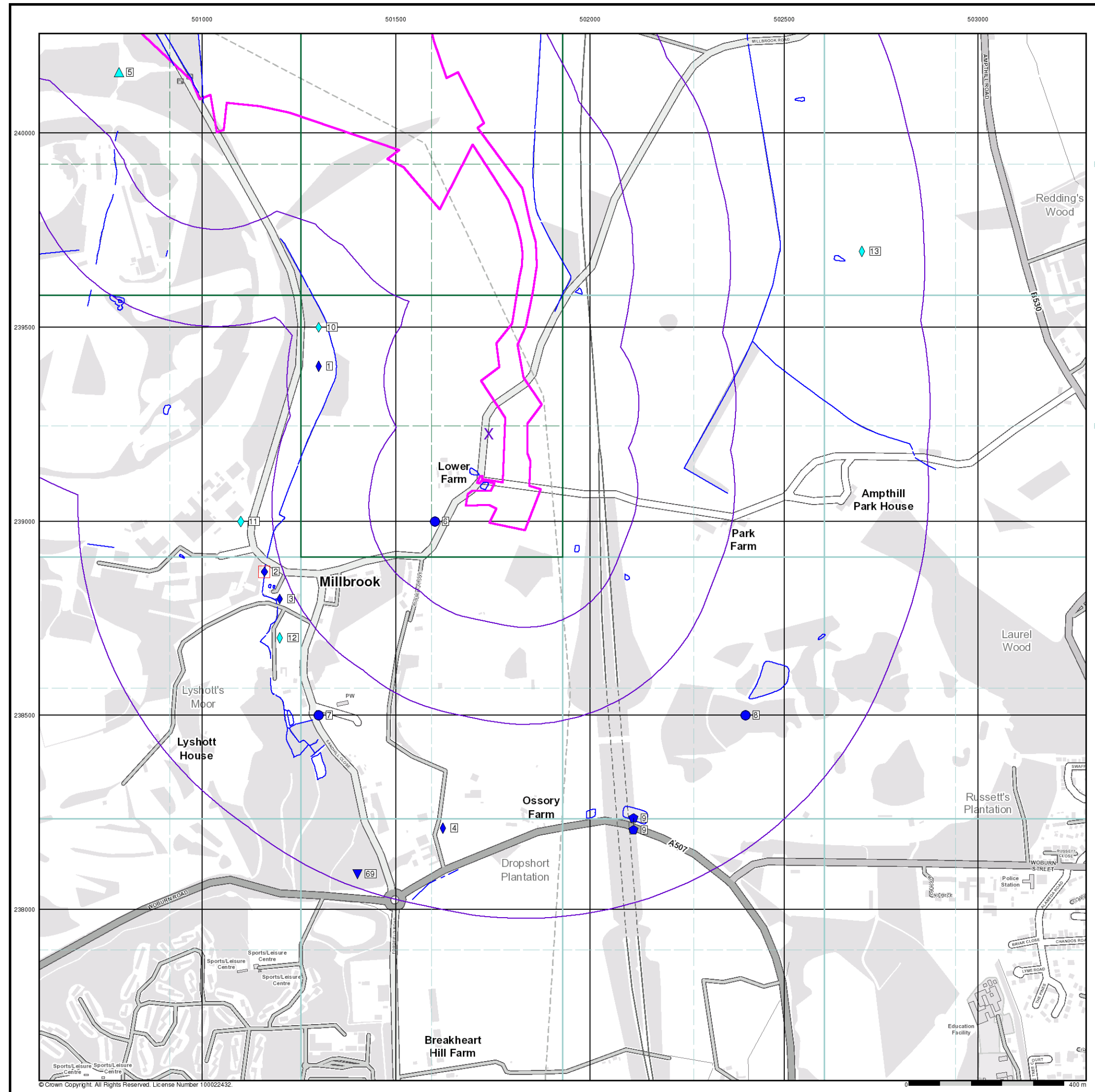
| Industrial Land Use | Version | Update Cycle |
|--|---------------------------|----------------------------|
| Contemporary Trade Directory Entries Thomson Directories | March 2017 | Quarterly |
| Fuel Station Entries Catalist Ltd - Experian | February 2017 | Quarterly |
| Gas Pipelines National Grid | July 2014 | Quarterly |
| Underground Electrical Cables National Grid | December 2015 | Bi-Annually |
| Sensitive Land Use | Version | Update Cycle |
| Ancient Woodland Natural England | August 2016 | Bi-Annually |
| Areas of Adopted Green Belt Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department Central Bedfordshire Council - Planning Department | February 2017 May 2011 | As notified As notified |
| Areas of Unadopted Green Belt Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department Central Bedfordshire Council - Planning Department | February 2017 May 2011 | As notified As notified |
| Areas of Outstanding Natural Beauty Natural England | January 2017 | Bi-Annually |
| Environmentally Sensitive Areas Natural England | January 2017 | Annually |
| Forest Parks Forestry Commission | April 1997 | Not Applicable |
| Local Nature Reserves Natural England | January 2017 | Bi-Annually |
| Marine Nature Reserves Natural England | January 2017 | Bi-Annually |
| National Nature Reserves Natural England | January 2017 | Bi-Annually |
| National Parks Natural England | February 2017 | Bi-Annually |
| Nitrate Vulnerable Zones Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA) | October 2015 | Annually |
| Ramsar Sites Natural England | January 2017 | Bi-Annually |
| Sites of Special Scientific Interest Natural England | January 2017 | Bi-Annually |
| Special Areas of Conservation Natural England | January 2017 | Bi-Annually |
| Special Protection Areas Natural England | January 2017 | Bi-Annually |
| World Heritage Sites English Heritage - National Monument Record Centre | May 2017 | 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 |  <p>British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL</p> |
| Centre for Ecology and Hydrology |  <p>Centre for Ecology & Hydrology NATURAL ENVIRONMENT RESEARCH COUNCIL</p> |
| Natural Resources Wales |  |
| Scottish Natural Heritage |  |
| Natural England |  |
| Public Health England |  |
| Ove Arup |  |
| Peter Brett Associates |  |

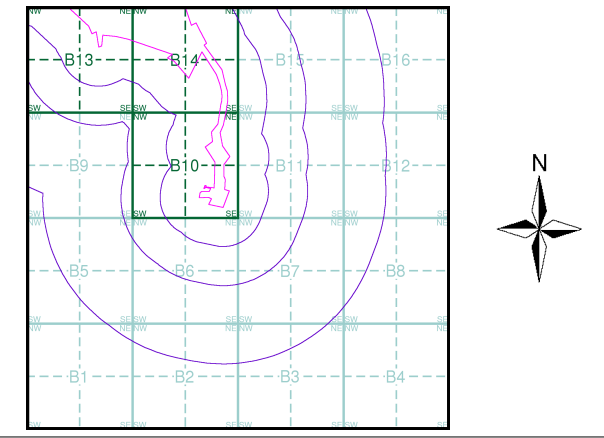
| Contact | Name and Address | Contact Details |
|---------|---|---|
| 1 | British Geological Survey - Enquiry Service British Geological Survey, Kingsley Dunham Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG | Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk |
| 2 | Environment Agency - National Customer Contact Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY | Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk |
| 3 | Central Bedfordshire Council - Environmental Health Department Priory House, Monks Walk, Chicksands, Shefford, Bedfordshire, SG17 5TQ | Telephone: 0300 300 8000 Email: info@centralbedfordshire.gov.uk Website: www.centralbedfordshire.gov.uk |
| 4 | Ordnance Survey Adanac Drive, Southampton, Hampshire, SO16 0AS | Telephone: 023 8079 2000 Email: enquires@ordsvy.gov.uk Website: www.ordnancesurvey.gov.uk |
| 5 | Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department Priory House, Monks Walk, Chicksands, Shefford, Bedfordshire, SG17 5TQ | Telephone: 0300 300 8301 Email: customers@centralbedfordshire.gov.uk Website: www.centralbedfordshire.gov.uk |
| 6 | Bedfordshire County Council (now part of Central Bedfordshire Council) Priory House, Monks Walk, Chicksands, Shefford, Bedfordshire, SG17 5TQ | Telephone: 0300 300 8301 Email: www.centralbedfordshire.gov.uk Website: www.centralbedfordshire.gov.uk |
| 7 | Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD | Telephone: 0844 844 9966 Fax: 0844 844 9951 Email: helpdesk@landmark.co.uk Website: www.landmark.co.uk |
| 8 | Natural England County Hall, Spetchley Road, Worcester, WR5 2NP | Telephone: 0300 060 3900 Email: enquiries@naturalengland.org.uk Website: www.naturalengland.org.uk |
| 9 | Central Bedfordshire Council - Planning Department Priory House, Monks Walk, Chicksands, Shefford, Bedfordshire, SG17 5TQ | Telephone: 0300 300 8000 Email: info@centralbedfordshire.gov.uk Website: www.centralbedfordshire.gov.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 |
| - | 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.



- 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
- 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)
 - Local Authority Recorded Landfill Site (Location)
 - Local Authority Recorded Landfill Site
 - 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
- Industrial Land Use**
- Contemporary Trade Directory Entry
 - Fuel Station Entry

Site Sensitivity Map - Slice B



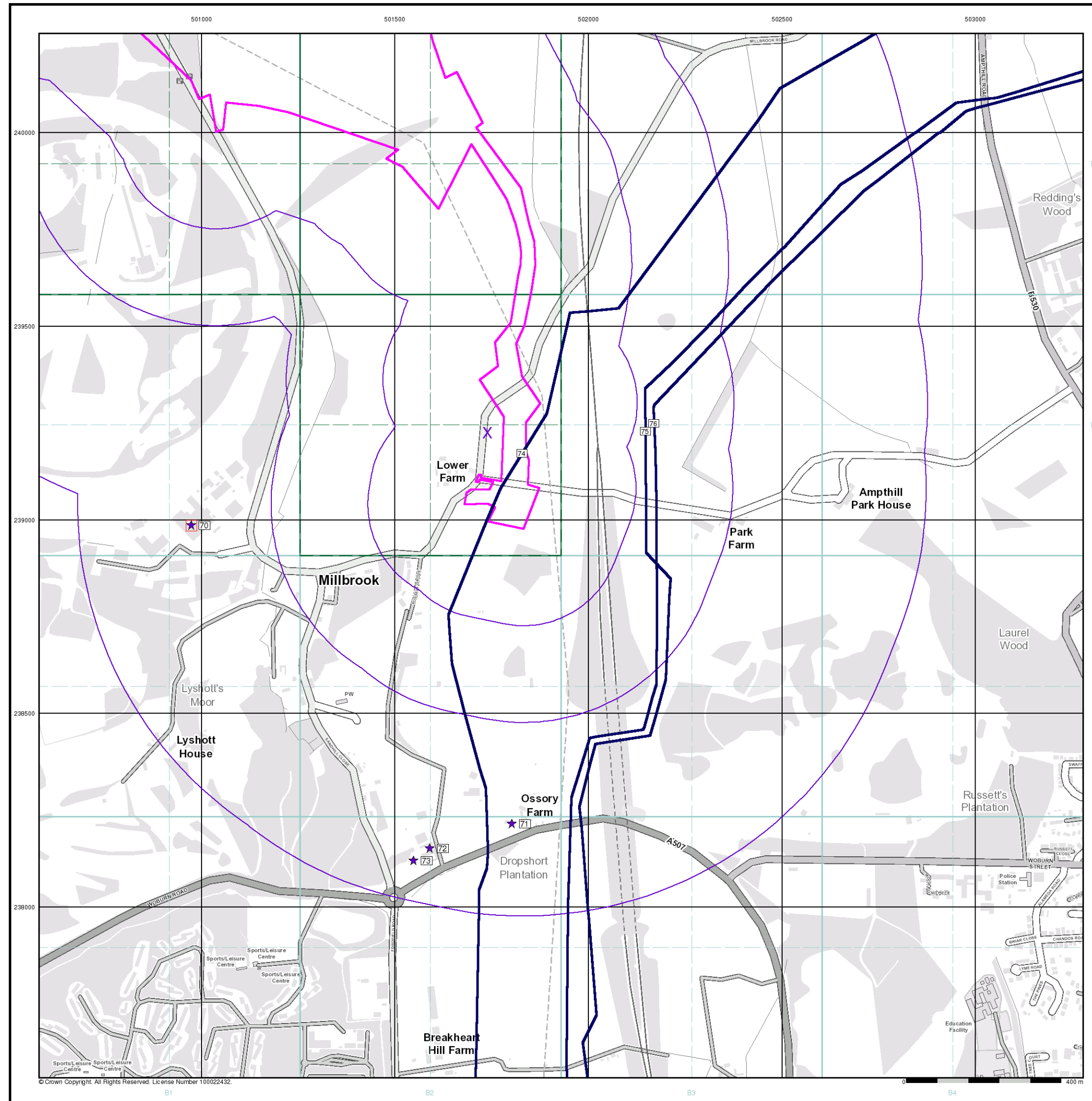
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 Slice: B
 Site Area (Ha): 87.86
 Search Buffer (m): 1000

Site Details
 Stewartby

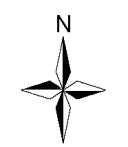
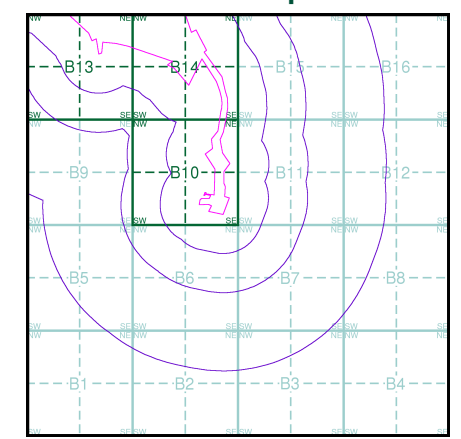
Landmark
 INFORMATION GROUP

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



- General**
- Specified Site
 - Specified Buffer(s)
 - Bearing Reference Point
 - Slice
 - Map ID
- Industrial Land Use**
- Contemporary Trade Directory Entry
 - Fuel Station Entry
 - Gas Pipeline
 - Underground Electrical Cables

Industrial Land Use Map - Slice B



Order Details

Order Number: 125070033_1_1
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 National Grid Reference: 501740, 239230
 Slice: B
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 Search Buffer (m): 1000

Site Details
Stewartby

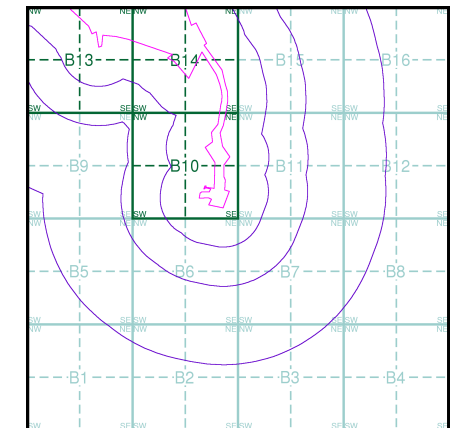
General

- 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 B

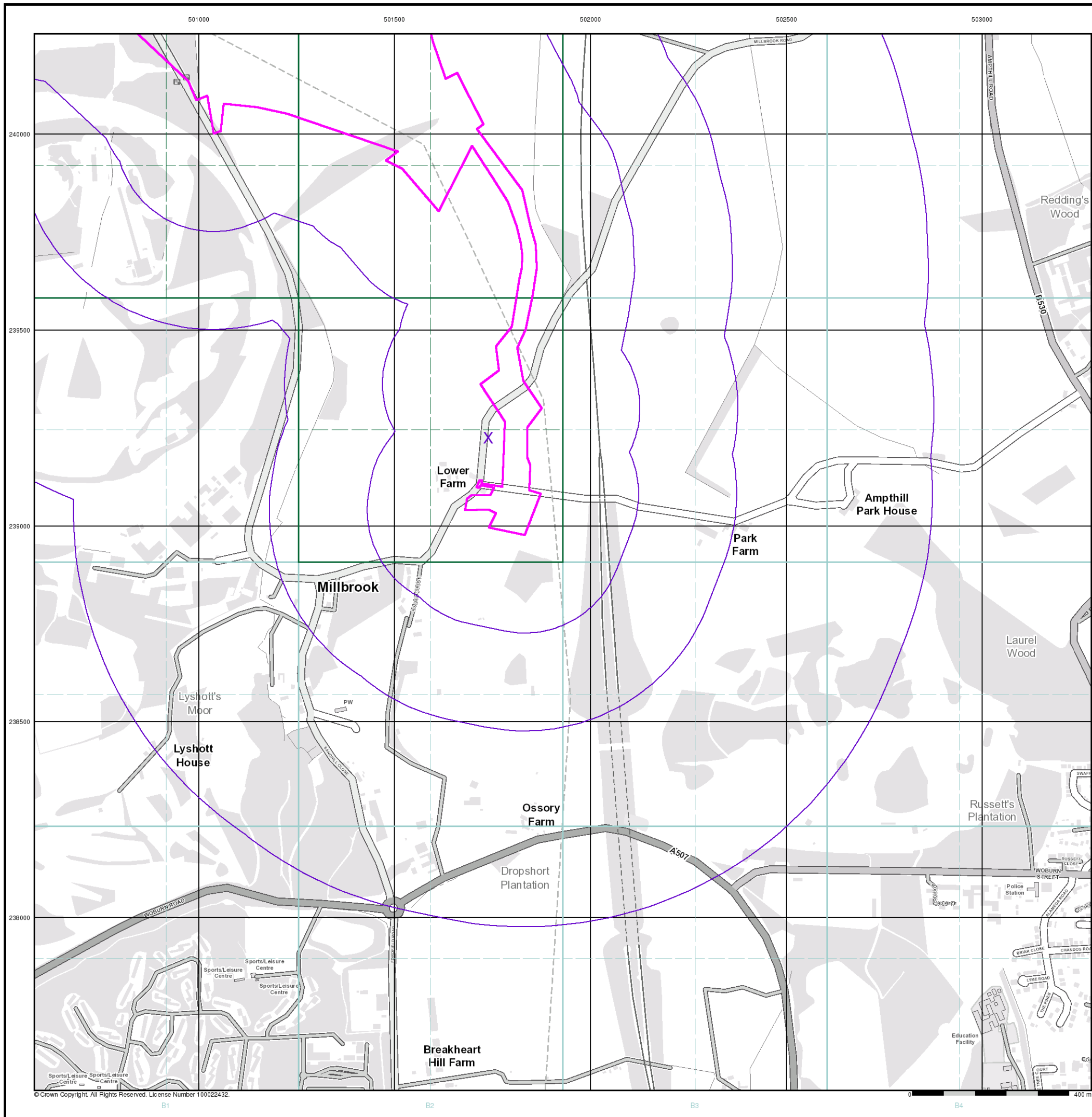


Order Details

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 National Grid Reference: 501740, 239230
 Slice: B
 Site Area (Ha): 87.86
 Search Buffer (m): 1000

Site Details

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General

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

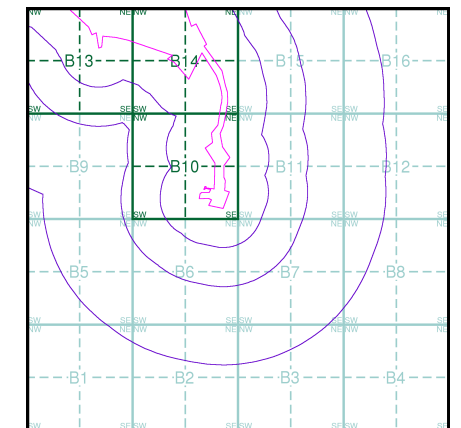
Agency and Hydrological (Boreholes)

- 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 B

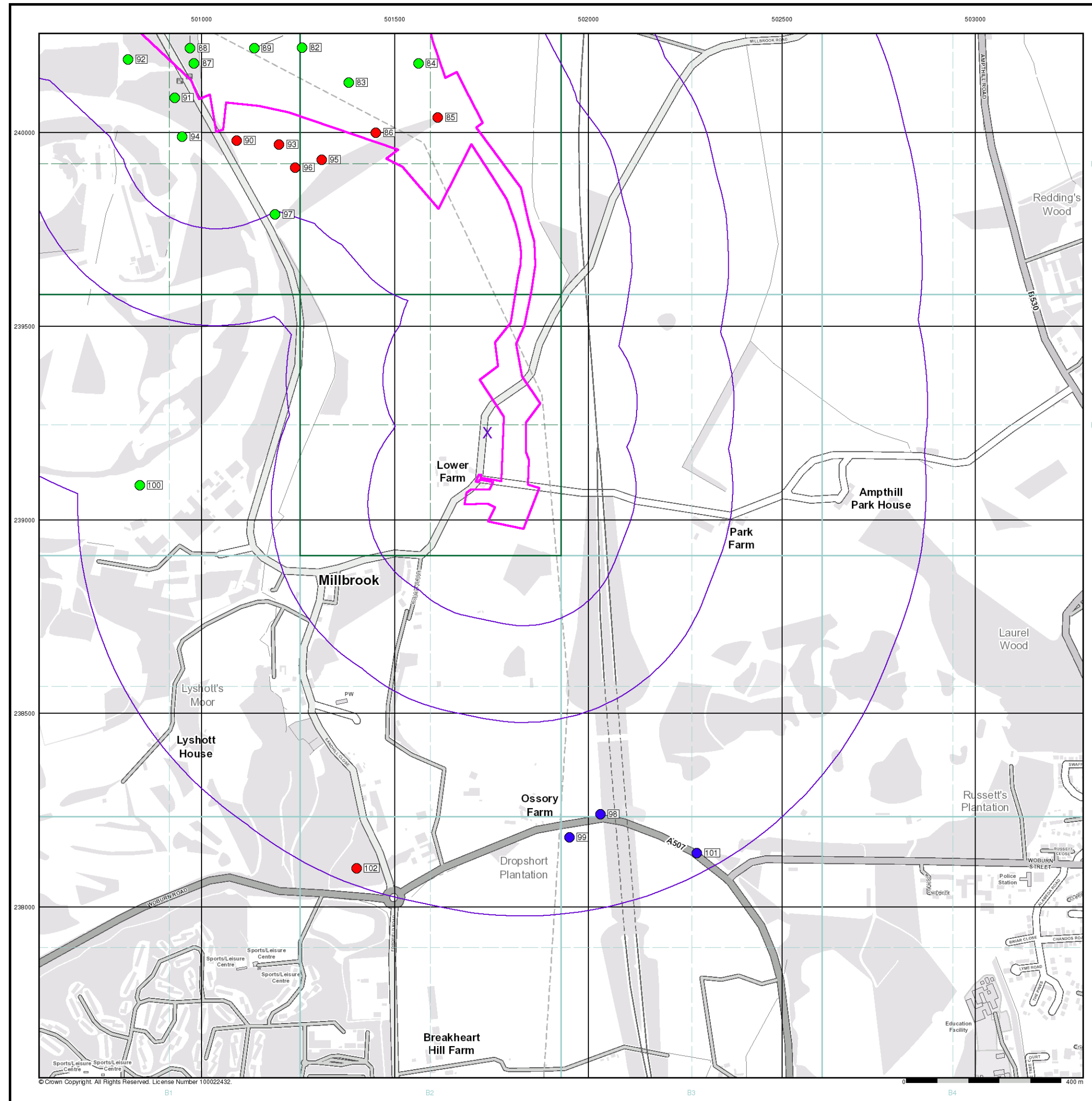


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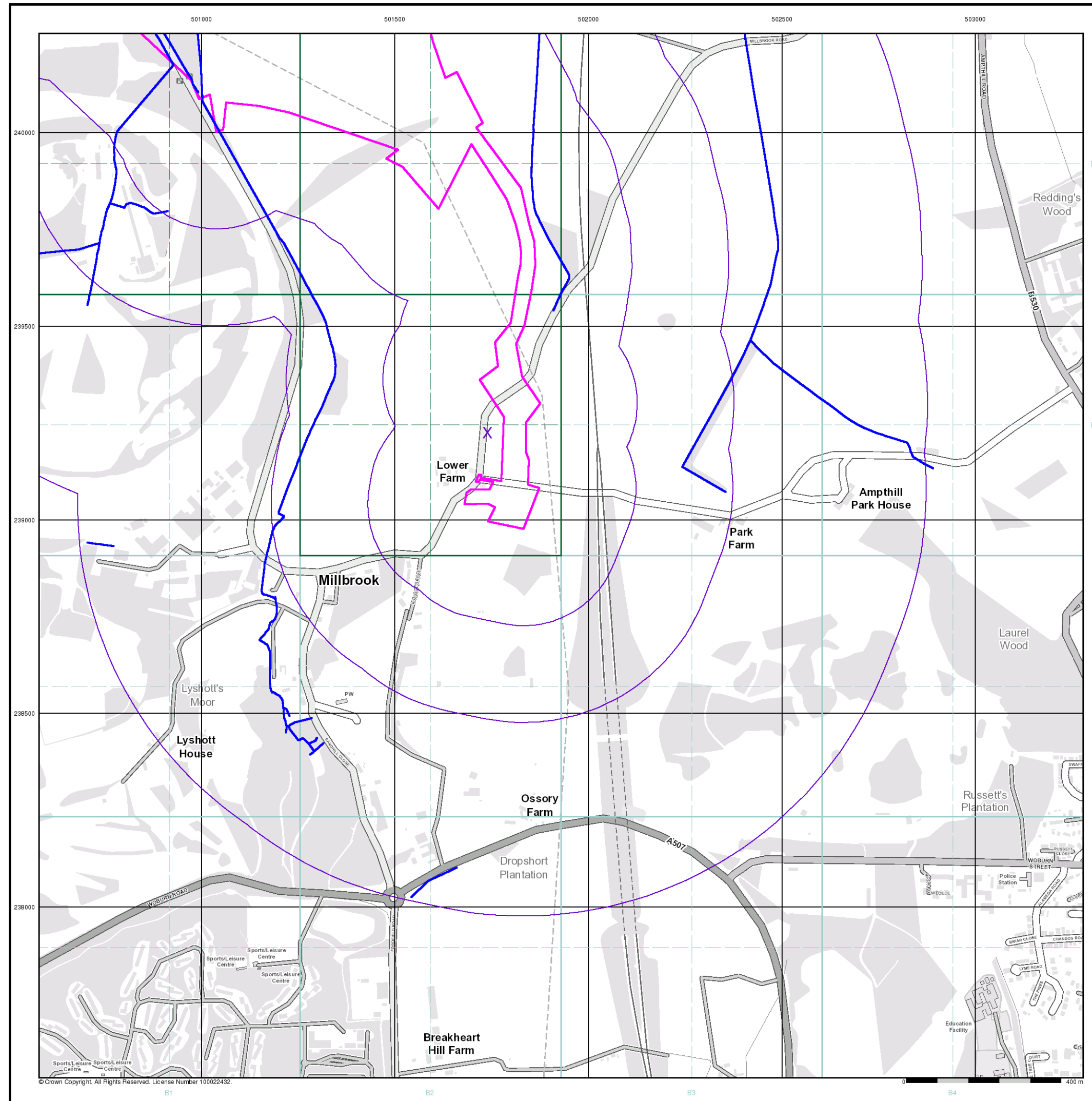
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Site Details

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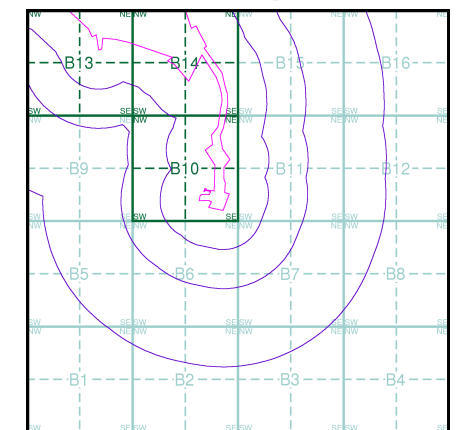
General

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

OS Water Network Data

- | | |
|--------------|-------------------------|
| Canal | Drain |
| Reservoir | Other |
| Foreshore | Lake |
| Marsh | Transfer |
| Tidal River | Lock Or Flight Of Locks |
| Inland River | Sea |

OS Water Network Map - Slice B



Order Details

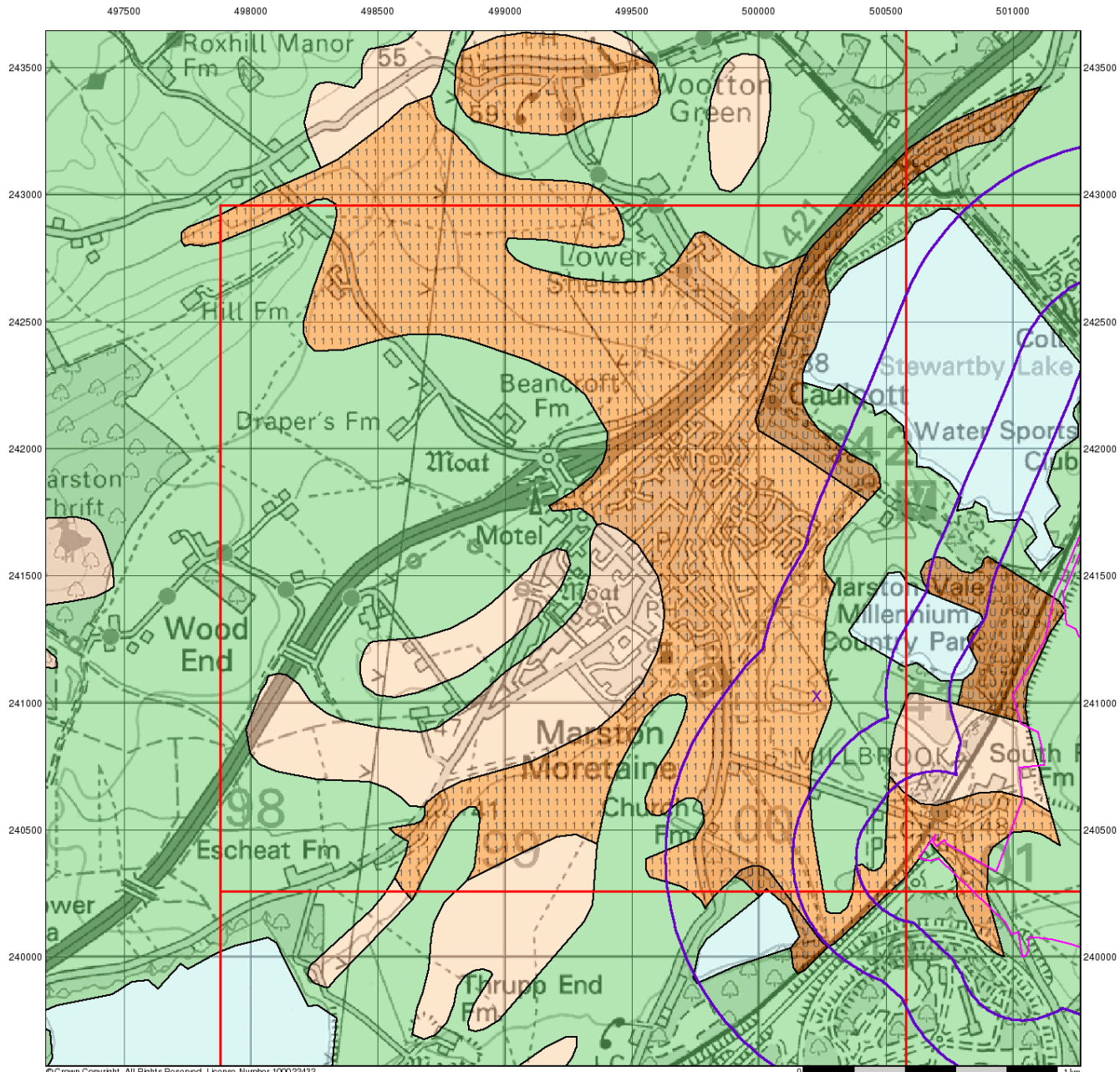
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 Slice: B
 Site Area (Ha): 87.86
 Search Buffer (m): 1000

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0 1 km



Groundwater Vulnerability

General

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

Agency and Hydrological

Geological Classes

Major Aquifer (Highly Permeable)

Minor Aquifer (Variably Permeable)

Non Aquifer (Negligibly Permeable)

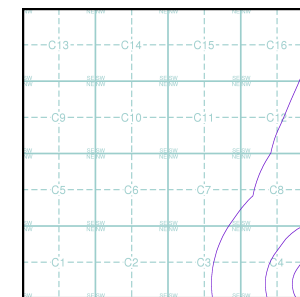
Water or Sea

Drift Deposit

Soil Classes

- High (H) 1, 2, 3, U
- Intermediate (I) 1, 2
- Low
- High (H) 1, 2, 3, U
- Intermediate (I) 1, 2
- Low

Site Sensitivity Context Map - Slice C



Order Details

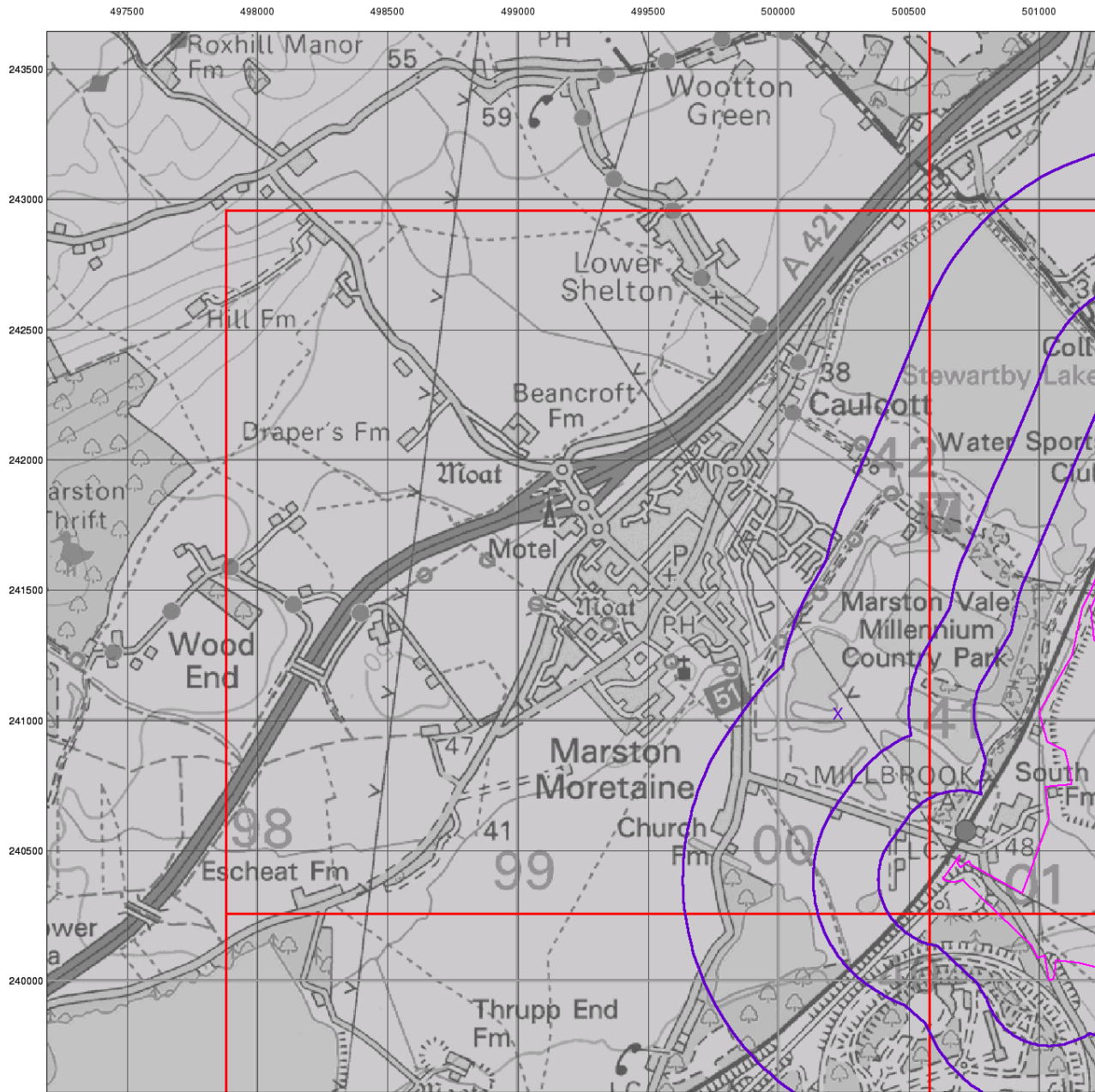
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 Search Buffer (m): 1000

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Bedrock Aquifer Designation

General

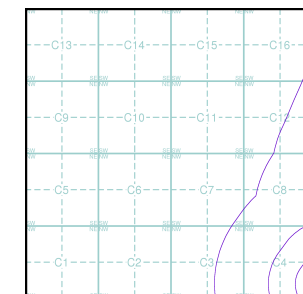
- ▭ Specified Site
- ▭ Specified Buffer(s)
- X Bearing Reference Point
- ▭ Slice
- B Map ID

Agency and Hydrological

Geological Classes

- ▭ Principal Aquifer
- ▭ Secondary A Aquifer
- ▭ Secondary B Aquifer
- ▭ Secondary Undifferentiated
- ▭ Unproductive Strata
- ▭ Unknown
- ▭ Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice C



Order Details

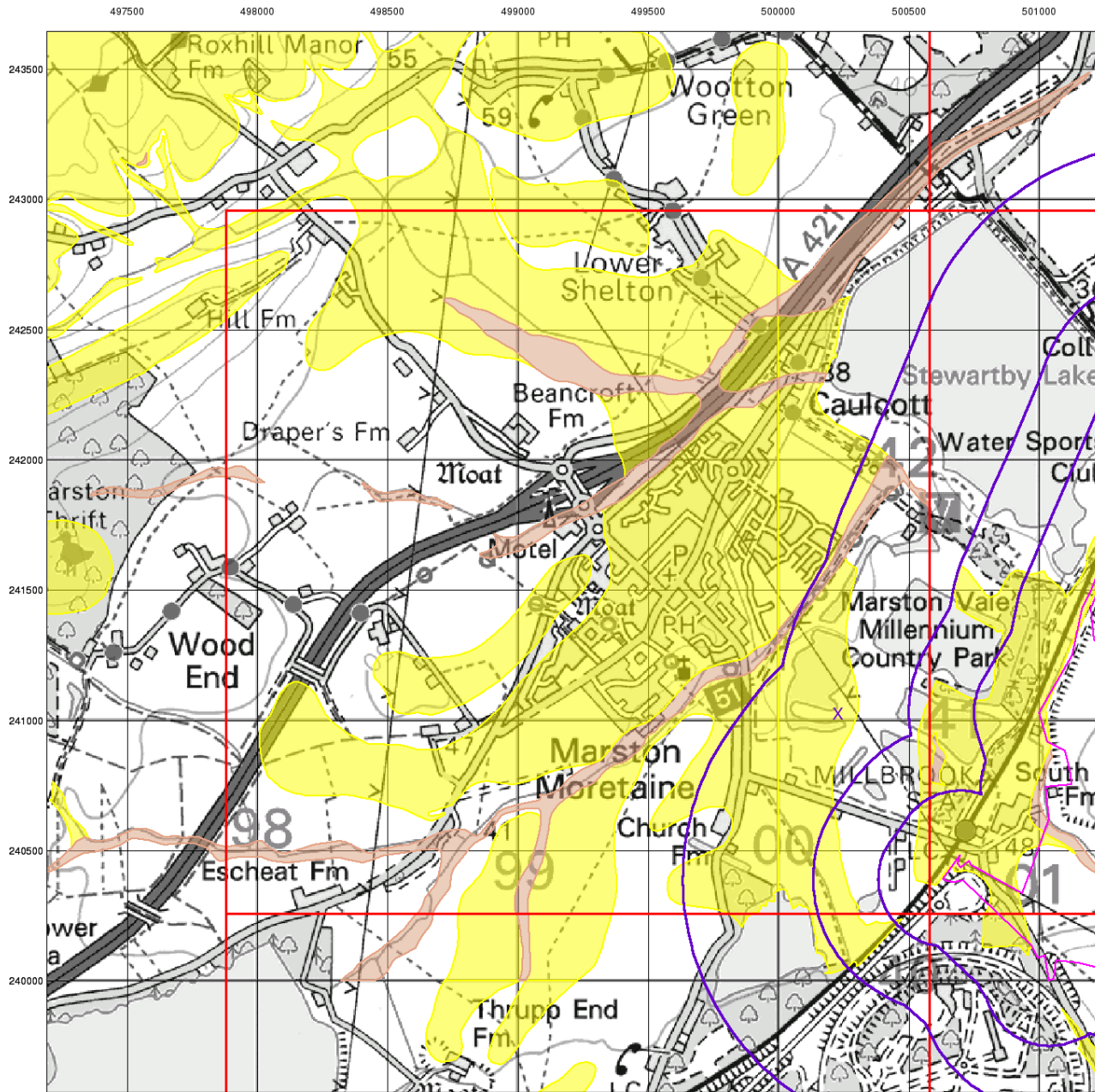
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 Search Buffer (m): 1000

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Superficial Aquifer Designation

General

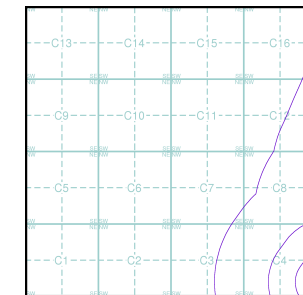
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice C



Order Details

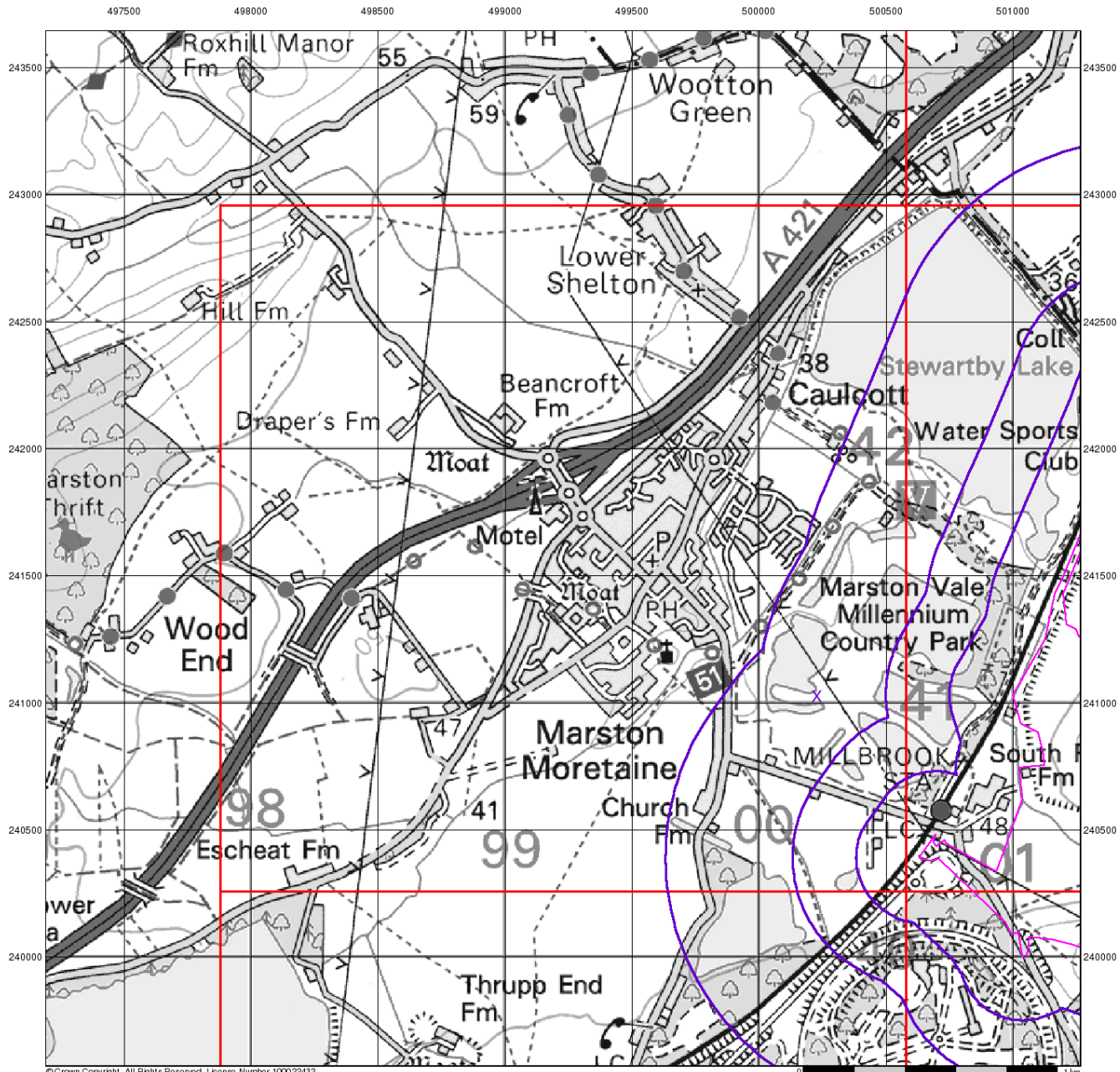
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 Search Buffer (m): 1000

Site Details

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









Source Protection Zones

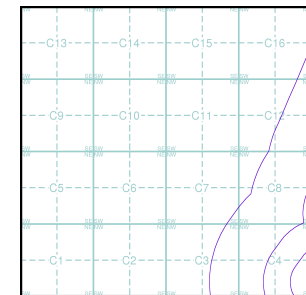
General

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

Agency and Hydrological

-  Inner zone (Zone 1)
-  Inner zone - subsurface activity only (Zone 1c)
-  Outer zone (Zone 2)
-  Outer zone - subsurface activity only (Zone 2c)
-  Total catchment (Zone 3)
-  Total catchment - subsurface activity only (Zone 3c)
-  Special interest (Zone 4)
-  Source Protection Zone Borehole

Site Sensitivity Context Map - Slice C



Order Details

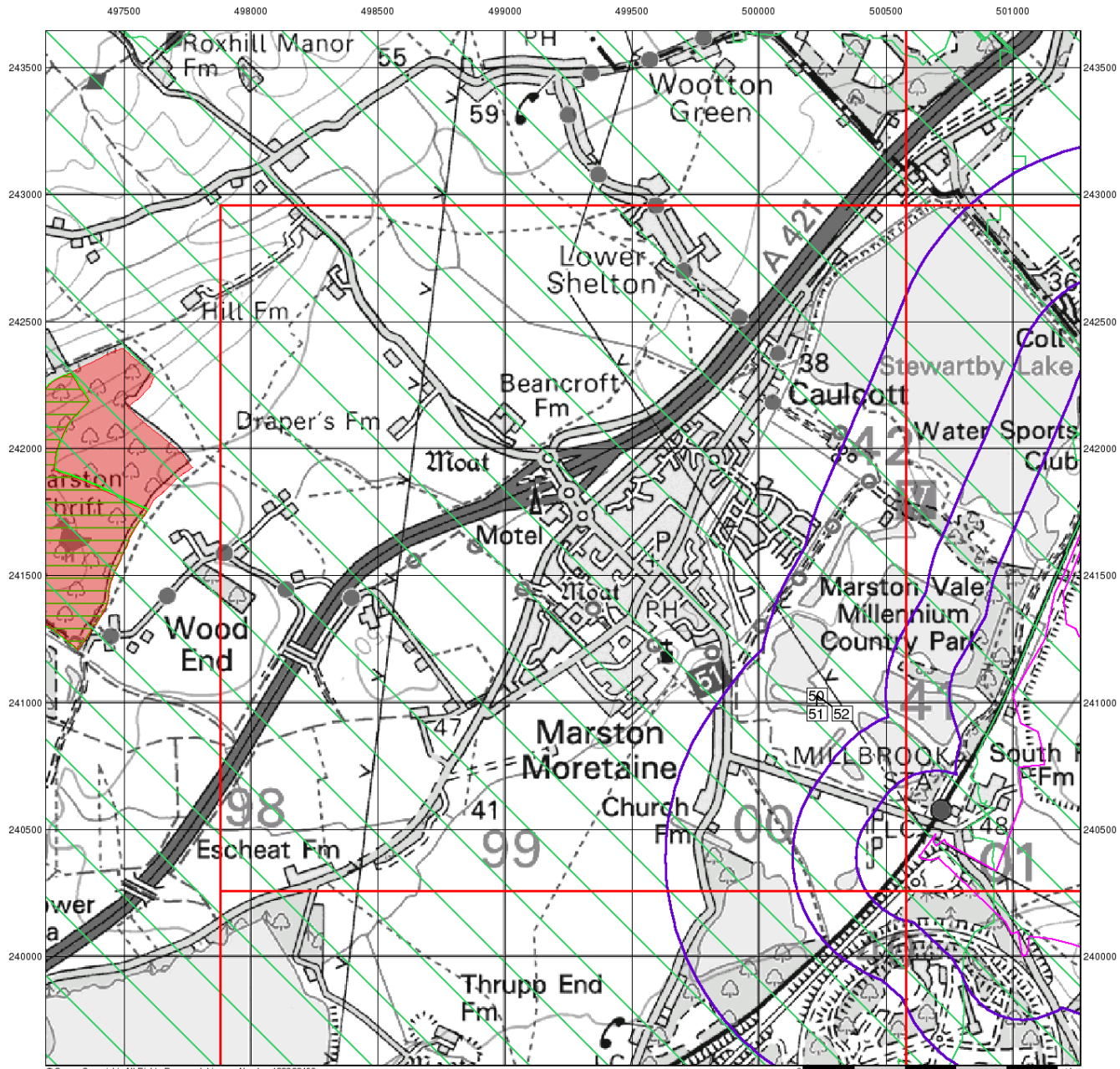
Order Number: 125070033_1_1
 Customer Ref: 40335 Millbrook
 National Grid Reference: 500230, 241030
 Slice: C
 Site Area (Ha): 87.86
 Search Buffer (m): 1000

Site Details

Stewartby



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








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Sensitive Land Uses

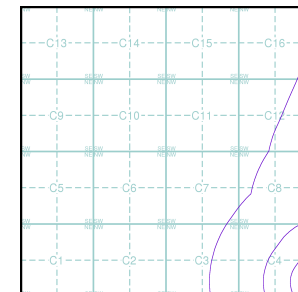
General

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

Sensitive Land Uses

-  Ancient Woodland
-  Area of Adopted Green Belt
-  Area of Unadopted Green Belt
-  Area of Outstanding Natural Beauty
-  Environmentally Sensitive Area
-  Forest Park
-  Local Nature Reserve
-  Marine Nature Reserve
-  National Nature Reserve
-  National Park
-  Nitrate Sensitive Area
-  Nitrate Vulnerable Zone
-  Ramsar Site
-  Site of Special Scientific Interest
-  Special Area of Conservation
-  Special Protection Area
-  World Heritage Sites

Site Sensitivity Context Map - Slice C



Order Details

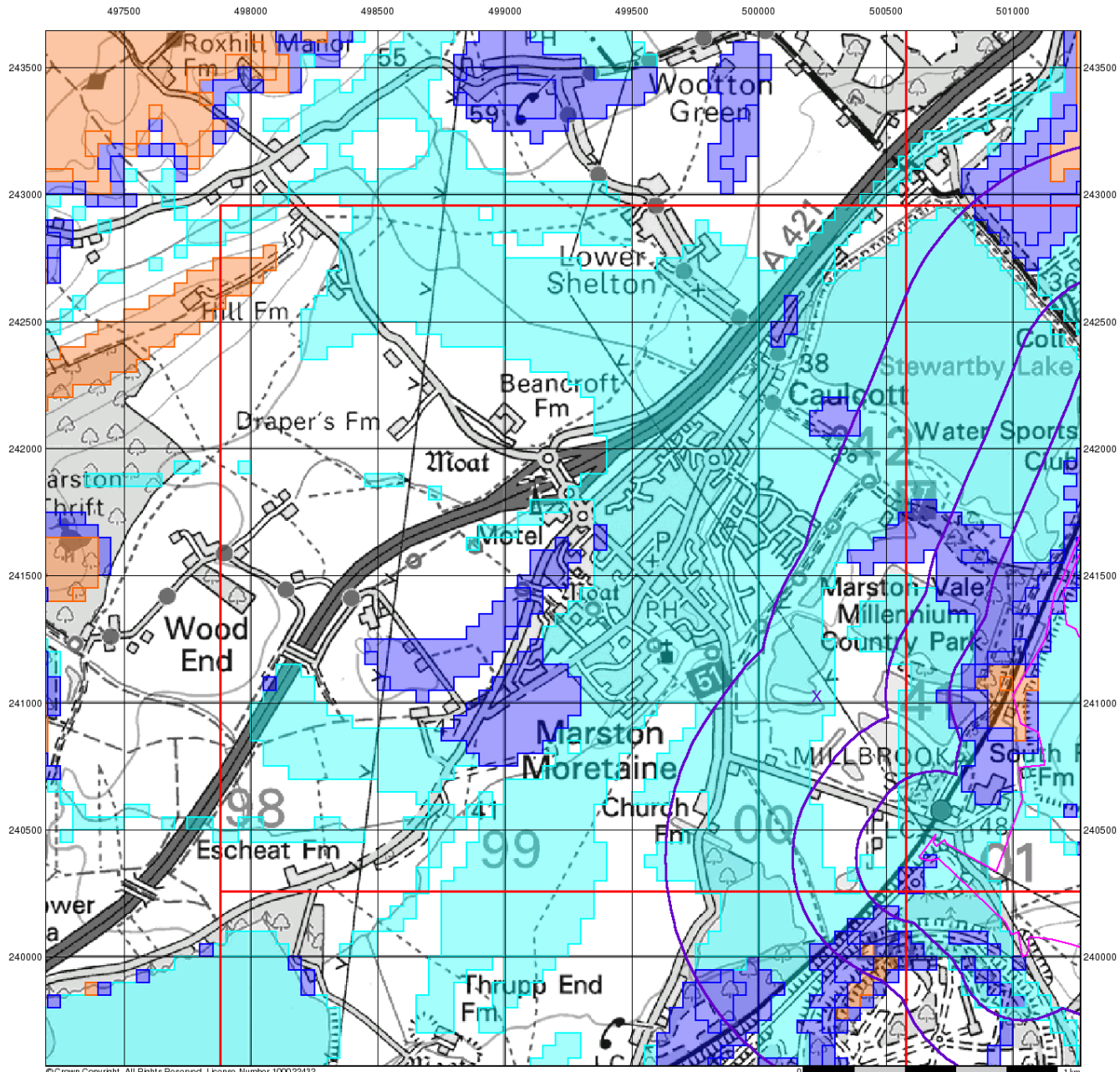
Order Number: 125070033_1_1
 Customer Ref: 40335 Millbrook
 National Grid Reference: 500230, 241030
 Slice: C
 Site Area (Ha): 87.86
 Search Buffer (m): 1000

Site Details

Stewartby



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 Web: www.envirocheck.co.uk



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BGS Flood GFS Data

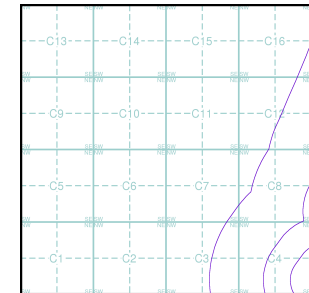
General

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

Agency and Hydrological (Flood)

- Limited Potential for Groundwater Flooding to Occur
- Potential for Groundwater Flooding of Property Situated Below Ground Level
- Potential for Groundwater Flooding to Occur at Surface

Site Sensitivity Context Map - Slice C



Order Details

Order Number: 125070033_1_1
 Customer Ref: 40335 Millbrook
 National Grid Reference: 500230, 241030
 Slice: C
 Site Area (Ha): 87.86
 Search Buffer (m): 1000

Site Details

Stewartby



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

Envirocheck[®] Report:

Datasheet

Order Details:

Order Number:

125070033_1_1

Customer Reference:

40335 Millbrook

National Grid Reference:

500230, 241030

Slice:

C

Site Area (Ha):

87.86

Search Buffer (m):

1000

Site Details:

Stewartby

Client Details:

Ms K Riley
Peter Brett Associates LLP
Caversham Bridge House
Waterman Place
Reading
Berkshire
RG1 8DN

| Report Section | Page Number |
|-----------------------|-------------|
| Summary | - |
| Agency & Hydrological | 1 |
| Waste | 11 |
| Hazardous Substances | - |
| Geological | 12 |
| Industrial Land Use | - |
| Sensitive Land Use | 13 |
| Data Currency | 14 |
| Data Suppliers | 18 |
| Useful Contacts | 19 |

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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Radon Potential dataset Copyright Notice

Information supplied from a joint dataset compiled by The British Geological Survey and Public Health England.

Report Version v53.0

| 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 3 | | | | 4 |
| Prosecutions Relating to Controlled Waters | | | n/a | n/a | n/a |
| Enforcement and Prohibition Notices | | | | | |
| Integrated Pollution Controls | | | | | |
| Integrated Pollution Prevention And Control | | | | | |
| Local Authority Integrated Pollution Prevention And Control | | | | | |
| Local Authority Pollution Prevention and Controls | | | | | |
| Local Authority Pollution Prevention and Control Enforcements | | | | | |
| Nearest Surface Water Feature | pg 4 | | Yes | | |
| Pollution Incidents to Controlled Waters | | | | | |
| Prosecutions Relating to Authorised Processes | | | | | |
| Registered Radioactive Substances | | | | | |
| River Quality | | | | | |
| River Quality Biology Sampling Points | | | | | |
| River Quality Chemistry Sampling Points | | | | | |
| Substantiated Pollution Incident Register | | | | | |
| Water Abstractions | pg 4 | | | | 1 |
| Water Industry Act Referrals | | | | | |
| Groundwater Vulnerability | pg 4 | Yes | n/a | n/a | n/a |
| Drift Deposits | | | n/a | n/a | n/a |
| Bedrock Aquifer Designations | pg 5 | Yes | n/a | n/a | n/a |
| Superficial Aquifer Designations | pg 5 | Yes | n/a | n/a | n/a |
| Source Protection Zones | | | | | |
| Extreme Flooding from Rivers or Sea without Defences | pg 5 | | Yes | n/a | n/a |
| Flooding from Rivers or Sea without Defences | pg 5 | | Yes | n/a | n/a |
| Areas Benefiting from Flood Defences | | | | n/a | n/a |
| Flood Water Storage Areas | | | | n/a | n/a |
| Flood Defences | | | | n/a | n/a |
| OS Water Network Lines | pg 5 | | 1 | 8 | 33 |

| Data Type | Page Number | On Site | 0 to 250m | 251 to 500m | 501 to 1000m (*up to 2000m) |
|---|-------------|---------|-----------|-------------|-----------------------------|
| Waste | | | | | |
| BGS Recorded Landfill Sites | pg 11 | | | | 1 |
| Historical Landfill Sites | pg 11 | | | | 2 |
| Integrated Pollution Control Registered Waste Sites | | | | | |
| Licensed Waste Management Facilities (Landfill Boundaries) | | | | | |
| Licensed Waste Management Facilities (Locations) | | | | | |
| Local Authority Landfill Coverage | pg 11 | 2 | n/a | n/a | n/a |
| Local Authority Recorded Landfill Sites | | | | | |
| Registered Landfill Sites | | | | | |
| Registered Waste Transfer Sites | | | | | |
| Registered Waste Treatment or Disposal Sites | | | | | |
| Hazardous Substances | | | | | |
| Control of Major Accident Hazards Sites (COMAH) | | | | | |
| Explosive Sites | | | | | |
| Notification of Installations Handling Hazardous Substances (NIHHS) | | | | | |
| Planning Hazardous Substance Consents | | | | | |
| Planning Hazardous Substance Enforcements | | | | | |
| Geological | | | | | |
| BGS 1:625,000 Solid Geology | pg 12 | Yes | n/a | n/a | n/a |
| BGS Recorded Mineral Sites | | | | | |
| CBSCB Compensation District | | | 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 12 | Yes | | n/a | n/a |
| Potential for Compressible Ground Stability Hazards | pg 12 | Yes | Yes | n/a | n/a |
| Potential for Ground Dissolution Stability Hazards | | | | n/a | n/a |
| Potential for Landslide Ground Stability Hazards | pg 12 | Yes | | n/a | n/a |
| Potential for Running Sand Ground Stability Hazards | pg 12 | Yes | | n/a | n/a |
| Potential for Shrinking or Swelling Clay Ground Stability Hazards | pg 12 | Yes | | n/a | n/a |
| Radon Potential - Radon Affected Areas | | | n/a | n/a | n/a |
| Radon Potential - Radon Protection Measures | | | n/a | n/a | n/a |

| Data Type | Page Number | On Site | 0 to 250m | 251 to 500m | 501 to 1000m (*up to 2000m) |
|--------------------------------------|-------------|---------|-----------|-------------|-----------------------------|
| Industrial Land Use | | | | | |
| Contemporary Trade Directory Entries | | | | | |
| Fuel Station Entries | | | | | |
| Gas Pipelines | | | | | |
| Underground Electrical Cables | | | | | |
| Sensitive Land Use | | | | | |
| Ancient Woodland | | | | | |
| Areas of Adopted Green Belt | | | | | |
| Areas of Unadopted Green Belt | | | | | |
| Areas of Outstanding Natural Beauty | | | | | |
| Environmentally Sensitive Areas | | | | | |
| Forest Parks | | | | | |
| Local Nature Reserves | | | | | |
| Marine Nature Reserves | | | | | |
| National Nature Reserves | | | | | |
| National Parks | | | | | |
| Nitrate Sensitive Areas | | | | | |
| Nitrate Vulnerable Zones | pg 13 | 3 | | | |
| 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 of Property Situated Below Ground Level | (E) | 0 | 1 | 501200 241400 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | C8NE (N) | 0 | 1 | 500400 241500 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (E) | 0 | 1 | 501050 241100 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (NE) | 0 | 1 | 501200 241700 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SE) | 0 | 1 | 500650 240400 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (NE) | 0 | 1 | 501250 241600 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SE) | 0 | 1 | 501200 240600 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | (E) | 0 | 1 | 500850 241050 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (E) | 0 | 1 | 501050 241027 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface | (SE) | 0 | 1 | 501150 240500 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface | (SE) | 0 | 1 | 501200 240450 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SE) | 0 | 1 | 501250 240450 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (NE) | 0 | 1 | 501000 241350 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface | (NE) | 0 | 1 | 501250 241500 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface | C8SW (NW) | 0 | 1 | 500229 241027 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SE) | 2 | 1 | 501000 240000 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | (E) | 9 | 1 | 500950 241050 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (E) | 9 | 1 | 500700 241027 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (E) | 17 | 1 | 500900 241150 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (NE) | 19 | 1 | 501150 241550 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (E) | 22 | 1 | 501250 241450 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | C4SE (SE) | 32 | 1 | 500550 240350 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|------------------|
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (E) | 36 | 1 | 500900 240900 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface | (SE) | 38 | 1 | 500850 240000 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SE) | 58 | 1 | 500900 240050 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SE) | 77 | 1 | 500750 240100 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (E) | 99 | 1 | 500800 241027 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SE) | 103 | 1 | 500900 239950 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SE) | 109 | 1 | 500950 239900 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (E) | 121 | 1 | 500850 241100 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SE) | 135 | 1 | 500900 239900 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SE) | 148 | 1 | 500850 239950 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (E) | 151 | 1 | 500800 241050 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SE) | 169 | 1 | 500800 240000 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface | (SE) | 172 | 1 | 500800 239950 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (S) | 206 | 1 | 500450 240200 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface | (SE) | 213 | 1 | 500750 240000 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SE) | 255 | 1 | 500950 239750 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (S) | 282 | 1 | 500550 240100 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (S) | 286 | 1 | 500550 240000 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (NE) | 293 | 1 | 500800 241550 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (S) | 299 | 1 | 500500 240100 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface | (SE) | 334 | 1 | 501250 239650 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (S) | 363 | 1 | 500450 240050 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|--|--|------------------------------|---------|------------------|
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SE) | 363 | 1 | 500900 239650 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (S) | 373 | 1 | 500350 240100 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | (S) | 386 | 1 | 500400 240050 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | (S) | 389 | 1 | 500450 240000 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (S) | 406 | 1 | 500300 240100 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (S) | 425 | 1 | 500500 239950 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (S) | 430 | 1 | 500300 240000 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (S) | 496 | 1 | 500450 239900 |
| 1 | Discharge Consents Operator: Anglian Water Services Limited Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY) Location: Marston Moretaine Stw, Marston Moretaine, Bedford, Mk43 Authority: Environment Agency, Anglian Region Catchment Area: Mid River Ouse / Elstow Brook Reference: Awcnf1373 Permit Version: 1 Effective Date: 19th August 1989 Issued Date: 19th August 1989 Revocation Date: 8th June 1993 Discharge Type: Unknown Discharge: Freshwater Stream/River Environment: Receiving Water: Marston Brook Status: Post National Rivers Authority Legislation where issue date > 31/08/1989 Positional Accuracy: Located by supplier to within 100m | C12SE (N) | 984 | 2 | 500300 241900 |
| 1 | Discharge Consents Operator: Anglian Water Services Limited Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY) Location: Marston Moretaine Stw, Marston Moretaine, Bedford, Mk43 Authority: Environment Agency, Anglian Region Catchment Area: Mid River Ouse / Elstow Brook Reference: Awcnf1373 Permit Version: 1 Effective Date: 19th August 1989 Issued Date: 19th August 1989 Revocation Date: 8th June 1993 Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Marston Brook Status: Post National Rivers Authority Legislation where issue date > 31/08/1989 Positional Accuracy: Located by supplier to within 100m | C12SE (N) | 984 | 2 | 500300 241900 |
| 1 | Discharge Consents Operator: Anglian Water Services Limited Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY) Location: Marston Moretaine Stw, Marston Moretaine, Bedford, Mk43 Authority: Environment Agency, Anglian Region Catchment Area: Mid River Ouse / Elstow Brook Reference: Aw1nf2810 Permit Version: 1 Effective Date: 17th August 1988 Issued Date: 17th August 1988 Revocation Date: 8th June 1993 Discharge Type: Unknown Discharge: Freshwater Stream/River Environment: Receiving Water: Marston Brook Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989 Positional Accuracy: Located by supplier to within 100m | C12SE (N) | 984 | 2 | 500300 241900 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|--|--|------------------------------|---------|------------------|
| 1 | <p>Discharge Consents</p> <p>Operator: Anglian Water Services Limited Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY) Location: Marston Moretaine Stw, Marston Moretaine, Bedford, Mk43 Authority: Environment Agency, Anglian Region Catchment Area: Mid River Ouse / Elstow Brook Reference: Aw1nf2810 Permit Version: 1 Effective Date: 17th August 1988 Issued Date: 17th August 1988 Revocation Date: 8th June 1993 Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Marston Brook Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989 Positional Accuracy: Located by supplier to within 100m</p> | C12SE (N) | 984 | 2 | 500300 241900 |
| 2 | <p>Prosecutions Relating to Controlled Waters</p> <p>Location: Stewartby Lake Country Park, SHELTON, Bedfordshire, MK43 Prosecution Text: Environment Times Apr-Aug 1997, Polluting a tributary of Elstow Brook with sewage sludge. They had been injecting it into nearby land without first checking to see if it was under drained Prosecution Act: WRA91 Hearing Date: 24th April 1997 Verdict: Guilty Fine: 2000 Cost: 1400 Positional Accuracy: Manually positioned within the geographical locality</p> | C12NE (N) | 919 | 2 | 500500 242200 |
| 3 | <p>Prosecutions Relating to Controlled Waters</p> <p>Location: Stewartby Sewage Treatment Works, Stewartby Sewage Treatment Works, Stewartby, . Prosecution Text: Causing Sludge To Be Discharged Into A Tributary Of The Elstow Brook; And A Further Offence Of Knowingly Permitting The Discharge Of Sludge. Prosecution Act: Wra91 S85(1) & S85(6) Hearing Date: 19th February 2002 Verdict: Guilty Fine: 190000 Cost: 13959.23 Positional Accuracy: Manually positioned to the address or location</p> | C12NE (N) | 998 | 2 | 500316 241974 |
| 3 | <p>Prosecutions Relating to Controlled Waters</p> <p>Location: Elstow Brook, Elstow Brook, Bedfordshire, . Prosecution Text: Flooding Homes In South East London With Sewage And Toxic Trade Effluent. Prosecution Act: Wra91s85(1) Hearing Date: 19th February 2002 Verdict: Guilty Fine: 190000 Cost: 13959 Positional Accuracy: Manually positioned within the geographical locality</p> | C12NE (N) | 998 | 2 | 500317 241975 |
| | <p>Nearest Surface Water Feature</p> | C8SE (E) | 160 | - | 500539 241025 |
| 4 | <p>Water Abstractions</p> <p>Operator: Marston Vale Services Licence Number: 6/33/12*/S/0142 Permit Version: 1 Location: Stewartby Pit Authority: Environment Agency, Anglian Region Abstraction: Environmental: Non-remedial River/Wetland Support: Make-Up or Top Up Water Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 November Authorised End: 31 March Permit Start Date: 19th November 1999 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p> | C12NE (N) | 969 | 2 | 500400 242100 |
| | <p>Groundwater Vulnerability</p> <p>Soil Classification: Not classified Map Sheet: Sheet 31 Bedfordshire Scale: 1:100,000</p> | C8SE (E) | 0 | 2 | 500283 241038 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|--|--|------------------------------|---------|---------------|
| | Groundwater Vulnerability Soil Classification: Soils of Intermediate Leaching Potential (I1) - Soils which can possibly transmit a wide range of pollutants Map Sheet: Sheet 31 Bedfordshire Scale: 1:100,000 | C8SW (NW) | 0 | 2 | 500229 241027 |
| | Groundwater Vulnerability Soil Classification: Soils of Low Leaching Potential - Soils in which pollutants are unlikely to penetrate the soil layer because water movement is largely horizontal or they have large ability to attenuate diffuse pollutants. Lateral flow from these soils contribute to groundwater recharge elsewhere in the catchment Map Sheet: Sheet 31 Bedfordshire Scale: 1:100,000 | C4NE (E) | 0 | 2 | 500538 240908 |
| | Groundwater Vulnerability Soil Classification: Soils of High Leaching Potential (U) - Soil information for restored mineral workings and urban areas is based on fewer observations than elsewhere. A worst case vulnerability classification (H) assumed, until proved otherwise Map Sheet: Sheet 31 Bedfordshire Scale: 1:100,000 | (E) | 0 | 2 | 500782 240993 |
| | Drift Deposits None | | | | |
| | Bedrock Aquifer Designations Aquifer Designation: Unproductive Strata | C8SW (NW) | 0 | 1 | 500229 241027 |
| | Bedrock Aquifer Designations Aquifer Designation: Unproductive Strata | (S) | 0 | 1 | 500229 240000 |
| | Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - Undifferentiated | C8SE (E) | 0 | 1 | 500539 240965 |
| | Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - A | (E) | 0 | 1 | 500997 240780 |
| | Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied | C8NW (NW) | 49 | 2 | 500007 241298 |
| | Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied | C8NW (NW) | 51 | 2 | 500007 241298 |
| | Areas Benefiting from Flood Defences None | | | | |
| | Flood Water Storage Areas None | | | | |
| | Flood Defences None | | | | |
| 5 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 59.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | C4SE (SE) | 208 | 3 | 500458 240564 |
| 6 | OS Water Network Lines Watercourse Form: Lake Watercourse Length: 126.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | C8SE (E) | 357 | 3 | 500551 241058 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|------------------|
| 7 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 331.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | C8SE (SE) | 425 | 3 | 500271 241004 |
| 8 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 295.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | C4NE (S) | 428 | 3 | 500245 240641 |
| 9 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 300.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | C4SW (S) | 435 | 3 | 500188 240351 |
| 10 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 41.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | C4SW (S) | 446 | 3 | 500167 240387 |
| 11 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 73.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | C8SE (E) | 450 | 3 | 500501 241113 |
| 12 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 7.4 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | C4SW (S) | 465 | 3 | 500163 240394 |
| 13 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 454.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | C4NW (SW) | 469 | 3 | 499914 240760 |
| 14 | OS Water Network Lines Watercourse Form: Lake Watercourse Length: 300.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Stewartby Lake Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | C12NE (N) | 508 | 3 | 500573 242046 |
| 15 | OS Water Network Lines Watercourse Form: Lake Watercourse Length: 136.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | C4SW (S) | 537 | 3 | 500107 240282 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|------------------|
| 16 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 52.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | C12SE (NE) | 662 | 3 | 500553 241753 |
| 17 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 26.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | C12SE (NE) | 662 | 3 | 500568 241731 |
| 18 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 87.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | C8SE (SE) | 675 | 3 | 500255 240993 |
| 19 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.1 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | C8SE (SE) | 675 | 3 | 500267 241002 |
| 20 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | C8SW (S) | 682 | 3 | 500199 240947 |
| 21 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 324.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | C8SW (SW) | 683 | 3 | 500195 240945 |
| 22 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 295.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | C8SW (S) | 693 | 3 | 500222 240993 |
| 23 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 198.6 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | C12SE (NE) | 705 | 3 | 500545 241764 |
| 24 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 364.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | C8SW (NE) | 708 | 3 | 500237 241036 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|------------------|
| 25 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 327.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | C8SW (NW) | 710 | 3 | 500182 241126 |
| 26 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 63.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | C4NW (SW) | 755 | 3 | 499967 240748 |
| 27 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 139.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | C12NE (N) | 790 | 3 | 500472 241949 |
| 28 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 125.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | C3SE (SW) | 811 | 3 | 499847 240594 |
| 29 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 6.1 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | C3NE (SW) | 811 | 3 | 499848 240600 |
| 30 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 122.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | C3NE (SW) | 811 | 3 | 499875 240719 |
| 31 | OS Water Network Lines Watercourse Form: Lake Watercourse Length: 70.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | C3SE (SW) | 812 | 3 | 499822 240434 |
| 32 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 24.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | C4NW (SW) | 818 | 3 | 499906 240768 |
| 33 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 63.7 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | C3NE (SW) | 825 | 3 | 499886 240782 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|------------------|
| 34 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 69.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | C3NE (SW) | 842 | 3 | 499887 240851 |
| 35 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 140.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 2 | C12SE (N) | 845 | 3 | 500381 241843 |
| 36 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 34.6 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | C3SE (SW) | 847 | 3 | 499791 240483 |
| 37 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 215.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | C3SE (SW) | 857 | 3 | 499759 240450 |
| 38 | OS Water Network Lines Watercourse Form: Lake Watercourse Length: 502.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Stewartby Lake Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | C12NW (N) | 863 | 3 | 500209 242276 |
| 39 | OS Water Network Lines Watercourse Form: Lake Watercourse Length: 3.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | C3SE (SW) | 873 | 3 | 499762 240463 |
| 40 | OS Water Network Lines Watercourse Form: Lake Watercourse Length: 10.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | C3SE (SW) | 875 | 3 | 499755 240460 |
| 41 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 230.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | C7SE (W) | 875 | 3 | 499885 241023 |
| 42 | OS Water Network Lines Watercourse Form: Lake Watercourse Length: 6.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | C3SE (SW) | 876 | 3 | 499759 240465 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|------------------|
| 43 | OS Water Network Lines Watercourse Form: Lake Watercourse Length: 97.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | C3SE (SW) | 880 | 3 | 499755 240460 |
| 44 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 426.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | C12SE (N) | 887 | 3 | 500381 241843 |
| 45 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 818.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | C8SW (NW) | 887 | 3 | 499967 241253 |
| 46 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 114.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | C7SE (W) | 984 | 3 | 499873 241037 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|---------------|
| 47 | BGS Recorded Landfill Sites Site Name: London Brick Co Location: Marston Road, Lidlington, BEDFORD, Bedfordshire Authority: British Geological Survey, National Geoscience Information Service Ground Water: Information not available Surface Water: Information not available Geology: N/A Positional Accuracy: Positioned by the supplier Boundary Accuracy: Good | C4SW (S) | 531 | - | 500024 240345 |
| 48 | Historical Landfill Sites Licence Holder: London Brick Company Limited Location: Lidlington Name: Lidlington Brickworks Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD01153 First Input Date: 13th December 1973 Last Input Date: 13th June 1977 Specified Waste Type: Deposited Waste included Industrial, Commercial and Household Waste EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 0200/0035 BGS Ref: 2069 Other Ref: 10/1976 | C4SW (S) | 529 | 2 | 500024 240347 |
| 49 | Historical Landfill Sites Licence Holder: British Rail Location: Lidlington, Bedfordshire Name: Marston Road Claypit Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD00999 First Input Date: 1st January 1962 Last Input Date: 17th April 1991 Specified Waste Type: Deposited Waste included Inert, Commercial and Household Waste EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 0200/0036 BGS Ref: Not Supplied Other Ref: 4/1977, PIT 78 | C4SW (S) | 529 | 2 | 500024 240347 |
| | Local Authority Landfill Coverage Name: Mid Bedfordshire District Council - Has supplied landfill data | | 0 | 4 | 500229 241027 |
| | Local Authority Landfill Coverage Name: Bedfordshire County Council - Has no landfill data to supply | | 0 | 5 | 500229 241027 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|---------------|
| | BGS 1:625,000 Solid Geology Description: Kellaways Formation And Oxford Clay Formation (Undifferentiated) | C8SW (NW) | 0 | 1 | 500229 241027 |
| | 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 | C8SW (NW) | 0 | 1 | 500229 241027 |
| | Potential for Compressible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service | C4SE (S) | 0 | 1 | 500415 240400 |
| | Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | C8SW (NW) | 0 | 1 | 500229 241027 |
| | Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service | C8NW (NW) | 44 | 1 | 500000 241298 |
| | Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | C8SW (NW) | 0 | 1 | 500229 241027 |
| | Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service | C8SW (NW) | 0 | 1 | 500229 241027 |
| | Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service | C4NW (SW) | 0 | 1 | 500027 240901 |
| | Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | C8SW (NW) | 37 | 1 | 500229 241027 |
| | Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | (NE) | 77 | 1 | 500802 241776 |
| | Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service | C8SW (NW) | 0 | 1 | 500229 241027 |
| | Radon Potential - Radon Affected Areas Affected Area: The property is in a Lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service | C8SW (NW) | 0 | 1 | 500229 241027 |
| | 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 | C8SW (NW) | 0 | 1 | 500229 241027 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|---------------|
| 50 | Nitrate Vulnerable Zones Name: Not Supplied Description: Eutrophic Water Source: Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA) | C8SW (NW) | 0 | 7 | 500229 241027 |
| 51 | Nitrate Vulnerable Zones Name: Not Supplied Description: Surface Water Source: Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA) | C8SW (NW) | 0 | 7 | 500229 241027 |
| 52 | Nitrate Vulnerable Zones Name: Not Supplied Description: Groundwater Source: Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA) | C8SW (NW) | 0 | 7 | 500229 241027 |

| Agency & Hydrological | Version | Update Cycle |
|---|--|---|
| Contaminated Land Register Entries and Notices Central Bedfordshire Council - Environmental Health Department Bedford Borough Council - Environmental Health Department Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department | December 2013 December 2014 July 2008 | Annually Annual Rolling Update Not Applicable |
| Discharge Consents Environment Agency - Anglian Region | January 2017 | Quarterly |
| Enforcement and Prohibition Notices Environment Agency - Anglian Region | March 2013 | As notified |
| Integrated Pollution Controls Environment Agency - Anglian Region | October 2008 | Not Applicable |
| Integrated Pollution Prevention And Control Environment Agency - Anglian Region | April 2017 | Quarterly |
| Local Authority Integrated Pollution Prevention And Control Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department Bedford Borough Council - Environmental Health Department Central Bedfordshire Council - Environmental Health Department | December 2008 March 2015 November 2014 | Not Applicable Annual Rolling Update Annually |
| Local Authority Pollution Prevention and Controls Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department Bedford Borough Council - Environmental Health Department Central Bedfordshire Council - Environmental Health Department | December 2008 March 2015 November 2014 | Not Applicable Annual Rolling Update Annually |
| Local Authority Pollution Prevention and Control Enforcements Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department Bedford Borough Council - Environmental Health Department Central Bedfordshire Council - Environmental Health Department | December 2008 March 2015 November 2014 | Not Applicable Annual Rolling Update Annually |
| Nearest Surface Water Feature Ordnance Survey | March 2017 | |
| Pollution Incidents to Controlled Waters Environment Agency - Anglian Region | September 1999 | Not Applicable |
| Prosecutions Relating to Authorised Processes Environment Agency - Anglian Region | March 2013 | As notified |
| Prosecutions Relating to Controlled Waters Environment Agency - Anglian Region | March 2013 | As notified |
| Registered Radioactive Substances Environment Agency - Anglian Region | January 2015 | |
| 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 - Anglian Region - Central Area | April 2017 | Quarterly |
| Water Abstractions Environment Agency - Anglian Region | October 2016 | Quarterly |
| Water Industry Act Referrals Environment Agency - Anglian Region | April 2017 | Quarterly |
| Groundwater Vulnerability Environment Agency - Head Office | April 2015 | Not Applicable |

| Agency & Hydrological | Version | Update Cycle |
|---|------------------------------------|--|
| 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 | April 2017 | Quarterly |
| Extreme Flooding from Rivers or Sea without Defences Environment Agency - Head Office | February 2017 | Quarterly |
| Flooding from Rivers or Sea without Defences Environment Agency - Head Office | February 2017 | Quarterly |
| Areas Benefiting from Flood Defences Environment Agency - Head Office | February 2017 | Quarterly |
| Flood Water Storage Areas Environment Agency - Head Office | February 2017 | Quarterly |
| Flood Defences Environment Agency - Head Office | February 2017 | Quarterly |
| OS Water Network Lines Ordnance Survey | January 2017 | 6 Weekly |
| 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 | January 2017 | Quarterly |
| Integrated Pollution Control Registered Waste Sites Environment Agency - Anglian Region | October 2008 | Not Applicable |
| Licensed Waste Management Facilities (Landfill Boundaries) Environment Agency - Anglian Region - Central Area | August 2016 | Quarterly |
| Licensed Waste Management Facilities (Locations) Environment Agency - Anglian Region - Central Area | October 2016 | Quarterly |
| Local Authority Landfill Coverage Bedford Borough Council - Environmental Health Department Bedfordshire County Council (now part of Central Bedfordshire Council) Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department | May 2000 May 2000 May 2000 | Not Applicable Not Applicable Not Applicable |
| Local Authority Recorded Landfill Sites Bedford Borough Council - Environmental Health Department Bedfordshire County Council (now part of Central Bedfordshire Council) Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department | April 2003 May 2000 May 2000 | Not Applicable Not Applicable Not Applicable |
| Registered Landfill Sites Environment Agency - Anglian Region - Central Area | March 2003 | Not Applicable |
| Registered Waste Transfer Sites Environment Agency - Anglian Region - Central Area | March 2003 | Not Applicable |
| Registered Waste Treatment or Disposal Sites Environment Agency - Anglian Region - Central Area | March 2003 | Not Applicable |

| Hazardous Substances | Version | Update Cycle |
|---|---|--|
| Control of Major Accident Hazards Sites (COMAH) Health and Safety Executive | March 2017 | Bi-Annually |
| Explosive Sites Health and Safety Executive | March 2017 | Bi-Annually |
| Notification of Installations Handling Hazardous Substances (NIHHS) Health and Safety Executive | November 2000 | Not Applicable |
| Planning Hazardous Substance Enforcements Bedford Borough Council Central Bedfordshire Council - Planning Department Bedfordshire County Council (now part of Central Bedfordshire Council) Mid Bedfordshire District Council (now part of Central Bedfordshire Council) | February 2016 February 2016 July 2008 May 2008 | Annual Rolling Update Annually Annual Rolling Update Not Applicable |
| Planning Hazardous Substance Consents Bedford Borough Council Central Bedfordshire Council - Planning Department Bedfordshire County Council (now part of Central Bedfordshire Council) Mid Bedfordshire District Council (now part of Central Bedfordshire Council) | February 2016 February 2016 July 2008 May 2008 | Annual Rolling Update Annually Annual Rolling Update Not Applicable |
| Geological | Version | Update Cycle |
| BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service | January 2009 | Not Applicable |
| BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service | April 2017 | Bi-Annually |
| CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB) | August 2011 | Not Applicable |
| Coal Mining Affected Areas The Coal Authority - Property Searches | March 2014 | 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 |

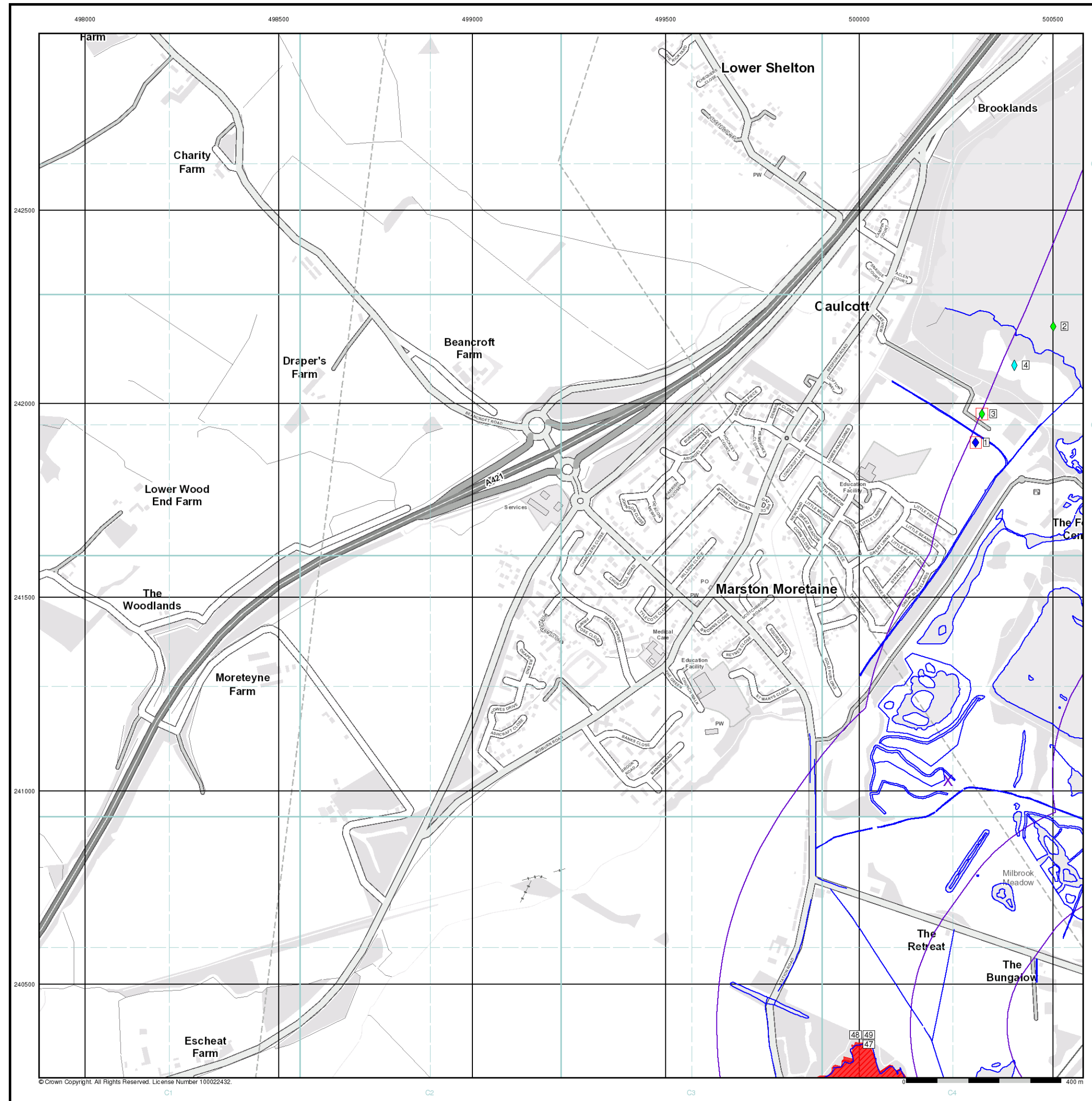
| Industrial Land Use | Version | Update Cycle |
|--|---------------------------|----------------------------|
| Contemporary Trade Directory Entries Thomson Directories | March 2017 | Quarterly |
| Fuel Station Entries Catalist Ltd - Experian | February 2017 | Quarterly |
| Gas Pipelines National Grid | July 2014 | Quarterly |
| Underground Electrical Cables National Grid | December 2015 | Bi-Annually |
| Sensitive Land Use | Version | Update Cycle |
| Ancient Woodland Natural England | August 2016 | Bi-Annually |
| Areas of Adopted Green Belt Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department Central Bedfordshire Council - Planning Department | February 2017 May 2011 | As notified As notified |
| Areas of Unadopted Green Belt Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department Central Bedfordshire Council - Planning Department | February 2017 May 2011 | As notified As notified |
| Areas of Outstanding Natural Beauty Natural England | January 2017 | Bi-Annually |
| Environmentally Sensitive Areas Natural England | January 2017 | Annually |
| Forest Parks Forestry Commission | April 1997 | Not Applicable |
| Local Nature Reserves Natural England | January 2017 | Bi-Annually |
| Marine Nature Reserves Natural England | January 2017 | Bi-Annually |
| National Nature Reserves Natural England | January 2017 | Bi-Annually |
| National Parks Natural England | February 2017 | Bi-Annually |
| Nitrate Vulnerable Zones Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA) | October 2015 | Annually |
| Ramsar Sites Natural England | January 2017 | Bi-Annually |
| Sites of Special Scientific Interest Natural England | January 2017 | Bi-Annually |
| Special Areas of Conservation Natural England | January 2017 | Bi-Annually |
| Special Protection Areas Natural England | January 2017 | Bi-Annually |
| World Heritage Sites English Heritage - National Monument Record Centre | May 2017 | Bi-Annually |

A selection of organisations who provide data within this report

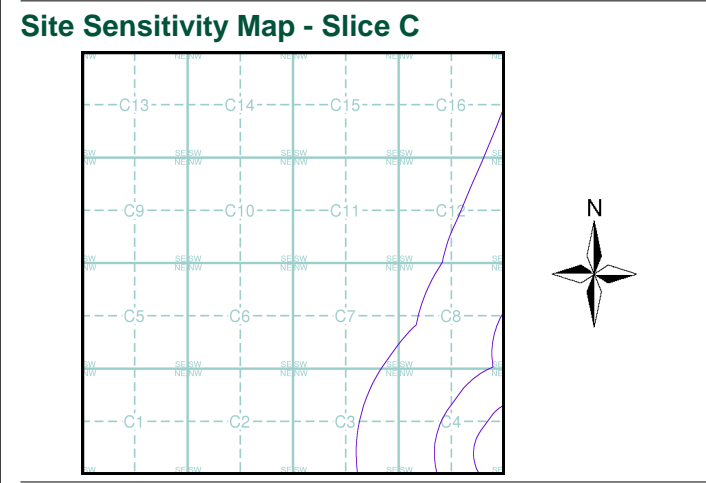
| Data Supplier | Data Supplier Logo |
|--|---|
| Ordnance Survey |  |
| Environment Agency |  |
| Scottish Environment Protection Agency |  |
| The Coal Authority |  |
| British Geological Survey |  <p>British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL</p> |
| Centre for Ecology and Hydrology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

| Contact | Name and Address | Contact Details |
|---------|---|---|
| 1 | 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 |
| 2 | Environment Agency - National Customer Contact Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY | Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk |
| 3 | Ordnance Survey Adanac Drive, Southampton, Hampshire, SO16 0AS | Telephone: 023 8079 2000 Email: enquires@ordnavy.gov.uk Website: www.ordnancesurvey.gov.uk |
| 4 | Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department Priory House, Monks Walk, Chicksands, Shefford, Bedfordshire, SG17 5TQ | Telephone: 0300 300 8301 Email: customers@centralbedfordshire.gov.uk Website: www.centralbedfordshire.gov.uk |
| 5 | Bedfordshire County Council (now part of Central Bedfordshire Council) Priory House, Monks Walk, Chicksands, Shefford, Bedfordshire, SG17 5TQ | Telephone: 0300 300 8301 Email: www.centralbedfordshire.gov.uk Website: www.centralbedfordshire.gov.uk |
| 6 | Natural England County Hall, Spetchley Road, Worcester, WR5 2NP | Telephone: 0300 060 3900 Email: enquiries@naturalengland.org.uk Website: www.naturalengland.org.uk |
| 7 | 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 |
| - | 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.



