






**LAND AT GORESBROOK ROAD,
DAGENHAM, RM9 6XS
PHASE I AND PHASE II
GEOTECHNICAL AND GEO-
ENVIRONMENTAL GROUND
INVESTIGATION REPORT
BEFIRST (REGENERATION) LTD
29TH OCTOBER 2020**

Site:	LAND AT GORESBROOK ROAD, DAGENHAM, RM9 6XS	
Title:	PHASE I AND PHASE II GEOTECHNICAL AND GEO-ENVIRONMENTAL GROUND INVESTIGATION	
Project:	RESIDENTIAL DEVELOPMENT	
Client:	BEFIRST (REGENERATION) LTD.	
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DESK STUDIES GROUND INVESTIGATION CONSULTANCY

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1 INTRODUCTION

1.1 General

Land Science was instructed to undertake a Phase I and Phase II Geotechnical and Geo-Environmental Investigation in relation to the proposed future redevelopment of land at Goresbrook Road, Dagenham, RM9 6XS. The location of the site is shown on Figure 1, which is centred at grid reference TQ 4820 8386.

1.2 Client

The Client for this appointment was BeFirst (Regeneration) Ltd. This report may be used by this named client only and is subject to the confidentiality notice set out in section 3.1, and cannot not be relied upon by any other party as set out in the report conditions.

1.3 The Site

The area under investigation comprised a vacant, broadly rectangular shaped parcel of land heavily overgrown with vegetation.

The layout of the existing site is indicated on Figure 2, and a walkover survey is presented in section 6.0. The area was approximately 0.02 hectares. It was assumed that the Client was in ownership of the site, and that this investigation was not a pre-purchase appraisal.

1.4 Form of Development

Although no formal proposed plans were available at the time of this report, it was understood the site was to be redeveloped into residential land use. Once proposed plans have been produced, this report should be updated.

1.5 Previous Investigations

Land Science was not aware of any previous desk studies or ground investigation(s) undertaken on this site and for this scheme.

1.6 Scope of Works

The proposed scope of works was to comprise the following:

- A desk study
- 2no. Dynamic (windowless) sampler boreholes
- 2no. Super heavy dynamic probes
- Laboratory testing

The fieldwork was conducted on 24th September 2020, under the supervision of Land Science.

1.7 Geotechnical Objectives

A Ground Investigation Report was required in order to provide an interpretation of ground conditions with respect to proposed foundations, pavements, concrete specification, and excavations.

1.8 Geo-Environmental Objectives

A phase I (desk study) and phase II (intrusive investigation) was required, to provide a generic quantitative risk assessment (GQRA) in respect of the proposed redevelopment, adjacent land uses, and the wider environment, in the context of the planning regime.

2 STANDARDS AND REFERENCES

2.1 Standards

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

- BS10175:2011+A1:2013, Investigation of Potentially Contaminated Sites.
- Model Procedures for the Management of Contaminated Land, DEFRA and Environment Agency, September 2004 (“CLR11”).
- Guiding Principles for Land Contamination, Environment Agency, March 2010.
- National Planning Policy Framework, July 2018.
- Building Regulations Approved Document C: Site preparation and resistance to contaminants and moisture, HM Government, July 2013.
- NHBC Standards Chapter 4.1: Land Quality - Managing Ground Conditions, 2019.
- BS 5930:2015 Code of Practice for Site Investigations
- BS 1377:2018 Soils for Civil Engineering Purposes
- BS 8004:2015 Code of Practice for Foundations
- BS EN 1997-2:2007. Eurocode 7: Geotechnical Design – Part 2: Ground Investigation and testing.

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

2.2 References

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

- Smith, I. (2014) Smith’s Elements of Soil Mechanics. Chichester. Wiley Blackwell. 9th Edition.
- Highways England 2009. Interim Advice Note 73/06 revision 1: Design Guidance for Road Pavement foundations (draft HD25)
- Radon: Guidance on protective measures for new buildings, BRE Report BR 211, 2015 2ND edition
- Revised EU Waste Framework Directive 2008 2008/98/EC [transposed into English law under The Waste (England and Wales) Regulations 2011]

- European Community (EC) Directive 1999/31/EC [transposed into English law under the Landfill (England and Wales) Regulations 2002]
- Defining Waste Recovery - Permanent Deposit of Waste on Land, EPR13 v1.0, EA 2010
- The definition of waste: Development Industry Code of Practice, v2, CL:AIRE 2011
- Guidance on the classification and assessment of waste Technical Guidance WM3 (“WM3”) EA publication (1st edition 2015)

2.3 Notes

If a long delay exists between the investigation and commencement on site, it may be necessary to check whether any standards have changed in the intervening period.

3 REPORT CONDITIONS

3.1 Report Conditions

This report is issued subject to the conditions set out in section 3 and the terms and conditions of appointment agreed with the Client.

3.2 General

Interpretation of ground conditions inherently depends on the conditions revealed by a limited data set. Land Science takes all reasonable professional care in preparation of this report, using current standards and industry best practice. However, we accept no liability whatsoever expressed or implied in respect of:

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

Land Science does not accept any risk or any direct or consequential liability relating to ground conditions. The client should understand their risks and liabilities and seek further professional advice.

No aspect of this report constitutes a design. Where this information is used in design, the designer should verify that the information has been used appropriately.

3.3 Confidentiality

This report may only be relied upon by the Client and their design team, and should only be read and used in full. No responsibly will be accepted where this report is used, by any other party, who do so at their peril. The report may not be relied upon or transferred to any other parties without the express written agreement of Land Science.

3.4 Third Party Information

Third party information used in the production of this report has been relied upon as being accurate. Land Science cannot warrant or accept any liability for errors and/or omissions in third party information.

3.5 Regulators and Approvals

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

Standards, technical guidance and regulatory positions change over time and which may therefore affect the findings and recommendations made in this report. This should be verified by the client prior to any critical contractual points or commencing on site.

3.6 Variations with time

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

3.7 Other Matters

This report makes no representation on other matters such as ecology, agronomy, arboriculture, structural condition, building materials, boundaries and planning etc.

No aspect of this report should be taken as a guarantee whatsoever that a site is free of pollution, contamination or hazardous materials.

4 PHASE I DESK STUDY

4.1 General

A geotechnical and geo-environmental desk study was prepared, and included a review of:

- Maps and historical borehole records from the British Geological Survey
- Information publicly available online from the Environment Agency
- Historical Ordnance Survey maps
- An environmental data report

Copies of relevant data are presented in Appendix A.

4.2 Geology

Based on mapping published online by the British Geological Survey (BGS), the geology of the site was anticipated to comprise the following succession:

Strata	Generic description
Taplow Gravel Member	Sand and gravel, locally with lenses of silt, clay or peat.
London Clay Formation	Bioturbated or poorly laminated blue-grey or grey-brown, slightly calcareous, silty to very silty clay, clayey silt and sometimes silt, with some layers of sandy clay.

Alluvium is mapped close by to the site, if encountered the stratum would overlay the Taplow Gravel Member.

4.3 Historical Boreholes

Records of old boreholes are held by the BGS. However, no relevant borehole records were available within the vicinity of the site.

4.4 Background Geochemistry

The BGS publish a series of different estimated background levels of selected contaminants, which are useful for land quality assessments, to establish whether results may be attributed to pollution or soil parent material composition.

No estimates of soil chemistry, or urban soil chemistry data was available for the site. However, the BGS interpolate of the measured urban soil chemistry data to 100m square grids using a combination of topsoil analysis and geological parent materials. A summary of the data is presented below:

	Arsenic	Cadmium	Chromium	Lead	Nickel
Minimum	1.00mg/kg	0.10mg/kg	13mg/kg	11mg/kg	2.00mg/kg
Maximum	161mg/kg	165.2mg/kg	2094mg/kg	10000mg/kg	506mg/kg
Average	17mg/kg	0.90mg/kg	79mg/kg	280mg/kg	28mg/kg

4.5 Geological Hazards

The BGS produce hazard assessment maps for a selection of common geotechnical datasets, and the classifications referring to the site (and immediate vicinity – if relevant) are summarised below:

Dataset:	Location	Hazard
Collapsible Ground Stability Hazards	On Site	Very Low
Landslide Ground Stability Hazards		
Running Sand Ground Stability Hazards		
Compressible Ground Stability Hazards		No Hazard
Ground Dissolution Stability Hazards		
Shrinking or Swelling Clay Ground Stability Hazards		

4.6 Mining and Natural Cavities

A search of various databases for coal mining, mining, brine compensation, and natural cavities was carried-out, and the findings are summarised below:

Database	Results
CBSCB Compensation District	No features found
Coal Mining Affected Areas	
Non Coal Mining Areas of Great Britain	
Mining Instability	
Man-Made Mining Cavities	
Natural Cavities	

4.7 Radon Potential

The requirement for Radon Protection Measures (RPM) has been assessed in accordance with BRE 211:2015. Public Health England and the BGS estimate the potential for radon and the requirement for Radon Protection Measures on site as follows:

Probability	Protection Measure
Not at risk - Less than 1% of homes are estimated by PHE to exceed the threshold for Radon gas in residential dwellings.	No Radon Protection Measures (RPM) are required for new dwellings or extensions constructed at this location.

4.8 Hydrogeology

Based on the geology and topography of the local area, groundwater was is anticipated within the Taplow Gravel Member perched upon the cohesive London Clay Formation.

4.9 Groundwater Flooding

The BGS have produced a series of hazard assessments for the potential of flooding from groundwater, and data relating to the site and a 50m radius is summarised below.

Location	Flooding type
On site	Potential for groundwater flooding of property situated below ground level

4.10 Aquifer Designations

The Environment Agency classifies geological units across England into different designations as Aquifers. The designations for strata beneath the site are given below, which corresponds to an overall designation as a Secondary A Aquifer.

Strata	Classification	Details
Groundwater Vulnerability	High	Areas able to easily transmit pollution to groundwater. They are characterised by high leaching soils and the absence of low permeability superficial deposits.
Taplow Gravel Member	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers.
London Clay Formation	Unproductive Strata	Low permeability strata that have negligible significance for water supply or river base flow

4.11 Groundwater Abstractions

No groundwater abstractions were identified as part of the desk study within a 1000m radius of the site.

4.12 Source Protection Zones

A groundwater Source Protection Zone (SPZ) is an area of protection placed around a well or borehole that supplies groundwater of potable quality. No SPZ's were identified on and within 250m of the site according to the Environment Agency.

4.13 Surface Water Features

No surface water bodies were identified on site and in the immediate vicinity. The nearest features are small ponds located within *Goresbrook Park* some 312m east.

4.14 River Quality

No river quality locations were found within a 250m radius.

4.15 Surface Water Flooding

Land potentially susceptible to flooding from seas, rivers, reservoirs and surface water is identified by the Environment Agency. Current mapping indicated the following:

Source	Details
River and the sea	The site lies within an area susceptible to very low risk of flooding (i.e. >0.1% chance of flooding)
Surface water	The site lies within an area susceptible to very low risk of flooding (i.e. >0.1% chance of flooding). However, the road out the front of the site is at High risk of surface water flooding. (i.e. >3.3% chance of flooding)
Reservoirs	The site does not lie within an area susceptible to reservoir flooding

4.16 Licences Database Search

A search of various industrial land use databases was carried-out, and the findings relevant to the site are summarised below:

Database	Results
Prosecutions Relating to Authorised Processes	No features found
Integrated Pollution Controls	
Registered Radioactive Substances	
Contaminated Land Register Entries and Notices	
Enforcement and Prohibition Notices	
Integrated Pollution Prevention and Control	
Substantiated Pollution Incident Register	
LA Integrated Pollution Prevention & Control	
LA Pollution Prevention and Control Enforcements	
Prosecutions Relating to Controlled Waters	
Water Industry Act Referrals	
Hazardous Substances	

4.17 Contemporary Trade Directories

A search of contemporary trade directory databases was made, and no relevant data was identified on site and within a 250m radius.

4.18 Points of Interest

A search of “points of interest” was made, and the following data relevant to this report was identified on site and in the vicinity.

Location	Address	Category	Class Code
55m W	Xtra Clean Mobile Valeting, 1, Elstow Road	Personal, Consumer and other Services	Vehicle Cleaning Services

4.19 Fuel Station Entries

A search of fuel stations was made; no relevant data was identified on site and within 250m.

4.20 Underground Pipelines and Cables

A search of records of major underground pipelines and cable infrastructure (not to be confused with utilities) did not identify any features on site and in the immediate vicinity.

4.21 Discharge Consents

Discharge consents identified on site and in the vicinity are summarised on the following table:

Location	Purpose	Details
221m N	Dagenham, Essex	Type: Discharge Of Other Matter-Surface Water Receiving Water: Wantz Stream Status: Not Supplied

4.22 Pollution Incidents

No pollution incidents were identified on site and within 250m.

4.23 Waste Management Facilities

Searches of various databases of current and historical waste management facilities (including mapped areas of possible infilled land) are summarised on the following table:

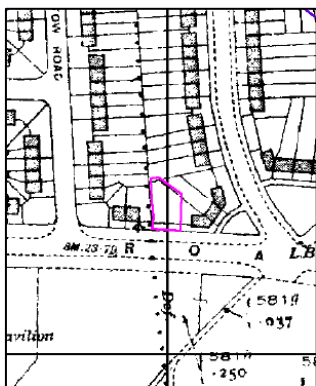
Database	Results
Historical Landfill Sites	No features found
Licensed Waste Management Facilities	
Registered Landfill Sites	
BGS Recorded Landfill Sites	
Integrated Pollution Control Registered Waste Sites	
Local Authority Recorded Landfill Sites	
Registered Waste Transfer Sites	
Registered Waste Treatment or Disposal Sites	
Potentially Infilled Land	

5 SITE HISTORY

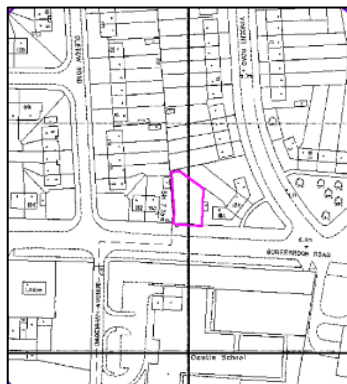
5.1 Historical Maps

Historical maps dating between 1864 and 1999 were reviewed to identify the history of the site and local area. The outline of the site shown is geo-referenced to the current grid system; due to inaccuracies in mapping techniques the actual boundary on older maps may vary. Given the size of these files, smaller scale maps are not appended to the PDF version of this report but are available separately.

In summary, the site initially comprised open fields in 1864. By 1938, the surrounding land was developed into residential housing and the site comprised part of *186 Goresbrook Road*. No further significant changes were noted within the OS Maps; the site was fully fenced off.



OS Map 1938



OS Map 1996

The local area in 1864 comprised open fields and agricultural land. By 1938, residential development is noted; with two schools and allotment gardens mapped south of the site. By 1962, an ambulance station was mapped 100m south east. In 1972 a sports centre was noted some 100m south west. The local area remains this way in mapping in 1999.

5.2 Aerial Photographs

Aerial photographs dating between 1947 and 2020 available online and within the Envirocheck report were also reviewed. The early image indicates primarily residential land use with new buildings being built to the southwest. By 1999 the north of the site remains primarily residential whilst school and building works are noted south of the site beyond Goresbrook Road. Former houses noted in 1945 are no longer mapped and a sports centre is now present.



OS Map 1947



OS Map 1999

6 SITE WALKOVER

6.1 General

A site walkover was undertaken as part the fieldwork on 24th September 2020. Photographs of the site are provided in Appendix B.

6.2 Site Layout

In summary, the site comprised a vacant broadly rectangular shaped parcel of land, heavily overgrown with vegetation. Domestic waste was noted across the site including plastic packaging, timber, metal, and litter. It also appeared the site had been used by neighbouring properties to dispose of garden waste such as tree cuttings. The site was bordered by wooden fencing (of neighbour's gardens), and Goresbrook road to the south.

6.3 Surrounding Area

The site was located in a predominantly residential area and was primarily surrounded by further dwellings. The site fronted on to Goresbrook Road to the south.

No potentially contaminative land uses were identified in the local vicinity.

6.4 Elevation and Topography

The topography of the local area was generally flat and level. The site was also generally flat and level, apart from a slight ditch at the northern end, and was located at an approximate elevation of 6mOD.

6.5 Ground Conditions

No evidence of existing soil conditions was observed, such as open excavations or the like.

No immediate evidence of significant structural movement was observed, or was reported to Land Science. However, our inspection was cursory and a full survey was outside the scope of this report.

6.6 Surface Water and Groundwater

No surface water features were identified on site or in the immediate vicinity. No evidence of shallow groundwater, such as boggy waterlogged soils or water loving plants etc., were noted.

6.7 Trees and Vegetation

A very tall mature Beech tree was noted adjacent to the southern boundary of the site. The site was heavily overgrown with brambles, ivy and nettles.

A detailed arboricultural survey was outside the scope of this report. A survey may be required for tree root protection purposes or for assessing the depth of foundations in the vicinity of trees.

There was no evidence of invasive plant species, but this was not a full survey.

7 CONCEPTUAL SITE MODEL (CSM)

7.1 General

A preliminary geo-environmental Conceptual Site Model (CSM) was formulated for the site based on the desk study & site walkover, and in light of the anticipated proposed development. The model should be revised where the development proposals differ, any ground investigation data is available, or where unexpected conditions are encountered.

The model has been designed primarily in accordance with established procedures in BS5930, BS10175 and CLR11, and also draft ISO guidance. In accordance with best practice, the model has been used to identify possible contamination risks following a source-pathway-receptor ('SPR') approach.

7.2 Site Setting

Based on the anticipated ground conditions revealed in the desk study, the following generalised soil and groundwater model is anticipated:

Strata	Depths	Soil types	Groundwater
Made Ground	~1.00m	Mixed composition with man-made fragments such as brick, and concrete.	Potentially Perched
Taplow Gravel Member	~5.00m	Sand and gravel, locally with clay lenses	Perched upon the London Clay
London Clay Formation	>5.00m	Silty clays, locally with bands of fine sand	Limited

7.3 Risk Assessment Framework

A qualitative estimate of the level of risk associated with the identified source-pathway-receptor linkages has been made. The estimate is based on the likely significance of an identified source and the sensitivity of the identified receptor, as follows:

		Secondary Source				
		Unlikely	Very low	Low	Moderate	High
Receptor	Unlikely	Unlikely	Unlikely	Unlikely	Unlikely	Unlikely
	Very Low	Unlikely	Unlikely	Very low	Low	Low to moderate
	Low	Unlikely	Very low	Low	Low to moderate	Moderate
	Moderate	Unlikely	Low	Low to moderate	Moderate	High
	High	Unlikely	Low	Moderate	High	Very High

The principle of primary and secondary sources has been adopted in accordance with draft ISO/CD 21365. Further information is given in the accompanying notes, and are summarised as follows:

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

For instance, a leaking tank may contaminate soils and generate vapours, or buried fill materials may represent a source of ground gases or groundwater pollution. It should be noted that sources may also be receptors; for instance, groundwater may both be a receptor (as in the background chemical quality of an aquifer or resource) and in turn become a source (contaminated waters impacting on buried concrete structures). Further guidance is given in the accompanying notes.

7.4 Primary Sources

Identified primary and secondary sources of possible contamination arising in soils identified as part of the desk study and site walkover on site are summarised on the following table.

Primary Source	Description
Made Ground	Made Ground may exist as a result of the construction of adjacent buildings. The provenance of such materials is unknown and may be contaminated. Wide range of possible metals, non-metals, organic contaminants, asbestos, etc.

7.5 Secondary Sources

Based on the primary sources identified, the secondary sources (soils, volatile vapours, ground gases and groundwater) have been assessed as follows:

Secondary Source	Description	Rating
Soils	Made Ground as a result of construction of buildings on adjacent plots of land, the depth and composition of material is unknown.	Very Low
Volatile vapours	No viable sources have been identified.	Unlikely
Ground gases	The site is not located near to any historical landfill sites. The site has had no development, only the development of adjacent plots has been noted. Made Ground is not expected to be greater than 1.00mbgl.	Unlikely
Groundwater	Groundwater may become a source of due to potential contaminants leaching out from the Made Ground. The depth of the groundwater table is unknown.	Very Low

7.6 Potential Receptors

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

Group	Receptors	Rating
Human Health	End Users - It was assumed that the development proposals would be analogous to the surrounding area i.e. residential with gardens.	High

Group	Receptors	Rating
	Adjacent Land Users - Sensitive land uses identified locally. Further residential land use was noted in the surrounding areas.	Moderate
Built Environment	Soft Landscaping - It was assumed there would be some degree of soft landscaping e.g. private gardens	Moderate
	Structural Concrete - new foundations etc cast into the ground. Concrete is susceptible to attack from Sulphate in soils and groundwater, which is exacerbated by low pH values. New concrete is to be used in the substructure e.g. new foundations.	Moderate
	Water Supply Pipework - Water mains susceptible to chemical attack. Plastics laid in contact with ground contaminated by organic contaminants may degrade over time, which is especially an issue in respect of potable water supplies which are typically installed in plastic water mains and therefore risk becoming tainted.	High
Controlled Waters	Groundwater - Water below ground in permeable strata. The site overlies strata classified as Secondary A Aquifer with a high groundwater vulnerability rating.	Moderate
	Surface Water - Surface water in lakes and rivers etc. No surface water bodies were identified on site or in the vicinity. Surface water has not been identified as a potential receptor in this instance.	Unlikely

7.7 Receptors not considered

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

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

The potential source-pathway-receptor linkages have been grouped by receptor and are discussed in the following sections:

7.8 End Users

The source-pathway-receptor linkages identified with respect to End Users are summarised below:

Source(s)	Pathway(s)	Risk rating
Soils	Dermal contact with soil and soil-borne dust	Low to moderate
Soils	Ingestion of soil and soil-borne dust	Low to moderate
Soils	Inhalation of soil-borne dust	Low to moderate
Soils	Consumption of homegrown produce	Low to moderate
Volatile vapours	Inhalation, ignition	Negligible
Ground gases	Inhalation, ignition	Negligible
Groundwater	Direct contact	Low to moderate

7.9 Adjacent Land Users

Pathways for adjacent land users may be temporary (i.e. during development) or long term (on completion of the development). Off-site sources impacting on off-site receptors have not been considered.