- 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
- Waste**
- BGS Recorded Landfill Site (Location)
 - BGS Recorded Landfill Site (Buffered Point)
 - 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
 - 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
- Industrial Land Use**
- Contemporary Trade Directory Entry
 - Fuel Station Entry



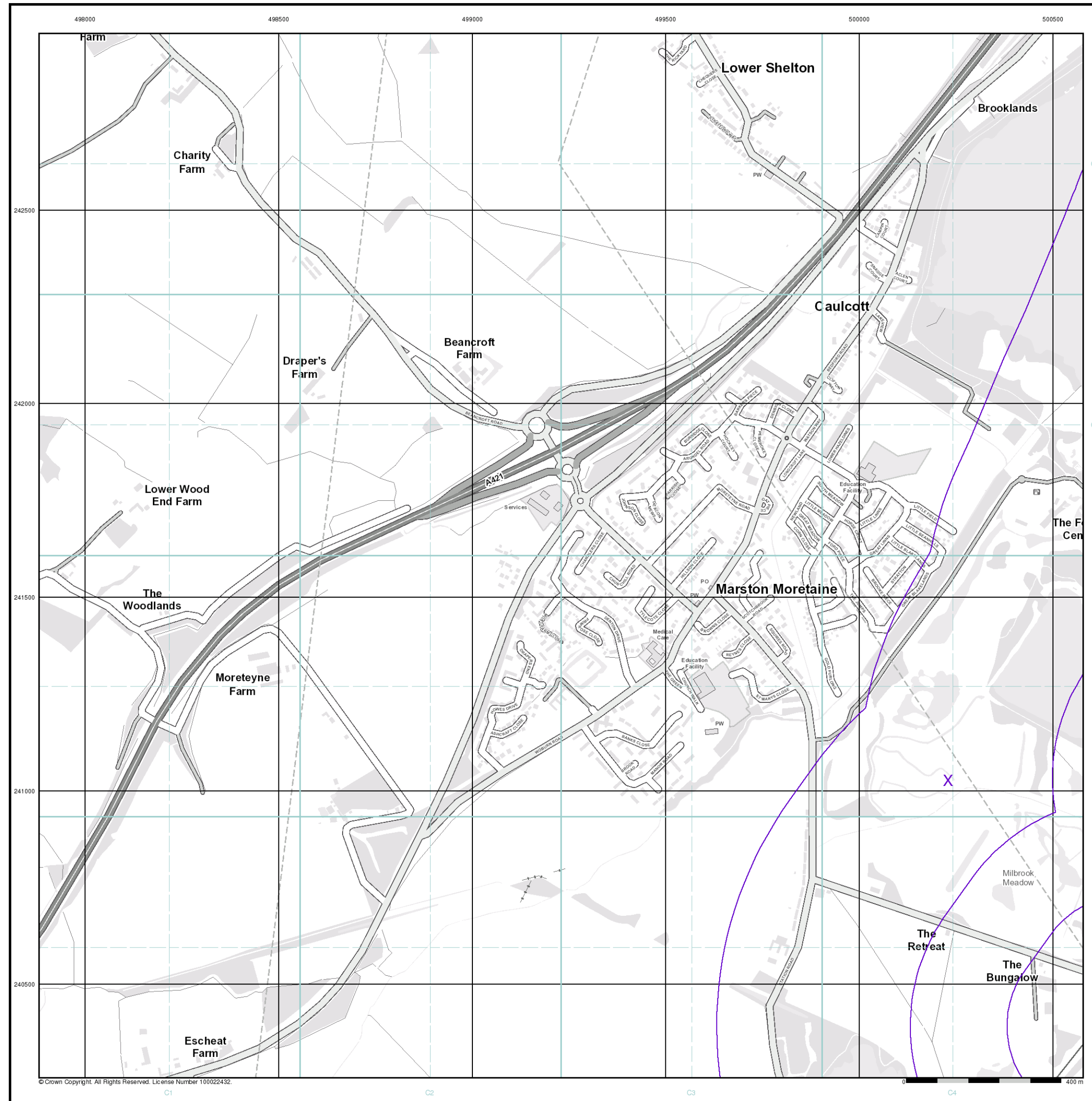
Order Details

Order Number: 125070033_1_1
 Customer Ref: 40335 Millbrook
 National Grid Reference: 500230, 241030
 Slice: C
 Site Area (Ha): 87.86
 Search Buffer (m): 1000

Site Details
 Stewartby

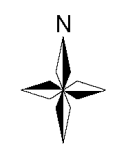
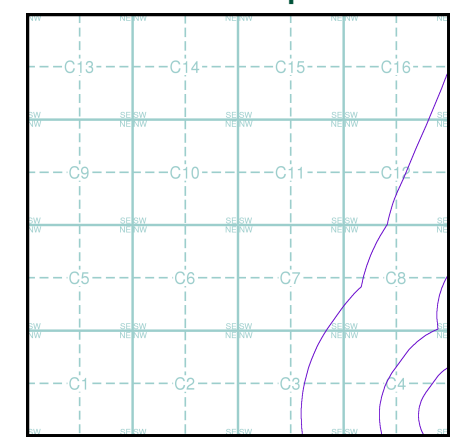
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- General**
- Specified Site
 - Slice
 - Specified Buffer(s)
 - Map ID
 - Bearing Reference Point
- Industrial Land Use**
- Contemporary Trade Directory Entry
 - Fuel Station Entry
 - Gas Pipeline
 - Underground Electrical Cables

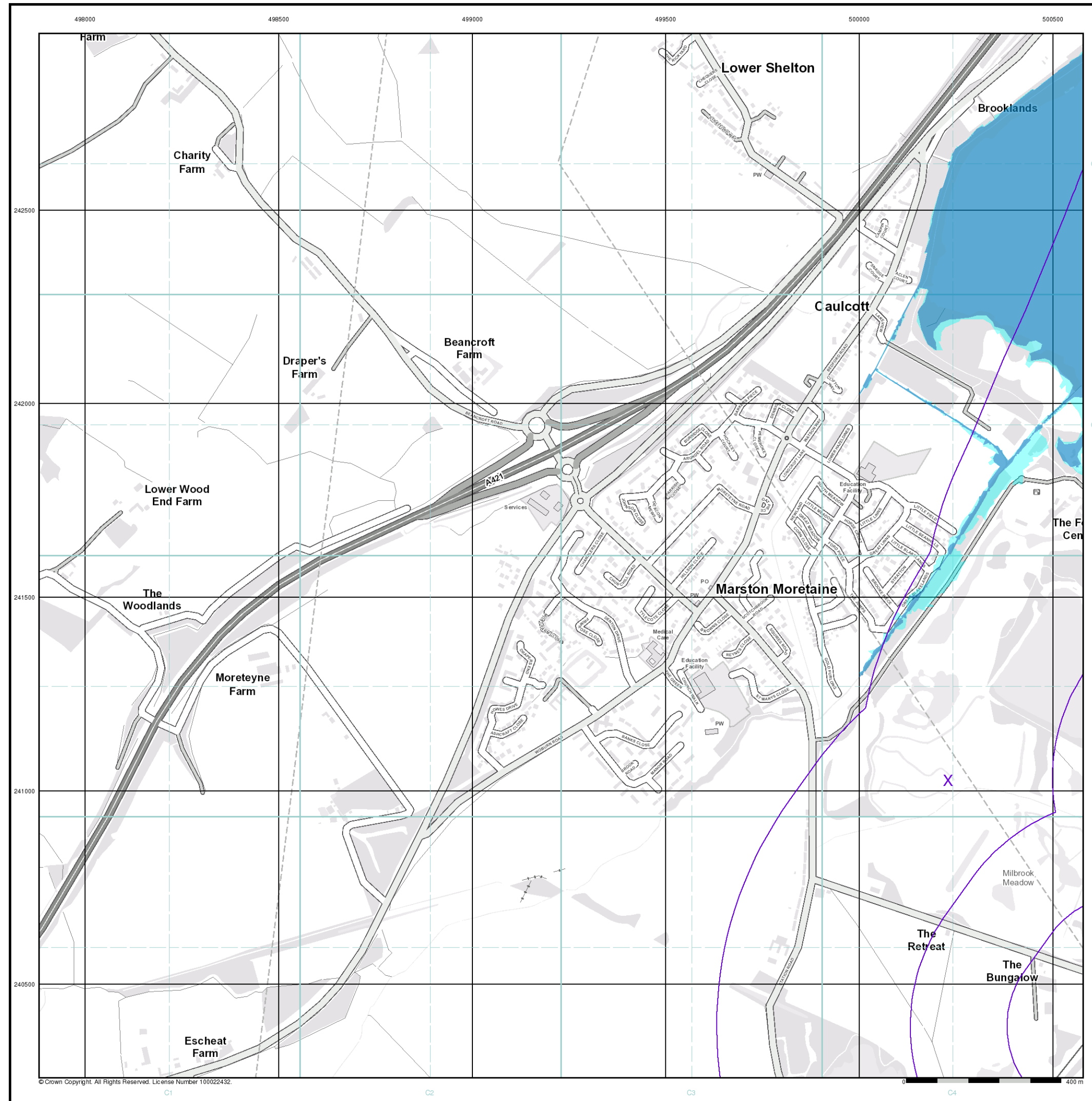
Industrial Land Use Map - Slice C



Order Details

Order Number: 125070033_1_1
 Customer Ref: 40335 Millbrook
 National Grid Reference: 500230, 241030
 Slice: C
 Site Area (Ha): 87.86
 Search Buffer (m): 1000

Site Details
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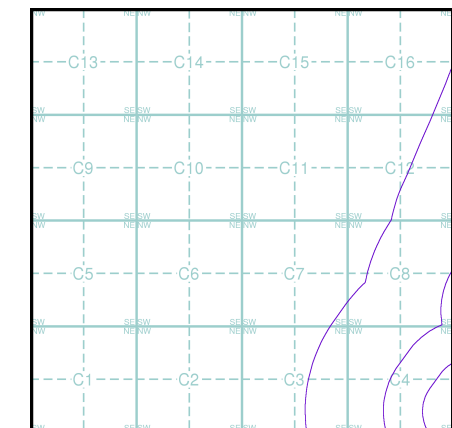
General

- 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 C



Order Details

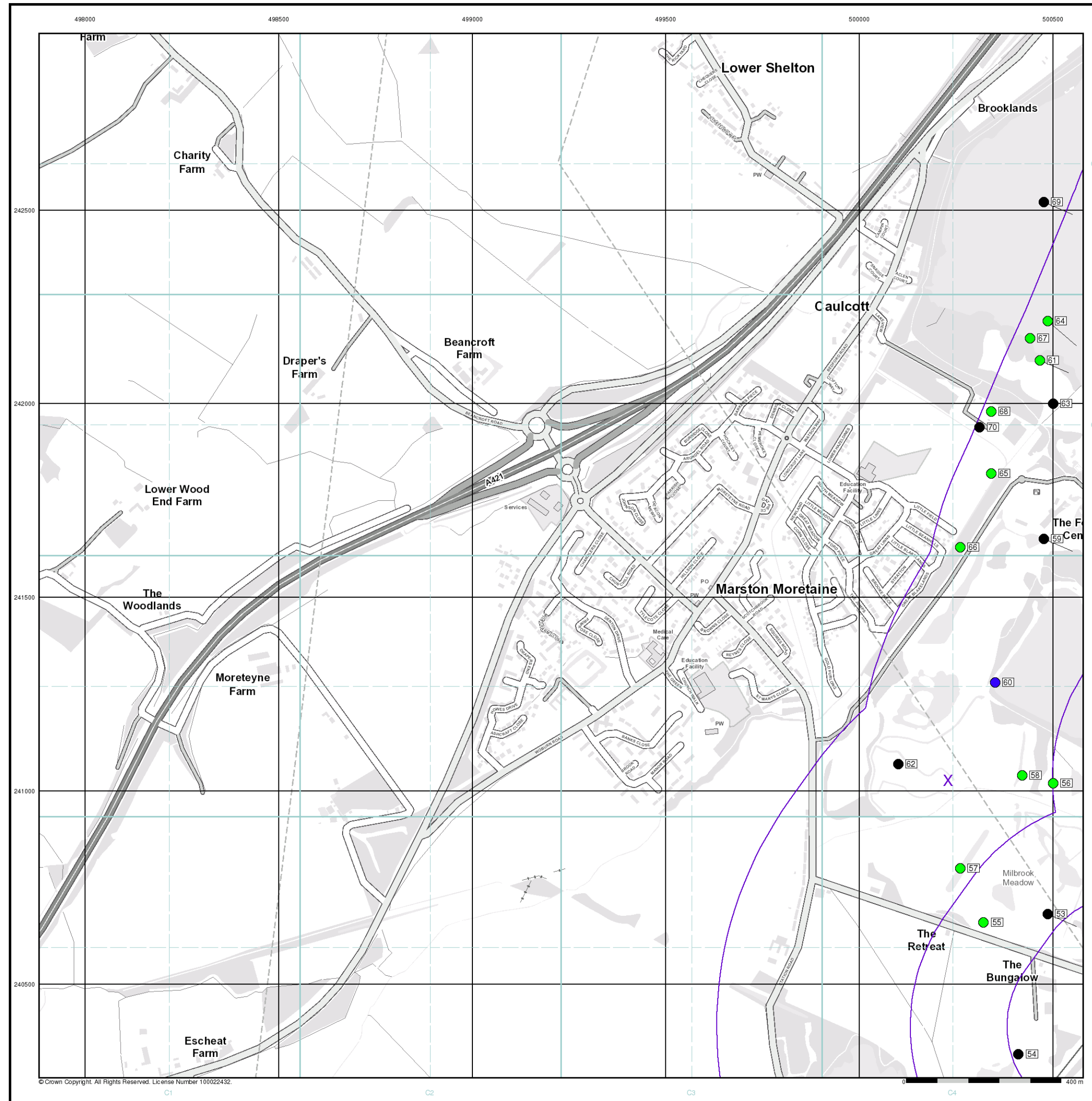
Order Number: 125070033_1_1
 Customer Ref: 40335 Millbrook
 National Grid Reference: 500230, 241030
 Slice: C
 Site Area (Ha): 87.86
 Search Buffer (m): 1000

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General

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

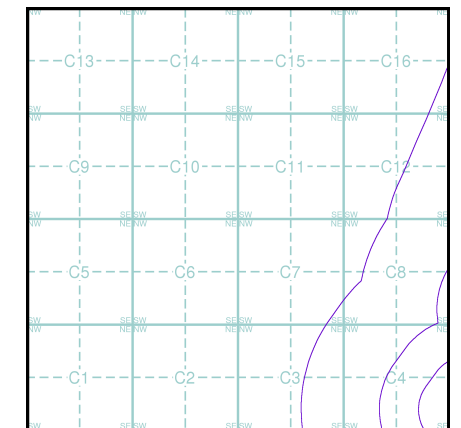
Agency and Hydrological (Boreholes)

- 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 C



Order Details

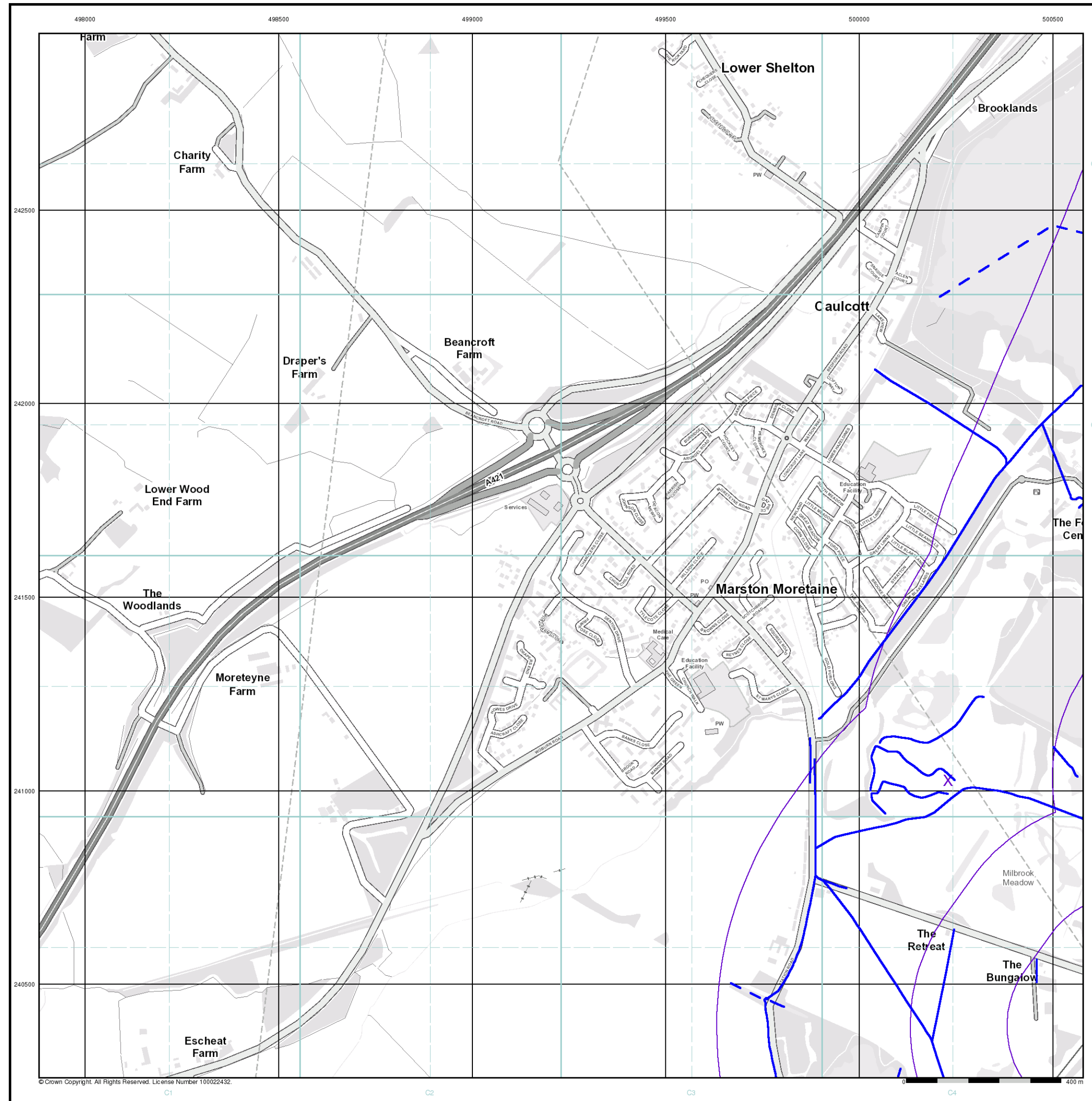
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 Customer Ref: 40335 Millbrook
 National Grid Reference: 500230, 241030
 Slice: C
 Site Area (Ha): 87.86
 Search Buffer (m): 1000

Site Details

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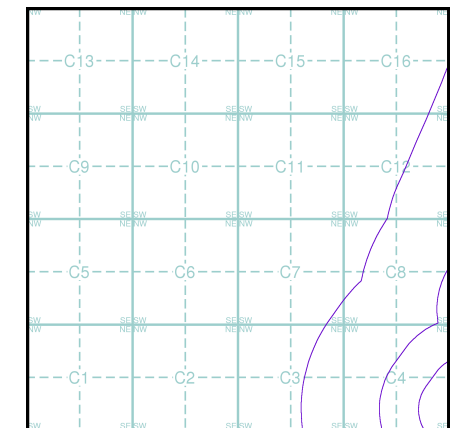
General

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

OS Water Network Data

- | | |
|--------------|-------------------------|
| Canal | Drain |
| Reservoir | Other |
| Foreshore | Lake |
| Marsh | Transfer |
| Tidal River | Lock Or Flight Of Locks |
| Inland River | Sea |

OS Water Network Map - Slice C



Order Details

Order Number: 125070033_1_1
 Customer Ref: 40335 Millbrook
 National Grid Reference: 500230, 241030
 Slice: C
 Site Area (Ha): 87.86
 Search Buffer (m): 1000

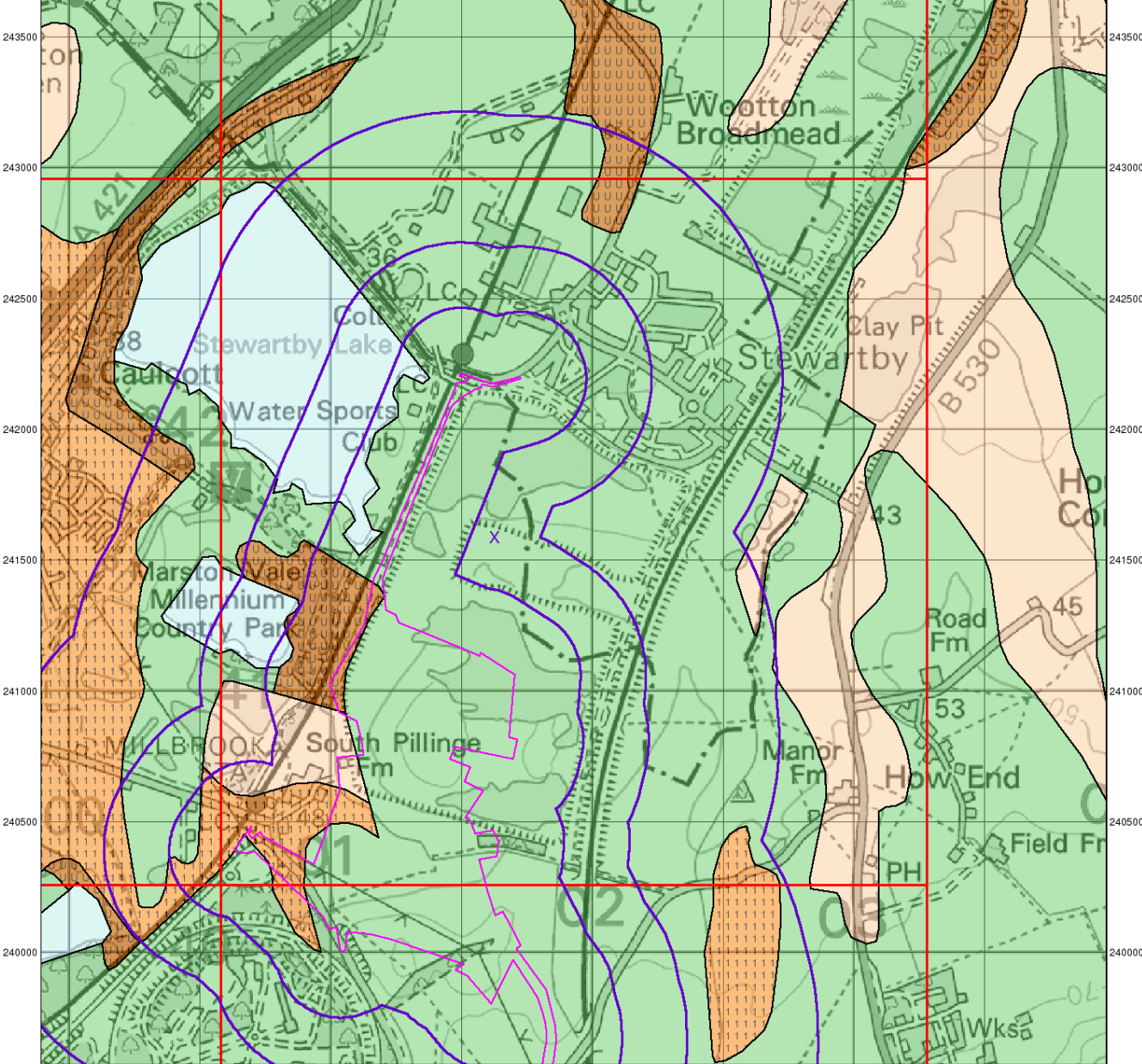
Site Details

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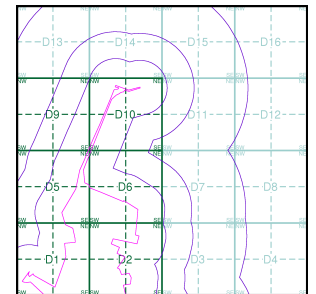
Groundwater Vulnerability

- General**
- ▭ Specified Site
 - ▭ Specified Buffer(s)
 - X Bearing Reference Point
 - ▭ Slice
 - B Map ID

Agency and Hydrological

- | | |
|---|--|
| Geological Classes | Soil Classes |
| Major Aquifer (Highly Permeable) | <ul style="list-style-type: none"> High (H) 1, 2, 3, U Intermediate (I) 1, 2 Low |
| Minor Aquifer (Variably Permeable) | <ul style="list-style-type: none"> High (H) 1, 2, 3, U Intermediate (I) 1, 2 Low |
| Non Aquifer (Negligibly Permeable) | |
| Water or Sea | |
| Drift Deposit | |

Site Sensitivity Context Map - Slice D



Order Details

Order Number: 125070033_1_1
 Customer Ref: 40335 Millbrook
 National Grid Reference: 501630, 241590
 Slice: D
 Site Area (Ha): 87.86
 Search Buffer (m): 1000

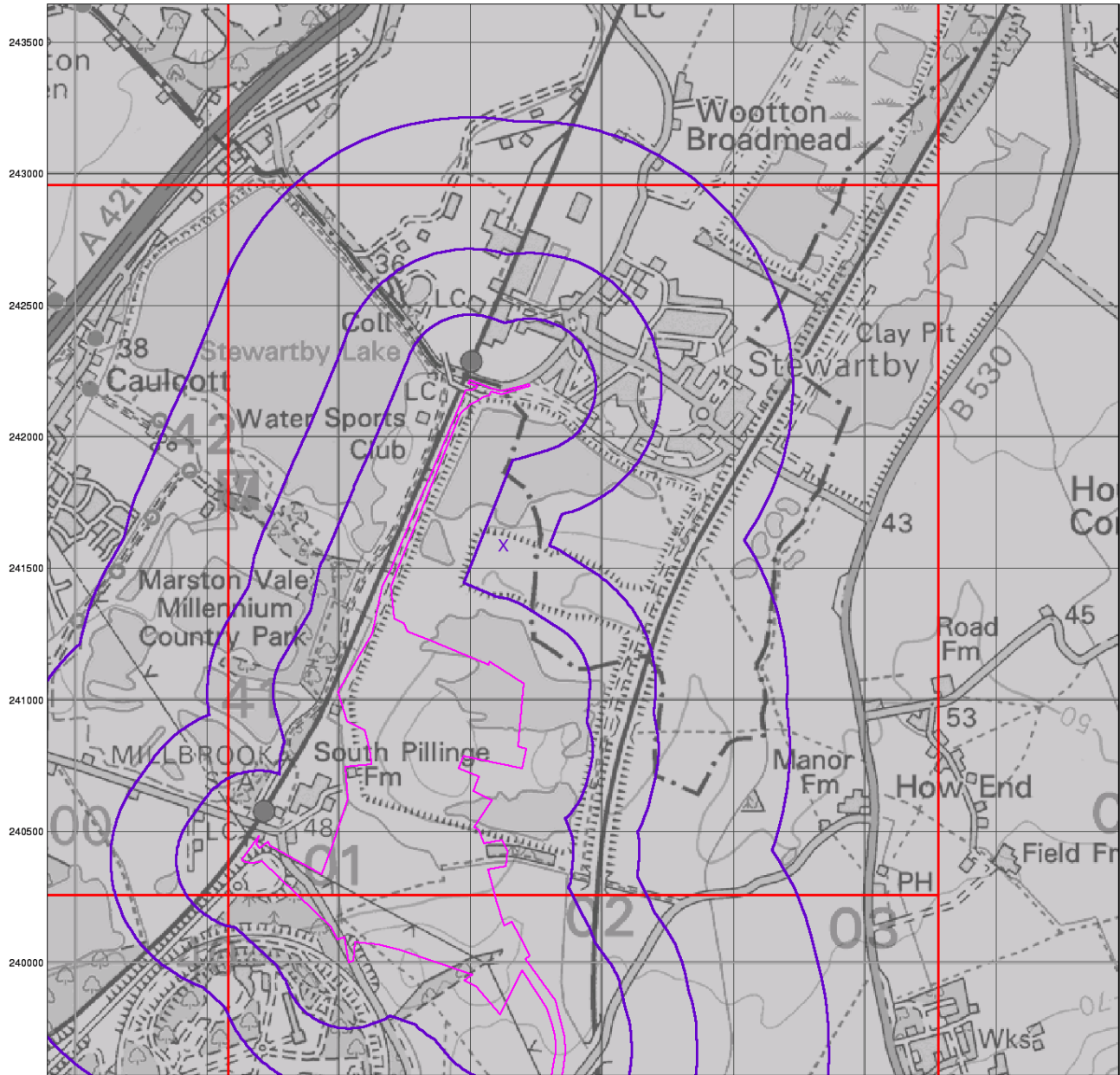
Site Details

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500000 500500 501000 501500 502000 502500 503000 503500



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0 1 km



Bedrock Aquifer Designation

General

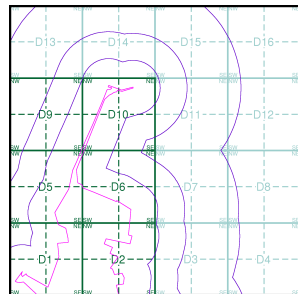
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice D



Order Details

Order Number: 125070033_1_1
 Customer Ref: 40335 Millbrook
 National Grid Reference: 501630, 241590
 Slice: D
 Site Area (Ha): 87.86
 Search Buffer (m): 1000

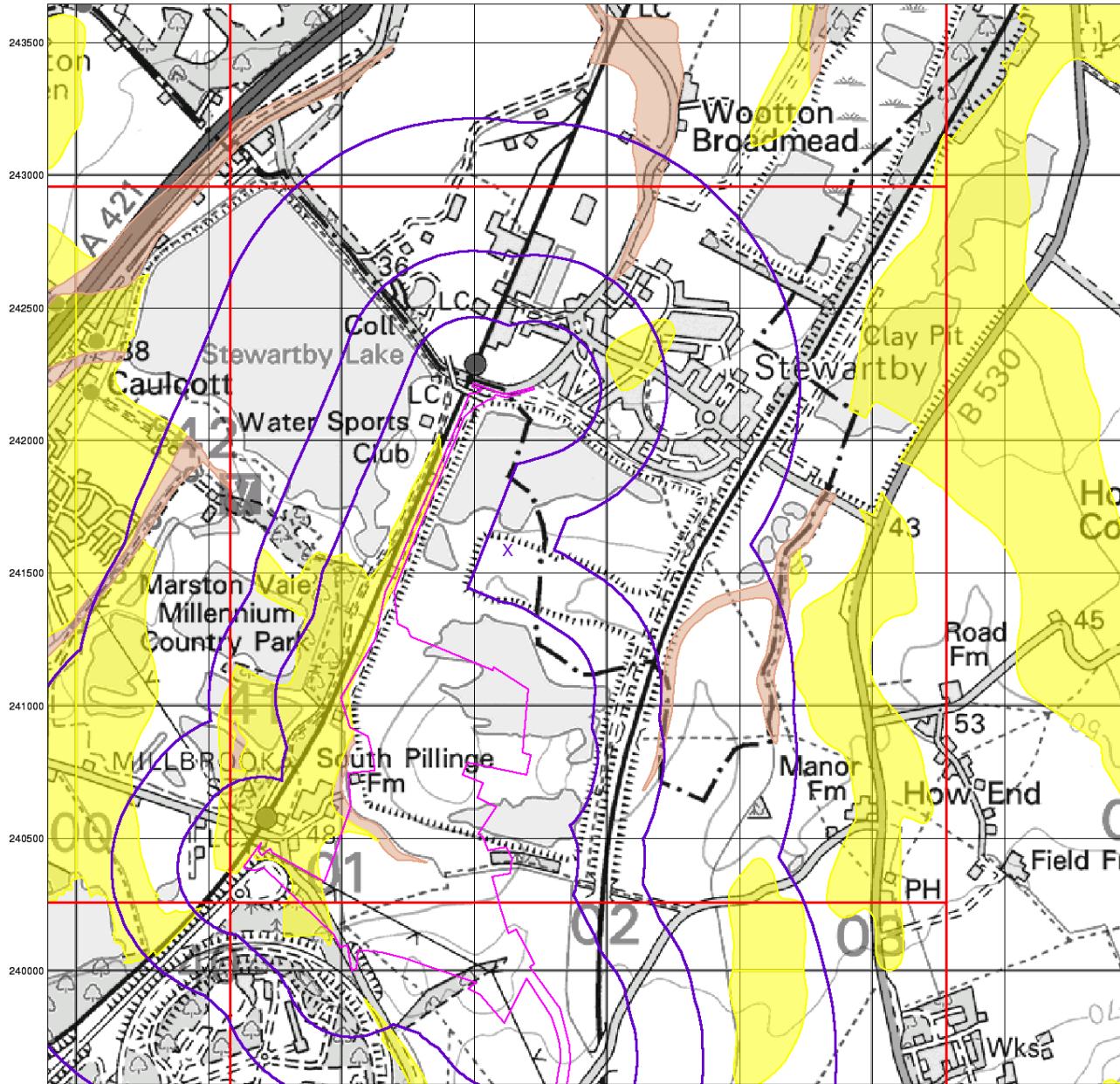
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Superficial Aquifer Designation

General

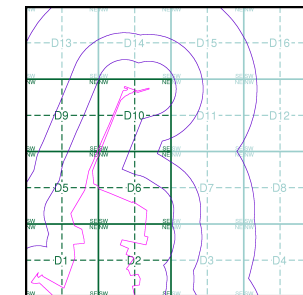
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice D



Order Details

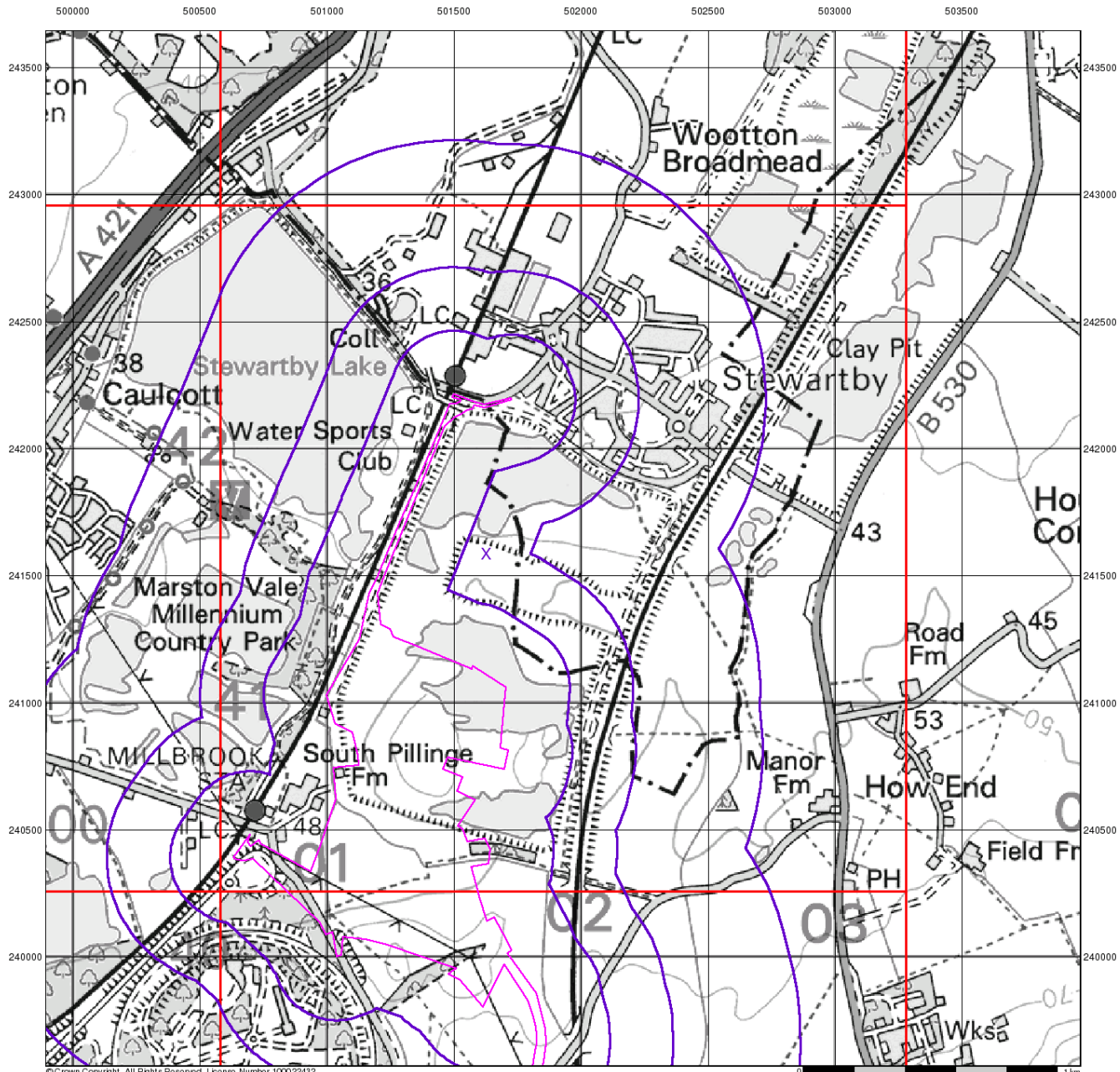
Order Number: 125070033_1_1
 Customer Ref: 40335 Millbrook
 National Grid Reference: 501630, 241590
 Slice: D
 Site Area (Ha): 87.86
 Search Buffer (m): 1000

Site Details

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Source Protection Zones

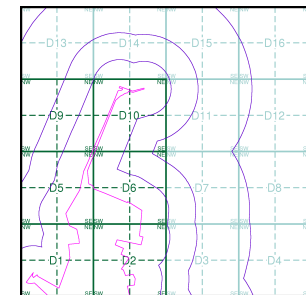
General

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

Agency and Hydrological

- Inner zone (Zone 1)
- Inner zone - subsurface activity only (Zone 1c)
- Outer zone (Zone 2)
- Outer zone - subsurface activity only (Zone 2c)
- Total catchment (Zone 3)
- Total catchment - subsurface activity only (Zone 3c)
- Special interest (Zone 4)
- Source Protection Zone Borehole

Site Sensitivity Context Map - Slice D



Order Details

Order Number: 125070033_1_1
 Customer Ref: 40335 Millbrook
 National Grid Reference: 501630, 241590
 Slice: D
 Site Area (Ha): 87.86
 Search Buffer (m): 1000

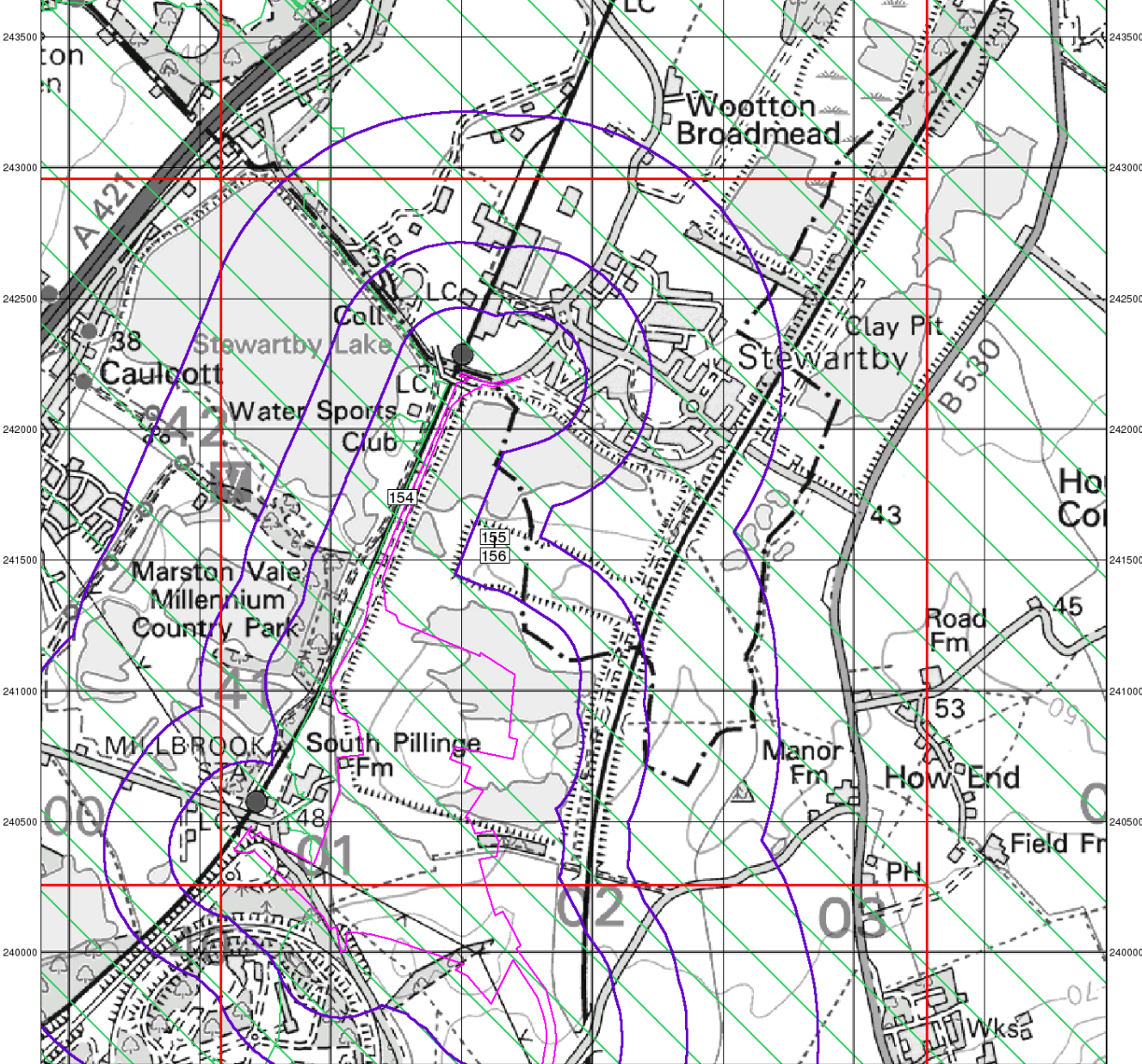
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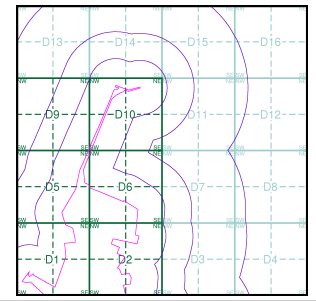


Sensitive Land Uses

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

- Sensitive Land Uses**
- Ancient Woodland
 - Area of Adopted Green Belt
 - Area of Unadopted Green Belt
 - Area of Outstanding Natural Beauty
 - Environmentally Sensitive Area
 - Forest Park
 - Local Nature Reserve
 - Marine Nature Reserve
 - National Nature Reserve
 - National Park
 - Nitrate Sensitive Area
 - Nitrate Vulnerable Zone
 - Ramsar Site
 - Site of Special Scientific Interest
 - Special Area of Conservation
 - Special Protection Area
 - World Heritage Sites

Site Sensitivity Context Map - Slice D



Order Details

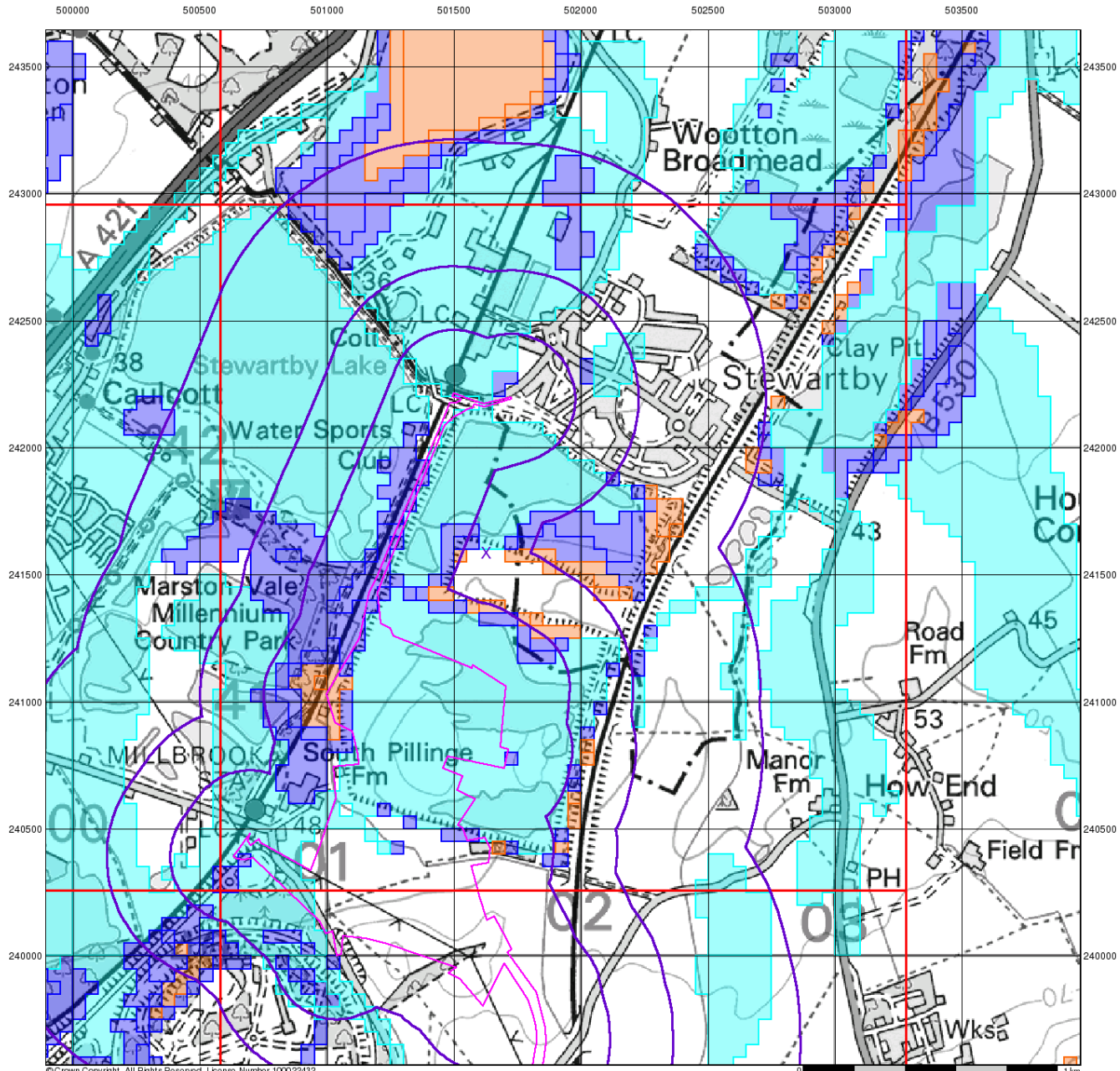
Order Number: 125070033_1_1
 Customer Ref: 40335 Millbrook
 National Grid Reference: 501630, 241590
 Slice: D
 Site Area (Ha): 87.86
 Search Buffer (m): 1000

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BGS Flood GFS Data

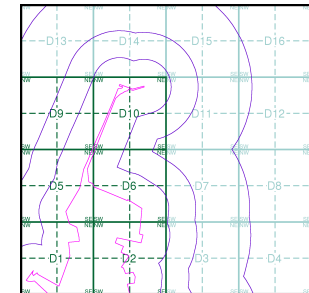
General

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

Agency and Hydrological (Flood)

- Limited Potential for Groundwater Flooding to Occur
- Potential for Groundwater Flooding of Property Situated Below Ground Level
- Potential for Groundwater Flooding to Occur at Surface

Site Sensitivity Context Map - Slice D



Order Details

| | |
|--------------------------|-----------------|
| Order Number: | 125070033_1_1 |
| Customer Ref: | 40335 Millbrook |
| National Grid Reference: | 501630, 241590 |
| Slice: | D |
| Site Area (Ha): | 87.86 |
| Search Buffer (m): | 1000 |

Site Details

Stewartby



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Envirocheck[®] Report:

Datasheet

Order Details:

Order Number:

125070033_1_1

Customer Reference:

40335 Millbrook

National Grid Reference:

501630, 241590

Slice:

D

Site Area (Ha):

87.86

Search Buffer (m):

1000

Site Details:

Stewartby

Client Details:

Ms K Riley
Peter Brett Associates LLP
Caversham Bridge House
Waterman Place
Reading
Berkshire
RG1 8DN

| Report Section | Page Number |
|-----------------------|-------------|
| Summary | - |
| Agency & Hydrological | 1 |
| Waste | 29 |
| Hazardous Substances | 33 |
| Geological | 34 |
| Industrial Land Use | 37 |
| Sensitive Land Use | 40 |
| Data Currency | 41 |
| Data Suppliers | 45 |
| Useful Contacts | 46 |

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 v53.0

| 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 5 | | 5 | | |
| Prosecutions Relating to Controlled Waters | | | n/a | n/a | n/a |
| Enforcement and Prohibition Notices | pg 6 | | | 1 | |
| Integrated Pollution Controls | pg 7 | | | 14 | |
| Integrated Pollution Prevention And Control | pg 9 | 1 | 2 | 3 | 16 |
| Local Authority Integrated Pollution Prevention And Control | | | | | |
| Local Authority Pollution Prevention and Controls | pg 14 | | | 1 | |
| Local Authority Pollution Prevention and Control Enforcements | | | | | |
| Nearest Surface Water Feature | pg 14 | Yes | | | |
| Pollution Incidents to Controlled Waters | pg 14 | | | | 3 |
| Prosecutions Relating to Authorised Processes | | | | | |
| Registered Radioactive Substances | | | | | |
| River Quality | pg 15 | | | | 1 |
| River Quality Biology Sampling Points | | | | | |
| River Quality Chemistry Sampling Points | | | | | |
| Substantiated Pollution Incident Register | pg 15 | | | | 2 |
| Water Abstractions | pg 15 | | | | 2 (*2) |
| Water Industry Act Referrals | pg 16 | 3 | 2 | | |
| Groundwater Vulnerability | pg 17 | Yes | n/a | n/a | n/a |
| Drift Deposits | | | n/a | n/a | n/a |
| Bedrock Aquifer Designations | pg 17 | Yes | n/a | n/a | n/a |
| Superficial Aquifer Designations | pg 17 | Yes | n/a | n/a | n/a |
| Source Protection Zones | | | | | |
| Extreme Flooding from Rivers or Sea without Defences | pg 17 | | Yes | n/a | n/a |
| Flooding from Rivers or Sea without Defences | pg 17 | | Yes | n/a | n/a |
| Areas Benefiting from Flood Defences | | | | n/a | n/a |
| Flood Water Storage Areas | | | | n/a | n/a |
| Flood Defences | | | | n/a | n/a |
| OS Water Network Lines | pg 18 | 11 | 39 | 12 | 30 |

| 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 29 | 1 | 1 | | 3 |
| Integrated Pollution Control Registered Waste Sites | | | | | |
| Licensed Waste Management Facilities (Landfill Boundaries) | pg 30 | | | | 1 |
| Licensed Waste Management Facilities (Locations) | pg 30 | | | 1 | 3 |
| Local Authority Landfill Coverage | pg 31 | 3 | n/a | n/a | n/a |
| Local Authority Recorded Landfill Sites | | | | | |
| Registered Landfill Sites | pg 31 | | | 1 | 1 |
| Registered Waste Transfer Sites | | | | | |
| Registered Waste Treatment or Disposal Sites | pg 32 | | | | 2 |
| Hazardous Substances | | | | | |
| Control of Major Accident Hazards Sites (COMAH) | pg 33 | | | | 1 |
| Explosive Sites | | | | | |
| Notification of Installations Handling Hazardous Substances (NIHHS) | pg 33 | | | 1 | |
| Planning Hazardous Substance Consents | pg 33 | | | 2 | |
| Planning Hazardous Substance Enforcements | | | | | |
| Geological | | | | | |
| BGS 1:625,000 Solid Geology | pg 34 | Yes | n/a | n/a | n/a |
| BGS Recorded Mineral Sites | pg 34 | 1 | | 3 | 3 |
| CBSCB Compensation District | | | 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 35 | Yes | | n/a | n/a |
| Potential for Compressible Ground Stability Hazards | pg 35 | Yes | Yes | n/a | n/a |
| Potential for Ground Dissolution Stability Hazards | | | | n/a | n/a |
| Potential for Landslide Ground Stability Hazards | pg 35 | Yes | Yes | n/a | n/a |
| Potential for Running Sand Ground Stability Hazards | pg 36 | Yes | | n/a | n/a |
| Potential for Shrinking or Swelling Clay Ground Stability Hazards | pg 36 | 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 |

| Data Type | Page Number | On Site | 0 to 250m | 251 to 500m | 501 to 1000m (*up to 2000m) |
|--------------------------------------|-------------|---------|-----------|-------------|-----------------------------|
| Industrial Land Use | | | | | |
| Contemporary Trade Directory Entries | pg 37 | | 3 | 15 | 13 |
| Fuel Station Entries | | | | | |
| Gas Pipelines | | | | | |
| Underground Electrical Cables | | | | | |
| Sensitive Land Use | | | | | |
| Ancient Woodland | | | | | |
| Areas of Adopted Green Belt | | | | | |
| Areas of Unadopted Green Belt | | | | | |
| Areas of Outstanding Natural Beauty | | | | | |
| Environmentally Sensitive Areas | | | | | |
| Forest Parks | | | | | |
| Local Nature Reserves | | | | | |
| Marine Nature Reserves | | | | | |
| National Nature Reserves | | | | | |
| National Parks | | | | | |
| Nitrate Sensitive Areas | | | | | |
| Nitrate Vulnerable Zones | pg 40 | 3 | | | |
| 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 of Property Situated Below Ground Level | D5NE (W) | 0 | 1 | 501250 241450 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D5NE (SW) | 0 | 1 | 501200 241400 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D2NE (S) | 0 | 1 | 501700 240800 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D5SE (SW) | 0 | 1 | 501100 241150 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D10SW (NW) | 0 | 1 | 501350 241750 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D1SW (SW) | 0 | 1 | 500700 240400 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D6NW (W) | 0 | 1 | 501300 241600 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D1NE (S) | 0 | 1 | 501250 240600 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | D5SE (SW) | 0 | 1 | 501100 241100 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D5SE (SW) | 0 | 1 | 501100 241050 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface | D1SE (S) | 0 | 1 | 501200 240500 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D2SE (S) | 0 | 1 | 501600 240500 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface | D1SE (S) | 0 | 1 | 501250 240450 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D2SW (S) | 0 | 1 | 501300 240450 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D10SW (W) | 0 | 1 | 501300 241650 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D2SW (S) | 0 | 1 | 501350 240550 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface | D6NE (N) | 0 | 1 | 501627 241600 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface | D6NE (S) | 0 | 1 | 501600 241350 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (S) | 2 | 1 | 501050 240000 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D10NE (N) | 7 | 1 | 501650 242200 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | D5SE (SW) | 9 | 1 | 501000 241100 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D1NE (SW) | 9 | 1 | 501100 240850 |

| 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 | D2SE (S) | 9 | 1 | 501650 240450 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D5SE (SW) | 17 | 1 | 501050 241250 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D5NE (W) | 19 | 1 | 501200 241587 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D6NW (W) | 22 | 1 | 501300 241500 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D1SW (SW) | 32 | 1 | 500650 240350 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D1NE (SW) | 36 | 1 | 501000 240900 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface | (S) | 38 | 1 | 501000 240000 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SW) | 58 | 1 | 500950 240050 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D2SE (S) | 59 | 1 | 501700 240450 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SW) | 77 | 1 | 500900 240100 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D6NW (SW) | 87 | 1 | 501350 241450 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D5SW (SW) | 99 | 1 | 500900 241050 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D6NE (SE) | 101 | 1 | 501750 241300 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (S) | 103 | 1 | 500950 239950 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (S) | 109 | 1 | 501000 239900 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D5SW (SW) | 121 | 1 | 500900 241150 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D10SE (NW) | 134 | 1 | 501600 241650 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D6NW (SW) | 134 | 1 | 501400 241450 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (S) | 135 | 1 | 500950 239900 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D6NW (SW) | 135 | 1 | 501500 241400 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SW) | 148 | 1 | 500900 239950 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D5SW (SW) | 151 | 1 | 500850 241150 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|------------------|
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D6NE (S) | 159 | 1 | 501627 241350 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D6NW (SW) | 162 | 1 | 501450 241500 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SW) | 169 | 1 | 500850 240000 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D6SE (SE) | 170 | 1 | 501800 241250 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface | (SW) | 172 | 1 | 500850 239950 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D6NW (S) | 173 | 1 | 501550 241400 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | D6NW (SW) | 180 | 1 | 501500 241450 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | D6NE (S) | 193 | 1 | 501600 241400 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D6NE (NW) | 199 | 1 | 501600 241600 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SW) | 206 | 1 | 500550 240200 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D6NW (SW) | 208 | 1 | 501500 241500 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | D6NE (S) | 209 | 1 | 501627 241400 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D2SE (S) | 210 | 1 | 501850 240400 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | D6NE (SE) | 212 | 1 | 501800 241300 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface | (SW) | 213 | 1 | 500800 240000 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | D6NW (W) | 217 | 1 | 501550 241587 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | D6NE (SE) | 227 | 1 | 501750 241350 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D6SE (SE) | 241 | 1 | 501900 241250 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D3NW (S) | 244 | 1 | 501950 240750 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | D6NE (SE) | 254 | 1 | 501800 241350 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (S) | 255 | 1 | 501000 239750 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D3NW (S) | 256 | 1 | 501950 240700 |

| 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 | D2SE (S) | 259 | 1 | 501900 240450 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D2SE (S) | 260 | 1 | 501900 240500 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | D3NW (S) | 269 | 1 | 501950 240650 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D11NW (NE) | 281 | 1 | 502000 242250 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SW) | 282 | 1 | 500600 240100 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | D3NW (SE) | 285 | 1 | 502000 240850 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | D3NW (SE) | 286 | 1 | 502000 240800 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SW) | 286 | 1 | 500700 240000 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D3NW (SE) | 288 | 1 | 502000 240900 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | D3NW (S) | 290 | 1 | 501950 240600 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D5NW (W) | 293 | 1 | 500900 241587 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SW) | 299 | 1 | 500550 240100 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface | D11NW (NE) | 325 | 1 | 502050 242200 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface | (S) | 334 | 1 | 501300 239650 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D7SW (SE) | 350 | 1 | 502050 241000 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SW) | 363 | 1 | 500500 240050 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (S) | 363 | 1 | 500950 239650 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SW) | 373 | 1 | 500400 240100 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D6NE (E) | 384 | 1 | 501700 241600 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | (SW) | 386 | 1 | 500450 240050 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | (SW) | 389 | 1 | 500550 240000 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D7SW (SE) | 398 | 1 | 502100 241150 |

| 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 | D6NE (E) | 403 | 1 | 501700 241587 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SW) | 406 | 1 | 500350 240100 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D10SE (NE) | 412 | 1 | 501750 241650 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SW) | 425 | 1 | 500550 239950 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SW) | 430 | 1 | 500450 240000 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D6NE (E) | 431 | 1 | 501750 241600 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | D6NE (E) | 450 | 1 | 501850 241550 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D11SW (NE) | 474 | 1 | 502100 241850 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | D6NE (E) | 476 | 1 | 501900 241550 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | D7NW (E) | 485 | 1 | 502050 241450 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | D7NW (E) | 490 | 1 | 502000 241500 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface | D7SW (SE) | 493 | 1 | 502200 241100 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SW) | 496 | 1 | 500500 239900 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D7SW (SE) | 498 | 1 | 502200 241200 |
| 1 | Discharge Consents Operator: London Brick Company Limited Property Type: Domestic Property (Single) Location: 3 Pillinge Cottages Station Road, Millbrook, Bedford, Mk45 2jh Authority: Environment Agency, Anglian Region Catchment Area: Mid River Ouse / Elstow Brook Reference: Prcnf03360 Permit Version: 2 Effective Date: 24th January 1992 Issued Date: 24th January 1992 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Trib Elstow Brook Status: Post National Rivers Authority Legislation where issue date > 31/08/1989 Positional Accuracy: Located by supplier to within 100m | D1SW (SW) | 17 | 2 | 500800 240430 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|------------------|
| 1 | <p>Discharge Consents</p> <p>Operator: London Brick Property Property Type: Domestic Property (Single) Location: 3 Pillinge Cottages Station Road, Millbrook, Bedford, Mk45 2jh Authority: Environment Agency, Anglian Region Catchment Area: Mid River Ouse / Elstow Brook Reference: Prcnf03360 Permit Version: 1 Effective Date: 28th August 1990 Issued Date: 28th August 1990 Revocation Date: 23rd January 1992 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Trib Elstow Brook Status: Post National Rivers Authority Legislation where issue date > 31/08/1989 Positional Accuracy: Located by supplier to within 10m</p> | D1SW (SW) | 17 | 2 | 500800 240430 |
| 2 | <p>Discharge Consents</p> <p>Operator: A & J Bull (Southern) Ltd Property Type: Not Supplied Location: Rookery N&S Brick Pits Green Lane, Stewartby, Mk43 9lz Authority: Environment Agency, Anglian Region Catchment Area: Not Supplied Reference: Prcnf14024 Permit Version: 1 Effective Date: 22nd May 1998 Issued Date: 22nd May 1998 Revocation Date: Not Supplied Discharge Type: Trade Effluent Discharge: Freshwater Stream/River Environment: Receiving Water: Partly Culverted Ditch Stewart Status: Post National Rivers Authority Legislation where issue date > 31/08/1989 Positional Accuracy: Located by supplier to within 10m</p> | D5NE (SW) | 21 | 2 | 501120 241310 |
| 2 | <p>Discharge Consents</p> <p>Operator: Sita Uk Property Type: WASTE COLLECTION/TREATMENT/DISPOSAL/MATERIALS RECOVERY Location: Rookery N&S Brick Pits Green Lane, Stewartby, Mk43 9lz, Mk43 9lz Authority: Environment Agency, Anglian Region Catchment Area: Mid River Ouse / Elstow Brook Reference: Prcnf14024 Permit Version: 1 Effective Date: 22nd May 1998 Issued Date: 22nd May 1998 Revocation Date: Not Supplied Discharge Type: Trade Discharge - Process Water Discharge: Freshwater Stream/River Environment: Receiving Water: Partly Culverted Ditch Stewart Status: Post National Rivers Authority Legislation where issue date > 31/08/1989 Positional Accuracy: Located by supplier to within 100m</p> | D5NE (SW) | 21 | 2 | 501120 241310 |
| 3 | <p>Discharge Consents</p> <p>Operator: Shanks & Mcewan (Southern) Ltd Property Type: Undefined Or Other Location: Rookery North Claypit, Stewartby, Bedford Authority: Environment Agency, Anglian Region Catchment Area: Mid River Ouse / Elstow Brook Reference: Pr1nf1802 Permit Version: 1 Effective Date: 30th January 1985 Issued Date: 30th January 1985 Revocation Date: 19th February 1992 Discharge Type: Trade Discharge - Process Water Discharge: Freshwater Stream/River Environment: Receiving Water: Trib Elstow Brook Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989 Positional Accuracy: Located by supplier to within 100m</p> | D10NE (N) | 22 | 2 | 501600 242200 |
| 4 | <p>Enforcement and Prohibition Notices</p> <p>Location: Stewartby Works, Stewartby, BEDFORD, Bedfordshire, MK43 9LE Permit Reference: AL9467 Enforcement Date: Not Supplied Details: Not submitting details of releases in accordance with conditions in authorisation; not submitting information on improvement programme; under EPA90, served 1993/94 Positional Accuracy: Unknown</p> | D14SE (N) | 278 | 2 | 501850 242446 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|--|--|------------------------------|---------|---------------|
| 5 | <p>Integrated Pollution Controls</p> <p>Name: Hanson Building Products Ltd Location: Stewartby Works, Stewartby, BEDFORD, Bedfordshire, MK43 9LZ Authority: Environment Agency, Anglian Region Permit Reference: AH9464 Dated: 30th June 1993 Process Type: IPC application for process that was regulated by HMIP for air releases under previous legislation Description: 3.6 A (A) Ceramic production within the Mineral Industry Status: Authorisation superseded by a substantial or non substantial variationSuperseded Positional Accuracy: Automatically positioned to the address</p> | D14SE (N) | 320 | 2 | 501874 242481 |
| 5 | <p>Integrated Pollution Controls</p> <p>Name: Hanson Building Products Ltd Location: Stewartby Works, BEDFORD, Bedfordshire, MK43 9LZ Authority: Environment Agency, Anglian Region Permit Reference: BC8015 Dated: 24th November 1998 Process Type: IPC minor (non-substantial) variation to previous variation Description: 3.6 A (A) Ceramic production within the Mineral Industry Status: Authorisation superseded by a substantial or non substantial variationSuperseded Positional Accuracy: Automatically positioned to the address</p> | D14SE (N) | 322 | 2 | 501879 242481 |
| 5 | <p>Integrated Pollution Controls</p> <p>Name: Hanson Building Products Ltd Location: Stewartby, Bedford, Bedfordshire, MK43 9LZ Authority: Environment Agency, Anglian Region Permit Reference: Bx8378 Dated: 28th April 2004 Process Type: IPC minor (non-substantial) variation to previous variation Description: 3.6 A (A) Ceramic production within the Mineral Industry Status: Revoked - Now IPPC Positional Accuracy: Automatically positioned to the address</p> | D14SE (N) | 324 | 2 | 501874 242486 |
| 5 | <p>Integrated Pollution Controls</p> <p>Name: Hanson Building Products Ltd Location: Stewartby, BEDFORD, Bedfordshire, MK43 9LZ Authority: Environment Agency, Anglian Region Permit Reference: Bt3722 Dated: 30th September 2002 Process Type: IPC minor (non-substantial) variation to previous variation Description: 3.6 A (A) Ceramic production within the Mineral Industry Status: Authorisation superseded by a substantial or non substantial variationSuperseded Positional Accuracy: Automatically positioned to the address</p> | D14SE (N) | 324 | 2 | 501874 242486 |
| 5 | <p>Integrated Pollution Controls</p> <p>Name: Hanson Building Products Ltd Location: Stewartby, BEDFORD, Bedfordshire, MK43 9LZ Authority: Environment Agency, Anglian Region Permit Reference: Bt1452 Dated: 22nd August 2002 Process Type: IPC minor (non-substantial) variation to previous variation Description: 3.6 A (A) Ceramic production within the Mineral Industry Status: Authorisation superseded by a substantial or non substantial variationSuperseded Positional Accuracy: Automatically positioned to the address</p> | D14SE (N) | 324 | 2 | 501874 242486 |
| 5 | <p>Integrated Pollution Controls</p> <p>Name: Hanson Building Products Ltd Location: Stewartby, BEDFORD, Bedfordshire, MK43 9LZ Authority: Environment Agency, Anglian Region Permit Reference: Bs8834 Dated: 25th July 2002 Process Type: IPC minor (non-substantial) variation to previous variation Description: 3.6 A (A) Ceramic production within the Mineral Industry Status: Authorisation superseded by a substantial or non substantial variationSuperseded Positional Accuracy: Automatically positioned to the address</p> | D14SE (N) | 324 | 2 | 501874 242486 |
| 5 | <p>Integrated Pollution Controls</p> <p>Name: Hanson Building Products Ltd Location: Stewartby, BEDFORD, Bedfordshire, MK43 9LZ Authority: Environment Agency, Anglian Region Permit Reference: Br9545 Dated: 13th April 2002 Process Type: IPC minor (non-substantial) variation to previous variation Description: 3.6 A (A) Ceramic production within the Mineral Industry Status: Authorisation superseded by a substantial or non substantial variationSuperseded Positional Accuracy: Automatically positioned to the address</p> | D14SE (N) | 324 | 2 | 501874 242486 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|---------------|
| 5 | <p>Integrated Pollution Controls</p> <p>Name: Hanson Building Products Ltd Location: Stewartby, BEDFORD, Bedfordshire, MK43 9LZ Authority: Environment Agency, Anglian Region Permit Reference: Bm1954 Dated: 25th September 2001 Process Type: IPC minor (non-substantial) variation to previous variation Description: 3.6 A (A) Ceramic production within the Mineral Industry Status: Authorisation superseded by a substantial or non substantial variationSuperseded</p> <p>Positional Accuracy: Automatically positioned to the address</p> | D14SE (N) | 324 | 2 | 501874 242486 |
| 5 | <p>Integrated Pollution Controls</p> <p>Name: Hanson Building Products Ltd Location: Stewartby Works, Stewartby, BEDFORD, Bedfordshire, MK43 9LZ Authority: Environment Agency, Anglian Region Permit Reference: Bi5841 Dated: 31st May 2000 Process Type: IPC minor (non-substantial) variation to previous variation Description: 3.6 A (A) Ceramic production within the Mineral Industry Status: Authorisation superseded by a substantial or non substantial variationSuperseded</p> <p>Positional Accuracy: Automatically positioned to the address</p> | D14SE (N) | 324 | 2 | 501874 242486 |
| 5 | <p>Integrated Pollution Controls</p> <p>Name: Hanson Building Products Ltd Location: Stewartby Works, Stewartby, BEDFORD, Bedfordshire, MK43 9LZ Authority: Environment Agency, Anglian Region Permit Reference: BH8403 Dated: 15th February 2000 Process Type: IPC minor (non-substantial) variation to previous variation Description: 3.6 A (A) Ceramic production within the Mineral Industry Status: Authorisation superseded by a substantial or non substantial variationSuperseded</p> <p>Positional Accuracy: Automatically positioned to the address</p> | D14SE (N) | 324 | 2 | 501874 242486 |
| 5 | <p>Integrated Pollution Controls</p> <p>Name: Hanson Building Products Ltd Location: Stewartby Works, Stewartby, BEDFORD, MK43 9LE Authority: Environment Agency, Anglian Region Permit Reference: AL9467 Dated: 1st February 1994 Process Type: IPC minor (non-substantial) variation to previous variation Description: 3.6 A (A) Ceramic production within the Mineral Industry Status: Authorisation superseded by a substantial or non substantial variationSuperseded</p> <p>Positional Accuracy: Automatically positioned to the address</p> | D14SE (N) | 324 | 2 | 501874 242486 |
| 5 | <p>Integrated Pollution Controls</p> <p>Name: Hanson Brick Ltd Location: Stewartby, BEDFORD, Bedfordshire, MK43 9LZ Authority: Environment Agency, Anglian Region Permit Reference: Bu8444 Dated: Not Supplied Process Type: IPC minor (non-substantial) variation to previous variation Description: 3.6 A (A) Ceramic production within the Mineral Industry Status: Application has met the requirements for authorisation (but not yet authorised)Not Yet Authorised</p> <p>Positional Accuracy: Automatically positioned to the address</p> | D14SE (N) | 324 | 2 | 501874 242486 |
| 5 | <p>Integrated Pollution Controls</p> <p>Name: Hanson Building Products Ltd Location: Stewartby Works, BEDFORD, Bedfordshire, MK43 9LZ Authority: Environment Agency, Anglian Region Permit Reference: BC4834 Dated: 26th March 1999 Process Type: IPC major (substantial) variation Description: 3.6 A (A) Ceramic production within the Mineral Industry Status: Authorisation superseded by a substantial or non substantial variationSuperseded</p> <p>Positional Accuracy: Automatically positioned to the address</p> | D14SE (N) | 327 | 2 | 501879 242486 |
| 5 | <p>Integrated Pollution Controls</p> <p>Name: Hanson Building Products Ltd Location: Stewartby Works, BEDFORD, Bedfordshire, MK43 9LZ Authority: Environment Agency, Anglian Region Permit Reference: BF9379 Dated: 21st April 1999 Process Type: IPC minor (non-substantial) variation to previous variation Description: 3.6 A (A) Ceramic production within the Mineral Industry Status: Authorisation superseded by a substantial or non substantial variationSuperseded</p> <p>Positional Accuracy: Automatically positioned to the address</p> | D14SE (N) | 331 | 2 | 501879 242491 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|------------------|
| 6 | <p>Integrated Pollution Prevention And Control</p> <p>Name: Covanta Energy Limited Location: Rookery Pit 3 Energy From Waste Facility, Rookery South Pit, Nr Stewartby, Bedford, Bedfordshire Authority: Environment Agency, Anglian Region Permit Reference: NP3030TV Original Permit Ref: Np3030tv Effective Date: Not Supplied Status: Valid Application Type: Application App. Sub Type: New Positional Accuracy: Located by supplier to within 100m Activity Code: 5.1 A(1) (C) Activity Description: Incineration Of Non Hazardous Waste Greater Than 1 T/Hr Primary Activity: Y Activity Code: 0.0 Associated Process Activity Description: Associated Process Primary Activity: N</p> | D6SW (SW) | 0 | 2 | 501280 241010 |
| 7 | <p>Integrated Pollution Prevention And Control</p> <p>Name: Ballast Phoenix Location: Rookery Pit South, Rookery Pit, Rookery South, Stewartby, Bedfordshire Authority: Environment Agency, Anglian Region Permit Reference: LP3236CZ Original Permit Ref: Lp3236cz Effective Date: Not Supplied Status: Valid Application Type: Application App. Sub Type: New Positional Accuracy: Located by supplier to within 10m Activity Code: 1.1 A(1) (A) Activity Description: Combustion; Any Fuel Greater Or Equal To 50Mw Primary Activity: Y</p> | D6NW (SW) | 101 | 2 | 501310 241370 |
| 7 | <p>Integrated Pollution Prevention And Control</p> <p>Name: Covanta Energy Limited Location: Rookery Pit Energy Recovery Facility, Rookery Pit Energy Recovery Facility, Rookery South., Stewartby, Bedfordshire, MK43 9LY Authority: Environment Agency, Anglian Region Permit Reference: WP3234DY Original Permit Ref: Wp3234dy Effective Date: Not Supplied Status: Valid Application Type: Application App. Sub Type: New Positional Accuracy: Located by supplier to within 10m Activity Code: 5.1 A(1) (C) Activity Description: INCINERATION, OTHER THAN IN COURSE OF BURNING LANDFILL GAS, SOLID OR LIQUID WASTE, OF ANY GASEOUS COMPOUND CONTAINING HALOGENS IN A PLANT WHICH IS NOT AN INCINERATION OR A CO-INCINERATION PLANT. Primary Activity: Y</p> | D6NW (SW) | 101 | 2 | 501310 241370 |
| 8 | <p>Integrated Pollution Prevention And Control</p> <p>Name: Hanson Building Products Limited Location: Stewartby, Bedford, MK43 9LZ Authority: Environment Agency, Anglian Region Permit Reference: SP3534LG Original Permit Ref: Bx1616iu Effective Date: 1st November 2006 Status: Superseded By Variation Application Type: Variation App. Sub Type: Standard Positional Accuracy: Automatically positioned to the address Activity Code: 0.0 Associated Process Activity Description: Associated Process Primary Activity: N Activity Code: 3.6 A(1) (A) (I) Activity Description: Manufacturing Ceramic Products: Kiln Production Capacity Greater Than 75 Tonnes Per Day Primary Activity: Y</p> | D14SE (N) | 324 | 2 | 501874 242486 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|--|--|------------------------------|---------|------------------|
| 8 | <p>Integrated Pollution Prevention And Control</p> <p>Name: Hanson Building Products Limited Location: Stewartby, Bedford, Bedfordshire, MK43 9LZ Authority: Environment Agency, Anglian Region Permit Reference: Bx1616iu Original Permit Ref: Bx1616iu Effective Date: 24th November 2004 Status: Superseded By Variation Application Type: Application App. Sub Type: New Positional Accuracy: Automatically positioned to the address Activity Code: 0.0 Associated Process Activity Description: Associated Process Primary Activity: N Activity Code: 3.6 A(1) (A) (I) Activity Description: Manufacturing Ceramic Products: Kiln Production Capacity Greater Than 75 Tonnes Per Day Primary Activity: Y</p> | D14SE (N) | 324 | 2 | 501874 242486 |
| 9 | <p>Integrated Pollution Prevention And Control</p> <p>Name: Hanson Building Products Limited Location: Stewartby Brickworks, Stewartby Brickworks, Stewartby, BEDFORD, Bedfordshire, MK43 9LZ Authority: Environment Agency, Anglian Region Permit Reference: RP3134GW Original Permit Ref: Bx1616iu Effective Date: 9th June 2009 Status: Surrender Effective Application Type: Surrender App. Sub Type: Whole Positional Accuracy: Manually positioned to the address or location Activity Code: 0.0 Associated Process Activity Description: Associated Process Primary Activity: N Activity Code: 3.6 A(1) (A) (I) Activity Description: Manufacturing Ceramic Products: Kiln Production Capacity Greater Than 75 Tonnes Per Day Primary Activity: Y</p> | D14NE (N) | 432 | 2 | 501718 242631 |
| 10 | <p>Integrated Pollution Prevention And Control</p> <p>Name: Wrg Waste Services Ltd Location: Stewartby Landfill Site, Technical Services, Green Lane, Stewartby, Bedford, Bedfordshire, MK43 9LY Authority: Environment Agency, Anglian Region Permit Reference: CP3737LB Original Permit Ref: Bv4576ik Effective Date: Not Supplied Status: Valid Application Type: Variation App. Sub Type: Minor Positional Accuracy: Manually positioned within the geographical locality 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</p> | D14NW (N) | 522 | 2 | 501355 242716 |
| 11 | <p>Integrated Pollution Prevention And Control</p> <p>Name: Fcc Waste Services (Uk) Limited Location: Stewartby Leachate Treatment Plant, Stewartby Leachate Treatment Plant, Green Lane., Stewartby, Bedford, Bedfordshire, MK43 9LY Authority: Environment Agency, Anglian Region Permit Reference: RP3334DA Original Permit Ref: Bv0953im Effective Date: 9th January 2017 Status: Effective Application Type: Variation App. Sub Type: Simple Standard Variation Positional Accuracy: Located by supplier to within 10m Activity Code: 5.4 A(1) a) (ii) Activity Description: DISPOSAL OF > 50 T/D NON-HAZARDOUS WASTE (> 100 T/D IF ONLY AD) INVOLVING PHYSICO-CHEMICAL TREATMENT Primary Activity: N Activity Code: 5.3 A(1) a) (i) Activity Description: DISPOSAL OR RECOVERY OF HAZARDOUS WASTE WITH A CAPACITY EXCEEDING 10 TONNES PER DAY INVOLVING BIOLOGICAL TREATMENT Primary Activity: N Activity Code: 5.4 A(1) a) (i) Activity Description: DISPOSAL OF > 50 T/D NON-HAZARDOUS WASTE (> 100 T/D IF ONLY AD) INVOLVING BIOLOGICAL TREATMENT Primary Activity: Y</p> | D14NW (N) | 550 | 2 | 501260 242710 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
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| 11 | <p>Integrated Pollution Prevention And Control</p> <p>Name: Fcc Waste Services (Uk) Limited Location: Stewartby Leachate Treatment Plant, Stewartby Leachate Treatment Plant, Green Lane,,Stewartby, Bedford, Bedfordshire, MK43 9LY Authority: Environment Agency, Anglian Region Permit Reference: ZP3433EL Original Permit Ref: Bv0953im Effective Date: 5th December 2013 Status: Superseded By Variation Application Type: Variation App. Sub Type: Minor Positional Accuracy: Located by supplier to within 10m Activity Code: 5.3 A(1) a) (i) Activity Description: DISPOSAL OR RECOVERY OF HAZARDOUS WASTE WITH A CAPACITY EXCEEDING 10 TONNES PER DAY INVOLVING BIOLOGICAL TREATMENT Primary Activity: N Activity Code: 5.4 A(1) a) (ii) Activity Description: DISPOSAL OF > 50 T/D NON-HAZARDOUS WASTE (> 100 T/D IF ONLY AD) INVOLVING PHYSICO-CHEMICAL TREATMENT Primary Activity: N Activity Code: 5.4 A(1) a) (i) Activity Description: DISPOSAL OF > 50 T/D NON-HAZARDOUS WASTE (> 100 T/D IF ONLY AD) INVOLVING BIOLOGICAL TREATMENT Primary Activity: Y</p> | D14NW (N) | 550 | 2 | 501260 242710 |
| 11 | <p>Integrated Pollution Prevention And Control</p> <p>Name: Fcc Waste Services (Uk) Limited Location: Stewartby Leachate Treatment Plant, Stewartby Leachate Treatment Plant, Green Lane,,Stewartby, Bedford, Bedfordshire, MK43 9LY Authority: Environment Agency, Anglian Region Permit Reference: CP3938ZY Original Permit Ref: Bv0953im Effective Date: 4th January 2013 Status: Superseded By Variation Application Type: Variation App. Sub Type: Minor Positional Accuracy: Located by supplier to within 10m Activity Code: 5.3 A(1) (C) (II) Activity Description: Other Waste Disposal; Non-Hazardous Waste >50T/D By Physico-Chemical Treatment Primary Activity: Y Activity Code: 5.3 A(1) (C) (I) Activity Description: Other Waste Disposal; Non-Hazardous Waste >50T/D By Biological Treatment Primary Activity: N</p> | D14NW (N) | 550 | 2 | 501260 242710 |
| 12 | <p>Integrated Pollution Prevention And Control</p> <p>Name: Veolia Es (Uk) Limited Location: Stewartby Waste Management Facility Epr/Qp3237sc, Green Lane, Stewartby,, Bedford, MK43 9LY Authority: Environment Agency, Anglian Region Permit Reference: UP3235AA Original Permit Ref: Qp3237sc Effective Date: 24th March 2016 Status: Effective Application Type: Variation App. Sub Type: Standard Positional Accuracy: Located by supplier to within 10m Activity Code: 0.0 Associated Process Activity Description: Associated Process Primary Activity: N Activity Code: 5.6 A(1) a) Activity Description: TEMPORARY STORAGE OF HAZ WASTE NOT UNDER S 5.2 PENDING ACTIVITIES LISTED IN S 5.1, 5.2, 5.3 AND PARAGRAPH (B) OF THIS SECTION WITH A TOTAL CAPACITY > 50 TONNES, EXCL TEMP STORAGE WHERE GENERATED Primary Activity: N Activity Code: 5.3 A(1) a) (iii) Activity Description: DISPOSAL OR RECOVERY OF HAZ WASTE WITH CAPACITY EXCEEDING 10 TONNES PER DAY INVOLVING BLENDING OR MIXING PRIOR TO SUBMISSION TO ANY OF THE OTHER ACTIVITIES LISTED IN THIS SECTION OR IN SECTION 5.1 Primary Activity: Y</p> | D14NW (N) | 667 | 2 | 501330 242860 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|--|--|------------------------------|---------|------------------|
| 12 | <p>Integrated Pollution Prevention And Control</p> <p>Name: Fcc Waste Services (Uk) Limited Location: Stewartby Landfill Site, Stewartby Lanfill Site, Green Lane,Stewartby,, Bedford, Bedfordshire, MK43 9LY Authority: Environment Agency, Anglian Region Permit Reference: BP3533AB Original Permit Ref: Bv4576ik Effective Date: 5th June 2015 Status: Effective Application Type: Variation App. Sub Type: Standard Positional Accuracy: Located by supplier to within 10m 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</p> | D14NW (N) | 667 | 2 | 501330 242860 |
| 12 | <p>Integrated Pollution Prevention And Control</p> <p>Name: Veolia Es (Uk) Limited Location: Stewartby Waste Management Facility Epr/Qp3237sc, Green Lane, Stewartby,, Bedford, MK43 9LY Authority: Environment Agency, Anglian Region Permit Reference: NP3834EB Original Permit Ref: Qp3237sc Effective Date: 10th December 2013 Status: Superseded By Variation Application Type: Variation App. Sub Type: Minor Positional Accuracy: Located by supplier to within 10m Activity Code: 0.0 Associated Process Activity Description: Associated Process Primary Activity: N Activity Code: 5.3 A(1) a) (iii) Activity Description: DISPOSAL OR RECOVERY OF HAZ WASTE WITH CAPACITY EXCEEDING 10 TONNES PER DAY INVOLVING BLENDING OR MIXING PRIOR TO SUBMISSION TO ANY OF THE OTHER ACTIVITIES LISTED IN THIS SECTION OR IN SECTION 5.1 Primary Activity: Y Activity Code: 5.6 A(1) a) Activity Description: TEMPORARY STORAGE OF HAZ WASTE NOT UNDER S 5.2 PENDING ACTIVITIES LISTED IN S 5.1, 5.2, 5.3 AND PARAGRAPH (B) OF THIS SECTION WITH A TOTAL CAPACITY > 50 TONNES, EXCL TEMP STORAGE WHERE GENERATED Primary Activity: N</p> | D14NW (N) | 667 | 2 | 501330 242860 |
| 12 | <p>Integrated Pollution Prevention And Control</p> <p>Name: Fcc Environment (Uk) Limited Location: Stewartby Landfill Site, Stewartby Lanfill Site, Green Lane,Stewartby,, Bedford, Bedfordshire, MK43 9LY Authority: Environment Agency, Anglian Region Permit Reference: LP3136NJ Original Permit Ref: Bv4576ik Effective Date: 1st October 2013 Status: Superseded By Variation Application Type: Variation App. Sub Type: Simple Standard Variation Positional Accuracy: Located by supplier to within 10m 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</p> | D14NW (N) | 667 | 2 | 501330 242860 |
| 12 | <p>Integrated Pollution Prevention And Control</p> <p>Name: Fcc Waste Services (Uk) Limited Location: Stewartby Landfill Site, Stewartby Lanfill Site, Green Lane,Stewartby,, Bedford, Bedfordshire, MK43 9LY Authority: Environment Agency, Anglian Region Permit Reference: PP3137ZV Original Permit Ref: Bv4576ik Effective Date: 7th June 2013 Status: Superseded By Variation Application Type: Variation App. Sub Type: Simple Standard Variation Positional Accuracy: Located by supplier to within 10m 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 Activity Code: 1.1 A(1) (B) (III) Activity Description: Combustion; Waste Derived Fuel Greater Or Equal To 3Mw But Less Than 50Mw Primary Activity: N</p> | D14NW (N) | 667 | 2 | 501330 242860 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
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| 12 | <p>Integrated Pollution Prevention And Control</p> <p>Name: Fcc Waste Services (Uk) Limited Location: Stewartby Landfill Site, Stewartby Lanfill Site, Green Lane,Stewartby,, Bedford, Bedfordshire, MK43 9LY Authority: Environment Agency, Anglian Region Permit Reference: TP3138ZJ Original Permit Ref: Bv4576ik Effective Date: 17th December 2012 Status: Superseded By Variation Application Type: Variation App. Sub Type: Minor Positional Accuracy: Located by supplier to within 10m 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</p> | D14NW (N) | 667 | 2 | 501330 242860 |
| 12 | <p>Integrated Pollution Prevention And Control</p> <p>Name: Wrg Waste Services Ltd Location: Stewartby Landfill Site, Stewartby Lanfill Site, Green Lane,Stewartby,, Bedford, Bedfordshire, MK43 9LY Authority: Environment Agency, Anglian Region Permit Reference: TP3935HN Original Permit Ref: Bv4576ik Effective Date: 31st January 2011 Status: Superseded By Variation Application Type: Variation App. Sub Type: Simple Standard Variation Positional Accuracy: Located by supplier to within 100m 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</p> | D14NW (N) | 667 | 2 | 501330 242860 |
| 12 | <p>Integrated Pollution Prevention And Control</p> <p>Name: Wrg Waste Services Ltd Location: Stewartby Landfill Site, Stewartby Lanfill Site, Green Lane,Stewartby,, Bedford, Bedfordshire, MK43 9LY Authority: Environment Agency, Anglian Region Permit Reference: MP3131XQ Original Permit Ref: Bv4576ik Effective Date: 30th May 2008 Status: Superseded By Variation Application Type: Variation App. Sub Type: Minor Positional Accuracy: Located by supplier to within 10m 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</p> | D14NW (N) | 667 | 2 | 501330 242860 |
| 12 | <p>Integrated Pollution Prevention And Control</p> <p>Name: Wrg Waste Services Ltd Location: Stewartby Landfill Site, Green Lane, Bedford, Bedfordshire, MK43 9LY Authority: Environment Agency, Anglian Region Permit Reference: Bv4576ik Original Permit Ref: Bv4576ik Effective Date: 31st January 2005 Status: Superseded By Variation Application Type: Application App. Sub Type: New Positional Accuracy: Located by supplier to within 10m 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</p> | D14NW (N) | 667 | 2 | 501330 242860 |
| 12 | <p>Integrated Pollution Prevention And Control</p> <p>Name: Veolia Es (Uk) Limited Location: Stewartby Waste Management Facility Epr/Qp3237sc, Green Lane, Stewartby,, Bedford, MK43 9LY Authority: Environment Agency, Anglian Region Permit Reference: Qp3237sc Original Permit Ref: Qp3237sc Effective Date: 29th September 2006 Status: Superseded By Variation Application Type: Application App. Sub Type: New Positional Accuracy: Automatically positioned to the address Activity Code: 5.3 A(1) (A) Activity Description: Other Waste Disposal; Hazardous Waste Greater Than 10T/D Primary Activity: Y</p> | D14NW (N) | 670 | 2 | 501331 242863 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
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| 12 | <p>Integrated Pollution Prevention And Control</p> <p>Name: Wrg Waste Services Ltd Location: Marston Vale Treatment Works, Green Lane, Stewartby, Bedford, Bedfordshire, MK43 9LY Authority: Environment Agency, Anglian Region Permit Reference: Bv0953im Original Permit Ref: Bv0953im Effective Date: 1st August 2005 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) (II) Activity Description: Other Waste Disposal; Non-Hazardous Waste >50T/D By Physico-Chemical Treatment Primary Activity: Y Activity Code: 5.3 A(1) (C) (I) Activity Description: Other Waste Disposal; Non-Hazardous Waste >50T/D By Biological Treatment Primary Activity: N</p> | D14NW (N) | 670 | 2 | 501331 242863 |
| 12 | <p>Integrated Pollution Prevention And Control</p> <p>Name: Wrg Waste Services Ltd Location: Green Lane, Stewartby, BEDFORD, Bedfordshire, MK43 9LY Authority: Environment Agency, Anglian Region Permit Reference: Bv4576 Original Permit Ref: Bv4576ik Effective Date: Not Supplied Status: Valid Application Type: Not Supplied App. Sub Type: Not Supplied 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: Not Supplied</p> | D14NW (N) | 670 | 2 | 501331 242863 |
| 13 | <p>Local Authority Pollution Prevention and Controls</p> <p>Name: Hanson Brick Location: Broadmead Road, Stewartby, BEDFORD, Bedfordshire, MK43 9LZ Authority: Bedford Borough Council, Environmental Health Department Permit Reference: Epa30 Dated: 6th January 1994 Process Type: Local Authority Air Pollution Control Description: PG3/8 Quarry processes including roadstone plants and the size reduction of bricks, tiles and concrete Status: Authorisation revokedRevoked Positional Accuracy: Manually positioned to the address or location</p> | D14SE (N) | 324 | 3 | 501875 242485 |
| | Nearest Surface Water Feature | D1SE (SW) | 0 | - | 501018 240555 |
| 14 | <p>Pollution Incidents to Controlled Waters</p> <p>Property Type: Industrial: Other Location: Bedford District Authority: Environment Agency, Anglian Region Pollutant: Oils - Diesel (Including Agricultural) Note: Elstow Brook Incident Date: 2nd February 1994 Incident Reference: 2150 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: In River Works Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m</p> | D14NE (N) | 602 | 2 | 501700 242800 |
| 15 | <p>Pollution Incidents to Controlled Waters</p> <p>Property Type: Not Given Location: STEWARTBY , Bedfordshire Authority: Environment Agency, Anglian Region Pollutant: Oils - Other Oil Note: Tributary Of Stewartby Lake Incident Date: 3rd March 1997 Incident Reference: 3564 Catchment Area: Unknown Receiving Water: Freshwater Stream/River Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Unknown</p> | D9NW (NW) | 653 | 2 | 500700 241995 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|------------------|
| 15 | Pollution Incidents to Controlled Waters Property Type: Not Given Location: Bedford District Authority: Environment Agency, Anglian Region Pollutant: Oils - Other Oil Note: Tributary Of Stewartby Lake Incident Date: 3rd March 1997 Incident Reference: 3564 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m | D9NW (NW) | 655 | 2 | 500700 242000 |
| | River Quality Name: Elstow Bk. GQA Grade: River Quality C Reach: Stewartby Lake Outlet A421 Estimated Distance (km): 4.5 Flow Rate: Flow less than 0.31 cumecs Flow Type: River Year: 2000 | D13SE (NW) | 504 | 2 | 501047 242521 |
| 16 | Substantiated Pollution Incident Register Authority: Environment Agency - Anglian Region, Central Area Incident Date: 20th November 2001 Incident Reference: 44150 Water Impact: Category 4 - No Impact Air Impact: Category 4 - No Impact Land Impact: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 10m Pollutant: Oils - Unknown | D15SW (NE) | 584 | 2 | 502147 242601 |
| 17 | Substantiated Pollution Incident Register Authority: Environment Agency - Anglian Region, Central Area Incident Date: 31st July 2003 Incident Reference: 178197 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 Materials and WastesAlgae | D13NE (NW) | 633 | 2 | 501060 242670 |
| 18 | Water Abstractions Operator: Hanson Brick Ltd Licence Number: 6/33/12/*S/0080 Permit Version: 100 Location: Stream At Stewartby Authority: Environment Agency, Anglian Region Abstraction: Other Industrial/Commercial/Public Services: General Use (Medium Loss) Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Status: Perpetuity Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st October 1995 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m | D14NE (N) | 502 | 2 | 501700 242700 |
| 19 | Water Abstractions Operator: Hanson Brick Ltd Licence Number: 6/33/12/*S/0080 Permit Version: 100 Location: Stream At Stewartby Authority: Environment Agency, Anglian Region Abstraction: Other Industrial/Commercial/Public Services: General Use (Medium Loss) Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Status: Perpetuity Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st October 1995 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m | D13NE (N) | 658 | 2 | 501200 242800 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
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| | Water Abstractions Operator: R J Parrish & Son Licence Number: 6/33/12/*S/0067 Permit Version: 100 Location: Pond At Ampthill Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Status: Perpetuity Authorised Start: 01 April Authorised End: 30 September Permit Start Date: 1st November 1996 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m | D4SW (SE) | 1116 | 2 | 502800 240400 |
| | Water Abstractions Operator: R J Parrish & Son Licence Number: 6/33/12/*S/0067 Permit Version: 100 Location: Pond At Ampthill Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Status: Perpetuity Authorised Start: 01 April Authorised End: 30 September Permit Start Date: 1st November 1996 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m | D4SW (SE) | 1226 | 2 | 502900 240500 |
| 20 | Water Industry Act Referrals Name: Shanks Waste Services Ltd Location: STEWARTBY, GREEN LANE, BEDFORD, BEDFORDSHIRE, MK43 9LZ Authority: Environment Agency, Anglian Region Permit Reference: Bv6021 Dated: 18th August 2003 Process Type: Permissions or amendments to discharge under the Water Industry Act 1991 Description: Processes which result in the discharge of Special Category effluents under The Trade Effluents (Prescribed Processes and Substances) Regulations Status: Authorisation either revoked or cancelledCancelled Positional Accuracy: Manually positioned within the geographical locality | D10NW (N) | 0 | 2 | 501502 242202 |
| 20 | Water Industry Act Referrals Name: Shanks And Mcewan Ltd Location: SHANKS AND MCEWAN LTD, MARSTON VALE LEACHATE TREATMENT WORKS, ""L"" FIELD LANDFILL SITE, GREEN LANE, STEWARTBY, BEDFORDSHIRE, MK43 9LY Authority: Environment Agency, Anglian Region Permit Reference: AU2018 Dated: 27th November 1995 Process Type: Permissions or amendments to discharge under the Water Industry Act 1991 Description: Processes which result in the discharge of Special Category effluents under The Trade Effluents (Prescribed Processes and Substances) Regulations Status: Authorisation either revoked or cancelledCancelled Positional Accuracy: Manually positioned to the road within the address or location | D10NW (N) | 0 | 2 | 501543 242193 |
| 21 | Water Industry Act Referrals Name: Shanks And Mcewan Ltd Location: TECHNICAL SERVICES, GREEN LANE, STEWARTBY, BEDFORD, BEDFORDSHIRE, MK43 9LY Authority: Environment Agency, Anglian Region Permit Reference: AE8801 Dated: 24th March 1992 Process Type: Permissions or amendments to discharge under the Water Industry Act 1991 Description: Processes which result in the discharge of Special Category effluents under The Trade Effluents (Prescribed Processes and Substances) Regulations Status: Application cancelled Positional Accuracy: Manually positioned to the road within the address or location | D10NE (N) | 0 | 2 | 501707 242191 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
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| 22 | <p>Water Industry Act Referrals</p> <p>Name: Shanks And Mcewan Ltd Location: SHANKS AND MCEWAN LTD, GREEN LANE, STEWARTBY, BEDFORD, BEDFORDSHIRE, MK43 9LY Authority: Environment Agency, Anglian Region Permit Reference: AB3331 Dated: 8th October 1991 Process Type: Permissions or amendments to discharge under the Water Industry Act 1991 Description: Processes which result in the discharge of Special Category effluents under The Trade Effluents (Prescribed Processes and Substances) Regulations Status: Application cancelled Positional Accuracy: Manually positioned to the address or location</p> | D14SW (N) | 221 | 2 | 501529 242433 |
| 23 | <p>Water Industry Act Referrals</p> <p>Name: Shanks Waste Services Ltd Location: STEWARTBY, GREEN LANE, BEDFORD, BEDFORDSHIRE, MK43 9LZ Authority: Environment Agency, Anglian Region Permit Reference: B14841 Dated: 18th September 2000 Process Type: Permissions or amendments to discharge under the Water Industry Act 1991 Description: Processes which result in the discharge of Special Category effluents under The Trade Effluents (Prescribed Processes and Substances) Regulations Status: Authorisation either revoked or cancelledCancelled Positional Accuracy: Manually positioned to the address or location</p> | D14SE (N) | 250 | 2 | 501772 242444 |
| | <p>Groundwater Vulnerability</p> <p>Soil Classification: Not classified Map Sheet: Sheet 31 Bedfordshire Scale: 1:100,000</p> | D6NE (E) | 0 | 2 | 501627 241587 |
| | <p>Groundwater Vulnerability</p> <p>Soil Classification: Soils of Intermediate Leaching Potential (I1) - Soils which can possibly transmit a wide range of pollutants Map Sheet: Sheet 31 Bedfordshire Scale: 1:100,000</p> | D1NE (SW) | 0 | 2 | 501061 240621 |
| | <p>Groundwater Vulnerability</p> <p>Soil Classification: Soils of Low Leaching Potential - Soils in which pollutants are unlikely to penetrate the soil layer because water movement is largely horizontal or they have large ability to attenuate diffuse pollutants. Lateral flow from these soils contribute to groundwater recharge elsewhere in the catchment Map Sheet: Sheet 31 Bedfordshire Scale: 1:100,000</p> | D1NE (SW) | 0 | 2 | 501058 240915 |
| | <p>Groundwater Vulnerability</p> <p>Soil Classification: Soils of High Leaching Potential (U) - Soil information for restored mineral workings and urban areas is based on fewer observations than elsewhere. A worst case vulnerability classification (H) assumed, until proved otherwise Map Sheet: Sheet 31 Bedfordshire Scale: 1:100,000</p> | D5NE (SW) | 0 | 2 | 501207 241363 |
| | <p>Drift Deposits</p> <p>None</p> | | | | |
| | <p>Bedrock Aquifer Designations</p> <p>Aquifer Designation: Unproductive Strata</p> | D6NE (E) | 0 | 1 | 501627 241587 |
| | <p>Bedrock Aquifer Designations</p> <p>Aquifer Designation: Unproductive Strata</p> | (S) | 0 | 1 | 501627 240000 |
| | <p>Superficial Aquifer Designations</p> <p>Aquifer Designation: Secondary Aquifer - Undifferentiated</p> | D10SW (NW) | 0 | 1 | 501312 241734 |
| | <p>Superficial Aquifer Designations</p> <p>Aquifer Designation: Secondary Aquifer - A</p> | D1NE (SW) | 0 | 1 | 501044 240894 |
| | <p>Extreme Flooding from Rivers or Sea without Defences</p> <p>Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied</p> | D9SE (W) | 49 | 2 | 501202 241631 |
| | <p>Flooding from Rivers or Sea without Defences</p> <p>Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied</p> | D9SE (W) | 51 | 2 | 501197 241625 |
| | <p>Areas Benefiting from Flood Defences</p> <p>None</p> | | | | |

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| | Flood Water Storage Areas None | | | | |
| | Flood Defences None | | | | |
| 24 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 28.4 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D1SE (SW) | 0 | 4 | 501049 240586 |
| 25 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 23.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D1NE (SW) | 0 | 4 | 501031 240601 |
| 26 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D1NE (SW) | 0 | 4 | 501031 240603 |
| 27 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 751.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D5NE (SW) | 0 | 4 | 501102 241292 |
| 28 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 130.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D10NE (N) | 0 | 4 | 501611 242161 |
| 29 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1750.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D1SE (SW) | 0 | 4 | 501135 240542 |
| 30 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 536.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D1NE (SW) | 0 | 4 | 501031 240603 |
| 31 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 359.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D1SW (SW) | 0 | 4 | 500801 240408 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
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| 32 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 242.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D1SW (SW) | 0 | 4 | 500798 240378 |
| 33 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 30.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D1SW (SW) | 0 | 4 | 500801 240408 |
| 34 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 22.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D1SW (SW) | 0 | 4 | 500796 240429 |
| 35 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 448.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D11NW (NE) | 1 | 4 | 501950 242000 |
| 36 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 185.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D6NW (SW) | 2 | 4 | 501376 241329 |
| 37 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 61.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D10NW (N) | 13 | 4 | 501475 242209 |
| 38 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 51.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D1SW (SW) | 14 | 4 | 500784 240479 |
| 39 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 989.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 2 | D10SW (NW) | 21 | 4 | 501266 241739 |
| 40 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 55.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D10NW (N) | 21 | 4 | 501475 242209 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
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| 41 | OS Water Network Lines Watercourse Form: Lake Watercourse Length: 103.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 0 | D10SW (W) | 29 | 4 | 501319 241616 |
| 42 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 12.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 0 | D10SW (W) | 29 | 4 | 501329 241677 |
| 43 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 2.5 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 0 | D10SW (W) | 30 | 4 | 501330 241679 |
| 44 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 10.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 0 | D10SW (W) | 30 | 4 | 501336 241687 |
| 45 | OS Water Network Lines Watercourse Form: Lake Watercourse Length: 400.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 0 | D10SW (NW) | 33 | 4 | 501492 241790 |
| 46 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 10.2 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D5NE (SW) | 35 | 4 | 501101 241293 |
| 47 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 260.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D10NW (N) | 43 | 4 | 501518 242252 |
| 48 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D5NE (SW) | 45 | 4 | 501093 241298 |
| 49 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.5 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D5NE (SW) | 50 | 4 | 501088 241301 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
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| 50 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 216.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D1NW (SW) | 51 | 4 | 500835 240681 |
| 51 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 102.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D1SW (SW) | 52 | 4 | 500885 240462 |
| 52 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 3.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D5NE (SW) | 54 | 4 | 501084 241303 |
| 53 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 54.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D5NE (SW) | 58 | 4 | 501081 241305 |
| 54 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 68.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D1SE (SW) | 73 | 4 | 500929 240531 |
| 55 | OS Water Network Lines Watercourse Form: Lake Watercourse Length: 7.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Stewartby Lake Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D5NE (W) | 78 | 4 | 501128 241529 |
| 56 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 134.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Stewartby Lake Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D5NE (W) | 81 | 4 | 501090 241459 |
| 57 | OS Water Network Lines Watercourse Form: Lake Watercourse Length: 19.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Stewartby Lake Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D5NE (W) | 81 | 4 | 501134 241552 |
| 58 | OS Water Network Lines Watercourse Form: Lake Watercourse Length: 106.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 2 | D5NE (W) | 81 | 4 | 501134 241552 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
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| 59 | OS Water Network Lines Watercourse Form: Lake Watercourse Length: 545.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Stewartby Lake Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D5NE (W) | 81 | 4 | 501134 241552 |
| 60 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 18.7 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D5NE (W) | 82 | 4 | 501096 241477 |
| 61 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 66.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Stewartby Lake Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D5NE (W) | 84 | 4 | 501123 241536 |
| 62 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 56.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 2 | D5NE (SW) | 106 | 4 | 501038 241336 |
| 63 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 348.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D5SW (SW) | 139 | 4 | 500883 241119 |
| 64 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 22.9 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D5SW (SW) | 145 | 4 | 500892 241140 |
| 65 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 240.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D5NE (W) | 148 | 4 | 500974 241366 |
| 66 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 7.1 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 2 | D5NE (W) | 160 | 4 | 500988 241361 |
| 67 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 7.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 2 | D5NE (W) | 168 | 4 | 500981 241363 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
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| 68 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 106.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D5NE (W) | 175 | 4 | 500974 241366 |
| 69 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 84.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 2 | D5NE (W) | 181 | 4 | 501046 241602 |
| 70 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 57.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D1NW (SW) | 195 | 4 | 500835 240681 |
| 71 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 9.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D1NW (SW) | 240 | 4 | 500782 240719 |
| 72 | OS Water Network Lines Watercourse Form: Lake Watercourse Length: 27.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 2 | D9SE (W) | 241 | 4 | 501008 241668 |
| 73 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 14.4 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D1NW (SW) | 245 | 4 | 500772 240730 |
| 74 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 23.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D1NW (SW) | 254 | 4 | 500756 240747 |
| 75 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 17.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 2 | D9SE (W) | 267 | 4 | 500989 241687 |
| 76 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 11.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D1NW (SW) | 269 | 4 | 500755 240749 |

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| 77 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 232.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D1NW (SW) | 277 | 4 | 500746 240758 |
| 78 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 311.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D5NW (W) | 280 | 4 | 500883 241452 |
| 79 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 35.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D5NW (W) | 280 | 4 | 500876 241406 |
| 80 | OS Water Network Lines Watercourse Form: Lake Watercourse Length: 350.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 2 | D9SE (W) | 284 | 4 | 500975 241699 |
| 81 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 22.6 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D14SE (N) | 300 | 4 | 501615 242491 |
| 82 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 332.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D14SE (N) | 322 | 4 | 501622 242512 |
| 83 | OS Water Network Lines Watercourse Form: Lake Watercourse Length: 126.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D5SW (SW) | 357 | 4 | 500646 240980 |
| 84 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 572.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D7SW (SE) | 397 | 4 | 502237 241083 |
| 85 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 331.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D1NW (SW) | 425 | 4 | 500589 240923 |

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| 86 | OS Water Network Lines Watercourse Form: Lake Watercourse Length: 356.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Stewartby Lake Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D9NW (NW) | 508 | 4 | 500872 242024 |
| 87 | OS Water Network Lines Watercourse Form: Lake Watercourse Length: 300.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Stewartby Lake Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D9NW (NW) | 508 | 4 | 500872 242024 |
| 88 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.2 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D9SW (W) | 512 | 4 | 500702 241643 |
| 89 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 121.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D9SW (W) | 517 | 4 | 500698 241647 |
| 90 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 351.4 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D7SE (SE) | 534 | 4 | 502305 241204 |
| 91 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 109.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D15SW (NE) | 551 | 4 | 502205 242506 |
| 92 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1250.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D3NE (SE) | 566 | 4 | 502579 240645 |
| 93 | OS Water Network Lines Watercourse Form: Lake Watercourse Length: 45.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D13NE (NW) | 606 | 4 | 501079 242652 |
| 94 | OS Water Network Lines Watercourse Form: Lake Watercourse Length: 8.5 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D13NE (NW) | 612 | 4 | 501069 242649 |

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| 95 | OS Water Network Lines Watercourse Form: Lake Watercourse Length: 393.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Stewartby Lake Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D13SW (NW) | 614 | 4 | 500803 242388 |
| 96 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 500.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D14NE (N) | 620 | 4 | 501754 242818 |
| 97 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 31.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D9SW (W) | 632 | 4 | 500611 241732 |
| 98 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 59.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D13NE (NW) | 635 | 4 | 501074 242686 |
| 99 | OS Water Network Lines Watercourse Form: Lake Watercourse Length: 19.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D13NE (NW) | 643 | 4 | 501120 242735 |
| 100 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 8.9 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D13NE (NW) | 644 | 4 | 501112 242729 |
| 101 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 8.1 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D13NE (NW) | 644 | 4 | 501135 242746 |
| 102 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 17.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D13NE (NW) | 645 | 4 | 501144 242752 |
| 103 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 337.9 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D13NE (N) | 648 | 4 | 501155 242763 |

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| 104 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 71.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D13NE (NW) | 657 | 4 | 501108 242743 |
| 105 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 52.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D9SW (W) | 662 | 4 | 500586 241750 |
| 106 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 26.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D9SW (W) | 662 | 4 | 500586 241750 |
| 107 | OS Water Network Lines Watercourse Form: Lake Watercourse Length: 141.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Stewartby Lake Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D13SW (NW) | 722 | 4 | 500783 242367 |
| 108 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 301.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D15SE (NE) | 737 | 4 | 502347 242591 |
| 109 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 105.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D7NE (E) | 752 | 4 | 502337 241465 |
| 110 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 254.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D7NE (E) | 779 | 4 | 502410 241389 |
| 111 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 480.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D15NE (NE) | 831 | 4 | 502354 242739 |
| 112 | OS Water Network Lines Watercourse Form: Lake Watercourse Length: 502.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Stewartby Lake Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D13SW (NW) | 863 | 4 | 500653 242421 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
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| 113 | OS Water Network Lines Watercourse Form: Lake Watercourse Length: 492.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Stewartby Lake Catchment Name: Cam Ely Ouse and South Level Primacy: 2 | D13SW (NW) | 863 | 4 | 500653 242421 |
| 114 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 298.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D3NE (SE) | 881 | 4 | 502579 240645 |
| 115 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 855.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | D8NW (E) | 881 | 4 | 502657 241455 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|--|--|------------------------------|---------|---------------|
| 116 | <p>Historical Landfill Sites</p> <p>Licence Holder: London Brick Landfill Limited Location: Stewartby, Bedford, Bedfordshire Name: Rookery Clay Pit Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD01024 First Input Date: 1st January 1971 Last Input Date: 1st April 1987 Specified Waste: Deposited Waste included Industrial and Household Waste, and Liquid Sludge Type: EA Waste Ref: 75174 Regis Ref: AX1/L/LON010 WRC Ref: 0200/0045 BGS Ref: Not Supplied Other Ref: 8/1977, PIT 80</p> | D6NE (E) | 0 | 2 | 501627 241587 |
| 117 | <p>Historical Landfill Sites</p> <p>Licence Holder: Not Supplied Location: Bedfordshire Name: Stewarby Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD34280 First Input Date: Not Supplied Last Input Date: Not Supplied Specified Waste: Not Supplied Type: EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: Not Supplied BGS Ref: Not Supplied Other Ref: PIT 62</p> | D10NW (N) | 10 | 2 | 501487 242213 |
| 118 | <p>Historical Landfill Sites</p> <p>Licence Holder: London Brick Landfill Limited Location: Vicarage Farm, Stewartby Name: L Field Clay Pit Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD00975 First Input Date: 17th July 1952 Last Input Date: 1st January 1988 Specified Waste: Deposited Waste included Inert, Industrial, Commercial, Household and Special Waste, and Liquid Sludge Type: EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 0200/0210 BGS Ref: Not Supplied Other Ref: 9/1977, PIT 61</p> | D13NE (NW) | 623 | 2 | 501133 242718 |
| 119 | <p>Historical Landfill Sites</p> <p>Licence Holder: London Brick Landfill Limited Location: Stewartby Name: L Field Clay Pit Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD00976 First Input Date: 17th July 1952 Last Input Date: 1st January 1988 Specified Waste: Deposited Waste included Inert, Industrial, Commercial, Household and Special Waste Type: EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 0200/0209 BGS Ref: Not Supplied Other Ref: 2/1978</p> | D13NE (NW) | 623 | 2 | 501133 242718 |
| 120 | <p>Historical Landfill Sites</p> <p>Licence Holder: London Brick Landfill Limited Location: Stewartby Name: Clay Pit known as L Field Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD00990 First Input Date: 17th July 1952 Last Input Date: 6th November 1986 Specified Waste: Deposited Waste included Inert, Industrial, Commercial, Household and Special Waste Type: EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 0200/0046 BGS Ref: Not Supplied Other Ref: 4/1984</p> | D13NE (NW) | 623 | 2 | 501133 242718 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|------------------|
| 121 | <p>Licensed Waste Management Facilities (Landfill Boundaries)</p> <p>Name: Stewartby Landfill Epr/Bv4576ik Licence Number: 70053 Location: Stewartby Lanfill Site, Green Lane, Stewartby, Bedford, Bedfordshire, MK43 9LY Licence Holder: Fcc Waste Services (Uk) Limited Authority: Environment Agency - Anglian Region, Central Area Site Category: Waste Landfilling; >10 T/D with Capacity >25,000T Excluding Inert Waste Max Input Rate: Not Supplied Licence Status: Effective Issued: 5th June 2015 Positional Accuracy: Positioned by the supplier Boundary Accuracy: As Supplied</p> | D13NE (NW) | 623 | 2 | 501134 242720 |
| 122 | <p>Licensed Waste Management Facilities (Locations)</p> <p>Licence Number: 75174 Location: Property Department, Stewartby, Bedford, Bedfordshire, MK43 9LZ Operator Name: London Brick Land Development Ltd Operator Location: Not Supplied Authority: Environment Agency - Anglian Region, Central Area Site Category: Co-disposal Landfill Sites Licence Status: Surrendered Issued: 5th December 1977 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: 28th April 1987 IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 100m</p> | D6NW (SW) | 254 | 2 | 501500 241500 |
| 123 | <p>Licensed Waste Management Facilities (Locations)</p> <p>Licence Number: 70036 Location: Stewartby Tyre Shredder, Green Lane, Stewartby, Bedford, Bedfordshire, MK43 9LY Operator Name: Shanks Waste Services Ltd Operator Location: Not Supplied Authority: Environment Agency - Anglian Region, Central Area Site Category: Physical Treatment Facilities Licence Status: Expired Issued: 7th October 1993 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 100m</p> | D14NW (N) | 594 | 2 | 501400 242800 |
| 124 | <p>Licensed Waste Management Facilities (Locations)</p> <p>Licence Number: 402363 Location: Green Lane, Stewartby, Bedfordshire, MK43 9LY Operator Name: Veolia E S (U K) Limited Operator Location: Not Supplied Authority: Environment Agency - Anglian Region, Central Area Site Category: Household, Commercial And Industrial Transfer Stations Licence Status: Issued Issued: 24th March 2016 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m</p> | D14NW (N) | 667 | 2 | 501330 242860 |
| 124 | <p>Licensed Waste Management Facilities (Locations)</p> <p>Licence Number: 75214 Location: Veolia, Green Lane, Stewartby, Bedford, Bedfordshire, MK43 9LY Operator Name: Veolia E S (U K) Ltd Operator Location: Not Supplied Authority: Environment Agency - Anglian Region, Central Area Site Category: Treatment - Chemical Licence Status: To PPC Issued: 29th September 2006 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: QP3237SC Positional Accuracy: Located by supplier to within 10m</p> | D14NW (N) | 667 | 2 | 501330 242860 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|--|--|------------------------------|---------|------------------|
| | Local Authority Landfill Coverage Name: Mid Bedfordshire District Council - Has supplied landfill data | | 0 | 5 | 501627 241587 |
| | Local Authority Landfill Coverage Name: Bedford Borough Council - Has supplied landfill data | | 0 | 3 | 501739 241573 |
| | Local Authority Landfill Coverage Name: Bedfordshire County Council - Has no landfill data to supply | | 0 | 6 | 501627 241587 |
| 125 | Registered Landfill Sites Licence Holder: London Brick Co Licence Reference: 8/1977 Site Location: Rockery Clay Pit (North), Stewartby, Bedford, Bedfordshire Licence Easting: 501500 Licence Northing: 241500 Operator Location: Stewartby House, Stewartby, BEDFORD, Bedfordshire, MK43 9LZ Authority: Environment Agency - Anglian Region, Central Area Site Category: Landfill Max Input Rate: Very Small (Less than 10,000 tonnes per year) Waste Source: Waste produced/controlled by licence holder Restrictions: Status: Licence known to be surrenderedSurrendered Dated: 5th December 1977 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Approximate location provided by supplier Boundary Accuracy: Not Applicable Authorised Waste: Non-Hazardous Waste | D6NW (SW) | 254 | 2 | 501500 241500 |
| 126 | Registered Landfill Sites Licence Holder: Shanks & Mc Ewan (Southern) Ltd Licence Reference: 2/1978 (9/1977) Site Location: L Field Claypit, Stewartby, Bedford, Bedfordshire Licence Easting: Not Supplied Licence Northing: Not Supplied Operator Location: 69-71 Bromham Road, Bedford, Bedfordshire Authority: Environment Agency - Anglian Region, Central Area Site Category: Landfill 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: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 22nd June 1978 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Positioned by the supplier Boundary Accuracy: Moderate Authorised Waste: Asbestos Bedfordshire Category A * Bedfordshire Category B * Bedfordshire Category C1 * Bedfordshire Category C2 * Bedfordshire Category D * Bedfordshire Category E * Medical Wastes Prohibited Waste: Acid Liquors If Ph<4 Chromates Liquids In Closed Drums Over 45l Cap'Y Mat'L/Liquor Cont. Cyanides Pesticides Phenols, Analogues/Derivatives Soluble Heavy Metals Not Neutralised Environment Agency Organic Solvents must give specific authorisation for this waste to be acceptedWaste requires prior approval | D13NE (NW) | 640 | 2 | 501080 242701 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|--|--|------------------------------|---------|------------------|
| 127 | <p>Registered Waste Treatment or Disposal Sites</p> <p>Licence Holder: Shanks Waste Services Ltd Licence Reference: 25/1993 Site Location: Green Lane Tyre Shredder, Stewartby, BEDFORD, Bedfordshire, MK43 9LY Operator Location: Dunedin House, Auckland Park, Mount Farm, Milton Keynes, Buckinghamshire, Mk1 1bu Authority: Environment Agency - Anglian Region, Central Area Site Category: Treatment Max Input Rate: Medium (Equal to or greater than 25,000 and less than 75,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Licence Status: Site dormant Dated: 7th October 1993 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the address or location Boundary Quality: Not Supplied Authorised Waste: Max.Storage In Licence Whole Tyres Prohibited Waste: Waste N.O.S.</p> | D14NW (N) | 583 | 2 | 501270 242750 |
| 128 | <p>Registered Waste Treatment or Disposal Sites</p> <p>Licence Holder: Shanks Waste Services Ltd Licence Reference: 5/1986 Site Location: L Field Waste Reception Area, Green Lane, Stewartby, BEDFORD, Bedfordshire, MK43 9LY Operator Location: Dunedin House, Auckland Park, Mount Farm, Milton Keynes, Buckinghamshire, Mk1 1bu Authority: Environment Agency - Anglian Region, Central Area Site Category: Transfer - with treatment Max Input Rate: Large (Equal to or greater than 75,000 and less than 250,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Licence Status: Operational as far as is knownOperational Dated: 6th November 1986 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the address or location Boundary Quality: Not Supplied Authorised Waste: Beds Cat. D -Difficult * Beds Cat. E1 -Special * Max.Storage Of Bulk Liquid/Sludge Max.Storage Of Drummed Waste Max.Storage Of Solids Tyres (For Shredding/Storage)</p> | D14NW (N) | 614 | 2 | 501300 242795 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|---------------|
| 129 | <p>Control of Major Accident Hazards Sites (COMAH)</p> <p>Name: Veolia Es (UK) Limited Location: Green Lane, Stewartby, Bedford, Bedfordshire, MK43 9LY Reference: Not Supplied Type: Lower Tier Status: Active Positional Accuracy: Manually positioned to the address or location</p> | D14NW (N) | 670 | 7 | 501331 242863 |
| 130 | <p>Notification of Installations Handling Hazardous Substances (NIHHS)</p> <p>Name: London Brick Products Limited Location: Stewartby, BEDFORD, Bedfordshire, MK43 9LZ Status: Not Active Positional Accuracy: Automatically positioned to the address</p> | D14SE (N) | 329 | 7 | 501874 242491 |
| 131 | <p>Planning Hazardous Substance Consents</p> <p>Name: London Brick Location: Stewartby Works, Broadmead Road, STEWARTBY, Bedfordshire, MK43 Authority: Bedford Borough Council Application Ref: 92/01165/Haz Hazardous Substance: Extremely flammable (extremely flammable gases and liquids with a flash point <21C and boiling point at normal pressure <=35C, and gaseous substances flammable in contact with air at ambient temperature and pressure excluding extremely flammable gases and natural gas, and flammable liquid substances maintained at a temperature above their boiling point) Maximum Quantity: 52 Application date: Not Supplied Decision: New application granted conditionally Positional Accuracy: Manually positioned to the address or location</p> | D14SE (N) | 291 | 8 | 501783 242484 |
| 132 | <p>Planning Hazardous Substance Consents</p> <p>Name: London Brick Company Location: Stewartby Works, STEWARTBY, Bedfordshire, MK43 Authority: Bedford Borough Council Application Ref: TP/92/1165/HS Hazardous Substance: Extremely flammable (extremely flammable gases and liquids with a flash point <21C and boiling point at normal pressure <=35C, and gaseous substances flammable in contact with air at ambient temperature and pressure excluding extremely flammable gases and natural gas, and flammable liquid substances maintained at a temperature above their boiling point) Maximum Quantity: 26 Application date: 25th September 1992 Decision: Deemed Consent Granted Positional Accuracy: Located by supplier to within 10m</p> | D14SE (N) | 323 | 8 | 501874 242485 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|---------------|
| | BGS 1:625,000 Solid Geology Description: Kellaways Formation And Oxford Clay Formation (Undifferentiated) | D6NE (E) | 0 | 1 | 501627 241587 |
| 133 | BGS Recorded Mineral Sites Site Name: Rookery Clay Pit Location: , Stewartby, Bedford Source: British Geological Survey, National Geoscience Information Service Reference: 35590 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Jurassic Geology: Oxford Clay Formation Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m | D2NW (S) | 0 | 1 | 501510 240915 |
| 134 | BGS Recorded Mineral Sites Site Name: Stewartby Brick Works Location: , Stewartby, Kempston, Bedfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 35259 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Jurassic Geology: Oxford Clay Formation Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m | D14SW (N) | 401 | 1 | 501500 242615 |
| 135 | BGS Recorded Mineral Sites Site Name: Rookery Location: , Stewartby, Bedford Source: British Geological Survey, National Geoscience Information Service Reference: 233 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Jurassic Geology: Peterborough Member (Lower Oxford Clay) Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m | D10SE (NE) | 433 | 1 | 501795 241755 |
| 136 | BGS Recorded Mineral Sites Site Name: Marston Moretaine Location: , Marston Mortheyne, Bedford, Lu7 9lf Source: British Geological Survey, National Geoscience Information Service Reference: 231 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Jurassic Geology: Peterborough Member (Lower Oxford Clay) Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 100m | D5NW (W) | 481 | 1 | 500600 241300 |
| 137 | BGS Recorded Mineral Sites Site Name: Stewartby Brick Works Location: , Stewartby, Kempston, Bedfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 35260 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Jurassic Geology: Peterborough Member (Lower Oxford Clay) Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m | D14NW (N) | 506 | 1 | 501280 242670 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
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| 138 | BGS Recorded Mineral Sites Site Name: Stewartby Brick Works Location: , Stewartby, Kempston, Bedfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 35258 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Jurassic Geology: Oxford Clay Formation Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m | D14NW (N) | 557 | 1 | 501540 242770 |
| 139 | BGS Recorded Mineral Sites Site Name: Stewartby Lake Location: , Marston Vale, Bedfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 6040 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Jurassic Geology: Peterborough Member (Lower Oxford Clay) Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m | D13SW (NW) | 700 | 1 | 500800 242350 |
| | 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 | D6NE (E) | 0 | 1 | 501627 241587 |
| | Potential for Collapsible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | D1NE (SW) | 0 | 1 | 501047 240891 |
| | Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service | D6NE (N) | 0 | 1 | 501630 241598 |
| | Potential for Compressible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service | D1SW (SW) | 0 | 1 | 500781 240394 |
| | Potential for Compressible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service | D10NE (N) | 0 | 1 | 501627 242173 |
| | Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | D6NE (E) | 0 | 1 | 501764 241551 |
| | Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service | D9SE (NW) | 44 | 1 | 501242 241750 |
| | Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service | D14SW (N) | 134 | 1 | 501411 242318 |
| | Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | D6NE (E) | 247 | 1 | 501627 241587 |
| | Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | D6NE (E) | 0 | 1 | 501627 241587 |
| | Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service | D2SW (S) | 0 | 1 | 501345 240511 |
| | Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service | D2SW (S) | 0 | 1 | 501589 240444 |

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| | Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service | D5NE (W) | 0 | 1 | 501250 241576 |
| | Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service | D2SW (S) | 0 | 1 | 501331 240515 |
| | Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service | D10SW (NW) | 0 | 1 | 501318 241741 |
| | Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service | D6NE (N) | 0 | 1 | 501630 241598 |
| | Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service | D2SE (S) | 55 | 1 | 501696 240415 |
| | Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service | D6NW (SW) | 247 | 1 | 501556 241554 |
| | Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service | D6NE (S) | 248 | 1 | 501652 241378 |
| | Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service | D6NW (S) | 248 | 1 | 501589 241407 |
| | Potential for Running Sand Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service | D1NE (SW) | 0 | 1 | 501047 240891 |
| | Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | D6NE (E) | 0 | 1 | 501764 241551 |
| | Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service | D6NE (N) | 0 | 1 | 501630 241598 |
| | Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | D5NE (W) | 37 | 1 | 501112 241446 |
| | Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | D9SE (W) | 77 | 1 | 501182 241656 |
| | Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | D6NE (E) | 247 | 1 | 501627 241587 |
| | Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | D6SW (S) | 0 | 1 | 501571 241190 |
| | Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service | D6NE (E) | 0 | 1 | 501627 241587 |
| | Radon Potential - Radon Affected Areas Affected Area: The property is in a Lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service | D6NE (E) | 0 | 1 | 501627 241587 |
| | 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 | D6NE (E) | 0 | 1 | 501627 241587 |

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| 140 | <p>Contemporary Trade Directory Entries</p> <p>Name: Select Engineering Location: Moreteyne House, Station Lane, Millbrook, Bedford, MK45 2JH Classification: Sheet Metal Work Status: Inactive Positional Accuracy: Automatically positioned to the address</p> | D1SW (SW) | 18 | - | 500713 240478 |
| 141 | <p>Contemporary Trade Directory Entries</p> <p>Name: Field Sports & Shooting Supplies Location: 3, Pillinge Cottages, Station Lane, Millbrook, BEDFORD, MK45 2JJ Classification: Gunsmiths Status: Active Positional Accuracy: Automatically positioned to the address</p> | D1SW (SW) | 45 | - | 500824 240449 |
| 142 | <p>Contemporary Trade Directory Entries</p> <p>Name: A G Petty Location: 29, Churchill Close, Stewartby, Bedford, MK43 9LU Classification: Scrap Metal Merchants Status: Inactive Positional Accuracy: Automatically positioned to the address</p> | D10NE (N) | 163 | - | 501883 242232 |
| 143 | <p>Contemporary Trade Directory Entries</p> <p>Name: Area Pest Control Uk Location: 5, School Lane, Stewartby, Bedford, MK43 9NG Classification: Pest & Vermin Control Status: Active Positional Accuracy: Automatically positioned to the address</p> | D11NW (NE) | 254 | - | 501970 242123 |
| 143 | <p>Contemporary Trade Directory Entries</p> <p>Name: Area Pest Control Uk Ltd Location: 5, School Lane, Stewartby, Bedford, MK43 9NG Classification: Pest & Vermin Control Status: Inactive Positional Accuracy: Automatically positioned to the address</p> | D11NW (NE) | 255 | - | 501971 242124 |
| 144 | <p>Contemporary Trade Directory Entries</p> <p>Name: Hanson Building Products Location: Stewartby, Bedford, MK43 9LZ Classification: Builders' Tools & Equipment Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address</p> | D14SE (N) | 324 | - | 501874 242486 |
| 144 | <p>Contemporary Trade Directory Entries</p> <p>Name: Hanson Building Products Location: Stewartby, Bedford, Bedfordshire, MK43 9LZ Classification: Concrete Products Status: Inactive Positional Accuracy: Automatically positioned to the address</p> | D14SE (N) | 324 | - | 501874 242486 |
| 145 | <p>Contemporary Trade Directory Entries</p> <p>Name: Spicer Consulting Location: Eden Laboratory, Broadmead Road, Stewartby, Bedford, MK43 9ND Classification: Electronic Equipment - Manufacturers & Assemblers Status: Active Positional Accuracy: Automatically positioned to the address</p> | D15SW (N) | 381 | - | 501965 242494 |
| 146 | <p>Contemporary Trade Directory Entries</p> <p>Name: First Line Group Services Location: Unit 2, Broadmead Business Park, Broadmead Road, Stewartby, Bedford, MK43 9NX Classification: Commercial Cleaning Services Status: Inactive Positional Accuracy: Automatically positioned to the address</p> | D15SW (N) | 410 | - | 501983 242516 |
| 146 | <p>Contemporary Trade Directory Entries</p> <p>Name: Tyrefix Plant Location: Unit 4, Broadmead Business Park, Broadmead Road, Stewartby, Bedford, MK43 9NX Classification: Tyre Repairs & Retreading Status: Inactive Positional Accuracy: Automatically positioned to the address</p> | D15SW (N) | 411 | - | 501994 242508 |
| 146 | <p>Contemporary Trade Directory Entries</p> <p>Name: Tristar Catering Solutions Location: Unit 4, Broadmead Business Park, Broadmead Road, Stewartby, Bedford, MK43 9NX Classification: Catering Equipment - Servicing & Repairs Status: Active Positional Accuracy: Automatically positioned to the address</p> | D15SW (N) | 411 | - | 501994 242508 |

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|--------|---|--|------------------------------|---------|------------------|
| 146 | <p>Contemporary Trade Directory Entries</p> <p>Name: Premier Garage Equipment Ltd Location: Unit 8-9, Broadmead Business Park, Broadmead Road, Stewartby, BEDFORD, MK43 9NX Classification: Garage Equipment Status: Inactive Positional Accuracy: Automatically positioned to the address</p> | D15SW (N) | 444 | - | 502007 242540 |
| 146 | <p>Contemporary Trade Directory Entries</p> <p>Name: John Collier Woodworking Machinery Ltd Location: Unit 8, Broadmead Business Park, Broadmead Road, Stewartby, Bedford, MK43 9NX Classification: Woodworking Machinery Status: Inactive Positional Accuracy: Automatically positioned to the address</p> | D15SW (N) | 444 | - | 502014 242535 |
| 146 | <p>Contemporary Trade Directory Entries</p> <p>Name: Advanced Modular Panel Systems Ltd Location: Unit 10, Broadmead Business Park, Broadmead Road, Stewartby, Bedford, MK43 9NX Classification: Refrigeration Equipment - Commercial Status: Inactive Positional Accuracy: Automatically positioned to the address</p> | D15SW (N) | 444 | - | 502002 242544 |
| 146 | <p>Contemporary Trade Directory Entries</p> <p>Name: G R T Builders Location: Unit 7, Broadmead Business Park, Broadmead Road, Stewartby, Bedford, MK43 9NX Classification: Scaffolding & Work Platforms Status: Inactive Positional Accuracy: Automatically positioned to the address</p> | D15SW (NE) | 447 | - | 502022 242532 |
| 146 | <p>Contemporary Trade Directory Entries</p> <p>Name: Camco Location: Unit 12, Broadmead Business Park, Broadmead Road, Stewartby, Bedford, MK43 9NX Classification: Garage Equipment Status: Active Positional Accuracy: Automatically positioned to the address</p> | D15SW (N) | 473 | - | 502025 242563 |
| 146 | <p>Contemporary Trade Directory Entries</p> <p>Name: Jameson Evans Ltd Location: Unit 13, Broadmead Business Park, Broadmead Road, Stewartby, Bedford, MK43 9NX Classification: Engineers - General Status: Inactive Positional Accuracy: Automatically positioned to the address</p> | D15SW (N) | 486 | - | 502034 242573 |
| 147 | <p>Contemporary Trade Directory Entries</p> <p>Name: Flare Products Ltd Location: Unit 14, Broadmead Business Park, Broadmead Road, Stewartby, Bedford, MK43 9NX Classification: Engineers - General Status: Inactive Positional Accuracy: Automatically positioned to the address</p> | D15SW (NE) | 499 | - | 502042 242583 |
| 147 | <p>Contemporary Trade Directory Entries</p> <p>Name: Addmore Engineering Ltd Location: Unit 18, Broadmead Business Park, Broadmead Road, Stewartby, BEDFORD, MK43 9NX Classification: Precision Engineers Status: Active Positional Accuracy: Automatically positioned to the address</p> | D15SW (NE) | 525 | - | 502056 242605 |
| 148 | <p>Contemporary Trade Directory Entries</p> <p>Name: Veolia Environmental Location: Green Lane, Stewartby, Bedford, MK43 9LY Classification: Waste Disposal Services Status: Active Positional Accuracy: Automatically positioned to the address</p> | D14NW (N) | 558 | - | 501260 242719 |
| 148 | <p>Contemporary Trade Directory Entries</p> <p>Name: Veolia Environmental Services Location: Green La, Stewartby, Bedford, Bedfordshire, MK43 9LY Classification: Waste Disposal Services Status: Inactive Positional Accuracy: Manually positioned within the geographical locality</p> | D14NW (N) | 569 | - | 501255 242728 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|--|--|------------------------------|---------|---------------|
| 149 | <p>Contemporary Trade Directory Entries</p> <p>Name: Unique Windows & Conservatories Ltd Location: Unit 19, Broadmead Business Park, Broadmead Road, Stewartby, Bedford, MK43 9NX Classification: PVC-U Products - Manufacturers & Suppliers Status: Inactive Positional Accuracy: Automatically positioned to the address</p> | D15SW (NE) | 562 | - | 502118 242599 |
| 149 | <p>Contemporary Trade Directory Entries</p> <p>Name: Clear Tough Location: Unit 21, Broadmead Business Park, Broadmead Road, Stewartby, Bedford, Bedfordshire, MK43 9NX Classification: Glass Products - Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address</p> | D15SW (NE) | 562 | - | 502118 242599 |
| 149 | <p>Contemporary Trade Directory Entries</p> <p>Name: Precision Movement Specialists Location: Unit 19, Broadmead Business Park, Broadmead Road, Stewartby, Bedford, Bedfordshire, MK43 9NX Classification: Precision Engineers Status: Inactive Positional Accuracy: Automatically positioned to the address</p> | D15SW (NE) | 562 | - | 502118 242599 |
| 149 | <p>Contemporary Trade Directory Entries</p> <p>Name: Precision Movement Specialists Location: Unit 19, Broadmead Business Park, Broadmead Road, Stewartby, Bedford, MK43 9NX Classification: Engineering Materials Status: Inactive Positional Accuracy: Automatically positioned to the address</p> | D15SW (NE) | 562 | - | 502118 242599 |
| 149 | <p>Contemporary Trade Directory Entries</p> <p>Name: Novarm Location: Unit 15-17, Broadmead Business Park, Broadmead Road, Stewartby, Bedford, MK43 9NX Classification: Leisure & Sportswear Manufacturers & Wholesalers Status: Inactive Positional Accuracy: Automatically positioned to the address</p> | D15SW (NE) | 562 | - | 502118 242599 |
| 149 | <p>Contemporary Trade Directory Entries</p> <p>Name: Milieu Design Ltd Location: Unit 15-17, Broadmead Business Park, Broadmead Road, Stewartby, Bedford, MK43 9NX Classification: Furniture Manufacturers - Home & Office Status: Inactive Positional Accuracy: Automatically positioned to the address</p> | D15SW (NE) | 562 | - | 502118 242599 |
| 150 | <p>Contemporary Trade Directory Entries</p> <p>Name: D M G Cleaning Services Location: 13, The Pastures, Stewartby, Bedford, MK43 9NY Classification: Commercial Cleaning Services Status: Inactive Positional Accuracy: Automatically positioned to the address</p> | D15SE (NE) | 601 | - | 502317 242296 |
| 151 | <p>Contemporary Trade Directory Entries</p> <p>Name: Complete Cleaning Location: 102, Alexander Close, Stewartby, Bedford, MK43 9LT Classification: Carpet, Curtain & Upholstery Cleaners Status: Inactive Positional Accuracy: Automatically positioned to the address</p> | D11NE (NE) | 626 | - | 502352 242192 |
| 152 | <p>Contemporary Trade Directory Entries</p> <p>Name: Shanks Waste Solutions Ltd Location: Green Lane, Stewartby, BEDFORD, MK43 9LY Classification: Waste Disposal Services Status: Inactive Positional Accuracy: Automatically positioned to the address</p> | D14NW (N) | 670 | - | 501331 242863 |
| 153 | <p>Contemporary Trade Directory Entries</p> <p>Name: Craydon Electrical Location: 6, Magpie Avenue, Stewartby, BEDFORD, MK43 9NP Classification: Stairlifts - Manufacturers & Installers Status: Inactive Positional Accuracy: Automatically positioned to the address</p> | D15SE (NE) | 763 | - | 502471 242353 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|------------------|
| 154 | Nitrate Vulnerable Zones Name: Not Supplied Description: Eutrophic Water Source: Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA) | D10SW (NW) | 0 | 9 | 501273 241739 |
| 155 | Nitrate Vulnerable Zones Name: Not Supplied Description: Surface Water Source: Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA) | D6NE (E) | 0 | 9 | 501627 241587 |
| 156 | Nitrate Vulnerable Zones Name: Not Supplied Description: Groundwater Source: Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA) | D6NE (E) | 0 | 9 | 501627 241587 |

| Agency & Hydrological | Version | Update Cycle |
|---|--|---|
| Contaminated Land Register Entries and Notices Central Bedfordshire Council - Environmental Health Department Bedford Borough Council - Environmental Health Department Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department | December 2013 December 2014 July 2008 | Annually Annual Rolling Update Not Applicable |
| Discharge Consents Environment Agency - Anglian Region | January 2017 | Quarterly |
| Enforcement and Prohibition Notices Environment Agency - Anglian Region | March 2013 | As notified |
| Integrated Pollution Controls Environment Agency - Anglian Region | October 2008 | Not Applicable |
| Integrated Pollution Prevention And Control Environment Agency - Anglian Region | April 2017 | Quarterly |
| Local Authority Integrated Pollution Prevention And Control Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department Bedford Borough Council - Environmental Health Department Central Bedfordshire Council - Environmental Health Department | December 2008 March 2015 November 2014 | Not Applicable Annual Rolling Update Annually |
| Local Authority Pollution Prevention and Controls Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department Bedford Borough Council - Environmental Health Department Central Bedfordshire Council - Environmental Health Department | December 2008 March 2015 November 2014 | Not Applicable Annual Rolling Update Annually |
| Local Authority Pollution Prevention and Control Enforcements Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department Bedford Borough Council - Environmental Health Department Central Bedfordshire Council - Environmental Health Department | December 2008 March 2015 November 2014 | Not Applicable Annual Rolling Update Annually |
| Nearest Surface Water Feature Ordnance Survey | March 2017 | |
| Pollution Incidents to Controlled Waters Environment Agency - Anglian Region | September 1999 | Not Applicable |
| Prosecutions Relating to Authorised Processes Environment Agency - Anglian Region | March 2013 | As notified |
| Prosecutions Relating to Controlled Waters Environment Agency - Anglian Region | March 2013 | As notified |
| Registered Radioactive Substances Environment Agency - Anglian Region | January 2015 | |
| 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 - Anglian Region - Central Area | April 2017 | Quarterly |
| Water Abstractions Environment Agency - Anglian Region | October 2016 | Quarterly |
| Water Industry Act Referrals Environment Agency - Anglian Region | April 2017 | Quarterly |
| Groundwater Vulnerability Environment Agency - Head Office | April 2015 | Not Applicable |

| Agency & Hydrological | Version | Update Cycle |
|---|------------------------------------|--|
| 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 | April 2017 | Quarterly |
| Extreme Flooding from Rivers or Sea without Defences Environment Agency - Head Office | February 2017 | Quarterly |
| Flooding from Rivers or Sea without Defences Environment Agency - Head Office | February 2017 | Quarterly |
| Areas Benefiting from Flood Defences Environment Agency - Head Office | February 2017 | Quarterly |
| Flood Water Storage Areas Environment Agency - Head Office | February 2017 | Quarterly |
| Flood Defences Environment Agency - Head Office | February 2017 | Quarterly |
| OS Water Network Lines Ordnance Survey | January 2017 | 6 Weekly |
| 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 | January 2017 | Quarterly |
| Integrated Pollution Control Registered Waste Sites Environment Agency - Anglian Region | October 2008 | Not Applicable |
| Licensed Waste Management Facilities (Landfill Boundaries) Environment Agency - Anglian Region - Central Area | August 2016 | Quarterly |
| Licensed Waste Management Facilities (Locations) Environment Agency - Anglian Region - Central Area | October 2016 | Quarterly |
| Local Authority Landfill Coverage Bedford Borough Council - Environmental Health Department Bedfordshire County Council (now part of Central Bedfordshire Council) Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department | May 2000 May 2000 May 2000 | Not Applicable Not Applicable Not Applicable |
| Local Authority Recorded Landfill Sites Bedford Borough Council - Environmental Health Department Bedfordshire County Council (now part of Central Bedfordshire Council) Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department | April 2003 May 2000 May 2000 | Not Applicable Not Applicable Not Applicable |
| Registered Landfill Sites Environment Agency - Anglian Region - Central Area | March 2003 | Not Applicable |
| Registered Waste Transfer Sites Environment Agency - Anglian Region - Central Area | March 2003 | Not Applicable |
| Registered Waste Treatment or Disposal Sites Environment Agency - Anglian Region - Central Area | March 2003 | Not Applicable |

| Hazardous Substances | Version | Update Cycle |
|---|---|--|
| Control of Major Accident Hazards Sites (COMAH) Health and Safety Executive | March 2017 | Bi-Annually |
| Explosive Sites Health and Safety Executive | March 2017 | Bi-Annually |
| Notification of Installations Handling Hazardous Substances (NIHHS) Health and Safety Executive | November 2000 | Not Applicable |
| Planning Hazardous Substance Enforcements Bedford Borough Council Central Bedfordshire Council - Planning Department Bedfordshire County Council (now part of Central Bedfordshire Council) Mid Bedfordshire District Council (now part of Central Bedfordshire Council) | February 2016 February 2016 July 2008 May 2008 | Annual Rolling Update Annually Annual Rolling Update Not Applicable |
| Planning Hazardous Substance Consents Bedford Borough Council Central Bedfordshire Council - Planning Department Bedfordshire County Council (now part of Central Bedfordshire Council) Mid Bedfordshire District Council (now part of Central Bedfordshire Council) | February 2016 February 2016 July 2008 May 2008 | Annual Rolling Update Annually Annual Rolling Update Not Applicable |
| Geological | Version | Update Cycle |
| BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service | January 2009 | Not Applicable |
| BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service | April 2017 | Bi-Annually |
| CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB) | August 2011 | Not Applicable |
| Coal Mining Affected Areas The Coal Authority - Property Searches | March 2014 | 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 |

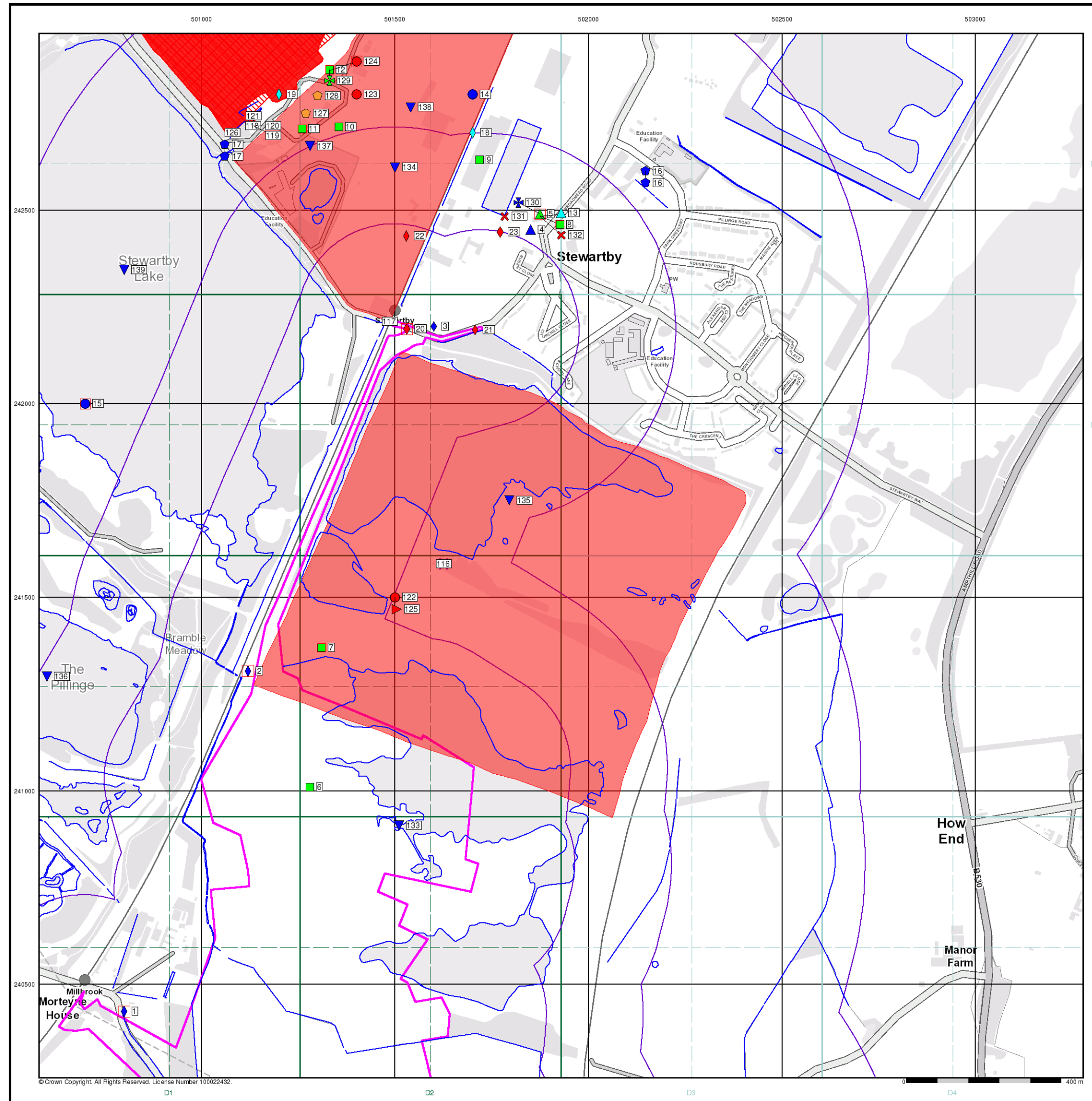
| Industrial Land Use | Version | Update Cycle |
|--|---------------------------|----------------------------|
| Contemporary Trade Directory Entries Thomson Directories | March 2017 | Quarterly |
| Fuel Station Entries Catalist Ltd - Experian | February 2017 | Quarterly |
| Gas Pipelines National Grid | July 2014 | Quarterly |
| Underground Electrical Cables National Grid | December 2015 | Bi-Annually |
| Sensitive Land Use | Version | Update Cycle |
| Ancient Woodland Natural England | August 2016 | Bi-Annually |
| Areas of Adopted Green Belt Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department Central Bedfordshire Council - Planning Department | February 2017 May 2011 | As notified As notified |
| Areas of Unadopted Green Belt Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department Central Bedfordshire Council - Planning Department | February 2017 May 2011 | As notified As notified |
| Areas of Outstanding Natural Beauty Natural England | January 2017 | Bi-Annually |
| Environmentally Sensitive Areas Natural England | January 2017 | Annually |
| Forest Parks Forestry Commission | April 1997 | Not Applicable |
| Local Nature Reserves Natural England | January 2017 | Bi-Annually |
| Marine Nature Reserves Natural England | January 2017 | Bi-Annually |
| National Nature Reserves Natural England | January 2017 | Bi-Annually |
| National Parks Natural England | February 2017 | Bi-Annually |
| Nitrate Vulnerable Zones Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA) | October 2015 | Annually |
| Ramsar Sites Natural England | January 2017 | Bi-Annually |
| Sites of Special Scientific Interest Natural England | January 2017 | Bi-Annually |
| Special Areas of Conservation Natural England | January 2017 | Bi-Annually |
| Special Protection Areas Natural England | January 2017 | Bi-Annually |
| World Heritage Sites English Heritage - National Monument Record Centre | May 2017 | Bi-Annually |

A selection of organisations who provide data within this report

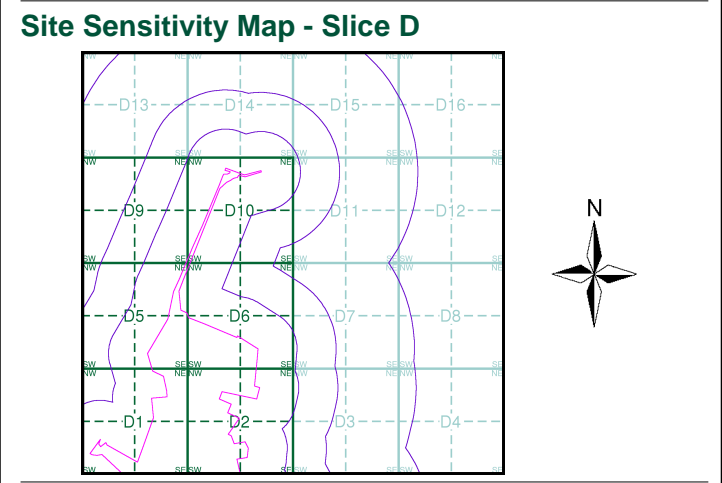
| Data Supplier | Data Supplier Logo |
|--|---|
| Ordnance Survey |  |
| Environment Agency |  |
| Scottish Environment Protection Agency |  |
| The Coal Authority |  |
| British Geological Survey |  <p>British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL</p> |
| Centre for Ecology and Hydrology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

| Contact | Name and Address | Contact Details |
|---------|---|---|
| 1 | 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 |
| 2 | Environment Agency - National Customer Contact Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY | Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk |
| 3 | Bedford Borough Council - Environmental Health Department Town Hall, St Pauls Street, Bedford, Bedfordshire, MK40 1SJ | Telephone: 01234 267422 Fax: 01234 325671 Email: enquiries@bedford.gov.uk Website: www.bedford.gov.uk |
| 4 | Ordnance Survey Adanac Drive, Southampton, Hampshire, SO16 0AS | Telephone: 023 8079 2000 Email: enquires@ordnavy.gov.uk Website: www.ordnancesurvey.gov.uk |
| 5 | Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department Priory House, Monks Walk, Chicksands, Shefford, Bedfordshire, SG17 5TQ | Telephone: 0300 300 8301 Email: customers@centralbedfordshire.gov.uk Website: www.centralbedfordshire.gov.uk |
| 6 | Bedfordshire County Council (now part of Central Bedfordshire Council) Priory House, Monks Walk, Chicksands, Shefford, Bedfordshire, SG17 5TQ | Telephone: 0300 300 8301 Email: www.centralbedfordshire.gov.uk Website: www.centralbedfordshire.gov.uk |
| 7 | Health and Safety Executive 5S.2 Redgrave Court, Merton Road, Bootle, L20 7HS | Website: www.hse.gov.uk |
| 8 | Bedford Borough Council Town Hall, St Pauls Square, Bedford, Bedfordshire, MK40 1SJ | Telephone: 01234 267422 Fax: 01234 221606 Website: www.bedford.gov.uk |
| 9 | 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 |
| - | 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.



- 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
 - 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
- 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)
 - Local Authority Recorded Landfill Site (Location)
 - Local Authority Recorded Landfill Site
 - 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
- Industrial Land Use**
- Contemporary Trade Directory Entry
 - Fuel Station Entry



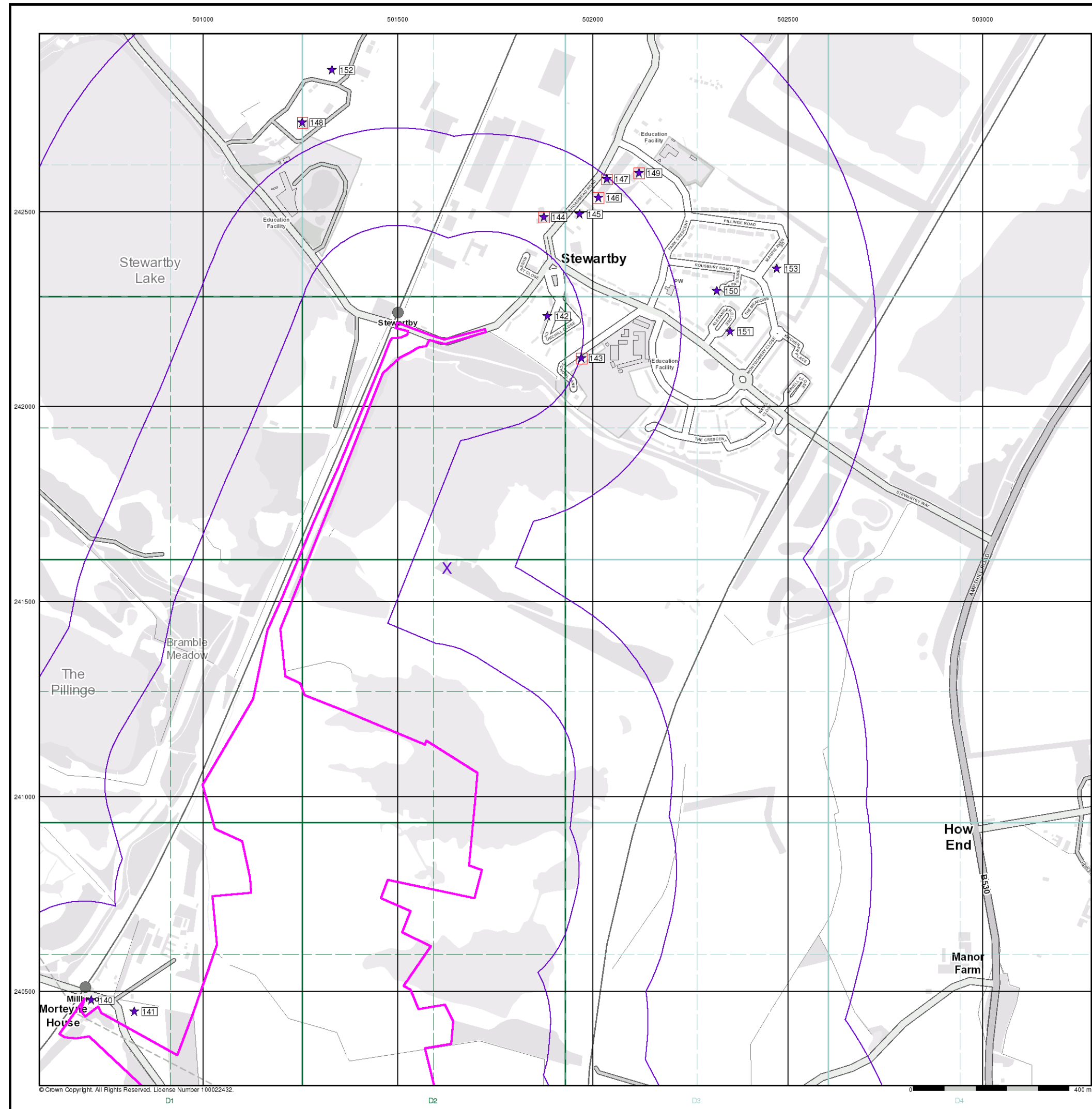
Order Details

Order Number: 125070033_1_1
 Customer Ref: 40335 Millbrook
 National Grid Reference: 501630, 241590
 Slice: D
 Site Area (Ha): 87.86
 Search Buffer (m): 1000

Site Details
 Stewartby

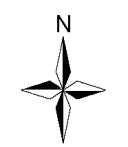
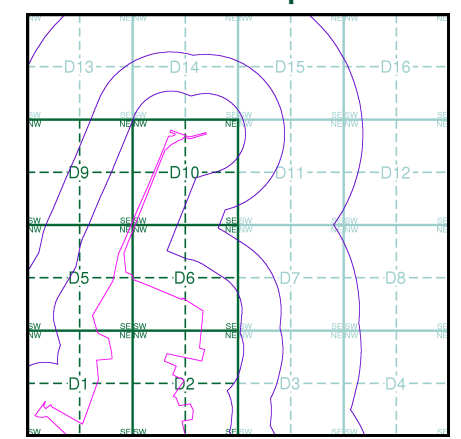
Landmark
 INFORMATION GROUP

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



- General**
- Specified Site
 - Specified Buffer(s)
 - Bearing Reference Point
 - Slice
 - Map ID
- Industrial Land Use**
- Contemporary Trade Directory Entry
 - Fuel Station Entry
 - Gas Pipeline
 - Underground Electrical Cables

Industrial Land Use Map - Slice D



Order Details

Order Number: 125070033_1_1
 Customer Ref: 40335 Millbrook
 National Grid Reference: 501630, 241590
 Slice: D
 Site Area (Ha): 87.86
 Search Buffer (m): 1000

Site Details
Stewartby

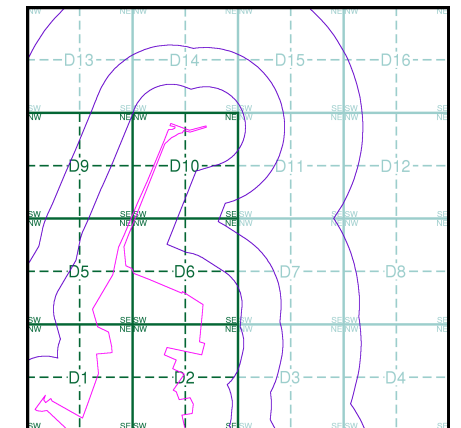
General

- 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 D

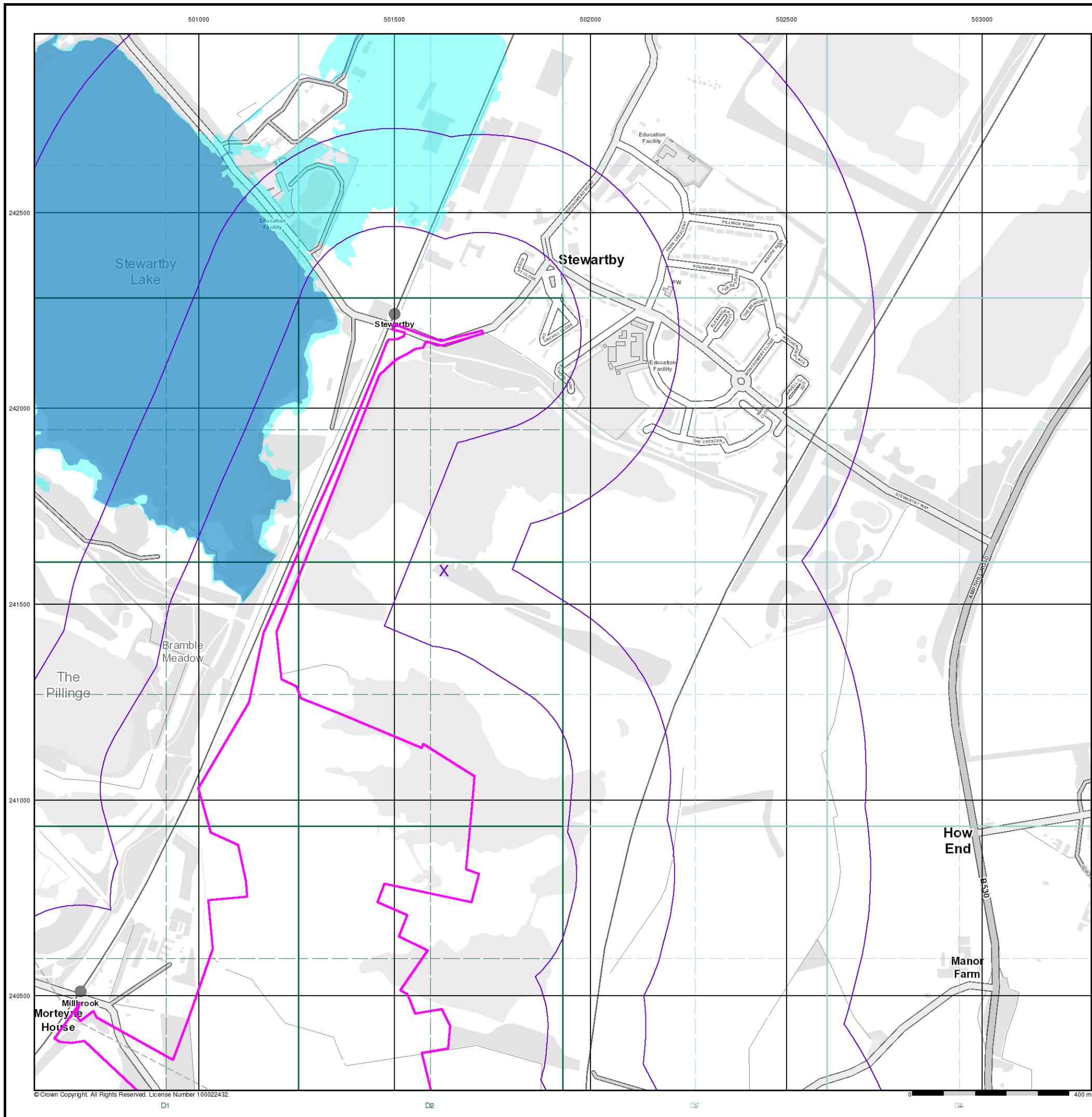


Order Details

Order Number: 125070033_1_1
 Customer Ref: 40335 Millbrook
 National Grid Reference: 501630, 241590
 Slice: D
 Site Area (Ha): 87.86
 Search Buffer (m): 1000

Site Details

Stewartby



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General

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

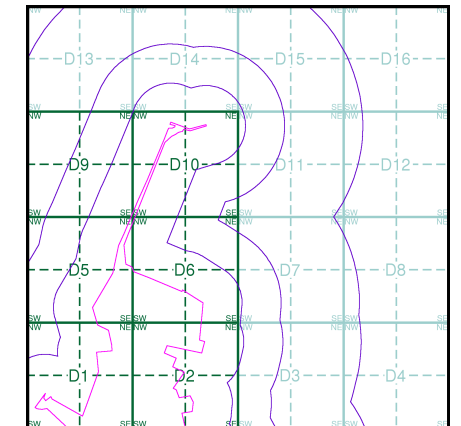
Agency and Hydrological (Boreholes)

- 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 D

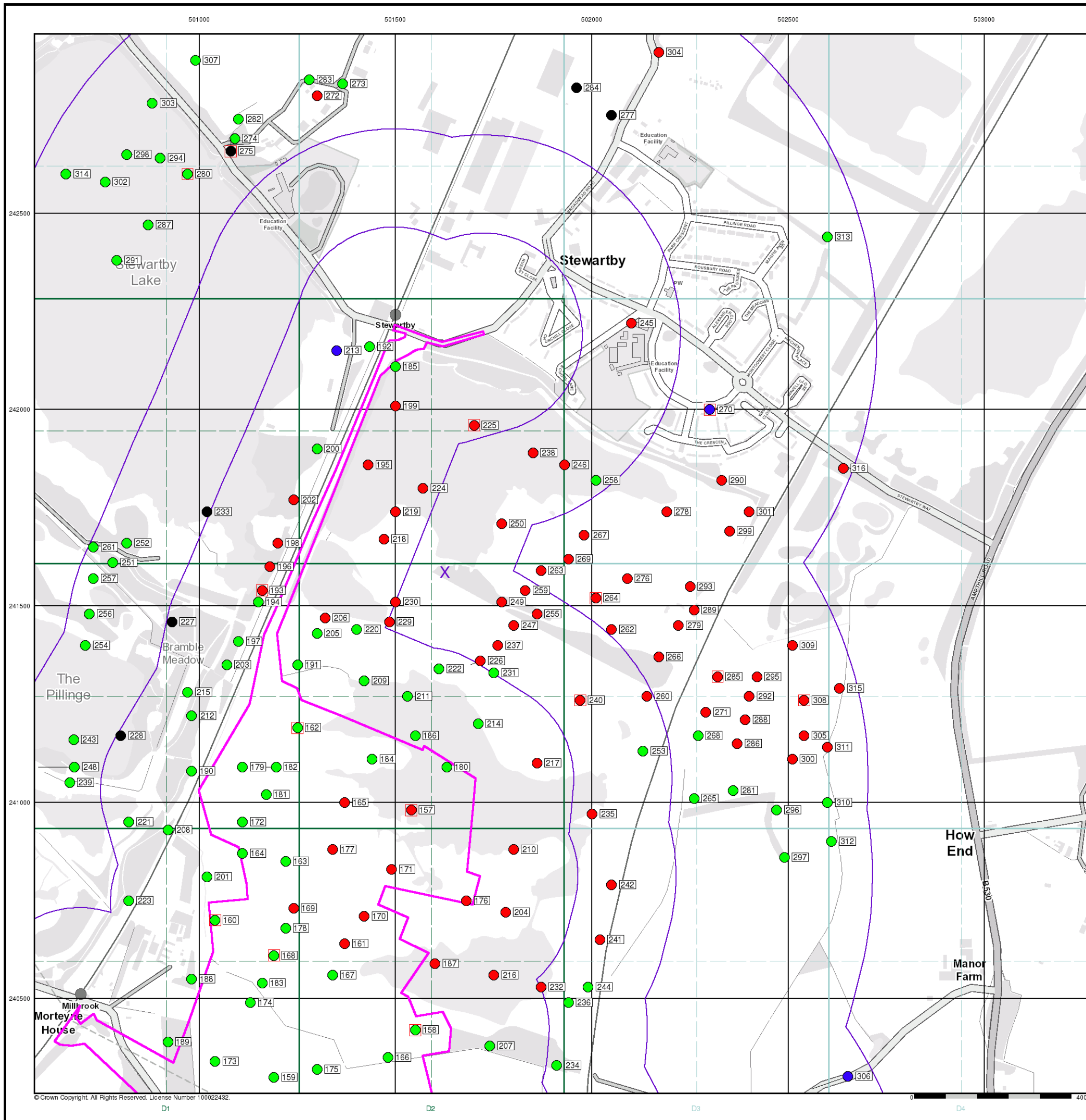


Order Details

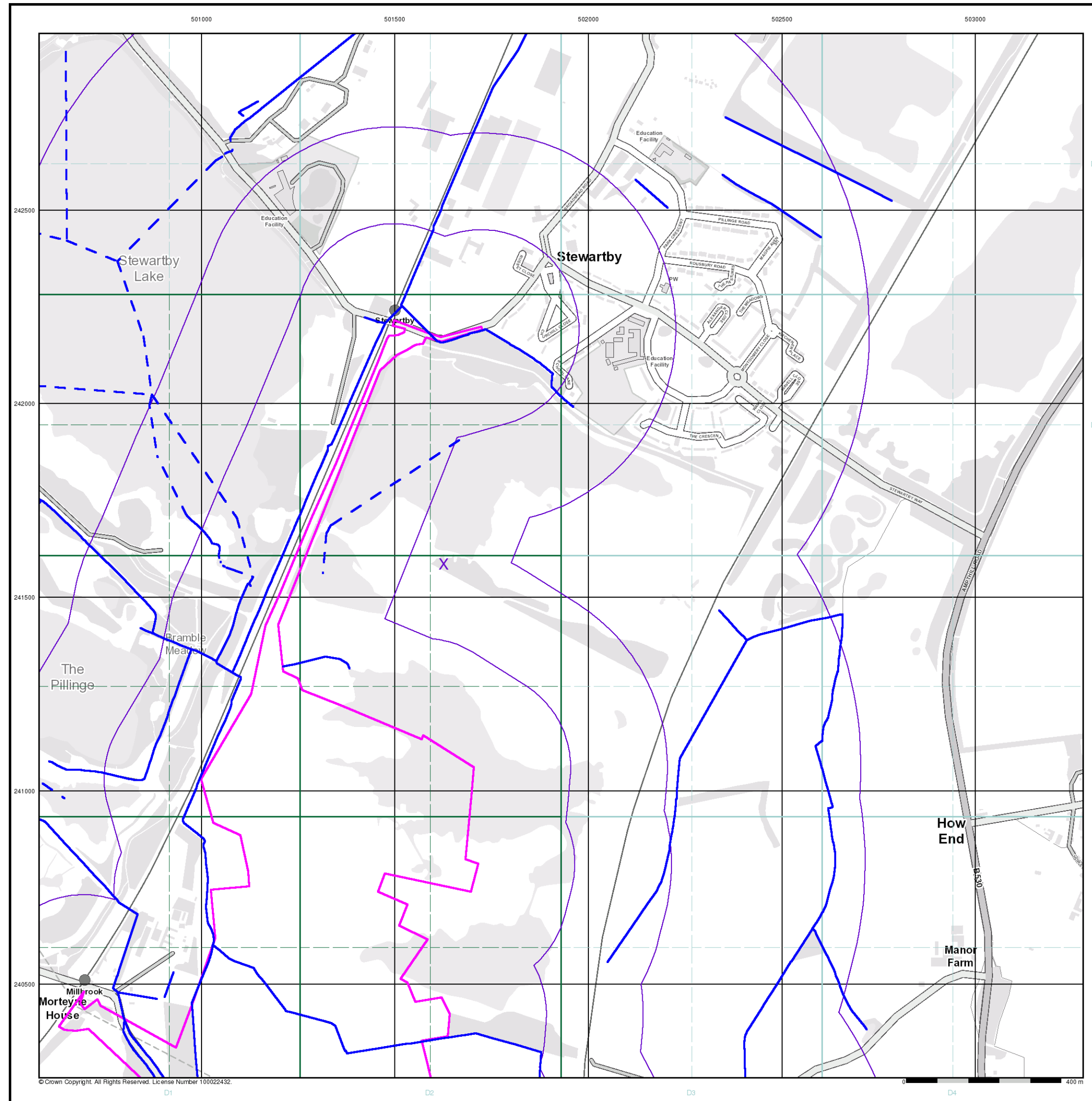
Order Number: 125070033_1_1
 Customer Ref: 40335 Millbrook
 National Grid Reference: 501630, 241590
 Slice: D
 Site Area (Ha): 87.86
 Search Buffer (m): 1000

Site Details

Stewartby



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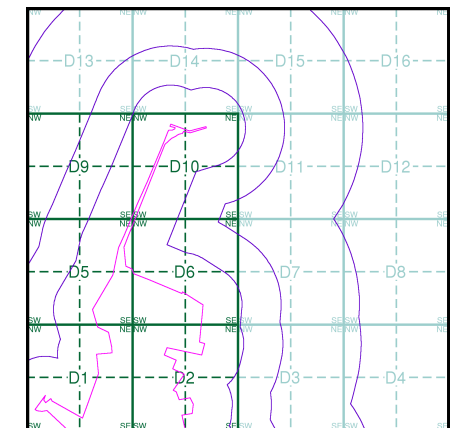
General

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

OS Water Network Data

- | | |
|--------------|-------------------------|
| Canal | Drain |
| Reservoir | Other |
| Foreshore | Lake |
| Marsh | Transfer |
| Tidal River | Lock Or Flight Of Locks |
| Inland River | Sea |

OS Water Network Map - Slice D



Order Details

Order Number: 125070033_1_1
 Customer Ref: 40335 Millbrook
 National Grid Reference: 501630, 241590
 Slice: D
 Site Area (Ha): 87.86
 Search Buffer (m): 1000

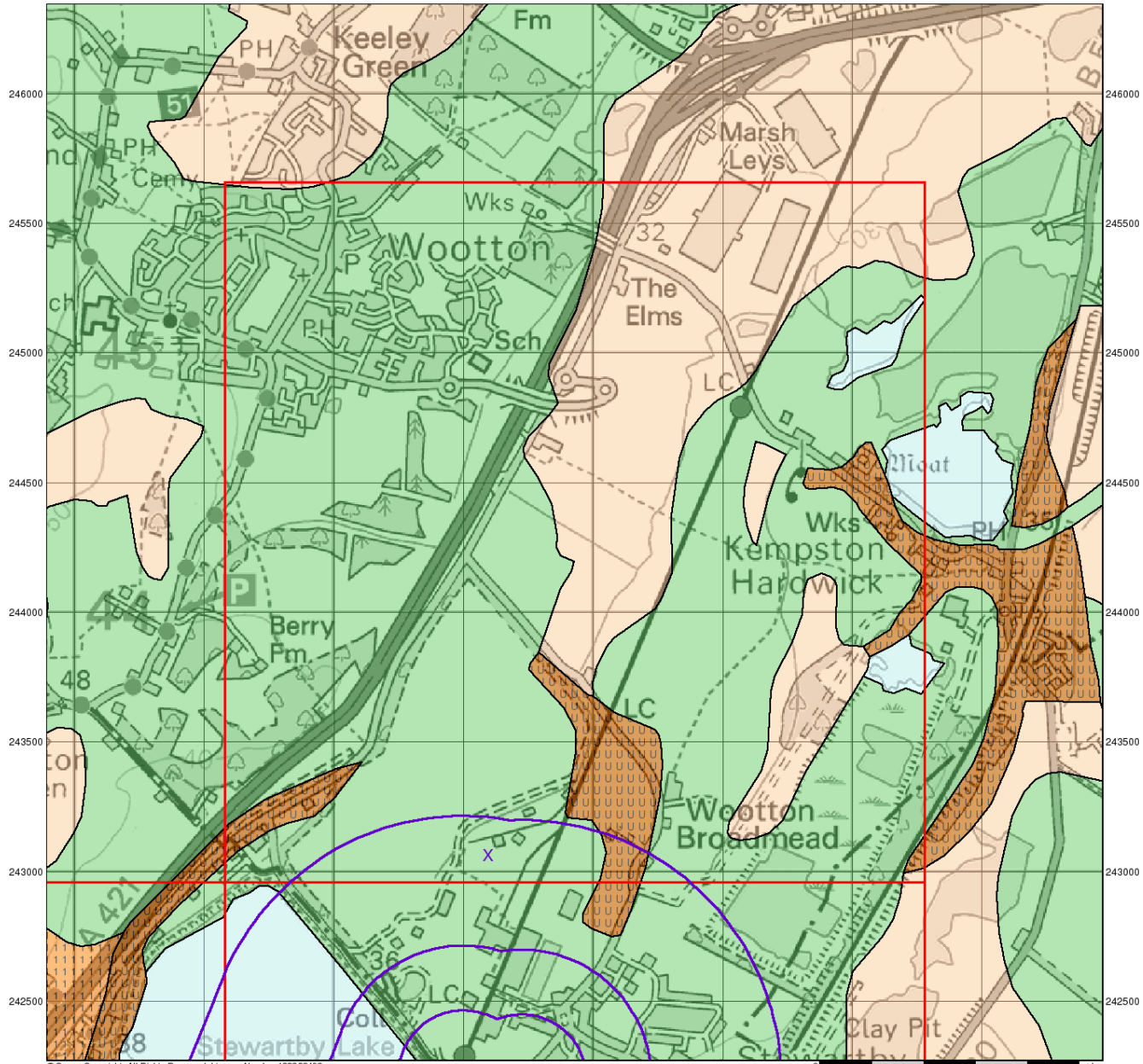
Site Details

Stewartby



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

500000 500500 501000 501500 502000 502500 503000 503500



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0 1 km



Groundwater Vulnerability

General

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

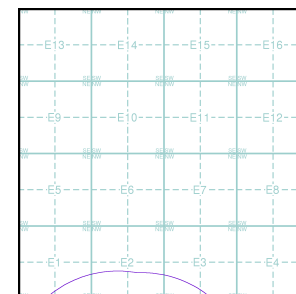
Agency and Hydrological

Geological Classes

- | | | |
|---------------------------------------|--|-----------------------|
| Major Aquifer (Highly Permeable) | | High (H) 1, 2, 3, U |
| | | Intermediate (I) 1, 2 |
| | | Low |
| Minor Aquifer (Variably Permeable) | | High (H) 1, 2, 3, U |
| | | Intermediate (I) 1, 2 |
| | | Low |
| Non Aquifer (Negligibly Permeable) | | |
| Water or Sea | | |
| Drift Deposit | | |

Soil Classes

Site Sensitivity Context Map - Slice E



Order Details

Order Number: 125070033_1_1
 Customer Ref: 40335 Millbrook
 National Grid Reference: 501590, 243060
 Slice: E
 Site Area (Ha): 87.86
 Search Buffer (m): 1000

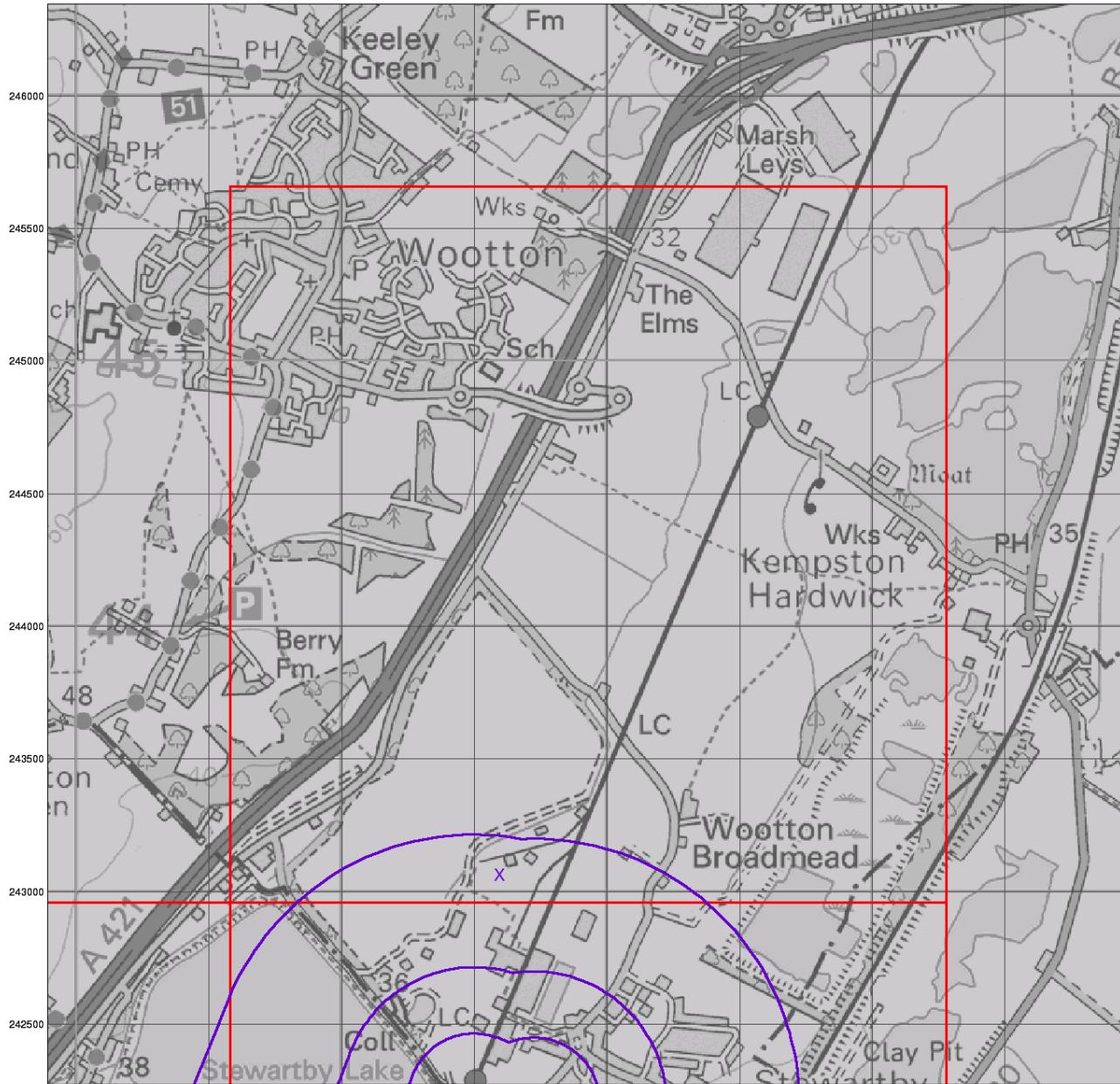
Site Details

Stewartby



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

500000 500500 501000 501500 502000 502500 503000 503500



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0 1 km



Bedrock Aquifer Designation

General

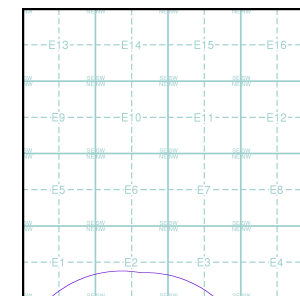
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice E