The source-pathway-receptor linkages identified with respect to Adjacent Land Users are summarised below:

Source(s)	Pathway(s)	Risk rating
Soils	Inhalation of soil-borne dust	Low
Volatile vapours	Inhalation, ignition	Negligible
Ground gases	Inhalation, ignition	Negligible
Groundwater	Direct contact	Low

7.10 Soft Landscaping

The source-pathway-receptor linkages identified with respect to Soft Landscaping are summarised below:

Source(s)	Pathway(s)	Risk rating
Soils	Plant uptake, phytotoxic effects	Low
Volatile vapours	Root asphyxiation, ignition, phytotoxic effects	Negligible
Ground gases	Root asphyxiation, ignition, phytotoxic effects	Negligible
Groundwater	Plant uptake, phytotoxic effects	Low

7.11 Structural Concrete

The source-pathway-receptor linkages identified with respect to Structural Concrete are summarised below:

Source(s)	Pathway(s)	Risk rating
Soils	Chemical attack	Low
Volatile vapours	Not applicable	Negligible
Ground gases	Not applicable	Negligible
Groundwater	Chemical attack	Low

7.12 Potable Water Supplies

The source-pathway-receptor linkages identified with respect to Potable Water Supplies are summarised below:

Source(s)	Pathway(s)	Risk rating
Soils	Chemical attack	Low to moderate
Volatile vapours	Chemical attack	Negligible
Ground gases	Not applicable	Negligible
Groundwater	Chemical attack	Low to moderate

7.13 Groundwater (receptor)

The source-pathway-receptor linkages identified with respect to Groundwater (as a receptor) are summarised below:

Source(s)	Pathway(s)	Risk rating
Soils	Leaching-out, migration through the water table	Low
Volatile vapours	Not applicable	Negligible
Ground gases	Not applicable	Negligible
Groundwater	Not applicable	Negligible

7.14 Surface water

The source-pathway-receptor linkages identified with respect to Surface Water (as a receptor) are summarised below:

Source(s)	Pathway(s)	Risk rating
Soils	Leaching-out, migration through the water table	Negligible
Volatile vapours	Not applicable	Negligible
Ground gases	Not applicable	Negligible
Groundwater	Lateral migration to identified surface water bodies	Negligible

7.15 Other Factors

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

Fly tipping	Dumped wastes including domestic rubbish, furniture etc. were noted. An allowance should be made for removing such items as part of site preparation works.
Ecologically Sensitive areas	Damaging, disturbing or removing protected species can result in prosecution under a range of environmental legislation. Potential impacts on the ecological environment include:

- Disturbance of birds, badgers, bats and other protected species
 - Removal and fragmentation of habitats
 - Disturbance to aquatic wildlife and water quality
 - Disturbance to wildlife from noise and vibration
 - Damage to trees and hedgerows.
- It is recommended that the advice of an appropriately qualified ecologist should be sought prior to undertaking any works.

8 INTRUSIVE INVESTIGATION

A factual record of the conditions encountered during the physical investigation of the site is presented in the following sections.

8.1 Investigation Strategy

Based on the findings of the conceptual site model and the geotechnical objectives, the intrusive investigation was based on the following strategy:

Aspect	Position	Targets		Testing, installations etc
		Depth / strata	Existing Location	
Dynamic Sampler boreholes (DS)	DS1	4.00m	South of site.	SHDP
Handheld Window Sampling (DS)	DS2	4.00m	Centre of site.	-

An explanation of the excavation and testing types are given in the following sections.

DS2 was originally located further north, towards the rear, but access was restricted by dense vegetation; the position was moved to the centre of the site and was carried out with handheld equipment. DS1 refused at 1.80mbgl and DS2 refused at 1.20m.

8.2 Dynamic (Windowless) Sampling (DS)

Dynamic Sampling entails 1m long hollow tubes with liners driven into the ground and retracted in order to obtain samples. The process is repeated sequentially to the target depth, unless impenetrable strata or borehole instability prevent further progress. The liners are split, logged, tested, and subsampled. Sample compression can occur within the liners, and the sampler can sometimes become blocked. Sample recovery is typically class 2 as defined in Eurocode 7.

8.3 Super Heavy Dynamic Probing (SHDP)

Dynamic Probing involves hammering a cone point into the ground and recording the number of blows required for each increment of penetration. The mass and falling height

of the hammer, the energy efficiency, the dimensions of the cone, the rod specifications and rod friction are important considerations. A range of configurations are prescribed in Eurocode 7 and EN ISO 22476-2; the type deployed was *DPSH-A*.

8.4 Window Sampling (Handheld) (DS)

Window Sampling typically comprises 1m tubes driven into the ground using a hydraulic breaker or similar. The tubes have no liner and but have a long narrow opening along part of the length (a “window”) from which subsamples can be collected.

8.5 Investigation Layout

A site plan showing the investigation layout is presented below. This has also been appended to the end of the report as shown in Figure 2.



9 GROUND CONDITIONS

9.1 General

The expected ground conditions were anticipated to comprise Taplow Gravel over London Clay Formation. The formation confirmed the Taplow Gravel Member however due to the density of the gravels the boreholes were terminated in the Taplow Gravel Member and the underlying London Clay Formation was not encountered.

A summary of the encountered conditions is presented below.

Base Depth m		Strata
DS1	DS2	
-	0.60m	Made Ground
1.80m+	1.20m+	Taplow Gravel Member

The identification of materials encountered as specific geological strata is tentative and should be used as a guide, and interpolation between or below investigation points should be treated with caution.

9.2 Made Ground

Made Ground was encountered to depths of 0.60m and generally comprised light brown slightly gravelly SAND. Sand is fine. Gravels are medium to coarse subrounded flints. With brick fragments and concrete cobbles.

9.3 Taplow Gravel Member

Taplow Gravel Member was encountered to a maximum depth of 1.80m and generally comprised light brown clayey slightly gravelly SAND. Sands are fine to medium. Gravels are medium sub-angular to subrounded flints. The base of the formation was not found.

9.4 Roots and Rootlets

Abundant roots were identified in DS2 (0.0 to 0.50m) and rare rootlets were recorded in DS1 (0.0 to 0.30m).

9.5 Field Evidence of Contamination

No evidence of possible soil contamination (such as staining, malodours, or brightly coloured soils) was identified in the field.

Made Ground was identified to depths of 0.60m, and such materials may be imported from an unknown source or mixed with hazardous materials, and as such may contain a wide range of potential contaminants. All such materials should be treated as suspect unless proven otherwise. Preliminary testing has been carried out, as described in section 10.

9.6 Groundwater

Groundwater was not encountered during excavation of any of the investigative positions.

9.7 Stability and Casing

Positions remained stable during the investigation.

10 GEO-ENVIRONMENTAL TESTING

10.1 PID Screening

All soil samples were screened for VOC's in headspace, broadly in accordance with the methodology set-out in CIRIA C682. Due to interference from humidity and other factors, Land Science adopts a method detection limit of 1.0ppm to avoid reporting false positive readings. None of the samples exhibited VOC's above the detection limit.

10.2 Geochemical Laboratory Analysis

Samples were selected for geochemical analysis, based on the following rationale:

- Made Ground was encountered, which may contain a wide range of contaminants. Selected samples from DS2 0.30m were tested for a routine screening suite (LS1) and were screened for Asbestos.
- A shallow sample of Taplow Gravel Member was also tested for a routine screening suite (LS1) and were screened for Asbestos.

The scope and extent of testing was considered appropriate and in accordance with the Conceptual Site Model and preliminary risk assessment.

A summary of the testing scheduled is given below:

Suite	DS1 0.20m	DS2 0.30m
LS1	✓	✓
Asbestos	✓	✓

The relevant screening suites are defined below. Where duplicate analysis exists between suites, each test is performed only once:

Suite	Definition
LS1	Screening suite: pH, fraction of organic carbon, Metals and Non Metals, water soluble Sulphate, Sulphide, total Cyanide, total Phenols, speciated PAH's.

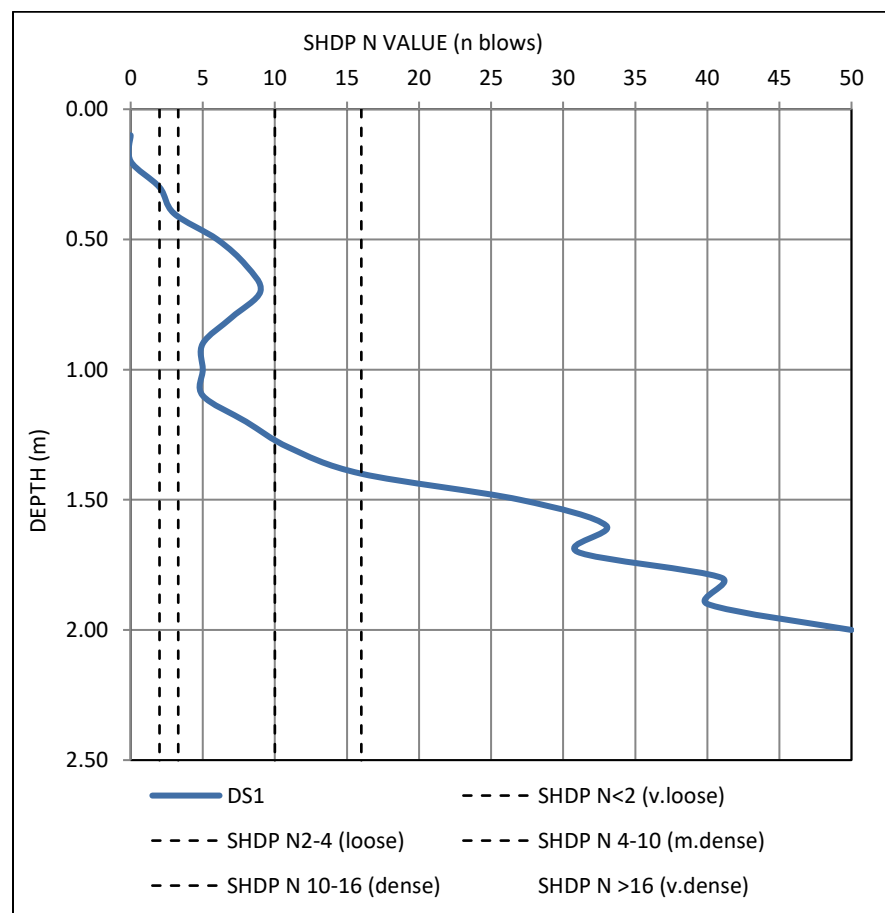
Asbestos	Asbestos screen: Laboratory screening for fibres and Asbestos Containing Materials; identification where identified. Using polarising light and dispersion staining as described in HSG 248, HSE Contract Research Report No 83/1996 and in Davies et al, 1996.
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The results of geochemical analysis are discussed in section 14.0.

11 GEOTECHNICAL FIELD TESTING

11.1 Dynamic probing (SHDP)

A super heavy dynamic probe (SHDP) was undertaken at DS1. The test is used as a measure of the relative density of granular soils (as defined in BS5930:1999).



12 GEOTECHNICAL LABORATORY TESTING

12.1 General

Samples of soil were sent for laboratory geotechnical testing; copies of the results are appended, and summaries are given in the following tables. The testing was undertaken in accordance with the relevant British Standards in BS1377 following documented quality procedures.

12.2 Particle Size Distribution

A Particle Size Distribution test was performed on a representative sample of granular material.

Strata	% Clay/Silt	% Sand	% Gravel	% Cobbles
Taplow Gravel Member	4.0	57.7	38.4	0.0

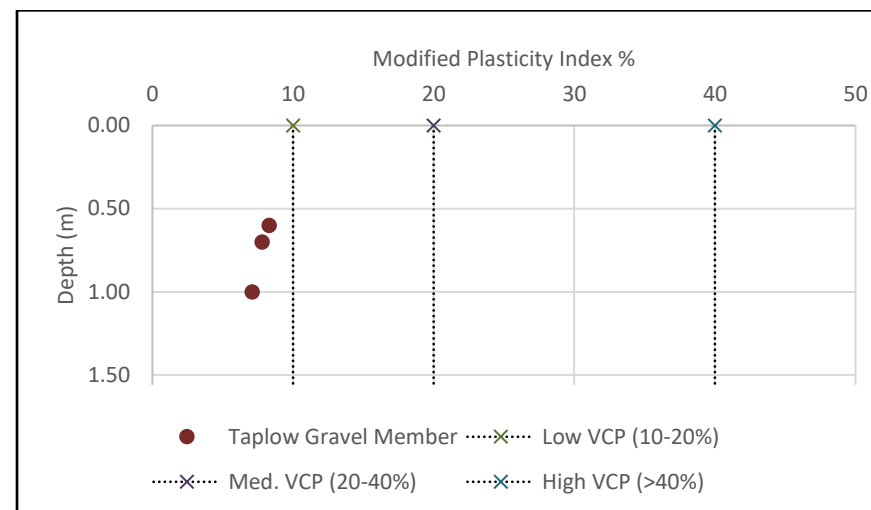
12.3 Plasticity Indexes (Atterberg Limits)

Atterberg Limit tests were undertaken on selected samples of cohesive soils, as summarised below.

Strata	No. of tests	Plasticity Index %		
		Minimum	Maximum	Average
Taplow Gravel Member	3	10.0	11.5	11.0

A modified plasticity index (PI') was calculated following the NHBC methodology, to account for any non-shrinkable percentage not passing the 425µm sieve:

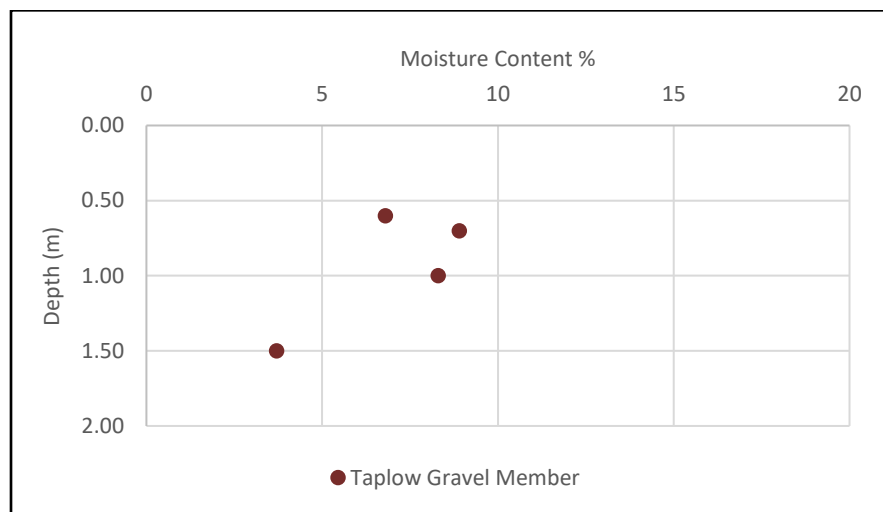
Strata	No. of tests	Modified Plasticity Index %		
		Minimum	Maximum	Average
Taplow Gravel Member	3	7.1	8.3	7.7



12.4 Water Content

Water content determinations (formerly known as *moisture content*) were undertaken in combination with various classification tests, and the results are summarised below.

Strata	No. of tests	Moisture content %		
		Minimum	Maximum	Average
Taplow Gravel Member	4	3.7	8.9	6.9



12.5 pH and Sulphate

Geochemical testing for water soluble Sulphate and pH were undertaken, and the results are summarised on the following table.

Strata	No. of tests	Water soluble Sulphate (SO ₄ g/l)	pH (value)
Made Ground	1	0.023	7.3
Taplow Gravel Member	2	0.023 – 0.26	5.0 – 6.6

13 GEOTECHNICAL ASSESSMENT

The following recommendations have been made with respect to geotechnical design.

13.1 General Foundation Design

The proposed development was understood to comprise residential development, although formal plans had not been finalised at this stage.

Based on the ground and groundwater conditions encountered, it is considered that traditional shallow foundations could be appropriate for the proposed development.

However, the site was heavily overgrown with a number of mature trees on site. The depth of the borehole was limited due to the density of the gravels and the depth of the London Clay and groundwater table are unknown. If the London Clay is shallow, it may be influenced by the trees and their removal may cause heave. A rotary borehole or similar could be carried out to verify the depth of the London Clay.

13.2 Volume Change Potential

Soil shrinkability has been assessed following the NHBC Standards Chapter 4.2 (January 2018 edition). It is recommended that the advice of this publication (or similar guidance) is taken when designing and constructing foundations in the zone of influence of trees and hedgerows that currently exist, are to be planted, or have recently been felled.

Strata	% passing 425µm sieve	Modified Plasticity Index	Shrinkability classification
Taplow Gravel Member	<10%	<10%	Not susceptible to significant volume change

On this basis, heave protection measures may therefore not be required. However, it is recommended that all foundations should extend below any major root zones should they be encountered.

However, the underlying London Clay is likely to be susceptible to high volume change potential and consideration should be given to NHBC clause 4.2.9 with regards to foundations on non-shrinkable soils overlying shrinkable soils.

13.3 Traditional Shallow Foundations

The following recommendations are made where traditional foundations are to be used.

The primary design parameter for shallow foundations is maximum net allowable bearing pressure, which takes into account a tolerable degree of settlement, and is dependent not only on soil conditions but also the foundation dimensions, ground levels, sloping ground, and the symmetry of loading, amongst others.

All traditional shallow foundations should be taken through any Made Ground, soft or loose zones, disturbed soils, major root zones, or desiccated materials and taken wholly into or onto the medium dense to dense Sands and Gravels of the Taplow Gravel Member.

A long narrow strip foundation, as described above, symmetrically loaded and up to a width of 1.00m, may be designed based on a maximum allowable net bearing pressure of 150kN/m².

This assessment includes an appropriate factor of safety against shear failure, and settlements should remain within appropriate limits. This figure should be sufficient for the type of construction proposed.

13.4 Ground Floor Slabs

Ground bearing floor slabs may be constructed as part of the proposed development, with a maximum net allowable bearing capacity of 15kN/m². The sub-grade should be carefully proof rolled and any soft or loose zones replaced with granular engineering fill well-compacted in thin layers to a suitable specification.

This aside, given the zone of soil disturbance following tree/vegetation removal, it is likely that all ground bearing floor slabs will be suspended.

Ground bearing floor slabs may be considered for other structures such as garages or outbuildings. The formation should be appropriately treated, and the design should allow potential future movements.

13.5 Excavations

The risks arising from excavation works should be properly assessed and appropriate safety precautions should be adopted. Reference may be made to various guidance including BS8000-1:1989, BS6031:2009 and CIRIA C97.

The likelihood of excavation instability through different strata has been assessed as summarised below. It should be noted that all open unsupported excavations have the potential to collapse.

Strata	Stability
Made Ground	Generally unstable. May be battered back to a safe angle. Deeper excavations may require trench support.
Taplow Gravel Member	Marginally stable in the short term. Spalling and collapse should be expected, particularly in long or deep excavations which are left open for prolonged periods.

Excavations which are to remain open for prolonged periods will require trench support.

All excavations taken beneath the water table are likely to become highly unstable. Significant collapse and over-dig expected. Consideration should be given to the use of dewatering and full-trench support.

It is considered that normal-rated plant and machinery will be sufficient for undertaking excavations. Breakers will be required for removing any former foundations, retaining walls etc.

Adjacent excavations should generally be tackled in order of depth with the deepest first. Vehicles and spoil heaps etc. should not surcharge excavations, and edge protection and fencing should be used as appropriate. Frozen materials should generally not be used as backfill.

13.6 Pavements

The design of pavements will depend on the performance requirements and specification, as well as the ground conditions and finished levels etc. The suitability of shallow soils encountered as a formation level for pavements is summarised as follows:

Strata	Base Depth	Suitability
Made Ground	0.60m	Only suitable for pavements with low performance requirements. A CBR value for these materials will not reflect the possible settlements that may occur. The materials will be frost susceptible so a minimum pavement thickness of 450mm will be required, and the formation will need to be adequately proof-rolled and treated
Taplow Gravel Member	1.20 to 1.80 m	These materials are generally a suitable formation level. Based on the particle size distribution analysis, the formation materials should be considered as being non-frost susceptible for pavement design. No minimum pavement thickness is required to protect against frost heave.

With reference to Transport Road Research Laboratory Report LR 1132 "The Structural Design of Bituminous Roads", a CBR index of 20% for the Sands of the Taplow Gravel Member is considered appropriate, under all construction conditions and groundwater levels.

The formation level should be carefully inspected, and any soft or loose zones should be removed and replaced with engineering fill, well-compacted in layers to a suitable specification. Consideration might be given to installing geotextiles. Cohesive formations will degrade rapidly if exposed to standing water for even short periods. All engineering fill should be granular and non-frost susceptible (i.e. <10% fine material passing 425µm sieve).

13.7 Building Materials

Based on BS8500-1:2015+A1:2016, the results of the Sulphate and pH analyses fell into Class DS-1 and an ACEC class AC-2z is deemed appropriate. The advice of this publication should be taken for the design and specification of all sub surface concrete.

Buried plastics used for potable water supplies should not require any special specification in order to resist chemical contamination. No pipework should be laid where there is evidence of hydrocarbons.