Order Details

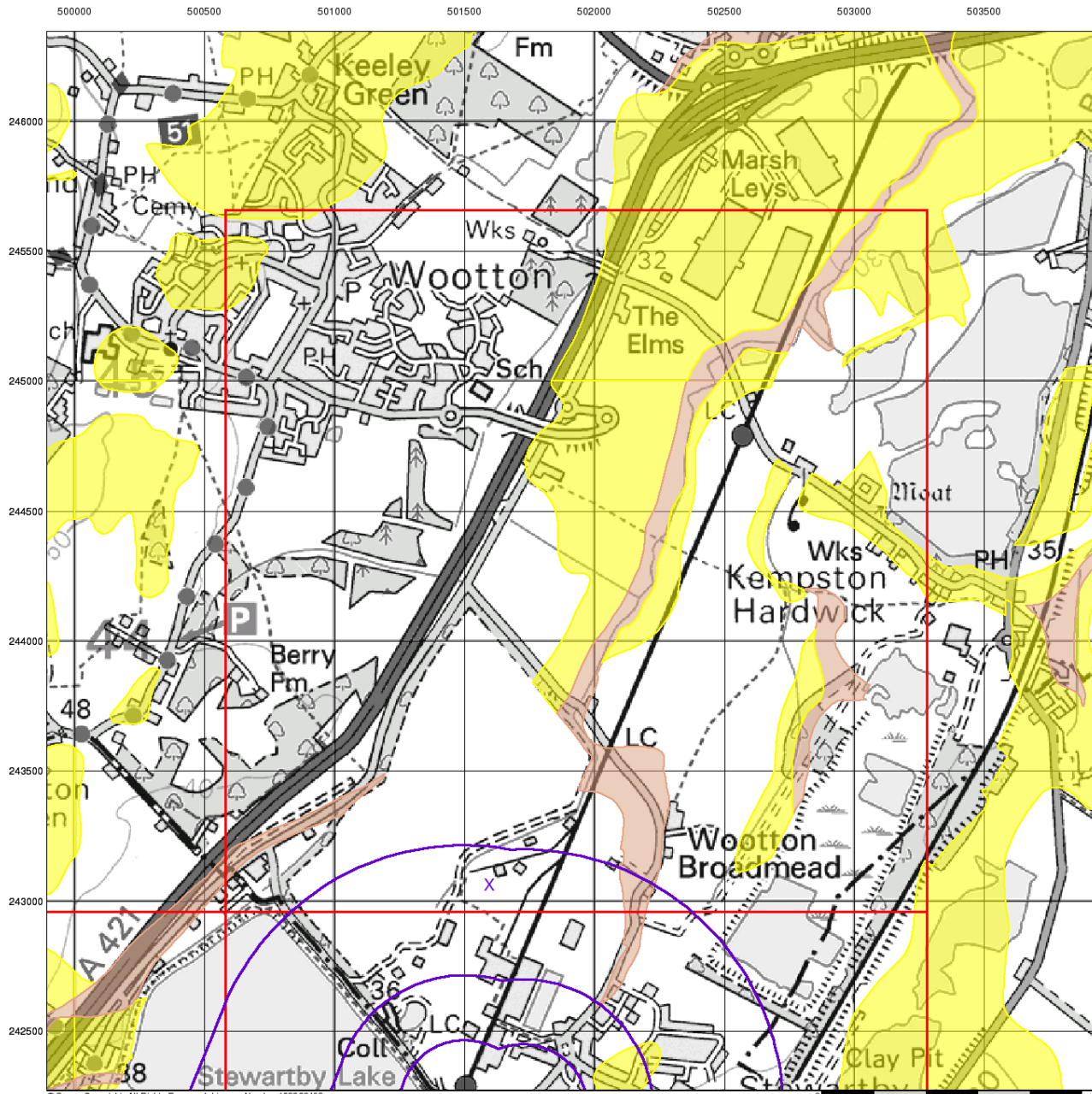
Order Number: 125070033_1_1
 Customer Ref: 40335 Millbrook
 National Grid Reference: 501590, 243060
 Slice: E
 Site Area (Ha): 87.86
 Search Buffer (m): 1000

Site Details

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Superficial Aquifer Designation

General

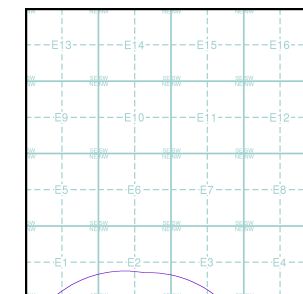
-  Specified Site
-  Specified Buffer(s)
-  Bearing Reference Point
-  Slice
-  Map ID

Agency and Hydrological

Geological Classes

-  Principal Aquifer
-  Secondary A Aquifer
-  Secondary B Aquifer
-  Secondary Undifferentiated
-  Unproductive Strata
-  Unknown
-  Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice E



Order Details

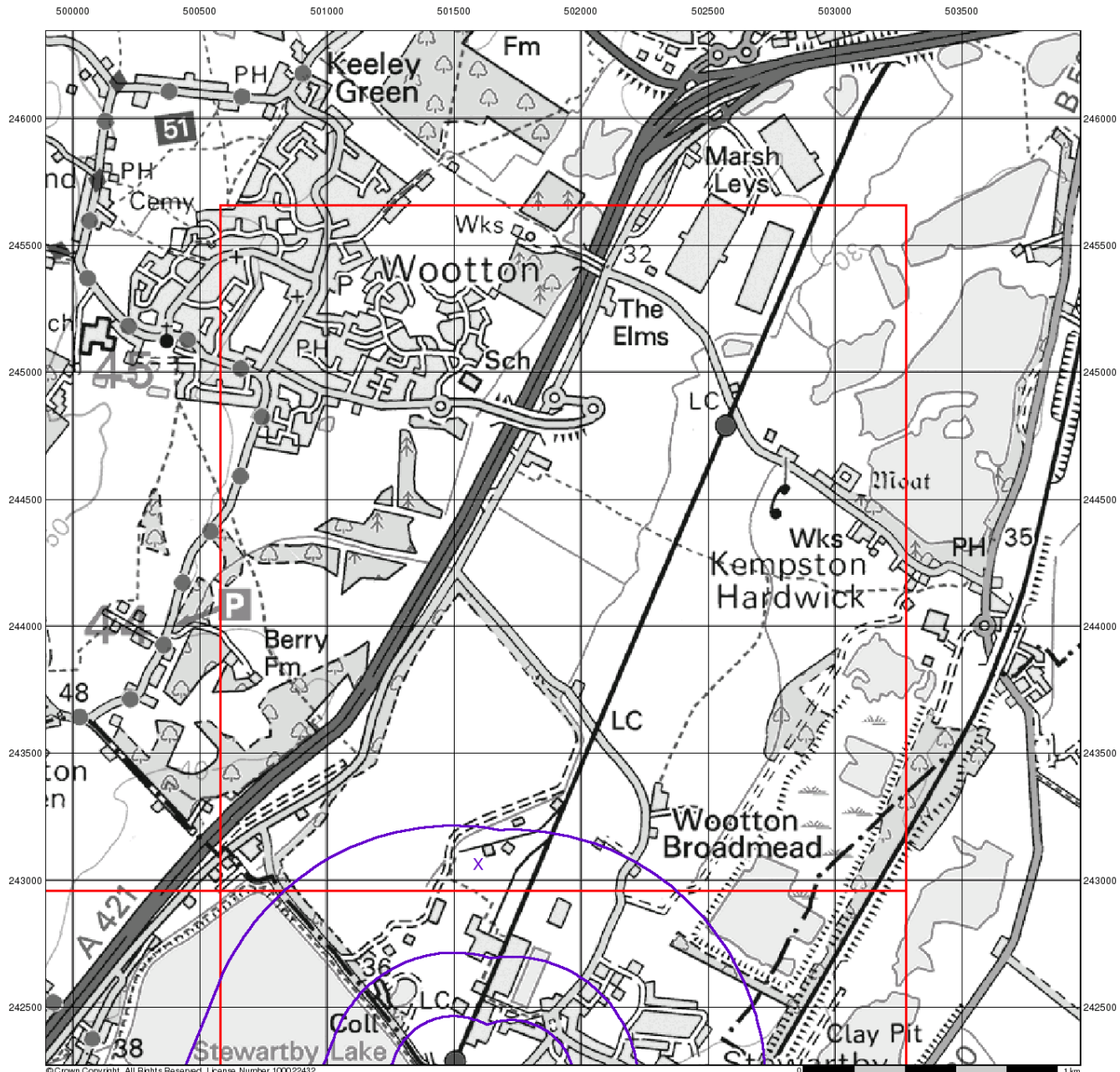
Order Number: 125070033_1_1
 Customer Ref: 40335 Millbrook
 National Grid Reference: 501590, 243060
 Slice: E
 Site Area (Ha): 87.86
 Search Buffer (m): 1000

Site Details

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









Source Protection Zones

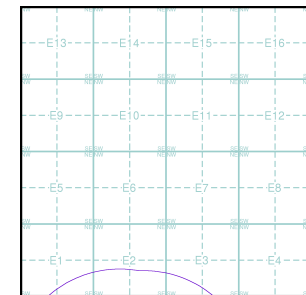
General

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

Agency and Hydrological

-  Inner zone (Zone 1)
-  Inner zone - subsurface activity only (Zone 1c)
-  Outer zone (Zone 2)
-  Outer zone - subsurface activity only (Zone 2c)
-  Total catchment (Zone 3)
-  Total catchment - subsurface activity only (Zone 3c)
-  Special interest (Zone 4)
-  Source Protection Zone Borehole

Site Sensitivity Context Map - Slice E



Order Details

Order Number: 125070033_1_1
 Customer Ref: 40335 Millbrook
 National Grid Reference: 501590, 243060
 Slice: E
 Site Area (Ha): 87.86
 Search Buffer (m): 1000

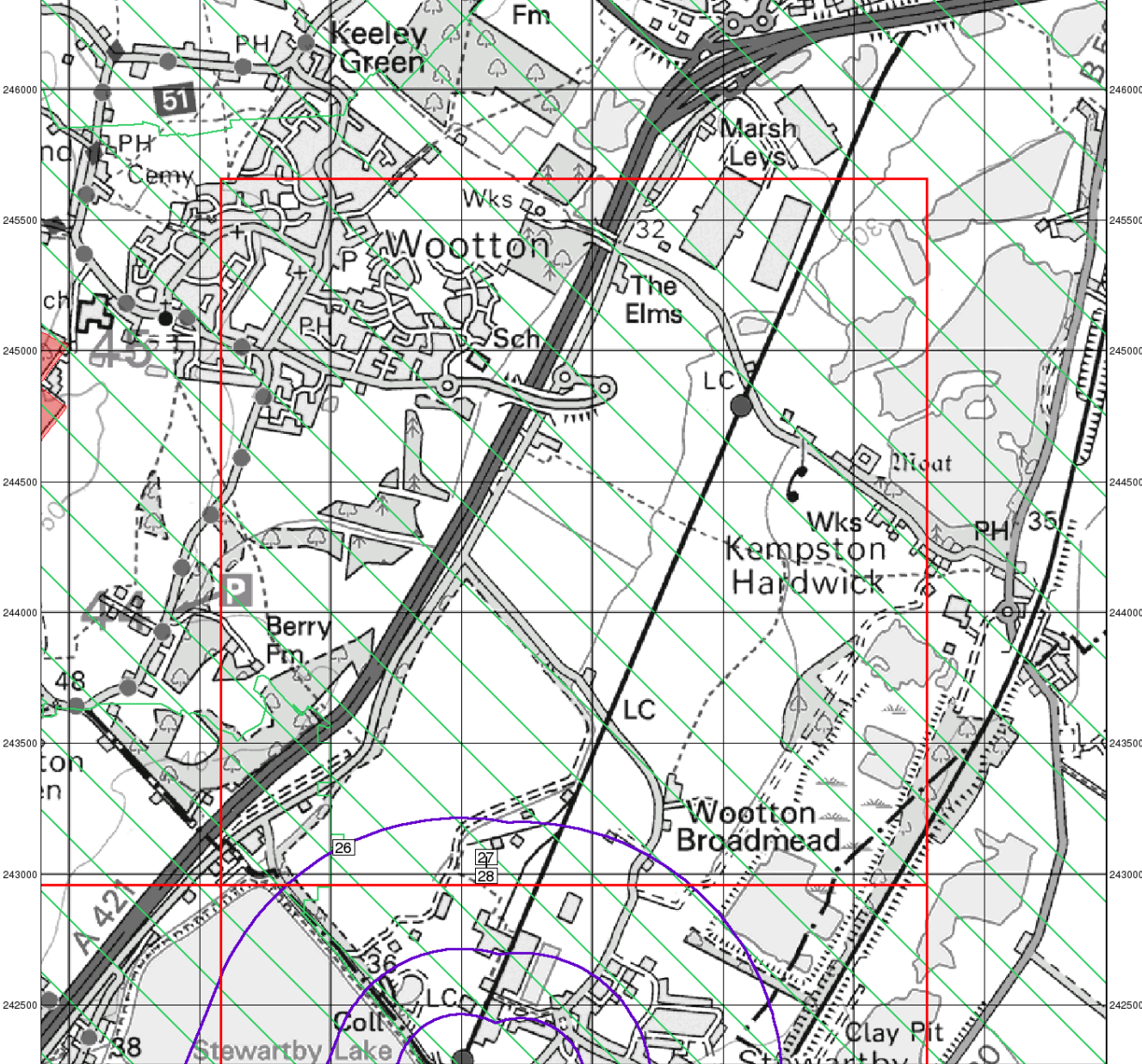
Site Details

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Sensitive Land Uses

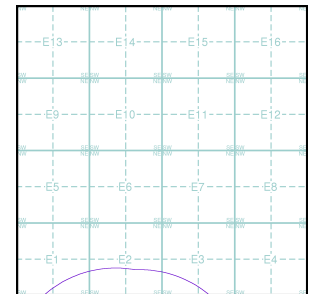
General

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

Sensitive Land Uses

- Ancient Woodland
- Area of Adopted Green Belt
- Area of Unadopted Green Belt
- Area of Outstanding Natural Beauty
- Environmentally Sensitive Area
- Forest Park
- Local Nature Reserve
- Marine Nature Reserve
- National Nature Reserve
- National Park
- Nitrate Sensitive Area
- Nitrate Vulnerable Zone
- Ramsar Site
- Site of Special Scientific Interest
- Special Area of Conservation
- Special Protection Area
- World Heritage Sites

Site Sensitivity Context Map - Slice E



Order Details

Order Number: 125070033_1_1
 Customer Ref: 40335 Millbrook
 National Grid Reference: 501590, 243060
 Slice: E
 Site Area (Ha): 87.86
 Search Buffer (m): 1000

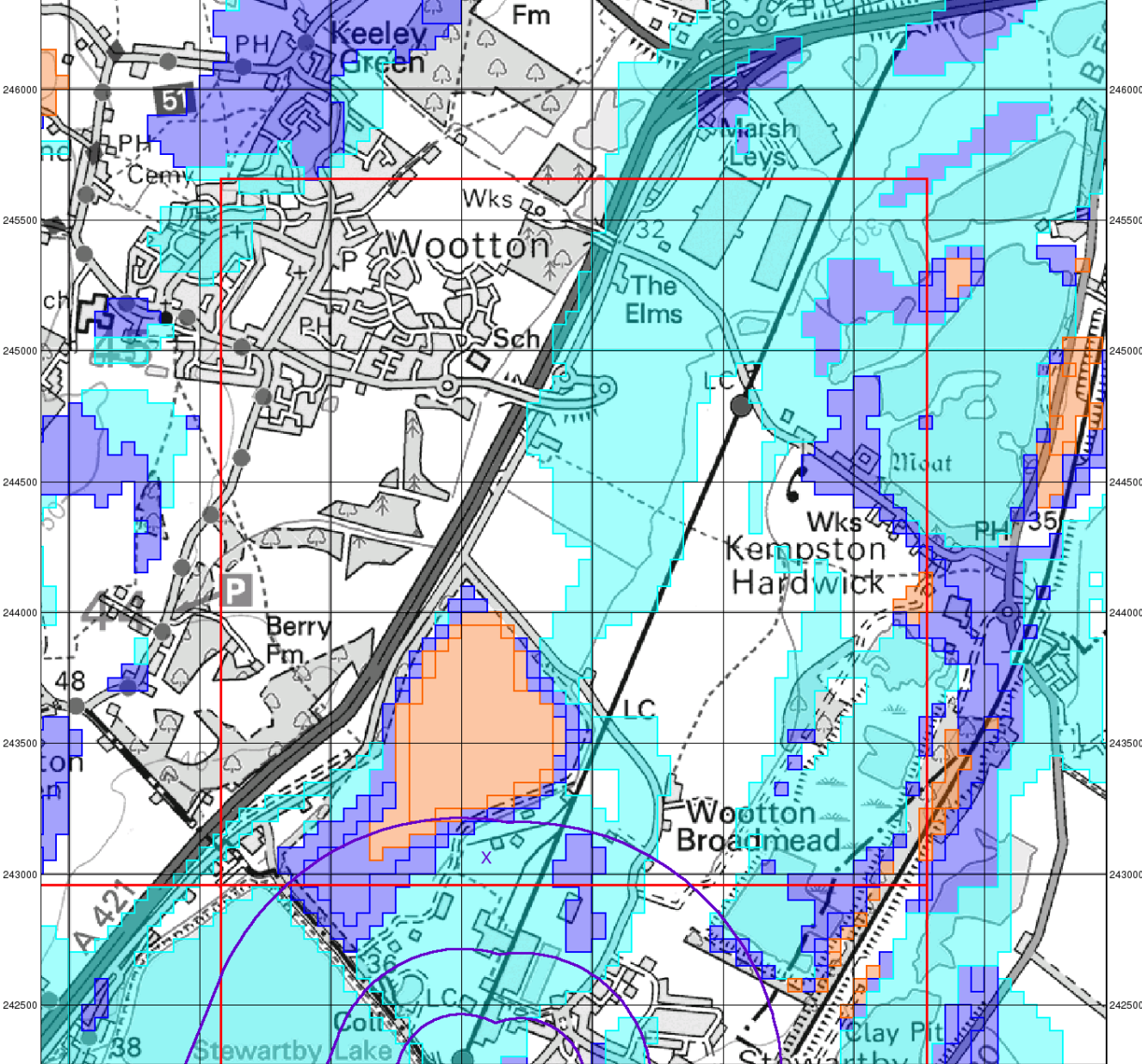
Site Details

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BGS Flood GFS Data

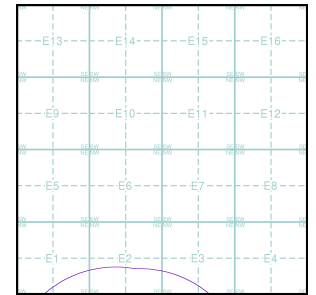
General

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

Agency and Hydrological (Flood)

- Limited Potential for Groundwater Flooding to Occur
- Potential for Groundwater Flooding of Property Situated Below Ground Level
- Potential for Groundwater Flooding to Occur at Surface

Site Sensitivity Context Map - Slice E



Order Details

Order Number: 125070033_1_1
 Customer Ref: 40335 Millbrook
 National Grid Reference: 501590, 243060
 Slice: E
 Site Area (Ha): 87.86
 Search Buffer (m): 1000

Site Details

Stewartby



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

Envirocheck[®] Report:

Datasheet

Order Details:

Order Number:

125070033_1_1

Customer Reference:

40335 Millbrook

National Grid Reference:

501590, 243060

Slice:

E

Site Area (Ha):

87.86

Search Buffer (m):

1000

Site Details:

Stewartby

Client Details:

Ms K Riley
Peter Brett Associates LLP
Caversham Bridge House
Waterman Place
Reading
Berkshire
RG1 8DN

| Report Section | Page Number |
|-----------------------|-------------|
| Summary | - |
| Agency & Hydrological | 1 |
| Waste | 5 |
| Hazardous Substances | 7 |
| Geological | 8 |
| Industrial Land Use | - |
| Sensitive Land Use | 9 |
| Data Currency | 10 |
| Data Suppliers | 14 |
| Useful Contacts | 15 |

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 v53.0

| 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 | | | | | |
| Prosecutions Relating to Controlled Waters | | | n/a | n/a | n/a |
| Enforcement and Prohibition Notices | | | | | |
| Integrated Pollution Controls | | | | | |
| Integrated Pollution Prevention And Control | | | | | |
| Local Authority Integrated Pollution Prevention And Control | | | | | |
| Local Authority Pollution Prevention and Controls | | | | | |
| Local Authority Pollution Prevention and Control Enforcements | | | | | |
| Nearest Surface Water Feature | pg 1 | | | | Yes |
| Pollution Incidents to Controlled Waters | pg 1 | | | | 3 |
| Prosecutions Relating to Authorised Processes | | | | | |
| Registered Radioactive Substances | | | | | |
| River Quality | pg 1 | | | | 1 |
| River Quality Biology Sampling Points | | | | | |
| River Quality Chemistry Sampling Points | | | | | |
| Substantiated Pollution Incident Register | pg 1 | | | | 1 |
| Water Abstractions | | | | | |
| Water Industry Act Referrals | | | | | |
| Groundwater Vulnerability | pg 2 | Yes | n/a | n/a | n/a |
| Drift Deposits | | | n/a | n/a | n/a |
| Bedrock Aquifer Designations | pg 2 | Yes | n/a | n/a | n/a |
| Superficial Aquifer Designations | | | n/a | n/a | n/a |
| Source Protection Zones | | | | | |
| Extreme Flooding from Rivers or Sea without Defences | pg 2 | | Yes | n/a | n/a |
| Flooding from Rivers or Sea without Defences | pg 2 | | Yes | n/a | n/a |
| Areas Benefiting from Flood Defences | | | | n/a | n/a |
| Flood Water Storage Areas | | | | n/a | n/a |
| Flood Defences | | | | n/a | n/a |
| OS Water Network Lines | pg 2 | | | | 15 |

| 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 5 | | 1 | | 3 |
| Integrated Pollution Control Registered Waste Sites | | | | | |
| Licensed Waste Management Facilities (Landfill Boundaries) | pg 5 | | | | 1 |
| Licensed Waste Management Facilities (Locations) | | | | | |
| Local Authority Landfill Coverage | pg 6 | 2 | n/a | n/a | n/a |
| Local Authority Recorded Landfill Sites | | | | | |
| Registered Landfill Sites | pg 6 | | | | 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 7 | | | | 1 |
| Planning Hazardous Substance Enforcements | | | | | |
| Geological | | | | | |
| BGS 1:625,000 Solid Geology | pg 8 | Yes | n/a | n/a | n/a |
| BGS Recorded Mineral Sites | | | | | |
| CBSCB Compensation District | | | 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 8 | Yes | | n/a | n/a |
| Potential for Compressible Ground Stability Hazards | pg 8 | Yes | | n/a | n/a |
| Potential for Ground Dissolution Stability Hazards | | | | n/a | n/a |
| Potential for Landslide Ground Stability Hazards | pg 8 | Yes | | n/a | n/a |
| Potential for Running Sand Ground Stability Hazards | pg 8 | Yes | | n/a | n/a |
| Potential for Shrinking or Swelling Clay Ground Stability Hazards | pg 8 | 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 |

| Data Type | Page Number | On Site | 0 to 250m | 251 to 500m | 501 to 1000m (*up to 2000m) |
|--------------------------------------|-------------|---------|-----------|-------------|-----------------------------|
| Industrial Land Use | | | | | |
| Contemporary Trade Directory Entries | | | | | |
| Fuel Station Entries | | | | | |
| Gas Pipelines | | | | | |
| Underground Electrical Cables | | | | | |
| Sensitive Land Use | | | | | |
| Ancient Woodland | | | | | |
| Areas of Adopted Green Belt | | | | | |
| Areas of Unadopted Green Belt | | | | | |
| Areas of Outstanding Natural Beauty | | | | | |
| Environmentally Sensitive Areas | | | | | |
| Forest Parks | | | | | |
| Local Nature Reserves | | | | | |
| Marine Nature Reserves | | | | | |
| National Nature Reserves | | | | | |
| National Parks | | | | | |
| Nitrate Sensitive Areas | | | | | |
| Nitrate Vulnerable Zones | pg 9 | 3 | | | |
| 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 | E2SE (SW) | 0 | 1 | 501595 243064 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface | (SW) | 0 | 1 | 501050 242650 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (S) | 7 | 1 | 501650 242300 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SE) | 281 | 1 | 502000 242350 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface | (SE) | 325 | 1 | 502100 242450 |
| | Nearest Surface Water Feature | E2SW (SW) | 764 | - | 501420 242975 |
| 1 | Pollution Incidents to Controlled Waters Property Type: Industrial: Other Location: Bedford District Authority: Environment Agency, Anglian Region Pollutant: Oils - Diesel (Including Agricultural) Note: Elstow Brook Incident Date: 8th December 1993 Incident Reference: 2089 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: In River Works Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m | E2SW (W) | 792 | 2 | 501400 243000 |
| 2 | Pollution Incidents to Controlled Waters Property Type: Landfill/Waste Disposal Site Location: Bedford District Authority: Environment Agency, Anglian Region Pollutant: Oils - Gas Oil Note: Elstow Brook Incident Date: 16th May 1997 Incident Reference: 3706 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Vandalism Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m | E2SW (NW) | 981 | 2 | 501500 243195 |
| 2 | Pollution Incidents to Controlled Waters Property Type: Landfill/Waste Disposal Site Location: Bedford District Authority: Environment Agency, Anglian Region Pollutant: Miscellaneous - Tip Leachate Note: Elstow Brook Incident Date: 6th June 1997 Incident Reference: 3735 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Other Cause Incident Severity: Category 3 - Minor Incident Positional Accuracy: Unknown | E2SW (NW) | 986 | 2 | 501500 243200 |
| | River Quality Name: Elstow Bk. GQA Grade: River Quality C Reach: Stewartby Lake Outlet A421 Estimated Distance (km): 4.5 Flow Rate: Flow less than 0.31 cumecs Flow Type: River Year: 2000 | E2SW (NW) | 504 | 2 | 501561 243116 |
| 3 | Substantiated Pollution Incident Register Authority: Environment Agency - Anglian Region, Central Area Incident Date: 18th June 2001 Incident Reference: 9912 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: Sewage Materials: Sludge | E3SW (E) | 988 | 2 | 501990 243150 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|------------------|
| | Groundwater Vulnerability Soil Classification: Not classified Map Sheet: Sheet 31 Bedfordshire Scale: 1:100,000 | E2SE (SW) | 0 | 2 | 501595 243064 |
| | Groundwater Vulnerability Soil Classification: Soils of Intermediate Leaching Potential (I1) - Soils which can possibly transmit a wide range of pollutants Map Sheet: Sheet 31 Bedfordshire Scale: 1:100,000 | (W) | 0 | 2 | 500188 242764 |
| | Drift Deposits None | | | | |
| | Bedrock Aquifer Designations Aquifer Designation: Unproductive Strata | E2SE (SW) | 0 | 1 | 501595 243064 |
| | Superficial Aquifer Designations No Data Available | | | | |
| | Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied | E2SE (SW) | 49 | 2 | 501595 243064 |
| | Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied | E2SW (N) | 51 | 2 | 501568 243137 |
| | Areas Benefiting from Flood Defences None | | | | |
| | Flood Water Storage Areas None | | | | |
| | Flood Defences None | | | | |
| 4 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 500.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | E2SE (E) | 620 | 3 | 501849 242991 |
| 5 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 337.9 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | E2SW (SW) | 648 | 3 | 501419 242974 |
| 6 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 93.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | E2SW (W) | 764 | 3 | 501466 243051 |
| 7 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 98.7 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | E2SW (NW) | 837 | 3 | 501532 243122 |
| 8 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 83.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | E3SW (E) | 882 | 3 | 502148 242972 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|------------------|
| 9 | OS Water Network Lines Watercourse Form: Lake Watercourse Length: 20.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | E2SW (NW) | 910 | 3 | 501533 243123 |
| 10 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | E2SW (NW) | 926 | 3 | 501545 243139 |
| 11 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 153.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | E2SW (NW) | 931 | 3 | 501547 243144 |
| 12 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | E3SW (E) | 963 | 3 | 502179 243047 |
| 13 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 14.0 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | E3SW (E) | 967 | 3 | 502180 243051 |
| 14 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 7.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | E3SW (E) | 981 | 3 | 502184 243065 |
| 15 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 2.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | E3SW (E) | 986 | 3 | 502186 243071 |
| 16 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 3.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | E3SW (E) | 986 | 3 | 502188 243069 |
| 17 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 111.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | E3SW (E) | 987 | 3 | 502099 243140 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|--|--|------------------------------|---------|------------------|
| 18 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 78.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1 | E2SE (N) | 990 | 3 | 501608 243199 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|--|--|------------------------------|---------|------------------|
| 19 | <p>Historical Landfill Sites</p> <p>Licence Holder: Not Supplied Location: Bedfordshire Name: Stewartby Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD34280 First Input Date: Not Supplied Last Input Date: Not Supplied Specified Waste: Not Supplied Type: EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: Not Supplied BGS Ref: Not Supplied Other Ref: PIT 62</p> | E2SE (SW) | 10 | 2 | 501595 243064 |
| 20 | <p>Historical Landfill Sites</p> <p>Licence Holder: London Brick Landfill Limited Location: Vicarage Farm, Stewartby Name: L Field Clay Pit Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD00975 First Input Date: 17th July 1952 Last Input Date: 1st January 1988 Specified Waste: Deposited Waste included Inert, Industrial, Commercial, Household and Type: Special Waste, and Liquid Sludge EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 0200/0210 BGS Ref: Not Supplied Other Ref: 9/1977, PIT 61</p> | E2SW (NW) | 623 | 2 | 501497 243118 |
| 21 | <p>Historical Landfill Sites</p> <p>Licence Holder: London Brick Landfill Limited Location: Stewartby Name: L Field Clay Pit Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD00976 First Input Date: 17th July 1952 Last Input Date: 1st January 1988 Specified Waste: Deposited Waste included Inert, Industrial, Commercial, Household and Type: Special Waste EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 0200/0209 BGS Ref: Not Supplied Other Ref: 2/1978</p> | E2SW (NW) | 623 | 2 | 501497 243118 |
| 22 | <p>Historical Landfill Sites</p> <p>Licence Holder: London Brick Landfill Limited Location: Stewartby Name: Clay Pit known as L Field Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD00990 First Input Date: 17th July 1952 Last Input Date: 6th November 1986 Specified Waste: Deposited Waste included Inert, Industrial, Commercial, Household and Type: Special Waste EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 0200/0046 BGS Ref: Not Supplied Other Ref: 4/1984</p> | E2SW (NW) | 623 | 2 | 501497 243118 |
| 23 | <p>Licensed Waste Management Facilities (Landfill Boundaries)</p> <p>Name: Stewartby Landfill Epr/Bv4576ik Licence Number: 70053 Location: Stewartby Lanfill Site, Green Lane, Stewartby, Bedford, Bedfordshire, MK43 9LY Licence Holder: Fcc Waste Services (Uk) Limited Authority: Environment Agency - Anglian Region, Central Area Site Category: Waste Landfilling; >10 T/D with Capacity >25,000T Excluding Inert Waste Max Input Rate: Not Supplied Licence Status: Effective Issued: 5th June 2015 Positional Accuracy: Positioned by the supplier Boundary Accuracy: As Supplied</p> | E2SW (NW) | 623 | 2 | 501497 243118 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|------------------|
| | Local Authority Landfill Coverage Name: Bedford Borough Council - Has supplied landfill data | | 0 | 4 | 501595 243064 |
| | Local Authority Landfill Coverage Name: Bedfordshire County Council - Has no landfill data to supply | | 0 | 5 | 501595 243064 |
| 24 | Registered Landfill Sites Licence Holder: Shanks & Mc Ewan (Southern) Ltd Licence Reference: 2/1978 (9/1977) Site Location: L Field Claypit, Stewartby, Bedford, Bedfordshire Licence Easting: Not Supplied Licence Northing: Not Supplied Operator Location: 69-71 Bromham Road, Bedford, Bedfordshire Authority: Environment Agency - Anglian Region, Central Area Site Category: Landfill 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: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 22nd June 1978 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Positioned by the supplier Boundary Accuracy: Moderate Authorised Waste Asbestos Bedfordshire Category A * Bedfordshire Category B * Bedfordshire Category C1 * Bedfordshire Category C2 * Bedfordshire Category D * Bedfordshire Category E * Medical Wastes Prohibited Waste Acid Liquors If Ph<4 Chromates Liquids In Closed Drums Over 45l Cap'Y Mat'L/Liquor Cont. Cyanides Pesticides Phenols, Analogues/Derivatives Soluble Heavy Metals Not Neutralised Environment Agency Organic Solvents must give specific authorisation for this waste to be acceptedWaste requires prior approval | E2SW (N) | 640 | 2 | 501552 243173 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|------------------|
| 25 | <p>Planning Hazardous Substance Consents</p> <p>Name: Shanks Waste Service Limited Location: Stewartby Treatment Plant, Green Lane, Stewartby, Mk43 9ly Authority: Central Bedfordshire Council, Planning Department Application Ref: 400/61 Hazardous Substance: Combination of Dangerous Substances Maximum Quantity: 0 Application date: Not Supplied Decision: Deemed Consent Granted Positional Accuracy: Manually positioned to the address or location</p> | E3SW (E) | 980 | 6 | 502071 243115 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|---------------|
| | BGS 1:625,000 Solid Geology Description: Kellaways Formation And Oxford Clay Formation (Undifferentiated) | E2SE (SW) | 0 | 1 | 501595 243064 |
| | 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 | E2SE (SW) | 0 | 1 | 501595 243064 |
| | Potential for Compressible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service | E2SE (SW) | 0 | 1 | 501595 243064 |
| | Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | (E) | 0 | 1 | 502195 242934 |
| | Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | E2SE (SW) | 0 | 1 | 501595 243064 |
| | Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service | E2SE (SW) | 0 | 1 | 501595 243064 |
| | Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | (E) | 0 | 1 | 502195 242934 |
| | Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service | E2SE (SW) | 0 | 1 | 501595 243064 |
| | Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | E1NE (NW) | 77 | 1 | 501032 243329 |
| | Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service | E2SE (SW) | 0 | 1 | 501595 243064 |
| | Radon Potential - Radon Affected Areas Affected Area: The property is in a Lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service | E2SE (SW) | 0 | 1 | 501595 243064 |
| | 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 | E2SE (SW) | 0 | 1 | 501595 243064 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|------------------|
| 26 | Nitrate Vulnerable Zones Name: Not Supplied Description: Eutrophic Water Source: Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA) | E1SE (W) | 0 | 8 | 501050 243100 |
| 27 | Nitrate Vulnerable Zones Name: Not Supplied Description: Surface Water Source: Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA) | E2SE (SW) | 0 | 8 | 501595 243064 |
| 28 | Nitrate Vulnerable Zones Name: Not Supplied Description: Groundwater Source: Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA) | E2SE (SW) | 0 | 8 | 501595 243064 |

| Agency & Hydrological | Version | Update Cycle |
|---|--|---|
| Contaminated Land Register Entries and Notices Central Bedfordshire Council - Environmental Health Department Bedford Borough Council - Environmental Health Department Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department | December 2013 December 2014 July 2008 | Annually Annual Rolling Update Not Applicable |
| Discharge Consents Environment Agency - Anglian Region | January 2017 | Quarterly |
| Enforcement and Prohibition Notices Environment Agency - Anglian Region | March 2013 | As notified |
| Integrated Pollution Controls Environment Agency - Anglian Region | October 2008 | Not Applicable |
| Integrated Pollution Prevention And Control Environment Agency - Anglian Region | April 2017 | Quarterly |
| Local Authority Integrated Pollution Prevention And Control Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department Bedford Borough Council - Environmental Health Department Central Bedfordshire Council - Environmental Health Department | December 2008 March 2015 November 2014 | Not Applicable Annual Rolling Update Annually |
| Local Authority Pollution Prevention and Controls Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department Bedford Borough Council - Environmental Health Department Central Bedfordshire Council - Environmental Health Department | December 2008 March 2015 November 2014 | Not Applicable Annual Rolling Update Annually |
| Local Authority Pollution Prevention and Control Enforcements Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department Bedford Borough Council - Environmental Health Department Central Bedfordshire Council - Environmental Health Department | December 2008 March 2015 November 2014 | Not Applicable Annual Rolling Update Annually |
| Nearest Surface Water Feature Ordnance Survey | March 2017 | |
| Pollution Incidents to Controlled Waters Environment Agency - Anglian Region | September 1999 | Not Applicable |
| Prosecutions Relating to Authorised Processes Environment Agency - Anglian Region | March 2013 | As notified |
| Prosecutions Relating to Controlled Waters Environment Agency - Anglian Region | March 2013 | As notified |
| Registered Radioactive Substances Environment Agency - Anglian Region | January 2015 | |
| 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 - Anglian Region - Central Area | April 2017 | Quarterly |
| Water Abstractions Environment Agency - Anglian Region | October 2016 | Quarterly |
| Water Industry Act Referrals Environment Agency - Anglian Region | April 2017 | Quarterly |
| Groundwater Vulnerability Environment Agency - Head Office | April 2015 | Not Applicable |

| Agency & Hydrological | Version | Update Cycle |
|---|------------------------------------|--|
| 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 | April 2017 | Quarterly |
| Extreme Flooding from Rivers or Sea without Defences Environment Agency - Head Office | February 2017 | Quarterly |
| Flooding from Rivers or Sea without Defences Environment Agency - Head Office | February 2017 | Quarterly |
| Areas Benefiting from Flood Defences Environment Agency - Head Office | February 2017 | Quarterly |
| Flood Water Storage Areas Environment Agency - Head Office | February 2017 | Quarterly |
| Flood Defences Environment Agency - Head Office | February 2017 | Quarterly |
| OS Water Network Lines Ordnance Survey | January 2017 | 6 Weekly |
| 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 | January 2017 | Quarterly |
| Integrated Pollution Control Registered Waste Sites Environment Agency - Anglian Region | October 2008 | Not Applicable |
| Licensed Waste Management Facilities (Landfill Boundaries) Environment Agency - Anglian Region - Central Area | August 2016 | Quarterly |
| Licensed Waste Management Facilities (Locations) Environment Agency - Anglian Region - Central Area | October 2016 | Quarterly |
| Local Authority Landfill Coverage Bedford Borough Council - Environmental Health Department Bedfordshire County Council (now part of Central Bedfordshire Council) Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department | May 2000 May 2000 May 2000 | Not Applicable Not Applicable Not Applicable |
| Local Authority Recorded Landfill Sites Bedford Borough Council - Environmental Health Department Bedfordshire County Council (now part of Central Bedfordshire Council) Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department | April 2003 May 2000 May 2000 | Not Applicable Not Applicable Not Applicable |
| Registered Landfill Sites Environment Agency - Anglian Region - Central Area | March 2003 | Not Applicable |
| Registered Waste Transfer Sites Environment Agency - Anglian Region - Central Area | March 2003 | Not Applicable |
| Registered Waste Treatment or Disposal Sites Environment Agency - Anglian Region - Central Area | March 2003 | Not Applicable |

| Hazardous Substances | Version | Update Cycle |
|---|---|--|
| Control of Major Accident Hazards Sites (COMAH) Health and Safety Executive | March 2017 | Bi-Annually |
| Explosive Sites Health and Safety Executive | March 2017 | Bi-Annually |
| Notification of Installations Handling Hazardous Substances (NIHHS) Health and Safety Executive | November 2000 | Not Applicable |
| Planning Hazardous Substance Enforcements Bedford Borough Council Central Bedfordshire Council - Planning Department Bedfordshire County Council (now part of Central Bedfordshire Council) Mid Bedfordshire District Council (now part of Central Bedfordshire Council) | February 2016 February 2016 July 2008 May 2008 | Annual Rolling Update Annually Annual Rolling Update Not Applicable |
| Planning Hazardous Substance Consents Bedford Borough Council Central Bedfordshire Council - Planning Department Bedfordshire County Council (now part of Central Bedfordshire Council) Mid Bedfordshire District Council (now part of Central Bedfordshire Council) | February 2016 February 2016 July 2008 May 2008 | Annual Rolling Update Annually Annual Rolling Update Not Applicable |
| Geological | Version | Update Cycle |
| BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service | January 2009 | Not Applicable |
| BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service | April 2017 | Bi-Annually |
| CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB) | August 2011 | Not Applicable |
| Coal Mining Affected Areas The Coal Authority - Property Searches | March 2014 | 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 |

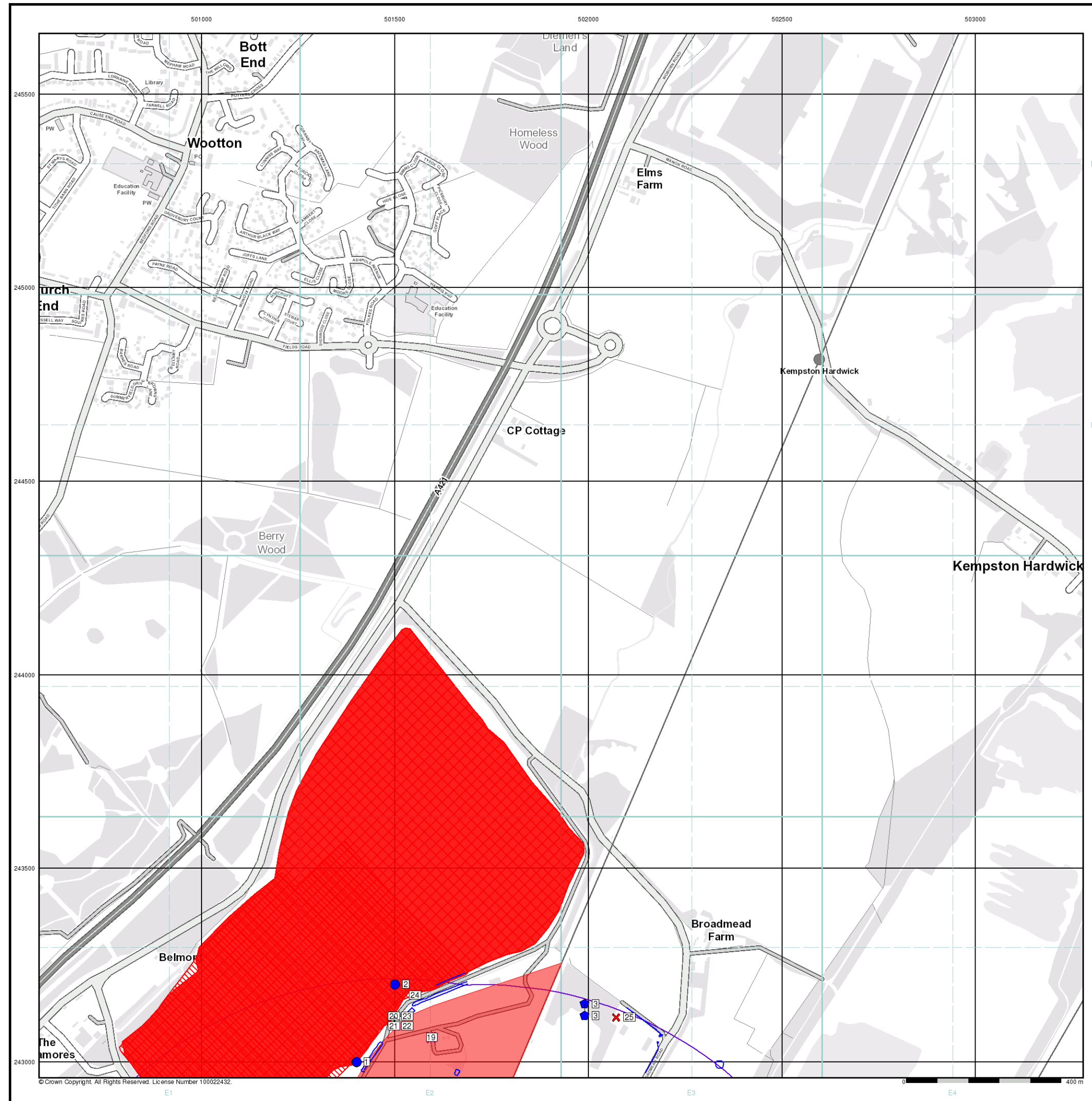
| Industrial Land Use | Version | Update Cycle |
|--|---------------------------|----------------------------|
| Contemporary Trade Directory Entries Thomson Directories | March 2017 | Quarterly |
| Fuel Station Entries Catalist Ltd - Experian | February 2017 | Quarterly |
| Gas Pipelines National Grid | July 2014 | Quarterly |
| Underground Electrical Cables National Grid | December 2015 | Bi-Annually |
| Sensitive Land Use | Version | Update Cycle |
| Ancient Woodland Natural England | August 2016 | Bi-Annually |
| Areas of Adopted Green Belt Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department Central Bedfordshire Council - Planning Department | February 2017 May 2011 | As notified As notified |
| Areas of Unadopted Green Belt Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department Central Bedfordshire Council - Planning Department | February 2017 May 2011 | As notified As notified |
| Areas of Outstanding Natural Beauty Natural England | January 2017 | Bi-Annually |
| Environmentally Sensitive Areas Natural England | January 2017 | Annually |
| Forest Parks Forestry Commission | April 1997 | Not Applicable |
| Local Nature Reserves Natural England | January 2017 | Bi-Annually |
| Marine Nature Reserves Natural England | January 2017 | Bi-Annually |
| National Nature Reserves Natural England | January 2017 | Bi-Annually |
| National Parks Natural England | February 2017 | Bi-Annually |
| Nitrate Vulnerable Zones Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA) | October 2015 | Annually |
| Ramsar Sites Natural England | January 2017 | Bi-Annually |
| Sites of Special Scientific Interest Natural England | January 2017 | Bi-Annually |
| Special Areas of Conservation Natural England | January 2017 | Bi-Annually |
| Special Protection Areas Natural England | January 2017 | Bi-Annually |
| World Heritage Sites English Heritage - National Monument Record Centre | May 2017 | 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 |  <p>British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL</p> |
| Centre for Ecology and Hydrology |  <p>Centre for Ecology & Hydrology NATURAL ENVIRONMENT RESEARCH COUNCIL</p> |
| Natural Resources Wales |  |
| Scottish Natural Heritage |  |
| Natural England |  |
| Public Health England |  |
| Ove Arup |  |
| Peter Brett Associates |  |

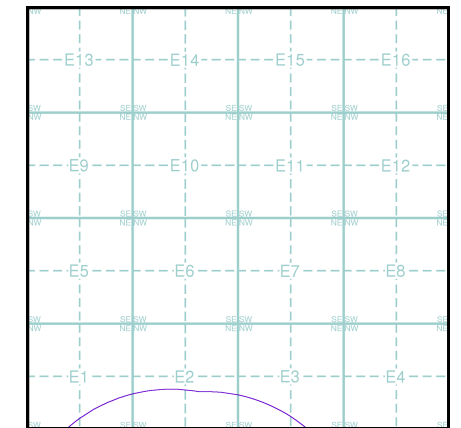
| Contact | Name and Address | Contact Details |
|---------|---|---|
| 1 | British Geological Survey - Enquiry Service British Geological Survey, Kingsley Dunham Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG | Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk |
| 2 | Environment Agency - National Customer Contact Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY | Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk |
| 3 | Ordnance Survey Adanac Drive, Southampton, Hampshire, SO16 0AS | Telephone: 023 8079 2000 Email: enquires@ordnavy.gov.uk Website: www.ordnancesurvey.gov.uk |
| 4 | Bedford Borough Council - Environmental Health Department Town Hall, St Pauls Street, Bedford, Bedfordshire, MK40 1SJ | Telephone: 01234 267422 Fax: 01234 325671 Email: enquiries@bedford.gov.uk Website: www.bedford.gov.uk |
| 5 | Bedfordshire County Council (now part of Central Bedfordshire Council) Priory House, Monks Walk, Chicksands, Shefford, Bedfordshire, SG17 5TQ | Telephone: 0300 300 8301 Email: www.centralbedfordshire.gov.uk Website: www.centralbedfordshire.gov.uk |
| 6 | Central Bedfordshire Council - Planning Department Priory House, Monks Walk, Chicksands, Shefford, Bedfordshire, SG17 5TQ | Telephone: 0300 300 8000 Email: info@centralbedfordshire.gov.uk Website: www.centralbedfordshire.gov.uk |
| 7 | Natural England County Hall, Spetchley Road, Worcester, WR5 2NP | Telephone: 0300 060 3900 Email: enquiries@naturalengland.org.uk Website: www.naturalengland.org.uk |
| 8 | 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 |
| - | 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.



- 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 Enforcement
 - 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
- Waste**
- BGS Recorded Landfill Site (Location)
 - BGS Recorded Landfill Site (Buffered Point)
 - 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
 - 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
- Industrial Land Use**
- Contemporary Trade Directory Entry
 - Fuel Station Entry

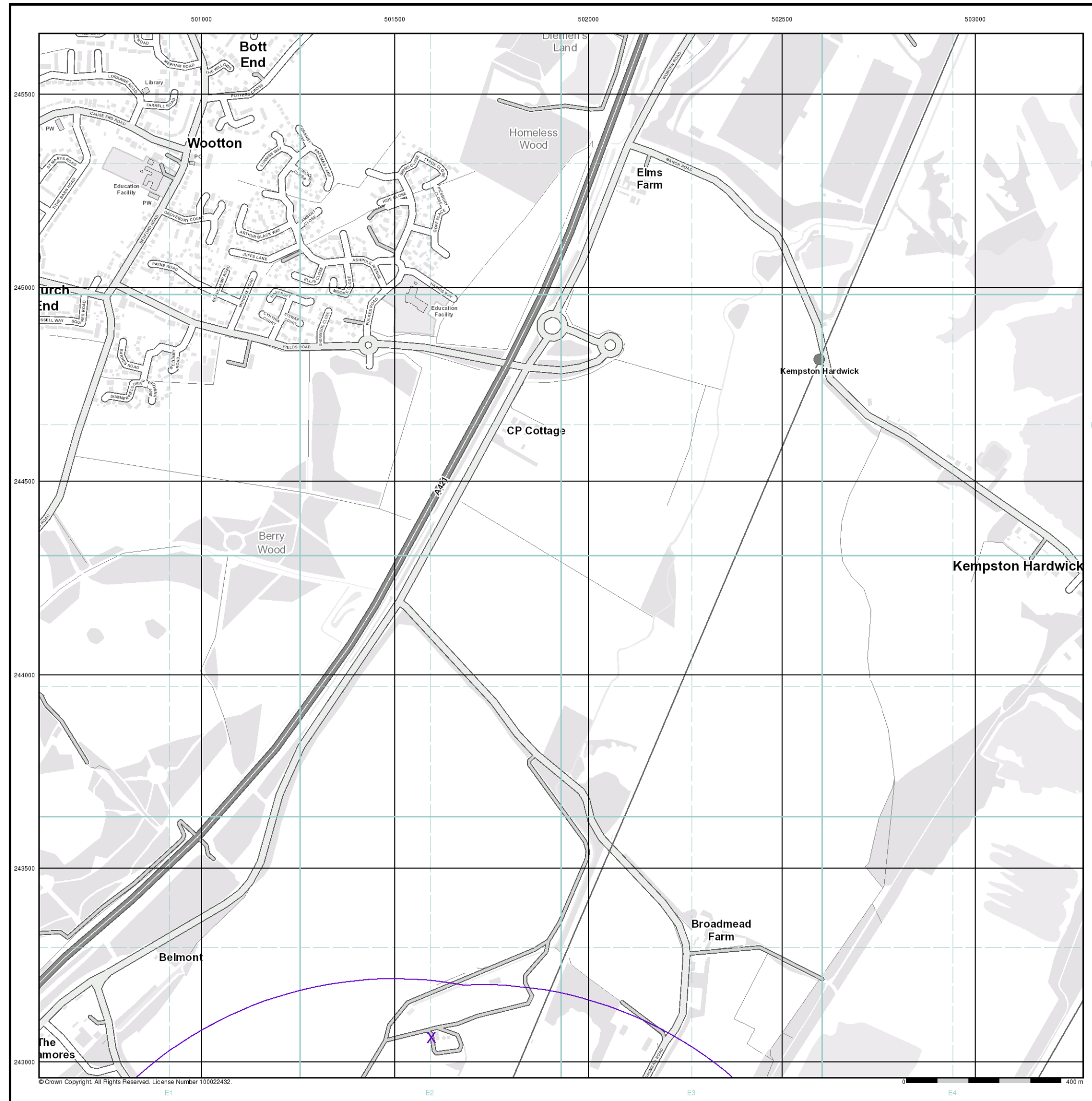
Site Sensitivity Map - Slice E



Order Details

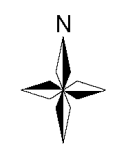
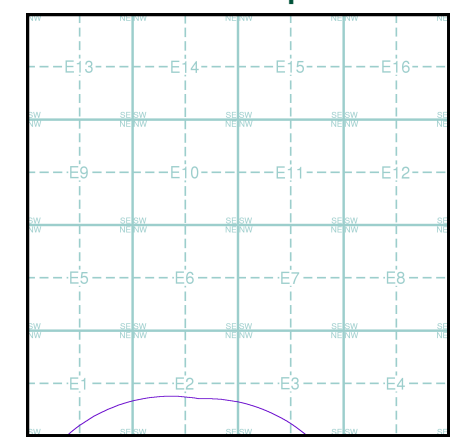
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 Customer Ref: 40335 Millbrook
 National Grid Reference: 501590, 243060
 Slice: E
 Site Area (Ha): 87.86
 Search Buffer (m): 1000

Site Details
 Stewartby



- General**
- Specified Site
 - Specified Buffer(s)
 - Bearing Reference Point
 - Slice
 - Map ID
- Industrial Land Use**
- Contemporary Trade Directory Entry
 - Fuel Station Entry
 - Gas Pipeline
 - Underground Electrical Cables

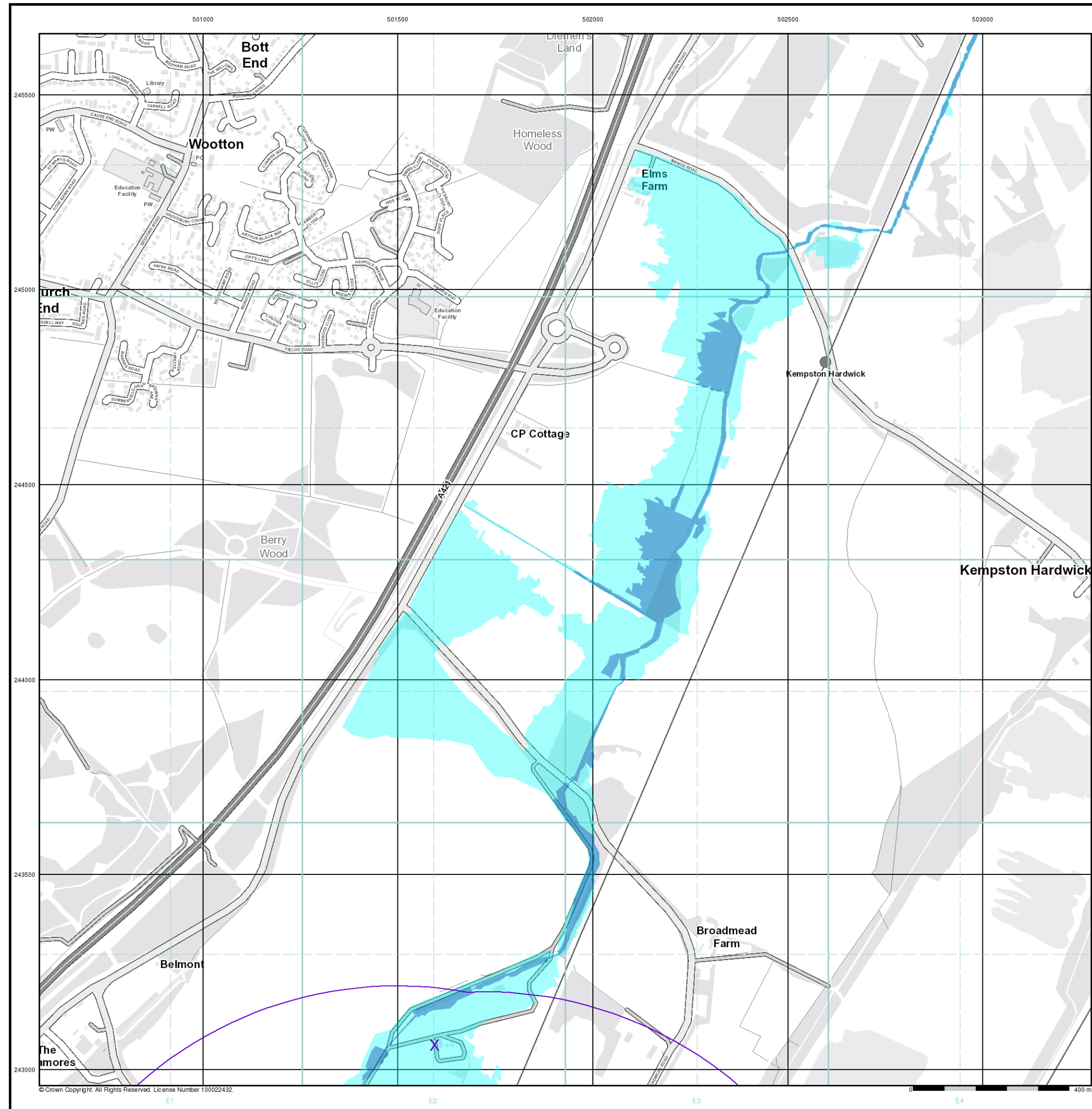
Industrial Land Use Map - Slice E



Order Details

Order Number: 125070033_1_1
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 National Grid Reference: 501590, 243060
 Slice: E
 Site Area (Ha): 87.86
 Search Buffer (m): 1000

Site Details
Stewartby



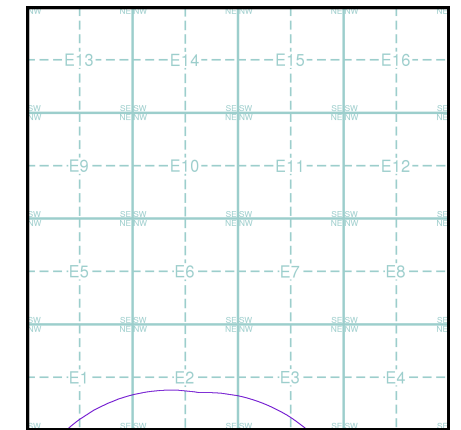
General

- 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 E



Order Details

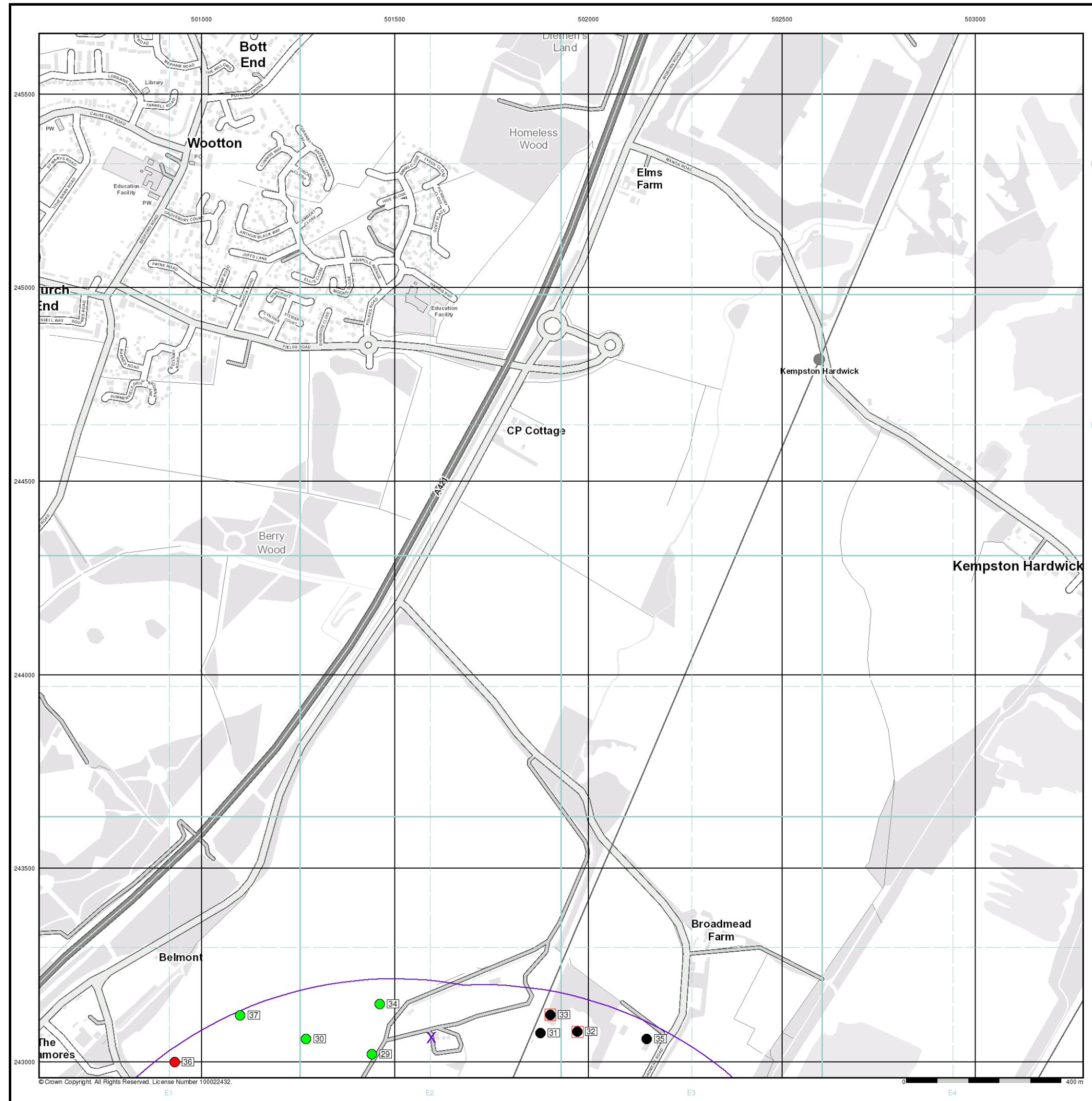
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 Slice: E
 Site Area (Ha): 87.86
 Search Buffer (m): 1000

Site Details

Stewartby



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



General

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

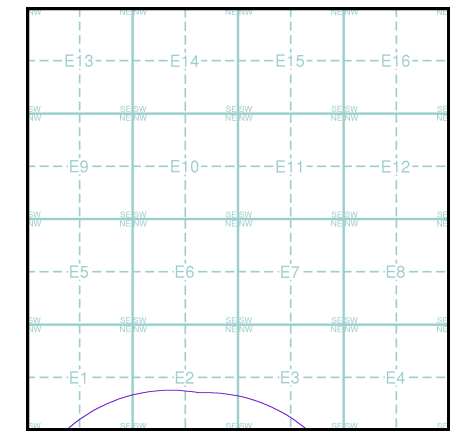
Agency and Hydrological (Boreholes)

- 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 E



Order Details

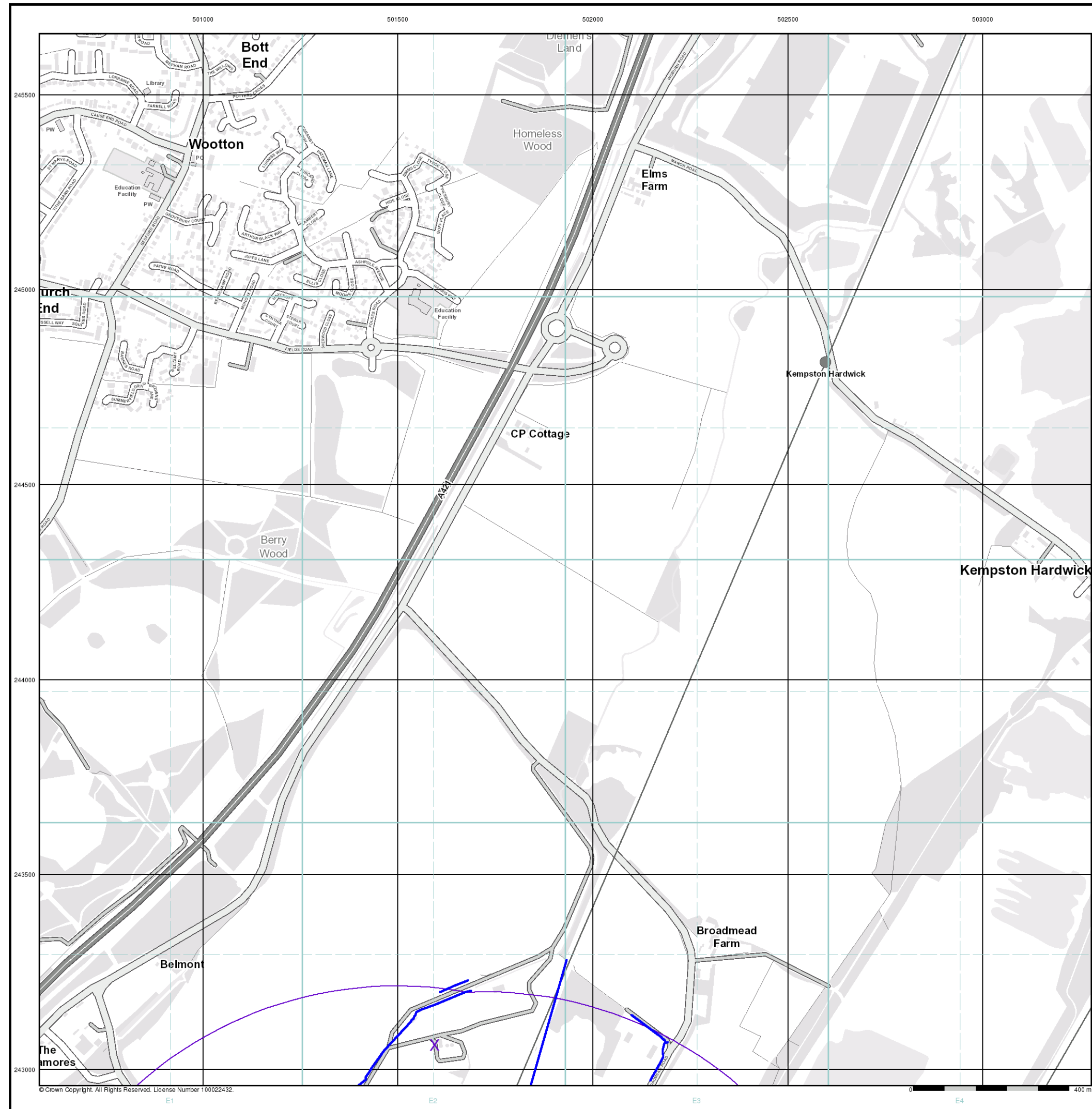
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 Customer Ref: 40335 Millbrook
 National Grid Reference: 501590, 243060
 Slice: E
 Site Area (Ha): 87.86
 Search Buffer (m): 1000

Site Details

Stewartby



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



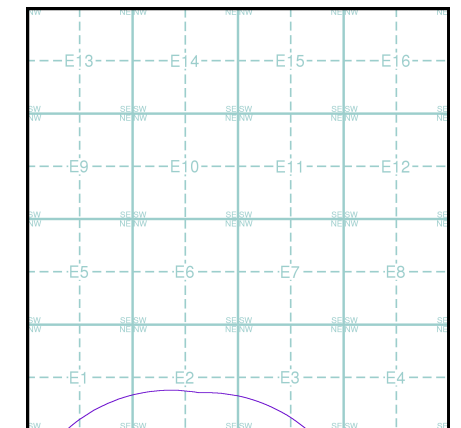
General

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

OS Water Network Data

- | | |
|--------------|-------------------------|
| Canal | Drain |
| Reservoir | Other |
| Foreshore | Lake |
| Marsh | Transfer |
| Tidal River | Lock Or Flight Of Locks |
| Inland River | Sea |

OS Water Network Map - Slice E



Order Details

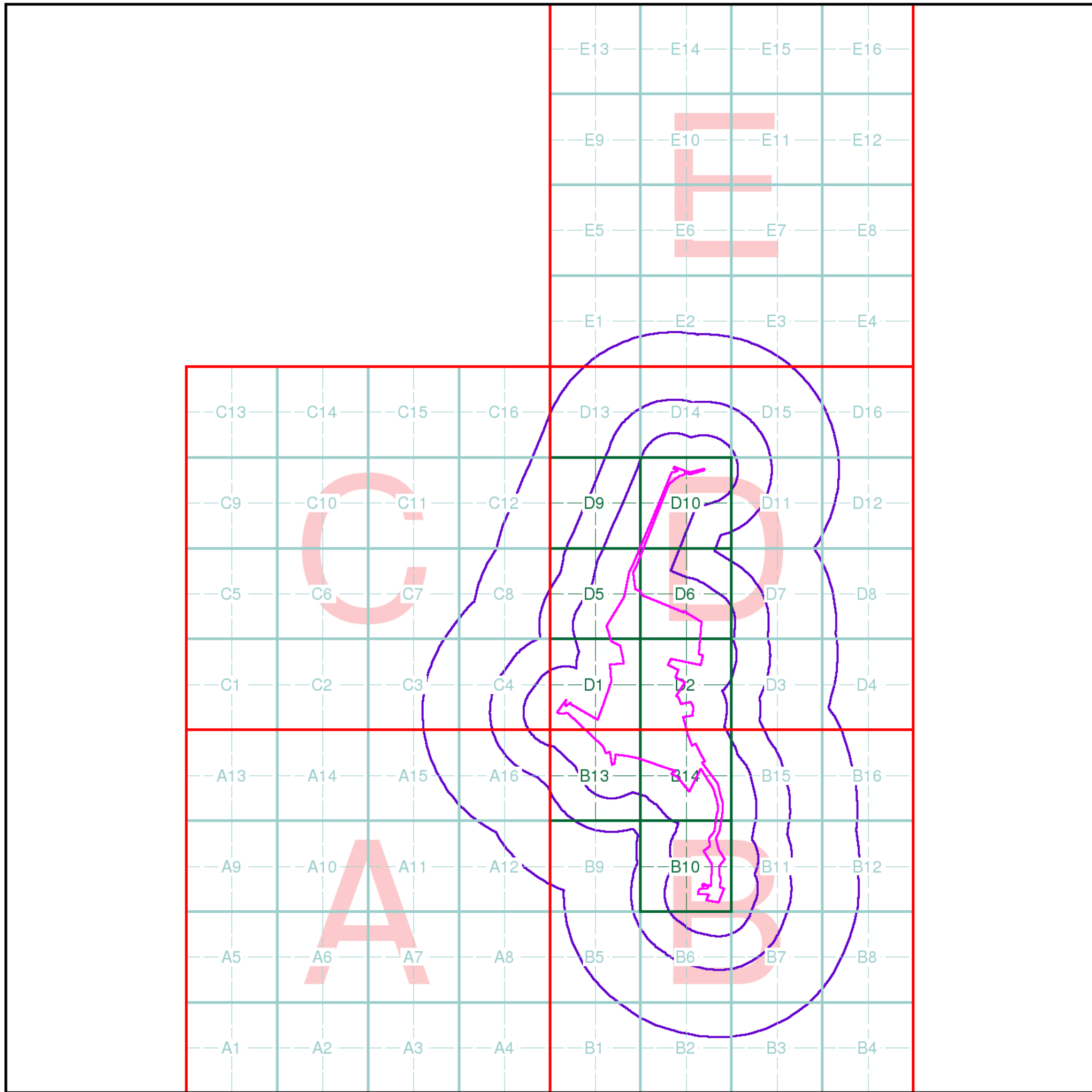
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 Site Area (Ha): 87.86
 Search Buffer (m): 1000

Site Details

Stewartby



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



Index Map

For ease of identification, your site and buffer have been split into Slices, Segments and Quadrants. These are illustrated on the Index Map opposite and explained further below.

Slice
Each slice represents a 1:10,000 plot area (2.7km x 2.7km) for your site and buffer. A large site and buffer may be made up of several slices (represented by a red outline), that are referenced by letters of the alphabet, starting from the bottom left corner of the slice "grid". This grid does not relate to National Grid lines but is designed to give best fit over the site and buffer.

Segment
A segment represents a 1:2,500 plot area. Segments that have plot files associated with them are shown in dark green, others in light blue. These are numbered from the bottom left hand corner within each slice.

Quadrant
A quadrant is a quarter of a segment. These are labelled as NW, NE, SW, SE and are referenced in the datasheet to allow features to be quickly located on plots. Therefore a feature that has a quadrant reference of A7NW will be in Slice A, Segment 7 and the NW Quadrant.

A selection of organisations who provide data within this report:



Envirocheck reports are compiled from 136 different sources of data.

Client Details

Ms K Riley, Peter Brett Associates LLP, Caversham Bridge House, Waterman Place, Reading, Berkshire, RG1 8DN

Order Details

Order Number: 125070033_1_1
 Customer Ref: 40335 Millbrook
 National Grid Reference: 501350, 240520
 Site Area (Ha): 87.86
 Search Buffer (m): 1000

Site Details

Stewartby

Full Terms and Conditions can be found on the following link:
<http://www.landmarkinfo.co.uk/Terms/Show/515>



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

Appendix 5. Exploratory Hole Records

BOREHOLE LOG



CLIENT COVANTA ENERGY LTD

BH101

SITE ROOKERY SOUTH, STEWARTBY, BEDFORDSHIRE

Sheet 1 of 2

Start Date 24 February 2009 Easting 501127.3

Scale 1 : 50

End Date 24 February 2009 Northing 241231.1 Ground level 38.27mOD

Depth 11.87 m

| progress date/time water depth | sample no & type | depth (m) from to | casing depth (m) | test type & value | samp. /core range | instru -ment | description | depth (m) | reduced level (m) | legend |
|--------------------------------|------------------|----------------------|------------------|-------------------|-------------------|--------------|--|-----------|-------------------|--------|
| 24/02/09 0800hrs | 1D | 0.10 | | | | | MADE GROUND: Firm dark bluish grey mottled light grey slightly sandy slightly gravelly locally gravelly CLAY with rare sand to medium gravel sized shell fragments and rare gravel sized pockets of soft light grey silt. Gravel is angular and subangular fine to coarse and occasional cobbles of brick and rare clinker fragments. (CALLOW CLAY FILL) | 0.60 | 37.67 | |
| | 2D* | 0.50 | | | | | | | | |
| | 3D | 0.60 | | | | | | | | |
| | 4B | 0.70 - 1.20 | | | | | | | | |
| | 5D | 1.20 - 1.65 | 1.10 | S 29 | | | MADE GROUND: Stiff extremely closely fissured dark bluish grey locally mottled light whitish grey slightly sandy CLAY with rare light grey silty sand partings and rare sand to medium gravel sized shell fragments. Gravel is angular and subangular fine and medium brick fragments. (CALLOW CLAY FILL) 1.20 - 1.65m: Locally discoloured dark greenish blue. | 1.65 | 36.62 | |
| | 6D* | 1.50 | | | | | | | | |
| | 7D | 1.80 | | | | | Stiff extremely closely fissured dark greenish grey slightly sandy CLAY with frequent sand to medium gravel sized shell fragments. (OXFORD CLAY FORMATION) 2.00m: Becoming very stiff. 2.10m: High strength. 2.80 - 3.00m: Rare light grey soft slightly sandy silt partings (<1mm) along fissure surfaces. | | | |
| | 8U | 2.00 - 2.40 | 1.10 | | PP 3.8 PP 4.3 | | | | | |
| | 9D | 2.00 2.37 2.45 | | | | | | | | |
| | 10D | 2.80 | | | | | | | | |
| | 11D | 3.00 - 3.40 | 1.10 | S 37 | | | 4.80 - 5.00m: Rare fine and medium gravel sized pyritised wood fragments and 20mm x 7mm diameter belemnite fossils. | | | |
| | 12D | 3.80 | | | | | | | | |
| | 13U | 4.00 - 4.45 | 1.10 | | | | | | | |
| | 14D | 4.50 | | | | | | | | |
| | 15D | 4.80 | | | | | 6.65m: High strength. | | | |
| | 16D | 5.00 - 5.45 | 1.10 | S 47 | | | | | | |
| | 17D | 6.00 | | | | | | | | |
| | 18U | 6.50 - 6.90 | 1.10 | | | | | | | |
| | 19D | 6.95 | | | | | | | | |
| | 20D | 7.50 | | | | | | | | |
| Continued Next Page | | | | | | | | {8.00} | | |

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EQUIPMENT: Light cable percussive (shell and auger) rig.
 METHOD: Hand dug inspection pit 0.00-1.20m. Cable percussion (150mm) 1.20-11.87m.
 CASING: 150mm diam to 1.10m.
 REMARKS: Hole advanced by chiselling 11.80-11.87m (1.5 hr). Hole refused on hard strata at 11.87m.
 BACKFILL: On completion borehole was backfilled with materials arising and the surface reinstated.
 REMARKS: Stratum names provided by the Engineer.

EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

| water strike (m) | casing (m) | rose to (m) | time to rise (min) | remarks |
|------------------|------------|-------------|--------------------|------------------------------|
| | | | | Groundwater not encountered. |

| | | |
|--|---------------------------------|--------------------|
| | CONTRACT 22607 | CHECKED |
|--|---------------------------------|--------------------|

BOREHOLE LOG



CLIENT COVANTA ENERGY LTD

BH101

SITE ROOKERY SOUTH, STEWARTBY, BEDFORDSHIRE

Sheet 2 of 2

Start Date 24 February 2009 Easting 501127.3

Scale 1 : 50

End Date 24 February 2009 Northing 241231.1 Ground level 38.27mOD

Depth 11.87 m

| progress date/time water depth | sample no & type | depth (m) from to | casing depth (m) | test type & value | samp. /core range | instru-ment | description | depth (m) | reduced level (m) | legend |
|--|------------------|-------------------|------------------|-------------------|-------------------|-------------|---|-----------|-------------------|--------|
| 24/02/09 1700hrs Dry | 21D | 8.00 - 8.45 | 1.10 | S 44 | | | | | | |
| | 22D | 9.00 | | | | | 9.00 - 11.30m: With frequent sand to medium gravel sized shell fragments. | | | |
| | 23U | 9.50 - 9.95 | 1.10 | | | | | | | |
| | 24D | 10.00 | | | | | | | | |
| | 25D | 10.50 | | | | | 10.50 - 11.30m: Rare light brown subrounded fine gravel sized calcareous nodules. | | | |
| | 26D | 11.00 - 11.38 | 1.10 | S*67 | | | 11.00m: Becoming slightly gravelly. Gravel is angular and subangular fine light greyish white limestone and rare calcite crystals. | 11.30 | 26.97 | |
| | 27D | 11.30 - 11.80 | | | | | Very stiff dark bluish grey mottled light bluish grey slightly sandy locally sandy slightly gravelly CLAY with frequent light bluish grey sandy silt partings and rare fine and medium gravel sized pyritised wood fragments. Gravel is angular and subangular fine and medium limestone. (OXFORD CLAY FORMATION) | 11.80 | 26.47 | |
| | | 11.80 - 11.82 | 1.10 | C** | | | Medium strong bluish grey fossiliferous LIMESTONE. (OXFORD CLAY FORMATION) Borehole completed at 11.87m. | 11.87 | 26.40 | |
| | | | | | | | | {18.00} | | |
| water strike (m) casing (m) rose to (m) time to rise (m) remarks Groundwater not encountered. | | | | | | | | | | |

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BOREHOLE LOG



BH102

CLIENT COVANTA ENERGY LTD

SITE ROOKERY SOUTH, STEWARTBY, BEDFORDSHIRE

Sheet 1 of 3

Start Date 25 February 2009 Easting 501068.2

Scale 1 : 50

End Date 25 February 2009 Northing 241070.8 Ground level 38.41mOD

Depth 17.70 m

| progress data/time water depth | sample no & type | depth (m) from to | casing depth (m) | test type & value | samp. /core range | instru-ment | description | depth (m) | reduced level (m) | legend |
|--------------------------------|------------------|-------------------|------------------|-------------------|-------------------|-------------|---|-----------|-------------------|--------|
| 25/02/09 0800hrs | 1D | 0.20 | Nil | | | / / | MADE GROUND: Soft dark bluish grey mottled reddish brown slightly sandy gravelly CLAY with rare rootlets. Gravel is angular and subangular fine to coarse brick fragments. (CALLOW CLAY FILL) | 0.50 | 37.91 | |
| | 2D | 0.50 | | | | | | | | |
| | 3D* | 0.50 | | | | | | | | |
| | 4B | 0.60 - 1.10 | | | | | | | | |
| | 5D | 1.20 - 1.65 | 1.10 | S 32 | | | MADE GROUND: Firm and stiff dark bluish grey mottled greenish brown slightly sandy slightly gravelly CLAY with frequent sand to medium gravel sized shell fragments. Gravel is subangular fine and medium brick fragments. (CALLOW CLAY FILL) | 1.20 | 37.21 | |
| | 6D* | 1.50 | | | | | MADE GROUND?: Stiff medium strength dark bluish grey mottled whitish grey slightly sandy slightly gravelly CLAY with frequent sand to medium gravel sized shell fragments. Gravel is angular and subangular fine brick fragments-possible fall in material. (CALLOW CLAY FILL?) | | | |
| | 7D | 1.80 | | | | | | | | |
| | 8U | 2.00 - 2.35 | 1.10 | PP 2.8 | | | | | | |
| | | 2.33 | | PP 4.4 | | | | | | |
| | 10D | 2.40 | | | | | | | | |
| | 11D | 2.80 | | | | | Stiff high strength indistinctly thinly laminated dark bluish grey slightly sandy CLAY with frequent sand to medium gravel sized shell fragments. (OXFORD CLAY FORMATION) | 3.00 | 35.41 | |
| | 12D* | 3.00 | | | | | | | | |
| | 13D | 3.00 - 3.45 | 1.10 | S 39 | | | | | | |
| | 14D | 3.80 | | | | | 3.80 - 9.00m: Very stiff. | | | |
| | 15U | 4.00 - 4.45 | 1.10 | | | | | | | |
| | 16D | 4.50 | | | | | | | | |
| | 17D | 4.80 | | | | | | | | |
| | 18D | 5.00 - 5.45 | 1.10 | S 45 | | | | | | |
| | 19D | 6.00 | | | | | | | | |
| | 20U | 6.50 - 6.95 | 1.10 | | | | PP>6.0 PP 3.7 PP 4.0 | | | |
| | | 6.50 | | | | | | | | |
| | | 6.75 | | | | | | | | |
| | 6.92 | | | | | | | | | |
| 21D | 7.00 | | | | | | | | | |
| 22D | 7.50 | | | | | | | | | |

Continued Next Page

{8.00}

EQUIPMENT: Light cable percussiva (shell and auger) rig.

METHOD: Hand dug inspection pit 0.00-1.20m. Cable percussion (150mm) 1.20-17.70m.

CASING: 150mm diam to 14.80m.

BACKFILL: On completion, a slotted standpipe (50mm) was installed to 15.50m, bentonite seal 17.70-15.50m and 12.20-0.50m, granular response zone 15.50-12.20m, concrete and raised borehole helmet 0.50-0.00m.

REMARKS: Rising head test undertaken at 13.30m. Hole refused on hard strata at 17.70m. Stratum names provided by the Engineer.

EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

water strike (m) casing (m) rose to (m) time to rise (min) remarks



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BOREHOLE LOG



CLIENT COVANTA ENERGY LTD

BH102

SITE ROOKERY SOUTH, STEWARTBY, BEDFORDSHIRE

Sheet 2 of 3

Start Date 25 February 2009 Easting 501068.2

Scale 1 : 50

End Date 25 February 2009 Northing 241070.8 Ground level 38.41mOD

Depth 17.70 m

| progress date/time water depth | sample no & type | depth (m) from to | casing depth (m) | test type & value | samp. /core range | instru-ment | description | depth (m) | reduced level (m) | legend |
|--------------------------------|------------------|-------------------|------------------|-------------------|-------------------|-------------|---|-----------|-------------------|---------|
| | 23D | 8.00 - 8.45 | 1.10 | S 31 | | | | | | |
| | 24D | 9.00 | | | | | 9.00 - 12.20m: Very stiff to hard. | | | |
| | 25U | 9.50 - 9.90 | 1.10 | | | | | | | |
| | 26D | 9.95 | | | | | | | | |
| | 27D | 10.50 | | | | | | | | |
| | 28U | 11.00 - 11.40 | 1.10 | | | | 11.00m: Very high strength. | | | |
| | 29D | 11.45 | | | | | | | | |
| | 30D | 12.20 | | | | | | 12.20 | 26.21 | |
| | | 12.50 - 12.73 | 1.10 | C*200 | | | Firm bluish grey slightly sandy locally sandy CLAY with occasional sand to medium gravel sized shell fragments. (KELLAWAYS FORMATION - KELLAWAYS SAND MEMBER) | 12.50 | 25.91 | |
| | | | | | | | Recovered as very soft dark bluish grey sandy clayey SILT with occasional gravel sized pockets of light greyish blue silty sand. (KELLAWAYS FORMATION - KELLAWAYS SAND MEMBER) | | | |
| | 31D | 13.50 | | | | | | | | |
| | 32U | 14.00 - 14.20 | 13.90 | | | | 14.00m: 87 blows to drive U100 0.20m. Triaxial indicates extremely low strength. | | | |
| | 33D | 14.25 | | | | | | | | |
| | 34B | 14.70 - 15.20 | | | | | 14.70 - 15.50m: Locally firm. | | | |
| | | 15.50 - 15.93 | 14.80 | C*75 | | | Hard dark bluish grey slightly sandy locally sandy CLAY with occasional sand to medium gravel sized shell fragments. (KELLAWAYS FORMATION - KELLAWAYS SAND MEMBER) | 15.50 | 22.91 | |
| | 35D | 16.50 | | | | | | 16.50 | 21.91 | |
| | | | | | | | Very stiff to hard very high strength extremely closely fissured dark bluish grey CLAY with rare sand to medium gravel sized shell fragments. (KELLAWAYS FORMATION - KELLAWAYS CLAY MEMBER) | | | |
| | 36U | 17.00 - 17.40 | 14.80 | | | | | | | |
| 25/02/09 1700hrs 17.60m | 37D | 17.45 | | | | | 17.45 - 17.70m: Hard with frequent sand to medium gravel sized shell fragments. | 17.60 | 20.81 | |
| | | 17.70 - 17.71 | 14.80 | C** | | | | 17.70 | 20.71 | |
| Continued Next Page | | | | | | | | {18.00} | | |
| water strike (m) | casing (m) | rose to (m) | time to rise (m) | remarks | | | AGS | | CONTRACT | CHECKED |
| 12.60 | 1.10 | 12.00 | 20 | | | | 22607 | | | |

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BOREHOLE LOG



BH102

CLIENT COVANTA ENERGY LTD

SITE ROOKERY SOUTH, STEWARTBY, BEDFORDSHIRE

Sheet 3 of 3

Start Date 25 February 2009 Easting 501068.2

Scale 1 : 50

End Date 25 February 2009 Northing 241070.8 Ground level 38.41mOD

Depth 17.70 m

| progress date/time water depth | sample no & type | depth (m) from to | casing depth (m) | test type & value | samp. /core range | instru-ment | description | depth (m) | reduced level (m) | legend | |
|--|------------------|-------------------|------------------|-------------------|-------------------|-------------|--|----------------|-------------------|--------|--|
| | | | | | | | Weak and medium strong dark bluish grey fossiliferous LIMESTONE. (CORNBRASSH FORMATION) Borehole completed at 17.70m. | | | | |
| | | | | | | | | {28.00} | | | |
| water strike (m) casing (m) rose to (m) time to rise (m) remarks | | | | | | | AGS | CONTRACT 22607 | CHECKED | | |

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BOREHOLE LOG



BH103

CLIENT COVANTA ENERGY LTD

SITE ROOKERY SOUTH, STEWARTBY, BEDFORDSHIRE

Sheet 2 of 2

Start Date 26 February 2009 Easting 501197.7

Scale 1 : 50

End Date 27 February 2009 Northing 241270.0 Ground level 28.94mOD

Depth 8.00 m

| progress date/time water depth | sample no & type | depth (m) from to | casing depth (m) | test type & value | samp. /core range | instru-ment | description | depth (m) | reduced level (m) | legend |
|--|------------------|-------------------|------------------|-------------------|-------------------|-------------|--|--------------------------|-------------------|--------|
| | | 8.00 - 8.02 | 5.00 | C** | | | Very stiff dark grey slightly sandy slightly gravelly CLAY. Gravel is angular and subangular fine to coarse limestone. (KELLAWAYS FORMATION - KELLAWAYS CLAY MEMBER) Borehole completed at 8.00m. | 8.00 | 20.94 | |
| | | | | | | | | {18.00} | | |
| water strike (m) casing (m) rose to (m) time to rise (m) remarks | | | | | | | | CONTRACT 22607 | CHECKED | |

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BOREHOLE LOG



BH104

CLIENT COVANTA ENERGY LTD

SITE ROOKERY SOUTH, STEWARTBY, BEDFORDSHIRE

Sheet 1 of 2

Start Date 27 February 2009 Easting 501150.9

Scale 1 : 50

End Date 2 March 2009 Northing 241021.3 Ground level 28.89mOD

Depth 8.00 m

| progress data/time water depth | sample no & type | depth (m) from to | casing depth (m) | test type & value | samp. /core range | instru-ment | description | depth (m) | reduced level (m) | legend |
|--------------------------------|------------------|-------------------|------------------|-------------------|-------------------|---|--|-----------|-------------------|--------|
| 27/02/09 1100hrs | 1D | 0.20 | | | | | MADE GROUND: Very soft to soft very low strength bluish grey mottled orangish brown slightly sandy slightly gravelly CLAY with frequent roots (<10mm) and rootlets. Gravel is subangular fine and medium brick fragments. (CALLOW CLAY FILL) | | | |
| | 2D* | 0.50 | | | | | | | | |
| | 3B | 0.50 - 1.00 | | | | | | | | |
| | 4U | 1.00 - 1.35 | 0.90 | | | | | | | |
| | 5D | 1.40 | | | | | | | | |
| | 6D* | 1.50 | | | | | | | | |
| | 7B | 1.50 - 2.00 | | | | | | | | |
| | | | | | | 1.60m: Becoming firm. | 2.00 | 26.89 | | |
| | 8D | 2.00 - 2.45 | 1.40 | S 20 | | Dark bluish grey mottled light grey slightly sandy clayey SILT with frequent sand to medium gravel sized shell fragments and light bluish grey silty sand partings. (KELLAWAYS FORMATION - KELLAWAYS SAND MEMBER) | 3.00 | 25.89 | | |
| | 9B | 2.50 - 3.00 | | | | | | | | |
| | 10D | 3.00 - 3.33 | 1.40 | S*83 | | Very dense dark bluish grey silty fine and medium SAND with occasional sand to medium gravel sized shell fragments. (KELLAWAYS FORMATION - KELLAWAYS SAND MEMBER) | | | | |
| 27/02/09 1600hrs 3.00m | | | | | | | | | | |
| 02/03/09 0800hrs 0.60m | 11D | 4.00 - 4.41 | 3.90 | S*58 | | | | | | |
| | 12D | 4.70 | | | | | | | | |
| | 13B | 4.70 - 5.00 | | | | | Firm and stiff dark bluish grey slightly sandy locally sandy CLAY. (KELLAWAYS FORMATION - KELLAWAYS SAND MEMBER) | 4.70 | 24.19 | |
| | 14U | 5.00 - 5.45 | 4.90 | | | | | | | |
| | 15D | 5.50 | | | | | | | | |
| | 16B | 5.60 - 6.10 | | | | | Very stiff dark bluish grey mottled light bluish grey slightly sandy locally sandy CLAY with frequent sand to medium gravel sized shell fragments. (KELLAWAYS FORMATION - KELLAWAYS SAND MEMBER) | 5.50 | 23.39 | |
| | 17D | 6.50 - 6.95 | 4.90 | S 28 | | | | | | |
| | 18D | 7.50 | | | | | | | | |
| 02/03/09 1200hrs Dry | 19D | 7.90 | | | | | Stiff extremely closely fissured dark bluish grey CLAY with rare sand to medium gravel sized shell fragments. (KELLAWAYS FORMATION - KELLAWAYS CLAY) | 7.50 | 21.39 | |
| | | | | | | | Continued Next Page | 7.90 | 20.99 | |
| | | | | | | | | {8.00} | | |

EQUIPMENT: Light cable percussive (shell and auger) rig.