13.8 Surface Water Drainage

Based on published data, soil infiltration rates in the order of $1.0 \times 10^{-4} \text{m/s}$ may be realised within the Taplow Gravel Member.

This should be confirmed by means of full scale BRE365 trial pit soakage tests.

14 HUMAN HEALTH SCREENING

14.1 Screening Values

Several different partly overlapping schemes are currently in use in the UK, based on the Environment Agency's CLEA Model but with differing toxicological parameters. For the purpose of this report these schemes have and have been applied in the following hierarchy:

- Suitable For Use levels (S4UL) recently published by LQM in association with the CIEH.
- Category 4 Screening Levels (C4SL) recently published by the DEFRA and CL:AIRE.

The soil chemical analysis results have been compared against respective screening values for Residential (with gardens) land uses.

Whilst other standards exist, such as the LQM Generic Assessment Criterion and the Environment Agency's Soil Guideline Values, these are considered to have been superseded by the above publications.

For contaminants where the respective screening value is dependent on Soil Organic Matter (SOM), the corresponding value for 2.50% was used (the arithmetic mean SOM value for the Made Ground was 2.76%).

Where no standard exists, the contaminant is either not considered a priority in terms of human health (at least in the scenario being considered), or no screening value has been published.

14.2 Screening results

In accordance with CL:AIRE *Guidance on Comparing Soil Contamination Data with a Critical Concentration*, the use of statistical tools was not considered appropriate in this instance. The results of the chemical analysis have therefore been compared directly against the respective standards.

None of the results exceeded the screening criteria for heavy metals or PAHs.

14.3 Asbestos

Two shallow samples (Made Ground and Taplow Gravel Member) were screened for the presence of Asbestos, no such traces were identified.

15 BUILT ENVIRONMENT SCREENING

15.1 Soft Landscaping

A number of documents include guidance on screening levels of phytotoxic contaminants within soils, including:

- BS3882:2015 “Specification for topsoil and requirements for use” (although stipulated as not to be used in contaminated land risk assessment).
- ICRCL in publication 70/90 1990 'Notes on the Restoration and Aftercare of Metalliferous Mining Sites for Pasture and Grazing' (although indirectly withdrawn) (where marked *).

The results of the chemical analysis for determinands known to pose a potential phytotoxic risk to plant growth are summarised on the following table, together with the respective adopted screening values for plant growth. The results of the chemical analysis were evaluated singularly without the use of statistical tools.

Determinand	Phytotoxicity Value (mg/kg)			Results in excess of screening value
	pH <6.0	pH 6.0-7.0	pH >7.0	
Zinc	<200	<200	<300	None
Copper	<100	<135	<200	
Nickel	<60	<75	<110	
Cadmium *	50			
Arsenic *	1,000			

15.2 Structural Concrete

Recommendations with respect to Sulphate and buried concrete are made in section 4.6.

Special concrete specification may be required on account of low pH within the Taplow Gravel Member.

15.3 Potable Water Supplies

The risk of chemical attack on water supply pipework has been assessed following the general Principles set out in the joint Water UK/HBF *Contaminated Land Assessment*

Guidance dated January 2014. A summary of the main chemical criteria is reproduced below.

Test group (in mg/kg)	Polyethylene (PE)	Polyvinyl Chloride (PVC)	Metal or Aluminium Barrier
VOC's	0.5	0.125	Pass
VOC's + BTEX & MTBE	0.1	0.03	Pass
SVOC's (excl. PAH's etc.)	2.0	1.4	Pass
SVOC's + Phenols	2.0	0.4	Pass
SVOC's + Cresols & Chlorinated Phenols	2.0	0.04	Pass
Mineral oil EC11-20	10	Pass	Pass
Mineral oil EC21-40	500	Pass	Pass

16 CONTAMINATION RISK ASSESSMENT

16.1 End Users

The results of the chemical analysis did not indicate any contamination at the site. Neither remediation nor further investigation are therefore considered necessary in this respect.

16.2 Adjacent Land Users

Surrounding land uses were identified to comprise residential dwellings, analogous with the proposed development on site. With reference to section 16.1, no significant risk was posed to human health. It is therefore concluded that the soils on this site pose no significant risk to surrounding residential land uses.

16.3 Soft Landscaping

In addition, no evidence of potentially phytotoxic effects to existing soft landscaping was noted during the site walkover survey inspection.

Based on the above assessment in conjunction with field evidence from the site walkover survey, it is concluded that no risk was likely to be posed in this respect.

16.4 Potable Water Supplies

The concentrations of each determinand were below the respective threshold standards, and therefore any type of potable water supply pipework appears to be appropriate. It is recommended that the local water utility company is consulted to confirm this assessment.

Ethers, nitrobenzene, ketones, aldehydes and amines were not suspected. Redox potential and Conductivity should be checked where metal pipework is to be installed. Aluminium barrier pipework is acceptable under all conditions. No pipework should be laid where there is evidence of free product.

16.5 Conclusions

On the basis that no contamination risks were identified, it was concluded that no remediation was necessary.

However, domestic waste, etc must be disposed of from site before construction and previously inaccessible areas inspected.

17 PRELIMINARY WASTE ASSESSMENT

17.1 General

Waste may be defined as any substance or object in Annex 1 of the Waste Framework Directive which the holder discards, intends to discard, or is required to discard. Subject to certain provisions, soils may either be handled as either:

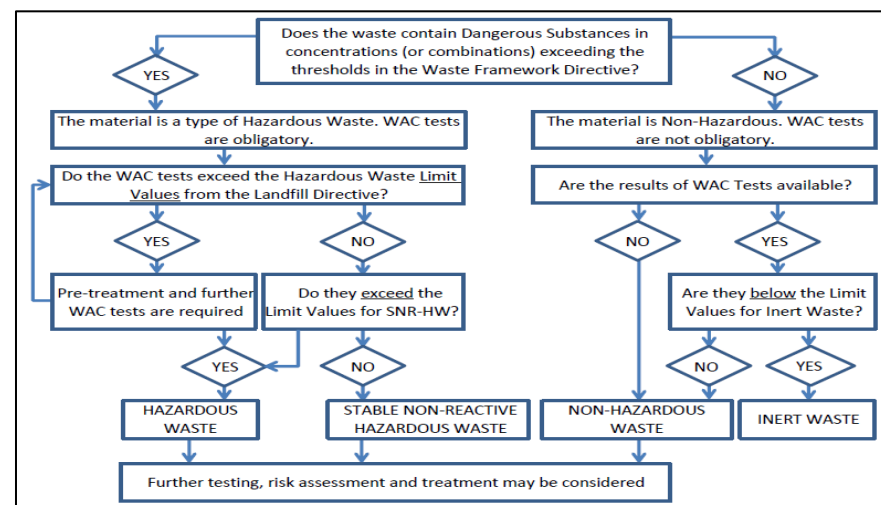
- Non-Waste, and re-used (on or off-site), or
- Waste, and disposed of (to a waste management facility).

Given the confines of the site, it was anticipated that all materials would be disposed of from site as waste.

The waste producer has a legal duty of care to ensure that waste materials are handled properly and sent to the appropriate licenced facility. Further inspection, testing, segregation etc will be required on site, and the advice of a suitably qualified consultant sought wherever necessary. Substantial tax penalties and fines are being levied by the regulators. The advice contained in this section is preliminary only.

17.2 Waste Disposal

Where materials are not re-used they must be handled as Waste, and must be sent to a licenced waste management facility. The classification of waste is prescribed under the Waste Framework Directive and the Landfill Directive, as summarised below. Different waste management facilities may also have specific acceptance criteria, and their advice should be sought.



The results of the soil analysis have been classified as follows:

Soil	Hazardous		Non Hazardous		Details
	Hazardous	Stable Non-Reactive	Non-Hazardous	Inert	
Made Ground			✓		Non-hazardous but no WAC undertaken.
Taplow Gravel Member			✓		Non-hazardous but no WAC undertaken.

Further WAC testing may be considered for soils identified as Non-Hazardous, as the tests may enable those materials to be re-classified as Inert and therefore represent a potential saving on disposal costs.

With reference to the current List of Wastes (formerly European Waste Catalogue), waste soils and stone derived from construction and demolition sites may be disposed of under either of the following codes as appropriate:

Waste	Code	Description
Hazardous	17 05 03*	soil and stones containing dangerous substances
Non-Hazardous	17 05 04	soil and stones other than those mentioned in 17 05 03

(Note, the asterix is a Mirror Entry, as defined in the List of Wastes, conferring the relationship with the non-hazardous code 17-05-04).

18 SUMMARY AND CONCLUSIONS

This summary is a brief precis of the main findings and conclusions of the investigation. For detailed information, the reader is referred to the main report.

18.1 General

The intrusive investigation included 1no dynamically sampled borehole and 1no handheld window sampler borehole. The area under investigation comprised a vacant, broadly rectangular shaped parcel of land heavily overgrown with vegetation. Although no formal proposed plans were available at the time of this report, it was understood the site was to be redeveloped into residential land use.

18.2 Soils Encountered

Strata	Base Depths m	Summary
Made Ground	0.60	Made Ground was encountered to depths of 0.60m and generally comprised light brown slightly gravelly SAND. Sand is fine. Gravels are medium to coarse subrounded flints. With brick fragments and concrete cobbles.
Taplow Gravel Member	1.20 - 1.80	Taplow Gravel Member was encountered to a maximum depth of 1.80m and generally comprised light brown clayey slightly gravelly SAND. Sands are fine to medium. Gravels are medium sub-angular to subrounded flints. The base of the formation was not found.

18.3 Groundwater

No groundwater encountered within 1.80m depth.

18.4 Foundations

Based on the ground and groundwater conditions encountered, it is considered that traditional shallow foundations could be appropriate for the proposed development. The Taplow Gravel Member formation should be treated as having no volume change potential.

18.5 Excavations

Generally likely to be unstable. Risk assessments should be prepared, and appropriate safety measures provided.

18.6 Pavements

CBR value of 20% recommended for the sands of the Taplow Gravel Member, which is classified as non-frost susceptible.

18.7 Building Materials

DS-1 and AC-2z in accordance with BS8500. Water supply pipe work will not require protection from aggressive soil contaminants.

18.8 Soil Contamination

The results of the chemical analysis did not indicate any contamination at the site. Localised remediation or further investigation was therefore not considered necessary in this respect.

18.9 Waste Disposal

The chemical results confirmed that the Made Ground should be handled as non-hazardous Waste for disposal purposes. It is likely that natural soils could be handled as Inert Waste.

18.10 Further Action

Due to inaccessible areas of the site and the unknown depth of the London Clay and groundwater table, it is recommended that a deeper rotary borehole be carried out. No other requirements for further site investigation have been identified.

This report should be submitted to relevant regulatory bodies and warranty providers in good time for approval.

GLOSSARY OF TERMS

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

ACCOMPANYING NOTES – SOIL CONTAMINATION

LS1 routine screening suite

The LS1 suite is based broadly upon determinands listed within the former ICRL guidance note 59/83 2nd edition 1987, CLR publication CLR8, and Environment Agency R&D66 publication. Stone and moisture content, fraction of organic carbon ('foc'), and pH value, are also undertaken. Total Sulphate is not a priority in terms of human health, so water soluble Sulphate is analysed instead to assess the risks to buried concrete.

Site Workers

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

Discovery Strategy

Unexpected soil conditions may be encountered during the process of site demolition and construction. Examples may include oily pockets within the soil, pockets of cement boarding or fibrous materials within the soil, black ashy materials, soils exhibiting strong odours, brightly coloured materials, and former structures or brickwork.

Should previously undiscovered contamination be encountered during construction by the ground worker's, this should be reported to the Geo-Environmental Consultant immediately in order that any necessary inspection may be made. All site workers should be made aware of their responsibility to observe, report, and act on any potentially suspicious or contaminated materials they may encounter.

General

Contamination may be identified as the occurrence of a substance in or on the ground which has a potential to cause significant harm (humans, ecological systems, or property) or pollution of a controlled water.

Sources – Pathways – Receptors

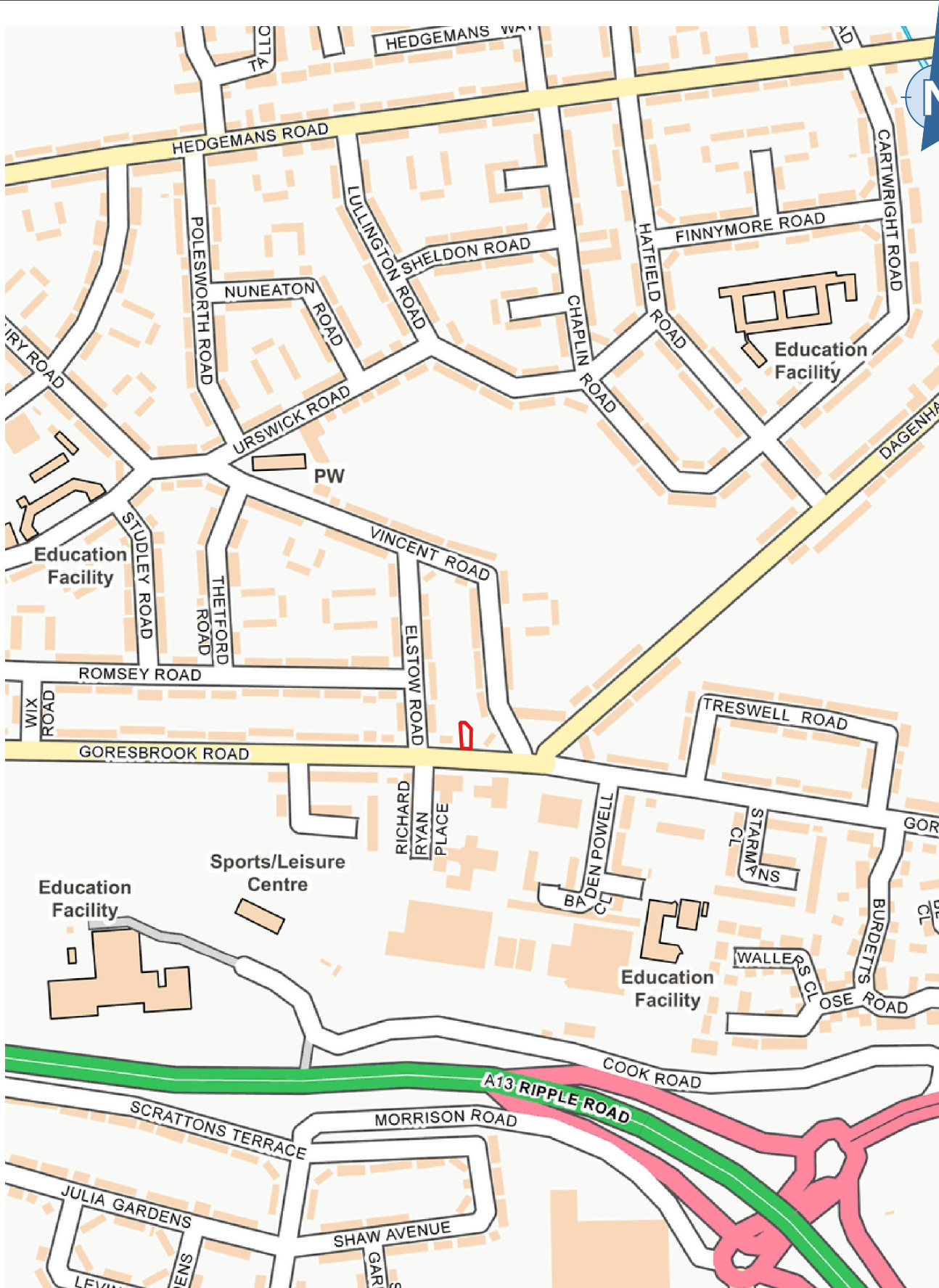
Primary Source – the point at which contamination starts to occur e.g. a leaking tank


Secondary source – the media affected by contamination, including soil, groundwater and ground gases, as summarised below

Receptor – Persons, living organisms, ecological systems, controlled water, atmosphere, structures and property, and utilities.

Secondary source	Summary
Soil	Contaminants bound into or entrained with the soil matrix, for instance ashes, clinkers, bituminous materials, asbestos containing materials, etc. Also, soils may become contaminated by other activities, such as leaking chemical storage, drainage and the like, becoming bound into the soil mineralogy or organic matter. Soils may also generate soil-borne dusts and volatile organic compounds may generate organic vapours.
Volatile vapours	Many organic compounds are either volatile or semi volatile (at different temperatures and pressures) which mean they will volatilise and generate vapours. In an enclosed system, the ratio of vapours to other compartments will come into equilibrium, but in open systems the process may continue until the source has been depleted.
Ground gases	Organic matter, including wastes, hydrocarbons and other compounds, will decay through microbial action. This will primarily release Carbon Dioxide but may also release Methane under anaerobic conditions. This may be an issue in natural soils (e.g. alluvium and dock silt) in man-made soils (e.g. landfill sites and filled ground) and other environments (e.g. mine workings).
Groundwater	Contaminants may dissolve into pore water which in turn can percolate downwards into the groundwater table. Rapid discharge of fluids may also enter groundwater directly. Organic compounds may form separate light or dense non-aqueous phase liquids upon or at the base of the water column. Organic contaminants may generate organic vapours.

FIGURES



	Title: Site Location			Reference: LS4745
	Project: Land at Goresbrook Road, Dagenham, RM9 6XS			Figure: 1
	Client: BeFirst (Regeneration) Ltd			Date: 28/10/2020
	Prepared by: MM	Checked by: TK	Version: 01	Sheet: 1 of 1



Title: Existing Layout / Investigation Layout

Reference: LS4745

Project: Land at Goresbrook Road, Dagenham, RM9 6XS

Figure: 2

Client: BeFirst (Regeneration) Ltd

Date: 28/10/2020

Prepared by: MM

Checked by: TK



Version: 01

Sheet: 1 of 1





APPENDIX A

Geology 1:50,000 Maps Legends




Artificial Ground and Landslip

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	MGR	Made Ground (Undivided)	Artificial Deposit	Not Supplied - Holocene
	WGR	Worked Ground (Undivided)	Void	Not Supplied - Holocene

Superficial Geology

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	ALV	Alluvium	Clay, Silt, Sand And Peat	Not Supplied - Holocene
	TRD	Tidal River Or Creek Deposits	Clay and Silt	Not Supplied - Holocene
	ALV	Alluvium	Clay, Silt, Sand and Gravel	Not Supplied - Holocene
	TPGR	TAPLOW GRAVEL MEMBER	Sand and Gravel	Not Supplied - Wolstonian
	ILSI	Ilford Silt Member	Clay and Silt	Not Supplied - Wolstonian
	HAGR	Hackney Gravel Member	Sand and Gravel	Not Supplied - Wolstonian
	HEAD	Head	Clay, Silt, Sand and Gravel	Not Supplied - Quaternary

Bedrock and Faults

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	LC	London Clay Formation	Clay, Silt and Sand	Not Supplied - Ypresian
	LMBE	Lambeth Group	Clay, Silt and Sand	Not Supplied - Thanetian
	TAB	Thanet Formation	Sand	Not Supplied - Thanetian



Geology 1:50,000 Maps

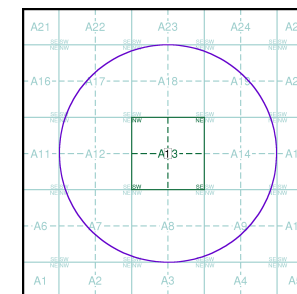
This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:50,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around the site. This mapping may be more up to date than previously published paper maps.

The various geological layers - artificial and landslip deposits, superficial geology and solid (bedrock) geology are displayed in separate maps, but superimposed on the final 'Combined Surface Geology' map. All map legends feature on this page. Not all layers have complete nationwide coverage, so availability of data for relevant map sheets is indicated below.

Geology 1:50,000 Maps Coverage

Map ID:	1
Map Sheet No:	257
Map Name:	Romford
Map Date:	1996
Bedrock Geology:	Available
Superficial Geology:	Available
Artificial Geology:	Available
Faults:	Not Supplied
Landslip:	Available
Rock Segments:	Not Supplied

Geology 1:50,000 Maps - Slice A



Order Details:

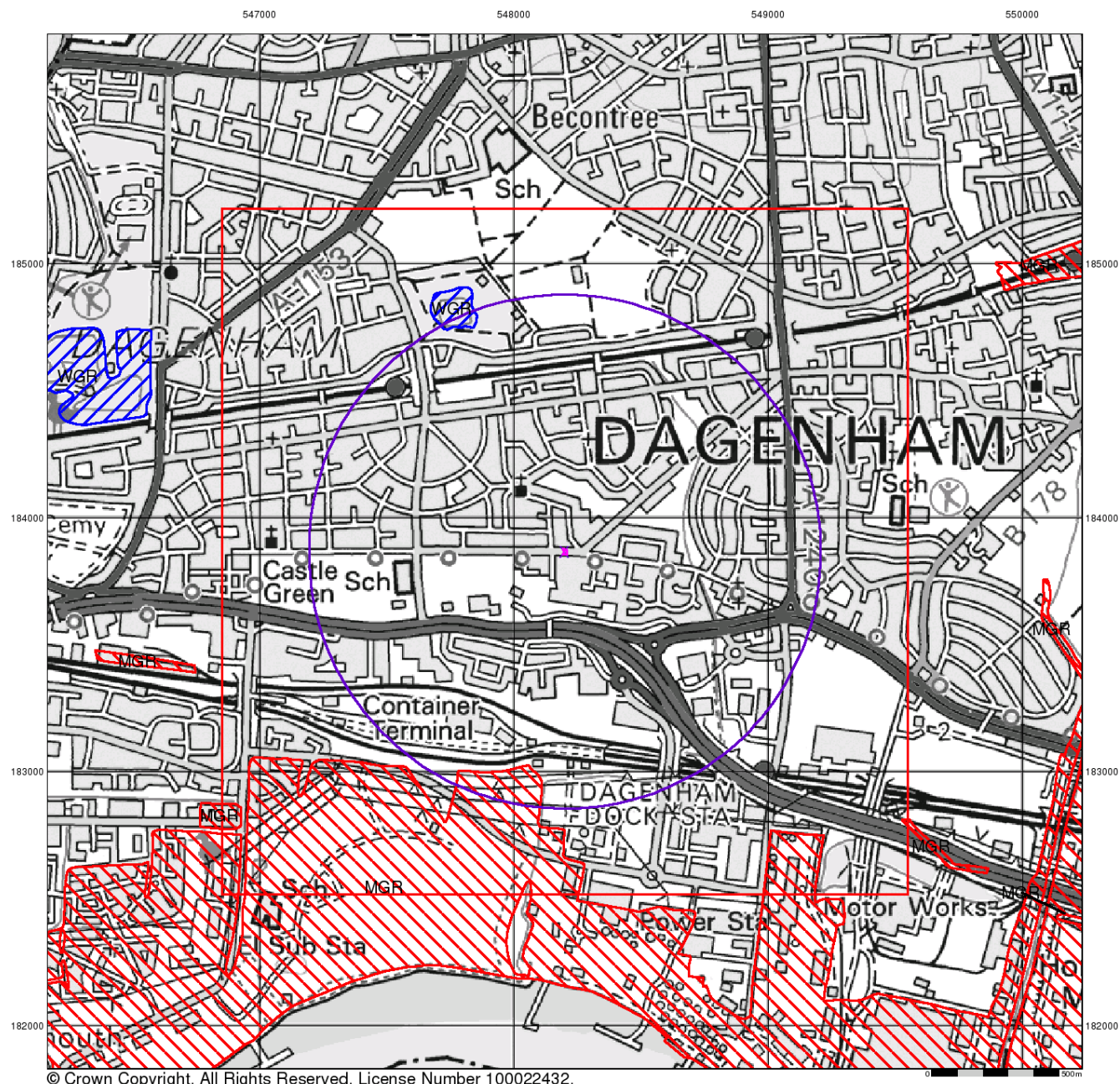
Order Number:	259639659_1_1
Customer Reference:	LS4745
National Grid Reference:	548200, 183870
Slice:	A
Site Area (Ha):	0.03
Search Buffer (m):	1000

Site Details:

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Artificial Ground and Landslip

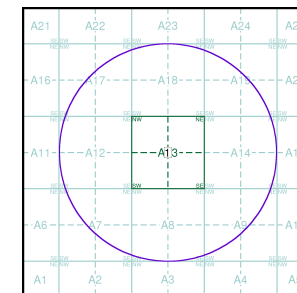
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions and unstable ground.

Artificial ground includes:

- Made ground - man-made deposits such as embankments and spoil heaps on the natural ground surface.
- Worked ground - areas where the ground has been cut away such as quarries and road cuttings.
- Infilled ground - areas where the ground has been cut away then wholly or partially backfilled.
- Landscaped ground - areas where the surface has been reshaped.
- Disturbed ground - areas of ill-defined shallow or near surface mineral workings where it is impracticable to map made and worked ground separately.

Mass movement (landslip) deposits on BGS geological maps are primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground. The dataset also includes foundered strata, where the ground has collapsed due to subsidence.

Artificial Ground and Landslip Map - Slice A



Order Details:

Order Number: 259639659_1_1
 Customer Reference: LS4745
 National Grid Reference: 548200, 183870
 Slice: A
 Site Area (Ha): 0.03
 Search Buffer (m): 1000

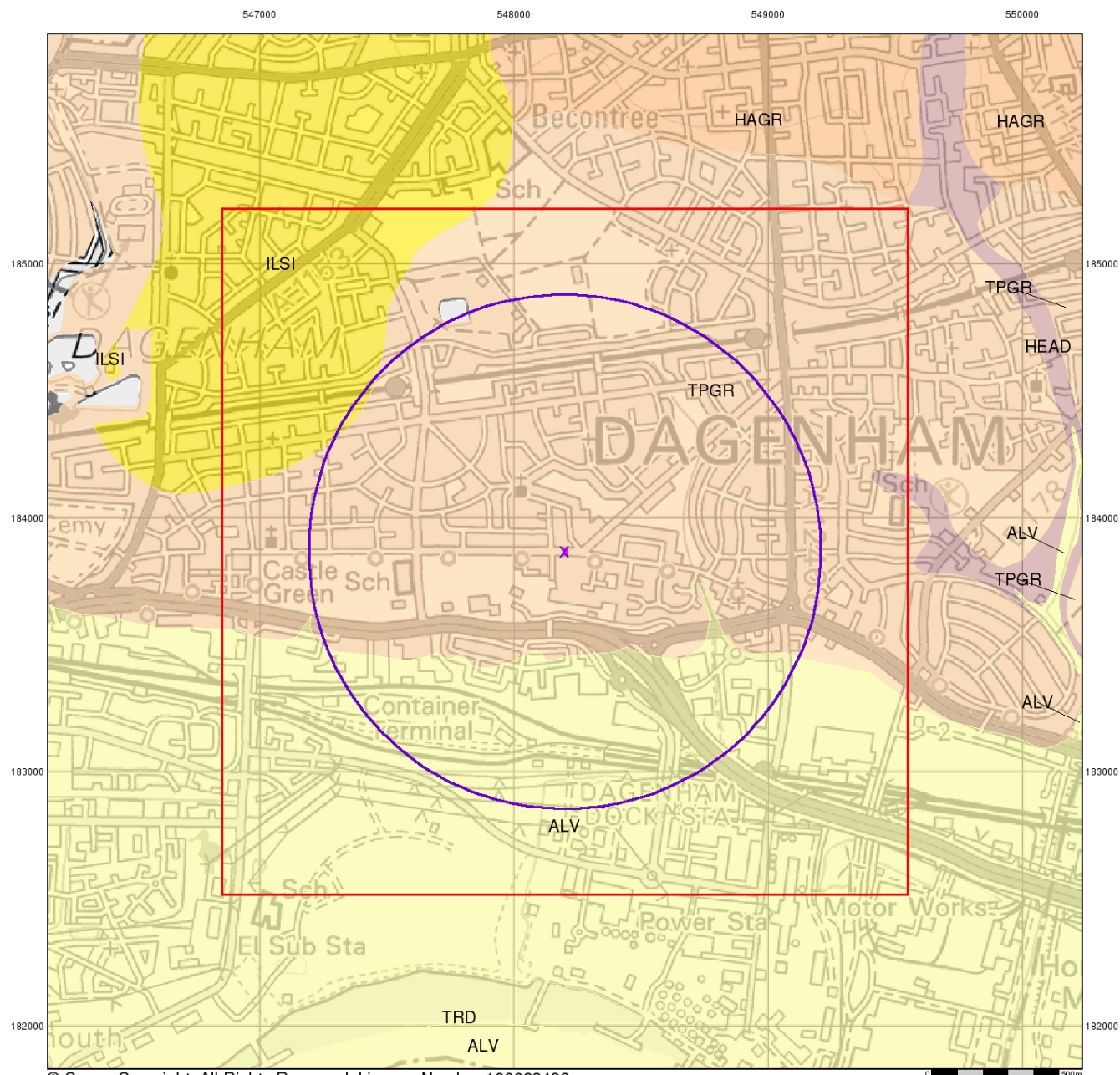
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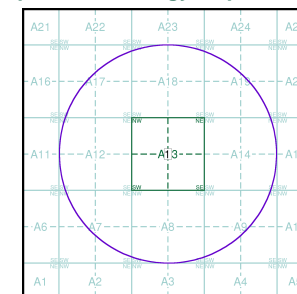
Superficial Geology

Superficial Deposits are the youngest geological deposits formed during the most recent period of geological time, the Quaternary, which extends back about 1.8 million years from the present.

They rest on older deposits or rocks referred to as Bedrock. This dataset contains Superficial deposits that are of natural origin and 'in place'. Other superficial strata may be held in the Mass Movement dataset where they have been moved, or in the Artificial Ground dataset where they are of man-made origin.

Most of these Superficial deposits are unconsolidated sediments such as gravel, sand, silt and clay, and onshore they form relatively thin, often discontinuous patches or larger spreads.

Superficial Geology Map - Slice A



Order Details:

Order Number: 259639659_1_1
 Customer Reference: LS4745
 National Grid Reference: 548200, 183870
 Slice: A
 Site Area (Ha): 0.03
 Search Buffer (m): 1000

Site Details:

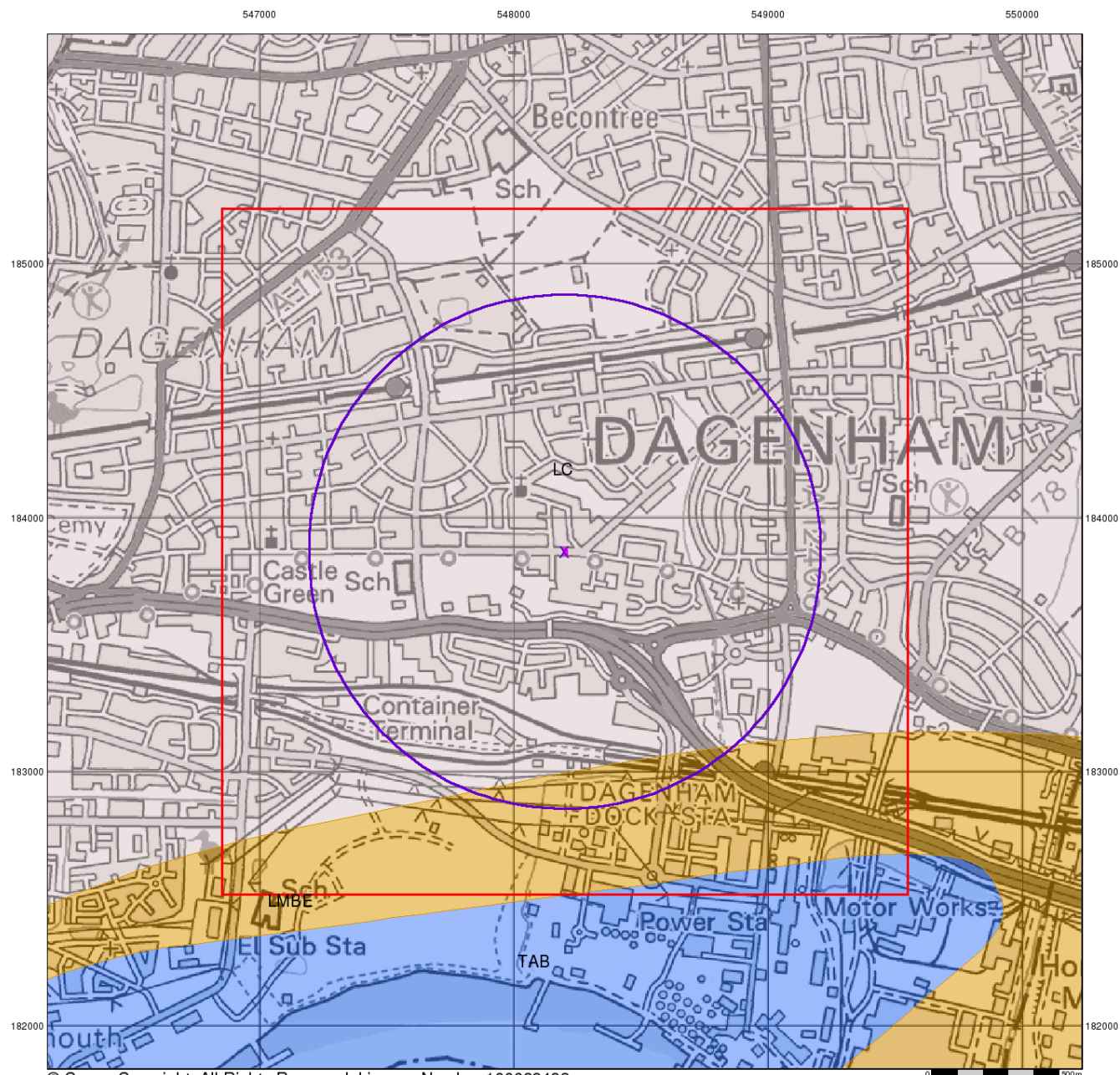
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Bedrock and Faults

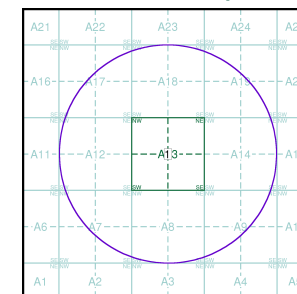
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

The bedrock has formed over vast lengths of geological time ranging from ancient and highly altered rocks of the Proterozoic, some 2500 million years ago, or older, up to the relatively young Pliocene, 1.8 million years ago.

The bedrock geology includes many lithologies, often classified into three types based on origin: igneous, metamorphic and sedimentary.

The BGS Faults and Rock Segments dataset includes geological faults (e.g. normal, thrust), and thin beds mapped as lines (e.g. coal seam, gypsum bed). Some of these are linked to other particular 1:50,000 Geology datasets, for example, coal seams are part of the bedrock sequence, most faults and mineral veins primarily affect the bedrock but cut across the strata and post date its deposition.

Bedrock and Faults Map - Slice A



Order Details:

Order Number: 259639659_1_1
 Customer Reference: LS4745
 National Grid Reference: 548200, 183870
 Slice: A
 Site Area (Ha): 0.03
 Search Buffer (m): 1000

Site Details:

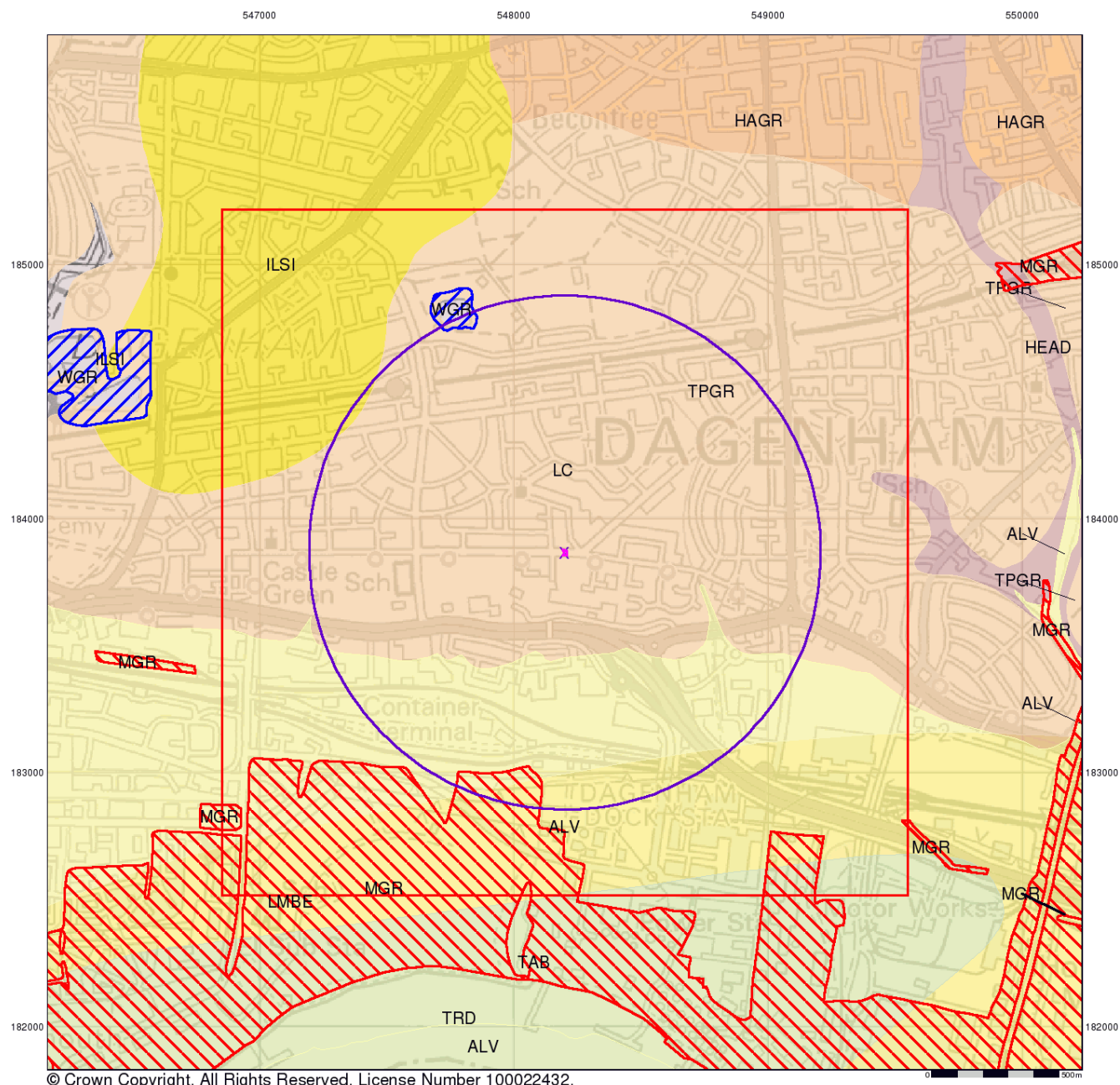
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Combined Surface Geology

The Combined Surface Geology map combines all the previous maps into one combined geological overview of your site.

Please consult the legends to the previous maps to interpret the Combined "Surface Geology" map.

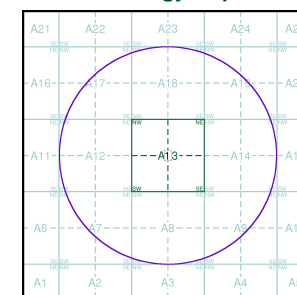
Additional Information

More information on 1:50,000 Geological mapping and explanations of rock classifications can be found on the BGS website. Using the LEX Codes in this report, further descriptions of rock types can be obtained by interrogating the 'BGS Lexicon of Named Rock Units'. This database can be accessed by following the 'Information and Data' link on the BGS website.

Contact

British Geological Survey
Kingsley Dunham Centre
Keyworth
Nottingham
NG12 5GG
Telephone: 0115 936 3143
Fax: 0115 936 3276
email: enquiries@bgs.ac.uk
website: www.bgs.ac.uk

Combined Geology Map - Slice A



Order Details:

Order Number: 259639659_1_1
Customer Reference: LS4745
National Grid Reference: 548200, 183870
Slice: A
Site Area (Ha): 0.03
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Historical Mapping Legends

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



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



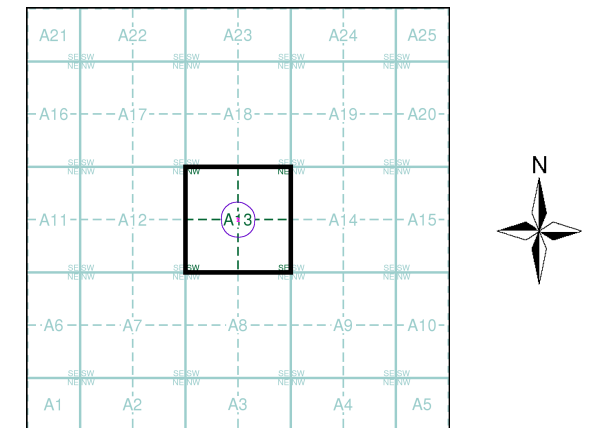
Large-Scale National Grid Data 1:2,500 and 1:1,250



Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Essex	1:2,500	1864	2
Essex	1:2,500	1864	3
Essex	1:2,500	1897	4
Essex	1:2,500	1919 - 1920	5
Essex	1:2,500	1938 - 1939	6
Historical Aerial Photography	1:1,250	1947	7
Ordnance Survey Plan	1:2,500	1962 - 1963	8
Ordnance Survey Plan	1:1,250	1962	9
Ordnance Survey Plan	1:1,250	1970 - 1971	10
Supply of Unpublished Survey Information	1:1,250	1974	11
Additional SIMs	1:1,250	1980 - 1990	12
Additional SIMs	1:1,250	1987	13
Large-Scale National Grid Data	1:1,250	1991	14
Large-Scale National Grid Data	1:1,250	1992	15
Large-Scale National Grid Data	1:1,250	1992 - 1993	16
Large-Scale National Grid Data	1:1,250	1993	17
Large-Scale National Grid Data	1:1,250	1996	18
Large-Scale National Grid Data	1:1,250	1996	19
Historical Aerial Photography	1:2,500	1999	20