METHOD: Cable percussion (150mm) 0.00-8.00m.

CASING: 150mm diam to 4.90m.

BACKFILL: On completion, a slotted standpipe (50mm) was installed to 7.50m, bentonite seal 8.00-7.50m and 2.50-0.50m, granular response zone 7.50-2.50m, concrete and raised borehole helmet 0.50-0.00m.

REMARKS: Rising head test undertaken at 4.70m. Hole refused on hard strata at 8.00m. Stratum names provided by the Engineer.

EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

| water strike (m) | casing (m) | rose to (m) | time to rise (min) | remarks |
|------------------|------------|-------------|--------------------|---------|
| 3.20 | 1.40 | 2.10 | 20 | |



CONTRACT
22607

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BOREHOLE LOG



BH104

CLIENT COVANTA ENERGY LTD

SITE ROOKERY SOUTH, STEWARTBY, BEDFORDSHIRE

Sheet 2 of 2

Start Date 27 February 2009 Easting 501150.9

Scale 1 : 50

End Date 2 March 2009 Northing 241021.3 Ground level 28.89mOD

Depth 8.00 m

| progress date/time water depth | sample no & type | depth (m) from to | casing depth (m) | test type & value | samp. /core range | instru-ment | description | depth (m) | reduced level (m) | legend |
|--------------------------------|------------------|-------------------|------------------|-------------------|-------------------|-------------|---|-----------|-------------------|--------|
| | | 8.00 - 8.02 | 4.90 | C** | | | MEMBER) Hard dark bluish grey slightly sandy shelly CLAY. (KELLAWAYS FORMATION - KELLAWAYS CLAY MEMBER) Borehole completed at 8.00m. | 8.00 | 20.89 | |
| | | | | | | | | {18.00} | | |
| water strike (m) | casing (m) | rose to (m) | time to rise (m) | remarks | | | | CONTRACT | CHECKED | |
| | | | | | | | 22607 | | | |

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BOREHOLE LOG



CLIENT COVANTA ENERGY LTD

BH105

SITE ROOKERY SOUTH, STEWARTBY, BEDFORDSHIRE

Sheet 1 of 1

Start Date 2 March 2009 Easting 501250.8

Scale 1 : 50

End Date 2 March 2009 Northing 240998.6 Ground level 28.96mOD

Depth 3.20 m

| progress date/time water depth | sample no & type | depth (m) from to | casing depth (m) | test type & value | samp. /core range | instru-ment | description | depth (m) | reduced level (m) | legend |
|--------------------------------|------------------|-------------------|------------------|-------------------|-------------------|-------------|---|-----------|-------------------|--------|
| 02/03/09 1430hrs | 1D | 0.20 | | | | | MADE GROUND: Soft becoming firm low strength dark bluish grey mottled orangish brown slightly sandy slightly gravelly CLAY with frequent roots (<10mm) and rootlets and rare sand to medium gravel sized shell fragments. Gravel is subangular fine and medium brick fragments. (CALLOW CLAY FILL) 0.60 - 1.50m: Frequent gravel sized pockets of stiff bluish grey fissured clay. 1.50m: Brick gravel becoming rare. | | | |
| | 2U | 1.00 - 1.45 | 0.90 | | | | | | | |
| | 3D | 1.50 | | | | | | | | |
| | 4D | 1.80 | | | | | | | | |
| | 5D | 2.00 - 2.45 | 1.10 | S39 | | | | 2.00 | 26.96 | |
| | 6D | 2.80 | | | | | | | | |
| 02/03/09 1700hrs Dry | 7U | 3.00 - 3.10 | 1.10 | | | | Very stiff locally stiff extremely closely fissured slightly sandy CLAY with frequent sand to medium gravel sized shell fragments. (OXFORD CLAY FORMATION) | 2.80 | 26.16 | |
| | 8D | 3.15 - 3.19 | 1.10 | C** | | | Stiff dark bluish grey mottled light bluish grey slightly sandy CLAY with frequent light bluish grey silty sand partings and rare sand to medium gravel sized shell fragments. (KELLAWAYS FORMATION - KELLAWAYS SAND MEMBER) | 3.15 | 25.81 | |
| | | | | | | | Weak and medium strong dark bluish grey fossiliferous LIMESTONE. (KELLAWAYS FORMATION - KELLAWAYS SAND MEMBER) Borehole completed at 3.20m. | 3.20 | 25.76 | |
| | | | | | | | | {8.00} | | |

EQUIPMENT: Light cable percussive (shell and auger) rig.

METHOD: Cable percussion (150mm) 0.00-3.20m.

CASING: 150mm diam to 1.10m.

BACKFILL: On completion borehole was backfilled with materials arising and the surface reinstated.

REMARKS: Hole advanced by chiselling 3.18-3.20m (1hr). Hole refused on hard strata at 3.20m. Stratum names provided by the Engineer.

EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

water strike (m) casing (m) rose to (m) time to rise (min) remarks

Groundwater not encountered.



CONTRACT

22607

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BOREHOLE LOG



CLIENT COVANTA ENERGY LTD

BH105A

SITE ROOKERY SOUTH, STEWARTBY, BEDFORDSHIRE

Sheet 1 of 1

Start Date 3 March 2009 Easting 501252.3

Scale 1 : 50

End Date 3 March 2009 Northing 240998.8 Ground level 28.96mOD

Depth 3.85 m

| progress date/time water depth | sample no & type | depth (m) from to | casing depth (m) | test type & value | samp. /core range | instru-ment | description | depth (m) | reduced level (m) | legend | |
|--------------------------------|------------------|-------------------|------------------|-------------------|-------------------|--|---|---|-------------------|--------|-------|
| 03/03/09 0800hrs | 1D | 0.20 | | | | | MADE GROUND: Soft to firm low strength dark bluish grey mottled orangish brown slightly sandy slightly gravelly CLAY with frequent rootlets and rare sand to fine gravel sized shell fragments. Gravel is angular and subangular fine to coarse brick fragments. (CALLOW CLAY FILL) | | | | |
| | 2B | 0.40 - 0.90 | | | | | | | | | |
| | 3D* | 0.50 | | | | | | | | | |
| | 4U | 1.00 - 1.45 | 0.90 | | | | | | | | |
| | 5D | 1.50 | | | | | | 1.50 - 3.00m: Rootlets becoming rare. | | | |
| | 6D* | 1.50 | | | | | | | | | |
| | 7D | 1.70 | | | | | | | | | |
| | 8D | 2.00 - 2.45 | 1.10 | S 32 | | | | 2.50 - 3.00m: Locally sandy. | | | |
| | 9B | 2.50 - 3.00 | | | | | | | | | |
| | 10D | 3.00 - 3.43 | 1.10 | S*60 | | | | Very stiff dark bluish grey mottled light bluish grey sandy CLAY with rare sand to medium gravel sized shell fragments. (KELLAWAYS FORMATION - KELLAWAYS SAND MEMBER) | 3.00 | | 25.96 |
| 03/03/09 1200hrs 3.00m | 11B | 3.50 - 3.70 | | | | | 3.50 | | 25.46 | | |
| | 12D | 3.70 - 3.72 | 3.60 | C** | | Recovered as very soft dark bluish grey slightly sandy slightly gravelly CLAY. Gravel is angular and subangular fine and medium limestone. (KELLAWAYS FORMATION - KELLAWAYS SAND MEMBER) | 3.70 | | 25.26 | | |
| | | | | | | | Medium strong dark bluish grey LIMESTONE. (KELLAWAYS FORMATION - KELLAWAYS SAND MEMBER) | 3.85 | 25.11 | | |
| | | | | | | | | | | | |
| | | | | | | | | {8.00} | | | |

EQUIPMENT: Light cable percussive (shell and auger) rig.

METHOD: Cable percussion (150mm) 0.00-3.85m.

CASING: 150mm diam to 3.60m.

BACKFILL: On completion borehole was backfilled with materials arising and the surface reinstated.

REMARKS: Hole advanced by chiselling 3.70-3.85m (1hr). Hole refused on hard strata at 3.85m. Stratum names provided by the Engineer.

EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

| water strike (m) | casing (m) | rose to (m) | time to rise (min) | remarks |
|------------------|------------|-------------|--------------------|---------|
| 3.20 | 1.10 | 1.10 | 20 | |



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BOREHOLE LOG



BH105B

CLIENT COVANTA ENERGY LTD

SITE ROOKERY SOUTH, STEWARTBY, BEDFORDSHIRE

Sheet 1 of 2

Start Date 3 March 2009 Easting 501242.3

Scale 1 : 50

End Date 3 March 2009 Northing 240991.8 Ground level 28.96mOD

Depth 8.50 m

| progress date/time water depth | sample no & type | depth (m) from to | casing depth (m) | test type & value | samp. /core range | instru -ment | description | depth (m) | reduced level (m) | legend |
|--------------------------------|------------------|--|------------------|-------------------|-------------------|--------------|---|-----------|-------------------|--------|
| 03/03/09 0800hrs | | | | | | | No samples taken. | | | |
| | 1D 2B | 3.00 - 3.40 3.00 - 3.50 | 1.40 | S*60 | | | Hard bluish grey mottled light bluish grey sandy locally very sandy CLAY with frequent light bluish grey silty sand partings (<1mm) and rare sand to medium gravel sized shell fragments. (KELLAWAYS FORMATION - KELLAWAYS SAND MEMBER) | 3.00 | 25.96 | |
| | 3D | 4.00 - 4.42 | 1.40 | S*55 | | | Very dense bluish grey silty SAND. (KELLAWAYS FORMATION - KELLAWAYS SAND MEMBER) | 4.00 | 24.96 | |
| | 4D 5D | 4.80 5.00 - 5.41 | 4.90 | S*57 | | | Stiff to very stiff dark bluish grey mottled light bluish grey sandy CLAY with frequent light bluish grey silty sand partings and rare sand to medium gravel sized shell fragments. (KELLAWAYS FORMATION - KELLAWAYS SAND MEMBER) | 4.80 | 24.16 | |
| | 6B | 5.50 - 6.00 | | | | | | | | |
| | 7D | 6.20 | | | | | | | | |
| | 8U 9D 10B | 6.50 - 6.95 6.50 6.92 7.00 7.00 - 7.50 | 5.50 | PP>4.6 PP>6.0 | | | 6.50m: Extremely high strength. Becoming hard. | 7.00 | 21.96 | |
| | | | | | | | Very stiff extremely closely fissured dark bluish grey CLAY with occasional fine and medium gravel sized shell fragments and pyrite nodules. (KELLAWAYS FORMATION - KELLAWAYS CLAY MEMBER) | | | |
| | | | | | | | Continued Next Page | {8.00} | | |

EQUIPMENT: Light cable percussive (shell and auger) rig.

METHOD: Cable percussion (150mm) 0.00-8.50m.

CASING: 150mm diam to 5.50m.

BACKFILL: On completion, a slotted standpipe (50mm) was installed to 6.60m, bentonite seal 8.50-6.60m and 2.80-0.50m, granular response zone 6.60-2.80m, concrete and raised borehole helmet 0.50-0.00m.

REMARKS: No samples taken between 0.00-3.00m at engineers request due to close proximity to other exploratory holes. Rising head test undertaken at 4.20m. Hole refused on hard strata at 8.50m. Stratum names provided by the Engineer.

EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

| water strike (m) | casing (m) | rose to (m) | time to rise (min) | remarks |
|------------------|------------|-------------|--------------------|---------|
| 4.20 | 1.40 | 4.20 | 20 | Seepage |



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BOREHOLE LOG



BH105B

CLIENT COVANTA ENERGY LTD

SITE ROOKERY SOUTH, STEWARTBY, BEDFORDSHIRE

Sheet 2 of 2

Start Date 3 March 2009 Easting 501242.3

Scale 1 : 50

End Date 3 March 2009 Northing 240991.8 Ground level 28.96mOD

Depth 8.50 m

| progress date/time water depth | sample no & type | depth (m) from to | casing depth (m) | test type & value | samp. /core range | instru-ment | description | depth (m) | reduced level (m) | legend | | |
|--|------------------|---------------------|------------------|-------------------|-------------------|-------------|---|-----------|-------------------|--------|--------------------------|-------------|
| 03/03/09 1700hrs Dry | 11D | 8.00 - 8.45 | 5.50 | S 46 | | | 8.00 - 8.45m: Frequent sand sized shell fragments along fissure surfaces. | 8.45 | 20.51 | | | |
| | 12D | 8.45 8.50 - 8.52 | 5.50 | C** | | | Firm dark bluish grey mottled light grey slightly sandy CLAY with frequent sand to medium gravel sized shell fragments. (KELLAWAYS FORMATION - KELLAWAYS CLAY MEMBER) Borehole completed at 8.50m. | 8.50 | 20.46 | | | |
| | | | | | | | | {18.00} | | | | |
| water strike (m) casing (m) rose to (m) time to rise (m) remarks | | | | | | | | | | | CONTRACT 22607 | CHECKED |

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BOREHOLE LOG



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BH201

SITE ROOKERY SOUTH, STEWARTBY, BEDFORDSHIRE

Sheet 2 of 3

Start Date 25 February 2009 Easting 501127.3

Scale 1 : 50

End Date 27 February 2009 Northing 241231.1 Ground level 38.27mOD

Depth 20.50 m

| progress date/time water depth | sample no & type | depth (m) from to | casing depth (m) | test type & value | samp. /core range | instru-ment | description | depth (m) | reduced level (m) | legend |
|--|------------------|-------------------|------------------|-------------------|-------------------|-------------------|--|-----------|-------------------|--------|
| 25/02/09 1700hrs Dry | | | | | | | 9.00 - 11.00m: With frequent sand to medium gravel sized shell fragments. | | | |
| 26/02/09 0800hrs Dry | 1C | 11.00 - 11.80 | 11.00 | | 56 | | Very stiff thinly laminated dark grey CLAY with occasional sand to medium gravel sized shell fragments. (OXFORD CLAY FORMATION) | 11.00 | 27.27 | |
| | 2C | 11.80 - 13.30 | 12.00 | | 97 70 70 | 120 335 620 | Weak light grey fossiliferous LIMESTONE. Fractures are closely and medium locally widely spaced subhorizontal undulating and rough, predominantly infilled with (1-10mm thick) very stiff dark grey shelly clay. (OXFORD CLAY FORMATION) | 11.80 | 26.47 | |
| | 3C | 13.30 - 14.80 | | | 100 | NA | Very stiff fissured dark greenish grey sandy CLAY with rare sand to medium gravel sized shell fragments. (KELLAWAYS FORMATION - KELLAWAYS SAND MEMBER) | 12.90 | 25.37 | |
| | 4C | 14.80 - 16.30 | 13.00 | | 102 | | | | | |
| 26/02/09 1700hrs 3.60m | 5C | 16.30 - 16.60 | 14.00 | | 95 | | Very stiff thinly laminated dark grey CLAY with occasional sand to medium gravel sized shell fragments. (KELLAWAYS FORMATION - KELLAWAYS CLAY MEMBER) | 16.40 | 21.87 | |
| 27/02/09 0800hrs 3.60m | 6C | 16.60 - 17.80 | | | 100 12 12 | | | | | |
| | 7C | 17.80 - 19.00 | 14.00 | | 65 210 350 | 97 | Medium strong light grey fossiliferous LIMESTONE. Fractures are closely and medium locally widely spaced | 17.65 | 20.62 | |
| | | | | | | | Continued Next Page | {18.00} | | |
| water strike (m) casing (m) rose to (m) time to rise (m) remarks Groundwater not encountered prior to use of water flush. | | | | | | | | | | |

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BOREHOLE LOG



CLIENT COVANTA ENERGY LTD

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SITE ROOKERY SOUTH, STEWARTBY, BEDFORDSHIRE

Sheet 3 of 3

Start Date 25 February 2009 Easting 501127.3

Scale 1 : 50

End Date 27 February 2009 Northing 241231.1 Ground level 38.27mOD

Depth 20.50 m

| progress date/time water depth | sample no & type | depth (m) from to | casing depth (m) | test type & value | samp. /core range | lf | instru-ment | description | depth (m) | reduced level (m) | legend |
|--|------------------|-------------------|------------------|-------------------|-------------------|----|-------------|---|-----------|-------------------|--------|
| 27/02/09 1700hrs 3.80m | 8C | 19.00 - 20.50 | 14.00 | | 97 | | | subhorizontal undulating and rough, predominantly infilled with (1-10mm thick) very stiff dark grey shelly clay. (CORNBURASH FORMATION) | 19.10 | 19.17 | |
| | | | | | 92 | | | | | | |
| | | | | | 99 | NA | | Very stiff to hard dark grey mottled yellowish brown CLAY. (BLISWORTH CLAY FORMATION) | 20.50 | 17.77 | |
| | | | | | | | | Borehole completed at 20.50m. | {28.00} | | |
| water strike (m) casing (m) rose to (m) time to rise (m) remarks Groundwater not encountered prior to use of water flush. | | | | | | | | | | | |

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BOREHOLE LOG



CLIENT COVANTA ENERGY LTD

BH202

SITE ROOKERY SOUTH, STEWARTBY, BEDFORDSHIRE

Sheet 1 of 4

Start Date 26 February 2009 Easting 501069.2

Scale 1 : 50

End Date 3 March 2009 Northing 241076.6 Ground level 38.37mOD

Depth 28.60 m

| progress date/time water depth | sample no & type | depth (m) from to | casing depth (m) | test type & value | samp. /core range | instru -ment | description | depth (m) | reduced level (m) | legend |
|---|------------------|-------------------|------------------|-------------------|-------------------|--------------|---|-----------|-------------------|--------|
| 26/02/09 0800hrs | X | 1.20 - 15.70 | | | | / / | MADE GROUND: Soft dark bluish grey mottled reddish brown slightly sandy gravelly CLAY with rare rootlets. Gravel is angular and subangular fine to coarse brick fragments. (CALLOW CLAY FILL) | 0.50 | 37.87 | |
| MADE GROUND: Firm and stiff dark bluish grey mottled greenish brown slightly sandy slightly gravelly CLAY with frequent sand to medium gravel sized shell fragments. Gravel is subangular fine and medium brick. (CALLOW CLAY FILL) | | | | | | | 1.20 | 37.17 | | |
| MADE GROUND?: Stiff medium strength dark bluish grey mottled whitish grey slightly sandy slightly gravelly CLAY with frequent sand to medium gravel sized shell fragments. Gravel is angular and subangular fine brick fragments-possible fall in material. (CALLOW CLAY FILL?) | | | | | | | 3.00 | 35.37 | | |
| Stiff high strength indistinctly thinly laminated dark bluish grey slightly sandy CLAY with frequent sand to medium gravel sized shell fragments. (OXFORD CLAY FORMATION) | | | | | | | | | | |
| | | | | | | | 3.80 - 9.00m: Very stiff. | | | |
| | | | | | | | Continued Next Page | {8.00} | | |

EQUIPMENT: Geotechnical Pioneer rig.

METHOD: Hand dug inspection pit 0.00-1.20m. Dynamic sampled (113mm) 1.20-15.70m. Waterflush rotary core drilled (116mm) 15.70-28.60m.

CASING: 140mm diam to 10.80m.

BACKFILL: On completion, a vibrating wire piezometer was installed with tip at 25.60m, granular response zone 25.10-26.10m, bentonite seal 28.60-26.10m and 25.10-22.10m, bentonite grout 22.10-0.50m, concrete and raised borehole helmet 0.50-0.00m.

REMARKS: Dynamic samples disposed of on site under instruction from the Engineer - descriptions used above taken from BH102 nearby. Packer tests carried out between 18.00-19.60m and 23.00-28.00m. Stratum names provided by the Engineer.

EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

| water strike (m) | casing (m) | rose to (m) | time to rise (min) | remarks |
|------------------|------------|-------------|--------------------|--|
| | | | | Groundwater not encountered prior to use of water flush. |



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22607

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BOREHOLE LOG



BH202

CLIENT COVANTA ENERGY LTD

SITE ROOKERY SOUTH, STEWARTBY, BEDFORDSHIRE

Sheet 2 of 4

Start Date 26 February 2009 Easting 501069.2

Scale 1 : 50

End Date 3 March 2009 Northing 241076.6 Ground level 38.37mOD

Depth 28.60 m

| progress date/time water depth | sample no & type | depth (m) from to | casing depth (m) | test type & value | samp. /core range | lf | instru-ment | description | depth (m) | reduced level (m) | legend |
|--------------------------------|------------------|-------------------|------------------|-------------------|-------------------|----|-------------|--|----------------|-------------------|--------|
| 26/02/09 1700hrs 1.65m | | | | | | | | 9.00 - 12.20m: Very stiff to hard. | | | |
| 27/02/09 0800hrs 1.70m | | | | | | | | 11.00m: Very high strength. | | | |
| | | | | | | | | 12.20 - 12.50m: Firm bluish grey slightly sandy locally sandy CLAY with occasional sand to medium gravel sized shell fragments. (KELLAWAYS FORMATION - KELLAWAYS SAND MEMBER) | 12.20 12.50 | 26.17 25.87 | |
| | | | | | | | | Recovered as very soft dark bluish grey sandy clayey SILT with occasional gravel sized pockets of light greyish blue silty sand. (KELLAWAYS FORMATION - KELLAWAYS SAND MEMBER) | | | |
| | | | | | | | | 14.00m: Extremely low strength. | | | |
| | | | | | | | | 14.70 - 15.50m: Locally firm. | | | |
| | 1C | 15.70 - 17.00 | 10.80 | | 91 | NA | | Hard dark bluish grey slightly sandy locally sandy CLAY with occasional sand to medium gravel sized shell fragments. (KELLAWAYS FORMATION - KELLAWAYS SAND MEMBER) | 15.50 15.70 | 22.87 22.67 | |
| | | | | | | | | Very stiff dark grey slightly sandy CLAY with occasional fine gravel sized lenses of light grey silt. (KELLAWAYS FORMATION - KELLAWAYS SAND MEMBER) | | | |
| | 2C | 17.00 - 18.20 | | | 101 | | | Very stiff fissured indistinctly thinly laminated dark grey CLAY with occasional sand to medium gravel sized shell fragments. (KELLAWAYS FORMATION - KELLAWAYS CLAY MEMBER) | 16.80 | 21.57 | |
| | | | | | | | | Continued Next Page | 18.00 | 20.37 | |
| | | | | | | | | | {18.00} | | |

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| | | | | | | | |
|------------------|------------|-------------|------------------|--|-----|--------------------------|-------------|
| water strike (m) | casing (m) | rose to (m) | time to rise (m) | remarks | AGS | CONTRACT 22607 | CHECKED |
| | | | | Groundwater not encountered prior to use of water flush. | | | |

BOREHOLE LOG



BH202

CLIENT COVANTA ENERGY LTD

SITE ROOKERY SOUTH, STEWARTBY, BEDFORDSHIRE

Sheet 3 of 4

Start Date 26 February 2009 Easting 501069.2

Scale 1 : 50

End Date 3 March 2009 Northing 241076.6 Ground level 38.37mOD

Depth 28.60 m

| progress data/time water depth | sample no & type | depth (m) from to | casing depth (m) | test type & value | samp. /core range | instru-ment | description | depth (m) | reduced level (m) | legend | | |
|--|------------------|-------------------|------------------|-------------------|-------------------|-------------------|---|-----------|-------------------|--------|--------------------------|-------------|
| 27/02/09 1700hrs 2.80m | 3C | 18.20 - 19.60 | | | 100 97 97 | 195 250 450 | Medium strong locally strong light grey fossiliferous LIMESTONE. Fractures are medium locally closely spaced subhorizontal undulating and rough, predominantly infilled with (1-10mm thick) very stiff dark grey shelly clay. (CORNBRAsh LIMESTONE) 18.74 - 18.87m: Hard dark grey slightly sandy CLAY with frequent sand to medium gravel sized shell and fossil fragments. | | | | | |
| | 4C | 19.60 - 21.00 | | | 101 | NA | 19.35 - 19.43m: Hard dark grey slightly sandy CLAY with frequent sand to medium gravel sized shell and fossil fragments. Very stiff high strength dark grey mottled yellowish brown silty CLAY, with occasional sand and fine gravel sized pyrite nodules. Locally tending to a slightly sandy silt. (BLISWORTH CLAY FORMATION) | 19.85 | 18.52 | | | |
| 02/03/09 0800hrs 5.17m | 5C | 21.00 - 22.50 | 10.80 | | 100 | | | | | | | |
| | | | | | | NI/NA | Weak indistinctly structured light bluish grey MUDSTONE. (BLISWORTH CLAY FORMATION) | 21.50 | 16.87 | | | |
| | 6C | 22.50 - 23.00 | | | 48 48 48 | 120 295 590 | Hard dark grey slightly sandy CLAY with frequent sand to medium gravel sized shell and fossil fragments. (BLISWORTH CLAY FORMATION) | 22.10 | 16.27 | | | |
| | 7C | 23.00 - 24.40 | | | 95 51 51 | | Medium strong and strong light grey fossiliferous LIMESTONE. Fractures are medium locally widely spaced subhorizontal undulating and rough, predominantly infilled with (1-10mm thick) very stiff dark grey shelly clay. (BLISWORTH LIMESTONE FORMATION) | 22.50 | 15.87 | | | |
| | | | | | | NA | Hard dark grey CLAY with occasional sand to medium gravel sized shell and fossil fragments. (BLISWORTH LIMESTONE) | 23.60 | 14.77 | | | |
| | 8C | 24.40 - 25.90 | | | 100 100 93 | 85 205 650 | Weak light grey fossiliferous LIMESTONE. Fractures are medium locally widely spaced subhorizontal undulating and rough, predominantly infilled with (1-10mm thick) very stiff dark grey shelly clay. (BLISWORTH LIMESTONE FORMATION) | 24.30 | 14.07 | | | |
| | 9C | 25.90 - 27.40 | | | 89 89 82 | | | | | | | |
| 02/03/09 1730hrs 5.08m | | | | | | | | | | | | |
| 03/03/09 0800hrs 7.07m | 10C | 27.40 - 28.60 | 10.80 | | 111 111 111 | | | | | | | |
| Continued Next Page | | | | | | | | {28.00} | | | | |
| water strike (m) casing (m) rose to (m) time to rise (m) remarks Groundwater not encountered prior to use of water flush. | | | | | | | | | | | CONTRACT 22607 | CHECKED |

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BOREHOLE LOG



CLIENT COVANTA ENERGY LTD

BH202

SITE ROOKERY SOUTH, STEWARTBY, BEDFORDSHIRE

Sheet 4 of 4

Start Date 26 February 2009 Easting 501069.2

Scale 1 : 50

End Date 3 March 2009 Northing 241076.6 Ground level 38.37mOD

Depth 28.60 m

| progress date/time water depth | sample no & type | depth (m) from to | casing depth (m) | test type & value | samp. /core range | lf | instru -ment | description | depth (m) | reduced level (m) | legend |
|--------------------------------|------------------|-------------------|------------------|--|-------------------|----|--------------|-------------------------------|-----------|-------------------|--------|
| 03/03/09 1200hrs 7.07m | | | | | | | | | 28.60 | 9.77 | |
| | | | | | | | | Borehole completed at 28.60m. | | | |
| | | | | | | | | | {38.00} | | |
| water strike (m) | casing (m) | rose to (m) | time to rise (m) | remarks | | | | AGS | CONTRACT | CHECKED | |
| | | | | Groundwater not encountered prior to use of water flush. | | | | | 22607 | | |

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BOREHOLE LOG



BH202A

CLIENT COVANTA ENERGY LTD

SITE ROOKERY SOUTH, STEWARTBY, BEDFORDSHIRE

Sheet 1 of 3

Start Date 20 May 2009

Easting 501069.7

Scale 1 : 50

End Date 21 May 2009

Northing 241078.8 Ground level 38.37mOD

Depth 27.10 m

| progress date/time water depth | sample no & type | depth (m) from to | casing depth (m) | test type & value | samp. /core range | instru-ment | description | depth (m) | reduced level (m) | legend |
|--------------------------------|------------------|-------------------|------------------|-------------------|-------------------|-------------|---|-----------|-------------------|--------|
| 20/05/09 1000hrs | C | 1.20 - 16.00 | 1.20 | | | | MADE GROUND: Soft dark bluish grey mottled reddish brown slightly sandy gravelly CLAY with rare rootlets. Gravel is angular and subangular fine to coarse brick fragments. (CALLOW CLAY FILL) | 0.50 | 37.87 | |
| | | | | | | | MADE GROUND: Firm and stiff dark bluish grey mottled greenish brown slightly sandy slightly gravelly CLAY with frequent sand to medium gravel sized shell fragments. Gravel is subangular fine and medium brick. (CALLOW CLAY FILL) | 1.20 | 37.17 | |
| | | | | | | | MADE GROUND?: Stiff medium strength dark bluish grey mottled whitish grey slightly sandy slightly gravelly CLAY with frequent sand to medium gravel sized shell fragments. Gravel is angular and subangular fine brick fragments-possible fall in material. (CALLOW CLAY FILL?) | 3.00 | 35.37 | |
| | | | | | | | Stiff high strength indistinctly thinly laminated dark bluish grey slightly sandy CLAY with frequent sand to medium gravel sized shell fragments. (OXFORD CLAY FORMATION) | | | |
| | | | | | | | 3.80 - 9.00m: Very stiff. | | | |
| Continued Next Page | | | | | | | | {8.00} | | |

EQUIPMENT: Geotechnical Pioneer rig.

METHOD: Hand dug inspection pit 0.00-1.20m. Waterflush open holed drag bit (119mm) 1.20-27.10m.

CASING: 140mm diam to 6.00m.

BACKFILL: On completion, a vibrating wire piezometer was installed with tip at 25.40m, granular response zone 26.10-24.90m, bentonite seal 27.10-26.10m and 24.90-22.90m, bentonite grout 22.90-0.50m, concrete and raised borehole helmet 0.50-0.00m.

REMARKS: No samples obtained. Descriptions used above taken from BH102 and BH202 nearby. Stratum names provided by the Engineer.

EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

water strike (m) casing (m) rose to (m) time to rise (min) remarks

Groundwater not encountered.



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22607

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BOREHOLE LOG



BH202A

CLIENT COVANTA ENERGY LTD

SITE ROOKERY SOUTH, STEWARTBY, BEDFORDSHIRE

Sheet 2 of 3

Start Date 20 May 2009

Easting 501069.7

Scale 1 : 50

End Date 21 May 2009

Northing 241078.8 Ground level 38.37mOD

Depth 27.10 m

| progress date/time water depth | sample no & type | depth (m) from to | casing depth (m) | test type & value | samp. /core range | instru-ment | description | depth (m) | reduced level (m) | legend |
|--|------------------|-------------------|------------------|-------------------|-------------------|-------------|--|--------------------------|-------------------|-------------|
| | | | | | | | 9.00 - 12.20m: Very stiff to hard. | | | |
| | | | | | | | 11.00m: Very high strength. | | | |
| | | | | | | | | 12.20 | 26.17 | |
| | | | | | | | Firm bluish grey slightly sandy locally sandy CLAY with occasional sand to medium gravel sized shell fragments. (KELLAWAYS FORMATION - KELLAWAYS SAND MEMBER) | 12.50 | 25.87 | X X X X |
| | | | | | | | Recovered as very soft dark bluish grey sandy clayey SILT with occasional gravel sized pockets of light greyish blue silty sand. (KELLAWAYS FORMATION - KELLAWAYS SAND MEMBER) | | | X X X X |
| | | | | | | | 14.00m: Extremely low strength. | | | X X X X |
| | | | | | | | 14.70 - 15.50m: Locally firm. | | | X X X X |
| | | | | | | | | 15.50 | 22.87 | X X X X |
| | | | | | | | Hard dark bluish grey slightly sandy locally sandy CLAY with occasional sand to medium gravel sized shell fragments. (KELLAWAYS FORMATION - KELLAWAYS SAND MEMBER) | 15.70 | 22.67 | X X X X |
| | C | 16.00 - 23.10 | 6.00 | | | | Very stiff dark grey slightly sandy CLAY with occasional fine gravel sized lenses of light grey silt. (KELLAWAYS FORMATION - KELLAWAYS SAND MEMBER) | 16.80 | 21.57 | X X X X |
| | | | | | | | Very stiff fissured indistinctly thinly laminated dark grey CLAY with occasional sand to medium gravel sized shell fragments. (KELLAWAYS FORMATION - KELLAWAYS CLAY MEMBER) | 18.00 | 20.37 | X X X X |
| | | | | | | | Continued Next Page | {18.00} | | |
| water strike (m) casing (m) rose to (m) time to rise (m) remarks Groundwater not encountered. | | | | | | | | | | |
| | | | | | | | | CONTRACT 22607 | | CHECKED |

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BOREHOLE LOG



BH202A

CLIENT COVANTA ENERGY LTD

SITE ROOKERY SOUTH, STEWARTBY, BEDFORDSHIRE

Sheet 3 of 3

Start Date 20 May 2009

Easting 501069.7

Scale 1 : 50

End Date 21 May 2009

Northing 241078.8 Ground level 38.37mOD

Depth 27.10 m

| progress date/time water depth | sample no & type | depth (m) from to | casing depth (m) | test type & value | samp. /core range | instru-ment | description | depth (m) | reduced level (m) | legend |
|--|------------------|-------------------|------------------|-------------------|-------------------|-------------|--|--------------------------|-------------------|-------------|
| 20/05/09 1800hrs 5.30m | C | 23.10 - 27.10 | 6.00 | | | | Medium strong locally strong light grey fossiliferous LIMESTONE. Fractures are medium locally closely spaced subhorizontal undulating and rough, predominantly infilled with (1-10mm thick) very stiff dark grey shelly clay. (CORNBASH LIMESTONE) | 19.85 | 18.52 | |
| | | | | | | | 18.74 - 18.87m: Hard dark grey slightly sandy CLAY with frequent sand to medium gravel sized shell and fossil fragments. | | | |
| 21/05/09 0800hrs 3.95m | | | | | | | 19.35 - 19.43m: Hard dark grey slightly sandy CLAY with frequent sand to medium gravel sized shell and fossil fragments. | 21.50 | 16.87 | |
| | | | | | | | Very stiff high strength dark grey mottled yellowish brown silty CLAY, with occasional sand and fine gravel sized pyrite nodules. Locally tending to a slightly sandy silt. (BLISWORTH CLAY FORMATION) | | | |
| 21/05/09 1600hrs 3.30m | | | | | | | Weak indistinctly structured light bluish grey MUDSTONE. (BLISWORTH CLAY FORMATION) | 22.10 | 16.27 | |
| | | | | | | | Hard dark grey slightly sandy CLAY with frequent sand to medium gravel sized shell and fossil fragments. (BLISWORTH CLAY FORMATION) | | | |
| | | | | | | | Medium strong and strong light grey fossiliferous LIMESTONE. Fractures are medium locally widely spaced subhorizontal undulating and rough, predominantly infilled with (1-10mm thick) very stiff dark grey shelly clay. (BLISWORTH LIMESTONE FORMATION) | 23.60 | 14.77 | |
| | | | | | | | Hard dark grey CLAY with occasional sand to medium gravel sized shell and fossil fragments. (BLISWORTH LIMESTONE) | | | |
| | | | | | | | Weak light grey fossiliferous LIMESTONE. Fractures are medium locally widely spaced subhorizontal undulating and rough, predominantly infilled with (1-10mm thick) very stiff dark grey shelly clay. (BLISWORTH LIMESTONE FORMATION) | 24.30 | 14.07 | |
| | | | | | | | Borehole completed at 27.10m. | 27.10 | 11.27 | |
| | | | | | | | | {28.00} | | |
| water strike (m) casing (m) rose to (m) time to rise (m) remarks Groundwater not encountered. | | | | | | | | | | |
| | | | | | | | | CONTRACT 22607 | | CHECKED |

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BOREHOLE LOG



CLIENT COVANTA ENERGY LTD

BH203

SITE ROOKERY SOUTH, STEWARTBY, BEDFORDSHIRE

Sheet 1 of 3

Start Date 3 March 2009 Easting 501197.4

Scale 1 : 50

End Date 6 March 2009 Northing 241272.0 Ground level 29.00mOD

Depth 20.00 m

| progress date/time water depth | sample no & type | depth (m) from to | casing depth (m) | test type & value | samp. /core range | lf | instru-ment | description | depth (m) | reduced level (m) | legend |
|--------------------------------|------------------|-------------------|------------------|-------------------|-------------------|----|-------------|---|-----------|-------------------|--------|
| 03/03/09 0800hrs | X | 0.00 - 6.00 | | | | | / / / | MADE GROUND: Reeds over soft becoming firm low strength grey slightly sandy slightly gravelly CLAY, with occasional rootlets and sand to medium gravel sized shell fragments. Gravel is subangular and subrounded fine and medium brick fragments. (CALLOW CLAY FILL) | | | |
| | | | | | | | | Stiff fissured indistinctly thinly laminated grey silty CLAY, with occasional sand to medium gravel sized shell fragments and rare fine and medium gravel sized lenses of light grey silt. (OXFORD CLAY FORMATION) 2.00 - 2.50m: With occasional sandy partings. | 1.70 | 27.30 | |
| | | | | | | | | Stiff to very stiff grey sandy CLAY. (KELLAWAYS FORMATION - KELLAWAYS SAND MEMBER) 2.50 - 3.45m: Very sandy, locally tending to a clayey sand. | 2.50 | 26.50 | |
| | | | | | | | | 5.00m: Extremely high strength. | 5.50 | 23.50 | |
| | 1C | 6.00 - 7.00 | 6.00 | | 114 | NA | | Very stiff fissured grey mottled light grey slightly sandy locally sandy CLAY, with occasional sand to medium gravel sized shell fragments. (KELLAWAYS FORMATION - KELLAWAYS SAND MEMBER) | 6.00 | 23.00 | |
| | 2C | 7.00 - 8.50 | | | 100 23 23 | | | Very stiff dark grey sandy CLAY with occasional sand to medium gravel sized shell fragments. (KELLAWAYS FORMATION - KELLAWAYS SAND MEMBER) | 6.70 | 22.30 | |
| | | | | | | | | Very stiff fissured indistinctly thinly laminated dark grey CLAY with rare sand to medium gravel sized shell fragments. (KELLAWAYS FORMATION - KELLAWAYS CLAY MEMBER) | | | |
| Continued Next Page | | | | | | | | | {8.00} | | |

EQUIPMENT: Geotechnical Pioneer rig.

METHOD: Dynamic sampled (113mm) 0.00-6.00m. Waterflush rotary core drilled (116mm) 6.00-20.00m.

CASING: 140mm diam to 6.00m.

BACKFILL: On completion, a vibrating wire piezometer was installed with tip at 16.00m, granular response zone 16.50-15.50m, bentonite seal 20.00-16.50m and 15.50-14.50m, bentonite grout 14.50-0.50m, concrete and raised borehole helmet 0.50-0.00m.

REMARKS: Dynamic samples disposed of on site under instruction from the Engineer - descriptions used above taken from BH103 nearby. Packer testS carried out between 8.10-9.50m and 14.00-20.00m. Stratum names provided by the Engineer.

EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

| water strike (m) | casing (m) | rose to (m) | time to rise (min) | remarks |
|------------------|------------|-------------|--------------------|--|
| | | | | Groundwater not encountered prior to use of water flush. |



CONTRACT
22607

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BOREHOLE LOG



BH203

CLIENT COVANTA ENERGY LTD

SITE ROOKERY SOUTH, STEWARTBY, BEDFORDSHIRE

Sheet 2 of 3

Start Date 3 March 2009 Easting 501197.4

Scale 1 : 50

End Date 6 March 2009 Northing 241272.0 Ground level 29.00mOD

Depth 20.00 m

| progress date/time water depth | sample no & type | depth (m) from to | casing depth (m) | test type & value | samp. /core range | instru -ment | description | depth (m) | reduced level (m) | legend | |
|--------------------------------|------------------|-------------------|------------------|-------------------|-------------------|--------------|--|--|-------------------|--------|-------|
| 03/03/09 1700hrs 1.90m | 3C | 8.50 - 9.50 | | | 90 285 740 | | Medium strong and strong light grey fossiliferous LIMESTONE. Fractures are medium locally closely spaced subhorizontal undulating and rough, predominantly infilled with (1-10mm thick) very stiff dark grey clay. (CORNBRASH FORMATION) | 8.15 | 20.85 | | |
| | | | | | 85 85 85 | | | 9.50 | 19.50 | | |
| 05/03/09 0800hrs 1.80m | 4C | 9.50 - 10.50 | | | 83 | NA | Stiff to very stiff high strength fissured friable dark grey silty CLAY, with rare sand and fine gravel sized pyrite nodules. Locally tending to a slightly sandy silt. (BLISWORTH CLAY FORMATION) 10.00m: Becoming orangish brown mottled bluish grey. | | | | |
| | 5C | 10.50 - 12.00 | | | 100 24 0 | | 11.20m: Becoming light bluish grey mottled orangish brown. | 11.60 | 17.40 | | |
| | 6C | 12.00 - 13.50 | | | NI/NA | | Weak indistinctly structured light bluish grey MUDSTONE. (BLISWORTH CLAY FORMATION) | 12.00 | 17.00 | | |
| | | | | | 100 60 56 | | NA | Hard fissured (indistinctly thinly laminated dark greyish black CLAY. (BLISWORTH CLAY FORMATION) | 12.25 | | 16.75 |
| | | | | | 150 225 480 | | | Hard fissured light grey slightly sandy slightly gravelly CLAY with occasional sand and fine gravel sized shell fragments. Gravel is subangular fine and medium limestone. (BLISWORTH CLAY FORMATION) 12.50m: Becoming dark grey. | 12.60 | | 16.40 |
| | | | | | 80 43 37 | | NI 155 270 | Medium strong light grey fossiliferous LIMESTONE. Fractures are medium locally closely spaced subhorizontal undulating and rough, predominantly infilled with (1-10mm thick) very stiff dark grey shelly clay. (BLISWORTH LIMESTONE FORMATION) | 13.50 | | 15.50 |
| | 7C | 13.50 - 15.00 | | | | | Weak and medium strong light grey fossiliferous LIMESTONE. Fractures are closely and medium spaced subhorizontal undulating and rough, predominantly infilled with (1-10mm thick) very stiff dark grey shelly clay. With frequent (10-300mm thick) very stiff dark grey shelly gravelly clay beds. Gravel is subangular medium and coarse limestone. (BLISWORTH LIMESTONE FORMATION) | | | | |
| | | | | | | | 100 53 41 | | | | |
| | 8C | 15.00 - 16.50 | | | | | | | | | |
| | 9C | 16.50 - 18.00 | | | 100 76 66 | | | | | | |
| 170 370 940 | | | | | | | | | | | |

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Continued Next Page

{18.00}

water strike (m) casing (m) rose to (m) time to rise (m) remarks
Groundwater not encountered prior to use of water flush.



CONTRACT
22607

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BOREHOLE LOG



CLIENT COVANTA ENERGY LTD

BH203

SITE ROOKERY SOUTH, STEWARTBY, BEDFORDSHIRE

Sheet 3 of 3

Start Date 3 March 2009 Easting 501197.4

Scale 1 : 50

End Date 6 March 2009 Northing 241272.0 Ground level 29.00mOD

Depth 20.00 m

| progress date/time water depth | sample no & type | depth (m) from to | casing depth (m) | test type & value | samp. /core range | instru -ment | description | depth (m) | reduced level (m) | legend |
|--|------------------|-------------------|------------------|-------------------|-------------------|--------------|---|----------------|-------------------|---------|
| 05/03/09 1700hrs 1.90m | 10C | 18.00 - 19.00 | | | 118 118 111 | | 18.00 - 20.00m: Limestone is locally weak and fractures are medium locally widely spaced. | | | |
| 06/03/09 0800hrs 0.00m | 11C | 19.00 - 20.00 | 6.00 | | 85 85 54 | | | | | |
| 06/03/09 1600hrs 0.00m | | | | | | | | 20.00 | 9.00 | |
| | | | | | | | Borehole completed at 20.00m. | | | |
| | | | | | | | | {28.00} | | |
| water strike (m) casing (m) rose to (m) time to rise (m) remarks Groundwater not encountered prior to use of water flush. | | | | | | | | | | |
| | | | | | | | | CONTRACT 22607 | | CHECKED |

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BOREHOLE LOG



CLIENT COVANTA ENERGY LTD

BH204

SITE ROOKERY SOUTH, STEWARTBY, BEDFORDSHIRE

Sheet 1 of 2

Start Date 3 March 2009

Easting 501148.4

Scale 1 : 50

End Date 4 March 2009

Northing 241023.7 Ground level 28.78mOD

Depth 11.00 m

| progress date/time water depth | sample no & type | depth (m) from to | casing depth (m) | test type & value | samp. /core range | l _f | instru -ment | description | depth (m) | reduced level (m) | legend |
|--------------------------------|------------------|-------------------|------------------|-------------------|-------------------|----------------|--------------|--|-----------|-------------------|--------|
| 03/03/09 1200hrs | X | 0.00 - 5.70 | | | | | | MADE GROUND: Very soft to soft very low strength bluish grey mottled orangish brown slightly sandy slightly gravelly CLAY with frequent roots (<10mm) and rootlets. Gravel is subangular fine and medium brick fragments. (CALLOW CLAY FILL) | | | |
| | | | | | | | | 1.60m: Becoming firm. | 2.00 | 26.78 | |
| | | | | | | | | Dark bluish grey mottled light grey slightly sandy clayey SILT with frequent sand to medium gravel sized shell fragments and light bluish grey silty sand partings. (KELLAWAYS FORMATION - KELLAWAYS SAND MEMBER) | 3.00 | 25.78 | |
| | | | | | | | | Very dense dark bluish grey silty fine and medium SAND with occasional sand to medium gravel sized shell fragments. (KELLAWAYS FORMATION - KELLAWAYS SAND MEMBER) | 4.70 | 24.08 | |
| | | | | | | | | Firm and stiff dark bluish grey slightly sandy locally sandy CLAY. (KELLAWAYS FORMATION - KELLAWAYS SAND MEMBER) | 5.50 | 23.28 | |
| | 1C | 5.70 - 7.00 | 5.70 | | 100 | NA | | Very stiff dark bluish grey mottled light bluish grey slightly sandy locally sandy CLAY with frequent sand to medium gravel sized shell fragments. (KELLAWAYS FORMATION - KELLAWAYS SAND MEMBER) | 5.70 | 23.08 | |
| | | | | | | | | Very stiff dark grey sandy CLAY with occasional sand to medium gravel sized shell fragments. (KELLAWAYS FORMATION - KELLAWAYS SAND MEMBER) | 6.80 | 21.98 | |
| | 2C | 7.00 - 8.20 | | | 100 | | | Very stiff fissured indistinctly thinly laminated dark grey CLAY with rare sand to medium gravel sized shell fragments and pyrite nodules. (KELLAWAYS FORMATION - KELLAWAYS CLAY MEMBER) | | | |
| | | | | | | | | Continued Next Page | {8.00} | | |

EQUIPMENT: Geotechnical Pioneer rig.

METHOD: Dynamic sampled (113mm) 0.00-5.70m. Waterflush rotary core drilled (116mm) 5.70-11.00m.

CASING: 140mm diam to 5.70m.

BACKFILL: On completion, a vibrating wire piezometer was installed with tip at 9.10m, granular response zone 9.60-8.60m, bentonite seal 11.00-9.60m and 8.60-8.10m, bentonite grout 8.10-0.50m, concrete and raised borehole helmet 0.50-0.00m.

REMARKS: Dynamic samples disposed of on site under instruction from the Engineer - descriptions used above taken from BH104 nearby. Packer test carried out between 8.10-9.50m. Stratum names provided by the Engineer.

EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

| water strike (m) | casing (m) | rose to (m) | time to rise (min) | remarks |
|------------------|------------|-------------|--------------------|--|
| | | | | Groundwater not encountered prior to use of water flush. |



CONTRACT
22607

CHECKED

BOREHOLE LOG



BH204

CLIENT COVANTA ENERGY LTD

SITE ROOKERY SOUTH, STEWARTBY, BEDFORDSHIRE

Sheet 2 of 2

Start Date 3 March 2009

Easting 501148.4

Scale 1 : 50

End Date 4 March 2009

Northing 241023.7 Ground level 28.78mOD

Depth 11.00 m

| progress data/time water depth | sample no & type | depth (m) from to | casing depth (m) | test type & value | samp. /core range | lf | instru -ment | description | depth (m) | reduced level (m) | legend |
|--|------------------|-------------------|------------------|-------------------|-------------------|------------------|--------------|--|--------------------------|-------------------|-------------|
| 03/03/09 1745hrs 1.37m | 3C | 8.20 - 9.50 | | | 100 98 95 | NI 210 490 | | Medium strong light grey fossiliferous LIMESTONE. Fractures are medium locally closely spaced subhorizontal undulating and rough, predominantly infilled with (1-10mm thick) very stiff dark grey shelly clay. (CORNBRAsh FORMATION) 8.79 - 8.96m: Hard dark grey CLAY with frequent sand to medium gravel sized shell and fossil fragments. | 8.20 | 20.58 | |
| 04/03/09 0800hrs 1.66m | 4C | 9.50 - 11.00 | 5.70 | | 100 12 12 | NA | | Hard dark grey CLAY with frequent sand to medium gravel sized shell and fossil fragments. (BLISWORTH CLAY FORMATION) Hard dark grey CLAY with occasional sand to medium gravel sized pyrite nodules. (BLISWORTH CLAY FORMATION) 10.40 - 11.00m: Mottled reddish brown and yellowish brown. | 9.70 9.85 | 19.08 18.93 | |
| 04/03/09 1700hrs 1.50m | | | | | | | | Borehole completed at 11.00m. | 11.00 | 17.78 | |
| | | | | | | | | | {18.00} | | |
| water strike (m) casing (m) rose to (m) time to rise (m) remarks Groundwater not encountered prior to use of water flush. | | | | | | | | | | | |
| | | | | | | | | | CONTRACT 22607 | | CHECKED |

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BOREHOLE LOG



CLIENT COVANTA ENERGY LTD

BH205

SITE ROOKERY SOUTH, STEWARTBY, BEDFORDSHIRE

Sheet 1 of 3

Start Date 5 March 2009

Easting 501245.8

Scale 1 : 50

End Date 9 March 2009

Northing 240991.6 Ground level 28.99mOD

Depth 19.10 m

| progress date/time water depth | sample no & type | depth (m) from to | casing depth (m) | test type & value | samp. /core range | lf | instru -ment | description | depth (m) | reduced level (m) | legend |
|--------------------------------|------------------|-------------------|------------------|-------------------|-------------------|----|--------------|---|-----------|-------------------|--------|
| 05/03/09 0800hrs | X | 0.00 - 5.00 | | | | | / / / | MADE GROUND: Soft to firm low strength dark bluish grey mottled orangish brown slightly sandy slightly gravelly CLAY with frequent rootlets and rare sand to fine gravel sized shell fragments. Gravel is angular and subangular fine to coarse brick fragments. (CALLOW CLAY FILL) | | | |
| | | | | | | | | 1.50 - 3.00m: Rootlets becoming rare. 2.50 - 3.00m: Locally sandy. | 3.00 | 25.99 | |
| | | | | | | | | Hard bluish grey mottled light bluish grey sandy locally very sandy CLAY with frequent light bluish grey silty sand partings (<1mm) and rare sand to medium gravel sized shell fragments. (KELLAWAYS FORMATION - KELLAWAYS SAND MEMBER) | 4.00 | 24.99 | |
| | | | | | | | | Very dense bluish grey silty SAND. (KELLAWAYS FORMATION - KELLAWAYS SAND MEMBER) | 4.80 | 24.19 | |
| | 1C | 5.00 - 6.50 | 5.00 | | 98 | NA | | Stiff to very stiff dark bluish grey mottled light bluish grey sandy CLAY with frequent light bluish grey silty sand partings and rare sand to medium gravel sized shell fragments. (KELLAWAYS FORMATION - KELLAWAYS SAND MEMBER) | 5.00 | 23.99 | |
| | | | | | | | | Dark bluish grey mottled light bluish grey silty fine and medium SAND. (KELLAWAYS FORMATION - KELLAWAYS SAND MEMBER) | 5.50 | 23.49 | |
| | 2C | 6.50 - 8.00 | | | 93 | | | Firm dark bluish grey sandy locally very sandy CLAY with rare sand to medium gravel sized shell fragments. (KELLAWAYS FORMATION - KELLAWAYS SAND MEMBER) 6.70 - 7.70m: Rare fine sand sized pyrite nodules. 7.00 - 7.70m: Stiff locally very stiff. | 7.70 | 21.29 | |
| | | | | | | | | Continued Next Page | {8.00} | | |

EQUIPMENT: Geotechnical Pioneer rig.

METHOD: Dynamic sampled (113mm) 0.00-5.00m. Waterflush rotary core drilled (116mm) 5.00-19.10m.

CASING: 140mm diam to 8.80m.

BACKFILL: On completion, a vibrating wire piezometer was installed with tip at 16.00m, granular response zone 16.50-15.50m, bentonite seal 19.10-16.50m and 15.50-12.50m, bentonite grout 12.50-0.50m, concrete and raised borehole helmet 0.50-0.00m.

REMARKS: Dynamic samples disposed of on site under instruction from the Engineer - descriptions used above taken from BH105A and BH105B nearby.

Packer test carried out between 8.80-9.50m. Stratum names provided by the Engineer.

EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

| water strike (m) | casing (m) | rose to (m) | time to rise (min) | remarks |
|------------------|------------|-------------|--------------------|--|
| | | | | Groundwater not encountered prior to use of water flush. |



CONTRACT
22607

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BOREHOLE LOG



BH205

CLIENT COVANTA ENERGY LTD

SITE ROOKERY SOUTH, STEWARTBY, BEDFORDSHIRE

Sheet 2 of 3

Start Date 5 March 2009 Easting 501245.8

Scale 1 : 50

End Date 9 March 2009 Northing 240991.6 Ground level 28.99mOD

Depth 19.10 m

| progress date/time water depth | sample no & type | depth (m) from to | casing depth (m) | test type & value | samp. /core range | instru-ment | description | depth (m) | reduced level (m) | legend | | |
|--|------------------|-------------------|------------------|-------------------|-------------------|-------------|--|---|-------------------|--------|--------------------------|-------------|
| 05/03/09 1730hrs 1.19m | 3C | 8.00 - 9.50 | | | 102 32 32 | | Stiff extremely closely fissured dark bluish grey CLAY with frequent fine and medium gravel sized pockets of fine sand sized pyrite crystals and rare sand to medium gravel sized shell fragments. (KELLAWAYS FORMATION - KELLAWAYS CLAY MEMBER) | 8.80 | 20.19 | | | |
| | | | | | 110 260 550 | | 8.40 - 8.80m: Frequent sand to fine gravel sized shell fragments and fine sand sized pyrite crystals along some fissure surfaces. | | | | | |
| 06/03/09 0800hrs 0.00m | 4C | 9.50 - 10.60 | | | 96 85 50 | | Strong light bluish grey fossiliferous LIMESTONE. Fractures are subhorizontal very closely to medium spaced undulating rough, predominantly infilled with (1-10mm thick) very stiff dark grey shelly clay. (CORNBRAsh FORMATION) | | | | | |
| | | | | | | | 9.15 - 9.30m: 2No. subvertical closely spaced discontinuous sinusoidal incipient fractures. | | | | | |
| | | | | | | | 9.30 - 9.55m: Stiff dark bluish grey slightly gravelly clay with frequent sand to coarse gravel sized shell fragments. Gravel is angular to subrounded fine and medium limestone. | 10.60 | 18.39 | | | |
| | 5C | 10.60 - 12.10 | | | 101 9 0 | | NA | 9.55 - 9.65m: Medium strong dark bluish grey. | | | | |
| | | | | | | | Very stiff bluish grey mottled yellowish brown CLAY with rare sand to fine gravel sized pyrite nodules. (BLISWORTH CLAY FORMATION) | | | | | |
| | | | | | | | 12.00 - 12.10m: Tending to extremely weak mudstone. | | | | | |
| | 6C | 12.10 - 13.40 | | | 93 10 10 | | | 12.70 - 12.85m: Very stiff and hard dark greyish black with frequent and to medium gravel sized shell fragments and pyritised wood fragments. | 12.85 | | 16.14 | |
| | | | | | | | | 13.20 - 15.79m: Hard light bluish grey CLAY with frequent sand to medium gravel sized shell fragments. (BLISWORTH CLAY FORMATION) | 13.20 | | 15.79 | |
| | | | | | | | Medium strong locally weak light bluish grey fossiliferous LIMESTONE. Fractures are subhorizontal widely to very closely spaced undulating rough, with clay smear occasionally clean. (BLISWORTH LIMESTONE FORMATION) | | | | | |
| | | | | | | | 14.20 - 14.40m: Closely spaced subhorizontal undulating discontinuous incipient fractures. | | | | | |
| | | | | | | | 14.40 - 15.30m: Very stiff dark bluish grey clay with abundant sand to coarse gravel sized shell fragments. | | | | | |
| 06/03/09 1700hrs 0.60m | | | | | | | 15.95 - 16.05m: Very stiff dark bluish grey clay with abundant sand to coarse gravel sized shell fragments. | | | | | |
| 09/03/09 0800hrs 0.23m | 9C | 16.40 - 17.80 | | | 98 97 93 | | | | | | | |
| | | | | | | | 17.50 - 17.80m: Subhorizontal thickly laminated medium strong light green mudstone and medium strong light greyish blue fossiliferous limestone. | | | | | |
| | 10C | 17.80 - 19.10 | 8.80 | | 110 | | | | | | | |
| Continued Next Page | | | | | | | | {18.00} | | | | |
| water strike (m) casing (m) rose to (m) time to rise (m) remarks Groundwater not encountered prior to use of water flush. | | | | | | | | | | | CONTRACT 22607 | CHECKED |

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BOREHOLE LOG



CLIENT COVANTA ENERGY LTD

BH205

SITE ROOKERY SOUTH, STEWARTBY, BEDFORDSHIRE

Sheet 3 of 3

Start Date 5 March 2009 Easting 501245.8

Scale 1 : 50

End Date 9 March 2009 Northing 240991.6 Ground level 28.99mOD

Depth 19.10 m

| progress date/time water depth | sample no & type | depth (m) from to | casing depth (m) | test type & value | samp. /core range | lf | instru-ment | description | depth (m) | reduced level (m) | legend |
|--|------------------|----------------------|------------------|-------------------|-------------------|----|-------------|-------------------------------|--------------------------|-------------------|--------|
| 09/03/09 1730hrs 0.56m | | | | | 98 87 | | | | 19.10 | 9.89 | |
| | | | | | | | | Borehole completed at 19.10m. | | | |
| | | | | | | | | | {28.00} | | |
| water strike (m) casing (m) rose to (m) time to rise (m) remarks Groundwater not encountered prior to use of water flush. | | | | | | | | | CONTRACT 22607 | CHECKED | |

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BOREHOLE LOG



BH206

CLIENT COVANTA ENERGY LTD

SITE ROOKERY SOUTH, STEWARTBY, BEDFORDSHIRE

Sheet 1 of 2

Start Date 10 March 2009 Easting 501248.8

Scale 1 : 50

End Date 10 March 2009 Northing 240991.0 Ground level 28.90mOD

Depth 10.60 m

| progress date/time water depth | sample no & type | depth (m) from to | casing depth (m) | test type & value | samp. /core range | instru-ment | description | depth (m) | reduced level (m) | legend |
|--------------------------------|------------------|-------------------|------------------|-------------------|-------------------|-------------|---|-----------|-------------------|--------|
| 10/03/09 0800hrs | X | 0.00 - 8.80 | | | | | <p>MADE GROUND: Soft to firm low strength dark bluish grey mottled orangish brown slightly sandy slightly gravelly CLAY with frequent rootlets and rare sand to fine gravel sized shell fragments. Gravel is angular and subangular fine to coarse brick fragments. (CALLOW CLAY FILL)</p> <p>1.50 - 3.00m: Rootlets becoming rare.</p> <p>2.50 - 3.00m: Locally sandy.</p> <p>Hard bluish grey mottled light bluish grey sandy locally very sandy CLAY with frequent light bluish grey silty sand partings (<1mm) and rare sand to medium gravel sized shell fragments. (KELLAWAYS FORMATION - KELLAWAYS SAND MEMBER)</p> <p>Very dense bluish grey silty SAND. (KELLAWAYS FORMATION - KELLAWAYS SAND MEMBER)</p> <p>Stiff to very stiff dark bluish grey mottled light bluish grey sandy CLAY with frequent light bluish grey silty sand partings and rare sand to medium gravel sized shell fragments. (KELLAWAYS FORMATION - KELLAWAYS SAND MEMBER)</p> <p>Dark bluish grey mottled light bluish grey silty fine and medium SAND. (KELLAWAYS FORMATION - KELLAWAYS SAND MEMBER)</p> <p>Firm dark bluish grey sandy locally very sandy CLAY with rare sand to medium gravel sized shell fragments. (KELLAWAYS FORMATION - KELLAWAYS SAND MEMBER)</p> <p>6.70 - 7.70m: Rare fine sand sized pyrite nodules.</p> <p>7.00 - 7.70m: Stiff locally very stiff.</p> | | | |
| | | | | | | | Continued Next Page | {8.00} | | |

EQUIPMENT: Geotechnical Pioneer rig.

METHOD: Dynamic sampled (113mm) 0.00-8.80m. Waterflush rotary core drilled (116mm) 8.80-10.60m.

CASING: 140mm diam to 8.80m.

BACKFILL: On completion, a slotted standpipe (50mm) was installed to 10.60m, granular response zone 10.60-8.70m, bentonite seal 8.70-7.70m, bentonite grout 7.70-0.50, concrete and raised borehole helmet 0.30-0.00m.

REMARKS: Dynamic samples and cores disposed of on site under instruction from the Engineer - descriptions used above taken from BH105A, BH105B and BH205 nearby. Stratum names provided by the Engineer.

EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

| water strike (m) | casing (m) | rose to (m) | time to rise (min) | remarks |
|------------------|------------|-------------|--------------------|--|
| | | | | Groundwater not encountered prior to use of water flush. |



CONTRACT
22607

CHECKED



BOREHOLE LOG



BH206

CLIENT COVANTA ENERGY LTD

SITE ROOKERY SOUTH, STEWARTBY, BEDFORDSHIRE

Sheet 2 of 2

Start Date 10 March 2009 Easting 501248.8

Scale 1 : 50

End Date 10 March 2009 Northing 240991.0 Ground level 28.90mOD

Depth 10.60 m

| progress date/time water depth | sample no & type | depth (m) from to | casing depth (m) | test type & value | samp. /core range | instru -ment | description | depth (m) | reduced level (m) | legend |
|--|------------------|-------------------|------------------|-------------------|-------------------|--------------|--|----------------|-------------------|--------|
| 10/03/09 1700hrs | C | 8.80 - 10.35 | 8.80 | | | | Stiff extremely closely fissured dark bluish grey CLAY with frequent fine and medium gravel sized pockets of fine sand sized pyrite crystals and rare sand to medium gravel sized shell fragments. (KELLAWAYS FORMATION - KELLAWAYS CLAY MEMBER) 8.40 - 8.80m: Frequent sand to fine gravel sized shell fragments and fine sand sized pyrite crystals along some fissure surfaces. | 8.80 | 20.10 | |
| | C | 10.35 - 10.60 | 8.80 | | | | Medium strong light bluish grey fossiliferous LIMESTONE. Fractures are subhorizontal very closely to medium spaced undulating rough, predominantly infilled with (1-10mm thick) very stiff dark grey shelly clay. (CORNBRAH FORMATION) 9.15 - 9.30m: 2No. subvertical closely spaced discontinuous sinusoidal incipient fractures. 9.30 - 9.55m: Stiff dark bluish grey slightly gravelly clay with frequent sand to coarse gravel sized shell fragments. Gravel is angular to subrounded fine and medium limestone. 9.55 - 9.65m: Medium strong dark bluish grey. Very stiff bluish grey mottled yellowish brown CLAY with rare sand to fine gravel sized pyrite nodules. (BLISWORTH CLAY FORMATION) Borehole completed at 10.60m. | 10.50 10.60 | 18.40 18.30 | |
| | | | | | | | | {18.00} | | |
| water strike (m) | | casing (m) | rose to (m) | time to rise (m) | remarks | | CONTRACT | | CHECKED | |
| Groundwater not encountered prior to use of water flush. | | | | | | | AGS | 22607 | | |

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BOREHOLE LOG



CLIENT COVANTA ENERGY LTD

BH207

SITE ROOKERY SOUTH, STEWARTBY, BEDFORDSHIRE

Sheet 1 of 2

Start Date 2 March 2009 Easting 501199.6

Scale 1 : 50

End Date 5 March 2009 Northing 241270.2 Ground level 28.92mOD

Depth 10.00 m

| progress date/time water depth | sample no & type | depth (m) from to | casing depth (m) | test type & value | samp. /core range | lf | instru -ment | description | depth (m) | reduced level (m) | legend |
|--------------------------------|------------------|-------------------|------------------|-------------------|-------------------|----|--------------|---|-----------|-------------------|--------|
| 02/03/09 0830hrs | X | 0.00 - 6.00 | 6.00 | | | | | MADE GROUND: Reeds over soft becoming firm low strength grey slightly sandy slightly gravelly CLAY, with occasional rootlets and sand to medium gravel sized shell fragments. Gravel is subangular and subrounded fine and medium brick fragments. (CALLOW CLAY FILL) | | | |
| | | | | | | | | Stiff fissured indistinctly thinly laminated grey silty CLAY, with occasional sand to medium gravel sized shell fragments and rare fine and medium gravel sized lenses of light grey silt. (OXFORD CLAY FORMATION) | 1.70 | 27.22 | |
| | | | | | | | | 2.00 - 2.50m: With occasional sandy partings. | 2.50 | 26.42 | |
| | | | | | | | | Stiff to very stiff grey sandy CLAY. (KELLAWAYS FORMATION - KELLAWAYS SAND MEMBER) | | | |
| | | | | | | | | 2.50 - 3.45m: Very sandy, locally tending to a clayey sand. | | | |
| | | | | | | | | 5.00m: Extremely high strength. | 5.50 | 23.42 | |
| | 1C | 6.00 - 7.00 | | | 70 | NA | | Very stiff fissured grey mottled light grey slightly sandy locally sandy CLAY, with occasional sand to medium gravel sized shell fragments. (KELLAWAYS FORMATION - KELLAWAYS CLAY MEMBER) | 6.00 | 22.92 | |
| | 2C | 7.00 - 8.50 | | | 103 25 25 | | | Very stiff dark grey sandy CLAY with occasional sand to medium gravel sized shell fragments. (KELLAWAYS FORMATION - KELLAWAYS SAND MEMBER) | 7.05 | 21.87 | |
| | | | | | | | | Very stiff fissured indistinctly thinly laminated dark grey CLAY with occasional sand to medium gravel sized shell fragments. (KELLAWAYS FORMATION - KELLAWAYS CLAY MEMBER) | | | |
| | | | | | | | | Continued Next Page | {8.00} | | |

EQUIPMENT: Geotechnical Pioneer rig.

METHOD: Dynamic sampled (113mm) 0.00-6.00m. Waterflush rotary core drilled (116mm) 6.00-10.00m.

CASING: 140mm diam to 6.00m.

BACKFILL: On completion, a vibrating wire piezometer was installed with tip at 8.70m, granular response zone 9.20-8.20m, bentonite seal 10.00-9.20m and 8.20-7.70m, bentonite grout 7.70-0.50m, concrete and raised borehole helmet 0.50-0.00m.

REMARKS: Dynamic samples disposed of on site under instruction from the Engineer - descriptions used above taken from BH103 nearby. Packer test carried out between 8.10-9.30m. Stratum names provided by the Engineer.

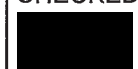
EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

| water strike (m) | casing (m) | rose to (m) | time to rise (min) | remarks |
|------------------|------------|-------------|--------------------|--|
| | | | | Groundwater not encountered prior to use of water flush. |



CONTRACT
22607

CHECKED



BOREHOLE LOG



CLIENT COVANTA ENERGY LTD

BH207

SITE ROOKERY SOUTH, STEWARTBY, BEDFORDSHIRE

Sheet 2 of 2

Start Date 2 March 2009 Easting 501199.6

Scale 1 : 50

End Date 5 March 2009 Northing 241270.2 Ground level 28.92mOD

Depth 10.00 m

| progress date/time water depth | sample no & type | depth (m) from to | casing depth (m) | test type & value | samp. /core range | instru -ment | description | depth (m) | reduced level (m) | legend |
|--------------------------------|------------------|-------------------|------------------|-------------------|-------------------|--------------|--|-----------|-------------------|---------|
| 02/03/09 1730hrs 1.90m | 3C | 8.50 - 9.30 | 6.00 | | 55 300 590 | | Medium strong light grey fossiliferous LIMESTONE. Fractures are medium locally closely spaced subhorizontal undulating and rough, predominantly infilled with (1-10mm thick) very stiff dark grey shelly clay. (CORNBRAsh FORMATION) | 8.10 | 20.82 | |
| | | | | | 100 100 96 | | | | 9.30 | |
| 05/03/09 1200hrs 1.60m | 4C | 9.30 - 10.00 | | | 102 | NA | Hard dark grey CLAY with occasional sand to medium gravel sized pyrite nodules. (BLISWORTH CLAY FORMATION) | | | |
| | | | | | | | 9.90 - 10.00m: Mottled reddish brown and yellowish brown. Borehole completed at 10.00m. | 10.00 | 18.92 | |
| | | | | | | | | {18.00} | | |
| water strike (m) | | casing (m) | rose to (m) | time to rise (m) | remarks | | AGS | | CONTRACT | CHECKED |
| | | | | | | | Groundwater not encountered prior to use of water flush. | | 22607 | |

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BOREHOLE LOG



WS101

CLIENT COVANTA ENERGY LTD

SITE ROOKERY SOUTH, STEWARTBY, BEDFORDSHIRE

Sheet 1 of 1

Start Date 27 February 2009 Easting 501302.4

Scale 1 : 50

End Date 27 February 2009 Northing 241006.0 Ground level 28.90mOD

Depth 3.50 m

| progress date/time water depth | sample no & type | depth (m) from to | casing depth (m) | test type & value | samp. /core range | instru -ment | description | depth (m) | reduced level (m) | legend |
|--------------------------------|------------------|-------------------|------------------|-------------------|-------------------|--------------|---|-----------|-------------------|--------|
| 27/02/09 0830hrs | 1X | 0.00 - 1.00 | | | | | MADE GROUND: Reeds over firm medium strength locally fissured brownish grey locally stained black slightly sandy slightly gravelly CLAY with occasional fine and medium gravel sized shell and pyritised wood fragments and coarse gravel sized pockets of orangish brown mottled off-white clay. Gravel is angular to subrounded fine and medium brick fragments. (CALLOW CLAY FILL) 0.00 - 1.00m: With occasional rootlets. | | | |
| | 2D* | 0.40 - 0.60 | | H 69 | | | | | | |
| | 3D | 0.90 | | H 45 | | | | | | |
| | 4X | 1.00 - 2.00 | | | | | | | | |
| | 5D* | 1.40 - 1.60 | | H 47 | | | | | | |
| | 6D | 1.85 - 2.00 | | | | | | | | |
| | 7X | 2.00 - 3.00 | | | | | | | | |
| 27/02/09 1030hrs Dry | 8D | 2.90 | | H 118 | | | Stiff to very stiff thinly laminated dark grey CLAY with occasional sand to medium gravel sized shell fragments and rare medium gravel sized lenses of light grey silt. (OXFORD CLAY FORMATION) | 2.10 | 26.80 | |
| | 9X | 3.00 - 3.50 | | | | | 2.90m: High strength. | 3.10 | 25.80 | |
| | 10D | 3.20 - 3.40 | | | | | Very stiff high strength grey slightly sandy CLAY with rare sand to medium gravel sized shell fragments. (OXFORD CLAY FORMATION) | 3.50 | 25.40 | |
| | | 3.30 | Nil | H 124 | | | 3.40m: Becoming sandy. Borehole completed at 3.50m. | | | |
| | | | | | | | | {8.00} | | |

EQUIPMENT: Geotechnical Terrier 2000 rig.
 METHOD: Dynamic sampled (101mm) 0.00-3.00m and (86mm) 3.00-3.50m.
 CASING: Not used.
 BACKFILL: On completion, hole backfilled with bentonite pellets and the surface reinstated.
 REMARKS: Hole refused on hard strata at 3.50m. Stratum names provided by the Engineer.

EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

| | | | | |
|------------------|------------|-------------|--------------------|------------------------------|
| water strike (m) | casing (m) | rose to (m) | time to rise (min) | remarks |
| | | | | Groundwater not encountered. |



CONTRACT
22607

CHECKED



BOREHOLE LOG



WS102

CLIENT COVANTA ENERGY LTD

SITE ROOKERY SOUTH, STEWARTBY, BEDFORDSHIRE

Sheet 1 of 1

Start Date 27 February 2009 Easting 501341.6

Scale 1 : 50

End Date 27 February 2009 Northing 240968.4 Ground level 28.75mOD

Depth 3.00 m

| progress date/time water depth | sample no & type | depth (m) from to | casing depth (m) | test type & value | samp. /core range | instru -ment | description | depth (m) | reduced level (m) | legend |
|--------------------------------|------------------------------|---------------------|------------------|-------------------|-------------------|---|--|-----------|-------------------|--------|
| 27/02/09 1130hrs | 1X | 0.00 - 1.00 | | | | | MADE GROUND: Rough grass over firm low strength locally fissured brownish grey slightly sandy slightly gravelly CLAY with occasional rootlets and fine and medium gravel sized shell fragments. Gravel is angular to subrounded fine and medium brick fragments. (ALLOW CLAY FILL) | 1.10 | 27.65 | |
| | 2D* | 0.40 - 0.60 | | H 32 | | | | | | |
| | 3D | 0.85 - 1.00 | | H 32 | | MADE GROUND: Firm fissured low strength grey slightly sandy CLAY with occasional fine to coarse gravel sized shell and brick fragments. (ALLOW CLAY FILL) | 2.70 | 26.05 | | |
| | 4X | 1.00 - 2.00 | | H 31 | | | | | | |
| | 5D* | 1.40 - 1.60 | | H 63 | | | | | | |
| | 27/02/09 1300hrs 2.00m | 6D | 1.85 - 2.00 | | H 23 | | 1.90m: Medium strength. | 3.00 | 25.75 | |
| | | 7X | 2.00 - 3.00 | | H 23 | | | | | |
| 8D* | | 2.40 - 2.70 | | Nil | H >130 | | Very stiff high strength fissured locally thinly laminated grey slightly sandy CLAY with occasional fine and medium gravel sized shell fragments. (OXFORD CLAY FORMATION) 2.95m: Shell fragments becoming frequent. Borehole completed at 3.00m. | | | |
| | 9D | 2.85 - 3.00 2.90 | | | | | | | | |

EQUIPMENT: Geotechnical Terrier 2000 rig.
 METHOD: Dynamic sampled (101mm) 0.00-2.00m and (86mm) 2.00-3.00m.
 CASING: Not used.
 BACKFILL: On completion, hole backfilled with bentonite pellets and the surface reinstated.
 REMARKS: Hole refused on hard strata at 3.00m. Stratum names provided by the Engineer.

EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

| water strike (m) | casing (m) | rose to (m) | time to rise (min) | remarks |
|------------------|------------|-------------|--------------------|------------------------------|
| 2.00 | Nil | 2.00 | 20 | Seepage after run 1.00-2.00m |



CONTRACT

22607

CHECKED



BOREHOLE LOG



WS103

CLIENT COVANTA ENERGY LTD

SITE ROOKERY SOUTH, STEWARTBY, BEDFORDSHIRE

Sheet 1 of 1

Start Date 26 February 2009 Easting 501223.3

Scale 1 : 50

End Date 26 February 2009 Northing 241308.7 Ground level 28.73mOD

Depth 2.75 m

| progress date/time water depth | sample no & type | depth (m) from to | casing depth (m) | test type & value | samp. /core range | instru-ment | description | depth (m) | reduced level (m) | legend |
|--------------------------------|------------------|-------------------|------------------|-------------------|-------------------|--|--|-----------|-------------------|--------|
| 26/02/09 1130hrs | 1X | 0.00 - 1.00 | | | | | MADE GROUND: Soft brown slightly sandy slightly gravelly CLAY with occasional fine and medium decomposed plant fragments and rootlets. Gravel is subangular fine and medium brick fragments. (CALLOW CLAY FILL) | 0.45 | 28.28 | |
| | 2D* | 0.40 - 0.65 | | H 29 H 45 | | | | | | |
| | 3D | 0.85 - 1.00 | | | | | MADE GROUND: Firm low strength fissured dark grey locally brown slightly sandy slightly gravelly CLAY with occasional rootlets. Gravel is angular and subangular fine to coarse brick fragments. (CALLOW CLAY FILL) 0.90 - 1.50m: Medium strength. | 1.60 | 27.13 | |
| | 4X | 1.00 - 2.00 | | | | | | | | |
| | 5D* | 1.40 - 1.60 | | H 53 H 87 | | | Stiff high strength fissured indistinctly thinly laminated grey slightly sandy CLAY with occasional fine and medium gravel sized shell fragments and medium and coarse gravel sized lenses of light grey silt. (OXFORD CLAY FORMATION) | 2.45 | 26.28 | |
| | 6D | 1.85 - 2.00 | | | | | | | | |
| | 7X | 2.00 - 2.75 | | | | | | | | |
| 26/02/09 1300hrs 0.00m | 8D | 2.50 - 2.75 | | H 83 | | Stiff high strength fissured grey sandy CLAY with occasional fine and medium gravel sized shell fragments. (OXFORD CLAY FORMATION) | 2.75 | 25.98 | | |
| | | | | | | | Borehole completed at 2.75m. | {8.00} | | |

EQUIPMENT: Geotechnical Terrier 2000 rig.

METHOD: Dynamic sampled (101mm) 0.00-2.75m.

CASING: Not used.

BACKFILL: On completion, hole backfilled with bentonite pellets and the surface reinstated.

REMARKS: Hole collapsed at 2.75m back to 1.40m. Hole refused on hard strata at 2.75m. Stratum names provided by the Engineer.

EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

water strike (m) casing (m) rose to (m) time to rise (min) remarks
2.50 Nil Borehole collapsed to 1.40m, water settled at ground level



CONTRACT
22607

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BOREHOLE LOG



WS104

CLIENT COVANTA ENERGY LTD

SITE ROOKERY SOUTH, STEWARTBY, BEDFORDSHIRE

Sheet 1 of 1

Start Date 27 February 2009 Easting 501218.9

Scale 1 : 50

End Date 27 February 2009 Northing 240961.1 Ground level 28.98mOD

Depth 3.20 m

| progress date/time water depth | sample no & type | depth (m) from to | casing depth (m) | test type & value | samp. /core range | instru-ment | description | depth (m) | reduced level (m) | legend |
|--------------------------------|------------------|-------------------|------------------|-------------------|-------------------|--|--|-----------|-------------------|---|
| 27/02/09 1430hrs | 1X | 0.00 - 1.00 | | | | | MADE GROUND: Reeds over firm medium strength fissured greyish brown mottled orangish brown slightly sandy slightly gravelly CLAY with occasional rootlets and fine and medium gravel sized shell fragments. Gravel is angular and subangular fine and medium brick fragments. (CALLOW CLAY FILL) | 0.80 | 28.18 | |
| | 2D* | 0.40 - 0.60 | | H 48 | | | | | | |
| | 3D | 0.60 - 0.80 | | | | | | | | |
| | 4X | 1.00 - 2.00 | | H 61 | | | | | | |
| | 5D* | 1.40 - 1.60 | | H 69 | | | | | | |
| | 6D | 1.85 - 2.00 | | H 44 | | | | | | |
| | 7X | 2.00 - 3.00 | | | | | | | | |
| 27/02/09 1600hrs Dry | X | 2.90 - 3.20 | Nil | H 122 | | MADE GROUND?: Firm to stiff low strength fissured locally indistinctly thinly laminated grey CLAY with occasional sand to medium gravel sized shell fragments. (CALLOW CLAY FILL?) | 2.45 | 26.53 | | |
| | 8D | 3.00 - 3.20 | | | | | | | | Very stiff high strength dark grey sandy CLAY with occasional sandy partings and sand to medium gravel sized shell fragments. (OXFORD CLAY FORMATION) |
| | | | | | | | Borehole completed at 3.20m. | | | |

EQUIPMENT: Geotechnical Terrier 2000 rig.
 METHOD: Dynamic sampled (101mm) 0.00-2.00m, (86mm) 2.00-3.00m and (76mm) 3.00-3.20m.
 CASING: Not used.
 BACKFILL: On completion, hole backfilled with bentonite pellets and the surface reinstated.
 REMARKS: Hole refused on hard strata at 3.20m. Stratum names provided by the Engineer.

EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

water strike (m) casing (m) rose to (m) time to rise (min) remarks

Groundwater not encountered.



CONTRACT

22607

CHECKED



BOREHOLE LOG



WS105

CLIENT COVANTA ENERGY LTD

SITE ROOKERY SOUTH, STEWARTBY, BEDFORDSHIRE

Sheet 1 of 1

Start Date 2 March 2009 Easting 501276.9

Scale 1 : 50

End Date 2 March 2009 Northing 240895.5 Ground level 28.62mOD

Depth 3.00 m

| progress date/time water depth | sample no & type | depth (m) from to | casing depth (m) | test type & value | samp. /core range | instru-ment | description | depth (m) | reduced level (m) | legend |
|--------------------------------|------------------|---------------------------|------------------|-------------------|-------------------|-------------|---|-----------|-------------------|--------|
| 02/03/09 0930hrs | 1X | 0.00 - 1.00 | | | | | MADE GROUND: Reeds over soft brownish grey locally stained black slightly sandy slightly gravelly CLAY with frequent rootlets and occasional fine and medium gravel sized shell and pyritised wood fragments. Gravel is angular to subrounded fine and medium brick fragments. (CALLOW CLAY FILL) | 0.40 | 28.22 | |
| | 2D* | 0.35 - 0.40 - 0.60 | | H 45 | | | | | | |
| | 3D | 0.90 | | H 54 | | | | | | |
| | 4X | 0.85 - 1.00 - 1.00 - 2.00 | | | | | | | | |
| | 5D* | 1.40 - 1.40 - 1.60 | | H 53 | | | | | | |
| | 6D | 1.90 | | H 39 | | | | | | |
| | 7X | 1.85 - 2.00 - 2.00 - 3.00 | | | | | | | | |
| 02/03/09 1100hrs Dry | 8D | 2.40 - 2.85 - 3.00 - 2.90 | | H 91 | | | Stiff high strength thinly laminated grey slightly sandy CLAY with occasional fine and medium gravel sized shell and fossil fragments, occasional medium gravel sized lenses of light grey silt and rare sandy partings. (OXFORD CLAY FORMATION) | 2.30 | 26.32 | |
| | | | Nil | H 125 | | | Borehole completed at 3.00m. | 3.00 | 25.62 | |
| | | | | | | | | {8.00} | | |

EQUIPMENT: Geotechnical Terrier 2000 rig.
 METHOD: Dynamic sampled (101mm) 0.00-2.00m and (86mm) 2.00-3.00m.
 CASING: Not used.
 BACKFILL: On completion, hole backfilled with bentonite pellets and the surface reinstated.
 REMARKS: Hole refused on hard strata at 3.00m. Stratum names provided by the Engineer.

EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

water strike (m) casing (m) rose to (m) time to rise (min) remarks

Groundwater not encountered.



CONTRACT
22607

CHECKED



BOREHOLE LOG



WS106

CLIENT COVANTA ENERGY LTD

SITE ROOKERY SOUTH, STEWARTBY, BEDFORDSHIRE

Sheet 1 of 1

Start Date 2 March 2009

Easting 501430.0

Scale 1 : 50

End Date 2 March 2009

Northing 240849.2 Ground level 28.72mOD

Depth 3.55 m

| progress date/time water depth | sample no & type | depth (m) from to | casing depth (m) | test type & value | samp. /core range | instru-ment | description | depth (m) | reduced level (m) | legend |
|--------------------------------|------------------|-------------------|------------------|-------------------|-------------------|-------------|---|-----------|-------------------|--------|
| 02/03/09 1203hrs | 1X | 0.00 - 1.00 | | | | | <p>MADE GROUND: Reeds over firm medium strength fissured greyish brown mottled orangish brown slightly sandy slightly gravelly CLAY with occasional rootlets and fine and medium gravel sized shell fragments. Gravel is angular and subangular fine and medium brick fragments. (CALLOW CLAY FILL)</p> <p>MADE GROUND: Firm high strength fissured grey slightly sandy CLAY with occasional fine and medium gravel sized shell fragments and rare fine and medium gravel sized brick fragments. (CALLOW CLAY FILL) 1.40m: Medium strength.</p> <p>2.40m: Medium strength.</p> <p>Very stiff fissured dark grey slightly sandy CLAY with occasional sand to medium gravel sized shell fragments and rare medium gravel sized lenses of of light grey sand. (OXFORD CLAY FORMATION)</p> <p>Very stiff dark grey sandy CLAY with occasional sandy partings and sand to medium gravel sized shell fragments. (OXFORD CLAY FORMATION)</p> <p>Borehole completed at 3.55m.</p> | 0.80 | 27.92 | |
| | 2D* | 0.40 - 0.60 | | H 41 | | | | | | |
| | 3D | 0.90 | | H 100 | | | | | | |
| | 4X | 1.00 - 2.00 | | | | | | | | |
| | 5D* | 1.40 - 1.60 | | H 41 | | | | | | |
| | 6D | 1.90 | | H 101 | | | | | | |
| | 7X | 1.85 - 2.00 | | | | | | | | |
| | 8D* | 2.40 - 2.75 | | H 60 | | | | | | |
| | 9D | 2.85 - 3.00 | | | | | | | | |
| | 10X | 3.00 - 3.55 | | | | | | | | |
| 02/03/09 1400hrs 2.00m | 11D | 3.40 - 3.55 | Nil | | | | | | | |

EQUIPMENT: Geotechnical Terrier 2000 rig.
 METHOD: Dynamic sampled (101mm) 0.00-2.00m and (86mm) 2.00-3.55m.
 CASING: Not used.
 BACKFILL: On completion, hole backfilled with bentonite pellets and the surface reinstated.
 REMARKS: Hole refused on hard strata at 3.55m. Stratum names provided by the Engineer.

EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

| water strike (m) | casing (m) | rose to (m) | time to rise (min) | remarks |
|------------------|------------|-------------|--------------------|---------|
| 2.00 | Nil | 2.00 | 20 | Seepage |



CONTRACT
22607

CHECKED



TRIAL PIT LOG



TP101

CLIENT COVANTA ENERGY LTD

SITE ROOKERY SOUTH, STEWARTBY, BEDFORDSHIRE

Sheet 1 of 2

Start Date 26 February 2009 Easting 501181.7

Scale 1 : 25

End Date 26 February 2009 Northing 241256.4 Ground level 29.13mOD

Depth 4.10 m

| water record | sample/test | | | description | depth (m) | level (m) | legend |
|------------------------|-------------|--------|-----------|--|-----------|-----------|--------|
| | no/type | result | depth (m) | | | | |
| 0.50m: Slight seepage. | 1D* | H 45 | 0.50 | MADE GROUND: Grass over firm dark bluish grey mottled orangish brown slightly sandy slightly gravelly CLAY with frequent roots and rootlets. Gravel is very angular and angular fine to coarse with occasional cobbles of brick and mudstone. (MADE GROUND) | 1.90 | 27.23 | |
| | | | | 0.50m: Medium strength. | | | |
| 1.00m: Steady seepage. | 2D | | 1.00 | 0.80 - 1.90m: Locally gravelly. | 2.90 | 26.23 | |
| | 3B | H 30 | 1.00 | 1.00m: Low strength. | | | |
| | 4D* | H 17 | 1.50 | 1.30 - 1.90m: Frequent cobble sized pockets of part decayed reeds with a strong organic odour. 1.50m: Very low strength. | | | |
| | 5B | H 29 | 2.00 | MADE GROUND?: Firm dark bluish grey mottled light bluish grey slightly sandy slightly gravelly CLAY with occasional part decayed roots (up to 10mm diameter) and frequent sand to coarse gravel sized shell fragments. Gravel is angular and subangular fine and medium mudstone. (MADE GROUND?) 2.00m: Low strength. | | | |
| | | H 44 | 2.50 | 2.40 - 2.90m: Stiff with rare angular fine and medium gravel sized fragments of coal. 2.50m: Medium strength. 2.60m: Limestone cobble obstructing south east end of pit. | | | |
| | 6B | | 3.00 | Grey clayey silty fine and medium SAND with occasional sand to coarse gravel sized shell fragments. (KELLAWAYS FORMATION - KELLAWAYS SAND MEMBER) | | | |

Notes

Trial pit excavated by 8 Tonne rubber tracked mechanical excavator.
Ground water seepage at 0.50m and 1.00m.
Trial pit sides unstable from 1.70m.
Trial pit dimensions 4.00x0.70x4.10m.
On completion, the trial pit was backfilled with materials arising.
Hand vane results presented are an average of three readings.
Stratum names provided by the Engineer.

Sketch of Foundation - Not to scale. All dimensions in metres.



| | |
|----------|---------|
| CONTRACT | CHECKED |
| 22607 | |

TRIAL PIT LOG



TP101

CLIENT COVANTA ENERGY LTD

SITE ROOKERY SOUTH, STEWARTBY, BEDFORDSHIRE

Sheet 2 of 2

Start Date 26 February 2009 Easting 501181.7

Scale 1 : 25

End Date 26 February 2009 Northing 241256.4 Ground level 29.13mOD

Depth 4.10 m

| water record | sample/test | | | description | depth (m) | level (m) | legend |
|--------------|-------------|--------|-----------|-------------------------------|-----------|-----------|--------|
| | no/type | result | depth (m) | | | | |
| 4.00 | 7B | | 4.10 | Trial pit completed at 4.10m. | 4.10 | 25.03 | |

Notes

Trial pit excavated by 8 Tonne rubber tracked mechanical excavator.
 Ground water seepage at 0.50m and 1.00m.
 Trial pit sides unstable from 1.70m.
 Trial pit dimensions 4.00x0.70x4.10m.
 On completion, the trial pit was backfilled with materials arising.
 Hand vane results presented are an average of three readings.
 Stratam names provided by the Engineer.

Sketch of Foundation - Not to scale. All dimensions in metres.