Historical Map - Segment A13



Order Details

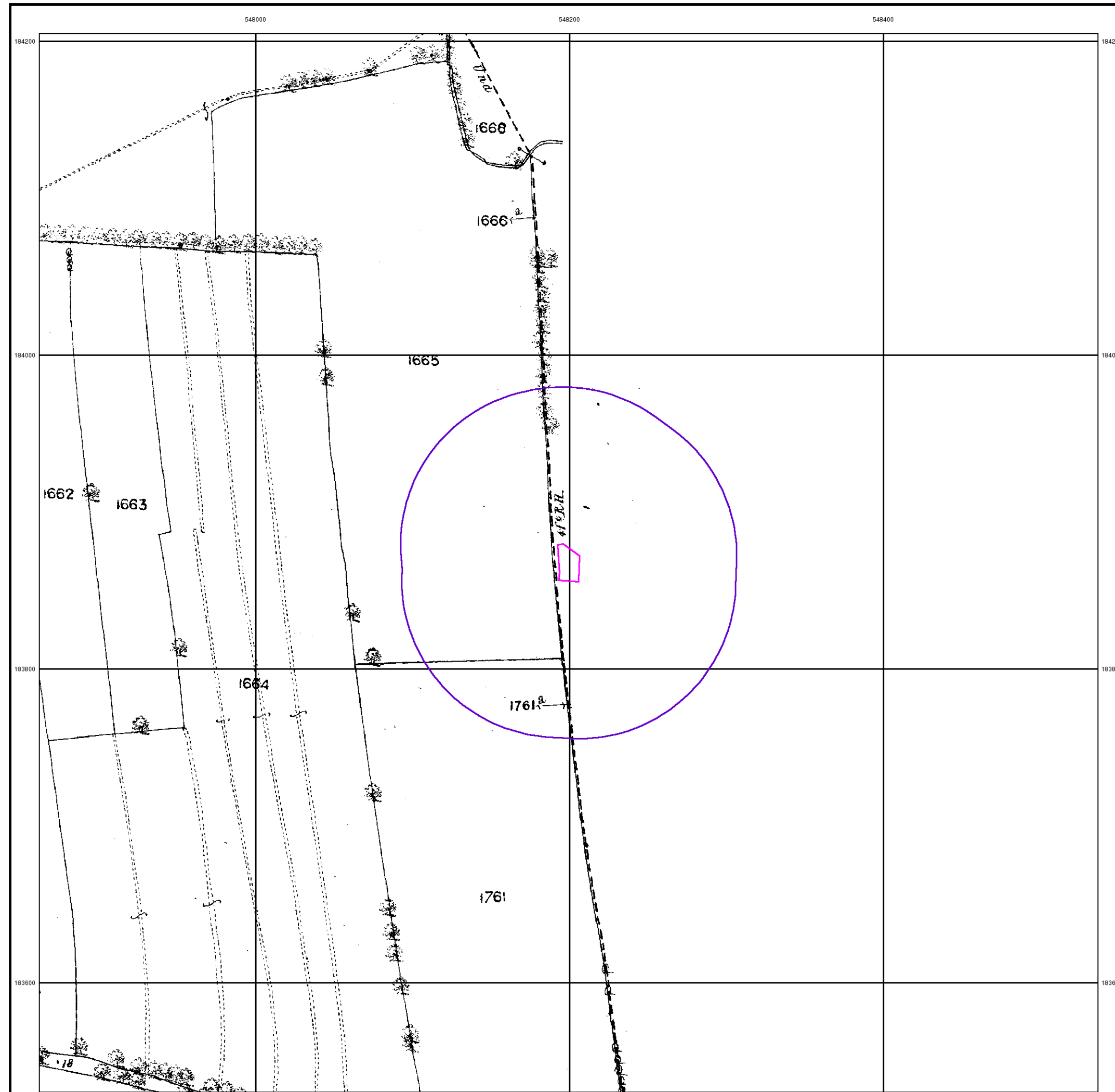
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Customer Ref: LS4745
National Grid Reference: 548200, 183870
Slice: A
Site Area (Ha): 0.03
Search Buffer (m): 100

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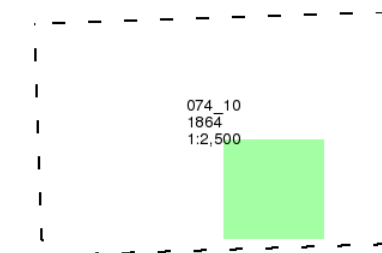
Essex

Published 1864

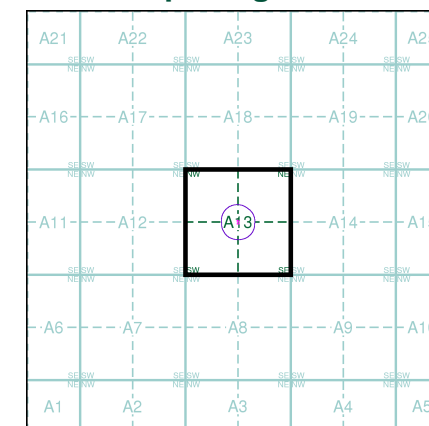
Source map scale - 1:2,500

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

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

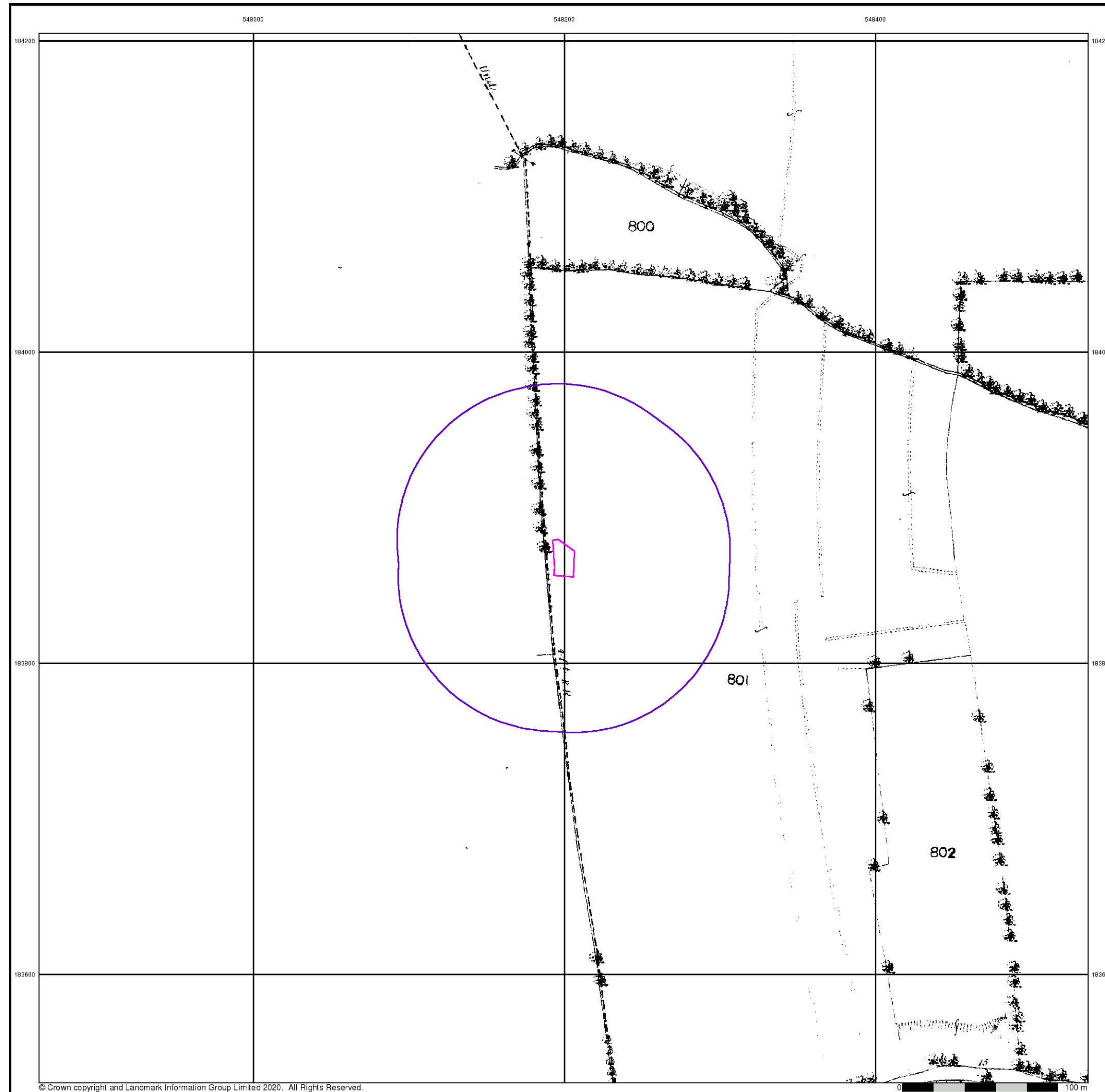
Order Number: 259639659_1_1
Customer Ref: LS4745
National Grid Reference: 548200, 183870
Slice: A
Site Area (Ha): 0.03
Search Buffer (m): 100

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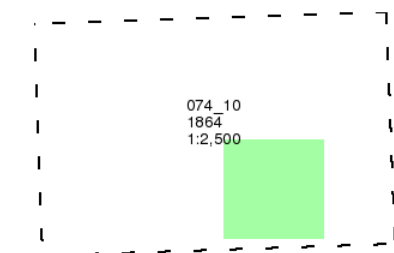
Essex

Published 1864

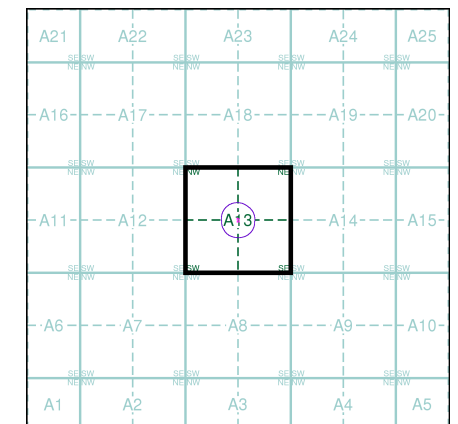
Source map scale - 1:2,500

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

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

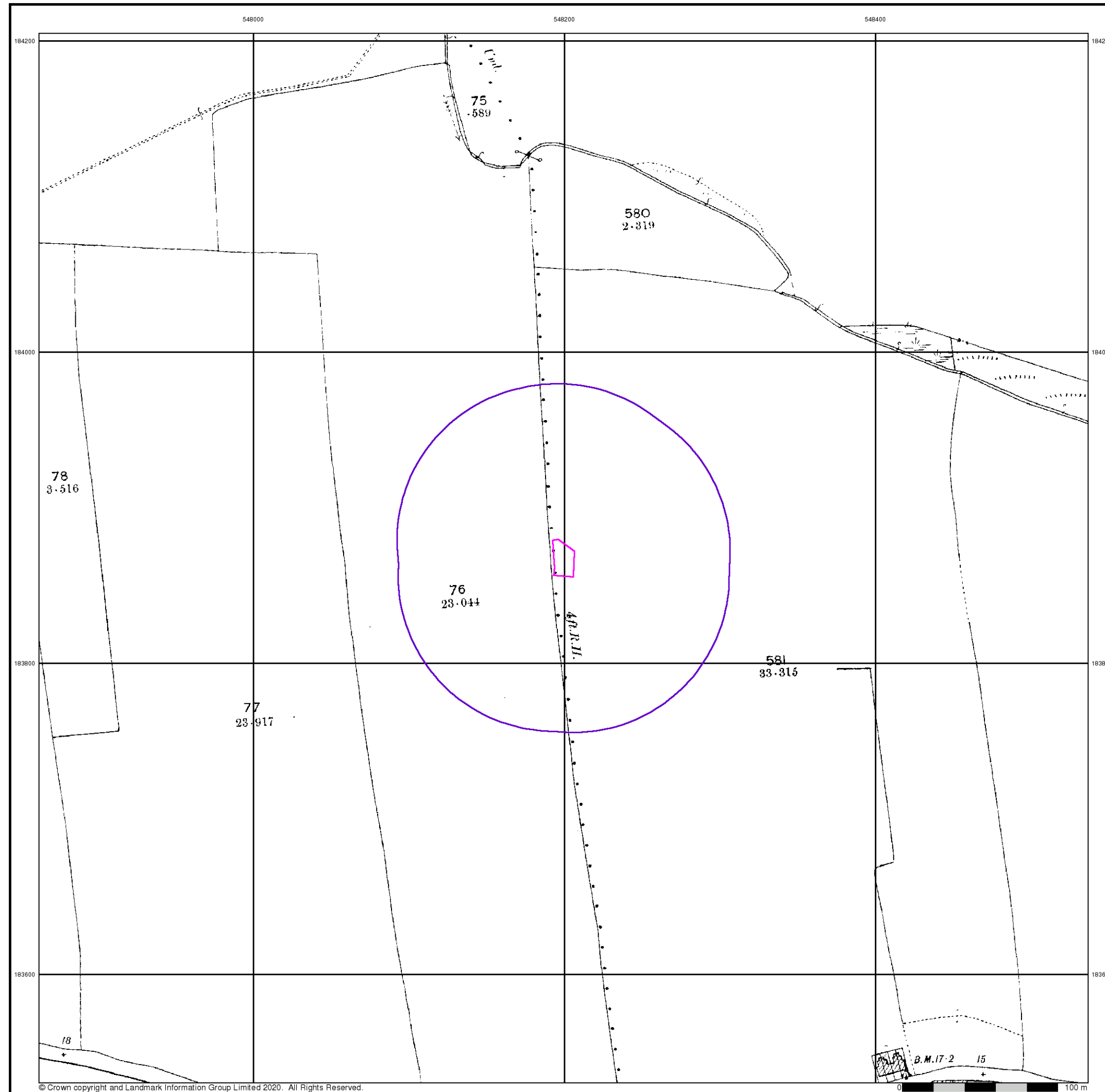
Order Number: 259639659_1_1
Customer Ref: LS4745
National Grid Reference: 548200, 183870
Slice: A
Site Area (Ha): 0.03
Search Buffer (m): 100

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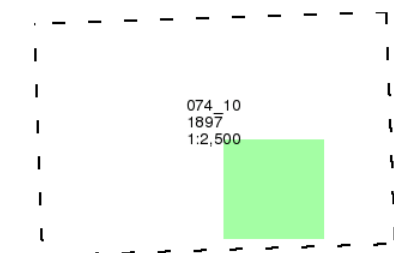
Essex

Published 1897

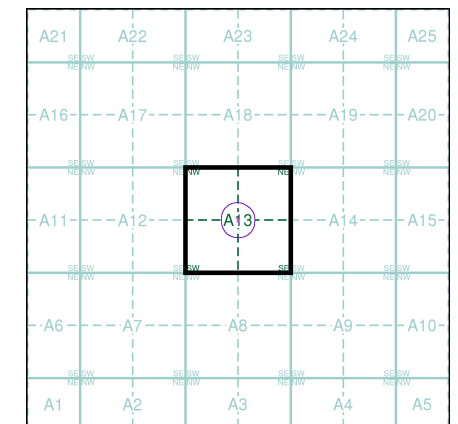
Source map scale - 1:2,500

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

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

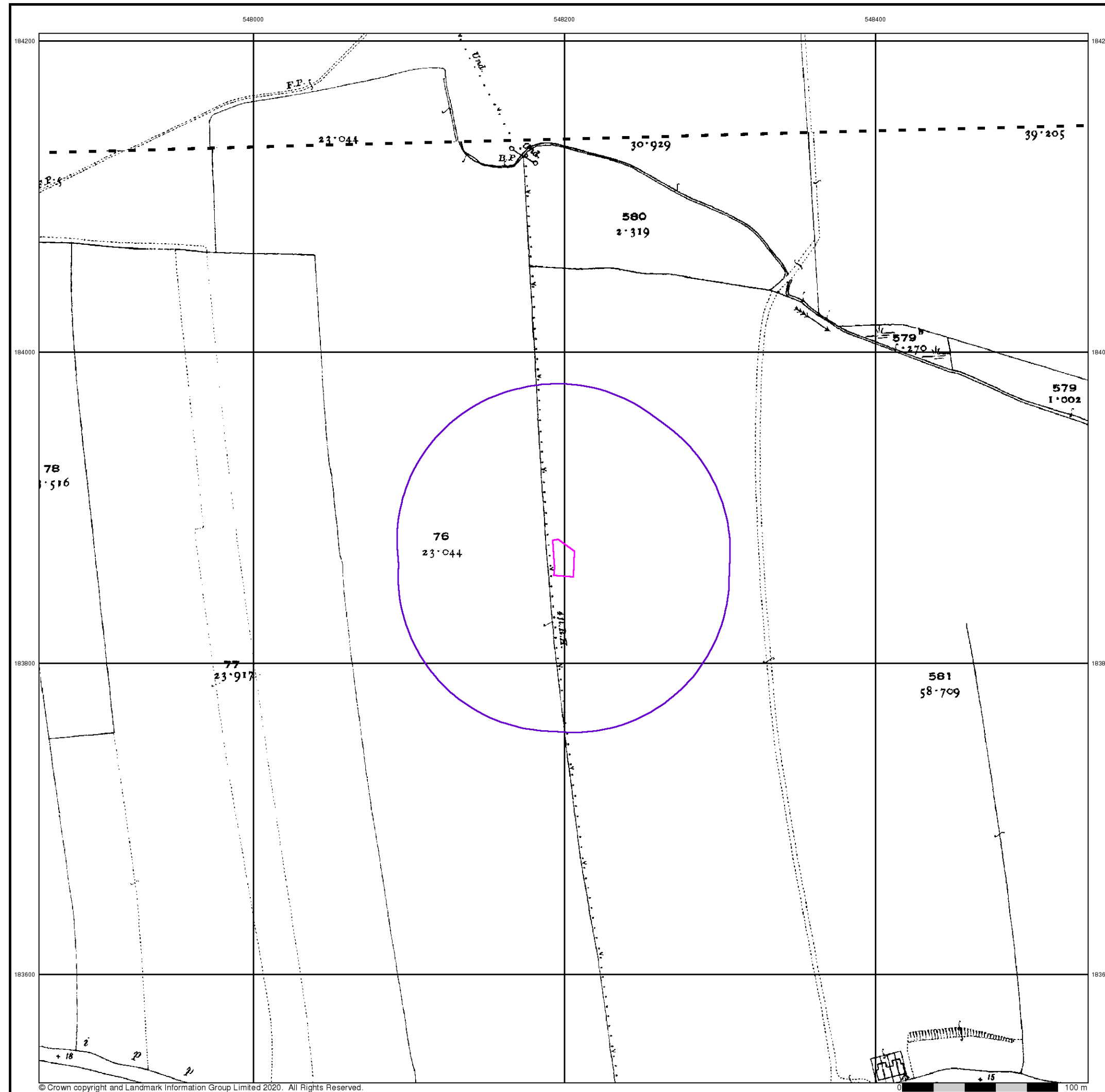
Order Number: 259639659_1_1
Customer Ref: LS4745
National Grid Reference: 548200, 183870
Slice: A
Site Area (Ha): 0.03
Search Buffer (m): 100

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Essex

Published 1919 - 1920

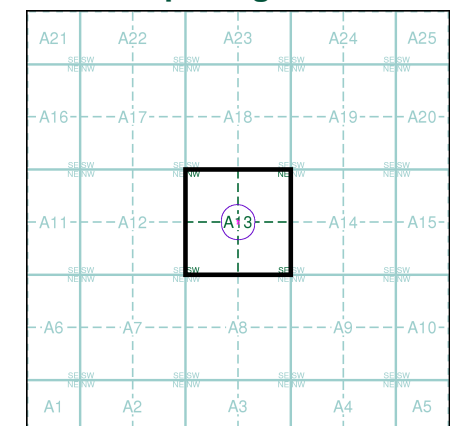
Source map scale - 1:2,500

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)

087_01
1920
1:2,500
087_05
1919
1:2,500

Historical Map - Segment A13



Order Details

Order Number: 259639659_1_1
Customer Ref: LS4745
National Grid Reference: 548200, 183870
Slice: A
Site Area (Ha): 0.03
Search Buffer (m): 100

Site Details

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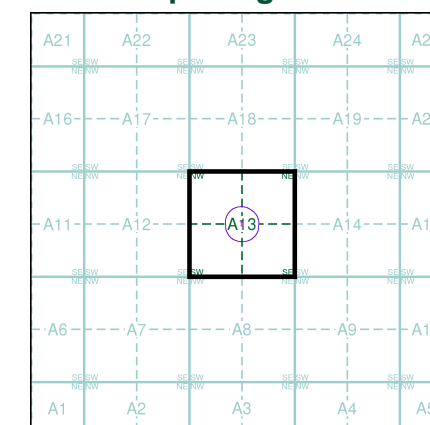
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The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered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

087_01
1938
1:2,500
087_05
1939
1:2,500

Historical Map - Segment A13

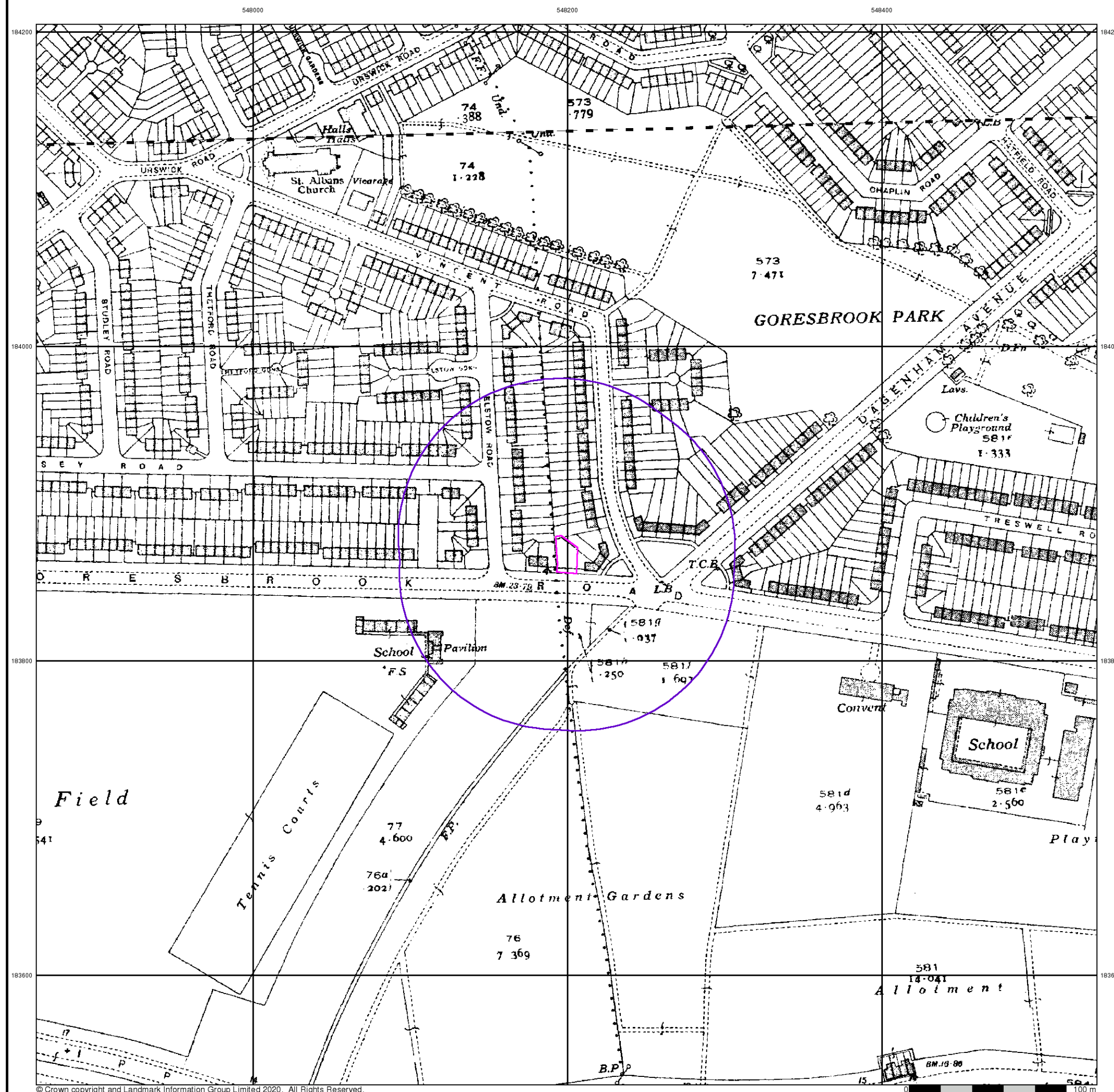


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Order Number: 259639659_1_1
 Customer Ref: LS4745
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 Slice: A
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Historical Aerial Photography

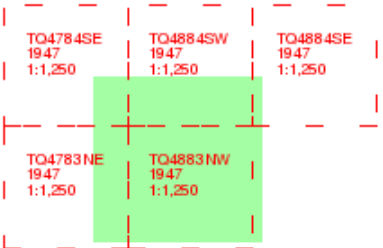
Published 1947

Source map scale - 1:1,250

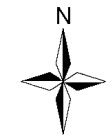
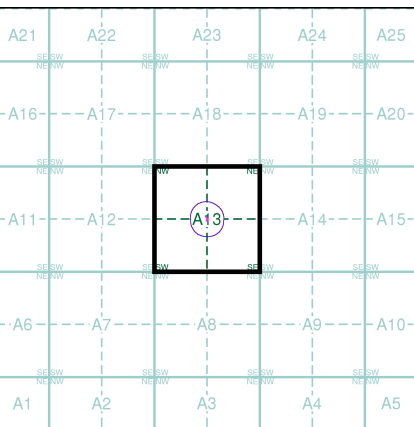
The Historical Aerial Photos were produced by the Ordnance Survey at a scale of 1:1,250 and 1:10,560 from Air Force photography. They were produced between 1944 and 1951 as an interim measure, pending preparation of conventional mapping, due to post war resource shortages. New security measures in the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

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Map Name(s) and Date(s)



Historical Aerial Photography - Segment A13



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Site Area (Ha): 0.03
Search Buffer (m): 100

Site Details

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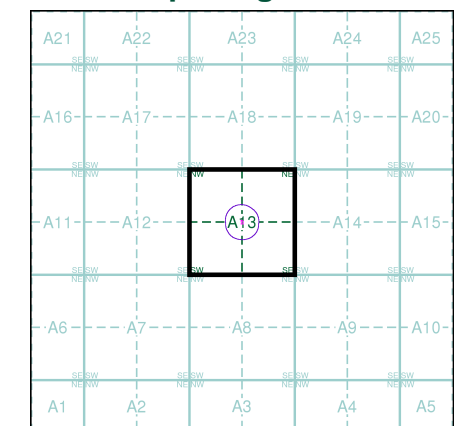
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Map Name(s) and Date(s)

TQ4784 1962 12,500	TQ4884 1962 12,500
TQ4783 1963 12,500	TQ4883 1963 12,500

Historical Map - Segment A13

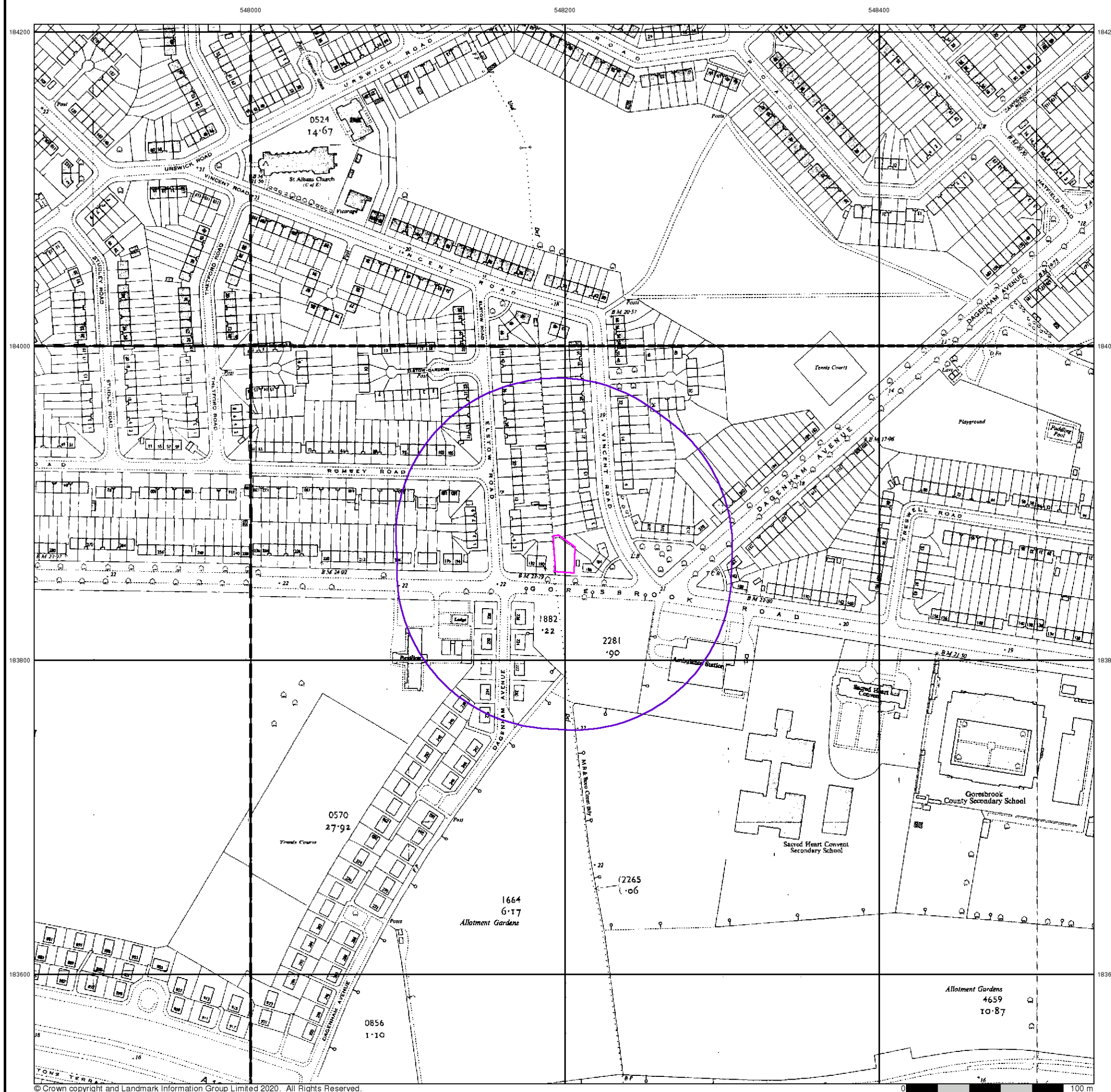


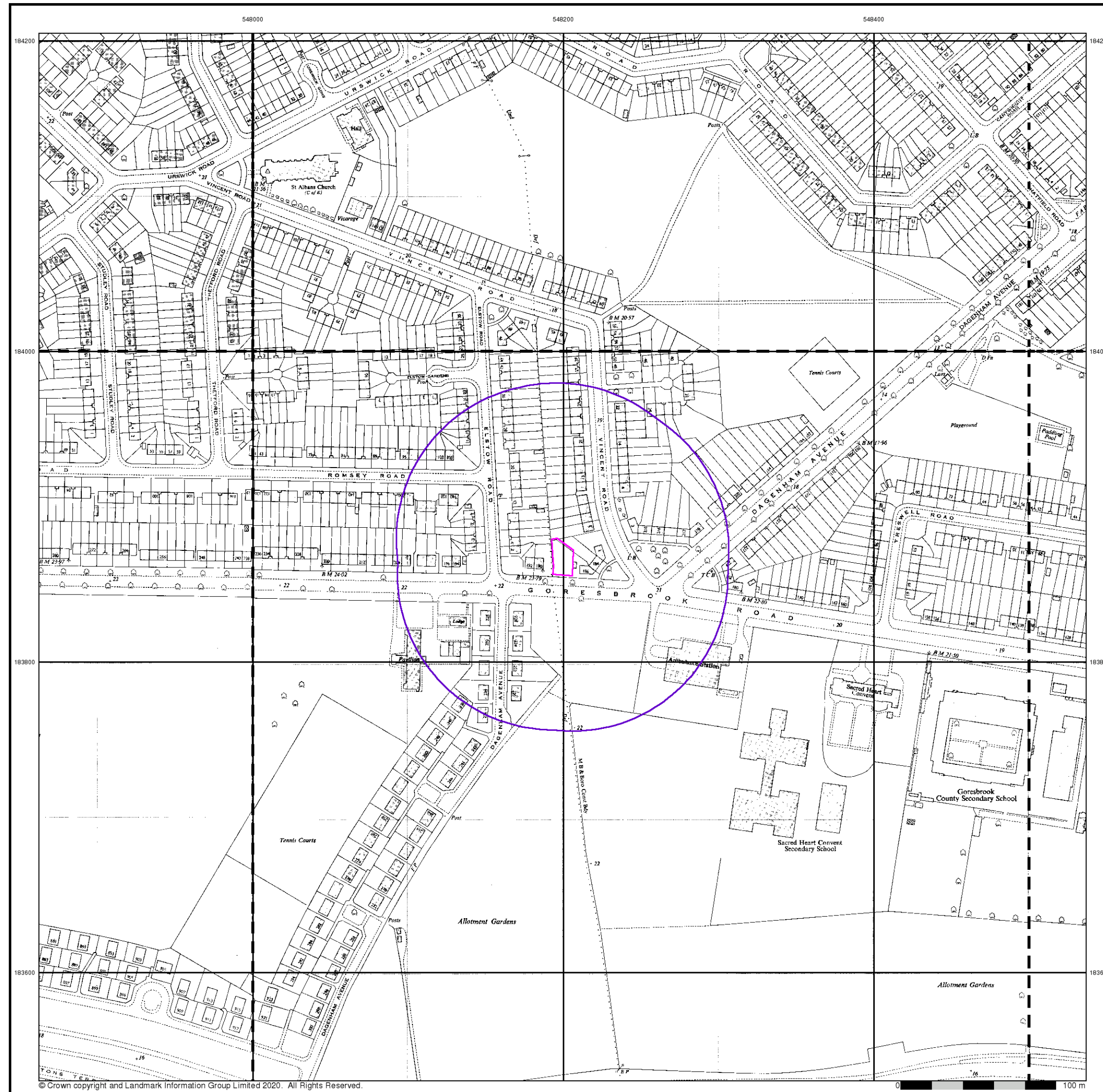
Order Details

Order Number: 259639659_1_1
Customer Ref: LS4745
National Grid Reference: 548200, 183870
Slice: A
Site Area (Ha): 0.03
Search Buffer (m): 100

Site Details

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Ordnance Survey Plan

Published 1962

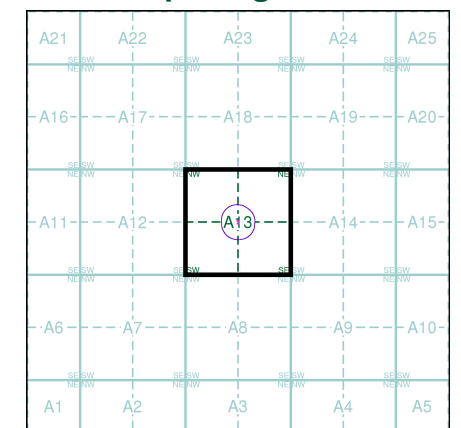
Source map scale - 1:1,250

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

Map Name(s) and Date(s)

TQ4784SE 1962 1:1,250	TQ4884SW 1962 1:1,250	TQ4884SE 1962 1:1,250
TQ4783NE 1962 1:1,250	TQ4883NW 1962 1:1,250	TQ4883NE 1962 1:1,250

Historical Map - Segment A13



Order Details

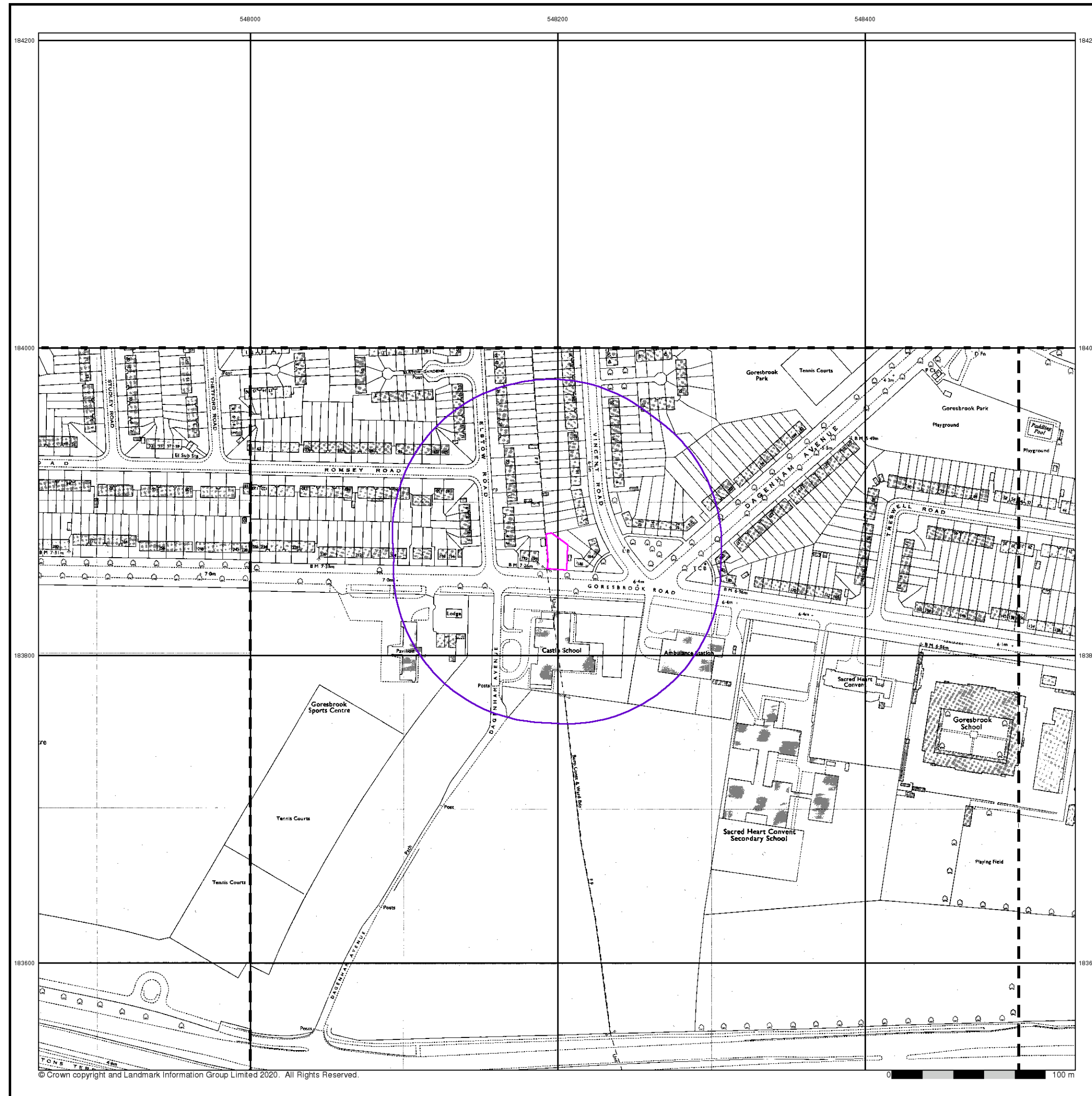
Order Number: 259639659_1_1
Customer Ref: LS4745
National Grid Reference: 548200, 183870
Slice: A
Site Area (Ha): 0.03
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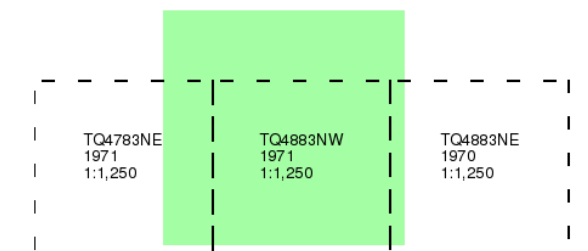
Ordinance Survey Plan

Published 1970 - 1971

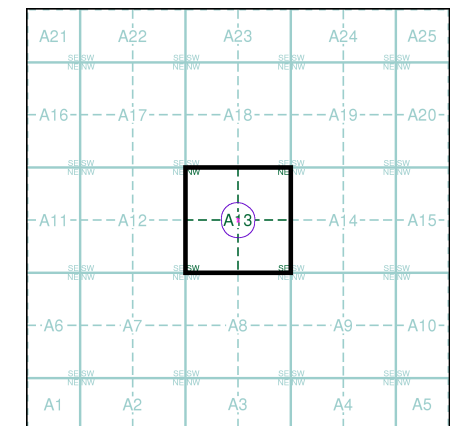
Source map scale - 1:1,250

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

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

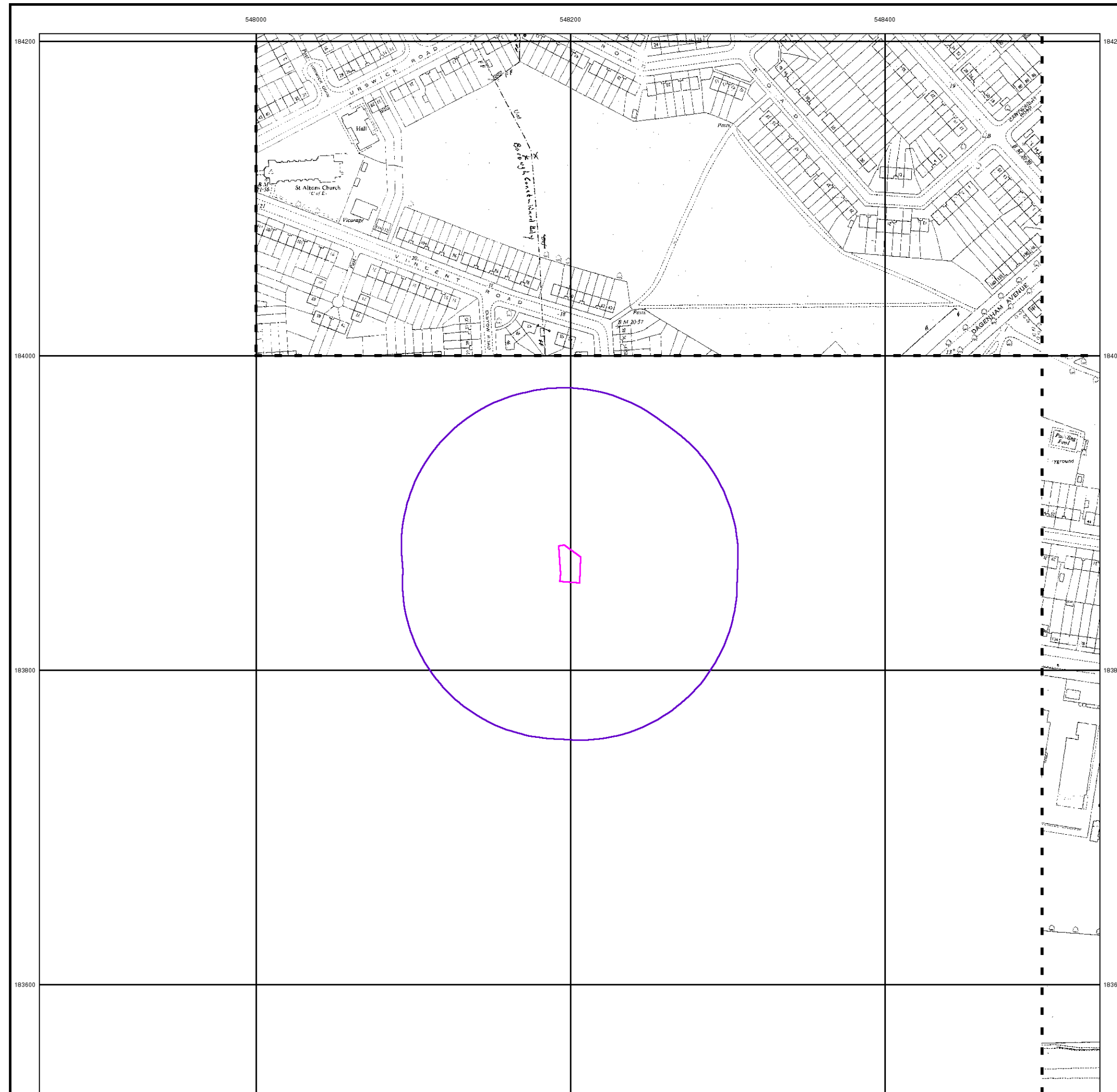
Order Number: 259639659_1_1
Customer Ref: LS4745
National Grid Reference: 548200, 183870
Slice: A
Site Area (Ha): 0.03
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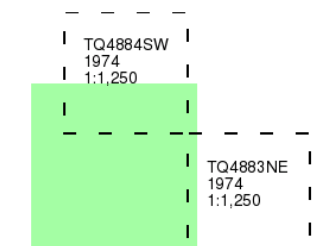
Supply of Unpublished Survey Information