Geotechnical Engineering Ltd, Tel. 01452 527743 22607.GPJ TRIAL.H.GPJ GEOTECH.GLB 05/06/2009 15:24:13 MT/GA

EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS



CONTRACT
22607

CHECKED

TRIAL PIT LOG



TP102

CLIENT COVANTA ENERGY LTD

SITE ROOKERY SOUTH, STEWARTBY, BEDFORDSHIRE

Sheet 1 of 2

Start Date 25 February 2009 Easting 501117.9

Scale 1 : 25

End Date 25 February 2009 Northing 240982.4 Ground level 31.55mOD

Depth 4.20 m

| water record | sample/test | | | description | depth (m) | level (m) | legend |
|---|-------------|--------|-----------|---|-----------|-----------|--------|
| | no/type | result | depth (m) | | | | |
| 1.70m: Slight seepage from North-East face. | 1D* | H 46 | 0.50 | MADE GROUND: Firm dark greyish blue mottled orangish brown slightly sandy slightly gravelly CLAY with occasional sand to medium gravel sized shell fragments. Gravel is very angular and angular fine to coarse and occasional cobbles of brick and mudstone. (MADE GROUND) 0.40m: Becoming dark bluish grey. 0.50m: Medium strength. | 1.70 | 29.85 | |
| | 2B | H 43 | 1.00 | 1.00m: Medium strength and becoming gravelly. Gravel is subangular fine to coarse and occasional cobbles of mudstone and rare brick. | | | |
| | 3D* | | 1.50 | | | | |
| | 4D | | 2.00 | Hard indistinctly thinly laminated dark bluish grey CLAY with occasional sand to medium gravel sized shell fragments. (OXFORD CLAY FORMATION) | | | |
| | 5B | | 3.00 | | | | |
| | | | | Hard indistinctly thinly laminated dark bluish grey slightly sandy CLAY with | 3.90 | 27.65 | |

Notes

Trial pit excavated by 8 Tonne rubber tracked mechanical excavator.
Ground water seepage at 1.70m.
Trial pit dimensions 4.00x0.70x4.20m.
Trial pit sides remained stable and vertical.
On completion, the trial pit was backfilled with materials arising.
Hand vane readings presented are an average of three readings.
Stratum names provided by the Engineer.

Sketch of Foundation - Not to scale. All dimensions in metres.

Geotechnical Engineering Ltd, Tel: 01462 527743 22607.GPJ TRIAL.J.H.GPJ GEOTECH.GLB 05/06/2009 15:24:15 MT/GA

EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS



CONTRACT

22607

CHECKED



TRIAL PIT LOG



TP102

CLIENT COVANTA ENERGY LTD

SITE ROOKERY SOUTH, STEWARTBY, BEDFORDSHIRE

Sheet 2 of 2

Start Date 25 February 2009 Easting 501117.9

Scale 1 : 25

End Date 25 February 2009 Northing 240982.4 Ground level 31.55mOD

Depth 4.20 m

| water record | sample/test | | | description | depth (m) | level (m) | legend |
|--------------|-------------|--------|-----------|--|-----------|-----------|--------|
| | no/type | result | depth (m) | | | | |
| Dry. | 6B | | 4.10 | frequent sand to medium gravel sized shell fragments. (OXFORD CLAY FORMATION) Trial pit completed at 4.20m. | 4.20 | 27.35 | |

Notes

Trial pit excavated by 8 Tonne rubber tracked mechanical excavator.
Ground water seepage at 1.70m.
Trial pit dimensions 4.00x0.70x4.20m.
Trial pit sides remained stable and vertical.
On completion, the trial pit was backfilled with materials arising.
Hand vane readings presented are an average of three readings.
Stratum names provided by the Engineer.

Sketch of Foundation - Not to scale. All dimensions in metres.

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EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS



CONTRACT
22607

CHECKED



Equipment & Methods
Cable tool boring, 200mm dia to 35.50m.

Location No. 269077
Location
ROOKERY SOUTH

Carried out for
A J Bull Ltd

Ground Level 53.229 mOD
Coordinates 502032.188 mE 240704.504 mN
Date 02/11/99 to 09/11/99

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|---|---------------|--------|---------------|---------------|-----------------|-----------|---------------|
| | | | | Depth | Sample Type No. | Test | |
| MADE GROUND: Red brown sand and angular to subangular fine to coarse gravel size brick fragments with occasional clinker and ash. | 53.229 | | (0.40) | 0.00 - 0.10 | D 1 | S N=18 | 4,4/4,5,5,4 |
| | 52.83 | | | 0.10 - 0.40 | B 2 | | |
| | | | | 0.40 - 0.85 | D 3 | | |
| | | | | 0.40 - 1.00 | B 4 | | |
| Firm to stiff indistinctly laminated light brown mottled orange brown and grey slightly sandy CLAY with occasional fine to medium subangular gravel. Occasional root tracks gleyed grey. (Weathered OXFORD CLAY) | 50.23 | | (2.60) | 1.50 - 1.95 | U 5 | S N=24 | 90 blows |
| | | | | 1.95 - 2.00 | D 6 | | |
| | | | | 3.00 - 3.45 | D 7 | | |
| | | | | 3.00 - 3.50 | B 8 | | |
| Stiff locally indistinctly laminated light blue grey mottled light brown CLAY. Occasional shells, shell fragments and selenite crystals. Rare root tracks. (Weathered OXFORD CLAY) | 48.23 | | (4.00) | 4.50 - 5.00 | B 9 | S N=37 | 4,5/6,6,6,6 |
| | | | | 6.00 - 6.45 | U 10 | | |
| | | | | 6.45 - 6.50 | D 11 | | |
| | | | | 6.50 - 7.00 | B 12 | | |
| Blue grey Stiff becoming fissured below 10m thinly to thickly laminated blue grey mottled brown very silty CLAY. Frequent shell fragments and selenite crystals in brown clay. (OXFORD CLAY) | | 7.00 | (16.00) | 7.00 - 7.45 | D 13 | S N=37 | 3,7/10,8,8,11 |
| | | | | 7.00 - 7.45 | B 14 | | |
| | | | | 9.00 - 9.45 | U 15 | | |
| | | | | 9.45 - 9.50 | D 16 | | |
| | | | | 9.50 - 10.00 | B 17 | | 150 blows |

Remarks

Notes:

Materials are described in accordance with Appendices. For explanation of symbols and abbreviations see Figure 1.

(c) C L Associates (Ver 6.1)

11/02/00 11:28:05

Logged by

PAC

Scale

1:50

Figure



| | |
|-----------------------------------|--|
| Equipment & Methods As sheet 1 | Location No. 269077 Location ROOKERY SOUTH |
|-----------------------------------|--|

| | | |
|---------------------------------|---|------|
| Carried out for A J Bull Ltd | Ground Level Coordinates As sheet 1 | Date |
|---------------------------------|---|------|

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records | |
|---|---------------|----------|---------------|---------------|--------|-----|-----------------|------|
| | | | | Depth | Sample | | | Test |
| | | | | | Type | No. | | |
| CLAY (as Sheet 1) (OXFORD CLAY) | 30.23 | [Symbol] | (16.00) | 21.00 - 21.50 | B | 24 | 4.9/22,19,27,28 | |
| | | | | 22.50 - 23.00 | B | 25 | | |
| | | | | 23.00 - 23.45 | D | 26 | | |
| | | | | 23.00 - 23.50 | B | 27 | | |
| Stiff to very stiff fissured laminated grey blue becoming grey CLAY with shell fragments. (OXFORD CLAY) Rare ironstone and mudstone nodules | 25.73 | [Symbol] | (4.50) | 24.50 - 25.00 | B | 28 | | |
| | | | | 26.00 - 26.50 | B | 29 | | |
| | | | | 27.50 - 28.00 | B | 30 | | |
| Stiff fissured thinly to thickly laminated grey green sandy CLAY. Occasional shells and shell fragments. Rare ironstone nodules. (OXFORD CLAY) | 24.23 | [Symbol] | (1.50) | 29.00 - 29.50 | B | 31 | | |
| Grey possibly interbedded SAND and CLAY (recovered as very sandy clay). Occasional shells and shell fragments. (KELLAWAYS FORMATION) | 23.23 | [Symbol] | (1.00) | 29.00 - 29.50 | B | 31 | | |

| | |
|---|-----------|
| Remarks | Logged by |
| | PAC |
| | Scale |
| | 1:50 |
| Notes: | Figure |
| | |
| Materials are described in accordance with Appendices. For explanation of symbols and abbreviations see Figure 1. | |
| (c) C L Associates (Ver 6.1) 11/02/00 11:30:19 | |



Equipment & Methods

As sheet 1

Location No. 269077

Location
ROOKERY SOUTH

Carried out for
A J Bull Ltd

Ground Level

Coordinates

Date

As sheet 1

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|--|---------------|--------|------------------------|---------------|--------|-----|---------------|
| | | | | Depth | Sample | | |
| | | | | | Type | No. | |
| Stiff occasionally fissured laminated greenish grey slightly sandy CLAY with shells and shell fragments. (KELLAWAYS FORMATION) | 21.23 | | (2.00) | 30.00 - 31.50 | B | 32 | |
| Driener records silty sand Stiff grey sandy becoming slightly sandy CLAY with rare shell fragments. (KELLAWAYS FORMATION) | | | 32.00 | 32.00 - 32.50 | B | 33 | |
| | | | (3.30) | 33.50 - 34.00 | B | 34 | |
| Dark grey fine to medium grained muddy LIMESTONE with occasional shell fragments. Recovered as gravel size fragments. (CORNBRAsh FORMATION) | 17.93 | | | 35.00 | B | 35 | |
| | 17.73 | | 35.30 (0.20p) 35.50 | 35.50 | D | 38 | |
| BOREHOLE ENDS AT 35.50 m. | | | | | | | |

Remarks

Logged by

PAC

Scale

1:50

Figure

Notes:

Materials are described in accordance with Appendices. For explanation of symbols and abbreviations see Figure 1.



Location No. 269077
Location
ROOKERY SOUTH

Carried out for
A J Bull Ltd

Ground Level Coordinates Date
As sheet 1

| Date | Time | Depth of Hole (m) | Depth of Casing (m) | Depth to Water (m) | Remarks |
|----------|-------|-------------------|---------------------|--------------------|-----------------|
| 02/11/99 | 16:00 | 12.50 | 3.00 | DRY | End of shift. |
| 03/11/99 | 08:00 | 12.50 | 3.00 | 12.00 | Start of shift. |
| 03/11/99 | 18:45 | 23.50 | 3.00 | DRY | End of shift. |
| 04/11/99 | 08:00 | 23.50 | 3.00 | 23.00 | Start of shift. |
| 04/11/99 | 18:30 | 29.50 | 27.32 | DRY | End of shift. |
| 05/11/99 | 08:00 | 29.50 | 27.32 | 23.00 | Start of shift. |
| 05/11/99 | 11:00 | 30.00 | 28.64 | 23.00 | End of shift. |
| 08/11/99 | 09:00 | 30.00 | 28.64 | 23.00 | Start of shift. |
| 08/11/99 | 17:00 | 31.50 | 31.16 | 23.00 | End of shift. |
| 09/11/99 | 08:00 | 31.50 | 31.16 | 23.00 | Start of shift. |
| 09/11/99 | 17:00 | 35.50 | 35.25 | DAMP | End of boring. |
| 10/11/99 | 08:00 | 35.50 | 35.25 | 23.00 | Start of shift. |
| 10/11/99 | 18:30 | 35.50 | - | - | Installation. |

| Depth of Hole (m) | Diameter of Hole (mm) | Diameter of Casing (mm) | Depth of Casing (m) |
|-------------------|-----------------------|-------------------------|---------------------|
| 35.50 | 200 | 200 | 35.25 |

| Depth of Strike (m) | Casing Depth (m) | Date | Time | Post Strike Depth (m) | Minutes After Strike | Sealed at (m) | Remarks |
|---------------------|------------------|----------|------|-----------------------|----------------------|---------------|---------|
| 1.60 | 1.50 | 02/11/99 | | 1.30 | 20 | 2.80 | |

| Top Depth (m) | Base Depth (m) | Remarks |
|---------------|----------------|-----------------------------|
| 0.10 | 0.40 | Hard boring for 60 minutes. |

Remarks

Notes:

Materials are described in accordance with Appendices. For explanation of symbols and abbreviations see Figure 1.

Logged by

PAC

Scale

1:50

Figure



Equipment & Methods
Cable tool boring, 150mm dia to 7.80m.

Location No. 269077
Location
ROOKERY SOUTH

Carried out for
A J Bull Ltd

Ground Level 28.229 mOD
Coordinates 501300.155 mE
241259.868 mN
Date 02/11/99

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records | |
|---|---------------|--------|---------------|---------------|--------|-------------------------|-------------------------------|------|
| | | | | Depth | Sample | | | Test |
| | | | | | Type | No. | | |
| MADE GROUND: Soft to firm grey sandy clay with some small pockets of stiff dark blue grey clay, brick fragments and rootlets. At 1.00m with angular coarse gravel size pockets of friable silt. (REWORKED CLAY) | 28.229 | | (1.10) | 0.50 - 0.95 | U | 1 | 13 blows | |
| | 27.13 | | | 1.00 | D | 2 | | |
| | | | | 0.75 - 1.25 | B | 3 | | |
| Stiff dark grey slightly sandy CLAY with frequent shells and shell fragments. (OXFORD CLAY) | 25.83 | | (1.30) | 1.50 - 1.95 | U | 4 | 78 blows | |
| | | | | 2.00 | D | 5 | | |
| | | | | 1.75 - 2.25 | B | 6 | | |
| Very dense blue grey silty fine to medium SAND with occasional fine gravel size cemented fragments and shells. (KELLAWAYS FORMATION) | 23.83 | | (2.00) | 2.50 - 2.95 | D | 7 | S N=97 3,8/12,18,27,40 | |
| | | | | 2.75 - 3.25 | B | 8 | | |
| | | | | 3.50 - 3.95 | D | 9 | S N=96 4,10/16,18,27,35 | |
| | | | | 3.75 - 4.25 | B | 10 | | |
| Very stiff grey very silty sandy CLAY with sand bands. (KELLAWAYS FORMATION) | 20.73 | | (3.10) | 4.50 - 4.95 | D | 11 | S N=85 4,10/14,15,25,31 | |
| | | | | 4.75 - 5.25 | B | 12 | | |
| | | | | 5.50 - 5.95 | D | 13 | S N=84 3,8/13,16,28,37 | |
| | | | | 5.75 - 6.25 | B | 14 | | |
| | | | | 6.73 | W | 19 | | |
| Dark grey fine to medium grained muddy LIMESTONE with occasional shell fragments. Recovered as gravel size fragments. (CORNBRAH FORMATION) | 20.43 | | (0.30p) | 6.50 - 6.85 | U | 15 | 135 blows | |
| | | | | 7.00 | D | 16 | | |
| | | | | 6.75 - 7.25 | B | 17 | | |
| | | | | 7.50 - 7.53 | NR | C 50 /50 for 25mm | | |
| BOREHOLE ENDS AT 7.80 m. | 20.43 | | 7.80 | 7.80 | D | 18 | | |

Remarks

Logged by

TS

Scale

1:50

Figure

Notes:

Materials are described in accordance with Appendices. For explanation of symbols and abbreviations see Figure 1.



Location No. 269077
Location
ROOKERY SOUTH

Carried out for
A J Bull Ltd

Ground Level Coordinates Date
As sheet 1

| Date | Time | Depth of Hole (m) | Depth of Casing (m) | Depth to Water (m) | Remarks |
|----------|------|-------------------|---------------------|--------------------|---------------|
| 02/11/89 | | 7.80 | 7.75 | 6.73 | End of boring |
| 03/11/89 | - | 7.80 | 7.75 | 7.45 | |

| Depth of Hole (m) | Diameter of Hole (mm) | Diameter of Casing (mm) | Depth of Casing (m) |
|-------------------|-----------------------|-------------------------|---------------------|
| 7.80 | 150 | 150 | 7.75 |

| Depth of Strike (m) | Casing Depth (m) | Date | Time | Post Strike Depth (m) | Minutes After Strike | Sealed at (m) | Remarks |
|---------------------|------------------|----------|------|-----------------------|----------------------|---------------|---------------------|
| 0.70 | - | 02/11/89 | | - | - | 1.35 | Seepage. Seepage |
| 2.40 | - | 02/11/89 | | - | - | 6.50 | |
| 6.50 | 5.50 | 02/11/89 | | 5.72 | 30 | - | |

| Top Depth (m) | Base Depth (m) | Remarks |
|---------------|----------------|-----------------------------|
| 3.00 | 6.50 | Water added. |
| 7.50 | 7.80 | Hard boring for 90 minutes. |

Remarks

Logged by

TS

Scale

1:50

Figure

Notes:

Materials are described in accordance with Appendices. For explanation of symbols and abbreviations see Figure 1.



Equipment & Methods
Cable tool boring, 200mm dia to 17.00m, then 150mm dia to 24.00m.

Location No. 269077
Location
ROOKERY SOUTH

Carried out for
A J Bull Ltd

Ground Level 48.263 mOD
Coordinates 501086.460 mE
240576.073 mN
Date 11/11/99
to 16/11/99

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|--|-----------------|--------|----------------|----------------------------|-----------------|------|---------------|
| | | | | Depth | Sample Type No. | Test | |
| MADE GROUND: Firm yellow brown sandy clay with some fragments of brick. (Driller's description) | 48.263 45.81 | | (0.45) 0.45 | 0.50 - 1.00 | B 1 | | |
| MADE GROUND: Firm, locally soft or stiff, orange brown and light blue grey clay with some fine to coarse gravel size fragments of brick. Occasional shells and shell fragments, root tracks gleyed grey and brown organic matter. (REWORKED CLAY) | | | (3.65) | 1.50 - 2.00 2.50 - 3.00 | B 2 B 3 | | |
| 3.50 - 4.10m Some rootlets and occasional cobble size fragments of brick | | | | 3.50 - 4.00 | B 4 | | |
| | 42.16 | | 4.10 | 4.00 | W 11 | | |
| | | | | 4.50 - 5.00 | B 5 | | |
| | | | | 6.00 - 6.50 | B 6 | | |
| Stiff fissured thinly to thickly laminated grey green very silty CLAY. Frequent shells and shell fragments. (OXFORD CLAY) | | | (13.40) | 7.50 - 8.00 | B 7 | | |
| | | | | 8.00 - 8.50 | B 8 | | |

Remarks

Notes:
Materials are described in accordance with Appendices. For explanation of symbols and abbreviations see Figure 1.

Logged by
BC
Scale
1:50
Figure



Equipment & Methods
As sheet 1

Location No. 269077
Location
ROOKERY SOUTH

Carried out for
A J Bull Ltd

Ground Level
Coordinates
Date
As sheet 1

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|---|---------------|--------|---------------|-----------------------|-------------|------------|---------------|
| | | | | Depth | Sample Type | Sample No. | |
| CLAY (as Sheet 1) (OXFORD CLAY) | | | 17.50 | 10.50 - 11.00 | B | 9 | |
| | | | | 12.00 - 12.50 | B | 10 | |
| | | | | (13.40) 13.50 - 14.00 | B | 12 | |
| | | | | 15.00 - 15.50 | B | 13 | |
| | | | | 16.50 - 17.00 | B | 14 | |
| | | | | 18.00 | D | 15 | |
| | | | | 19.50 - 20.00 | B | 16 | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Grey green possibly interbedded SAND and CLAY (recovered as sandy clay) with bands of friable weakly cemented sandstone. Rare shell fragments. (KELLAWAYS FORMATION) | 28.76 | | (3.15) | | | | |

Remarks

Logged by
BC
Scale
1:50
Figure



Equipment & Methods
As sheet 1

Location No. 269077
Location
ROOKERY SOUTH

Carried out for
A J Bull Ltd

Ground Level
Coordinates
Date
As sheet 1

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|---|---------------|--------|------------------|---------------|--------|-----|---------------|
| | | | | Depth | Sample | | |
| | | | | | Type | No. | |
| Interbedded SAND and CLAY (as Sheet 2) (KELLAWAYS FORMATION) | 25.61 | | (3.15) | | | | |
| | | | 20.65 | | | | |
| Stiff thinly to thickly laminated grey green slightly sandy CLAY with rare shell fragments. Sand concentrated along laminae. (KELLAWAYS FORMATION) | 25.61 | | (3.15) | 21.00 - 21.50 | B | 17 | |
| | | | | 22.50 - 23.00 | B | 18 | |
| Dark grey fine to medium grained muddy LIMESTONE with occasional shell fragments. Recovered as gravel size fragments. (CORNBRAsh FORMATION) | 22.46 | | 23.80 | 24.00 | D | 19 | |
| BOREHOLE ENDS AT 24.00 m. | 22.28 | | (0.20p) 24.00 | | | | |

Remarks

Logged by

BC

Scale

1:50

Figure

Notes:

Materials are described in accordance with Appendices. For explanation of symbols and abbreviations see Figure 1.



Location No. 269077
Location
ROOKERY SOUTH

Carried out for
A J Bull Ltd

Ground Level Coordinates Date
As sheet 1

| Date | Time | Depth of Hole (m) | Depth of Casing (m) | Depth to Water (m) | Remarks |
|----------|-------|-------------------|---------------------|--------------------|-----------------|
| 11/11/99 | - | 7.00 | - | - | End of shift |
| 12/11/99 | 09:00 | 7.00 | - | 2.80 | Start of shift. |
| 12/11/99 | 12:00 | 17.00 | - | 4.35 | End of shift. |
| 15/11/99 | 11:30 | 17.00 | - | 4.00 | Start of shift. |
| 15/11/99 | 18:00 | 23.00 | - | 4.80 | End of shift. |
| 18/11/99 | 09:15 | 23.00 | - | 3.25 | Start of shift. |
| 18/11/99 | 18:00 | 24.00 | - | 4.10 | End of boring. |

| Depth of Hole (m) | Diameter of Hole (mm) | Diameter of Casing (mm) | Depth of Casing (m) |
|-------------------|-----------------------|-------------------------|---------------------|
| 17.00 | 200 | - | - |
| 24.00 | 150 | - | - |

| Depth of Strike (m) | Casing Depth (m) | Date | Time | Post Strike Depth (m) | Minutes After Strike | Sealed at (m) | Remarks |
|---------------------|------------------|----------|------|-----------------------|----------------------|---------------|---------|
| 6.75 | - | 11/11/99 | - | 4.00 | 30 | - | |

| Top Depth (m) | Base Depth (m) | Remarks |
|---------------|----------------|------------------------------|
| 17.85 | 18.10 | Hard boring for 45 minutes. |
| 18.90 | 19.20 | Hard boring 45 minutes. |
| 20.20 | 20.65 | Hard boring for 60 minutes. |
| 23.00 | 24.00 | Hard boring for 120 minutes. |

Remarks
1. No records of casing depths.

Notes:
Materials are described in accordance with Appendices. For explanation of symbols and abbreviations see Figure 1.

Logged by
BC
Scale
1:50
Figure



Equipment & Methods
Cable tool boring, 200mm dia to 13.80m, then 150mm dia to 20.00m.

Location No. 269077
Location
ROOKERY SOUTH

Carried out for
A J Bull Ltd

Ground Level 48.415 mOD
Coordinates 501159.824 mE
240383.206 mN to
Date 23/11/99
25/11/99

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|---|---------------|--------|---------------|---------------|--------|-----|---------------|
| | | | | Depth | Sample | | |
| | | | | | Type | No. | |
| Soft brown TOPSOIL (Drillers description) | 48.415 | | (0.45) | | | | |
| Soft to firm, becoming firm to stiff and laminated, dark brown mottled grey slightly sandy CLAY with a little subangular to subrounded fine to medium gravel. Occasional selenite crystals. Rare shells and shell fragments. (Weathered OXFORD CLAY) | 45.97 | | 0.45 | 0.50 - 1.00 | B | 1 | |
| | | | (2.60) | 1.50 - 2.00 | B | 2 | |
| | | | | 2.50 - 3.00 | B | 3 | |
| | 43.37 | | 3.05 | 3.50 - 4.00 | B | 4 | |
| | | | | 5.00 - 5.50 | B | 5 | |
| | | | (10.75) | 6.50 - 7.00 | B | 6 | |
| Stiff fissured thinly to thickly laminated grey green very silty CLAY with shells and shell fragments. (OXFORD CLAY) | | | | 8.00 - 8.50 | B | 7 | |
| | | | | 9.50 - 10.00 | B | 8 | |

7.20 - 7.85m Driller records hard grey sandstone

8.45 - 8.90m Driller records hard grey sandstone

Remarks

Notes:
Materials are described in accordance with Appendices. For explanation of symbols and abbreviations see Figure 1.

Logged by
BC
Scale
1:50
Figure



Location No. 269077

Location
ROOKERY SOUTH

Carried out for
A J Bull Ltd

Ground Level Coordinates Date
As sheet 1

| Water Level Observations During Boring | | | | | |
|--|-------|-------------------|---------------------|--------------------|----------------|
| Date | Time | Depth of Hole (m) | Depth of Casing (m) | Depth to Water (m) | Remarks |
| 23/11/99 | 15:30 | 4.00 | - | DRY | End of shift. |
| 24/11/99 | - | 20.00 | - | - | End of boring. |

| Hole Diameter by Depth Table | | | |
|------------------------------|-----------------------|-------------------------|---------------------|
| Depth of Hole (m) | Diameter of Hole (mm) | Diameter of Casing (mm) | Depth of Casing (m) |
| 13.80 | 200 | - | - |
| 20.00 | 150 | - | - |

| Water Strike Table | | | | | | | |
|---------------------|------------------|----------|------|-----------------------|----------------------|---------------|---------|
| Depth of Strike (m) | Casing Depth (m) | Date | Time | Post Strike Depth (m) | Minutes After Strike | Sealed at (m) | Remarks |
| 15.00 | - | 24/11/99 | - | 12.85 | 30 | - | - |

| Depth related Remarks Table | | |
|-----------------------------|----------------|-----------------------------|
| Top Depth (m) | Base Depth (m) | Remarks |
| 7.20 | 7.65 | Hard boring 45 minutes. |
| 8.45 | 8.90 | Hard boring for 60 minutes. |
| 10.05 | 10.35 | Hard boring for 30 minutes. |
| 18.75 | 20.00 | Hard boring for 60 minutes. |

Remarks

- 1. No records of casing depths

Notes:

Materials are described in accordance with Appendices. For explanation of symbols and abbreviations

Figure 1.

Logged by

Scale

1:50

Figure

(c) C L Associates (Ver 8.1)



Equipment & Methods
Cable tool boring, 200mm dia to 21.00m.

Location No. 269077
Location
ROOKERY SOUTH

Carried out for
A J Bull Ltd

Ground Level 49.097 mOD
Coordinates 501000.519 mE 240226.265 mN
Date 17/11/99 to 19/11/99

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records | |
|--|---------------|--------|---------------|---------------|--------|-----|---------------|------|
| | | | | Depth | Sample | | | Test |
| | | | | | Type | No. | | |
| Brown TOPSOIL (Drillers description) | 49.097 | | (0.35) | | | | | |
| | 48.75 | | 0.35 | | | | | |
| Soft brown mottled orange brown slightly sandy CLAY with frequent rootlets. (Weathered OXFORD CLAY) | | | (0.95) | 0.50 - 1.00 | B | 1 | | |
| | 47.80 | | 1.30 | | | | | |
| Soft light brown mottled orange brown slightly sandy CLAY with rare shell fragments and occasional selenite crystals. (Weathered OXFORD CLAY) | | | (1.50) | 1.50 - 2.00 | B | 2 | | |
| | 46.30 | | 2.80 | | | | | |
| Firm thickly interlaminated brownish green and light grey CLAY with selenite crystals, shells and shell fragments. (Weathered OXFORD CLAY) | | | (0.80) | 3.00 - 3.45 | U | 3 | 38 blows | |
| | 45.50 | | 3.60 | 3.50 | D | 4 | | |
| | | | | 4.50 - 5.00 | B | 5 | | |
| | | | | 6.00 - 6.45 | U | 6 | 68 blows | |
| | | | (11.40) | 6.50 | D | 7 | | |
| | | | | 7.50 - 8.00 | B | 8 | | |
| | | | | 9.00 - 9.45 | U | 9 | 90 blows | |
| | | | | 9.50 | D | 10 | | |
| | | | | 9.60 - 10.00 | B | 11 | | |
| 9.60 - 10.10m shelly sandstone | | | | | | | | |

Remarks

Logged by

BC

Scale

1:50

Figure

Notes:

ials are described in accordance with Appendices. For explanation of symbols and abbreviations

Figure 1.

(c) C L Associates (Ver 6.1)

11/02/00 16:18:28



| | |
|-----------------------------------|--|
| Equipment & Methods As sheet 1 | Location No. 269077 Location ROOKERY SOUTH |
|-----------------------------------|--|

| | |
|---------------------------------|---|
| Carried out for A J Bull Ltd | Ground Level Coordinates Date As sheet 1 |
|---------------------------------|---|

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|--|---------------|--------|---------------|---------------|-------------|------------|---------------|
| | | | | Depth | Sample Type | Sample No. | |
| CLAY (as Sheet 1) (OXFORD CLAY) | | | (11.40) | 12.05 | W | 23 | 150 blows |
| | | | | 12.00 - 12.45 | U | 12 | |
| | | | | 12.50 | D | 13 | |
| | | | | 14.00 - 14.50 | B | 14 | |
| | | | | 15.00 - 15.10 | U | 15 | |
| | | | | 15.40 - 15.70 | B | 16 | |
| | | | | 16.00 | D | 17 | |
| | | | | 18.35 | | | |
| | | | | 17.80 - 18.30 | B | 18 | |
| | | | | 18.50 - 18.95 | U | 19 | |
| Dark grey sandy CLAY interbedded with laminated fine grained SANDSTONE bands. Frequent shell fragments. (KELLAWAYS FORMATION) | 34.10 | | (1.35) | 15.00 - 15.10 | U | 15 | 100 blows |
| | 32.75 | | | 15.40 - 15.70 | B | 16 | |
| | | | | 16.00 | D | 17 | |
| Dense grey silty SAND with thin clay bands (Drillers description) (KELLAWAYS FORMATION) | 31.30 | | (2.80) | 17.80 - 18.30 | B | 18 | 150 blows |
| Stiff thinly laminated grey slightly sandy CLAY with shell fragments. (KELLAWAYS FORMATION) | 18.50 - 18.95 | | | U | 19 | | |
| | 19.00 | | | D | 20 | | |
| | | | | 19.50 - 20.00 | B | 21 | |

| | |
|---------|---|
| Remarks | Logged by BC |
| | Scale 1:50 |
| | Figure |
| | Notes: Materials are described in accordance with Appendices. For explanation of symbols and abbreviations see Figure 1. |



Equipment & Methods
As sheet 1

Location No. 269077
Location
ROOKERY SOUTH

Carried out for
A J Bull Ltd

Ground Level
Coordinates
Date
As sheet 1

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field |
|---|---------------|--------|------------------|---------------|--------|-----|-------|
| | | | | Depth | Sample | | |
| | | | | | Type | No. | |
| CLAY (as Sheet2) (KELLAWAYS FORMATION) | | | (2.80) | | | | |
| Dark grey fine to medium grained muddy LIMESTONE with occasional shell fragments. Recovered as gravel size fragments. (CORNBRAH FORMATION) | 28.50 | | 20.60 (0.40p) | | | | |
| BOREHOLE ENDS AT 21.00 m. | 28.10 | | 21.00 | 21.00 | D | 22 | |

Remarks

| |
|-----------|
| Logged by |
| BC |
| Scale |
| 1:50 |
| Figure |



Location No. 269077

Location
ROOKERY SOUTH

Carried out for
A J Bull Ltd

Ground Level

Coordinates

Date

As sheet 1

Water Level Observations During Boring

| Date | Time | Depth of Hole (m) | Depth of Casing (m) | Depth to Water (m) | Remarks |
|----------|-------|-------------------|---------------------|--------------------|-----------------|
| 17/11/99 | 15:45 | 16.00 | - | DRY | End of shift. |
| 18/11/99 | 08:45 | 16.00 | - | 5.95 | Start of shift. |
| 18/11/99 | 16:00 | 21.00 | - | 13.20 | End of boring. |
| 19/11/99 | 08:30 | 21.00 | - | 3.10 | Start of shift. |

Hole Diameter by Depth Table

| Depth of Hole (m) | Diameter of Hole (mm) | Diameter of Casing (mm) | Depth of Casing (m) |
|-------------------|-----------------------|-------------------------|---------------------|
| 21.00 | 200 | | |

Water Strike Table

| Depth of Strike (m) | Casing Depth (m) | Date | Time | Post Strike Depth (m) | Minutes After Strike | Sealed at (m) | Remarks |
|---------------------|------------------|----------|------|-----------------------|----------------------|---------------|---------|
| 6.60 | - | 17/11/99 | | 7.95 | 30 | - | |
| 21.00 | - | 18/11/99 | | 12.05 | 30 | - | |

Depth related Remarks Table

| Top Depth (m) | Base Depth (m) | Remarks |
|---------------|----------------|--------------------------------|
| 6.60 | 10.10 | Hard boring for 60 minutes. |
| 15.00 | 15.40 | Hard boring for 45 minutes. |
| 15.70 | 18.00 | Hard boring for 45 minutes. |
| 20.60 | 21.00 | Hard boring for 60 minutes. |
| 21.00 | 21.00 | Falling head permeability test |

Remarks

- 1. No records of casing depths.

Notes:

Materials are described in accordance with Appendices. For explanation of symbols and abbreviations see Figure 1.

Logged by

BC

Scale

1:50

Figure



Equipment & Methods
Cable tool boring, 200mm dia to 24.80m.

Location No. 269077
Location
ROOKERY SOUTH

Carried out for
A J Bull Ltd

Ground Level 47.282 mOD
Coordinates 501369.741 mE 240414.340 mN
Date 22/11/99 to 23/11/99

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|--|---------------|--------|---------------|---------------|-------------|----------|---------------|
| | | | | Depth | Sample Type | Test No. | |
| Firm brown CLAY (Drillers description) | 47.282 | | (0.40) | | | | |
| Firm to stiff mottled brown and orange brown occasionally grey sandy CLAY with frequent up to fine gravel size shell fragments and rootlets. (Weathered OXFORD CLAY) | 46.88 | | 0.40 | 0.50 - 1.00 | B | 1 | |
| Firm to stiff thickly laminated orange brown mottled grey CLAY with rare shell fragments. (Weathered OXFORD CLAY) | 48.23 | | 1.05 | 1.50 - 2.00 | B | 2 | |
| Soft to firm thickly laminated mottled light grey and brown slightly sandy CLAY with frequent selenite crystals. Occasional rootlets. (Weathered OXFORD CLAY) | 44.93 | | 2.35 | 2.50 - 3.00 | B | 3 | |
| Firm to stiff thinly to thickly laminated green grey mottled brown very silty CLAY with frequent shells and shell fragments. (OXFORD CLAY) | 43.53 | | 3.75 | 4.00 - 4.50 | B | 4 | |
| | | | | 5.50 - 6.00 | B | 5 | |
| | | | (16.75) | 7.00 - 7.50 | B | 6 | |
| | | | | 8.50 - 9.00 | B | 7 | |

8.80 - 9.30m Driller records hard grey sandstone

Remarks

Logged by
BC
Scale
1:50
Figure

Notes



Equipment & Methods
Cable tool boring, 200mm dia to 24.90m.

Location No. 269077
Location
ROOKERY SOUTH

Carried out for
A J Bull Ltd

Ground Level 47.282 mOD
Coordinates 501369.741 mE
240414.340 mN
Date 22/11/99
to 23/11/99

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|--|---------------|--------|---------------|---------------|-------------|------------|---------------|
| | | | | Depth | Sample Type | Sample No. | |
| Firm brown CLAY (Drillers description) | 47.282 | | (0.40) | | | | |
| Firm to stiff mottled brown and orange brown occasionally grey sandy CLAY with frequent up to fine gravel size shell fragments and rootlets. (Weathered OXFORD CLAY) | 46.88 | | 0.40 | | | | |
| | | | (0.65) | 0.50 - 1.00 | B | 1 | |
| | 46.23 | | 1.05 | | | | |
| Firm to stiff thickly laminated orange brown mottled grey CLAY with rare shell fragments. (Weathered OXFORD CLAY) | | | (1.30) | 1.50 - 2.00 | B | 2 | |
| | | | 2.35 | | | | |
| Soft to firm thickly laminated mottled light grey and brown slightly sandy CLAY with frequent selenite crystals. Occasional rootlets. (Weathered OXFORD CLAY) | 44.83 | | (1.40) | 2.50 - 3.00 | B | 3 | |
| | | | 3.75 | | | | |
| | 43.53 | | (16.75) | 4.00 - 4.50 | B | 4 | |
| | | | | 5.50 - 6.00 | B | 5 | |
| Firm to stiff thinly to thickly laminated green grey mottled brown very silty CLAY with frequent shells and shell fragments. (OXFORD CLAY) | | | | 7.00 - 7.50 | B | 6 | |
| | | | | 8.50 - 9.00 | B | 7 | |

8.80 - 9.30m Driller records hard grey sandstone

Remarks

Logged by
BC
Scale
1:50
Figure



Equipment & Methods
As sheet 1

Location No. 269077
Location
ROOKERY SOUTH

Carried out for
A J Bull Ltd

Ground Level
Coordinates
Date
As sheet 1

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|---|---------------|-------------------|----------------------------------|---------------|-------------|----------|---------------|
| | | | | Depth | Sample Type | Test No. | |
| CLAY (as Sheet 1) (OXFORD CLAY) | 26.78 | X X X X X X | (16.75) 20.50 | 20.50 - 21.00 | B | 15 | |
| Probably interbedded dark grey SAND and firm grey green CLAY (recovered as very sandy clay). Occasional shell fragments. (KELLAWAYS FORMATION) | 24.28 | | (2.50) 23.00 | 22.00 - 22.50 | B | 16 | |
| Firm laminated grey green slightly sandy CLAY with occasional shells and shell fragments. (KELLAWAYS FORMATION) | 22.83 | | (1.85) 24.65 (0.25p) 24.90 | 23.50 - 24.00 | B | 17 | |
| Dark grey fine to medium grained muddy LIMESTONE with occasional shell fragments. Recovered as gravel size fragments. (CORNBASH FORMATION) | 22.38 | | 24.65 (0.25p) 24.90 | 24.90 | D | 18 | |
| BOREHOLE ENDS AT 24.90 m. | | | | | | | |

Remarks

Logged by
BC
Scale
1:50
Figure



Location No. 269077

Location
ROOKERY SOUTH

Carried out for
A J Bull Ltd

Ground Level

Coordinates

Date

As sheet 1

Water Level Observations During Boring

| Date | Time | Depth of Hole (m) | Depth of Casing (m) | Depth to Water (m) | Remarks |
|----------|-------|-------------------|---------------------|--------------------|-----------------|
| 22/11/99 | 16:00 | 13.00 | - | DRY | End of shift. |
| 23/11/99 | 08:30 | 13.00 | - | 12.60 | Start of shift. |
| 23/11/99 | 16:00 | 24.90 | - | 17.70 | End of boring. |

Hole Diameter by Depth Table

| Depth of Hole (m) | Diameter of Hole (mm) | Diameter of Casing (mm) | Depth of Casing (m) |
|-------------------|-----------------------|-------------------------|---------------------|
| 24.90 | 200 | - | - |

Depth related Remarks Table

| Top Depth (m) | Base Depth (m) | Remarks |
|---------------|----------------|-----------------------------|
| 8.80 | 9.30 | Hard boring for 45 minutes. |
| 11.10 | 11.70 | Hard boring for 60 minutes. |
| 12.35 | 12.70 | Hard boring for 45 minutes. |
| 24.65 | 24.90 | Hard boring for 60 minutes. |

Remarks

- 1. No records of casing depths.

Notes:

Materials are described in accordance with Appendices. For explanation of symbols and abbreviations see Figure 1.

Logged by

BC

Scale

1:50

Figure



Equipment & Methods
Cable tool boring, 200mm dia to 29.50m, then 150mm dia to 34.60m.

Location No. 269077
Location
ROOKERY SOUTH

Carried out for
A J Bull Ltd

Ground Level 53.887 mOD
Coordinates 501982.375 mE 240415.267 mN to
Date 19/11/99 to 24/11/99

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records | |
|--|---------------|--------|---------------|---------------|--------|-----|---------------|------|
| | | | | Depth | Sample | | | Test |
| | | | | | Type | No. | | |
| MADE GROUND: Gravel size brick fragments with some soft sandy clay pockets | 53.887 | | (0.60) | 0.00 - 0.60 | B | 1 | | |
| POSSIBLY MADE GROUND: Firm locally laminated orange brown mottled grey slightly sandy clay with occasional subangular to subrounded fine to medium gravel and rootlets | 53.29 | | 0.60 | 0.60 - 1.50 | B | 2 | | |
| | | | (1.20) | | | | | |
| Firm occasionally thinly laminated brown mottled dark grey, becoming dark brown, slightly sandy CLAY with selenite crystals, rare shell and wood fragments. (Weathered OXFORD CLAY) | 52.09 | | 1.80 | 1.80 | B | 3 | | |
| | | | (1.20) | | | | | |
| Firm mottled orange brown and light blue grey slightly sandy CLAY with frequent selenite crystals. (Weathered OXFORD CLAY) | 50.89 | | 3.00 | 3.00 - 3.45 | U | 4 | 95 blows | |
| | | | | 3.45 - 3.50 | D | 5 | | |
| | | | | (3.00) | | | | |
| | | | | 4.50 - 6.00 | B | 6 | | |
| Firm to stiff fissured thinly to thickly laminated green brown very silty CLAY with shells and shell fragments. (OXFORD CLAY) | 47.89 | | 6.00 | 6.00 - 6.45 | U | 7 | 97 blows | |
| | | | | 6.45 - 6.50 | D | 8 | | |
| | | | | 7.30 | D | 9 | | |
| | | | | (23.30) | | | | |
| | | | | 7.50 - 9.00 | B | 10 | | |
| | | | | 9.00 - 9.45 | U | 11 | 100 blows | |
| | | | | 9.45 - 9.50 | D | 12 | | |

Remarks

Logged by

BC

Scale

1:50

Figure



Equipment & Methods

As sheet 1

Location No. 269077

Location ROOKERY SOUTH

Carried out for A J Bull Ltd

Ground Level

Coordinates

Date

As sheet 1

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|------------------------------------|---------------|--------|---------------|---------------|--------|-----|---------------|
| | | | | Depth | Sample | | |
| | | | | | Type | No. | |
| CLAY (as Sheet 1) (OXFORD CLAY) | | X X | | | | | |
| | | X X | | | | | |
| | | X X | | | | | |
| | | X X | | | | | |
| | | X X | | 10.50 - 12.00 | B | 13 | |
| | | X X | | | | | |
| | | X X | | 12.00 - 12.45 | U | 14 | 100 blows |
| | | X X | | 12.45 - 12.50 | D | 15 | |
| | | X X | | | | | |
| | | X X | | | | | |
| | | X X | | 13.50 - 15.00 | B | 16 | |
| | | X X | | | | | |
| | | X X | | 15.00 - 15.45 | U | NR | 100 blows |
| | | X X | (23.30) | 15.00 - 15.45 | B | 17 | |
| | | X X | | | | | |
| | | X X | | 16.50 - 17.00 | B | 18 | |
| | | X X | | | | | |
| | | X X | | 18.00 - 18.45 | U | 19 | 85 blows |
| | | X X | | | | | |
| | | X X | | 19.50 - 20.00 | B | 20 | |

Remarks

Logged by

BC

Scale

1:50

Figure

Notes:

Materials are described in accordance with Appendices. For explanation of symbols and abbreviations see Figure 1.



Equipment & Methods
As sheet 1

Location No. 269077
Location
ROOKERY SOUTH

Carried out for
A J Bull Ltd

Ground Level
Coordinates
Date
As sheet 1

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records | |
|------------------------------------|---------------|--------|---------------|---------------|------|-----|---------------|----------|
| | | | | Depth | Type | No. | | |
| CLAY (as Sheet 1) (OXFORD CLAY) | | X-X | | 21.30 - 21.75 | U | 21 | 90 blows | |
| | | | | 21.80 | D | 22 | | |
| | | | | 22.50 - 23.00 | B | 23 | | |
| | | | | 24.20 - 24.65 | U | 24 | | 85 blows |
| | | | | (23.30) 24.70 | D | 25 | | |
| | | | | 25.60 - 26.10 | B | 26 | | |
| | | | | 27.30 - 27.75 | U | 27 | | 84 blows |
| | | | | 27.80 | D | 28 | | |
| | | | | 28.50 - 29.00 | B | 29 | | |
| | | | | 29.30 | D | 30 | | |
| 24.59 | x | (1.00) | 29.40 | D | 30 | | | |

Soft to firm dark grey sandy CLAY with occasional shell fragments.
(KELLAWAYS FORMATION)

Remarks

Logged by
BC
Scale
1:50
Figure



| | |
|-----------------------------------|--|
| Equipment & Methods As sheet 1 | Location No. 269077 Location ROOKERY SOUTH |
|-----------------------------------|--|

| | | |
|---------------------------------|---|------|
| Carried out for A J Bull Ltd | Ground Level Coordinates As sheet 1 | Date |
|---------------------------------|---|------|

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|--|---------------|--------|---------------|---------------|-------------|------------|---------------|
| | | | | Depth | Sample Type | Sample No. | |
| CLAY (as Sheet 2) (KELLAWAYS FORMATION) Driller records grey limestone Stiff green brown slightly sandy CLAY with shell fragments. (KELLAWAYS FORMATION) | 23.59 | | (1.00) | 30.10 - 30.30 | U | NR | 50 blows |
| | | | 30.30 | 30.30 - 31.00 | B | 31 | |
| | | | (4.00) | 31.50 - 32.00 | B | 32 | |
| | | | | 33.10 - 33.30 | U | NR | |
| Dark grey fine to medium grained muddy LIMESTONE with occasional shell fragments. Recovered as gravel size fragments. (CORNBASH FORMATION) | 19.59 | | 34.30 | 34.50 | D | 34 | 100 blows |
| | 19.29 | | 34.60 | | | | |
| BOREHOLE ENDS AT 34.60 m. | | | | | | | |

| | |
|---|-----------|
| Remarks | Logged by |
| | BC |
| | Scale |
| | 1:50 |
| Notes: | Figure |
| | |
| Materials are described in accordance with Appendices. For explanation of symbols and abbreviations see Figure 1. | |
| (c) C L Associates (Ver 6.1) 11/02/00 11:59:31 | |



Location No. 269077

Location
ROOKERY SOUTH

Carried out for
A J Bull Ltd

Ground Level

Coordinates

Date

As sheet 1

Water Level Observations During Boring

| Date | Time | Depth of Hole (m) | Depth of Casing (m) | Depth to Water (m) | Remarks |
|----------|-------|-------------------|---------------------|--------------------|-----------------|
| 19/11/99 | 16:30 | 17.00 | 1.50 | DRY | End of shift |
| 22/11/99 | 14:25 | 17.00 | 1.50 | DRY | Start of shift. |
| 22/11/99 | 16:35 | 21.00 | 1.50 | DRY | End of shift. |
| 23/11/99 | 08:00 | 21.00 | 1.50 | DRY | Start of shift |
| 23/11/99 | 16:30 | 29.50 | 29.50 | 15.32 | End of shift |
| 24/11/99 | 08:00 | 29.50 | 29.50 | 12.30 | Start of shift. |
| 24/11/99 | | 34.50 | - | - | End of boring |

Hole Diameter by Depth Table

| Depth of Hole (m) | Diameter of Hole (mm) | Diameter of Casing (mm) | Depth of Casing (m) |
|-------------------|-----------------------|-------------------------|---------------------|
| 29.50 | 200 | 200 | 1.50 |
| 34.60 | 150 | 150 | 29.50 |

Water Strike Table

| Depth of Strike (m) | Casing Depth (m) | Date | Time | Post Strike Depth (m) | Minutes After Strike | Sealed at (m) | Remarks |
|---------------------|------------------|----------|-------|-----------------------|----------------------|---------------|----------|
| 29.50 | 29.50 | 23/11/99 | 16:00 | - | - | - | Seepage. |

Depth related Remarks Table

| Top Depth (m) | Base Depth (m) | Remarks |
|---------------|----------------|--------------------------------|
| 29.50 | 29.50 | Falling head permeability test |
| 30.30 | 30.40 | Hard boring for 15 minutes. |
| 30.30 | 30.40 | Hard boring for 15 minutes. |
| 34.30 | 34.60 | Hard boring for 45 minutes. |

Remarks

Logged by

BC

Scale

1:50

Figure

Notes:

Materials are described in accordance with Appendices. For explanation of symbols and abbreviations see Figure 1.



Equipment & Methods
Cable tool boring, 150mm dia to 20.50m.

Location No. 269077
Location
ROOKERY SOUTH

Carried out for
A J Bull Ltd

Ground Level 41.089 mOD
Coordinates 501176.392 mE 241441.664 mN
Date 24/11/99 to 25/11/99

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|--|---------------|--------|-----------------------------|---------------|-------------|------------|---------------|
| | | | | Depth | Sample Type | Sample No. | |
| MADE GROUND: Soft dark brown to black sandy clayey subangular to subrounded fine to coarse gravel of brick fragments. Frequent rootlets | 41.089 | | (1.10) | 0.50 - 1.00 | B | 1 | |
| Firm brown and orange brown mottled slightly sandy CLAY with some subangular to subrounded fine to coarse gravel. Frequent selenite crystals and shell fragments. (Weathered OXFORD CLAY) | 39.99 | | 1.10 (1.15) | 1.50 - 2.00 | B | 2 | |
| Firm to stiff thinly to thickly laminated green brown very silty CLAY with abundant shells and shell fragments. (OXFORD CLAY) | 38.84 | | 2.25 (12.25) | 2.50 - 3.00 | B | 3 | |
| | | | | 4.00 - 4.50 | B | 4 | |
| | | | | 5.50 - 6.00 | B | 5 | |
| | | | | 7.00 - 7.50 | B | 6 | |
| | | | | 8.50 - 9.00 | B | 7 | |

Remarks

Logged by
BC
Scale
1:50
Figure

Notes:

Materials are described in accordance with Appendices. For explanation of symbols and abbreviations see Figure 1.



Equipment & Methods

As sheet 1

Location No. 269077

Location
ROOKERY SOUTH

Carried out for
A J Bull Ltd

Ground Level Coordinates Date
As sheet 1

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|--|---------------|--------|---------------|---------------|--------|-----|---------------|
| | | | | Depth | Sample | | |
| | | | | | Type | No. | |
| CLAY (as Sheet 1) (OXFORD CLAY) | | X X | | 10.00 - 10.50 | B | 8 | |
| | | X X | | | | | |
| | | X X | | | | | |
| | | X X | | | | | |
| | | X X | | | | | |
| | | X X | | | | | |
| | | X X | | 11.50 - 12.00 | B | 9 | |
| | | X X | | (12.25) | | | |
| | | X X | | | | | |
| | | X X | | 13.00 - 13.50 | B | 10 | |
| Grey fine grained SANDSTONE and stiff green brown sandy CLAY with shells and shell fragments. (KELLAWAYS FORMATION) | 26.59 | X X | 14.50 | | | | |
| | | | (0.50) | 14.50 - 15.00 | B | 11 | |
| Grey probably SAND with clay bands (recovered as sandy CLAY). Occasional shells and shell fragments. (KELLAWAYS FORMATION) | 26.09 | | 15.00 | 15.00 - 15.50 | B | 12 | |
| | | | (2.20) | | | | |
| | | | | 16.50 - 17.00 | B | 13 | |
| Firm to stiff thinly to thickly laminated grey green sandy CLAY with abundant shells and shell fragments. (KELLAWAYS FORMATION) | 23.89 | | 17.20 | | | | |
| | | | (3.00) | 18.00 - 18.50 | B | 14 | |
| | | | | 19.50 - 20.00 | B | 15 | |

Remarks

Logged by

BC

Scale

1:50

Figure



Equipment & Methods

As sheet 1

Location No. 269077

Location
ROOKERY SOUTH

Carried out for
A J Bull Ltd

Ground Level

Coordinates

Date

As sheet 1

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|--|---------------|--------|------------------|---------------|-------------|------------|---------------|
| | | | | Depth | Sample Type | Sample No. | |
| CLAY (as Sheet 2) (KELLAWAYS FORMATION) | 20.89 | | (3.00) 20.20 | | | | |
| Dark grey medium grained muddy LIMESTONE. Recovered as gravel size fragments. (CORNBRAH FORMATION) | 20.59 | | (0.30p) 20.50 | 20.50 | D | 16 | |
| BOREHOLE ENDS AT 20.50 m. | | | | | | | |

Remarks

Logged by

BC

Scale

1:50

Figure

Notes:

Materials are described in accordance with Appendices. For explanation of symbols and abbreviations see Figure 1.



Location No. 269077
Location
ROOKERY SOUTH

Carried out for
A J Bull Ltd

Ground Level Coordinates Date
As sheet 1

| Date | Time | Depth of Hole (m) | Depth of Casing (m) | Depth to Water (m) | Remarks |
|----------|------|-------------------|---------------------|--------------------|-----------------|
| 24/11/99 | - | 4.00 | - | 3.45 | End of shift. |
| 25/11/99 | - | 4.00 | - | 3.30 | Start of shift. |
| 25/11/99 | - | 20.50 | - | 17.00 | End of boring. |

| Depth of Hole (m) | Diameter of Hole (mm) | Diameter of Casing (mm) | Depth of Casing (m) |
|-------------------|-----------------------|-------------------------|---------------------|
| 20.50 | 150 | | |

| Depth of Strike (m) | Casing Depth (m) | Date | Time | Post Strike Depth (m) | Minutes After Strike | Sealed at (m) | Remarks |
|---------------------|------------------|----------|------|-----------------------|----------------------|---------------|---------|
| 3.70 | - | 24/11/99 | - | 3.45 | 30 | 5.50 | |

| Top Depth (m) | Base Depth (m) | Remarks |
|---------------|----------------|--------------------------------|
| 0.20 | 1.00 | Hard boring for 75 minutes. |
| 14.50 | 15.00 | Hard boring for 75 minutes. |
| 18.00 | 18.00 | Water added. |
| 20.20 | 20.50 | Hard boring for 60 minutes. |
| 20.50 | 20.50 | Falling head permeability test |

Remarks
1. No record of casing depths.

Notes
Materials are described in accordance with Appendices. For explanation of symbols and abbreviations see Figure 1.

Logged by
BC
Scale
1:50
Figure



Equipment & Methods
Cable tool boring, 250mm dia to 27.45m, then 200mm dia to 35.70m.

Location No. 269077
Location
ROOKERY SOUTH

Carried out for
A J Bull Ltd

Ground Level
50.048 mOD

Coordinates
502128.329 mE
241072.486 mN

Date
16/11/99
to 18/11/99

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | Test | Field Records |
|---|---------------|--------|---------------|---------------|----------------|------|---------------|
| | | | | Depth | Sample Type No | | |
| MADE GROUND: Soft brown clay with much angular to subangular fine to coarse gravel of brick and hardcore. | 50.048 | | (0.40) | 0.00 - 0.40 | B | 1 | |
| | 49.65 | | 0.40 | 0.40 - 1.50 | B | 2 | |
| POSSIBLY MADE GROUND: Firm light brown mottled light grey clay with occasional subangular to subrounded fine to medium gravel. Some rootlets and occasional small sandy pockets | 47.05 | | (2.60) | | | | |
| | | | | 3.00 - 3.45 | U | 3 | 90 blows |
| Firm locally fissured thinly laminated grey mottled orange brown slightly sandy CLAY. Frequent shells, shell fragments and selenite crystals. (Weathered OXFORD CLAY) | 42.55 | | | 3.45 - 3.50 | D | 4 | |
| | | | (4.50) | 4.50 - 6.00 | B | 5 | |
| | | | | 6.00 - 6.45 | U | 6 | 150 blows |
| | | | | 6.45 - 6.50 | D | 7 | |
| Firm to stiff locally fissured thinly laminated green brown very silty CLAY with abundant shell fragments. (OXFORD CLAY) | 42.55 | | 7.50 | | | | |
| | | | | 7.50 - 9.00 | B | 8 | |
| | | | (21.00) | 9.00 - 9.45 | U | 9 | 150 blows |
| | | | | 9.45 - 9.50 | D | 10 | |

Remarks

Logged by
BC
Scale
1:50
Figure

Notes:

Materials are described in accordance with Appendices. For explanation of symbols and abbreviations see Figure 1.



Equipment & Methods
As sheet 1

Location No. 269077
Location
ROOKERY SOUTH

Carried out for
A J Bull Ltd

Ground Level
Coordinates
Date
As sheet 1

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|------------------------------------|---------------|--------|---------------|---------------|-------------|------------|---------------|
| | | | | Depth | Sample Type | Sample No. | |
| CLAY (as Sheet 1) (OXFORD CLAY) | | X X | | | | | |
| | | X X | | | | | |
| | | X X | | | | | |
| | | X X | | 10.50 - 11.00 | B | 11 | |
| | | X X | | | | | |
| | | X X | | | | | |
| | | X X | | | | | |
| | | X X | | 12.00 - 12.45 | U | 12 | 150 blows |
| | | X X | | 12.45 - 12.50 | D | 13 | |
| | | X X | | | | | |
| | | X X | | | | | |
| | | X X | | | | | |
| | | X X | | | | | |
| | | X X | | 13.50 - 15.00 | B | 14 | |
| | | X X | | | | | |
| | | X X | | | | | |
| | | X X | | (21.00) | | | |
| | | X X | | 15.00 - 15.45 | U | 15 | 160 blows |
| | | X X | | 15.45 - 15.50 | D | 16 | |
| | | X X | | | | | |
| | X X | | | | | | |
| | X X | | | | | | |
| | X X | | 16.50 - 18.00 | B | 17 | | |
| | X X | | | | | | |
| | X X | | | | | | |
| | X X | | 18.00 - 18.45 | U | 18 | 168 blows | |
| | X X | | 18.45 - 18.50 | D | 19 | | |
| | X X | | | | | | |
| | X X | | | | | | |
| | X X | | | | | | |
| | X X | | 19.50 - 21.00 | B | 20 | | |

Remarks

Logged by
BC
Scale
1:50
Figure



| | |
|-----------------------------------|--|
| Equipment & Methods As sheet 1 | Location No. 269077 Location ROOKERY SOUTH |
|-----------------------------------|--|

| | | |
|---------------------------------|---|------|
| Carried out for A J Bull Ltd | Ground Level Coordinates As sheet 1 | Date |
|---------------------------------|---|------|

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records | | | | | | | |
|------------------------------------|---------------|--------|---------------|---------------|-------------|------------|---------------|---------------|---|----|-----------|--|--|--|
| | | | | Depth | Sample Type | Sample No. | | Test | | | | | | |
| CLAY (as Sheet 1) (OXFORD CLAY) | | | | 21.00 - 21.45 | U | 21 | 175 blows | | | | | | | |
| | | | | 21.45 - 21.50 | D | 22 | | | | | | | | |
| | | | | 22.50 - 24.00 | B | 23 | 190 blows | | | | | | | |
| | | | | 24.00 - 24.45 | U | 24 | | | | | | | | |
| | | | | 24.45 - 24.50 | D | 25 | | | | | | | | |
| | | | | 25.50 - 27.00 | B | 26 | | | | | | | | |
| | | | | | 21.55 | | (3.00) | 27.00 - 27.45 | U | 27 | 185 blows | | | |
| | | | | | | | | 27.45 - 27.50 | D | 28 | | | | |
| | | | | | | | | 28.50 | | | | | | |
| | | | | | | | | 28.50 - 30.00 | B | 29 | | | | |

| | |
|---------|-----------------|
| Remarks | Logged by BC |
| | Scale 1:50 |
| | Figure |

Notes: (c) C L Associates (Ver 6.1)
Materials are described in accordance with Appendices. For explanation of symbols and abbreviations see Figure 1. 11/02/00 12:04:32



| Equipment & Methods As sheet 1 | | Location No. 269077 Location ROOKERY SOUTH | | | | | |
|---|---------------|---|---------------------|---|-------------|----------------|---------------|
| Carried out for A J Bull Ltd | | Ground Level Coordinates Date As sheet 1 | | | | | |
| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
| | | | | Depth | Sample Type | Sample No. | |
| SAND with clay bands (as Sheet 2) (KELLAWAYS FORMATION) | | | (3.00) | 30.00 - 30.45 30.00 - 30.45 | U B | NR 30 | 80 blows |
| Grey occasionally mottled light grey very clayey fine SAND. (KELLAWAYS FORMATION) | 18.55 | | 31.50 (1.50) | 31.50 - 33.00 | B | 31 | |
| Firm to stiff thickly laminated green grey CLAY with frequent shell fragments. (KELLAWAYS FORMATION) | 17.05 | | 33.00 (2.20) | 33.00 33.00 - 33.45 33.45 - 33.50 | B U D | 32 33 34 | 185 blows |
| Dark grey fine to medium grained muddy LIMESTONE with occasional shell fragments. Recovered as gravel size fragments. (CORNBRAH FORMATION) | 14.85 | | 35.20 (0.50 pen) | 34.50 - 35.20 35.20 35.20 - 35.70 | B D D | 35 36 37 | |
| BOREHOLE ENDS AT 35.70 m. | 14.35 | | 35.70 | | | | |

Remarks

Logged by

BC

Scale

1:50

Figure

Notes:

Materials are described in accordance with Appendices. For explanation of symbols and abbreviations see Figure 1.



Location No. 269077

Location
ROOKERY SOUTH

Carried out for
A J Bull Ltd

Ground Level

Coordinates

Date

As sheet 1

Water Level Observations During Boring

| Date | Time | Depth of Hole (m) | Depth of Casing (m) | Depth to Water (m) | Remarks |
|----------|-------|-------------------|---------------------|--------------------|-----------------|
| 16/11/99 | 16:30 | 21.00 | 1.50 | DRY | End of shift. |
| 17/11/99 | 08:00 | 21.00 | 1.50 | DRY | Start of shift. |
| 17/11/99 | 16:30 | 27.00 | 1.50 | DRY | End of shift. |
| 18/11/99 | 08:00 | 27.00 | 1.50 | DRY | Start of shift. |
| 18/11/99 | 16:30 | 35.70 | 1.50 | 30.00 | End of boring. |

Hole Diameter by Depth Table

| Depth of Hole (m) | Diameter of Hole (mm) | Diameter of Casing (mm) | Depth of Casing (m) |
|-------------------|-----------------------|-------------------------|---------------------|
| 27.45 | 250 | 250 | 1.50 |
| 35.70 | 200 | 200 | 1.50 |

Water Strike Table

| Depth of Strike (m) | Casing Depth (m) | Date | Time | Post Strike Depth (m) | Minutes After Strike | Sealed at (m) | Remarks |
|---------------------|------------------|----------|------|-----------------------|----------------------|---------------|---------|
| 30.00 | 1.50 | 18/11/99 | | 30.00 | 30 | - | |

Depth related Remarks Table

| Top Depth (m) | Base Depth (m) | Remarks |
|---------------|----------------|-----------------------------|
| 35.20 | 35.70 | Hard boring for 30 minutes. |

Remarks

Logged by

BC

Scale

1:50

Figure

Notes:

(c) C L Assc (Ver 6.1)

Materials are used in accordance with Appendices. For explanation of symbols and abbreviations see Figure 1.

11/02/00 12:05:47



Equipment & Methods
Cable tool boring, 250mm dia to 21.00m, 200mm dia to 38.00m then 150mm dia to 48.80m.

Location No. 269077
Location
ROOKERY SOUTH

Carried out for
A J Bull Ltd

Ground Level 50.270 mOD
Coordinates 502173.534 mE 241377.014 mN
Date 04/11/99 to 18/11/99

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records | |
|--|---------------|--------|---------------|---------------|--------|-----|---------------|------|
| | | | | Depth | Sample | | | Test |
| | | | | | Type | No. | | |
| Soft greenish grey CLAY (Drillers description) | 50.270 | | (0.50) | | | | | |
| | 49.77 | | 0.50 | | | | | |
| | | | | 1.00 - 1.50 | B | 1 | | |
| | | | | 2.50 - 3.00 | B | 2 | | |
| Firm to stiff orange brown mottled grey slightly sandy CLAY with some fine to medium subangular gravel and occasional inclusions of stiff blue grey clay. Frequent selenite crystals and occasional rootlets. (Weathered OXFORD CLAY) | | | (6.00) | 4.00 - 4.50 | B | 3 | | |
| | | | | 5.50 - 6.00 | B | 4 | | |
| | 43.77 | | 6.50 | 6.50 - 7.00 | B | 5 | | |
| | | | | 7.00 - 7.50 | B | 6 | | |
| | | | | 8.50 - 9.00 | B | 7 | | |
| | | | (14.00) | | | | | |

Rare orange brown staining on fissure surfaces

Stiff locally fissured becoming laminated at depth dark blue grey very silty CLAY with occasional shell fragments and shells.

(OXFORD CLAY)

Remarks

Notes:
Materials are described in accordance with Appendices. For explanation of symbols and abbreviations see Figure 1.

Logged by
BC
Scale
1:50
Figure



Equipment & Methods

As sheet 1

Location No. 269077

Location
ROOKERY SOUTH

Carried out for
A J Bull Ltd

Ground Level Coordinates Date
As sheet 1

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|-------------------|---------------|--------|---------------|---------------|-------------|------------|---------------|
| | | | | Depth | Sample Type | Sample No. | |
| CLAY (As sheet 1) | 29.77 | X X | (14.00) | | | | |
| (OXFORD CLAY) | | X X | 20.50 | | | | |
| | | X X | | 20.50 - 21.00 | B | 15 | |
| | | X X | | | | | |
| | | X X | | | | | |
| | | X X | | | | | |
| | | X X | | | | | |
| | | X X | | 22.00 - 22.50 | B | 16 | |
| | | X X | | | | | |
| | | X X | | | | | |
| | | X X | | | | | |
| | | X X | | 23.50 - 24.00 | B | 17 | |
| | | X X | | | | | |
| | | X X | | | | | |
| | | X X | | 24.00 - 25.50 | B | 18 | |
| | | X X | | | | | |
| | | X X | | | | | |
| | | X X | | | | | |
| | | X X | | | | | |
| | | X X | | | | | |
| | | X X | | | | | |
| | | X X | | 26.50 - 27.00 | B | 19 | |
| | | X X | | | | | |
| | | X X | | | | | |
| | | X X | | | | | |
| | | X X | | | | | |
| | | X X | | 28.00 - 28.50 | B | 20 | |
| | | X X | | | | | |
| | | X X | | | | | |
| | | X X | | | | | |
| | | X X | | | | | |
| | | X X | | 29.50 - 30.00 | B | 21 | |
| | | X X | | | | | |

Stiff locally fissured thinly to thickly laminated grey green very silty CLAY with frequent shells and shell fragments. Driller records siltstone bands below 28.5m.

(OXFORD CLAY)

Remarks

Logged by

BC

Scale

1:50

Figure

Notes:

Materials are described in accordance with Appendices. For explanation of symbols and abbreviations see Figure 1.



Equipment & Methods
As sheet 1

Location No. 269077
Location
ROOKERY SOUTH

Carried out for
A J Bull Ltd

Ground Level
Coordinates
Date
As sheet 1

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|--|---------------|--------|---------------|---------------|-------------|------------|---------------|
| | | | | Depth | Sample Type | Sample No. | |
| CLAY (as Sheet 3) (OXFORD CLAY) | 7.77 | | (22.00) | 40.00 - 40.50 | B | 28 | |
| | | | | 41.50 - 42.00 | B | 29 | |
| Grey clayey fine SAND interbedded with firm grey very sandy CLAY. (KELLAWAYS FORMATION) | 5.17 | | (2.60) | 42.50 - 43.50 | B | 30 | |
| | | | | 44.50 - 45.00 | B | 31 | |
| Firm thinly laminated grey CLAY with some shells and shell fragments. Fine sand along partings. (KELLAWAYS FORMATION) | 1.97 | | (3.20) | 45.10 - 46.50 | B | 32 | |
| | | | | 47.50 - 48.00 | B | 33 | |
| Dark grey fine to medium grained muddy LIMESTONE with occasional shell fragments. Recovered as gravel size fragments. (CORNBRASH FORMATION) | 1.47 | | (0.50 pen) | 48.00 - 48.30 | B | 34 | |
| | | | | 48.30 - 48.80 | B | 35 | |
| BOREHOLE ENDS AT 48.80 m. | | | | | | | |

Remarks

Notes:
Materials are described in accordance with Appendices. For explanation of symbols and abbreviations see Figure 1.

Logged by
BC
Scale
1:50
Figure



Location No. 269077

Location
ROOKERY SOUTH

Carried out for
A J Bull Ltd

Ground Level Coordinates Date
As sheet 1

| Date | Time | Depth of Hole (m) | Depth of Casing (m) | Depth to Water (m) | Remarks |
|----------|-------|-------------------|---------------------|--------------------|-----------------|
| 04/11/99 | | 21.00 | 0.00 | | End of shift |
| 05/11/99 | 08:15 | 21.00 | 0.00 | 16.30 | Start of shift. |
| 05/11/99 | 12:45 | 24.00 | 24.00 | 16.40 | End of shift. |
| 08/11/99 | 09:30 | 24.00 | 24.00 | 16.10 | Start of shift. |
| 08/11/99 | 16:30 | 28.50 | 24.00 | DRY | End of shift. |
| 09/11/99 | 08:00 | 28.50 | 24.00 | 27.30 | Start of shift. |
| 09/11/99 | | 37.50 | | | End of shift. |
| 15/11/99 | 09:30 | 37.50 | 25.50 | 16.30 | Start of shift. |
| 15/11/99 | 16:30 | 41.50 | 39.00 | DAMP | End of shift. |
| 16/11/99 | 08:00 | 41.50 | 39.00 | 18.20 | Start of shift. |
| 16/11/99 | | 48.80 | 39.00 | | End of boring |

| Depth of Hole (m) | Diameter of Hole (mm) | Diameter of Casing (mm) | Depth of Casing (m) |
|-------------------|-----------------------|-------------------------|---------------------|
| 21.00 | 250 | | |
| 38.00 | 200 | 200 | 25.50 |
| 48.80 | 150 | 150 | 39.00 |

| Depth of Strike (m) | Casing Depth (m) | Date | Time | Post Strike Depth (m) | Minutes After Strike | Sealed at (m) | Remarks |
|---------------------|------------------|----------|-------|-----------------------|----------------------|---------------|---------|
| 11.00 | | 04/11/99 | 12:30 | 10.00 | 60 | | |
| 43.30 | | 16/11/99 | 15:30 | 41.20 | 30 | | |

| Top Depth (m) | Base Depth (m) | Remarks |
|---------------|----------------|------------------------------|
| 24.00 | 25.50 | Hard boring for 210 minutes. |
| 25.50 | 27.00 | Hard boring for 150 minutes. |
| 30.30 | 31.00 | Hard boring for 90 minutes. |
| 31.00 | 31.50 | Hard boring for 60 minutes. |
| 38.50 | 39.00 | Hard boring for 120 minutes. |
| 41.80 | 42.50 | Hard boring for 90 minutes. |
| 48.60 | 48.80 | Hard boring for 30 minutes. |

Remarks

Logged by

BC

Scale

1:50

Figure

Notes:

Materials are described in accordance with Appendices. For explanation of symbols and abbreviations see Figure 1.



Equipment & Methods
Cable tool boring, 250mm dia to 36.00m, then 150mm dia to 47.20m.

Location No. 269077
Location
ROOKERY SOUTH

Carried out for
A J Bull Ltd

Ground Level 48,558 mOD
Coordinates 501572.971 mE
241445.736 mN
Date 17/11/99
to 25/11/99

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|---|---------------|--------|---------------|---------------|-------------|----------|---------------|
| | | | | Depth | Sample Type | Test No. | |
| Stiff light brown and grey mottled locally sandy CLAY with occasional subangular to subrounded fine to coarse gravel and small pockets of white silt. Frequent rootlets and selenite crystals. (Weathered OXFORD CLAY) | 48.558 | | (4.95) | 1.50 - 1.95 | U | 1 | 86 blows |
| | | | | 1.95 - 2.10 | D | 2 | |
| | | | | 2.50 - 3.50 | B | 3 | |
| Firm thinly laminated grey brown and grey mottled CLAY with some shells, shell fragments and selenite crystals. (Weathered OXFORD CLAY) | 43.61 | | (1.75) | 4.50 - 4.95 | U | 4 | 85 blows |
| | | | | 4.95 - 5.10 | D | 5 | |
| Stiff thinly laminated dark grey locally sandy very silty CLAY with occasional shell fragments. Driller records siltstone bands. (OXFORD CLAY) | 41.86 | | (20.30) | 5.50 - 6.00 | B | 6 | 94 blows |
| | | | | 6.70 - 7.50 | B | 7 | |
| | | | | 7.50 - 7.95 | U | 8 | |
| | | | | 7.95 - 8.00 | D | 9 | |
| | | | | 9.00 - 9.50 | B | 10 | |

Remarks

Logged by
PAC
Scale
1:50
Figure

Notes:
Materials are described in accordance with Appendices. For explanation of symbols and abbreviations see Figure 1.



Equipment & Methods

As sheet 1

Location No. 269077

Location

ROOKERY SOUTH

Carried out for
A J Bull Ltd

Ground Level

Coordinates

Date

As sheet 1

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records | | | | |
|------------------------------------|---------------|--------|---------------|---------------|--------|-----|---------------|---------------|---|----|-----------|
| | | | | Depth | Sample | | | Test | | | |
| | | | | | Type | No. | | | | | |
| CLAY (as Sheet 1) (OXFORD CLAY) | | | 21.00 - 21.50 | B | 22 | | | | | | |
| | | | | | | | | 22.50 - 23.00 | U | NR | 100 blows |
| | | | | | | | | | | | |
| | | | | | | | | (20.30) | | | |
| | | | | | | | | | | | |
| | | | | | | | | 25.50 - 25.95 | U | 25 | 98 blows |
| | | | | | | | | | | | |
| | | | | | | | | 27.00 | | | |
| | | | | | | | | | | | |
| | | | | | | | | (19.00) | | | |
| 28.50 - 28.95 | U | 28 | 100 blows | | | | | | | | |
| | | | | 28.95 - 29.00 | D | 29 | | | | | |

Firm to stiff thinly laminated dark greenish brown very silty CLAY with abundant shell fragments.

(OXFORD CLAY)

Remarks

Logged by

PAC

Scale

1:50

Figure

Notes:

Materials are described in accordance with Appendices. For explanation of symbols and abbreviations see Figure 1.



Equipment & Methods
As sheet 1

Location No. 269077
Location
ROOKERY SOUTH

Carried out for
A J Bull Ltd

Ground Level
Coordinates
Date
As sheet 1

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records | |
|--|---------------|--------|---------------------|---------------|--------|-----|---------------|------|
| | | | | Depth | Sample | | | Test |
| | | | | | Type | No. | | |
| CLAY (as Sheet 3) (OXFORD CLAY) | | X X | | | | | | |
| | | X X | | | | | | |
| | | X X | | 40.50 - 40.85 | U | 40 | 100 blows | |
| | | X X | | 40.85 - 40.90 | D | 41 | | |
| | | X X | | | | | | |
| | | X X | | | | | | |
| | | X X | | 42.00 - 42.50 | B | 42 | | |
| | | X X | | | | | | |
| | | X X | | | | | | |
| | | X X | | 43.50 - 43.70 | U | 43 | 100 blows | |
| Dark grey very sandy CLAY probably with bands of stiff green brown clay (recovered as pockets of sandy clay). (KELLAWAYS FORMATION) | 2.56 | X X | 46.00 | | | | | |
| | | X X | | | | | | |
| | | X X | | 46.00 - 46.50 | B | 45 | | |
| | | X X | | 46.50 - 46.70 | U | NR | 100 blows | |
| | 1.86 | X X | 46.70 | 46.50 - 47.20 | B | 46 | | |
| | | X X | | | | | | |
| | | X X | | | | | | |
| | | X X | | | | | | |
| | | X X | | | | | | |
| | | X X | | | | | | |
| Grey fine grained SANDSTONE. Recovered as gravel size fragments. (KELLAWAYS FORMATION) | 1.36 | | (0.50 pen) 47.20 | | | | | |
| BOREHOLE ENDS AT 47.20 m. | | | | | | | | |

Remarks

Logged by
PAC
Scale
1:50
Figure



Location No. 269077

Location
ROOKERY SOUTH

Carried out for
A J Bull Ltd

Ground Level Coordinates Date
As sheet 1

| Date | Time | Depth of Hole (m) | Depth of Casing (m) | Depth to Water (m) | Remarks |
|---------|-------|-------------------|---------------------|--------------------|----------------|
| 17/1/99 | - | 3.50 | 0.00 | DRY | End of shift |
| 18/1/99 | - | 3.50 | 0.00 | DRY | Start of shift |
| 18/1/99 | 16:30 | 21.50 | 0.00 | DRY | End of shift |
| 19/1/99 | 08:00 | 21.50 | 0.00 | 21.10 | Start of shift |
| 19/1/99 | 13:30 | 32.00 | 0.00 | DRY | End of shift |
| 22/1/99 | 10:00 | 32.00 | 0.00 | 22.50 | Start of shift |
| 22/1/99 | 16:30 | 36.00 | 35.50 | DRY | End of shift |
| 23/1/99 | 08:00 | 38.00 | 35.50 | 31.30 | Start of shift |
| 23/1/99 | 13:00 | 41.00 | 40.50 | DRY | End of shift |
| 24/1/99 | 12:30 | 41.00 | 40.50 | 38.80 | Start of shift |
| 24/1/99 | 16:30 | 45.00 | 45.00 | DRY | End of shift |
| 25/1/99 | 08:00 | 45.00 | 45.00 | DRY | Start of shift |
| 25/1/99 | - | 47.20 | 45.80 | DRY | End of boring |

| Depth of Hole (m) | Diameter of Hole (mm) | Diameter of Casing (mm) | Depth of Casing (m) |
|-------------------|-----------------------|-------------------------|---------------------|
| 36.00 | 250 | - | - |
| 47.20 | 150 | 150 | 45.80 |

| Depth of Strike (m) | Casing Depth (m) | Date | Time | Post Strike Depth (m) | Minutes After Strike | Sealed at (m) | Remarks |
|---------------------|------------------|---------|------|-----------------------|----------------------|---------------|-------------|
| 46.00 | 45.80 | 25/1/99 | - | - | - | - | Water entry |

| Top Depth (m) | Base Depth (m) | Remarks |
|---------------|----------------|--------------------------------|
| 4.20 | 4.40 | Hard boring for 40 minutes |
| 15.20 | 15.40 | Hard boring for 30 minutes |
| 19.40 | 19.50 | Hard boring for 30 minutes |
| 29.30 | 29.80 | Hard boring for 45 minutes |
| 32.00 | 33.00 | Hard boring for 250 minutes |
| 41.20 | 42.00 | Hard boring for 120 minutes |
| 44.60 | 44.80 | Hard boring for 30minutes |
| 46.00 | 46.20 | Falling head permeability test |
| 46.70 | 47.20 | Hard boring for 120 minutes. |

Remarks

Logged by

PAC

Scale

1:50

Figure

Notes:

(c) C L Associates (Ver 6.1)

Materials are described in accordance with Appendices. For explanation of symbols and abbreviations see Figure 1.

22/02/00 13:08:34



Equipment & Methods

Cable tool boring, 200mm dia to 17.10m, then 150mm dia to 22.80m.

Location No. 269077

Location

ROOKERY SOUTH

Carried out for
A J Bull Ltd

Ground Level

43.677 mOD

Coordinates

501013.586 mE

241022.460 mN

Date

09/11/99

to 11/11/99

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records | |
|--|---------------|--------|---------------|---------------|--------|----------|---------------|------|
| | | | | Depth | Sample | | | Test |
| | | | | | Type | No. | | |
| MADE GROUND: Firm to stiff orange brown mottled sandy clay with subangular fine to coarse gravel of crushed brick and furnace waste. Occasional shell fragments and rootlets Occasional clinker and ash | 43.677 | | (1.50) | 0.20 - 0.70 | B | 1 | | |
| | | | | 0.80 - 1.30 | B | 2 | | |
| Stiff thinly to thickly laminated dark brown mottled grey CLAY with shells and shell fragments. (Weathered OXFORD CLAY) | 42.18 | | 1.50 | 1.50 - 1.95 | U | 3 | 34 blows | |
| | | | | 2.00 | D | 4 | | |
| | | | | 3.00 - 3.50 | B | 5 | | |
| | | | | (2.05) | | | | |
| Stiff locally fissured thinly to thickly laminated grey green very silty CLAY with shells and shell fragments. Fine sand along laminae. (OXFORD CLAY) | 40.13 | | 3.55 | 3.75 - 4.25 | B | 6 | 78 blows | |
| | | | | 4.50 - 4.95 | U | 7 | | |
| | | | | 5.00 | D | 8 | | |
| | | | | 6.00 - 8.50 | B | 9 | | |
| | | | | (13.55) | | | | |
| | | | | 7.50 - 7.95 | U | 10 | | |
| | | | | 8.00 | D | 11 | | |
| | | | | 9.00 - 9.50 | B | 12 | | |
| | | | | | | 80 blows | | |

Remarks

Logged by

BC

Scale

1:50

Figure

Notes:

Materials are described in accordance with Appendices. For explanation of symbols and abbreviations see Figure 1.

(c) C L Associates (Ver 6.1)

11/02/00 11:39:42



Equipment & Methods

As sheet 1

Location No. 269077

Location

ROOKERY SOUTH

Carried out for
A J Bull Ltd

Ground Level

Coordinates

Date

As sheet 1

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records | |
|---|---------------|--------|---------------|---------------|--------|-----|---------------|-----------|
| | | | | Depth | Sample | | | Test |
| | | | | | Type | No. | | |
| CLAY (as Sheet 1) (OXFORD CLAY) | | | | 10.50 - 10.95 | U | 13 | 92 blows | |
| | | | | 11.00 | D | 14 | | |
| | | | | 12.00 - 12.50 | B | 15 | | |
| | | | | (13.55) | | | | |
| | | | | 13.50 - 13.95 | U | 16 | | 88 blows |
| | | | | 14.00 | D | 17 | | |
| | | | | 15.00 - 15.50 | B | 18 | | |
| | | | | 16.35 | W | 26 | | |
| | | | | 16.50 - 16.95 | U | 19 | | 130 blows |
| | | | | 17.00 | D | 20 | | |
| Interbedded grey SAND and laminated grey green sandy CLAY with shells and shell fragments. (KELLAWAYS FORMATION) | 26.58 | | 17.10 | 17.25 - 17.75 | B | 21 | 100 blows | |
| | | | | 18.50 - 18.95 | U | NR | | |
| | | | | 18.50 - 19.00 | B | 22 | | |

Remarks

Logged by

BC

Scale

1:50

Figure

Notes:

als are

in accordance with Appendices. For explanation of symbols and abbreviations see Figure 1.

(c) C L Associates (Ver 6.1)

11/02/00 11:40:21



Equipment & Methods
As sheet 1

Location No. 269077
Location
ROOKERY SOUTH

Carried out for
A J Bull Ltd

Ground Level
Coordinates
Date
As sheet 1

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records | |
|---|----------------|--------|---------------------------|--------------------------------|--------|----------|---------------|------|
| | | | | Depth | Sample | | | Test |
| | | | | | Type | No. | | |
| Interbedded SAND and CLAY (as Sheet 2) (KELLAWAYS FORMATION) | 23.48 | | (3.10) 20.20 | 20.00 - 20.10 20.00 - 20.10 | B U | 23 NR | 100 blows | |
| Stiff thinly to thickly laminated grey green sandy CLAY with rare shell fragments (KELLAWAYS FORMATION) | | | (2.25) | 20.50 - 21.00 | B | 24 | | |
| Dark grey fine to medium grained muddy LIMESTONE with occasional shell fragments. Recovered as gravel size fragments. (CORNBRAH FORMATION) | 21.23 21.08 | | 22.45 (0.15p) 22.60 | 22.50 | D | 25 | | |
| BOREHOLE ENDS AT 22.60 m. | | | | | | | | |

Remarks

Logged by
BC
Scale
1:50
Figure



Location No. 269077
 Location
 ROOKERY SOUTH

Carried out for
 A J Bull Ltd

Ground Level Coordinates Date
 As sheet 1

| Date | Time | Depth of Hole (m) | Depth of Casing (m) | Depth to Water (m) | Remarks |
|----------|-------|-------------------|---------------------|--------------------|-----------------|
| 09/11/99 | - | 5.00 | - | DRY | End of shift. |
| 10/11/99 | 18:00 | 21.50 | - | DRY | End of shift. |
| 11/11/99 | 08:30 | 21.50 | - | 18.35 | Start of shift. |
| 11/11/99 | 18:00 | 22.60 | - | 19.80 | End of boring. |

| Depth of Hole (m) | Diameter of Hole (mm) | Diameter of Casing (mm) | Depth of Casing (m) |
|-------------------|-----------------------|-------------------------|---------------------|
| 17.10 | 200 | - | - |
| 22.60 | 150 | - | - |

| Depth of Strike (m) | Casing Depth (m) | Date | Time | Post Strike Depth (m) | Minutes After Strike | Sealed at (m) | Remarks |
|---------------------|------------------|----------|------|-----------------------|----------------------|---------------|---------|
| 3.05 | - | 08/11/99 | - | - | - | - | - |
| 18.00 | - | 10/11/99 | - | 15.40 | 30 | - | Seepage |

| Top Depth (m) | Base Depth (m) | Remarks |
|---------------|----------------|-----------------------------|
| 0.25 | 0.85 | Hard boring for 75 minutes. |
| 22.45 | 22.60 | Hard boring for 60 minutes. |

Remarks
 1. No records of casing depths

Notes:
 Materials are described in accordance with Appendices. For explanation of symbols and abbreviations see Figure 1.

(c) C L Associates (Ver 6.1)

11/02/00 11:41:30

Logged by
 BC
 Scale
 1:50
 Figure



| Equipment & Methods Cable tool boring, 150mm dia to 8.60m. | | Location No. 269077 Location ROOKERY SOUTH | | | | | |
|--|---------------|--|---|---------------|-------------|------------|---------------|
| Carried out for A J Bull Ltd | | Ground Level 30.947 mOD | Coordinates 501201.034 mE 240715.890 mN | | | | |
| | | Date 03/11/99 | | | | | |
| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
| | | | | Depth | Sample Type | Sample No. | |
| MADE GROUND: Firm brown clay with some brick (Drillers description) | 30.947 | | (0.45) | | | | |
| Firm to stiff thinly laminated grey green and brown very silty CLAY with occasional shell fragments | 30.50 | | 0.45 | 0.50 - 1.00 | B | 1 | |
| (OXFORD CLAY) | 29.90 | | 1.05 | 1.50 - 2.00 | B | 2 | |
| Firm to stiff thinly laminated grey green very silty CLAY with occasional shell fragments (OXFORD CLAY) | (2.95) | | (2.95) | 2.50 - 3.00 | B | 3 | |
| | | | | 3.50 - 4.00 | B | 4 | |
| Grey grey clayey SAND (KELLAWAYS FORMATION) | 26.95 | | 4.00 | 4.50 - 5.00 | B | 5 | |
| | | | (1.15) | 5.50 - 6.00 | B | 6 | |
| Firm to stiff green grey sandy CLAY with shell fragments (KELLAWAYS FORMATION) | 25.80 | | 5.15 | 6.50 - 7.00 | B | 7 | |
| | | | (3.25) | 7.50 - 8.00 | B | 8 | |
| Dark grey fine to medium grained muddy LIMESTONE with occasional shell fragments. Recovered as gravel size fragments. (CORNBRAUSH FORMATION) | 22.55 | | 8.40 (0.20p) | 8.50 | D | 9 | |
| BOREHOLE ENDS AT 8.60 m. | 22.35 | | 8.60 | | | | |

| | | |
|---|-----------|------------------------------|
| Remarks | Logged by | BC |
| | Scale | 1:50 |
| | Figure | |
| | Notes: | (c) C L Associates (Ver 6.1) |
| Materials are described in accordance with Appendices. For explanation of symbols and abbreviations see Figure 1. | | 11/02/00 18:23:51 |



Location No. 269077

Location
ROOKERY SOUTH

Carried out for
A J Bull Ltd

Ground Level Coordinates Date
As sheet 1

Water Level Observations During Boring

| Date | Time | Depth of Hole (m) | Depth of Casing (m) | Depth to Water (m) | Remarks |
|----------|------|-------------------|---------------------|--------------------|---------------|
| 03/11/99 | - | 8.60 | - | 8.45 | End of boring |

Hole Diameter by Depth Table

| Depth of Hole (m) | Diameter of Hole (mm) | Diameter of Casing (mm) | Depth of Casing (m) |
|-------------------|-----------------------|-------------------------|---------------------|
| 8.60 | 150 | - | - |

Water Strike Table

| Depth of Strike (m) | Casing Depth (m) | Date | Time | Post Strike Depth (m) | Minutes After Strike | Sealed at (m) | Remarks |
|---------------------|------------------|----------|------|-----------------------|----------------------|---------------|---------|
| 2.45 | - | 03/11/99 | : | 1.83 | 30 | 3.00 | |
| 4.50 | - | 03/11/99 | : | 4.30 | 30 | 5.80 | |

Depth related Remarks Table

| Top Depth (m) | Base Depth (m) | Remarks |
|---------------|----------------|---|
| 3.00 | 4.50 | Water added. Hard boring for 90 minutes. |
| 8.40 | 8.60 | |

Remarks

- 1. No record of casing depths

Notes:

Materials are described in accordance with Appendices. For explanation of symbols and abbreviations see Figure 1.

(c) C L Associates (Ver 6.1)

11/02/00 11:42.48

Logged by

BC

Scale

1:50

Figure



Equipment & Methods
Cable tool boring, 200mm dia to 17.00m.

Location No. 269077
Location
ROOKERY SOUTH

Carried out for
A J Bull Ltd

Ground Level 38.618 mOD
Coordinates 501822.640 mE
241220.188 mN to 15/11/99
Date 11/11/99

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records | |
|---|---------------|--------|---------------|---------------|--------|-----|---------------|------|
| | | | | Depth | Sample | | | Test |
| | | | | | Type | No. | | |
| <p>MADE GROUND: Variably soft and stiff grey mottled light brown sandy clay with frequent angular to subangular fine to coarse gravel and cobble size fragments of brick. Occasional shell, shell fragments, rootlets and selenite crystals.</p> <p>(REWORKED CLAY)</p> | 38.618 | | | 0.00 - 1.00 | B | 1 | | |
| | | | | 1.00 - 2.00 | B | 2 | | |
| | | | | 2.00 - 3.00 | B | 3 | | |
| | | | | 3.00 - 4.00 | B | 4 | | |
| | | | | 4.00 - 5.00 | B | 5 | | |
| | | | | 5.00 - 6.00 | B | 6 | | |
| | | | | 6.00 - 7.00 | B | 7 | | |
| | | | | 7.00 - 8.00 | B | 8 | | |
| | | | | 8.00 - 9.00 | B | 9 | | |
| | | | | 9.00 - 10.00 | B | 10 | | |

Remarks

1. Borehole backfilled with bentonite grout from base to 14.00m then with arisings to ground surface.

Notes:

Materials are described in accordance with Appendices. For explanation of symbols and abbreviations see Figure 1.