Published 1974

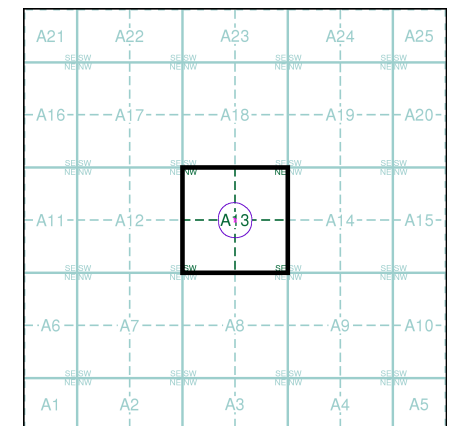
Source map scale - 1:1,250

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 A13



Order Details

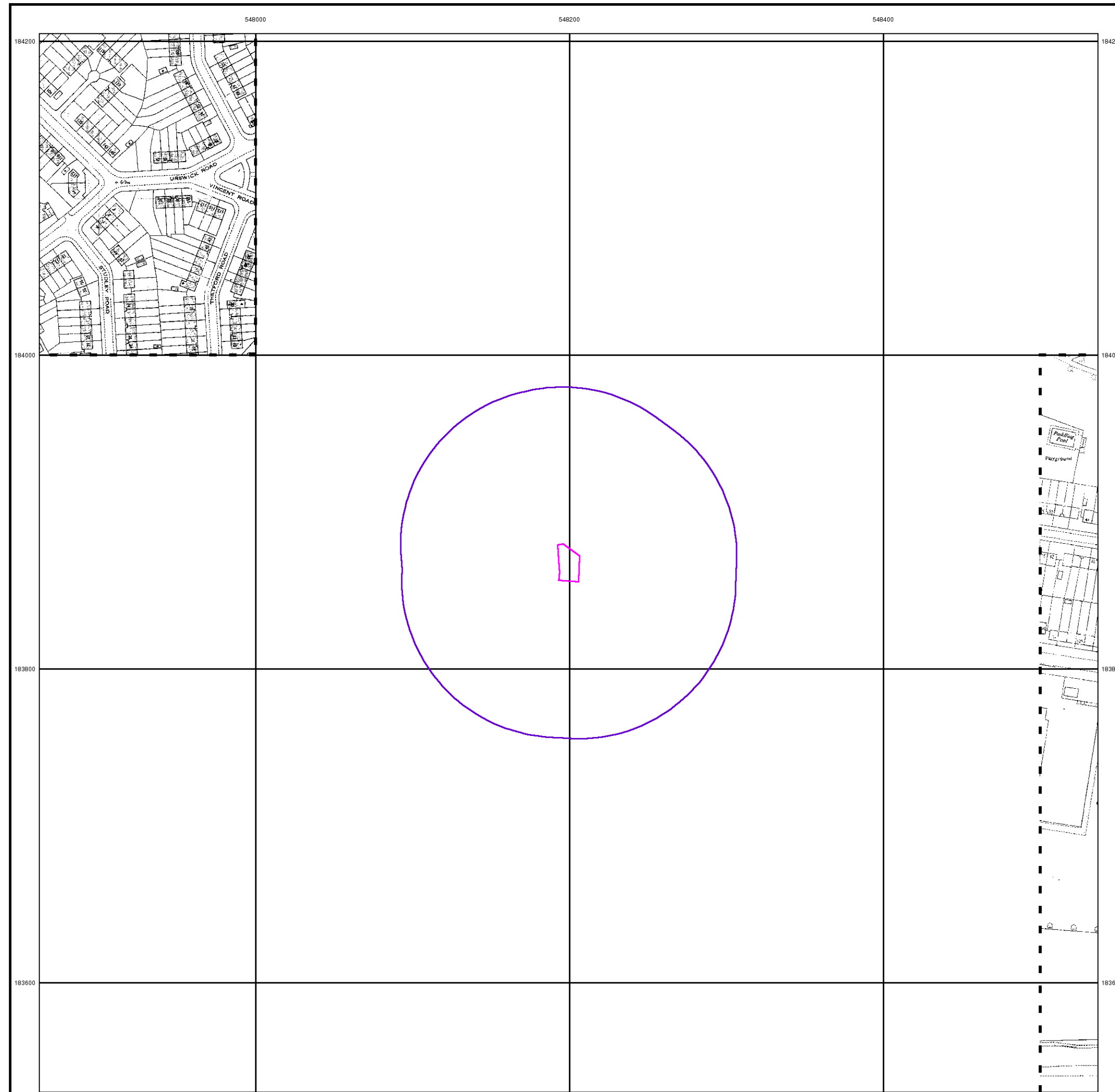
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Customer Ref: LS4745
National Grid Reference: 548200, 183870
Slice: A
Site Area (Ha): 0.03
Search Buffer (m): 100

Site Details

Goresbrook Road, Dagenham, RM9 6XS



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



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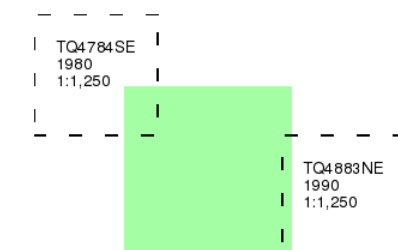
Additional SIMs

Published 1980 - 1990

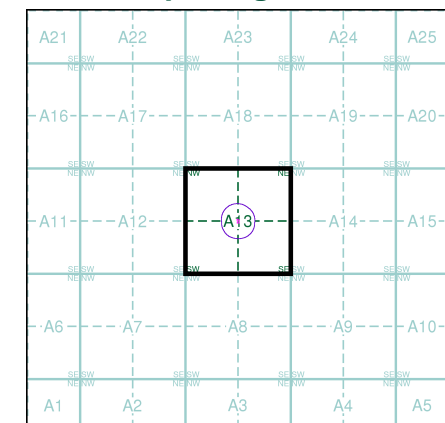
Source map scale - 1:1,250

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

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

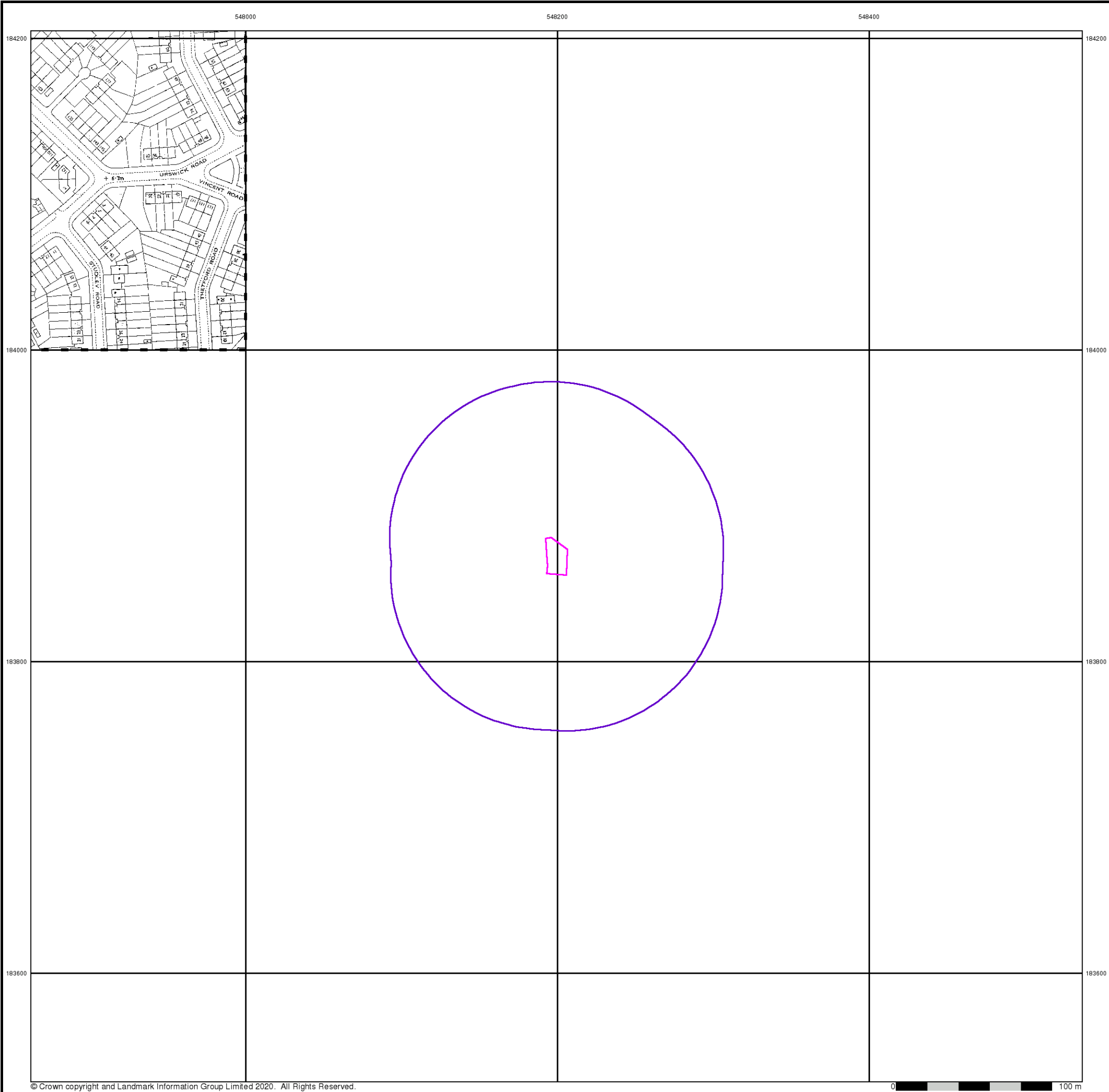
Order Number: 259639659_1_1
Customer Ref: LS4745
National Grid Reference: 548200, 183870
Slice: A
Site Area (Ha): 0.03
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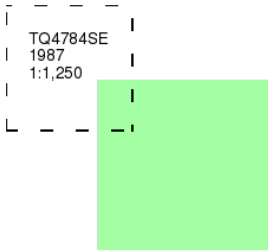
Additional SIMs

Published 1987

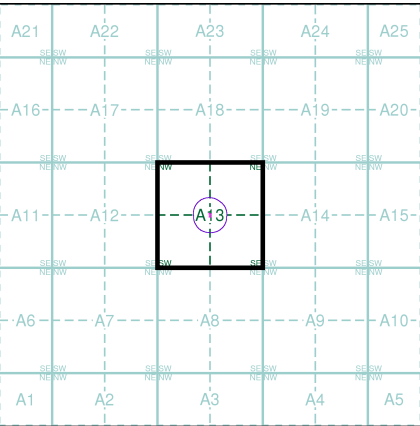
Source map scale - 1:1,250

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

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

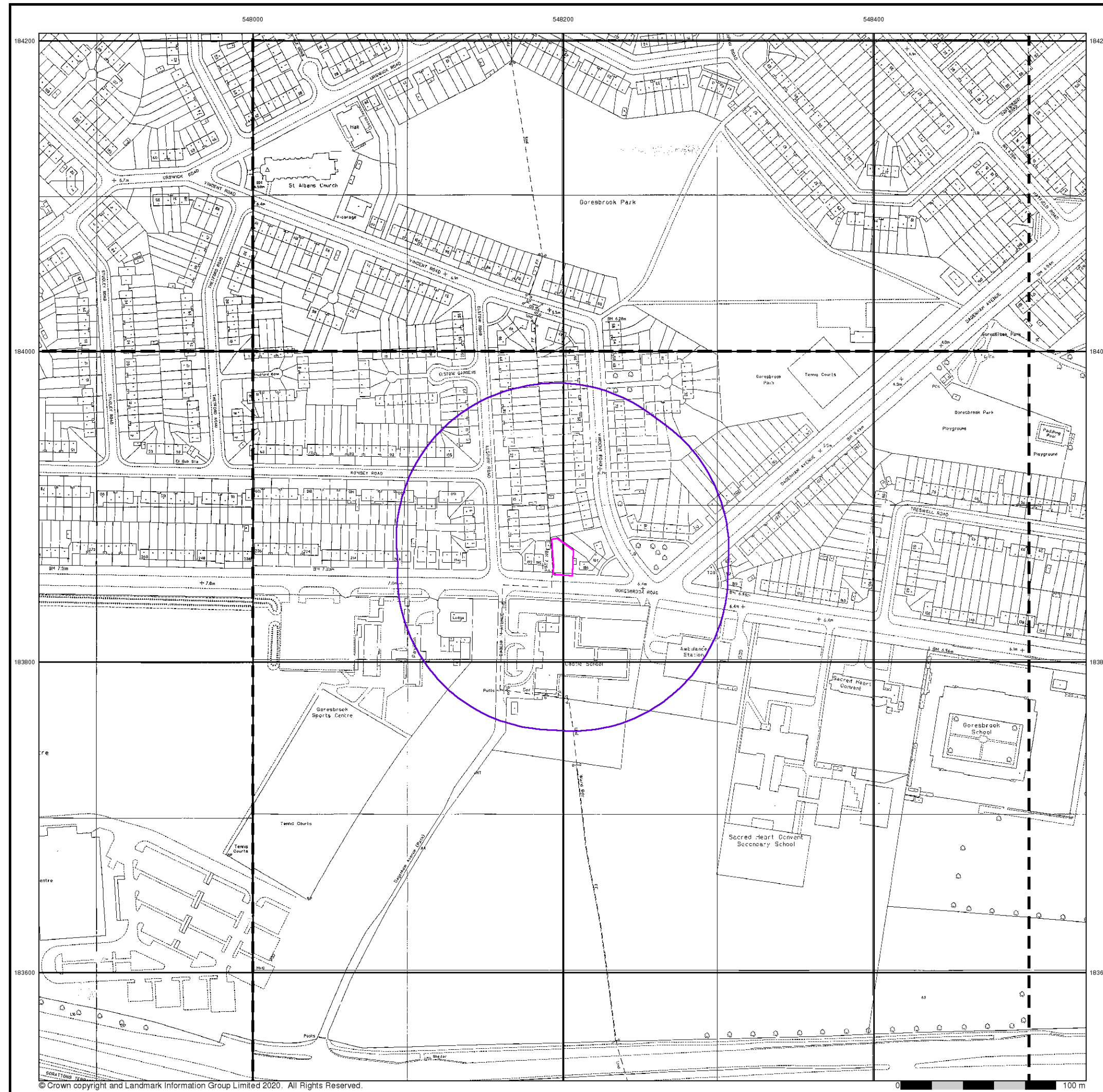
Order Number: 259639659_1_1
Customer Ref: LS4745
National Grid Reference: 548200, 183870
Slice: A
Site Area (Ha): 0.03
Search Buffer (m): 100

Site Details

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Large-Scale National Grid Data

Published 1991

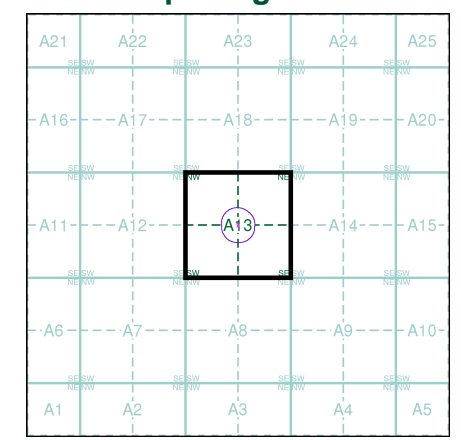
Source map scale - 1:1,250

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

Map Name(s) and Date(s)

TQ4784SE	TQ4884SW	TQ4884SE
1991	1991	1991
1:1,250	1:1,250	1:1,250
TQ4783NE	TQ4883NW	TQ4883NE
1991	1991	1991
1:1,250	1:1,250	1:1,250

Historical Map - Segment A13



Order Details

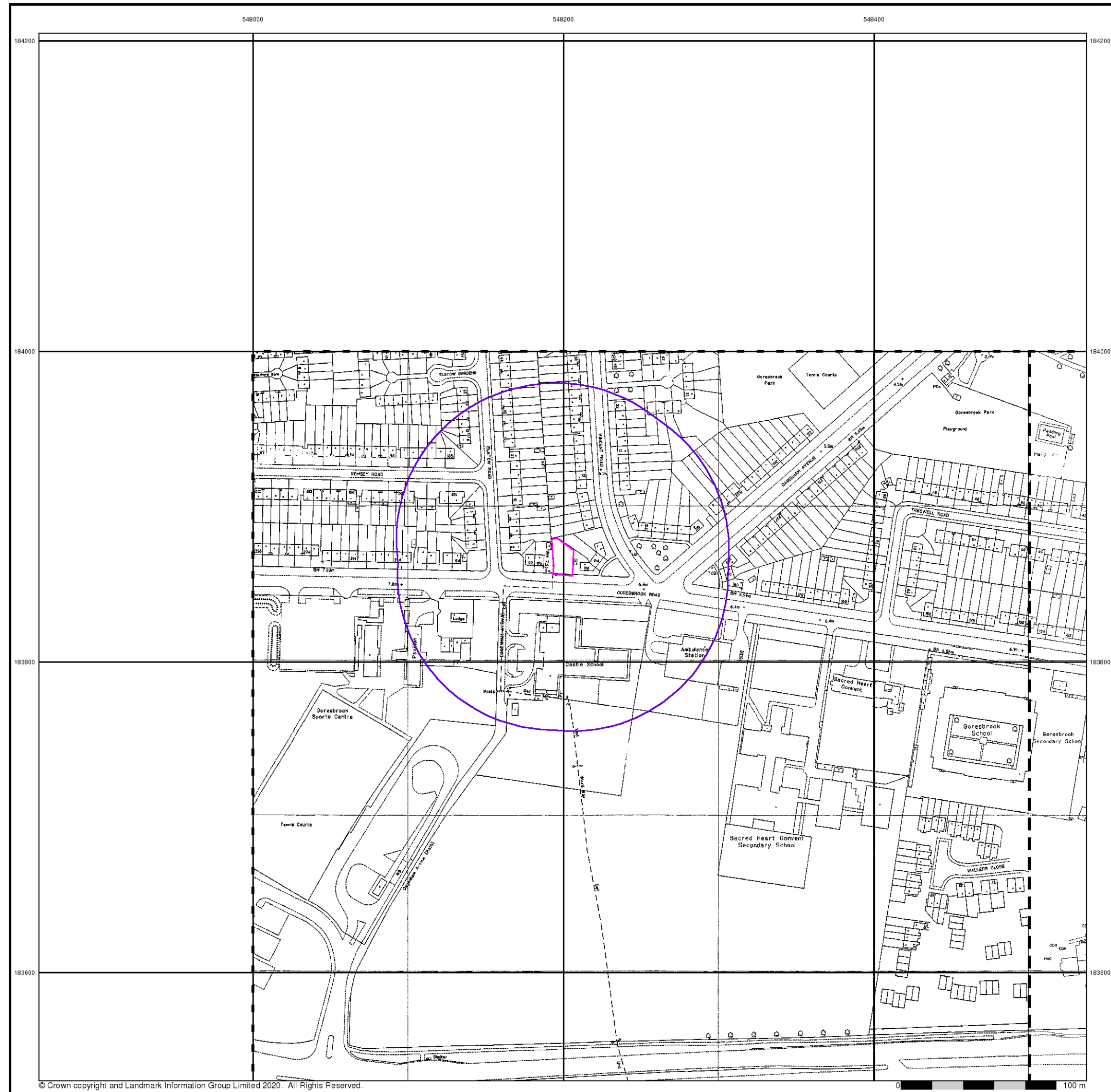
Order Number: 259639659_1_1
Customer Ref: LS4745
National Grid Reference: 548200, 183870
Slice: A
Site Area (Ha): 0.03
Search Buffer (m): 100

Site Details

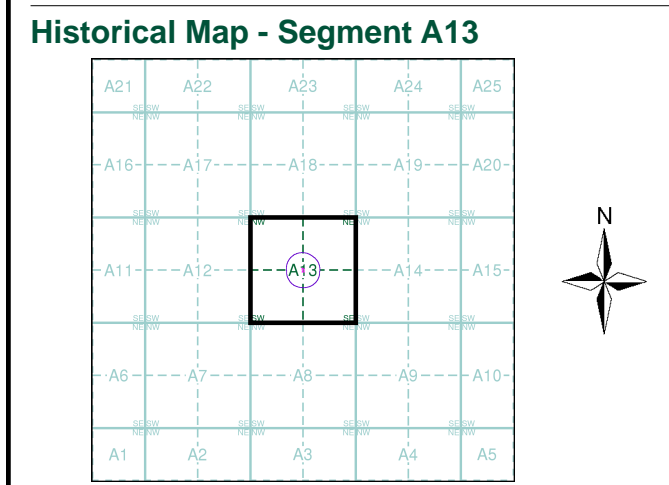
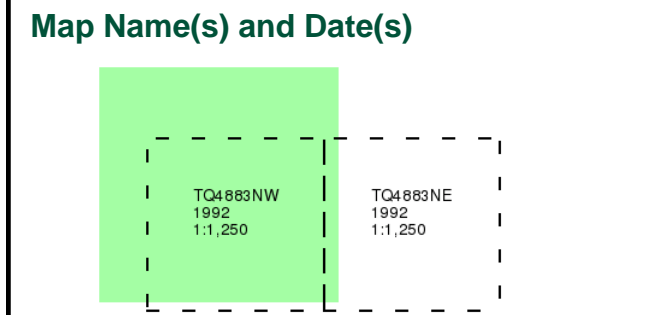
Goresbrook Road, Dagenham, RM9 6XS