Logged by

BC

Scale

1:50

Figure



Equipment & Methods

As sheet 1

Location No. 269077

Location

ROOKERY SOUTH

Carried out for
A J Bull Ltd

Ground Level

Coordinates

Date

As sheet 1

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records | |
|---|---------------|--------|---------------|---------------|--------|-----|---------------|------|
| | | | | Depth | Sample | | | Test |
| | | | | | Type | No. | | |
| MADE GROUND (as Sheet 1) (REWORKED CLAY) | | | | 10.00 - 11.00 | B | 11 | | |
| | | | | 11.00 - 12.00 | B | 12 | | |
| | | | | 12.00 - 13.00 | B | 13 | | |
| | | | | 13.00 - 14.00 | B | 14 | | |
| Stiff fissured thinly to thickly laminated grey green mottled brown very silty CLAY with frequent shells and shell fragments and selenite crystals (OXFORD CLAY) | 24.62 | | 14.00 | 14.00 - 15.00 | B | 15 | | |
| | | | | 15.00 - 15.60 | B | 16 | | |
| Grey clayey fine to medium SAND with laminae of brown clay. Occasional shells and shell fragments (KELLAWAYS FORMATION) | 23.02 | | 15.60 | 16.80 - 17.00 | D | 17 | | |
| Grey fine grained SANDSTONE with rare shell fragments (KELLAWAYS FORMATION) | 21.82 | | 16.80 (0.20p) | | | | | |
| BOREHOLE ENDS AT 17.00 m. | 21.62 | | 17.00 | | | | | |

Remarks

Logged by

BC

Scale

1:50

Figure

Notes:

Materials are described in accordance with Appendices. For explanation of symbols and abbreviations see Figure 1.



Location No. 269077
Location
ROOKERY SOUTH

Carried out for
A J Bull Ltd

Ground Level
Coordinates
Date
As sheet 1

| Date | Time | Depth of Hole (m) | Depth of Casing (m) | Depth to Water (m) | Remarks |
|----------|-------|-------------------|---------------------|--------------------|----------------|
| 11/11/99 | - | 8.00 | 1.50 | DRY | End of shift |
| 12/11/99 | 08:00 | 8.00 | - | DRY | Start of shift |
| 12/11/99 | - | 15.80 | 15.80 | DRY | End of shift |
| 15/11/99 | - | 15.80 | 15.80 | 11.00 | Start of shift |
| 15/11/99 | - | 17.00 | 16.50 | 11.00 | End of boring |

| Depth of Hole (m) | Diameter of Hole (mm) | Diameter of Casing (mm) | Depth of Casing (m) |
|-------------------|-----------------------|-------------------------|---------------------|
| 17.00 | 200 | 200 | 16.50 |

| Top Depth (m) | Base Depth (m) | Remarks |
|---------------|----------------|-----------------------------|
| 16.80 | 17.00 | Hard boring for 30 minutes. |

Remarks

Logged by
BC
Scale
1:50
Figure

Notes:

Materials are described in accordance with Appendices. For explanation of symbols and abbreviations see Figure 1.



Equipment & Methods
Cable tool boring, 200mm dia to 14.20m, then 150mm dia to 19.50m.

Location No. 269077
Location
ROOKERY SOUTH

Carried out for
A J Bull Ltd

Ground Level 34.732 mOD
Coordinates 501778.880 mE 240719.364 mN
Date 04/11/99 to 08/11/99

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|---|---------------|--------|---------------|------------------------|-------------|------------|---------------|
| | | | | Depth | Sample Type | Sample No. | |
| MADE GROUND: Firm grey slightly sandy clay with occasional gravel size fragments of brick. Frequent shell fragments and occasional rootlets. (REWORKED CLAY) | 34.732 | | (1.10) | 0.50 - 1.00 | B | 1 | |
| Stiff thinly laminated blue grey very silty CLAY with shell fragments and occasional selenite crystals (OXFORD CLAY) | 33.63 | | 1.10 | 1.50 - 2.00 | B | 2 | |
| | | | | 2.50 - 3.00 | B | 3 | |
| | | | | 3.50 - 4.00 | B | 4 | |
| | | | | 4.50 - 5.00 | B | 5 | |
| | | | | (13.10) 5.50 - 6.00 | B | 6 | |
| | | | | 6.50 - 7.00 | B | 7 | |
| | | | | 7.50 - 8.00 | B | 8 | |
| | | | | 8.50 - 9.00 | B | 9 | |
| | | | | 9.50 - 10.00 | B | 10 | |

Remarks

Logged by
BC
Scale
1:50
Figure

Notes:

Materials are described in accordance with Appendices. For explanation of symbols and abbreviations see Figure 1.



| | |
|-----------------------------------|--|
| Equipment & Methods As sheet 1 | Location No. 269077 Location ROOKERY SOUTH |
|-----------------------------------|--|

| | | | |
|---------------------------------|--------------|-------------|------|
| Carried out for A J Bull Ltd | Ground Level | Coordinates | Date |
| | As sheet 1 | | |

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records | |
|--|---------------|--------|---------------|---------------|--------|-----|---------------|------|
| | | | | Depth | Sample | | | Test |
| | | | | | Type | No. | | |
| CLAY (as Sheet 1) (OXFORD CLAY) | 20.53 | | (13.10) | 10.50 - 11.00 | B | 11 | | |
| | | | | 11.50 - 12.00 | B | 12 | | |
| | | | | 12.50 - 13.00 | B | 13 | | |
| | | | | 13.50 - 14.00 | B | 14 | | |
| | | | | 14.20 | | | | |
| Probably interbedded grey SAND and firm laminated grey green CLAY (recovered as sandy clay). Frequent shell fragments (KELLAWAYS FORMATION) | 18.13 | | (2.40) | 14.50 - 15.00 | B | 15 | | |
| | | | | 15.50 - 16.00 | B | 16 | | |
| Firm to stiff fissured thinly to thickly laminated grey green sandy CLAY with occasional shell fragments and shells (KELLAWAYS FORMATION) | 15.53 | | (2.60) | 16.50 - 17.00 | B | 17 | | |
| | | | | 17.50 - 18.00 | B | 18 | | |
| Dark grey fine to medium grained muddy LIMESTONE with occasional shell fragments. Recovered as gravel size fragments. (CORNBRAsh FORMATION) | 15.23 | | 19.20 (0.30p) | 18.50 - 19.00 | B | 19 | | |
| BOREHOLE ENDS AT 19.50 m. | | | 19.50 | | D | 20 | | |

| | |
|---|---|
| Remarks | Logged by BC |
| | Scale 1:50 |
| | Figure |
| Notes: Materials are described in accordance with Appendices. For explanation of symbols and abbreviations see Figure 1. | (c) C L Associates (Ver 6.1) 11/02/00 11:45:45 |



Location No. 269077
Location
ROOKERY SOUTH

Carried out for
A J Bull Ltd

Ground Level Coordinates Date
As sheet 1

| Date | Time | Depth of Hole (m) | Depth of Casing (m) | Depth to Water (m) | Remarks |
|----------|------|-------------------|---------------------|--------------------|----------------|
| 04/11/99 | - | 15.00 | - | DRY | End of shift |
| 05/11/99 | - | 15.00 | - | 8.40 | Start of shift |
| 05/11/99 | - | 19.00 | - | DAMP | End of shift |
| 08/11/99 | - | 19.00 | - | 15.75 | Start of shift |
| 08/11/99 | - | 19.50 | - | 15.75 | End of boring |

| Depth of Hole (m) | Diameter of Hole (mm) | Diameter of Casing (mm) | Depth of Casing (m) |
|-------------------|-----------------------|-------------------------|---------------------|
| 14.20 | 200 | - | - |
| 18.50 | 150 | - | - |

| Depth of Strike (m) | Casing Depth (m) | Date | Time | Post Strike Depth (m) | Minutes After Strike | Sealed at (m) | Remarks |
|---------------------|------------------|----------|------|-----------------------|----------------------|---------------|---------|
| 15.00 | - | 04/11/99 | - | 8.70 | 30 | - | - |

Remarks

1 No record of casing depths

Notes:

Materials are described in accordance with Appendices. For explanation of symbols and abbreviations see Figure 1.

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Scale

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Figure



Equipment & Methods
 Machine dug using 360 Excavator
 Pit dimensions 1.20m by 4.00m.
 Support used : none.
 Backfill : Anisings.

Location No. 269077
 Location ROOKERY SOUTH
 Carried out for A J Bull Ltd

Ground Level 38.655 mOD
 Coordinates 501172.614 mE
 241385.566 mN
 Date 08/11/99

| Description FACE A | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|---|---------------|--------|---------------|---------------|-------------|----------|---------------|
| | | | | Depth | Sample Type | Test No. | |
| MADE GROUND: Brick rubble comprising fine to coarse gravel and small cobble size fragments. | 38.655 | | (0.40) | | | | |
| | 38.26 | | 0.40 | | | | |
| | | | | 1.00 | B | 1 | |
| Stiff friable thinly laminated dark green grey very silty CLAY with abundant shells and shell fragments. Recovered as blocky fragments. (OXFORD CLAY) | | | (4.40 pen) | | | | |
| | | | | 3.00 | B | 2 | |
| | | | | 4.70 | B | 3 | |
| TRIAL PIT ENDS AT 4.80 m. | 33.86 | | 4.80 | | | | |

Remarks

Stability : Stable
 Organic odour noted below 0.40m.

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Scale

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Figure



Equipment & Methods
Machine dug using 380 Excavator
Pit dimensions 1.20m by 4.00m.
Support used : None
Backfill : Arisings

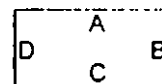
Location No. 269077
Location ROOKERY SOUTH
Carried out for A J Bull Ltd

Ground Level 37.904 mOD
Coordinates 501130.076 mE
241227.220 mN
Date 09/11/99

| Description FACE A | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records | |
|--|---------------|--------|---------------|---------------|--------|-----|---------------|------|
| | | | | Depth | Sample | | | Test |
| | | | | | Type | No. | | |
| MADE GROUND: Brick rubble comprising fine to coarse gravel and small cobble size fragments. | 37.904 | | (0.70) | | | | | |
| Firm friable thinly laminated green brown very silty CLAY with abundant shells and shell fragments. Recovered as blocky fragments. Becoming more difficult to dig with depth. (OXFORD CLAY) | 37.20 | | 0.70 | 1.50 | B | 1 | | |
| | | | (3.50 pen) | | | | | |
| | | | | 4.00 | B | 2 | | |
| TRIAL PIT ENDS AT 4.20 m. | 33.70 | | 4.20 | | | | | |

Remarks
Stability : Stable
Organic odour.

Sketch



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Figure



Equipment & Methods
 Machine dug using 360 Excavator
 Pit dimensions 1.20m by 4.00m.
 Support used : None.
 Backfill : Arisings

Location No. 269077
 Location ROOKERY SOUTH
 Carried out for A J Bull Ltd

Ground Level 39.276 mOD
 Coordinates 501053.097 mE
 240938.675 mN
 Date 09/11/99

| Description FACE A | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|---|---------------|--------|---------------|---------------|--------|-----|---------------|
| | | | | Depth | Sample | | |
| | | | | | Type | No. | |
| MADE GROUND: Brick rubble comprising fine to coarse gravel and small cobble size fragments. | 39.276 | | (0.70) | | | | |
| | 38.58 | | 0.70 | 1.50 | B | 1 | |
| Firm thinly laminated dark green brown very silty CLAY with abundant shells and shell fragments. Recovered as blocky fragments. Becoming more difficult to dig with depth. (OXFORD CLAY) | | | (3.60 pen) | | | | |
| | | | | | | | |
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| | | | | | | | |
| TRIAL PIT ENDS AT 4.30 m. | 34.98 | | 4.30 | | | | |

Remarks
 Stability : Stable

Sketch

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 Figure



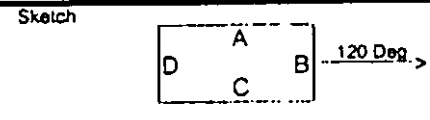
Equipment & Methods
Machine dug using 360 Excavator
Pit dimensions 1.20m by 4.00m.
Backfill : Arisings
Support used : none

Location No. 269077
Location ROOKERY SOUTH
Carried out for A J Bull Ltd

Ground Level 43.571 mOD
Coordinates 501002.802 mE
240968.190 mN
Date 11/11/99

| Description FACE A | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|--|-----------------|--------|----------------|---------------|-------------|------------|---------------|
| | | | | Depth | Sample Type | Sample No. | |
| TOPSOIL | 43.571 43.47 | | (1.50) 0.10 | | | | |
| Soft orangish brown slightly sandy CLAY with a little rounded to subrounded fine to coarse gravel and frequent rootlets. (Weathered OXFORD CLAY) | | | (1.10) | | | | |
| | 42.37 | | 1.20 | 1.50 | B | 1 | |
| Firm to stiff light grey mottled light brown slightly sandy locally sandy CLAY with occasional subrounded to subangular fine to medium gravel. Frequent rootlets. (Weathered OXFORD CLAY) | | | (1.80) | | | | |
| | 40.57 | | 3.00 | | | | |
| Firm friable thinly laminated dark green brown very silty CLAY with abundant shells and shell fragments. (OXFORD CLAY) | | | (1.50 pen) | | | | |
| TRIAL PIT ENDS AT 4.50 m. | 39.07 | | 4.50 | 4.50 | B | 2 | |

Remarks
Stability : Stable



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Scale
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Figure



Equipment & Methods
Machine dug using 380 Excavator
Pit dimensions 1.20m by 4.00m.
Support used : None
Backfill : Arisings

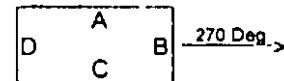
Location No. 269077
Location ROOKERY SOUTH
Carried out for A J Bull Ltd

Ground Level 31.800 mOD
Coordinates 501155.184 mE
240738.874 mN
Date 10/11/99

| Description FACE A | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|--|---------------|--------|--------------------|---------------|-------------|------------|---------------|
| | | | | Depth | Sample Type | Sample No. | |
| <p>MADE GROUND: Soft to firm grey brown slightly sandy sandy clay with some fine to coarse gravel and cobble size brick fragments. Occasional pockets of black organic matter.</p> <p>(REWORKED CLAY)</p> | 31.600 | | (3.10) | 2.00 | B | 1 | |
| | 28.50 | | 3.10 (0.40 pen) | 3.40 | B | 2 | |
| <p>Firm thinly to thickly laminated dark grey slightly sandy very silty CLAY thinly interbedded with firm dark grey slightly sandy to sandy CLAY. Silt and fine sand along some partings. Abundant shells and shell fragments.</p> <p>(OXFORD CLAY)</p> <p>TRIAL PIT ENDS AT 3.50 m.</p> | 28.10 | | 3.50 | | | | |

Remarks
Stability : Stable.

Sketch



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Figure



Equipment & Methods
Machine dug using 360 Excavator
Pit dimensions 1.20m by 4.00m.
Support used : None.
Backfill : Arisings

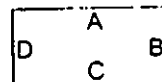
Location No. 269077
Location ROOKERY SOUTH
Carried out for A J Bull Ltd

Ground Level 29.911 mOD
Coordinates 501159.390 mE
240964.297 mN
Date 09/11/99

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|---|---------------|--------|---------------|---------------|--------|-----|---------------|
| | | | | Depth | Sample | | |
| | | | | | Type | No. | |
| FACE A | 29.911 | | | | | | |
| MADE GROUND: Soft to firm grey brown slightly sandy clay with some fine to coarse gravel and cobble size brick fragments intermixed with firm grey very silty clay. Abundant shells and shell fragments. (REWORKED CLAY) | | | (2.00) | 1.00 | B | 1 | |
| | 27.91 | | 2.00 | | | | |
| Firm thinly laminated grey slightly sandy very silty CLAY with abundant shells and shell fragments. (OXFORD CLAY) | | | (1.00 pen) | | | | |
| | 26.91 | | 3.00 | 3.00 | B | 2 | |
| TRIAL PIT ENDS AT 3.00 m. | | | | | | | |

Remarks
Stability : Stable

Sketch



305 Deg. →

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PAC

Scale

1:25

Figure



Equipment & Methods
Machine dug using 360 Excavator
Pit dimensions 1.20m by 4.00m.
Support used : None.
Backfill : Arisings

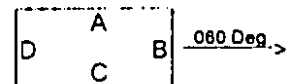
Location No. 269077
Location ROOKERY SOUTH
Carried out for A J Bull Ltd

Ground Level 28.254 mOD
Coordinates 501284.837 mE
241273.055 mN
Date 08/11/99

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|---|---------------|--------|------------------------|---------------|-------------|----------|---------------|
| | | | | Depth | Sample Type | Test No. | |
| FACE A | | | | | | | |
| MADE GROUND: Soft grey brown slightly sandy clay with some fine to coarse gravel and cobble size brick fragments. (REWORKED CLAY) | 28.254 | | (1.00) | | | | |
| Firm to stiff thinly laminated grey slightly sandy very silty CLAY with abundant shells and shell fragments. Silt or fine sand along some partings and occasional wood fragments. Becoming more difficult to dig with depth. (OXFORD CLAY) | 27.25 | | 1.00 (0.90 pen) | 1.30 | B | 1 | |
| TRIAL PIT ENDS AT 1.90 m. | 26.35 | | 1.90 | | | | |

Remarks
Stability : Stable.

Sketch



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Scale
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Figure



Equipment & Methods
 Machine dug using 360 Excavator
 Pit dimensions 1.20m by 4.00m.
 Support used : None.
 Backfill : Arisings

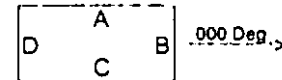
Location No. 269077
 Location ROOKERY SOUTH
 Carried out for A J Bull Ltd

Ground Level 36.498 mOD
 Coordinates 501280.359 mE
 241443.388 mN
 Date 09/11/99

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|--|---------------|--------|---------------|---------------|-------------|-----|---------------|
| | | | | Depth | Sample Type | No. | |
| FACE A | 36.498 | | | | | | |
| MADE GROUND: Soft grey mottled orange brown slightly sandy clay with a little fine to coarse gravel and cobble size brick fragments. (REWORKED CLAY) Soft orange brown sandy clay pocket Pocket of black peat with wood fragments | | | (4.20) | 1.40 | B | 1 | |
| | 32.30 | | 4.20 | | | | |
| POSSIBLY MADE GROUND: Firm light grey clay with frequent fine to coarse gravel and cobble size pockets of friable grey very silty clay. (Possibly REWORKED CLAY) | | | (0.70 pen) | 4.60 | B | 2 | |
| TRIAL PIT ENDS AT 4.90 m. | 31.60 | | 4.90 | | | | |

Remarks
 Stability : Stable.

Sketch



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 PAC
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 Figure



Equipment & Methods
Machine dug using 380 Excavator
Pit dimensions 1.20m by 4.00m.
Support used : None.
Backfill : Arisings

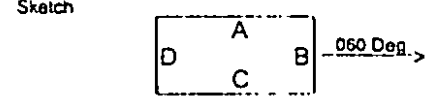
Location No. 269077
Location ROOKERY SOUTH
Carried out for A J Bull Ltd

Ground Level 34.745 mOD
Coordinates 501480.555 mE
241384.570 mN
Date 11/11/99

| Description FACE A | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|--|---------------|--------|---------------|---------------|--------|-----|---------------|
| | | | | Depth | Sample | | |
| | | | | | Type | No. | |
| <p>MADE GROUND: Firm brownish grey becoming blue grey clay with occasional fine to coarse gravel and cobble size brick fragments. Frequent pockets of greenish brown friable very silty clay.</p> <p>(REWORKED CLAY)</p> | 34.745 | | (2.70) | 1.50 | B | 1 | |
| | 32.05 | | | | | | |
| <p>PROBABLY MADE GROUND: Firm greenish brown very silty clay with abundant shell fragments.</p> <p>(Probably REWORKED CLAY)</p> | | | (2.30 pen) | 5.00 | B | 2 | |
| | 29.75 | | | | | | |

TRIAL PIT ENDS AT 5.00 m.

Remarks
Stability : Stable.



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| Figure |



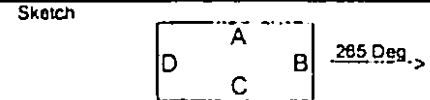
Equipment & Methods
Machine dug using 380 Excavator
Pit dimensions 1.20m by 4.00m.
Support used : None.
Backfill : Arisings

Location No. 269077
Location ROOKERY SOUTH
Carried out for A J Bull Ltd

Ground Level 27.811 mOD
Coordinates 501301.183 mE
241111.894 mN
Date 10/11/99

| Description FACE A | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|--|---------------|--------|------------------------|---------------|-------------|----------|---------------|
| | | | | Depth | Sample Type | Test No. | |
| MADE GROUND: Brick rubble comprising fine to coarse gravel and cobble size fragments. | 27.811 | | (0.40) | | | | |
| MADE GROUND: Soft grey slightly sandy clay with some fine to coarse gravel size brick and clay pipe fragments. (REWORKED CLAY) | 27.21 | | 0.40 (1.30) | | | | |
| Firm to stiff dark grey very silty CLAY interbedded/interlaminated with firm dark grey sandy CLAY. Silt and fine sand along some partings. Becoming more sandy with depth. Below 2.m with some hard calcified sand laminae. Becoming more difficult to dig with depth. (OXFORD CLAY) | 25.91 | | 1.70 (0.80 pen) | | | | |
| TRIAL PIT ENDS AT 2.50 m. | 25.11 | | 2.50 | 2.50 | B | 1 | |

Remarks
Stability : Stable.



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| Scale | 1:25 |
| Figure | |



Equipment & Methods
 Machine dug using 380 Excavator
 Pit dimensions 1.20m by 4.00m.
 Support used : None.
 Backfill : Arisings

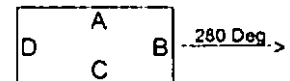
Location No. 269077
 Location ROOKERY SOUTH
 Carried out for A J Bull Ltd

Ground Level 29.002 mOD
 Coordinates 501526.452 mE
 240830.456 mN
 Date 09/11/99

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|---|---------------|--------|---------------|---------------|-------------|------------|---------------|
| | | | | Depth | Sample Type | Sample No. | |
| FACE A | 29.002 | | | | | | |
| MADE GROUND: Soft to firm grey brown slightly sandy clay with some fine to coarse gravel and cobble size brick fragments intermixed with firm grey very silty clay with abundant shells and shell fragments. (REWORKED CLAY) | | | (1.90) | 1.00 | B | 1 | |
| | 27.10 | | 1.90 | | | | |
| Firm thinly laminated grey slightly sandy very silty CLAY with abundant shells and shell fragments. (OXFORD CLAY) | | | (1.10 pen) | | | | |
| | 26.00 | | 3.00 | 3.00 | B | 2 | |
| TRIAL PIT ENDS AT 3.00 m. | | | | | | | |

Remarks
 Stability : Stable.

Sketch



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Scale

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Figure



Equipment & Methods
Machine dug using 360 Excavator
Pit dimensions 1.20m by 4.00m.
Support used : None.
Backfill : Arisings

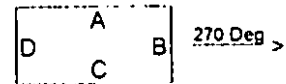
Location No. 269077
Location ROOKERY SOUTH
Carried out for A J Bull Ltd

Ground Level 31.711 mOD
Coordinates 501276.974 mE
240643.868 mN
Date 10/11/89

| Description FACE A | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|--|---------------|--------|---------------|---------------|-----------------|------|---------------|
| | | | | Depth | Sample Type No. | Test | |
| <p>MADE GROUND: Soft to firm grey brown slightly sandy clay with a little angular to subangular fine to coarse gravel and cobble size brick fragments. Frequent pockets of soft orange brown clay and firm friable greenish brown clay.</p> <p>(REWORKED CLAY)</p> | 31.711 | | <p>(3.00)</p> | 1.50 | B | 1 | |
| | 28.71 | | | | | | |
| <p>Firm friable thinly laminated dark greenish brown very silty CLAY with abundant shells and shell fragments.</p> <p>(OXFORD CLAY)</p> <p>TRIAL PIT ENDS AT 3.30 m.</p> | 28.41 | | 3.30 | 3.30 | B | 2 | |

Remarks
Stability : Stable.

Sketch



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| Scale |
| 1:25 |
| Figure |



Equipment & Methods
Machine dug using 380 Excavator
Pit dimensions 1.20m by 4.00m.
Support used : None.
Backfill : Arisings

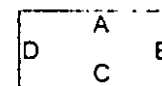
Location No. 269077
Location ROOKERY SOUTH
Carried out for A J Bull Ltd

Ground Level 34.468 mOD
Coordinates 501485.811 mE
240668.387 mN
Date 10/11/99

| Description FACE A | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|--|---------------|--------|-------------------|---------------|--------|-----|---------------|
| | | | | Depth | Sample | | |
| | | | | | Type | No. | |
| <p>MADE GROUND: Firm grey brown clay with a little angular to subangular fine to coarse gravel and cobble size brick fragments intermixed with firm dark greenish brown clay and firm blue grey very silty clay. Occasional pockets of very soft orange brown clay.</p> <p>(REWORKED CLAY)</p> | 34.468 | | <p>(4.70 pen)</p> | 1.50 | B | 1 | |
| | 29.77 | | | 4.50 | B | 2 | |
| TRIAL PIT ENDS AT 4.70 m. | 29.77 | | 4.70 | | | | |

Remarks
Stability : Stable.

Sketch



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| Logged by | PAC |
| Scale | 1:25 |
| Figure | |



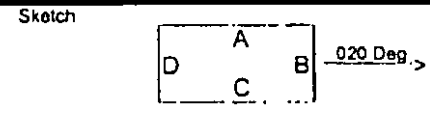
Equipment & Methods
Machine dug using 380 Excavator
Pit dimensions 1.20m by 4.00m.
Support used : None.
Backfill : Arisings

Location No. 269077
Location ROOKERY SOUTH
Carried out for A J Bull Ltd

Ground Level 28.513 mOD
Coordinates 501280.016 mE
240901.898 mN
Date 10/11/99

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|--|---------------|--------|--------------------|---------------|-------------|----------|---------------|
| | | | | Depth | Sample Type | Test No. | |
| FACE A | 28.513 | | | | | | |
| MADE GROUND: Firm grey brown clay with a little angular to subangular fine to coarse gravel and cobble size brick fragments and firm friable greenish brown clay fragments intermixed with firm blue grey very silty clay. Occasional pockets of very soft orange brown clay. (REWORKED CLAY) | | | (2.80) | 2.00 | B 1 | | |
| Firm friable thinly laminated dark greenish brown very silty CLAY with abundant shells and shell fragments. (OXFORD CLAY) | 25.71 | | 2.80 (0.50 pen) | | | | |
| TRIAL PIT ENDS AT 3.30 m. | 25.21 | | 3.30 | 3.30 | B 2 | | |

Remarks
Stability : Stable.



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Scale
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Figure



Equipment & Methods
Machine dug using 360 Excavator
Pit dimensions 1.20m by 4.00m.
Support used : None.
Backfill : Arisings

Location No. 269077
Location ROOKERY SOUTH
Carried out for A J Bull Ltd

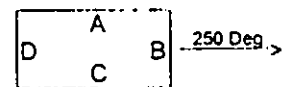
Ground Level 28.791 mOD
Coordinates 501445.105 mE
241114.435 mN
Date 10/11/99

| Description FACE A | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|--|---------------|--------|---------------|---------------|--------|-----|---------------|
| | | | | Depth | Sample | | |
| | | | | | Type | No. | |
| MADE GROUND: Soft dark grey brown slightly sandy silty with occasional fine to coarse gravel and cobble size brick fragments intermixed with firm blue grey very silty clay. Occasional pockets of firm friable greenish brown very silty clay. (REWORKED CLAY) | 28.791 | | (3.50 pen) | 2.00 | B | 1 | |
| | 25.29 | | | | | | |

TRIAL PIT ENDS AT 3.50 m.

Remarks
Stability : Stable.

Sketch



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Scale

1:25

Figure



Location No. 269077
Location ROOKERY SOUTH
Carried out for A J Bull Ltd

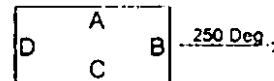
Ground Level Coordinates Date
As sheet 1

Water Level Observations During Boring

| Date | Time | Depth of Hole (m) | Depth of Casing (m) | Depth to Water (m) | Remarks |
|----------|------|-------------------|---------------------|--------------------|-----------------|
| 10/11/88 | - | 3.50 | - | 3.50 | Slight Ingress. |

Remarks

Sketch



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Scale

1:25

Figure



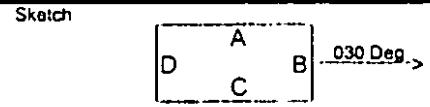
Equipment & Methods
 Machine dug using 360 Excavator
 Pit dimensions 1.20m by 4.00m.
 Support used : None.
 Backfill : Arisings

Location No. 269077
 Location ROOKERY SOUTH
 Carried out for A J Bull Ltd

Ground Level 38.232 mOD
 Coordinates 501794.067 mE
 241250.345 mN
 Date 08/11/99

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|--|---------------|--------|----------------|---------------|-------------|------------|---------------|
| | | | | Depth | Sample Type | Sample No. | |
| FACE A | 38.232 | | | | | | |
| MADE GROUND: Soft to firm light brown mottled grey slightly sandy clay with a little fine to coarse gravel and cobble size brick fragments intermixed with dark grey brown firm to stiff friable clay. Occasional rootlets and selenite crystals. (REWORKED CLAY) | | | (5.00 pen) | 1.00 | B | 1 | |
| | | | | 3.00 | B | 2 | |
| | | | | 4.50 | B | 3 | |
| TRIAL PIT ENDS AT 5.00 m. | 31.23 | | 5.00 | | | | |

Remarks
 Stability : Stable.



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 PAC
 Scale
 1:25
 Figure



Equipment & Methods
Machine dug using 360 Excavator
Pit dimensions 1.20m by 4.00m.
Support used : None.
Backfill : Arisings

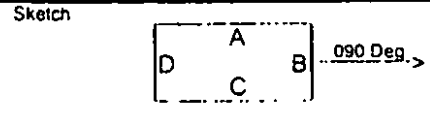
Location No. 269077
Location ROOKERY SOUTH
Carried out for A J Bull Ltd

Ground Level 39.707 mOD
Coordinates 501909.703 mE 241231.127 mN
Date 08/11/99

| Description FACE A | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|--|---------------|--------|---------------|---------------|-------------|----------|---------------|
| | | | | Depth | Sample Type | Test No. | |
| <p>MADE GROUND: Soft to firm light brown mottled, grey slightly sandy clay with a little fine to coarse gravel and cobble size brick fragments intermixed with firm to stiff friable dark grey brown clay. Occasional rootlets and selenite crystals.</p> <p>(REWORKED CLAY)</p> | 39.707 | | | 1.00 | B | 1 | |
| | | | | 3.00 | B | 2 | |
| | 5.00 | | | B | 3 | | |

TRIAL PIT ENDS AT 5.00 m.

Remarks
Stability : Stable.



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| Logged by |
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| Scale |
| 1:25 |
| Figure |



Location No. 269077
Location ROOKERY SOUTH
Carried out for A J Bull Ltd

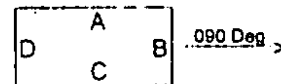
Ground Level Coordinates Date
As sheet 1

Water Level Observations During Boring

| Date | Time | Depth of Hole (m) | Depth of Casing (m) | Depth to Water (m) | Remarks |
|----------|------|-------------------|---------------------|--------------------|---------|
| 08/11/99 | - | 5.00 | - | - | Dry. |

Remarks

Sketch



Logged by

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Scale

1:25

Figure



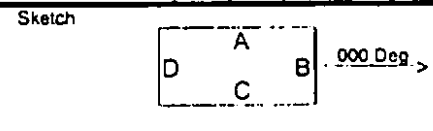
Equipment & Methods
Machine dug using 380 Excavator
Pit dimensions 1.20m by 4.00m.
Support used : None.
Backfill : Arisings

Location No. 269077
Location ROOKERY SOUTH
Carried out for A J Bull Ltd

Ground Level 38.057 mOD
Coordinates 501839.237 mE
241145.088 mN
Date 08/11/99

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|--|---------------|--------|---------------|---------------|-------------|------------|---------------|
| | | | | Depth | Sample Type | Sample No. | |
| FACE A | 38.057 | | | | | | |
| MADE GROUND: Soft to firm light brown mottled grey slightly sandy clay with a little fine to coarse gravel and cobble size brick fragments intermixed with firm to stiff friable dark grey brown clay. Occasional rootlets and selenite crystals. (REWORKED CLAY) | | | | 1.00 | B | 1 | |
| | | | (5.50) | | | | |

Remarks
Stability : Stable.



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Figure



Equipment & Methods

As sheet 1

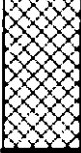
Location No. 269077
Location ROOKERY SOUTH
Carried out for A J Bull Ltd

Ground Level

Coordinates

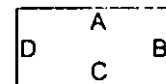
Date

As sheet 1

| Description FACE A | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|--|---------------|---|--------------------|---------------|--------|-----|---------------|
| | | | | Depth | Sample | | |
| | | | | | Type | No. | |
| MADE GROUND (as Sheet 1) (REWORKED CLAY) TRIAL PIT ENDS AT 5.50 m. | 30.58 |  | (5.50 pen) 5.50 | 5.50 | B | 2 | |

Remarks

Sketch



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1:25

Figure



Equipment & Methods
Machine dug using 380 Excavator
Pit dimensions 1.20m by 4.00m.
Support used : None.
Backfill : Arisings

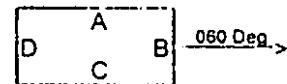
Location No. 269077
Location ROOKERY SOUTH
Carried out for A J Bull Ltd

Ground Level 33.351 mOD
Coordinates 502004.981 mE
241158.202 mN
Date 08/11/99

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records | |
|---|---------------|--------|---------------|---------------|-------------|----------|---------------|---|
| | | | | Depth | Sample Type | Test No. | | |
| FACE A | 33.351 | | | | | | | |
| <p>MADE GROUND: Soft to firm light brown mottled grey slightly sandy clay with a little fine to coarse gravel and cobble size brick fragments intermixed with firm to stiff friable dark grey brown clay. Occasional rootlets and selenite crystals.</p> <p>(REWORKED CLAY)</p> | | | | 1.00 | B | 1 | | |
| | | | | | 3.00 | B | 2 | |
| | | | | | | 5.00 | B | 3 |
| TRIAL PIT ENDS AT 5.00 m. | 28.35 | | 5.00 | | | | | |

Remarks
Stability : Face C Collapsed.

Sketch



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| Logged by |
| PAC |
| Scale |
| 1:25 |
| Figure |



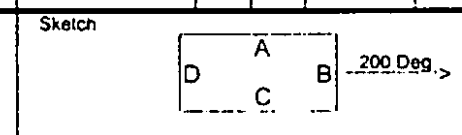
Equipment & Methods
Machine dug using 380 Excavator
Pit dimensions 1.20m by 4.00m.
Support used ; None.
Backfill : Arisings

Location No. 269077
Location ROOKERY SOUTH
Carried out for A J Bull Ltd

Ground Level 27.854 mOD
Coordinates 501930.887 mE
240988.128 mN
Date 10/11/99

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|---|---------------|--------|---------------|---------------|-------------|----------|---------------|
| | | | | Depth | Sample Type | Test No. | |
| FACE A | 27.854 | | | | | | |
| MADE GROUND: Soft to firm grey brown slightly sandy clay with some fine to coarse gravel and cobble size brick fragments intermixed with firm blue grey very silty clay. Occasional pockets of soft orange brown clay. (REWORKED CLAY) | | | (3.00 pen) | 1.50 | B | 1 | |
| Boulder of limestone | | | | | | | |
| TRIAL PIT ENDS AT 3.00 m. | 24.85 | | 3.00 | | | | |

Remarks
Stability : Sides spalling.



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| Logged by |
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| Scale |
| 1:25 |
| Figure |



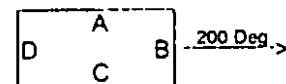
Location No. 269077
Location ROOKERY SOUTH
Carried out for A J Bull Ltd

Ground Level Coordinates Date
As sheet 1

| Water Level Observations During Boring | | | | | |
|--|------|-------------------|---------------------|--------------------|-------------------|
| Date | Time | Depth of Hole (m) | Depth of Casing (m) | Depth to Water (m) | Remarks |
| 10/11/99 | - | 3.00 | - | 2.10 | Moderate ingress. |

Remarks

Sketch



Logged by

PAC

Scale

1:25

Figure



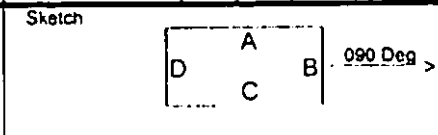
Equipment & Methods
Machine dug using 380 Excavator
Pit dimensions 1.20m by 4.00m.
Support used : None.
Backfill : Arisings

Location No. 269077
Location ROOKERY SOUTH
Carried out for A J Bull Ltd

Ground Level 32.900 mOD
Coordinates 501883.531 mE
240833.491 mN
Date 10/11/99

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|--|---------------|--------|---------------|---------------|-------------|------------|---------------|
| | | | | Depth | Sample Type | Sample No. | |
| FACE A | 32.900 | | | | | | |
| MADE GROUND: Firm dark grey brown slightly sandy clay with some subangular to angular fine to coarse gravel and cobble size brick fragments and abundant shells and shell fragments intermixed with firm to stiff blue grey very silty clay. | | | (3.90) | 2.00 | B | 1 | |
| (REWORKED CLAY) | | | | | | | |
| Firm to stiff thinly laminated dark greenish brown very silty CLAY with abundant shells and shell fragments. Recovered as blocky fragments | 29.00 | | 3.90 | | | | |
| (OXFORD CLAY) | | | (0.40 pen) | | | | |
| TRIAL PIT ENDS AT 4.30 m. | 28.60 | | 4.30 | 4.30 | B | 2 | |

Remarks
Stability : Stable.



Logged by
PAC
Scale
1:25
Figure



Equipment & Methods
Machine dug using 360 Excavator
Pit dimensions 1.20m by 4.00m.
Support used : None.
Backfill : Arisings

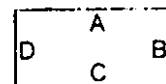
Location No. 269077
Location ROOKERY SOUTH
Carried out for A J Bull Ltd

Ground Level 33.325 mOD
Coordinates 501767.372 mE
240685.831 mN
Date 10/11/99

| Description FACE | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|---|---------------|--------|---------------|---------------|-------------|----------|---------------|
| | | | | Depth | Sample Type | Test No. | |
| <p>MADE GROUND: Firm grey brown very silty clay with occasional angular to subangular fine to coarse gravel and cobble size brick fragments intermixed with firm friable greenish brown clay and firm blue grey very silty clay.</p> <p>(REWORKED CLAY)</p> | 33.325 | | | 1.50 | B | 1 | |
| | 29.03 | | | 4.30 | B | 2 | |
| TRIAL PIT ENDS AT 4.30 m. | | | | | | | |

Remarks
Stability : Stable.

Sketch



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Logged by
PAC
Scale
1:25
Figure



Equipment & Methods
Machine dug using 360 Excavator
Pit dimensions 1.20m by 4.00m.
Support used : None.
Backfill : Arisings

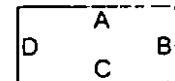
Location No. 269077
Location ROOKERY SOUTH
Carried out for A J Bull Ltd

Ground Level 29.981 mOD
Coordinates 501872.799 mE
240470.229 mN
Date 10/11/99

| Description FACE A | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records | |
|---|---------------|--------|---------------|---------------|--------|-----|---------------|------|
| | | | | Depth | Sample | | | Test |
| | | | | | Type | No. | | |
| MADE GROUND: Firm grey brown clay with occasional angular to subangular fine to coarse gravel and cobble size brick fragments and abundant shells and shell fragments intermixed with firm blue grey very silty clay. (REWORKED CLAY) | 29.981 | | (2.20) | 1.00 | B | 1 | | |
| Firm thinly laminated dark grey very silty CLAY with abundant shells and shell fragments interbedded/interlaminated with firm grey and dark grey slightly sandy CLAY with frequent shells and shell fragments. Silt and fine sand along some partings. (OXFORD CLAY) | 27.76 | | (0.80 pen) | | | | | |
| TRIAL PIT ENDS AT 3.00 m. | 26.98 | | 3.00 | 3.00 | B | 2 | | |

Remarks
Stability : Stable.

Sketch



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| Logged by |
| PAC |
| Scale |
| 1:25 |
| Figure |



Equipment & Methods
Machine dug using 380 Excavator
Pit dimensions 1.20m by 4.00m.
Support used : None.
Backfill : Arisings

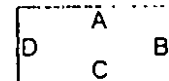
Location No. 269077
Location ROOKERY SOUTH
Carried out for A J Bull Ltd

Ground Level 52.931 mOD
Coordinates 501934.397 mE
241313.182 mN
Date 09/11/99

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|---|---------------|--------|---------------|---------------|-------------|-----|---------------|
| | | | | Depth | Sample Type | No. | |
| FACE A | | | | | | | |
| Soft brown slightly sandy CLAY with occasional fine to coarse subangular to rounded gravel. Frequent rootlets and occasional wood fragments. (Weathered OXFORD CLAY) | 52.931 | | (0.70) | | | | |
| Pocket of soft orange brown slightly sandy clay with a little subangular to subrounded fine to coarse gravel | 52.23 | | 0.70 | | | | |
| Firm to stiff fissured light grey mottled light brown very silty CLAY with occasional shells, shell fragments and selenite crystals. Rootlets along some fissures. Becoming difficult to dig below 3.50m. (LOWER OXFORD CLAY, WEATHERED) | | | (3.60 pen) | 2.00 | B | 1 | |
| TRIAL PIT ENDS AT 4.30 m. | 48.63 | | 4.30 | 4.30 | B | 2 | |

Remarks
Stability : Stable.

Sketch



Logged by
PAC
Scale
1:25
Figure



Equipment & Methods
Machine dug using 360 Excavator
Pit dimensions 1.20m by 4.00m.
Support used : None.
Backfill : Arisings

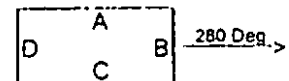
Location No. 269077
Location ROOKERY SOUTH
Carried out for A J Bull Ltd

Ground Level 50.814 mOD
Coordinates 502108.174 mE
241271.988 mN
Date 11/11/99

| Description FACE A | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|--|---------------|--------|---------------|---------------|-------------|----------|---------------|
| | | | | Depth | Sample Type | Test No. | |
| TOPSOIL. | 50.814 | | (0.25) | | | | |
| Firm light brown slightly sandy to sandy CLAY. (Weathered OXFORD CLAY) | 50.56 | | 0.25 | | | | |
| | | | (0.75) | | | | |
| | 49.81 | | 1.00 | | | | |
| | | | | 1.30 | B | 1 | |
| Firm fissured blue grey becoming grey brown, very silty CLAY with a little subangular to subrounded fine to coarse gravel. Roots and rootlets following fissures. Occasional pockets of soft orange brown sandy clay. (Weathered OXFORD CLAY) | | | (3.50 pen) | | | | |
| TRIAL PIT ENDS AT 4.50 m. | 48.31 | | 4.50 | 4.50 | B | 2 | |

Remarks
Stability : Stable.

Sketch



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| Logged by |
| PAC |
| Scale |
| 1:25 |
| Figure |



Equipment & Methods
Machine dug using 360 Excavator
Pit dimensions 1.20m by 4.00m.
Support used : None.
Backfill : Arisings

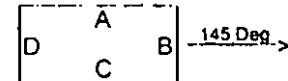
Location No. 269077
Location ROOKERY SOUTH
Carried out for A J Bull Ltd

Ground Level 48.953 mOD
Coordinates 501223.448 mE
240487.382 mN
Date 11/11/99

| Description FACE A | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|--|-----------------|--------|------------------------|---------------|--------|-----|---------------|
| | | | | Depth | Sample | | |
| | | | | | Type | No. | |
| TOPSOIL. | 48.953 48.80 | | (0.15) 0.15 | | | | |
| Firm light brown mottled grey becoming grey below 1.1m CLAY with occasional fine to coarse subrounded to subangular gravel. (Weathered OXFORD CLAY) | | | (1.95) | 1.50 | B | 1 | |
| Soft to firm thinly to thickly laminated light brown and grey CLAY. Silt and fine sand along partings. (Weathered OXFORD CLAY) | 44.85 | | 2.10 (1.70) | 3.00 | B | 2 | |
| Firm thinly laminated grey very silty CLAY with abundant shells and shell fragments. Recovered as blocky fragments. (OXFORD CLAY) | 43.15 | | 3.80 (0.50 pen) | 4.00 | B | 3 | |
| TRIAL PIT ENDS AT 4.30 m. | 42.85 | | 4.30 | | | | |

Remarks
Stability : Stable.

Sketch



Logged by
PAC
Scale
1:25
Figure



Equipment & Methods
Machine dug using 360 Excavator
Pit dimensions 1.20m by 4.00m.
Support used : None.
Backfill : Arisings

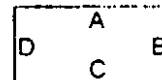
Location No. 269077
Location ROOKERY SOUTH
Carried out for A J Bull Ltd

Ground Level 47.772 mOD
Coordinates 501425.879 mE
240408.265 mN
Date 11/11/99

| Description FACE A | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|---|-----------------|--------|------------------------|---------------|-------------|----------|---------------|
| | | | | Depth | Sample Type | Test No. | |
| TOPSOIL. | 47.772 47.62 | | (0.15) 0.15 | | | | |
| Firm light brown mottled grey slightly sandy CLAY with some subangular to subrounded fine to coarse gravel. (Weathered OXFORD CLAY) | | | (1.65) | 1.20 | B 1 | | |
| Soft to firm thinly to thickly laminated light grey and brown mottled very silty CLAY. White silt and fine sand along partings. Frequent rootlets. (OXFORD CLAY) | 45.87 | | 1.80 (0.90) | 2.50 | B 2 | | |
| Firm to stiff locally fissured thickly laminated dark grey very silty CLAY. Selenite crystals along some partings and fissures. (OXFORD CLAY) | 45.07 | | 2.70 (1.20) | 3.50 | B 3 | | |
| Firm thinly laminated dark brown very silty CLAY with frequent shells and shell fragments. (OXFORD CLAY) | 43.87 | | 3.90 (0.50 pan) | 4.20 | B 4 | | |
| TRIAL PIT ENDS AT 4.40 m. | 43.37 | | 4.40 | | | | |

Remarks
Stability : Stable.

Sketch



Logged by
PAC
Scale
1:25
Figure



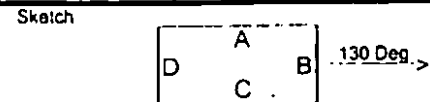
Equipment & Methods
Machine dug using 360 Excavator
Pit dimensions 1.20m by 4.00m.
Support used : None.
Backfill : Arisings

Location No. 269077
Location ROOKERY SOUTH
Carried out for A J Bull Ltd

Ground Level 48.708 mOD
Coordinates 501589.492 mE
240409.282 mN
Date 11/11/89

| Description FACE A | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|---|---------------|--------|---------------|---------------|-------------|----------|---------------|
| | | | | Depth | Sample Type | Test No. | |
| TOPSOIL. | 48.708 | | (3.10) | | | | |
| Firm light brown slightly sandy CLAY with some subrounded to subangular fine to coarse gravel. (Weathered OXFORD CLAY) | 48.51 | | 0.20 | | | | |
| | | | (0.80) | | | | |
| | 47.71 | | 1.00 | | | | |
| | | | (2.70) | 2.50 | B | 1 | |
| Soft to firm thinly to thickly laminated light grey and brown mottled very silty CLAY. White silt and fine sand along partings. Frequent rootlets. (OXFORD CLAY) | | | | | | | |
| | 45.01 | | 3.70 | | | | |
| Firm thinly laminated dark brown very silty CLAY with frequent shells and shell fragments. (OXFORD CLAY) | | | (0.40 pen) | 3.90 | B | 2 | |
| TRIAL PIT ENDS AT 4.10 m. | 44.61 | | 4.10 | | | | |

Remarks
Stability : Stable.



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| Logged by |
| PAC |
| Scale |
| 1:25 |
| Figure |



Equipment & Methods
Machine dug using 380 Excavator
Pit dimensions 1.20m by 4.00m.
Support used : None.
Backfill : Arisings

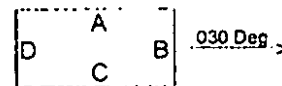
Location No. 269077
Location ROOKERY SOUTH
Carried out for A J Bull Ltd

Ground Level 47.583 mOD
Coordinates 500995.926 mE
240458.448 mN
Date 12/11/99

| Description FACE A | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records | |
|---|---------------|--------|---------------|---------------|--------|-----|---------------|------|
| | | | | Depth | Sample | | | Test |
| | | | | | Type | No. | | |
| MADE GROUND: Soft brown slightly sandy clay with a little subangular to rounded fine to coarse gravel. Frequent rootlets. (REWORKED TOPSOIL) | 47.583 | | (0.60) | | | | | |
| Soft orangish brown slightly sandy CLAY with a little subangular to rounded fine to coarse gravel. Frequent rootlets and occasional pockets of sand. (Weathered OXFORD CLAY) | 46.98 | | (0.70) | 0.60 | B | 1 | | |
| Soft to firm and firm blue grey slightly sandy CLAY with frequent pockets and small lenses of silt and fine sand. (Weathered OXFORD CLAY) | 46.28 | | (1.60) | 2.00 | B | 2 | | |
| Lens of orange brown sand and gravel | | | | | | | | |
| Firm thinly to thickly laminated dark greenish brown and very silty CLAY with selenite crystals along some partings. (OXFORD CLAY) | 44.68 | | (1.00) | 3.50 | B | 3 | | |
| Firm friable thinly laminated greenish brown very silty CLAY with abundant shells and shell fragments. (OXFORD CLAY) | 43.68 | | (0.40 pen) | | | | | |
| TRIAL PIT ENDS AT 4.30 m. | 43.28 | | | 4.30 | B | 4 | | |

Remarks
Stability : Stable.

Sketch



Logged by

PAC

Scale

1:25

Figure



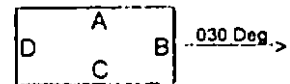
Location No. 269077
Location ROOKERY SOUTH
Carried out for A J Bull Ltd

Ground Level Coordinates Date
As sheet 1

| Water Level Observations During Boring | | | | | |
|--|------|-------------------|---------------------|--------------------|----------------|
| Date | Time | Depth of Hole (m) | Depth of Casing (m) | Depth to Water (m) | Remarks |
| 12/1/78 | | 4.30 | - | 1.90 | Slight ingress |

Remarks

Sketch



Logged by

PAC

Scale

1:25

Figure



Equipment & Methods
 Machine dug using 360 Excavator
 Pit dimensions 1.20m by 4.00m.
 Support used : None.
 Backfill : Arisings

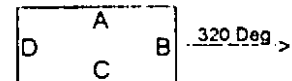
Location No. 269077
 Location ROOKERY SOUTH
 Carried out for A J Bull Ltd

Ground Level 47.649 mOD
 Coordinates 501067.585 mE
 240330.244 mN
 Date 11/11/99

| Description FACE A | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|--|---------------|--------|--------------------|---------------|-------------|------------|---------------|
| | | | | Depth | Sample Type | Sample No. | |
| MADE GROUND: Soft brown slightly sandy clay with some subangular to rounded fine to coarse gravel. Frequent rootlets. (REWORKED TOPSOIL) | 47.649 | | (0.70) | 0.40 | B | 1 | |
| Firm light brown and grey mottled slightly sandy CLAY with occasional subangular to subrounded fine to coarse gravel. (Weathered OXFORD CLAY) | 46.95 | | 0.70 (1.10) | 1.50 | B | 2 | |
| Firm thinly to thickly laminated blue grey very silty CLAY with frequent pockets and partings of white silt and fine sand. Frequent roots and rootlets. (OXFORD CLAY) | 45.85 | | 1.80 (1.00) | 2.50 | B | 3 | |
| Firm thinly laminated dark greenish brown very silty CLAY with abundant shells and shell fragments. (OXFORD CLAY) | 44.85 | | 2.80 (1.20 pen) | 3.50 | B | 4 | |
| TRIAL PIT ENDS AT 4.00 m. | 43.65 | | 4.00 | | | | |

Remarks
 Stability : Stable.

Sketch



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 Scale
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 Figure



Equipment & Methods
 Machine dug using 360 Excavator
 Pit dimensions 1.20m by 4.00m.
 Support used : None.
 Backfill : Arisings

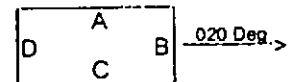
Location No. 269077
 Location ROOKERY SOUTH
 Carried out for A J Bull Ltd

Ground Level 48.400 mOD
 Coordinates 501204.384 mE
 240382.636 mN
 Date 12/11/89

| Description FACE A | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|--|---------------|--------|---------------|---------------|--------|-----|---------------|
| | | | | Depth | Sample | | |
| | | | | | Type | No. | |
| MADE GROUND: Soft brown becoming orange brown slightly, locally very, sandy clay with some subangular to subrounded fine to coarse gravel and frequent pockets of hay. (REWORKED TOPSOIL) | 48.400 | | (0.80) | 0.50 | B | 1 | |
| Firm light brown and grey mottled slightly sandy CLAY with occasional subangular to subrounded fine to coarse gravel. Frequent rootlets. (Weathered OXFORD CLAY) | 45.60 | | (0.90) | 1.50 | B | 2 | |
| Firm thin to thickly laminated grey very silty CLAY with frequent shells and shell fragments. (OXFORD CLAY) | 44.70 | | (1.70) | 2.50 | B | 3 | |
| Firm thinly laminated dark greenish brown very silty CLAY with frequent shells and shell fragments. (OXFORD CLAY) | 43.00 | | (0.70 pen) | 3.90 | B | 4 | |
| TRIAL PIT ENDS AT 4.10 m. | 42.30 | | 4.10 | | | | |

Remarks
 Stability : Stable.

Sketch



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 Figure



Equipment & Methods
 Machine dug using JCB 3CX
 Pit dimensions 1.20m by 4.00m.
 Support used : None.
 Backfill : Arisings

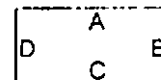
Location No. 269077
 Location ROOKERY SOUTH
 Carried out for A J Bull Ltd

Ground Level 53.107 mOD
 Coordinates 501591.121 mE
 241511.844 mN
 Date 29/11/99

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records | |
|--|---------------|--------|---------------|---------------|-------------|------------|---------------|------|
| | | | | Depth | Sample Type | Sample No. | | Test |
| FACE A | 53.107 | | | | | | | |
| MADE GROUND: Soft to firm brown slightly sandy clay with some angular to rounded fine to coarse gravel including brick fragments. Occasional rootlets. Below 1.50m becoming orangish brown and sandy with some organic material. (TOPSOIL STOCKPILE) | | | | 1.00 | B | 1 | | |
| | | | (2.90) | | | | | |
| | | | | 2.50 | B | 2 | | |
| MADE GROUND: Soft dark grey slightly sandy clay with some fine to coarse rounded to angular gravel including occasional metal fragments. Frequent rootlets, organic matter and pockets of rotted vegetation. Organic odour. (REWORKED CLAY) | 50.21 | | 2.90 | | | | | |
| | | | (1.40 pen) | | 3.50 | B | 3 | |
| TRIAL PIT ENDS AT 4.30 m. | 48.81 | | 4.30 | | | | | |

Remarks
 Stability : Stable.

Sketch



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Figure



Equipment & Methods
Machine dug using JCB 3CX
Pit dimensions 1.20m by 4.00m.
Support used : None.
Backfill : Arisings

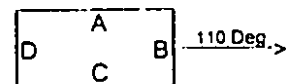
Location No. 269077
Location ROOKERY SOUTH
Carried out for A J Bull Ltd

Ground Level 47.113 mOD
Coordinates 501726.880 mE
241478.207 mN
Date 29/11/99

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|--|---------------|--------|---------------|---------------|-------------|----------|---------------|
| | | | | Depth | Sample Type | Test No. | |
| FACE A | 47.113 | | | | | | |
| MADE GROUND: Soft brown slightly sandy clay with some angular to rounded fine to coarse gravel including clay field drain fragments. Frequent roots and rootlets. (TOPSOIL STOCKPILE) | | | (2.00) | 1.00 | B | 1 | |
| | 45.11 | | 2.00 | | | | |
| MADE GROUND: Soft dark grey slightly sandy clay with some angular to rounded fine to coarse gravel. Frequent rootlets, pieces of hay/straw and organic matter. Organic odour. (REWORKED CLAY) | | | (1.70) | 2.70 | B | 2 | |
| | 43.41 | | 3.70 | | | | |
| Firm to stiff indistinctly fissured grey and brown mottled slightly sandy CLAY with some subangular to subrounded fine to medium gravel. Frequent rootlets. (Weathered OXFORD CLAY) | | | (1.10 pen) | 4.50 | B | 3 | |
| Field drain | | | | | | | |
| Sand of selenite along some fissures | | | | | | | |
| TRIAL PIT ENDS AT 4.80 m. | 42.31 | | 4.80 | | | | |

Remarks
Stability : Stable.

Sketch



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Figure



Equipment & Methods
Machine dug using 360 Excavator
Pit dimensions 1.00m by 4.00m.
Support used : none.
Backfill : Arisings

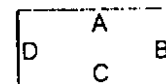
Location No. 269077
Location ROOKERY SOUTH
Carried out for A J Bull Ltd

Ground Level 48.567 mOD
Coordinates 501864.807 mE
241408.453 mN
Date 24/11/99

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|--|---------------|--------|---------------|---------------|--------|-----|---------------|
| | | | | Depth | Sample | | |
| | | | | | Type | No. | |
| FACE | 48.567 | | (1.00) | 0.50 | B | 1 | |
| MADE GROUND: Firm to stiff light brown clay with some angular to subrounded fine to coarse gravel. Frequent rootlets. | | | | | | | |
| Field drain and thin lens of orange brown clay | 47.57 | | 1.00 | | | | |
| | | | | 1.90 | B | 2 | |
| Firm to stiff and stiff indistinctly fissured thinly bedded grey mottled orange brown very silty CLAY. Frequent becoming occasional rootlets following fissures. | | | (3.50 pen) | | | | |
| Below 3.00m sand of selenite along some fissures and partings. | | | | | | | |
| (OXFORD CLAY) | | | | | | | |
| TRIAL PIT ENDS AT 4.50 m. | 44.07 | | 4.50 | 4.50 | B | 3 | |

Remarks

Sketch



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Figure



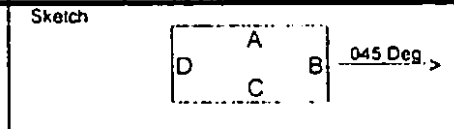
Equipment & Methods
Machine dug using JCB 3CX
Pit dimensions 1.20m by 4.00m.
Support used : None.
Backfill : Arisings

Location No. 269077
Location ROOKERY SOUTH
Carried out for A J Bull Ltd

Ground Level 37.227 mOD
Coordinates 501818.827 mE
241887.048 mN
Date 29/11/09

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|--|---------------|--------|---------------|---------------|-------------|------------|---------------|
| | | | | Depth | Sample Type | Sample No. | |
| FACE A | 37.227 | | | | | | |
| MADE GROUND: Soft to firm light brown and grey mottled slightly sandy clay with frequent pockets of stiff blue grey very silty clay and occasional brick fragments. (REWORKED CLAY) | | | | 2.00 | B | 1 | |
| | | | (4.50 pen) | | | | |
| TRIAL PIT ENDS AT 4:50 m. | 32.73 | | 4.50 | | | | |

Remarks
Stability : Stable.



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| Scale | 1:25 |
| Figure | |



Equipment & Methods
Machine dug using JCB 3CX
Pit dimensions 1.20m by 4.00m.
Support used : None.
Backfill : Arisings

Location No. 269077
Location ROOKERY SOUTH
Carried out for A J Bull Ltd

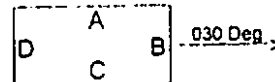
Ground Level 46.626 mOD
Coordinates 501907.202 mE
241508.985 mN
Date 29/11/89

| Description FACE A | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|---|---------------|--------|---------------|---------------|--------|-----|---------------|
| | | | | Depth | Sample | | |
| | | | | | Type | No. | |
| MADE GROUND: Firm light grey and brown mottled slightly sandy clay with some fine to coarse gravel and cobble size fragments of brick and rootlets. Occasional pockets of orange brown sand. (REWORKED CLAY) | 46.626 | | (0.60) | | | | |
| | 48.03 | | 0.60 | | | | |
| MADE GROUND: Firm light brown and grey mottled slightly sandy clay with occasional pockets of stiff blue grey very silty clay. (REWORKED CLAY) | | | (4.10 pen) | 3.00 | B | 1 | |
| | 41.93 | | 4.70 | | | | |

TRIAL PIT ENDS AT 4.70 m.

Remarks
Stability : Stable.

Sketch



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Scale
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Figure



Equipment & Methods
Machine dug using JCB 3CX
Pit dimensions 1.20m by 4.00m.
Support used : None.
Backfill : Arisings

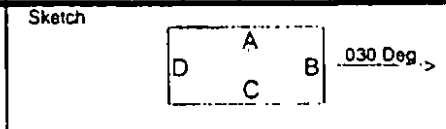
Location No. 269077
Location ROOKERY SOUTH
Carried out for A J Bull Ltd

Ground Level 48.339 mOD
Coordinates 502038.758 mE
241483.818 mN
Date 29/11/99

| Description FACE A | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|---|---------------|--------|---------------|---------------|--------|-----|---------------|
| | | | | Depth | Sample | | |
| | | | | | Type | No. | |
| <p>MADE GROUND: Soft to firm dark grey mottled light brown clay with occasional fine to coarse gravel size fragments brick. Frequent pockets of dark brown clay and occasionally soft orange brown sandy clay. Below 3.00m with some bricks. (REWORKED CLAY)</p> | 48.339 | | | 2.00 | B | 1 | |
| | 44.34 | | | 4.00 | | | |

TRIAL PIT ENDS AT 4.00 m.

Remarks
Stability : Sides spalling.



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| Figure |



Equipment & Methods
Machine dug using JCB 3CX
Pit dimensions 1.20m by 4.00m.
Support used : None.
Backfill : Arisings

Location No. 269077
Location ROOKERY SOUTH
Carried out for A J Bull Ltd

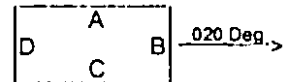
Ground Level 48.757 mOD
Coordinates 502208.842 mE
241399.947 mN
Date 29/11/99

| Description FACE A | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|--|---------------|--------|---------------|---------------|-------------|------------|---------------|
| | | | | Depth | Sample Type | Sample No. | |
| <p>MADE GROUND: Soft to firm grey clay with some fine to coarse gravel and cobble size fragments of brick intermixed with firm friable greenish brown very silty clay. Occasional pockets of blue grey clay and soft orange brown sandy clay.</p> <p>(REWORKED CLAY)</p> | 48.757 | | | 2.50 | B | 1 | |
| | 44.46 | | | 4.30 | | | |

TRIAL PIT ENDS AT 4.30 m.

Remarks
Stability : Stable.

Sketch



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Figure



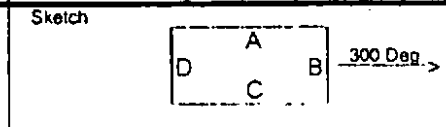
Equipment & Methods
Machine dug using JCB 3CX
Pit dimensions 1.20m by 4.00m.
Support used : None.
Backfill : Arisings

Location No. 269077
Location ROOKERY SOUTH
Carried out for A J Bull Ltd

Ground Level 47.525 mOD
Coordinates 502299.438 mE
241582.742 mN
Date 29/11/99

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|---|---------------|--------|---------------|---------------|-------------|------------|---------------|
| | | | | Depth | Sample Type | Sample No. | |
| FACE A | 47.525 | | | | | | |
| <p>MADE GROUND: Soft to firm grey clay with some fine to coarse gravel and cobble size fragments of brick intermixed with stiff friable greenish brown very silty clay and stiff blue grey clay. Occasional pockets of soft orange brown sandy clay.</p> <p>(REWORKED CLAY)</p> | | | | 3.00 | B | 1 | |
| TRIAL PIT ENDS AT 4.50 m. | 43.03 | | 4.50 | | | | |

Remarks
Stability : Stable.



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Scale
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Figure



Equipment & Methods
Machine dug using JCB 3CX
Pit dimensions 1.20m by 4.00m.
Support used : None.
Backfill : Arisings

Location No. 269077
Location ROOKERY SOUTH
Carried out for A J Bull Ltd

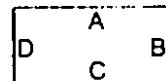
Ground Level 47.750 mOD
Coordinates 502338.873 mE
241665.900 mN
Date 29/11/89

| Description FACE A | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|--|---------------|--------|---------------|---------------|-------------|------------|---------------|
| | | | | Depth | Sample Type | Sample No. | |
| <p>MADE GROUND: Soft to firm light brown and grey slightly sandy clay with some fine to coarse gravel and cobble size fragments of brick intermixed with firm to stiff greenish brown very silty clay. Becoming dark greyish brown.</p> <p>(REWORKED CLAY)</p> | 47.750 | | (5.00 pen) | 3.00 | B | 1 | |
| | 42.75 | | | | | | |

TRIAL PIT ENDS AT 5.00 m.

Remarks
Stability : Stable.

Sketch



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Figure



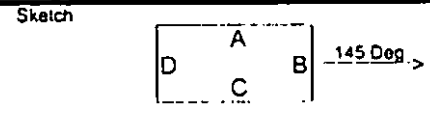
Equipment & Methods
Machine dug using JCB 3CX
Pit dimensions 1.00m by 4.00m.
Support used : None.
Backfill : Arisings

Location No. 269077
Location ROOKERY SOUTH
Carried out for A J Bull Ltd

Ground Level 41.570 mOD
Coordinates 502185.626 mE
241824.485 mN
Date 29/11/99

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|--|---------------|--------|---------------|---------------|-----------------|------|---------------|
| | | | | Depth | Sample Type No. | Test | |
| FACE A | 41.570 | | | | | | |
| <p>MADE GROUND: Soft to firm grey and brown slightly sandy clay with some fine to coarse gravel and cobble size fragments of brick. Occasional nylon conveyor belt fragments. Below 2.70m with some pockets of black rotted vegetation.</p> <p>(REWORKED CLAY)</p> | | | | | | | |
| | | | (4.30 pen) | 3.00 | B 1 | | |
| TRIAL PIT ENDS AT 4.30 m. | 37.27 | | 4.30 | | | | |

Remarks
Stability : Stable.



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Scale
1:25
Figure



Equipment & Methods
Machine dug using JCB 3CX
Pit dimensions 1.20m by 4.00m.
Support used : None.
Backfill : Arisings

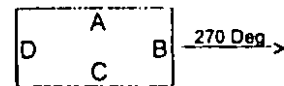
Location No. 269077
Location ROOKERY SOUTH
Carried out for A J Bull Ltd

Ground Level 44.543 mOD
Coordinates 502157.619 mE
241523.219 mN
Date 28/11/98

| Description | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|---|---------------|--------|--------------------|---------------|-------------|------------|---------------|
| | | | | Depth | Sample Type | Sample No. | |
| FACE A | 44.543 | | | | | | |
| MADE GROUND: Soft dark grey clay with some fine to coarse gravel and cobble size fragments of brick. Frequent small pockets of soft orange brown sandy clay and light grey very silty clay. Becoming lighter in colour. (REWORKED CLAY) | | | (3.70) | 2.50 | B | 1 | |
| MADE GROUND: Firm to stiff blue grey very silty clay with some fine to coarse gravel and cobble size fragments of brick. Frequent pockets of soft orange brown sandy clay. (REWORKED CLAY) | 40.84 | | 3.70 (0.80 pen) | 4.00 | B | 2 | |
| TRIAL PIT ENDS AT 4.50 m. | 40.04 | | 4.50 | | | | |

Remarks
Stability : Stable.

Sketch



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| Figure | |



Equipment & Methods
Machine dug using JCB 3CX
Pit dimensions 1.20m by 4.00m.
Support used : None.
Backfill : Ansings

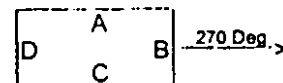
Location No. 269077
Location ROOKERY SOUTH
Carried out for A J Bull Ltd

Ground Level 50.487 mOD
Coordinates 502132.055 mE
241288.523 mN
Date 29/11/99

| Description FACE A | Reduced Level | Legend | Depth (Thick) | Samples/Tests | | | Field Records |
|---|---------------|--------|---------------|---------------|-------------|----------|---------------|
| | | | | Depth | Sample Type | Test No. | |
| MADE GROUND: Brick rubble comprising fine to coarse gravel and cobble size fragments. | 50.487 | | (0.20) | | | | |
| Firm brown slightly sandy CLAY with frequent rootlets. (Possibly TOPSOIL) | 50.29 | | 0.20 | | | | |
| | 50.09 | | (0.20) | | | | |
| Firm orange brown slightly sandy CLAY with some subangular to rounded fine to coarse gravel. Occasional rootlets. (Weathered OXFORD CLAY) | | | 0.40 | | | | |
| | | | (0.70) | 0.90 | B | 1 | |
| | 49.39 | | 1.10 | | | | |
| Firm light grey mottled light brown slightly sandy CLAY with some subangular to subrounded fine to coarse gravel. (Weathered OXFORD CLAY) | | | (1.60) | 1.70 | B | 2 | |
| | | | | | | | |
| Firm to stiff fissured blue grey very silty CLAY with occasional subangular to subrounded fine to coarse gravel. Occasional rootlets and white silt/fine sand along some fissures. (OXFORD CLAY) | 47.79 | | 2.70 | | | | |
| | | | (0.40) | 2.90 | B | 3 | |
| | 47.39 | | 3.10 | | | | |
| Stiff to very stiff friable light brown very silty CLAY. Recovered as fine to coarse gravel and cobble size blocky fragments. (OXFORD CLAY) | | | (0.60 pen) | 3.50 | B | 4 | |
| | 46.79 | | 3.70 | | | | |
| TRIAL PIT ENDS AT 3.70 m. | | | | | | | |

Remarks
Stability : Stable.

Sketch



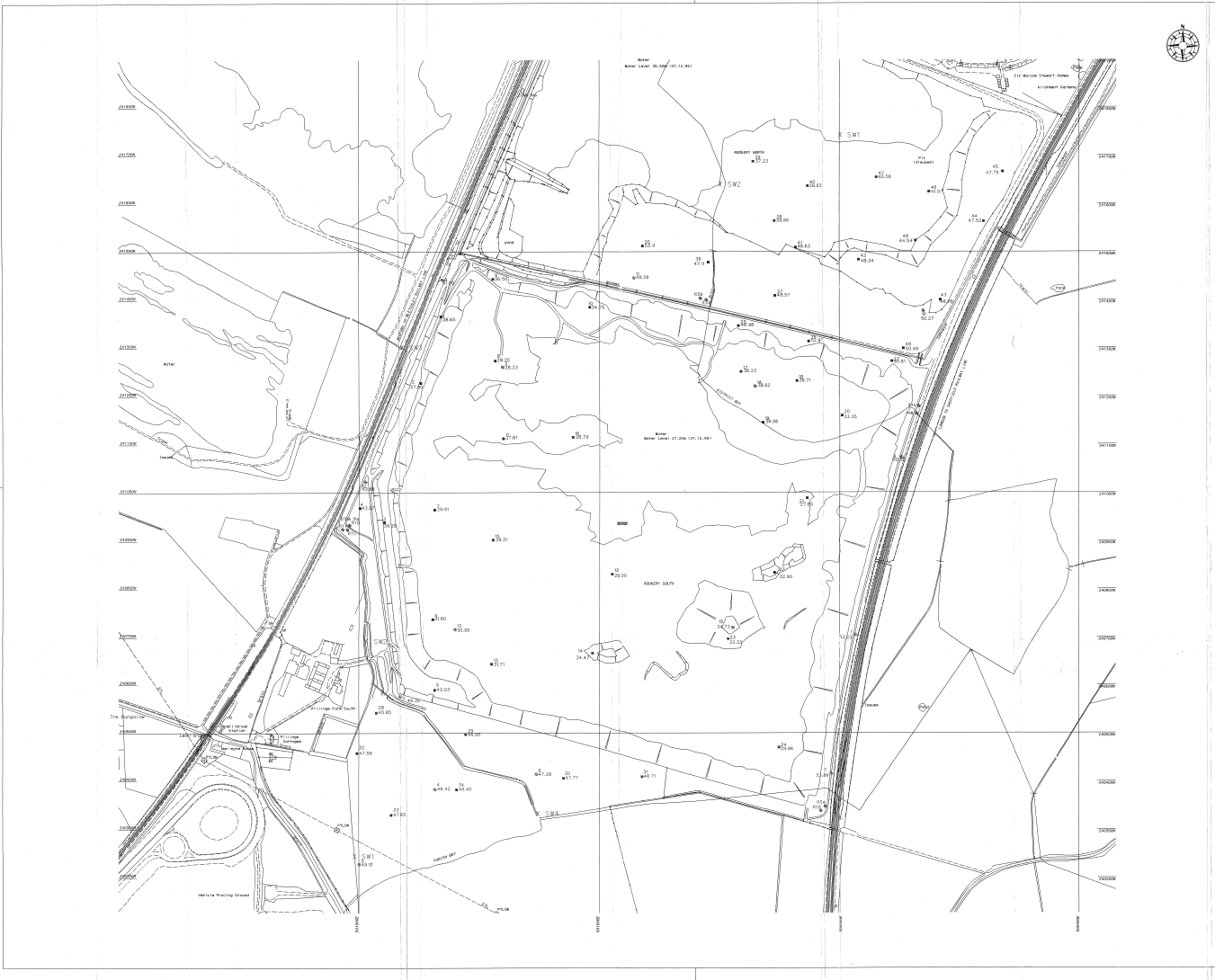
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Scale
1:25
Figure



- GENERAL NOTES**
- BH1 to BH15 & TP1 to TP49 by CLC
 - Boreholes with 'R' Prefix by SME
 - Holes R2A, R2B, R2C not identified on ground by CLC. Hole R1C originally drilled as R2A

- LEGEND TO SYMBOLS**
- BH1-15 TRIAL PITS (indicating location number and ground level)
 - R1-R2 BOREHOLES (indicating location number and ground level)
 - x SW1 ROCKERY SOUTH SURFACE WATER SAMPLE LOCATIONS
 - x SW2 ROCKERY NORTH SURFACE WATER SAMPLE LOCATIONS

| No. | Date | Drawn by | Appr. by | Revised | Description |
|------------------------|------------|-----------|----------|-------------|-------------|
| AMENDMENTS | | | | | |
| INVESTIGATION PLAN | | | | | |
| Project: ROCKERY SOUTH | | | | | |
| Client: A & J BULL LTD | | | | | |
| CL Associates | | | | | |
| Date: | FEB 2000 | Drawn by: | NJR | Appr. by: | RCG |
| Sheet Size: | A0 | Scale: | 1:2500 | Project No: | 269077 |
| Drawing No: | 269077/2/1 | | | Rev: | 0 |



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Appendix 6. PBA Assessment Criteria

1 Introduction

The aim of this document is to present an explanation for the selection of the assessment criteria routinely used by PBA when undertaking a Tier 2 contamination risk assessment. Any deviation from the routine criteria and/or selection of criteria for parameters not covered in this document will be described in the report text.

A Tier 2 assessment is a quantitative assessment using published criteria to screen the site-specific contamination testing data and identify potential hazards to specific receptors. Generic criteria are typically cautious in derivation and exceedance does not indicate that a site is statutorily contaminated and/or necessarily unsuitable for use in the planning context. These criteria are used to identify situations where further assessment and/or action may be required.

This document is divided into general introductory text and sections on soils, waters and gases.

2 General Notes

This document should be read in conjunction with another entitled "PBA Methodology for Assessment of Land Contamination" which summarises the legislative regime and our approach to ground contamination and risk assessment.

Any PBA interpretation of contamination test results is based on a scientific and engineering appraisal. The perceptions of, for example, banks, insurers, lay people etc are not taken into account.

Any tables included in this document are produced for ease of reference to the criteria, they do not in any way replace the documents of origin (which are fully referenced) and which should be read to ensure appropriate use and interpretation of the data.

Generic criteria provide an aid to decision-making, but they do not replace the need for sound professional judgement in risk assessment (EA, 2006b). The criteria are based on numerous and complex assumptions. The appropriateness of these assumptions in a site-specific context requires confirmation on a project by project basis. Our interpretative report will comment on the appropriateness of the routine criteria for project objectives or ground conditions. It is important to note that if the use of the published criteria is challenged, it may be necessary to carry out modelling to generate site-specific assessment criteria.

3 Criteria for Assessing Soil Results

3.1 Potential Harm to Human Health

The criteria routinely used by PBA as Tier 2 soil screening values for the protection of human health are:-

- Suitable 4 Use Levels (S4ULs) published in 2015 which adopt a minimal or tolerable risk as described in SR2 (EA 2009c).
- Category 4 Screening Levels (C4SLs) published in 2014 which adopt a "low level of toxicological concern" (LLTC) as the toxicological benchmark.

The criteria have been generated using the Contaminated Land Exposure Assessment model (CLEA) and supporting technical guidance (EA, 2009a, 2009b, 2009c). The CLEA model uses generic assumptions about the fate and transport of chemicals in the environment and a generic conceptual model for site conditions and human behaviour to estimate child and adult exposures to soil contaminants for those potentially living, working, and/or playing on contaminated sites over long time periods (EA, 2009b).

The handbook (EA 2009e) referring to version 1.05 is still valid for the 1.071 software. An update to the software (1.071) was published on 04/09/2015. The update includes the library data sets from the DEFRA research project SP1010 (Development of Category 4 Screening Levels for assessment of land affected by contamination). It also fixes a problem in version 1.07 with the adding of new chemicals.).

The CLEA model uses ten exposure pathways (Ingestion (outdoor soil, indoor dust, homegrown vegetables and soil attached to homegrown vegetables), Dermal Contact (outdoor soil and indoor dust) and Inhalation (outdoor dust, indoor dust, outdoor vapours and indoor vapours)). There are exposure pathways not included in the CLEA model such as the permeation of organics into plastic water supply pipes.

The presence and/or significance of each of the potential exposure pathways is dependent on the land use being considered. The model uses standard land use scenarios as follows:-

Residential – habitation of a dwelling up to two storeys high with various default material and design parameters, access to either private or nearby community open space with soil track back to form indoor dust. Assumes ingestion of homegrown produce.

Allotments – the model has default parameters for use and consumption of vegetables but not animals or their products (eggs).

Industrial/commercial – assumes office or light physical work in a permanent three storey structure with breaks taken outside and that the site is NOT covered in hardstanding.

The assessment criteria generated using CLEA can be used as a starting point for evaluating long-term risks to human health from chemicals in soil. It is important to note that the model does not assess all the potential exposure risks for example risk to workers in excavations (short term exposure), inhalation of vapours generated from contaminants in groundwater, diffusion of contaminants through drinking water pipes.

Recent guidance (DEFRA 2012) introduces a four stage classification system where Category 1 sites are obviously contaminated and Category 4 sites uncontaminated as defined by EPA 1990. Outside of these categories further specific risk assessment is required to determine if the site should fall into Category 2 contaminated or Category 3 uncontaminated. Category 4 screening values are considered to be more pragmatic than the current published SGV/GAC criteria but still strongly precautionary with the aim of allowing rapid identification of sites where the risk is above minimal but still low/acceptable (within the context of Part 2A).

At the end of 2013 technical guidance in support of DEFRA's revised Statutory Guidance (SG) was published (CL:AIRE 2013) which provided:

- A methodology for deriving C4SLs for the standard land-uses and two new public open space scenarios using the updated assumptions relating to the modelling of human exposure to soil contaminants; and
- A demonstration of the methodology, via the derivation of C4SLs for six substances – arsenic, benzene, benzo(a)pyrene, cadmium, chromium (VI) and lead.

Following issue of an Erratum in December 2014 a Policy Companion Document was published (DEFRA 2014B).

Soil Guideline Values (SGVs)

The first series of SGVs were generated using a probabilistic version of the CLEA model. However, on 22 July 2008 DEFRA announced the withdrawal of these SGVs and revised SGVs were calculated for all substances except lead using a deterministic version of the CLEA model (v1.05). Table 1 presents the SGVs which have not been withdrawn but it should be noted that they were developed using assumptions for body weight and inhalation rates that have been revised since publication.

Category 4 Screening Levels (C4SLs)

A letter from Lord de Mauley dated 3rd September 2014 provides more explicit direction to local authorities on the use of the C4SL in a planning context. The letter identifies four key points:

- 1) that the screening values were developed expressly with the planning regime in mind
- 2) their use is recommended in DCLG's planning guidance
- 3) soil concentrations below a C4SL limit are considered to be 'definitely not contaminated' under Part IIA of the 1990 Environmental Protection Act and pose at most a 'low level of toxicological concern' and
- 4) exceedance of a C4SL screening value does not mean that land is definitely contaminated, just that further investigation may be warranted. Table 6 summarises the C4SL (DEFRA 2014B) for each of the six substances. PBA uses the criterion for lead and may use the other criteria, depending on site specific conditions.

Suitable 4 Use Levels (S4ULs)

In July 2009, Generic Assessment Criteria (GACs) for 82 substances were published by the Chartered Institute of Environmental Health (CIEH) (LQM and CIEH, 2009) using the then current version of the CLEA software v1.04 and replacing those generated in 2006 using the original version of the model CLEA UK *beta*. In 2015 S4ULs were published by LQM/CIEH to replace the second edition GACs. Table 5 summarises the S4ULs.

Note on Mercury, Chromium and Arsenic Assessment The analytical testing routinely undertaken by PBA determines total concentration, however, the toxicity depends on the form of the contaminant.

If a source of Mercury, Chromium or Arsenic is identified or the total concentration exceeds the relevant worst case speciated criteria it will be desirable/necessary to undertake additional speciated testing and further assessment.

Note on Polycyclic Aromatic Hydrocarbons

Polycyclic Aromatic Hydrocarbons (PAHs) are a family of hundreds of different congeners whose chemical structures contain 2 or more fused aromatic rings. Whilst it is recognised that there is an ongoing debate on the most appropriate method to assess health effects of PAH mixtures in 2010 the Health Protection Agency recommended the use of benzo[a]pyrene (BaP) as a surrogate marker approach in the assessment of carcinogenic risks posed by PAHs in soils.

In most cases, BaP is chosen as the surrogate marker (SM) due to its ubiquitous nature and the vast amount of data available and has been used by various authoritative bodies to assess the carcinogenic risk of PAHs in food. The SM approach estimates the toxicity of a mixture of PAHs in an environmental matrix by using toxicity data for a PAH mixture for which the composition is known.

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Exposure to the SM is assumed to represent exposure to all PAHs in that matrix therefore the toxicity of the SM represents the toxicity of the mixture. The SM approach relies on a number of assumptions (HPA 2010).

- The SM (BaP) must be present in all the samples.
- The profile of the different PAH relative to BaP should be similar in all samples.
- The PAH profile in the soil samples should be sufficiently similar to that used in the pivotal toxicity study on which HBGV was based i.e. the Culp study (Culp et al. (1998)).

In order to justify the use of a surrogate marker assessment criterion (C4SL for benzo(a)pyrene and S4UL coal tar) the LQM PAH Profiling Tool is used by PBA to assess the similarity of the PAH profile in a soil sample to that of the toxicity study. The spreadsheet that calculates the relative proportions of the genotoxic PAHs and plots them on the two charts relative to composition of the two coal mixtures used by Culp et al. (the plus/minus an order of magnitude limits suggested by HPA).

Note on Asbestos

Asbestos in soil and made ground is currently under review by a number of bodies. There are no current published guidance values for asbestos in soil other than the waste classification values given in the EA's Technical Guidance WM3, Hazardous Waste – Interpretation of the definition and classification of hazard waste (3d Edition, 2015). This guidance is only appropriate for soils that are being discarded as waste.

Testing for asbestos will be carried out on selected samples of made ground encountered during investigation, initially samples will be subjected to an asbestos screen and, if asbestos is found to be present, subjected to quantification depending on the project specific requirements. The reader is directed to the report text for guidance on the approach adopted in respect to any asbestos found to be present. Further guidance is also available in the 2014 CIRIA publication C733, Asbestos in soil and made ground: a guide to understanding and managing risks.

3.2 Potential Harm to the Built Environment

Land contamination can pose risks to buildings, building materials and services (BBM&S) in a number of ways. Volatile contaminants and gases can accumulate and cause explosion or fire. Foundations and buried services can be damaged by corrosive substances and contaminants such as steel slags can create unstable ground conditions through expansion causing structural damage.

PBA use the following primary guidance to assess the significance of soil chemistry with respect to its potential to harm the built environment.

- i) Approved Document C - Site Preparation and Resistance to Contaminants and Moisture. (DCLG 2010);
- ii) Concrete in aggressive ground SD1 (BRE 2005);
- iii) Guidance for the selection of water supply pipes to be used in brownfield sites (UKWIR 2011);
- iv) Protocols published by agreement between Water UK and the Home Builders Federation providing supplementary guidance which includes the Risk Assessment for Water Pipes (the 'RA') (Water UK 2014).
- v) Performance of Building Materials in Contaminated Land report BR255 (BRE 1994).
- vi) Risks of Contaminated Land to Buildings, Building Materials and Services. A Literature Review - Technical Report P331 (EA 2000).
- vii) Guidance on assessing and managing risks to buildings from land contamination - Technical Report P5 035/TR/01 (EA 2001).

3.3 Potential to Harm Ecosystems, Animals, Crops etc

The criteria routinely used by PBA as Tier 2 screening values to assess the potential of soil chemistry to harm ecosystems are taken from the following guidance and summarised in are given in Table 2.

- i) Ecological Risk Assessment (ERA) Science Report Series SC070009, published by the Environment Agency, Bristol (EA, 2008);
- ii) The Restoration and Aftercare of Metalliferous Mining Sites for Pasture and Grazing (ICRCL 70/90, 1990); and
- iii) Code of Practice for Agricultural Use of Sewage Sludge 2nd Edition (DOE, 2006).
- iv) BS 3882:2015 Specification for topsoil and requirements for use.

Unless stated in the report the assessment is solely for phytotoxic parameters and additional assessment is required to determine suitability as a growing medium.

4 Criteria for Assessing Liquid Results

4.1 Potential Harm to Human Health

The criteria routinely used by PBA as Tier 2 water screening values (Table 4) are taken from Statutory Instrument (S.I.) The Water Supply (Water Quality) Regulations (S.I. 2016/614).

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It should be noted that some of the prescribed concentrations listed in the Water Supply Regulations have been set for reasons other than their potential to cause harm to human health. The concentrations of iron and manganese are controlled because they may taint potable water with an undesirable taste, odour or colour or may potentially deposit precipitates in water supply pipes.

4.2 Potential to Harm Controlled Waters

When assessing ground condition data and the potential to harm Controlled Waters PBA uses the approach presented in Groundwater Protection Policy and Practice (GP3) (EA 2013). Controlled Waters are rivers, estuaries, coastal waters, lakes and groundwaters. Water in the unsaturated zone is not groundwater but does come within the scope of the term “ground waters” as used and defined in the Water Resources Act 1991. It will continue to be a technical decision for the Environment Agency to determine what is groundwater in certain circumstances for the purposes of the Regulations.

The EU Water Framework Directive (WFD) 2000/60/EC provides for the protection of sub-surface, surface, coastal and territorial waters through a framework of river basin management.

The EU Updated Water Framework Standards Directive 2014/101/EU amended the EU WFD to update the international standards therein; it entered into force on 20 November 2014 and its provisions must be transposed in Member State law by 20 May 2016.

Member States are required under the EU WFD to update their river basin management plans every six years. The first river basin management plans for England and Wales, Scotland and Northern Ireland were published in December 2009, and the process of producing the second RBMPs is currently ongoing.

Other EU Directives in the European water management framework include:

- the EU Priority Substances Directive 2013/39/EU;
- EU Groundwater Pollutants Threshold Values Directive 2014/80/EU amending the EU Groundwater Directive 2006/118/EC; and
- the EU Biological Monitoring Directive 2014/101/EU.

The Priority Substances Directive set environmental quality standards (EQS) for the substances in surface waters (river, lake, transitional and coastal) and confirmed their designation as priority or priority hazardous substances (PS), the latter being a subset of particular concern. Environmental Quality Standards for PS are determined at the European level and apply to all Member States. Member States identify and develop standards for ‘Specific

Pollutants’. Specific Pollutants (SP) are defined as substances that can have a harmful effect on biological quality.

The Water Framework Directive (Standards and Classification) Directions (England and Wales) 2015 were issued by Defra to the Environment Agency as an associated document of the Water Environment (WFD) (England and Wales) Regulations 2015 (S.I. 2015/1623) and provide directions for the classification of surface water and groundwater bodies. Schedule 3 parts 2 and 3 relate to surface water standards for specific pollutants in fresh or salt water bodies and priority substances in inland (rivers, lakes and related modified/artificial bodies) or other surface waters respectively. Although Schedule 5 presents threshold values for groundwater the Direction specifically excludes their use as part of site specific investigations.

The criteria routinely used by PBA as Tier 2 screening values (Table 4). This table only presents a selection of the more commonly analysed parameters and the source documents should be consulted for other chemicals. For screening groundwater the criteria selected are the standards for surface water and/or human consumption as appropriate together with the following:-

For a **hazardous substance** PBA adopts the approach that, if the concentration in a discharge is less than the Minimum Reporting Value (MRV), the input is regarded as automatically meeting the Article 2 (b) ‘de-minimus’ requirement of exemption 6 (3) (b) of the GWDD. PBA has selected hazardous substances and associated MRV from those listed in Table 13 of UKTAG WFD River Basin Management 2015-21 Updated Recommendations on Environmental Standards (as referenced in Defra 2014). MRV is the lowest concentration of a substance that can be routinely determined with a known degree of confidence, and may not be equivalent to limit of detection.

For **non-hazardous substances** the GWDD requires that inputs be limited to avoid deterioration. UKTAG guidance equates deterioration with pollution. Non-hazardous substances are all substances not classified as hazardous.

5 Criteria for Assessing Gas Results

PBA use the following primary guidance on gas monitoring methods and strategy, the assessment of risk posed by soil gases (including Volatile Organic Compounds (VOCs)) and mitigation measures/risk reduction during site development.

- i) BS 8576:2013 – Guidance on Ground Gas Investigations: Permanent gases and Volatile Organic Compounds (VOCs) (BSI 2013);

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- ii) A pragmatic approach to Ground Gas Risk Assessment. CL:AIRE Research Bulletin RB17 (Card 2012);
- iii) The VOCs Handbook. C682 (CIRIA 2009).
- iv) Assessing risks posed by hazardous gases to buildings C665 (CIRIA 2007);
- v) Guidance on evaluation of development proposals on sites where methane and carbon dioxide are present. (NHBC 2007); and
- vi) BS 8485:2015 - Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings (BSI 2015).

Gas and borehole flow data are used to obtain the gas screening value (GSV) for methane and carbon dioxide. The GSV is used to establish the characteristic situation and to make recommendations for gas protection measures for buildings if required.

Radon

PBA use the following primary guidance to assess the significance of the radon content of soil gas.

- i) Radon: guidance on protective measures for new dwellings. Report BR211 (BRE, 2015); and
- ii) Radon Atlas of England, R290 (NRPB, 1996).

6 References

BRE (2005) Concrete in aggressive ground. Special Digest 1, Building Research Establishment, Garston, Herts.

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BSI (2015) BS 8485:2015 Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings. British Standards Institute, London.

BSI (2011) BS10175:2011 +A1:2013 Investigation of contaminated sites – code of practice. British Standards Institute, London.

BSI (2013) BS 8576:2013 – Guidance on Ground Gas Investigations : Permanent gases and Volatile Organic Compounds (VOCs). British Standards Institute, London.

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DEFRA (2014) Water Framework Directive implementation in England and Wales: new and updated standards to protect the water environment

DEFRA (2014B) SP1010: Development of Category 4 Screening Levels for Assessment of Land Affected by Contamination – Policy Companion Document. Department for Environment, Food and Rural Affairs December 2014

DoE (2006) Code of Practice for Agricultural Use of Sewage Sludge. Department of the Environment, London.

EA (2006b) CLEA update No. 4. Environment Agency, Bristol.

EA (2008) Ecological Risk Assessment (ERA). Science Report Series SC070009, Environment Agency, Bristol.

EA (2009a) Using Soil Guideline Values. Science Report SC050021/SGV Introduction. Environment Agency, Bristol.

EA (2009b) Updated Technical Background to the CLEA model. Science Report SC050021/SR3 Introduction. Environment Agency, Bristol.

EA (2009c) Human health toxicological assessment of contaminants in soil. Science Report SC050021/SR2. Environment Agency, Bristol.

EA (2009d) Compilation data for priority organic contaminants for derivation of soil guideline values Science Report SC50021/SR7

EA (2009e) CLEA Software (Version 1.05) Handbook Science Report SC050021/SR4

EA (2013) Groundwater Protection Policy and Practice (GP3) August 2013 Version 1.1

EA (2015) Guidance on the classification and assessment of waste (3rd edition 2015) - Technical Guidance WM3

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- EA (2015) The Water Framework Directive (Standards and Classification) Directions (England and Wales) 2015.
- ICRCL (1990) The Restoration and Aftercare of Metalliferous Mining Sites for Pasture and Grazing 70/90. Interdepartmental Committee on the Redevelopment of Contaminated Land, London.
- LQM & CIEH (2015) The LQM/CIEH S4ULs for Human Health Risk Assessment. Land Quality Press, Nottingham.
- NRPB (1996) Radon Atlas of England. R290, National Radiological Protection Board, Didcot, Oxfordshire.
- NHBC (2007) Guidance on evaluation of development proposals on sites where methane and carbon dioxide are present. National House Building Council.
- S.I. (2016/614). Statutory Instrument 2016 No 614 The Water Supply (Water Quality) Regulations, 2016.
- S.I. (2015/1623). Statutory Instrument 2015 No 1623 The Water Environment (WFD) (England and Wales) Regulations, 2015.
- UKWIR (2011) Guidance for the selection of Water Pipes to be used in Brownfield Sites.
- Water UK 2014 Contaminated Land Assessment Guidance

Rationale for Generic Assessment Criteria Routinely Used by PBA

Table 1: Category 4 Screening Levels (C4SL) – Table taken from SP1010: Development of Category 4 Screening Levels for Assessment of Land Affected by Contamination – Policy Companion Document (Department for Environment, Food and Rural Affairs December 2014)

| | Residential (with home-grown produce) | Residential (without home-grown produce) | Allotments | Commercial | Public Open Space 1 | Public Open Space 2 |
|----------------|--|---|------------|------------|---------------------|---------------------|
| Arsenic | 37 | 40 | 49 | 640 | 79 | 170 |
| Benzene | 0.87 | 3.3 | 0.18 | 98 | 140 | 230 |
| Benzo(a)pyrene | 5.0 | 5.3 | 5.7 | 77 | 10 | 21 |
| Cadmium | 22 | 150 | 3.9 | 410 | 220 | 880 |
| Chromium VI | 21 | 21 | 170 | 49 | 21 | 250 |
| Lead | 200 | 310 | 80 | 2300 | 630 | 1300 |

Units mg/kg

Public Open Space 1 – for grassed area adjacent to residential housing

Public Open Space 2 - Park Type Public Open Space Scenario

Table 2: Tier 2 Criteria for the Assessment of Soils – Protection of Ecological Systems

| Parameter | ICRCL 70/90 ^a | | Proposed SSVs ^b | Code of Practice for Agricultural Use of Sewage Sludge ^c | BS 3882:2015 Specification for topsoil and requirements for use |
|--------------------|--------------------------|----------------------|----------------------------|---|---|
| | Maximum | | | | |
| | Livestock mg/kg | Crop Growth mg/kg | mg/kg | mg/kg | Phytotoxic contaminants mg/kgDS |
| Benzo(a)pyrene | | | 0.15 | | |
| Arsenic | 500 | 1000 | | 50 | |
| Cadmium | 30 | 50 | 1.15 | 3 | |
| Chromium | | | 21.1 | 400 | |
| Copper | 500 | 250 | 88.4 | 80/ 100/ 135/ 200 ^d | <100/<135/<200 ^e |
| Fluoride | 1000 | | | 500 | |
| Lead | 1000 | | 167.9 | 300 | |
| Mercury | | | 0.06 | 1 | |
| Molybdenum | | | | 4 | |
| Nickel | | | 25.1 | 50/ 60/ 75/ 110 ^d | <60/<75/<110 ^e |
| Pentachlorobenzene | | | 0.029 | | |
| Pentachlorophenol | | | 0.6 | | |
| Selenium | | | | 3 | |
| Tetrachloroethene | | | 0.01 | | |
| Toluene | | | 0.3 | | |
| Zinc | 3000 | 1000 | 90.1 | 200/200/200/300 ^d | <200/<200/<300 ^e |

- Interdepartmental Committee on the Redevelopment of Contaminated Land (ICRCL) 70/90 Restoration and Aftercare of Metalliferous Mining Sites for Pasture and Grazing 1st edition 1990.
- Proposed Soil Screening Values (SSVs) – Consultation, Environment Agency 2008. Threshold which if exceeded prompts further assessment.
- Maximum permissible concentration of potentially toxic elements from the Code of Practice for Agricultural Use of Sewage Sludge. Second Edition. DOE 2006.
- Where four values are presented, concentrations are for soils with pH values 5.0-5.5/ 5.5-6.0/ 6.0-7.0/ >7.0
- Where three values are presented, concentrations are for soils with pH values <6.0/ 6.0-7.0/ >7.0

Rationale for Generic Assessment Criteria Routinely Used by PBA

Table 3: Suitable 4 Use Levels (S4UL) - units are mg/kg Dry Weight

| Determinand | Allotment | R _w HP | R _{wc} HP | Commercial/ Industrial | POSresi | POSpark |
|--|-----------------------|------------------------|---|---|-----------------------------|--|
| Metals | | | | | | |
| Arsenic (Inorganic) ^{a,b,c} | 43 | 37 | 40 | 640 | 79 | 170 |
| Beryllium ^{a,b,d,e} | 35 | 1.7 | 1.7 | 12 | 2.2 | 63 |
| Boron ^{a,b,d} | 45 | 290 | 11000 | 240000 | 21000 | 46000 |
| Cadmium (pH6-8) ^{a,b,d,f} | 1.9 | 11 | 85 | 190 | 120 | 560 |
| Chromium (trivalent) ^{a,b,d,g} | 18000 | 910 | 910 | 8600 | 1500 | 33000 |
| Chromium (hexavalent) ^{a,b,c} | 1.8 ^h | 6 ⁱ | 6 ⁱ | 33 ⁱ | 7.7 ⁱ | 220 ⁱ |
| Copper ^{a,b,c} | 520 | 2400 | 7100 | 68000 | 12000 | 44000 |
| Mercury (elemental) ^{a,b,c,j} | 21 | 1.2 | 1.2 | 58 ^{vap} (25.8) | 16 | 30 ^{vap} (25.8) |
| Mercury (inorganic) ^{a,b,c} | 19 | 40 | 56 | 1100 | 120 | 240 |
| Methylmercury ^{a,b,c} | 6 | 11 | 15 | 320 | 40 | 68 |
| Nickel ^{a,b,c} | 53 ^k | 130 ^e | 180 ^e | 980 ^e | 230 ^e | 800 ^k |
| Selenium ^{a,b,c} | 88 | 250 | 430 | 12000 | 1100 | 1800 |
| Vanadium ^{a,b,c,i,j} | 91 | 410 | 1200 | 9000 | 2000 | 5000 |
| Zinc ^{a,b,c} | 620 | 3700 | 40000 | 730000 | 81000 | 170000 |
| BTEX Compounds (SOM 1%/ 2.5%/ 6%) | | | | | | |
| Benzene ^{a,b,l,m} | 0.017/0.034/ 0.075 | 0.087/0.17/ 0.37 | 0.38/0.7/1.4 | 27 / 47 / 90 | 72 / 72 / 73 | 90 / 100 / 110 |
| Toluene ^{a,b,l,m} | 22 / 51 / 120 | 130 / 290 / 660 | 800 ^{vap} (869) /1900/3900 | 56000 ^{vap} (869) / 110000 ^{vap} 1920/ 180000 ^{vap} (4360) | 56000 / 56000 | 87000 ^{vap} (869)/ 95000 ^{vap} (1920)/ 100000 ^{vap} (4360) |
| Ethylbenzene ^{a,b,l,m} | 16 / 39 / 91 | 47 / 110 / 260 | 83 / 190 / 440 | 5700 ^{vap} (518) / 13000 ^{vap} (1220) / 27000 ^{vap} (2840) | 24000 / 24000 / 25000 | 17000 ^{vap} (518) / 22000 ^{vap} (1220) / 27000 ^{vap} (2840) |
| O – Xylene ^{a,b,l,m,n} | 28 / 67 / 160 | 60 / 140 / 330 | 88 / 210 / 480 | 6600 ^{sol} (478) / 15000 ^{sol} (1120) / 33000 ^{sol} (2620) | 41000 / 42000 / 43000 | 17000 ^{sol} (478) / 24000 ^{sol} (1120) / 33000 ^{sol} (2620) |
| M – Xylene ^{a,b,l,m,n} | 31 / 74 / 170 | 59 / 140 / 320 | 82 / 190 / 450 | 6200 ^{vap} (625) / 14000 ^{vap} (1470) / 31000 ^{vap} (3460) | 41000 / 42000 / 43000 | 17000 ^{vap} (625) / 24000 ^{vap} (1470) / 32000 ^{vap} (3460) |
| P – Xylene ^{a,b,l,m,n} | 29 / 69 / 160 | 56 / 130 / 310 | 79 / 180 / 430 | 5900 ^{sol} (576) / 14000 ^{sol} (1350) / 30000 ^{sol} (3170) | 41000 / 42000 / 43000 | 17000 ^{sol} (576) / 23000 ^{sol} (1350) / 31000 ^{sol} (3170) |
| Polycyclic Aromatic Hydrocarbons (SOM 1%/ 2.5%/ 6%)^{a,b,l,p} | | | | | | |
| Acenaphthene | 34 / 85 / 200 | 210 / 510 / 1100 | 3000 ^{sol} (57.0)/ 4700 ^{sol} (141)/ 6000 ^{sol} (336) | 84000 ^{sol} (57.0)/ 97000 ^{sol} (141)/ 100000 | 15000 / 15000 / 15000 | 29000/ 30000/ 30000 |
| Acenaphthylene | 28 / 69 / 160 | 170 / 420 / 920 | 2900 ^{sol} (86.1)/ 4600 ^{sol} (212)/ 6000 ^{sol} (506) | 83000 ^{sol} (86.1)/ 97000 ^{sol} (212)/ 100000 | 15000 / 15000 / 15000 | 29000 / 30000 / 30000 |
| Anthracene | 380 / 950 / 2200 | 2400 / 5400 / 11000 | 31000 ^{sol} (1.17 /35000/ 37000) | 520000/ 540000/ 540000 | 74000 / 74000 / 74000 | 150000 / 150000 / 150000 |
| Benzo(a)anthracene | 2.9 / 6.5 / 13 | 7.2 / 11 / 13 | 11 / 14 / 15 | 170 / 170 / 180 | 29 / 29 / 29 | 49 / 56 / 62 |
| Benzo(a)pyrene (Bap) | 0.97 / 2.0 / 3.5 | 2.2 / 2.7 / 3.0 | 3.2 / 3.2 / 3.2 | 35 / 35 / 36 | 5.7 / 5.7 / 5.7 | 11 / 12 / 13 |
| Benzo(b)fluoranthene | 0.99 / 2.1 / 3.9 | 2.6 / 3.3 / 3.7 | 3.9 / 4.0 / 4.0 | 44 / 44 / 45 | 7.1 / 7.2 / 7.2 | 13 / 15 / 16 |
| Benzo(g,h,i)perylene | 290 / 470 / 640 | 320 / 340 / 350 | 360/360 / 360 | 3900/4000/ 4000 | 640/640/640 | 1400/1500/ 1600 |
| Benzo(k)fluoranthene | 37 / 75 / 130 | 77 / 93 / 100 | 110/ 110 / 110 | 1200/ 1200/1200 | 190/190/190 | 370 / 410 / 440 |
| Chrysene | 4.1 / 9.4 / 19 | 15 / 22 / 27 | 30 / 31 / 32 | 350 / 350 / 350 | 57 / 57 / 57 | 93 / 110 / 120 |
| Dibenzo(ah)anthracene | 0.14 / 0.27 / 0.43 | 0.24 / 0.28 / 0.3 | 0.31/0.32/ 0.32 | 3.5 / 3.6 / 3.6 | 0.57/0.57/0.58 | 1.1 / 1.3 / 1.4 |
| Fluoranthene | 52 / 130 / 290 | 280 / 560 / 890 | 1500/1600/ 1600 | 23000/23000/ 23000 | 3100/3100/ 3100 | 6300 / 6300 / 6400 |
| Fluorene | 27 / 67 / 160 | 170 / 400 / 860 | 2800 ^{sol} (30.9) /3800 ^{sol} (76.5) /4500 ^{sol} (183) | 63000 ^{sol} (30.9) / 68000 / 71000 | 9900 / 9900 / 9900 | 20000 / 20000 / 20000 |
| Indeno(1,2,3-cd)pyrene | 9.5 / 21 / 39 | 27 / 36 / 41 | 45 / 46 / 46 | 500 / 510 / 510 | 82 / 82 / 82 | 150 / 170 / 180 |
| Naphthalene ^q | 4.1 / 10 / 24 | 2.3 / 5.6 / 13 | 2.3 / 5.6 / 13 | 190 ^{sol} (76.4) / 460 ^{sol} (183) / 1100 ^{sol} (432) | 4900/ 4900/ 4900 | 1200 ^{sol} (76.4) / 1900 ^{sol} (183) / 3000 |
| Phenanthrene | 15 / 38 / 90 | 95 / 220 / 440 | 1300 ^{sol} (36.0)/ 1500/1500 | 22000 / 22000 / 23000 | 3100 / 3100 / 3100 | 6200 / 6200 / 6300 |
| Pyrene | 110 / 270 / 620 | 620 / 1200 / 2000 | 3700 / 3800 / 3800 | 54000 / 54000 / 54000 | 7400 / 7400 / 7400 | 15000 / 15000 / 15000 |
| Coal Tar (Bap as surrogate marker) | 0.32 / 0.67 / 1.2 | 0.79 / 0.98 / 1.1 | 1.2 / 1.2 / 1.2 | 15 / 15 / 15 | 2.2 / 2.2 / 2.2 | 4.4 / 4.7 / 4.8 |
| Explosives^{a,b,l,p} | | | | | | |
| 2, 4, 6 Trinitrotoluene | 0.24 / 0.58 / 1.40 | 1.6 / 3.7 / 8.0 | 65 / 66 / 66 | 1000/1000/1000 | 130/130 / 130 | 260 / 270 / 270 |
| RDX (Royal Demolition Explosive C ₃ H ₆ N ₆ O ₆) | 17 / 38 / 85 | 120 / 250 / 540 | 13000 / 13000 / 13000 | 210000 / 210000 / 210000 | 26000/26000/ 27000 | 49000 ^{sol} (18.7) / 51000 / 53000 |
| HMX (High Melting Explosive C ₄ H ₈ N ₈ O ₈) | 0.86 / 1.9 / 3.9 | 5.7 / 13 / 26 | 6700 / 6700 / 6700 | 110000 / 110000 / 110000 | 13000 / 13000 / 13000 | 23000 ^{vap} (0.35) /23000 ^{vap} (0.39) /24000 ^{vap} (0.48) |

Rationale for Generic Assessment Criteria Routinely Used by PBA

| Determinand | Allotment | R _w HP | R _w HP | Commercial/ Industrial | POSresi | POSpark |
|--|-------------------------------|---|---|--|---|--|
| Petroleum Hydrocarbons (SOM 1%/ 2.5%/ 6%)^{a, b, l, m} | | | | | | |
| Aliphatic EC 5-6 | 730 / 1700 / 3900 | 42 / 78 / 160 | 42 / 78 / 160 | 3200 ^{sol} (304) / 5900 ^{sol} (558) / 12000 ^{sol} (1150) | 570000 ^{sol} (304) / 590000 / 600000 | 95000 ^{sol} (304) / 130000 ^{sol} (558) / 180000 ^{sol} (1150) |
| Aliphatic EC >6-8 | 2300 / 5600 / 13000 | 100 / 230 / 530 | 100 / 230 / 530 | 7800 ^{sol} (144) / 17000 ^{sol} (322) / 40000 ^{sol} (736) | 600000 / 610000 / 620000 | 150000 ^{sol} (144) / 220000 ^{sol} (322) / 320000 ^{sol} (736) |
| Aliphatic EC >8-10 | 320 / 770 / 1700 | 27 / 65 / 150 | 27 / 65 / 150 | 2000 ^{sol} (78) / 4800 ^{vap} (190) / 11000 ^{vap} (451) | 13000 / 13000 / 13000 | 14000 ^{sol} (78) / 18000 ^{vap} (190) / 21000 ^{vap} (451) |
| Aliphatic EC >10-12 | 2200 / 4400 / 7300 | 130 ^{vap} (48) / 330 ^{vap} (118) / 760 ^{vap} (283) | 130 ^{vap} (48) / 330 ^{vap} (118) / 770 ^{vap} (283) | 9700 ^{sol} (48) / 23000 ^{vap} (118) / 47000 ^{vap} (283) | 13000 / 13000 / 13000 | 21000 ^{sol} (48) / 23000 ^{vap} (118) / 24000 ^{vap} (283) |
| Aliphatic EC >12-16 | 11000 / 13000 / 13000 | 1100 ^{sol} (24) / 2400 ^{sol} (59) / 4300 ^{sol} (142) | 1100 ^{sol} (24) / 2400 ^{sol} (59) / 4400 ^{sol} (142) | 59000 ^{sol} (24) / 82000 ^{sol} (59) / 90000 ^{sol} (142) | 13000 / 13000 / 13000 | 25000 ^{sol} (24) / 25000 ^{sol} (59) / 26000 ^{sol} (142) |
| Aliphatic EC >16-35 ° | 260000 / 270000 / 270000 | 65000 ^{sol} (8.48) / 92000 ^{sol} (21) / 110000 | 65000 ^{sol} (8.48) / 92000 ^{sol} (21) / 110000 | 1600000 / 1700000 / 1800000 | 250000 / 250000 / 250000 | 450000 / 480000 / 490000 |
| Aliphatic EC >35-44 ° | 260000 / 270000 / 270000 | 65000 ^{sol} (8.48) / 92000 ^{sol} (21) / 110000 | 65000 ^{sol} (8.48) / 92000 ^{sol} (21) / 110000 | 1600000 / 1700000 / 1800000 | 250000 / 250000 / 250000 | 450000 / 480000 / 490000 |
| Aromatic EC 5-7 (benzene) | 13 / 27 / 57 | 70 / 140 / 300 | 370 / 690 / 1400 | 26000 ^{sol} (1220) / 46000 ^{sol} (2260) / 86000 ^{sol} (4710) | 56000 / 56000 / 56000 | 76000 ^{sol} (1220) / 84000 ^{sol} (2260) / 92000 ^{sol} (4710) |
| Aromatic EC >7-8 (toluene) | 22 / 51 / 120 | 130 / 290 / 660 | 860 / 1800 / 3900 | 56000 ^{vap} (869) / 110000 ^{sol} (1920) / 180000 ^{vap} (4360) | 56000 / 56000 / 56000 | 87000 ^{vap} (869) / 95000 ^{sol} (1920) / 100000 ^{vap} (4360) |
| Aromatic EC >8-10 | 8.6 / 21 / 51 | 34 / 83 / 190 | 47 / 110 / 270 | 3500 ^{vap} (613) / 8100 ^{vap} (1500) / 17000 ^{vap} (3580) | 5000 / 5000 / 5000 | 7200 ^{vap} (613) / 8500 ^{vap} (1500) / 9300 ^{vap} (3580) |
| Aromatic EC >10-12 | 13 / 31 / 74 | 74 / 180 / 380 | 250 / 590 / 1200 | 16000 ^{sol} (364) / 28000 ^{sol} (899) / 34000 ^{sol} (2150) | 5000 / 5000 / 5000 | 9200 ^{sol} (364) / 9700 ^{sol} (899) / 10000 |
| Aromatic EC >12-16 | 23 / 57 / 130 | 140 / 330 / 660 | 1800 / 2300 ^{sol} (419) / 2500 | 36000 ^{sol} (169) / 37000 / 38000 | 5100 / 5100 / 5000 | 10000 / 10000 / 10000 |
| Aromatic EC >16-21 ° | 46 / 110 / 260 | 260 / 540 / 930 | 1900 / 1900 / 1900 | 28000 / 28000 / 28000 | 3800 / 3800 / 3800 | 7600 / 7700 / 7800 |
| Aromatic EC >21-35 ° | 370 / 820 / 1600 | 1100 / 1500 / 1700 | 1900 / 1900 / 1900 | 28000 / 28000 / 28000 | 3800 / 3800 / 3800 | 7800 / 7800 / 7900 |
| Aromatic EC >35-44 ° | 370 / 820 / 1600 | 1100 / 1500 / 1700 | 1900 / 1900 / 1900 | 28000 / 28000 / 28000 | 3800 / 3800 / 3800 | 7800 / 7800 / 7900 |
| Aliphatic+Aromatic EC >44-70 ° | 1200 / 2100 / 3000 | 1600 / 1800 / 1900 | 1900 / 1900 / 1900 | 28000 / 28000 / 28000 | 3800 / 3800 / 3800 | 7800 / 7800 / 7900 |
| Chloroalkanes & Chloroalkenes (SOM 1%/ 2.5%/ 6%)^{a, b, l, p} | | | | | | |
| 1,2-Dichloroethane | 0.0046 / 0.0083 / 0.016 | 0.0071 / 0.011 / 0.019 | 0.0092 / 0.013 / 0.023 | 0.67 / 0.97 / 1.7 | 29 / 29 / 29 | 21 / 24 / 28 |
| 1,1,1 Trichloroethane (TCA) | 48 / 110 / 240 | 8.8 / 18 / 39 | 9.0 / 18 / 40 | 660 / 1300 / 3000 | 140000 / 140000 / 140000 | 57000 ^{vap} (1425) / 76000 ^{vap} (2915) / 100000 ^{vap} (6392) |
| 1,1,1,2 Tetrachloroethane | 0.79 / 1.9 / 4.4 | 1.2 / 2.8 / 6.4 | 1.5 / 3.5 / 8.2 | 110 / 250 / 560 | 1400 / 1400 / 1400 | 1500 / 1800 / 2100 |
| 1,1,1,2,2 Tetrachloroethane | 0.41 / 0.89 / 2.0 | 1.6 / 3.4 / 7.5 | 3.9 / 8.0 / 17 | 270 / 550 / 1100 | 1400 / 1400 / 1400 | 1800 / 2100 / 2300 |
| Tetrachloroethene (PCE) | 0.65 / 1.5 / 3.6 | 0.18 / 0.39 / 0.90 | 0.18 / 0.4 / 0.92 | 19 / 42 / 95 | 1400 / 1400 / 1400 | 810 ^{sol} (424) / 1100 ^{sol} (951) / 1500 |
| Tetrachloromethane (Carbon Tetrachloride) | 0.45 / 1.0 / 2.4 | 0.026 / 0.056 / 0.13 | 0.026 / 0.056 / 0.13 | 2.9 / 6.3 / 14 | 890 / 920 / 950 | 190 / 270 / 400 |
| Trichloroethene (TCE) | 0.041 / 0.091 / 0.21 | 0.016 / 0.034 / 0.075 | 0.017 / 0.036 / 0.080 | 1.2 / 2.6 / 5.7 | 120 / 120 / 120 | 70 / 91 / 120 |
| Trichloromethane (Chloroform) | 0.42 / 0.83 / 1.7 | 0.91 / 1.7 / 3.4 | 1.2 / 2.1 / 4.2 | 99 / 170 / 350 | 2500 / 2500 / 2500 | 2600 / 2800 / 3100 |
| Chloroethene (Vinyl Chloride) | 0.00055 / 0.001 / 0.0018 | 0.00064 / 0.00087 / 0.0014 | 0.00077 / 0.001 / 0.0015 | 0.059 / 0.077 / 0.12 | 3.5 / 3.5 / 3.5 | 4.8 / 5.0 / 5.4 |
| Phenol & Chlorophenols^{a, b, l, p} | | | | | | |
| Phenol | 23 / 42 / 83 | 120 / 200 / 380 | 440 / 690 / 1200 | 440 ^{dir} (26000) / 690 ^{dir} (30000) / 1300 ^{dir} (34000) | 440 ^{dir} (10000) / 690 ^{dir} (10000) / 1300 ^{dir} (10000) | 440 ^{dir} (7600) / 690 ^{dir} (8300) / 1300 ^{dir} (93000) |
| Chlorophenols (excluding PCP) † | 0.13 ^s / 0.3 / 0.7 | 0.87 ^s / 2.0 / 4.5 | 94 / 150 / 210 | 3500 / 4000 / 4300 | 620 / 620 / 620 | 1100 / 1100 / 1100 |
| Pentachlorophenol (PCP) | 0.03 / 0.08 / 0.19 | 0.22 / 0.52 / 1.2 | 27 ^{vap} (16.4) / 29 / 31 | 400 / 400 / 400 | 60 / 60 / 60 | 110 / 120 / 120 |
| Other^{a, b, l, p} | | | | | | |
| Carbon Disulphide | 4.8 / 10 / 23 | 0.14 / 0.29 / 0.62 | 0.14 / 0.29 / 0.62 | 11 / 22 / 47 | 11000 / 11000 / 12000 | 1300 / 1900 / 2700 |
| Hexachlorobutadiene (HCBD) | 0.25 / 0.61 / 1.4 | 0.29 / 0.71 / 1.6 | 0.32 / 0.78 / 1.8 | 31 / 66 / 120 | 25 / 25 / 25 | 48 / 50 / 51 |

Rationale for Generic Assessment Criteria Routinely Used by PBA

| Determinand | Allotment | R _w HP | R _w HP | Commercial/ Industrial | POSresi | POSpark |
|---|---|--|--|--|--|---|
| Pesticides (SOM 1%/ 2.5%/ 6%)^{a, b, i, p} | | | | | | |
| Aldrin | 3.2 / 6.1 / 9.6 | 5.7/ 6.6 / 7.1 | 7.3 / 7.4 / 7.5 | 170 / 170 / 170 | 18 / 18 / 18 | 30 / 31 / 31 |
| Atrazine | 0.5 / 1.2 / 2.7 | 3.3/7.6/17.4 | 610/ 620 / 620 | 9300 / 9400 / 9400 | 1200/1200 / 1200 | 2300 / 2400 / 2400 |
| Dichlorvos | 0.0049/0.010/ 0.022 | 0.032/0.066 /0.14 | 6.4 / 6.5 / 6.6 | 140 / 140 / 140 | 16 / 16 / 16 | 26 / 26 / 27 |
| Dieldrin | 0.17/0.41/0.96 | 0.97/ 2 / 3.5 | 7.0 / 7.3 / 7.4 | 170 / 170 / 170 | 18 / 18 / 18 | 30 / 30 / 31 |
| Alpha - Endosulfan | 1.2 / 2.9 / 6.8 | 7.4 / 18 / 41 | 160 ^{vap} (0.003)/ 280 ^{vap} (0.007)/ 410 ^{vap} (0.016) | 5600 ^{vap} (0.003) / 7400 ^{vap} (0.007) / 8400 ^{vap} (0.016) | 1200 / 1200 / 1200 | 2400 / 2400 / 2500 |
| Beta - Endosulfan | 1.1 / 2.7 / 6.4 | 7.0 / 17 / 39 | 190 ^{vap} (0.00007) /320 ^{vap} (0.0002) /440 ^{vap} (0.0004) | 6300 ^{vap} (0.00007) /7800 ^{vap} (0.0002) / 8700 | 1200 / 1200 / 1200 | 2400 / 2400 / 2500 |
| Alpha-Hexachlorocyclohexane | 0.035/0.087/ 0.21 | 0.23/0.55 / 1.2 | 6.9 / 9.2 / 11 | 170 / 180 / 180 | 24 / 24 / 24 | 47 / 48 / 48 |
| Beta - Hexachlorocyclohexane | 0.013/0.032/ 0.077 | 0.085 / 0.2/ 0.46 | 3.7 / 3.8 / 3.8 | 65 / 65 / 65 | 8.1 / 8.1 / 8.1 | 15 / 15 / 16 |
| Gamma – Hexachlorocyclohexane | 0.0092 / 0.023 / 0.054 | 0.06/0.14/ 0.33 | 2.9 / 3.3 / 3.5 | 67 / 69 / 70 | 8.2 / 8.2 / 8.2 | 14 / 15 / 15 |
| Chlorobenzenes^{a, b, i, p} | | | | | | |
| Chlorobenzene | 5.9 / 14 / 32 | 0.46 / 1.0 / 2.4 | 0.46 / 1.0 / 2.4 | 56 / 130 / 290 | 11000 / 13000 / 14000 | 1300 ^{sol} (675)/ 2000 ^{sol} (1520)/ 2900 |
| 1,2-dichlorobenzene (1,2-DCB) | 94 / 230 / 540 | 23 / 55 / 130 | 24 / 57 / 130 | 2000 ^{sol} (571) / 4800 ^{sol} (1370) / 11000 ^{sol} (3240) | 90000 / 95000 / 98000 | 24000 ^{sol} (571) / 36000 ^{sol} (1370) / 51000 ^{sol} (3240) |
| 1,3-dichlorobenzene (1,3-DCB) | 0.25 / 0.6 / 1.5 | 0.4 / 1.0 / 2.3 | 0.44/1.1 / 2.5 | 30 / 73 / 170 | 300/ 300 / 300 | 390 / 440 / 470 |
| 1-4-dichlorobenzene (1,4-DCB) | 15 ⁱ / 37 ⁱ / 88 ⁱ | 61 ^q / 150 ^q / 350 ^q | 61 ^q /150 ^q /350 ^q | 4400 ^{vap,q} (224) / 10000 ^{vap,q} (540) / 25000 ^{vap,q} (1280) | 17000 ⁱ / 17000 ⁱ / 17000 ⁱ | 36000 ^{vap,i} (224) / 36000 ^{vap,i} (540) / 36000 ^{vap,i} (1280) |
| 1,2,3-Trichlorobenzene | 4.7 / 12 / 28 | 1.5 / 3.6 / 8.6 | 1.5 / 3.7 / 8.8 | 102 / 250 / 590 | 1800 / 1800 / 1800 | 770 ^{vap} (134) / 1100 ^{vap} (330) / 1600 ^{vap} (789) |
| 1,2,4- Trichlorobenzene | 55 / 140 / 320 | 2.6 / 6.4 / 15 | 2.6 / 6.4 / 15 | 220 / 530 / 1300 | 15000 / 17000 / 19000 | 1700 ^{vap} (318) / 2600 ^{vap} (786) / 4000 ^{vap} (1880) |
| 1,3,5- Trichlorobenzene | 4.7 / 12 / 28 | 0.33 / 0.81 / 1.9 | 0.33 / 0.81 / 1.9 | 23 / 55 / 130 | 1700 / 1700 / 1800 | 380 ^{vap} (36.7) / 580 ^{vap} (90.8) / 860 ^{vap} (217) |
| 1,2,3,4-Tetrachlorobenzene | 4.4 / 11 / 26 | 15 / 36 / 78 | 24 / 56 / 120 | 1700 ^{vap} (122) / 3080 ^{vap} (304) / 4400 ^{vap} (728) | 830 / 830 / 830 | 1500 ^{vap} (122) / 1600 / 1600 |
| 1,2,3,5- Tetrachlorobenzene | 0.38 / 0.90 / 2.2 | 0.66 / 1.6 / 3.7 | 0.75 / 1.9 / 4.3 | 49 ^{vap} (39.4) / 120 ^{vap} (98.1) / 240 ^{vap} (235) | 78 / 79 / 79 | 110 ^{vap} (39) / 120 / 130 |
| 1,2,4,5- Tetrachlorobenzene | 0.06 / 0.16 / 0.37 | 0.33 / 0.77 / 1.6 | 0.73 / 1.7 / 3.5 | 42 ^{sol} (19.7) / 72 ^{sol} (49.1) / 96 | 13 / 13 / 13 | 25 / 26 / 26 |
| Pentachlorobenzene (P ₅ CB) | 1.2 / 3.1 / 7.0 | 5.8 / 12 / 22 | 19 / 30 / 38 | 640 ^{sol} (43.0) / 770 ^{sol} (107) / 830 | 100 / 100 / 100 | 190 / 190 / 190 |
| Hexachlorobenzene (HCB) | 0.47 / 1.1 / 2.5 | 1.8 ^{vap} (0.20) / 3.3 ^{vap} (0.5) / 4.9 | 4.1 ^{vap} (0.20) / 5.7 ^{vap} (0.5) / 6.7 ^{vap} (1.2) | 110 ^{vap} (0.20) / 120 / 120 | 16 / 16 / 16 | 30 / 30 / 30 |

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R_wHP Residential with homegrown produce

R_wHP Residential without homegrown produce

POSresi public open spaces near residential housing

POSpark public open space for recreational use but not dedicated sports pitches

SOM Soil Organic Matter – **the S4UL for all organic compounds will vary according to SOM**

a Based on a sandy loam soil as defined in SR3 (Environment Agency, 2009b) and 6% soil organic matter (SOM)

b Figures rounded to two significant figures

c Based only on a comparison of oral and dermal soil exposure with oral Index Dose

d The background ADE is limited to being no larger than the contribution from the relevant soil ADE

e Based on comparison of inhalation exposure with inhalation TDI only

f Based on a lifetime exposure via the oral, dermal and inhalation pathways

g Based on localised effects comparing inhalation exposure with inhalation ID only

h Based on comparison of inhalation exposure with inhalation ID

i Based on comparison of oral and dermal exposure with oral TDI

j Based on comparison of oral, dermal and inhalation exposure with inhalation TDI

k Based on comparison of all exposure pathways with oral TDI

l S4ULs assume that free phase contamination is not present

m S4ULs based on a sub-surface soil to indoor air correction factor of 10

n The HCV applied is based on the intake of total Xylene and therefore exposure should not consider an isomer in isolation

o Oral, dermal and inhalation exposure compared with oral HCV

p S4ULs based on a sub-surface soil to indoor air correction factor of 1

q Based on a comparison of inhalation exposure with the inhalation TDI for localised effects

r Based on 2,4-dichlorophenol unless otherwise stated

s Based on 2,3,4,6-tetrachlorophenol

vap S4UL presented exceeded the vapour saturation limit, which is presented in brackets

sol S4UL presented exceeds the solubility saturation limit, which is presented in brackets

dir S4ULs based on a threshold protective of direct skin contact, guideline in brackets based on the health effects following long term exposure provided for illustration only

Rationale for Generic Assessment Criteria Routinely Used by PBA

Table 4: Tier 2 Criteria for Screening Liquids

| | Screening Concentration (mg/l) | | | |
|--|--------------------------------|------------------------|--|------------------------------------|
| | Minimum Reporting Value | Human Consumption | Fresh Water/Inland | Salt Water/Other |
| Metals | | | | |
| Arsenic SP | - | 0.01 | 0.05 ⁽²⁾ | 0.025 ⁽²⁾ |
| Boron | - | 1 | - | - |
| Cadmium PS | 0.0001 | 0.005 | ≤0.00008, 0.00008, 0.00009, 0.00015, 0.00025 ⁽¹⁴⁾ | 0.0002 |
| Chromium (total) | - | 0.05 | - | - |
| Chromium (III) SP | - | - | 0.0047 | - |
| Chromium (VI) SP | - | - | 0.0034 | 0.0006 |
| Copper SP | - | 2 | 0.001 bioavailable | 0.00376 bioavailable |
| Iron SP | - | 0.2 | 0.001 | 0.001 |
| Lead PS | - | 0.01 | 0.0012 bioavailable | 0.0013 bioavailable |
| Mercury compounds PS | 0.00001 | 0.001 | 0.00007 max | 0.00007 max |
| Manganese SP | - | 0.05 | 0.123 bioavailable | - |
| Nickel PS | - | 0.02 | 0.004 bioavailable | 0.0086 bioavailable |
| Selenium | - | 0.01 | - | - |
| Zinc SP | - | 5 ⁽³⁾ | 0.0109 bioavailable ⁽¹³⁾ | 0.068 bioavailable ⁽¹³⁾ |
| Chlorinated Compounds | | | | |
| C10-13 chloroalkanes PS | - | - | 0.0004 | 0.0004 |
| Dichloromethane PS | - | - | 0.02 | 0.02 |
| 1,2-Dichloroethane PS | 0.001 | 0.003 | 0.01 | 0.01 |
| Trichloroethene PS | 0.0001 | 0.01 ⁽⁵⁾ | 0.01 | 0.01 |
| 1,1,1-Trichloroethane | 0.0001 | - | - | - |
| 1,1,2-Trichloroethane | 0.0001 | - | - | - |
| Trichloromethanes PS | - | 0.1 ⁽¹⁾ | 0.0025 | 0.0025 |
| 1, 2, 4-Trichlorobenzene | 0.00001 | - | - | - |
| Tetrachloroethene PS | 0.0001 | 0.01 ⁽⁵⁾ | 0.01 | 0.01 |
| Tetrachloromethane PS | 0.0001 | 0.003 | 0.012 | 0.012 |
| Tetrachloroethane SP | - | - | 0.140 | - |
| Vinyl chloride | - | 0.00005 | - | - |
| Trichlorobenzene (TCB) PS | 0.00001 | - | 0.0004 | 0.0004 |
| Chloroform | 0.0001 | - | - | - |
| Chloronitrotoluenes(CNT) ⁽¹¹⁾ | 0.001 | - | - | - |
| Hexachlorobutadiene PS | 0.000005 | - | 0.0006 max | 0.0006 max |
| Hexachlorocyclohexanes (HCH) PS | 0.000001 | - | 0.00002 | 0.000002 |
| Polycyclic Aromatic Hydrocarbons | | | | |
| Acenaphthene | - | - | - | - |
| Acenaphthylene | - | - | - | - |
| Anthracene PS | - | - | 0.0001 | 0.0001 |
| Benzo(a)anthracene | - | - | - | - |
| Benzo(b)fluoranthene PS | - | 0.0001 | 0.000017 max ⁽¹²⁾ | 0.000017 max ⁽¹²⁾ |
| Benzo(a)pyrene PS | - | 0.00001 | 0.00000017 | 0.00000017 |
| Benzo(k)fluoranthene PS | - | - | 0.000017 max ⁽¹²⁾ | 0.000017 max ⁽¹²⁾ |
| Benzo(g,h,i)perylene PS | - | - | 0.0000082 max ⁽¹²⁾ | 0.0000082 max ⁽¹²⁾ |
| Indeno(1,2,3-cd)pyrene PS | - | - | - ⁽¹²⁾ | - ⁽¹²⁾ |
| Chrysene | - | - | - | - |
| Dibenzo(a,h)anthracene | - | - | - | - |
| Fluoranthene PS | - | - | 0.0000063 | 0.0000063 |
| Fluorene | - | - | - | - |
| Phenanthrene | - | - | - | - |
| Pyrene | - | - | - | - |
| Naphthalene PS | - | - | 0.002 | 0.002 |
| Polycyclic Aromatic Hydrocarbons | - | 0.0001 ⁽¹⁰⁾ | - | - |
| Petroleum hydrocarbons | | | | |
| Total petroleum hydrocarbons | - | 0.01 ⁽³⁾ | - | - |
| Benzene PS | 0.001 | 0.001 | 0.01 | 0.008 |
| Toluene SP | 0.004 | 0.7 ⁽⁹⁾ | 0.074 | 0.074 |
| Ethylbenzene | - | 0.3 ⁽⁹⁾ | - | - |
| Xylene | 0.003 ⁽⁴⁾ | 0.5 ⁽⁹⁾ | 0.03 | 0.03 |
| Methyl tert-butyl ether (MTBE) | - | 0.015 ⁽⁷⁾ | - | - |

Rationale for Generic Assessment Criteria Routinely Used by PBA

| | Screening Concentration (mg/l) | | | |
|--|--------------------------------|-----------------------|------------------------|-------------------------|
| | Minimum Reporting Value | Human Consumption | Fresh Water/Inland | Salt Water/Other |
| Pesticides and Herbicides | | | | |
| Alachlor PS | - | - | 0.0003 | 0.0003 |
| Aldrin PS | 0.000003 | 0.000013 | 0.00001 ⁽⁸⁾ | 0.000005 ⁽⁸⁾ |
| Dieldrin PS | 0.000003 | 0.00003 | | |
| Endrin PS | 0.000003 | 0.0006 ⁽⁹⁾ | | |
| Isodrin | 0.000003 | - | - | - |
| 2,4 dichlorophenol SP | 0.0001 | - | 0.0042 | 0.0042 |
| 2,4 D ester SP | 0.0001 | - | 0.0003 | 0.0003 |
| op and pp DDT (each) PS | | 0.001 ⁽⁶⁾ | 0.000025 | 0.000025 |
| op and pp DDE (each) | | | | |
| op and pp TDE (each) | | | | |
| Dimethoate SP | 0.00001 | - | 0.00048 | 0.00048 |
| Endosulfan PS | 0.000005 | - | 0.000005 | 0.000005 |
| Hexachlorobenzene PS | 0.000001 | - | 0.00005 max | 0.00005 max |
| Permethrin SP | | - | 0.000001 | 0.0000002 |
| Atrazine PS | 0.00003 | - | 0.0006 | 0.0006 |
| Simazine PS | 0.00003 | - | 0.001 | 0.001 |
| Linuron SP | | - | 0.0005 | 0.0005 |
| Mecoprop SP | | - | 0.018 | 0.018 |
| Trifluralin PS | 0.00001 | - | 0.00003 | 0.00003 |
| Miscellaneous | | | | |
| Ammonium (as NH ₄ ⁺) | - | 0.5 | - | - |
| Unionised Ammonia (NH ₃) SP | - | - | - | 0.021 |
| Chloride | - | 250 | - | - |
| Chlorine SP | | | 0.002 | 0.01 max |
| Cyanide SP (hydrogen cyanide) | - | 0.05 | 0.001 | 0.001 |
| Nitrate (as NO ₃) | - | 50 | - | - |
| Nitrite (as NO ₂) | - | 0.1 | - | - |
| Phenol SP | - | 0.5 | 0.0077 | 0.0077 |
| Pentachlorophenol PS | 0.0001 | - | 0.0004 | 0.0004 |
| PCBs (individual congeners) | 0.000001 | - | - | - |
| Sodium | - | 200 | - | - |
| Sulphate | - | 250 | - | - |
| Tributyl and triphenyl tin compounds (each) PS | 0.000001 | - | 0.0000002 | 0.0000002 |
| Di(2-ethylhexyl)-phthalate (DEPH) PS | - | - | 0.0013 | 0.0013 |

Notes:

PS = Priority Substances

SP = Specific Pollutants

'-' screening concentration is not available


'max' – maximum allowable concentration used where no annual average provided

- Concentration for trihalomethanes is the sum of chloroform, bromoform, dibromochloromethane and bromodichloromethane.
- Concentration is the dissolved fraction of a water sample obtained by filtration through a 0.45µm filter.
- Concentration is taken from Statutory Instrument 1989 No. 1147. The Water Supply (Water Quality) Regulations 1989, as amended.
- Concentration for xylenes is 0.003mg/l each for o-xylene and m/p xylene.
- Concentration is the Sum of TCE and PCE.
- Concentration is for Total DDT. Para DDT on its own has a target concentration of 0.00001mg/l.
- Concentration for MTBE is taken from Environment Agency guidance, dated 2006.
- Concentration is the sum of aldrin, dieldrin, endrin.
- Concentration is taken from WHO (2004) guidelines for drinking-water quality.
- Sum of benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(ghi)perylene, indeno(1,2,3-cd)pyrene
- Concentration is for 2,6-CNT, 4,2-CNT, 4,3-CNT, 2,4-CNT, 2,5-CNT
- BAP can be considered as a marker of the other PAHs for comparison with the annual average
- Concentration plus ambient background concentration (dissolved)
- For cadmium and its compounds the EQS values vary depending on the hardness of the water as specified in five class categories (Class 1: < 40 mg CaCO₃/l, Class 2: 40 to < 50 mg CaCO₃/l, Class 3: 50 to < 100 mg CaCO₃/l, Class 4: 100 to < 200 mg CaCO₃/l and Class 5: ≥ 200 mg CaCO₃/l).

Appendix 7. Table of Estimated Risk

| Receptor | Present (Y/N) & Sensitivity Value | Pathway | Present (Y/N) | EPH & Solvent | PAH | Metals | Inorganic | Biocides | Radioactivity | Ground Gas | Consequence (Hazard Classification x Sensitivity) | Probability | Estimated Risk | |
|---|-----------------------------------|---|---------------|---------------|-----|--------|-----------|----------|---------------|------------|---|-------------|----------------|----------|
| Human Health - On-Site Current Users | N | Ingestion of fruit or vegetable leaf or roots | | x | x | √ | x | √ | √ | x | | | | |
| | | Ingestion of contaminated drinking water | | √ | √ | x | x | √ | √ | x | | | | |
| | | Ingestion of water / sediments when swimming | | √ | √ | √ | √ | √ | √ | √ | x | | | |
| | | Ingestion of soil/dust indoors | | √ | √ | √ | √ | √ | √ | √ | x | | | |
| | | Ingestion of soil/dust outdoors | | √ | √ | √ | √ | √ | √ | √ | x | | | |
| | | Inhalation of particles (dust / soil) indoor and outdoor | | √ | √ | √ | √ | √ | √ | √ | x | | | |
| | | Inhalation of vapours/gases – outdoor | | √ | x | x | x | x | √ | √ | √ | | | |
| | | Inhalation of vapours/gases - indoor | | √ | x | x | x | x | √ | √ | √ | | | |
| | | Dermal absorption via direct contact with soil | | √ | √ | √ | √ | √ | √ | √ | x | | | |
| Dermal absorption via waters (swimming / showering) | | √ | √ | √ | √ | √ | √ | √ | x | | | | | |
| Human Health On-Site Future User | Y (4) | Ingestion of fruit or vegetable leaf or roots | N | x | x | √ | x | √ | √ | x | | | | |
| | | Ingestion of contaminated drinking water | N | √ | √ | x | x | √ | √ | x | | | | |
| | | Ingestion of water / sediments when swimming | N | √ | √ | x | x | √ | √ | x | | | | |
| | | Ingestion of soil/dust indoors | Y | √ | √ | √ | √ | √ | √ | √ | x | 8 (Mild) | Low | Low |
| | | Ingestion of soil/dust outdoors | Y | √ | √ | √ | √ | √ | √ | √ | x | 8 (Mild) | Low | Low |
| | | Inhalation of particles (dust / soil) indoor and outdoor | Y | √ | √ | √ | √ | √ | √ | √ | x | 8 (Mild) | Low | Low |
| | | Inhalation of vapours – outdoor | Y | √ | x | x | x | x | √ | √ | √ | 8 (Mild) | Low | Low |
| | | Inhalation of vapours - indoor | Y | √ | x | x | x | x | √ | √ | √ | 8 (Mild) | Low | Low |
| | | Dermal absorption via direct contact with soil | Y | √ | √ | √ | √ | √ | √ | √ | x | 8 (Mild) | Low | Low |
| Dermal absorption via waters (swimming / showering) | N | √ | √ | √ | √ | √ | √ | √ | x | | | | | |
| Human Health - Off-Site | Y (4) | Ingestion of fruit or vegetable leaf or roots | Y | x | x | √ | x | √ | √ | x | 8 (Mild) | Low | Low | |
| | | Ingestion of contaminated drinking water | N | √ | √ | x | x | √ | √ | x | | | | |
| | | Ingestion of water / sediments when swimming | N | √ | √ | x | x | √ | √ | x | | | | |
| | | Ingestion of soil/dust indoors | Y | √ | √ | √ | √ | √ | √ | √ | x | 8 (Mild) | Low | Low |
| | | Ingestion of soil/dust outdoors | Y | √ | √ | √ | √ | √ | √ | √ | x | 8 (Mild) | Low | Low |
| | | Inhalation of particles (dust / soil) indoor and outdoor | Y | √ | √ | √ | √ | √ | √ | √ | x | 8 (Mild) | Low | Low |
| | | Inhalation of vapours – outdoor | Y | √ | x | x | x | x | √ | √ | √ | 8 (Mild) | Low | Low |
| | | Inhalation of vapours - indoor | Y | √ | x | x | x | x | √ | √ | √ | 8 (Mild) | Low | Low |
| | | Dermal absorption via direct contact with soil | Y | √ | √ | √ | √ | √ | √ | √ | x | 8 (Mild) | Low | Low |
| Dermal absorption via waters (swimming / showering) | N | √ | √ | √ | √ | √ | √ | √ | x | | | | | |
| Human Health - Construction/ Maintenance Workers* | Y (4) | Ingestion of soil/dust indoors | Y | √ | √ | √ | √ | √ | √ | √ | x | 8 (Mild) | Low | Low |
| | | Ingestion of soil/dust outdoors | Y | √ | √ | √ | √ | √ | √ | √ | x | 8 (Mild) | Low | Low |
| | | Inhalation of particles (dust / soil) outdoor | Y | √ | √ | √ | √ | √ | √ | √ | x | 8 (Mild) | Low | Low |
| | | Inhalation of vapours – outdoor | Y | √ | x | x | x | x | √ | √ | √ | 8 (Mild) | Low | Low |
| | | Inhalation of vapours - indoor | N | √ | x | x | x | x | √ | √ | √ | | | |
| | | Dermal absorption via direct contact with soil | Y | √ | √ | √ | √ | √ | √ | √ | x | 8 (Mild) | Low | Low |
| Groundwater | Y (4) | Leaching | Y | √ | √ | √ | √ | √ | √ | √ | x | 8 (Mild) | Low | Low |
| | | Migration via natural or anthropogenic | Y | √ | √ | √ | √ | √ | √ | √ | √ | 8 (Mild) | Low | Low |
| Surface Water | Y (2) | Direct runoff or discharges from pipes | Y | √ | √ | √ | √ | √ | √ | √ | x | 4 (Minor) | Low | Very Low |
| | | Indirect via recharge from groundwater (hydraulic flow) | Y | √ | √ | √ | √ | √ | √ | √ | x | 4 (Minor) | Low | Very Low |
| | | Deposition of wind blown dust | Y | √ | √ | √ | √ | √ | √ | √ | x | 4 (Minor) | Low | Very Low |
| Buildings | Y (4) | Direct contact | Y | √ | √ | x | x | x | x | x | 8 (Mild) | Low | Low | |
| | | Explosion due to gas migration via natural / anthropogenic | Y | √ | x | x | x | x | x | x | √ | 8 (Mild) | Low | Low |
| Ecological Systems | N | Direct deposition of particles / dust - wind blown or flood | | √ | √ | √ | √ | √ | √ | √ | x | | | |
| | | Indirect - through watering | | √ | √ | √ | x | x | √ | √ | x | | | |
| | | Inhalation of gases/vapours or particulates/dust by animals | | √ | √ | √ | x | x | √ | √ | √ | | | |
| | | Ingestion of of vegetation / water / soil by animals | | √ | √ | √ | √ | √ | √ | √ | x | | | |
| Animals and Crops | Y (2) | Direct deposition via wind or flood | Y | √ | √ | √ | √ | √ | √ | √ | x | 4 (Minor) | Low | Very Low |
| | | Indirect through watering | N | √ | √ | √ | x | x | √ | √ | x | | | |
| | | Inhalation of gas / vapour / particulates / dust by animals | Y | √ | x | x | x | x | √ | √ | √ | 4 (Minor) | Low | Very Low |
| | | Ingestion of vegetation / water / soil by animals | Y | √ | √ | √ | √ | √ | √ | √ | x | 4 (Minor) | Low | Very Low |

Risk estimation establishes the magnitude and probability of the possible consequences (what degree of harm might result and how likely). The criteria for classifying probability and consequence are set out in Tables 3 and 4 of the PBA methodology. Green text highlights one or more elements of the Pollutant Linkage are missing and therefore eliminated

| | | | | |
|---|----------------------------|--|----------|------------|
|  | Client | TABLE SUMMARISING POLLUTANT LINKAGES AND RISK ESTIMATION: POTENTIAL HAZARDS ARE METALS, HYDROCARBONS AND ASBESTOS (HAZARD CLASSIFICATION 2) | Date | 18/09/2017 |
| | Millbrook Power Ltd | | A3 Scale | nts |
| Caversham Bridge House, Waterman Place, Reading, RG1 8DN | | Millbrook Power Project | Drawn | NW |
| Tel 0118 950 0761 Fax 0118 959 7499 | | | Checked | |
| J:\40335 Millbrook\Geo\Reports\Phase 1\Appendix\Appendix 7\Table of estimated risk.xls\Sheet1 | | | Table | 1 |

Appendix 8. Lab Results



Amended Report

Report No.: 17-19260-3

Initial Date of Issue: 31-Jul-2017 **Date of Re-Issue:** 04-Aug-2017

Client: Peter Brett Associates

Client Address: 11 Prospect Court
Courtenhall
Northampton
Northamptonshire
NN7 3DG

Contact(s): Kate Riley
Christopher Beech

Project: 40335 - Milbrook

Quotation No.: **Date Received:** 25-Jul-2017

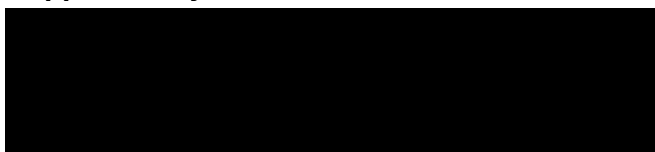
Order No.: 16898 **Date Instructed:** 25-Jul-2017

No. of Samples: 6

Turnaround (Wkdays): 6 **Results Due:** 01-Aug-2017

Date Approved: 02-Aug-2017

Approved By:



Details: Martin Dyer, Laboratory Manager

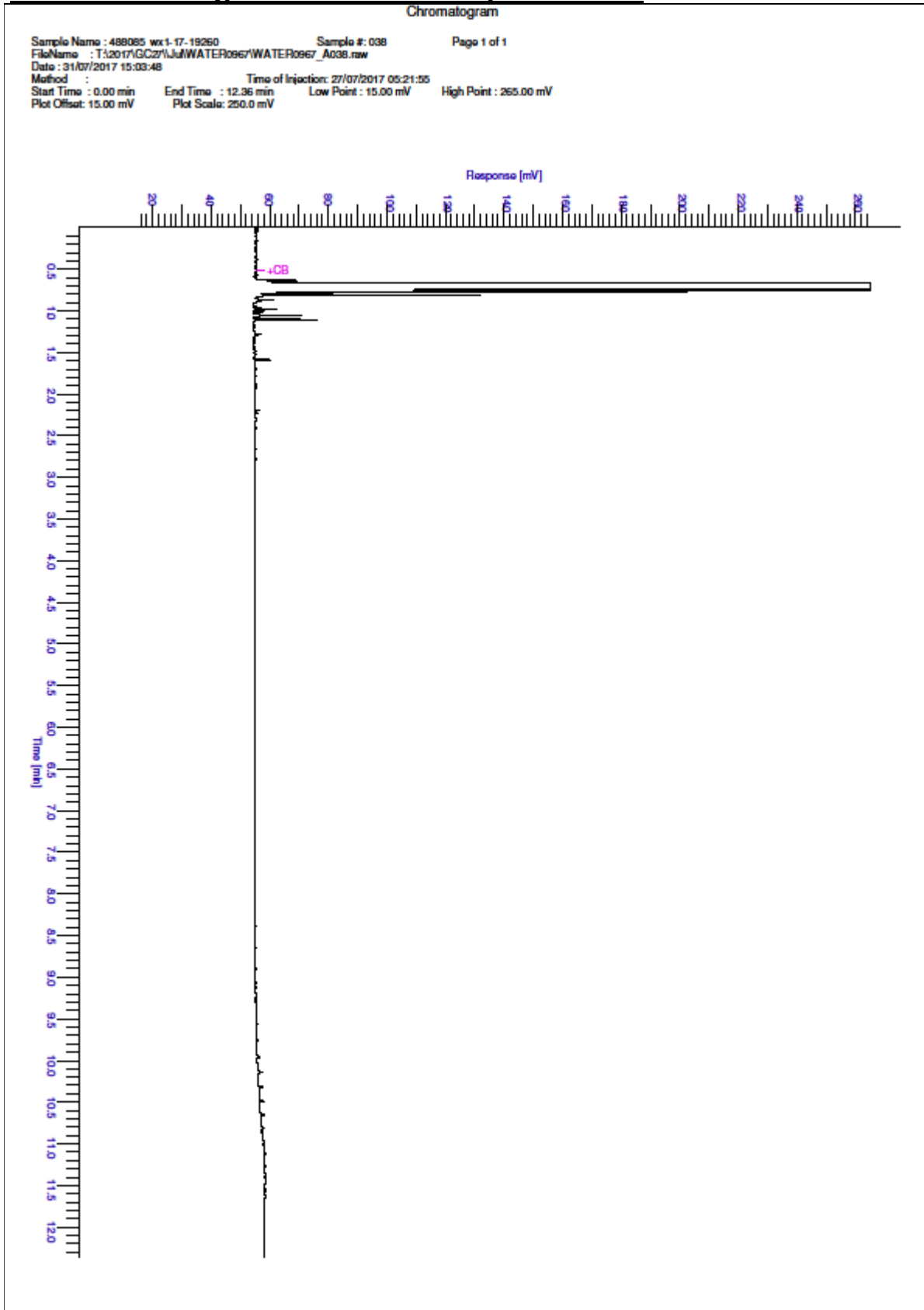
Results - Water

| Client: Peter Brett Associates | | Chemtest Job No.: | | 17-19260 | 17-19260 | 17-19260 | 17-19260 | 17-19260 | 17-19260 | |
|--------------------------------|---------|----------------------|------------|---------------|--------------|----------------------|--------------|--------------|--------------|---------|
| Quotation No.: | | Chemtest Sample ID.: | | 488085 | 488086 | 488087 | 488088 | 488089 | 488090 | |
| Order No.: 16898 | | Client Sample Ref.: | | Rookery North | Mill Brook | Mill Brook Tributary | BH102 | BH103 | BH206 | |
| | | Sample Type: | | WATER | WATER | WATER | WATER | WATER | WATER | |
| | | Date Sampled: | | 24-Jul-2017 | 24-Jul-2017 | 24-Jul-2017 | 24-Jul-2017 | 24-Jul-2017 | 24-Jul-2017 | |
| Determinand | Accred. | SOP | Units | LOD | | | | | | |
| Chromatogram (TPH) | N | | | N/A | See Attached | See Attached | See Attached | See Attached | See Attached | |
| pH | U | 1010 | | N/A | 7.6 | 8.1 | 8.0 | 7.7 | 7.2 | 7.4 |
| Electrical Conductivity | U | 1020 | µS/cm | 1.0 | 2500 | 830 | 650 | 2900 | 4600 | 4000 |
| Suspended Solids At 105C | U | 1030 | mg/l | 5.0 | 120 | 68 | 37 | 5600 | 2500 | 10000 |
| Biochemical Oxygen Demand | N | 1090 | mg O2/l | 4.0 | < 4.0 | < 4.0 | 6.0 | < 4.0 | < 4.0 | < 4.0 |
| Chemical Oxygen Demand | U | 1100 | mg O2/l | 10 | 19 | < 10 | 19 | < 10 | < 10 | < 10 |
| Dissolved Oxygen | N | 1150 | mg O2/l | 0.50 | 7.5 | 7.6 | 7.4 | 7.3 | 7.4 | 7.5 |
| Alkalinity (Total) | U | 1220 | mg CaCO3/l | 10 | 170 | 200 | 170 | 530 | 490 | 490 |
| Chloride | U | 1220 | mg/l | 1.0 | 67 | 62 | 25 | 350 | 940 | 170 |
| Fluoride | U | 1220 | mg/l | 0.050 | 0.51 | 0.31 | 0.73 | 1.2 | 0.98 | 0.50 |
| Ammoniacal Nitrogen | U | 1220 | mg/l | 0.010 | 0.052 | 0.026 | 0.025 | 0.043 | 0.69 | 0.58 |
| Nitrate | U | 1220 | mg/l | 0.50 | < 0.50 | 18 | < 0.50 | 3.3 | < 0.50 | < 0.50 |
| Phosphate | U | 1220 | mg/l | 0.050 | < 0.050 | 2.2 | < 0.050 | 0.58 | < 0.050 | < 0.050 |
| Phosphorus (Dissolved) | U | 1220 | mg/l | 0.020 | < 0.020 | 0.72 | < 0.020 | 0.19 | < 0.020 | < 0.020 |
| Sulphate | U | 1220 | mg/l | 1.0 | 1200 | 140 | 150 | 650 | 650 | 1700 |
| Calcium | U | 1415 | mg/l | 5.0 | 350 | 110 | 100 | 93 | 180 | 380 |
| Potassium | U | 1415 | mg/l | 0.50 | 30 | 20 | 5.4 | 21 | 24 | 63 |
| Magnesium | U | 1415 | mg/l | 0.50 | 50 | 15 | 12 | 20 | 45 | 120 |
| Sodium | U | 1415 | mg/l | 0.50 | 150 | 30 | 22 | 680 | 910 | 450 |
| Arsenic (Dissolved) | U | 1450 | µg/l | 1.0 | 1.3 | 1.3 | < 1.0 | 1.8 | 3.0 | 3.8 |
| Cadmium (Dissolved) | U | 1450 | µg/l | 0.080 | < 0.080 | < 0.080 | < 0.080 | < 0.080 | < 0.080 | < 0.080 |
| Copper (Dissolved) | U | 1450 | µg/l | 1.0 | 2.3 | 1.4 | 3.0 | 4.4 | 3.8 | 2.8 |
| Iron (Dissolved) | N | 1450 | µg/l | 20 | 780 | 210 | 260 | 170 | 380 | 880 |
| Mercury (Dissolved) | U | 1450 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Nickel (Dissolved) | U | 1450 | µg/l | 1.0 | 2.2 | 1.2 | 2.4 | 1.6 | 3.9 | 9.7 |
| Lead (Dissolved) | U | 1450 | µg/l | 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Selenium (Dissolved) | U | 1450 | µg/l | 1.0 | < 1.0 | < 1.0 | < 1.0 | 3.2 | 13 | 1.9 |
| Zinc (Dissolved) | U | 1450 | µg/l | 1.0 | 40 | 5.8 | 7.3 | 22 | 18 | 48 |
| Chromium (Total) | U | 1450 | µg/l | 1.0 | 5.5 | < 1.0 | < 1.0 | 6.4 | 8.2 | < 1.0 |
| Chromium (Hexavalent) | U | 1490 | µg/l | 20 | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 |
| Dissolved Organic Carbon | U | 1610 | mg/l | 2.0 | 17 | 8.2 | 14 | 8.7 | 6.3 | 9.6 |
| Aliphatic TPH >C5-C6 | N | 1675 | µg/l | 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Aliphatic TPH >C6-C8 | N | 1675 | µg/l | 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Aliphatic TPH >C8-C10 | N | 1675 | µg/l | 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Aliphatic TPH >C10-C12 | N | 1675 | µg/l | 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Aliphatic TPH >C12-C16 | N | 1675 | µg/l | 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Aliphatic TPH >C16-C21 | N | 1675 | µg/l | 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Aliphatic TPH >C21-C35 | N | 1675 | µg/l | 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Aliphatic TPH >C35-C44 | N | 1675 | µg/l | 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |

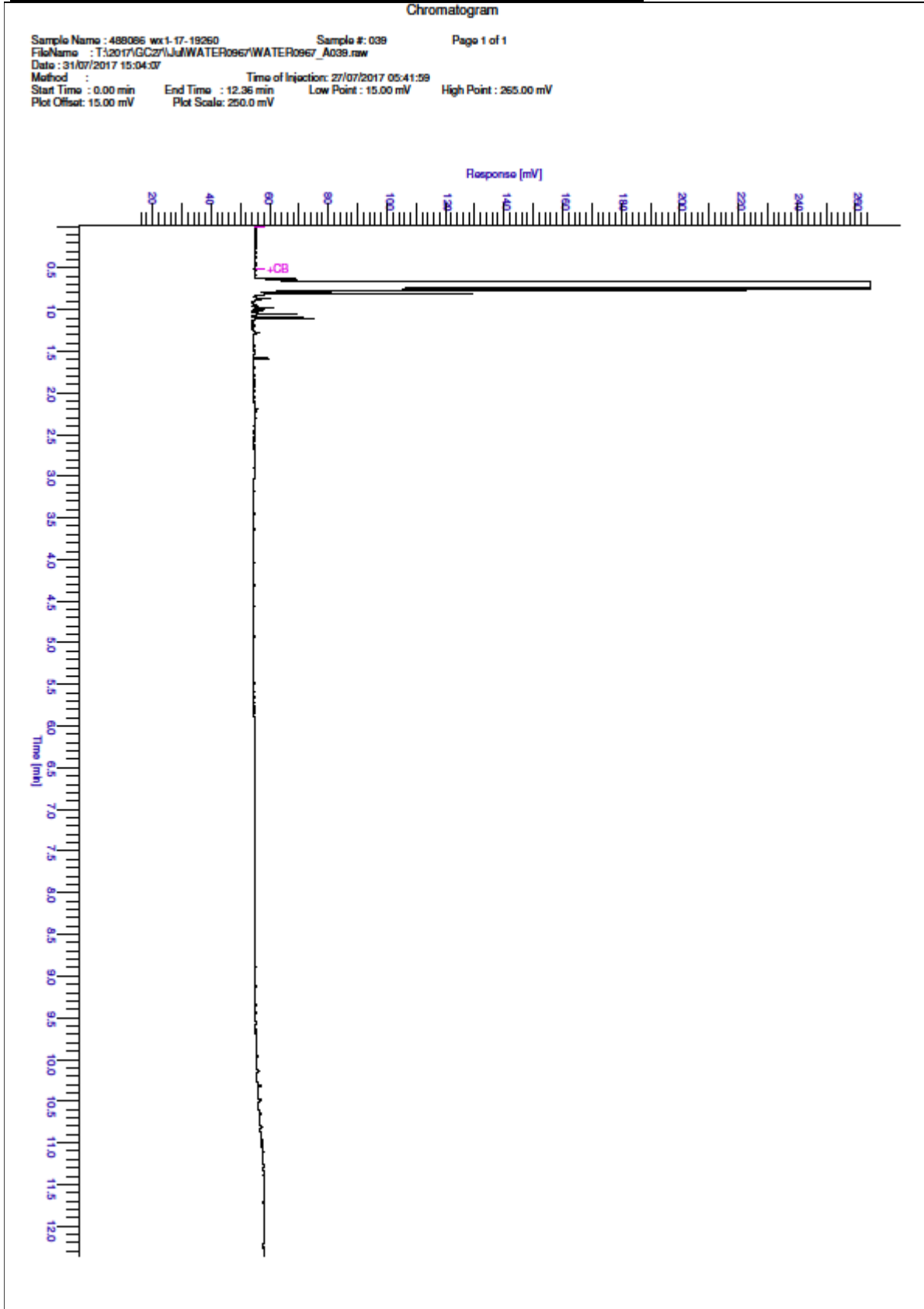
Results - Water

| Client: Peter Brett Associates | | Chemtest Job No.: | | 17-19260 | 17-19260 | 17-19260 | 17-19260 | 17-19260 | 17-19260 | 17-19260 |
|--------------------------------|---------|----------------------|--------|---------------|-------------|----------------------|-------------|-------------|-------------|-------------|
| Quotation No.: | | Chemtest Sample ID.: | | 488085 | 488086 | 488087 | 488088 | 488089 | 488090 | |
| Order No.: 16898 | | Client Sample Ref.: | | Rookery North | Mill Brook | Mill Brook Tributary | BH102 | BH103 | BH206 | |
| | | Sample Type: | | WATER | WATER | WATER | WATER | WATER | WATER | |
| | | Date Sampled: | | 24-Jul-2017 | 24-Jul-2017 | 24-Jul-2017 | 24-Jul-2017 | 24-Jul-2017 | 24-Jul-2017 | |
| Determinand | Accred. | SOP | Units | LOD | | | | | | |
| Total Aliphatic Hydrocarbons | N | 1675 | µg/l | 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Aromatic TPH >C5-C7 | N | 1675 | µg/l | 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Aromatic TPH >C7-C8 | N | 1675 | µg/l | 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Aromatic TPH >C8-C10 | N | 1675 | µg/l | 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Aromatic TPH >C10-C12 | N | 1675 | µg/l | 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Aromatic TPH >C12-C16 | N | 1675 | µg/l | 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Aromatic TPH >C16-C21 | N | 1675 | µg/l | 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Aromatic TPH >C21-C35 | N | 1675 | µg/l | 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Aromatic TPH >C35-C44 | N | 1675 | µg/l | 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Total Aromatic Hydrocarbons | N | 1675 | µg/l | 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Total Petroleum Hydrocarbons | N | 1675 | µg/l | 10 | < 10 | < 10 | < 10 | < 10 | < 10 | < 10 |
| Methyl Tert-Butyl Ether | N | 1760 | µg/l | 1.0 | [C] < 1.0 | [C] < 1.0 | [C] < 1.0 | [C] < 1.0 | [C] < 1.0 | [C] < 1.0 |
| Naphthalene | N | 1800 | µg/l | 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Acenaphthylene | N | 1800 | µg/l | 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Acenaphthene | N | 1800 | µg/l | 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Fluorene | N | 1800 | µg/l | 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Phenanthrene | N | 1800 | µg/l | 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Anthracene | N | 1800 | µg/l | 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Fluoranthene | N | 1800 | µg/l | 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Pyrene | N | 1800 | µg/l | 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Benzo[a]anthracene | N | 1800 | µg/l | 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Chrysene | N | 1800 | µg/l | 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Benzo[b]fluoranthene | N | 1800 | µg/l | 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Benzo[k]fluoranthene | N | 1800 | µg/l | 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Benzo[a]pyrene | N | 1800 | µg/l | 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Indeno(1,2,3-c,d)Pyrene | N | 1800 | µg/l | 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Dibenz(a,h)Anthracene | N | 1800 | µg/l | 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Benzo[g,h,i]perylene | N | 1800 | µg/l | 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Total Of 16 PAH's | N | 1800 | µg/l | 0.20 | < 0.20 | < 0.20 | < 0.20 | < 0.20 | < 0.20 | < 0.20 |
| Ionic Balance | N | 2760 | Cat/An | N/A | 28.9 / 30.3 | 8.6 / 9.0 | 7.1 / 7.2 | 36.4 / 34.1 | 52.9 / 49.8 | 50.1 / 50.0 |

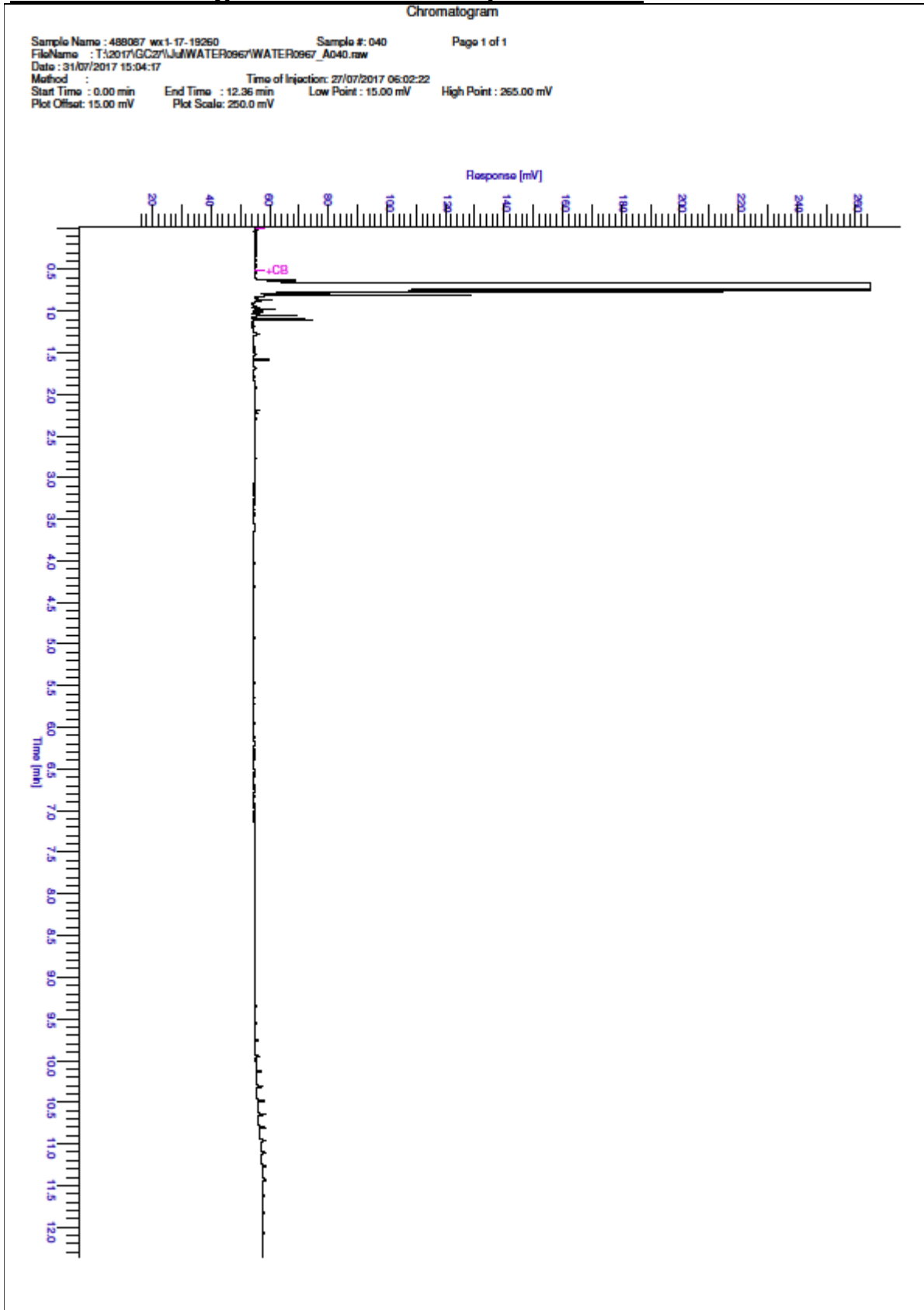
TPH Chromatogram on Water Sample: 488085



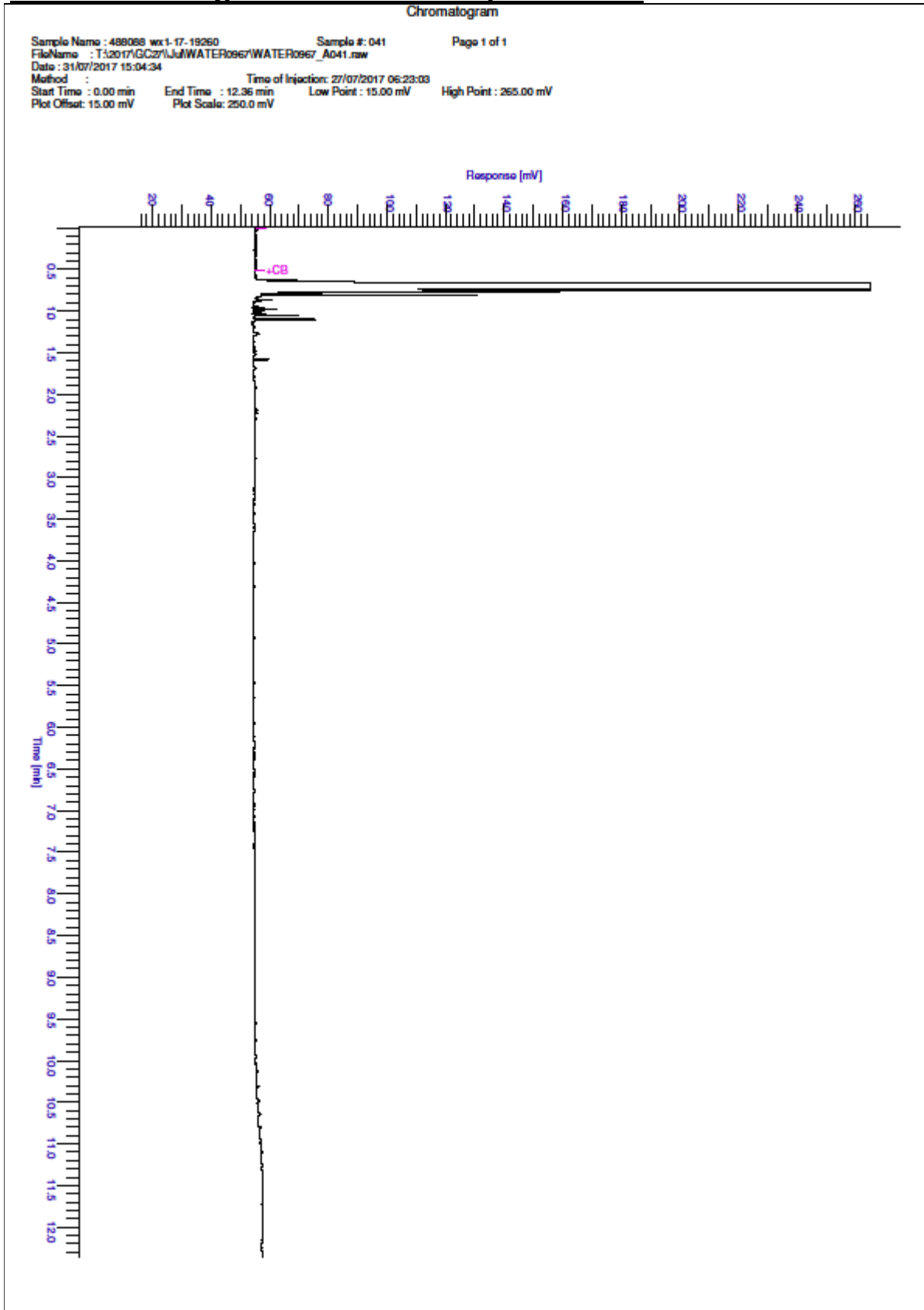
TPH Chromatogram on Water Sample: 488086



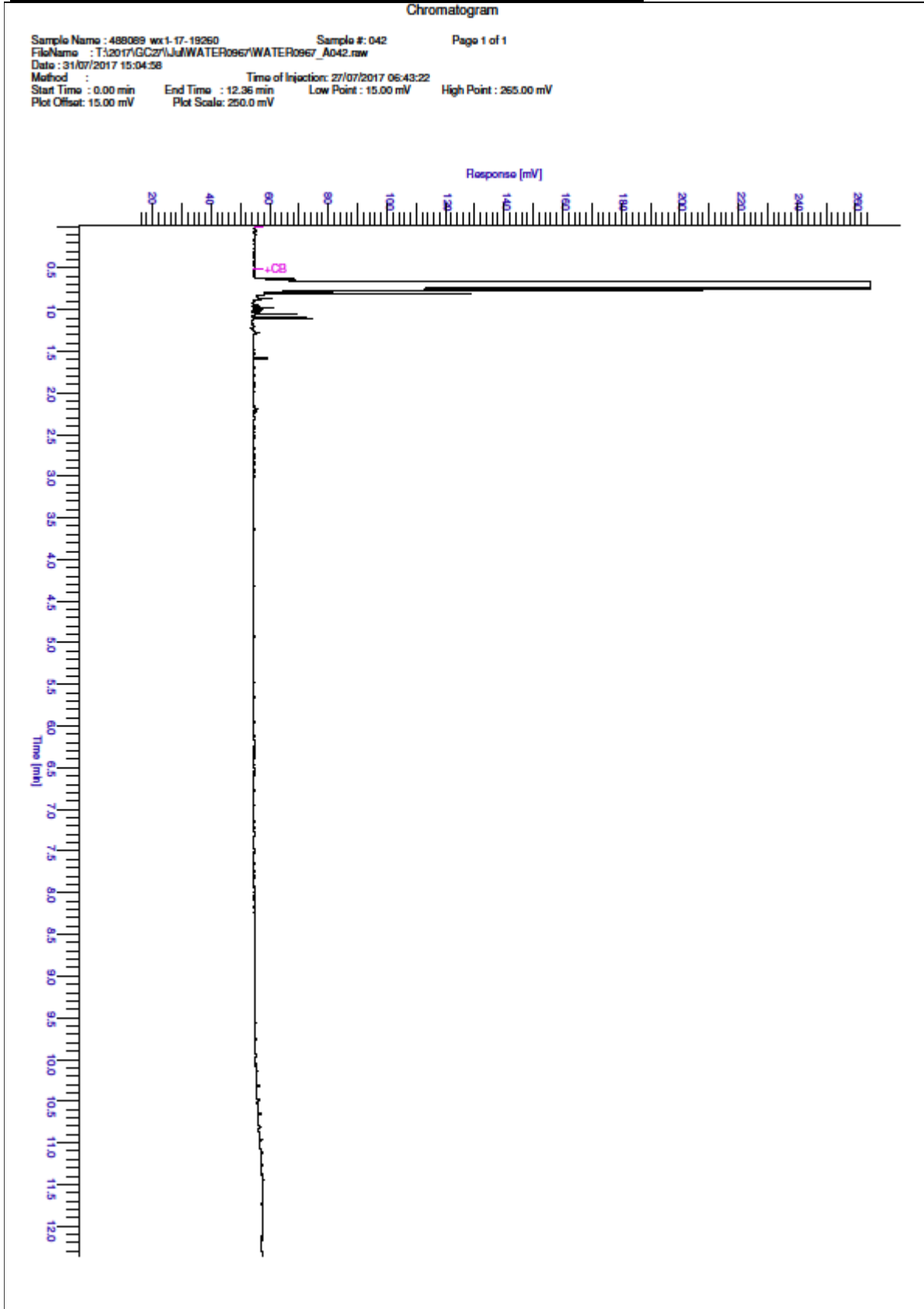
TPH Chromatogram on Water Sample: 488087



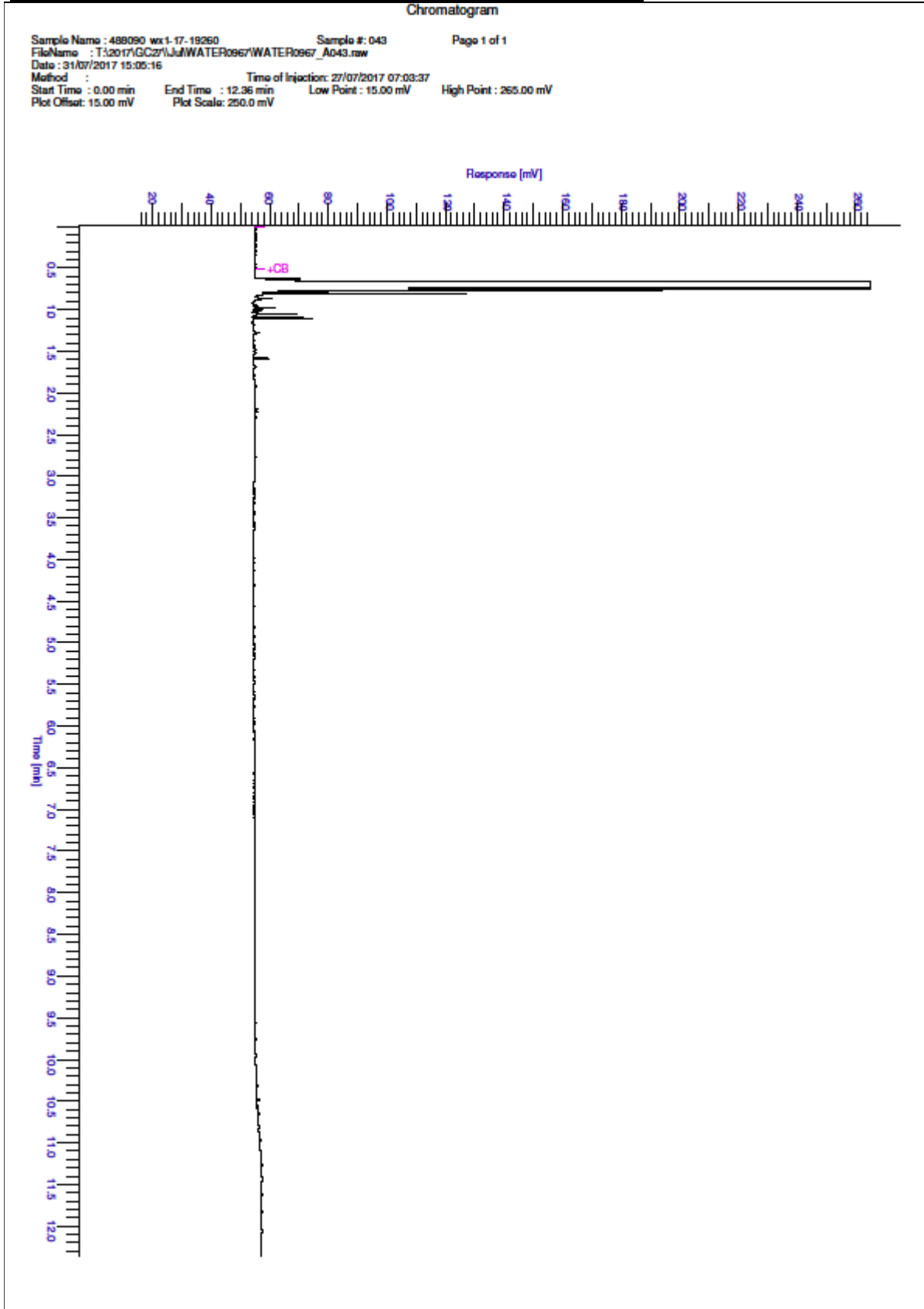
TPH Chromatogram on Water Sample: 488088



TPH Chromatogram on Water Sample: 488089



TPH Chromatogram on Water Sample: 488090



Deviations

In accordance with UKAS Policy on Deviating Samples TPS 63. Chemtest have a procedure to ensure 'upon receipt of each sample a competent laboratory shall assess whether the sample is suitable with regard to the requested test(s)'. This policy and the respective holding times applied, can be supplied upon request. The reason a sample is declared as deviating is detailed below. Where applicable the analysis remains UKAS/MCERTs accredited but the results may be compromised.

| Sample ID: | Sample Ref: | Sample ID: | Sampled Date: | Deviation Code(s): | Containers Received: |
|------------|----------------------|------------|---------------|--------------------|----------------------------|
| 488085 | Rookery North | | 24-Jul-2017 | C | Coloured Winchester 1000ml |
| 488085 | Rookery North | | 24-Jul-2017 | C | Plastic Bottle 1000ml |
| 488086 | Mill Brook | | 24-Jul-2017 | C | Coloured Winchester 1000ml |
| 488086 | Mill Brook | | 24-Jul-2017 | C | Plastic Bottle 1000ml |
| 488087 | Mill Brook Tributary | | 24-Jul-2017 | C | Coloured Winchester 1000ml |
| 488087 | Mill Brook Tributary | | 24-Jul-2017 | C | Plastic Bottle 1000ml |
| 488088 | BH102 | | 24-Jul-2017 | C | Coloured Winchester 1000ml |
| 488088 | BH102 | | 24-Jul-2017 | C | Plastic Bottle 1000ml |
| 488089 | BH103 | | 24-Jul-2017 | C | Coloured Winchester 1000ml |
| 488089 | BH103 | | 24-Jul-2017 | C | Plastic Bottle 1000ml |
| 488090 | BH206 | | 24-Jul-2017 | C | Coloured Winchester 1000ml |
| 488090 | BH206 | | 24-Jul-2017 | C | Plastic Bottle 1000ml |

| SOP | Title | Parameters included | Method summary |
|------|---|---|--|
| 1010 | pH Value of Waters | pH | pH Meter |
| 1020 | Electrical Conductivity and Total Dissolved Solids (TDS) in Waters | Electrical Conductivity and Total Dissolved Solids (TDS) in Waters | Conductivity Meter |
| 1030 | Total Suspended Solids | Total suspended solids | Filtration of a mixed sample through a standard glass fibre filter and determination of the mass of residue retained dried at 105°C. |
| 1090 | Biochemical Oxygen Demand | Biochemical Oxygen demand (BOD) | Electrometric determination of dissolved oxygen in seeded sample initially and after 5 days incubation at 20°C. |
| 1100 | Chemical Oxygen Demand | Chemical Oxygen demand (COD) | Dichromate oxidation of organic matter in sample followed by colorimetric determination of residual Cr[VI]. |
| 1150 | Dissolved Oxygen | Dissolved Oxygen (DO) | Electrometric determination (on site preferred), using oxygen sensitive membrane electrode. |
| 1220 | Anions, Alkalinity & Ammonium in Waters | Fluoride; Chloride; Nitrite; Nitrate; Total; Oxidisable Nitrogen (TON); Sulfate; Phosphate; Alkalinity; Ammonium | Automated colorimetric analysis using 'Aquakem 600' Discrete Analyser. |
| 1415 | Cations in Waters by ICP-MS | Sodium; Potassium; Calcium; Magnesium | Direct determination by inductively coupled plasma - mass spectrometry (ICP-MS). |
| 1450 | Metals in Waters by ICP-MS | Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc | Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS). |
| 1490 | Hexavalent Chromium in Waters | Chromium [VI] | Automated colorimetric analysis by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazine. |
| 1610 | Total/Dissolved Organic Carbon in Waters | Organic Carbon | TOC Analyser using Catalytic Oxidation |
| 1675 | TPH Aliphatic/Aromatic split in Waters by GC-FID(cf. Texas Method 1006 / TPH CWG) | Aliphatics: >C5-C6, >C6-C8, >C8- C10, >C10-C12, >C12-C16, >C16-C21, >C21-C35, >C35- C44 Aromatics: >C5-C7, >C7-C8, >C8- C10, >C10-C12, >C12-C16, >C16- C21, >C21- C35, >C35- C44 | Pentane extraction / GCxGC FID detection |
| 1760 | Volatile Organic Compounds (VOCs) in Waters by Headspace GC-MS | Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics. (cf. USEPA Method 8260) | Automated headspace gas chromatographic (GC) analysis of water samples with mass spectrometric (MS) detection of volatile organic compounds. |
| 1800 | Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Waters by GC-MS | Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenzo[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene | Pentane extraction / GCMS detection |
| 2760 | Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS | Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule | Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds. |

Report Information

Key

- U UKAS accredited
- M MCERTS and UKAS accredited
- N Unaccredited
- S This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
- SN This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
- T This analysis has been subcontracted to an unaccredited laboratory
- I/S Insufficient Sample
- U/S Unsuitable Sample
- N/E not evaluated
- < "less than"
- > "greater than"

Comments or interpretations are beyond the scope of UKAS accreditation

The results relate only to the items tested

Uncertainty of measurement for the determinands tested are available upon request

None of the results in this report have been recovery corrected

All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis

All Asbestos testing is performed at the indicated laboratory

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

- A - Date of sampling not supplied
- B - Sample age exceeds stability time (sampling to extraction)
- C - Sample not received in appropriate containers
- D - Broken Container
- E - Insufficient Sample

Sample Retention and Disposal

All soil samples will be retained for a period of 45 days from the date of receipt

All water samples will be retained for 14 days from the date of receipt

Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:

customerservices@chemtest.co.uk