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



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



Order Details
Order Number: 259639659_1_1
Customer Ref: LS4745
National Grid Reference: 548200, 183870
Slice: A
Site Area (Ha): 0.03
Search Buffer (m): 100

Site Details
Goresbrook Road, Dagenham, RM9 6XS



<p>TQ4883NW 1993 1:1,250</p>	<p>TQ4883NE 1992 1:1,250</p>
--------------------------------------	--------------------------------------

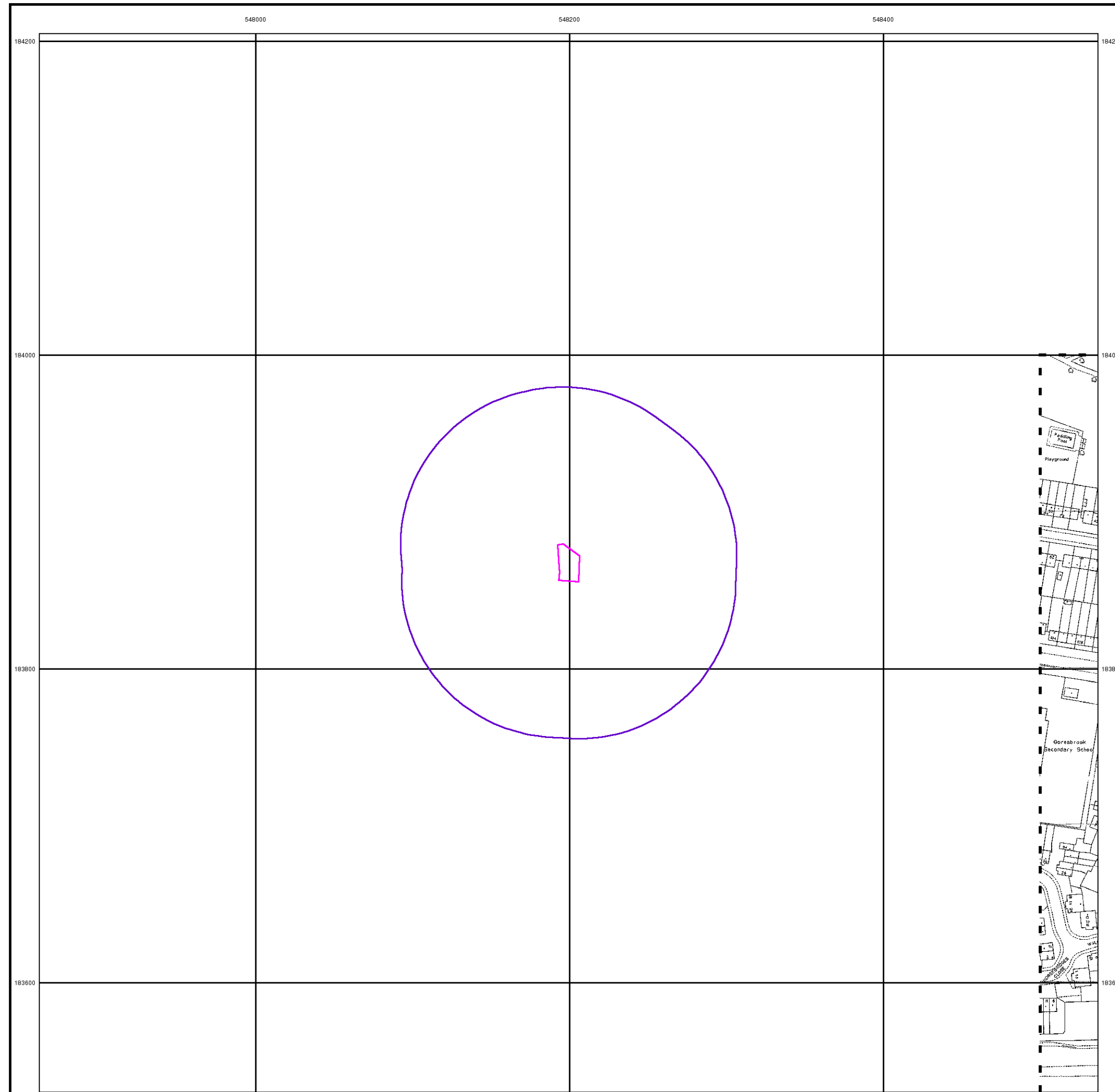
A 10x10 grid with columns labeled A1 through A5 and rows labeled 1 through 10. A 3x3 square is highlighted with a thick black border, centered on cell A13. The cell A13 is also highlighted with a purple circle. The grid is labeled with column letters (A1-A5) and row numbers (1-10) at the intersections.



Order Number: 259639659_1_1
Customer Ref: LS4745
National Grid Reference: 548200, 183870
Slice: A
Site Area (Ha): 0.03
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0 100 m



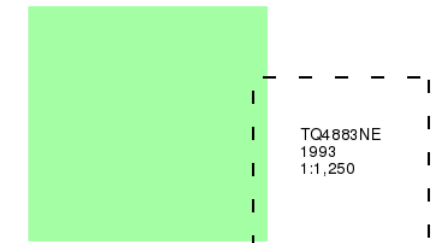
Large-Scale National Grid Data

Published 1993

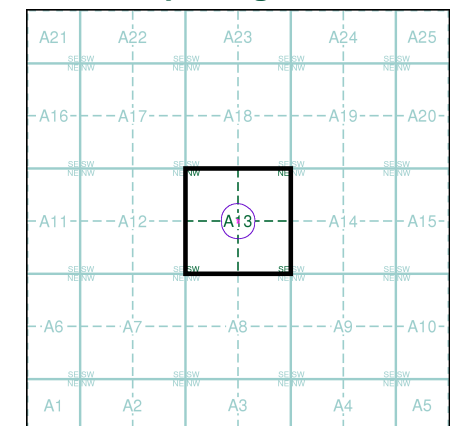
Source map scale - 1:1,250

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

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number: 259639659_1_1
Customer Ref: LS4745
National Grid Reference: 548200, 183870
Slice: A
Site Area (Ha): 0.03
Search Buffer (m): 100

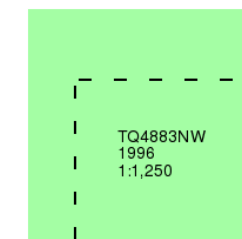
Site Details

Goresbrook Road, Dagenham, RM9 6XS

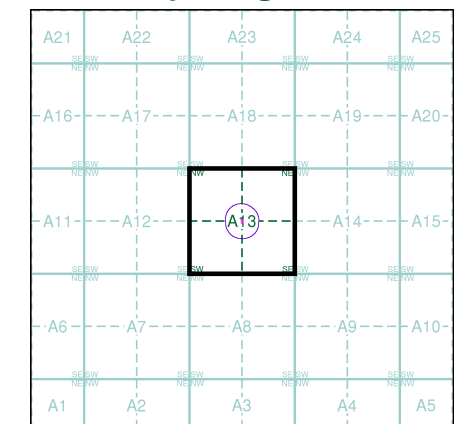


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Web: www.envirocheck.co.uk

Map Name(s) and Date(s)



Historical Map - Segment A13

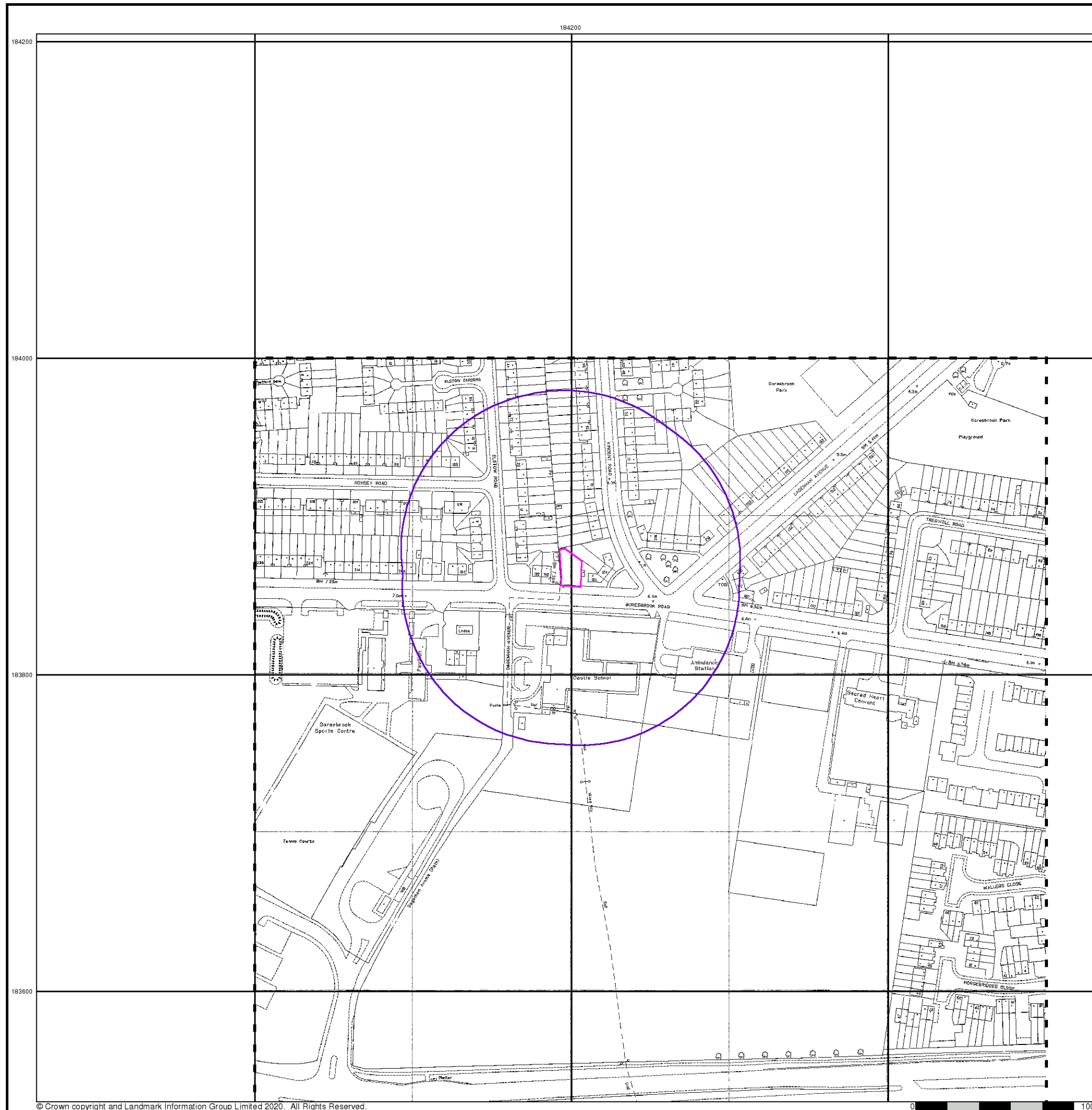


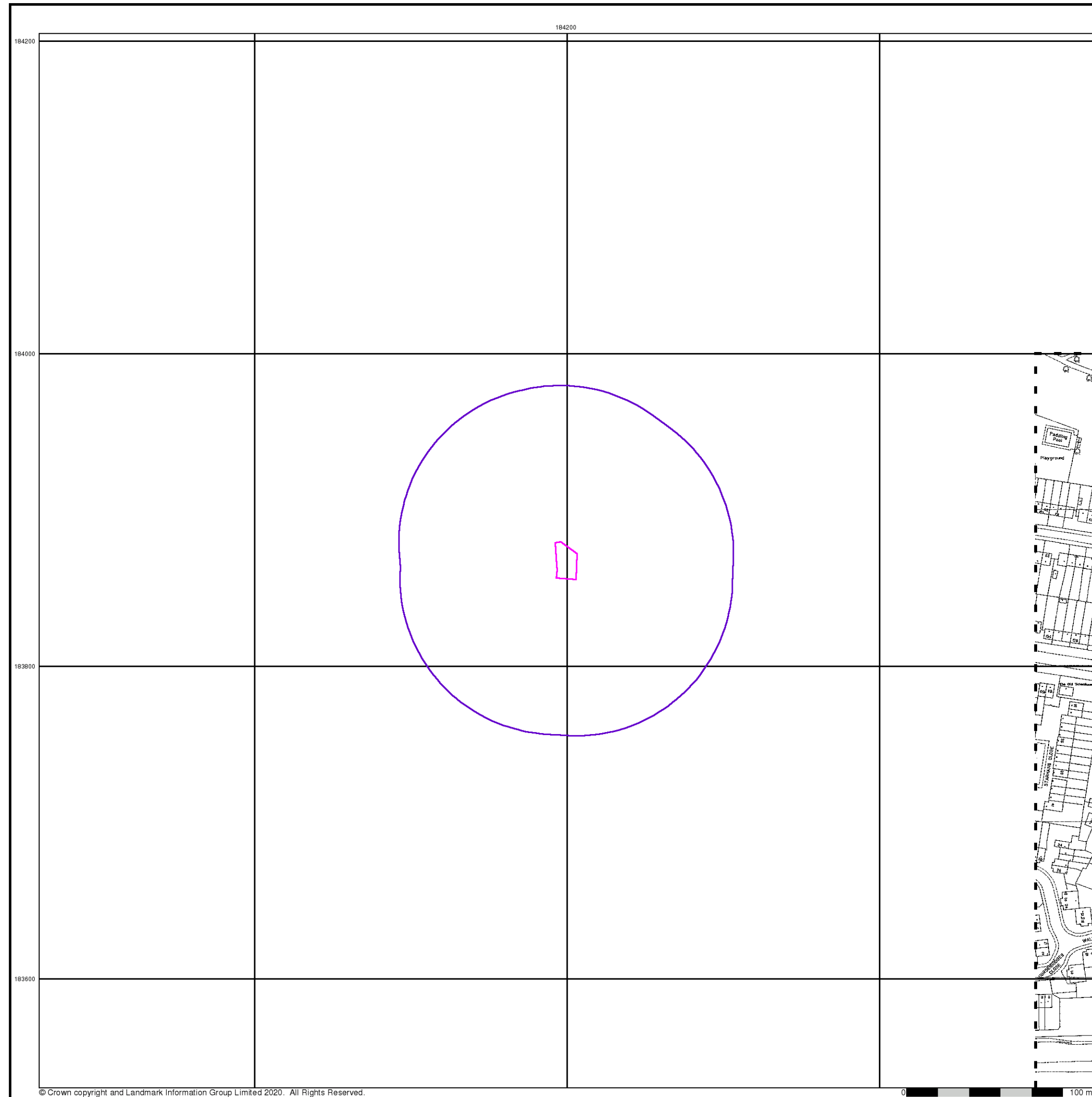
Order Details

Order Number: 259639659_1_1
Customer Ref: LS4745
National Grid Reference: 548200, 183870
Slice: A
Site Area (Ha): 0.03
Search Buffer (m): 100

Site Details

Goresbrook Road, Dagenham, RM9 6XS





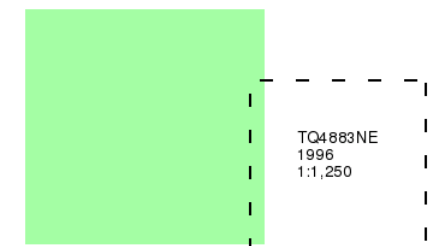
Large-Scale National Grid Data

Published 1996

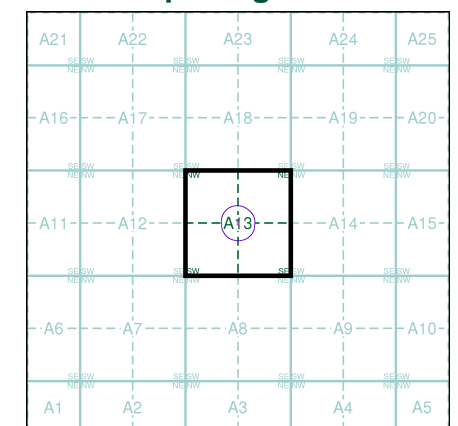
Source map scale - 1:1,250

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

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number: 259639659_1_1
Customer Ref: LS4745
National Grid Reference: 548200, 183870
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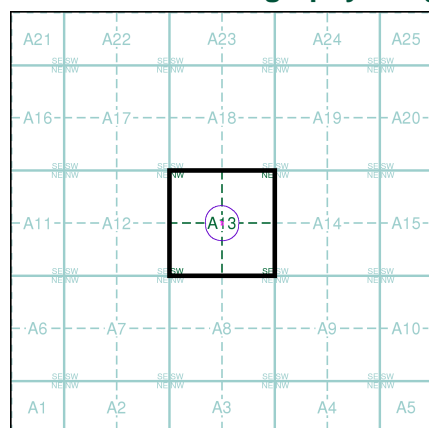


Historical Aerial Photography

Published 1999

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

Historical Aerial Photography - Segment A13



Order Details

Order Number: 259639659_1_1
Customer Ref: LS4745
National Grid Reference: 548200, 183870
Slice: A
Site Area (Ha): 0.03
Search Buffer (m): 100

Site Details

Goresbrook Road, Dagenham, RM9 6XS



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Envirocheck[®] Report:

Datasheet

Order Details:

Order Number:

259639659_1_1

Customer Reference:

LS4745

National Grid Reference:

548200, 183870

Slice:

A

Site Area (Ha):

0.03

Search Buffer (m):

1000

Site Details:

Goresbrook Road

Dagenham

RM9 6XS

Client Details:

Mr E Toms

Land Science Brighton Ltd

The Old Police Station

Jobs Lane

Sayers Common

West Sussex

BN6 9HE

Report Section	Page Number
Summary	-
Agency & Hydrological	1
Waste	19
Hazardous Substances	-
Geological	25
Industrial Land Use	29
Sensitive Land Use	42
Data Currency	43
Data Suppliers	50
Useful Contacts	51

Introduction

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

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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 1		1	4	18
Prosecutions Relating to Controlled Waters			n/a	n/a	n/a
Enforcement and Prohibition Notices					
Integrated Pollution Controls					
Integrated Pollution Prevention And Control	pg 7				6
Local Authority Integrated Pollution Prevention And Control					
Local Authority Pollution Prevention and Controls	pg 8				13
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 10			Yes	
Pollution Incidents to Controlled Waters	pg 10			1	7
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 11				2
Water Abstractions	pg 12				1 (*3)
Water Industry Act Referrals					
Groundwater Vulnerability Map	pg 13	Yes	n/a	n/a	n/a
Groundwater Vulnerability - Soluble Rock Risk			n/a	n/a	n/a
Groundwater Vulnerability - Local Information			n/a	n/a	n/a
Bedrock Aquifer Designations	pg 13	Yes	n/a	n/a	n/a
Superficial Aquifer Designations	pg 13	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 13			5	44

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 19				1
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)					
Licensed Waste Management Facilities (Locations)	pg 19				5
Local Authority Landfill Coverage	pg 20	1	n/a	n/a	n/a
Local Authority Recorded Landfill Sites	pg 20				2
Potentially Infilled Land (Non-Water)	pg 20				1
Potentially Infilled Land (Water)	pg 20			5	33
Registered Landfill Sites					
Registered Waste Transfer Sites	pg 22				6
Registered Waste Treatment or Disposal Sites	pg 24				1
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					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Geological					
BGS 1:625,000 Solid Geology	pg 25	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 25				Yes
BGS Recorded Mineral Sites					
BGS Urban Soil Chemistry	pg 25		Yes	Yes	Yes
BGS Urban Soil Chemistry Averages	pg 28	Yes			
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 28	Yes		n/a	n/a
Potential for Compressible Ground Stability Hazards				n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 28	Yes		n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 28	Yes		n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards				n/a	n/a
Radon Potential - Radon Affected Areas			n/a	n/a	n/a
Radon Potential - Radon Protection Measures			n/a	n/a	n/a
Industrial Land Use					
Contemporary Trade Directory Entries	pg 29			5	79
Fuel Station Entries	pg 36				3
Points of Interest - Commercial Services	pg 36		1	3	19
Points of Interest - Education and Health					
Points of Interest - Manufacturing and Production	pg 38				11
Points of Interest - Public Infrastructure	pg 39				7
Points of Interest - Recreational and Environmental	pg 39		2	3	13
Gas Pipelines					
Underground Electrical Cables					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Sensitive Land Use					
Ancient Woodland					
Areas of Adopted Green Belt					
Areas of Unadopted Green Belt					
Areas of Outstanding Natural Beauty					
Environmentally Sensitive Areas					
Forest Parks					
Local Nature Reserves	pg 42			1	
Marine Nature Reserves					
National Nature Reserves					
National Parks					
Nitrate Sensitive Areas					
Nitrate Vulnerable Zones					
Ramsar Sites					
Sites of Special Scientific Interest					
Special Areas of Conservation					
Special Protection Areas					
World Heritage Sites					

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	A13SW (NE)	0	1	548199 183867
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13NE (NE)	159	1	548300 184000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A8NW (S)	356	1	548199 183500
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A8NW (S)	384	1	548050 183500
1	Discharge Consents Operator: Dagenham Borough Council Property Type: MAKING OF MOTOR VEHICLES+TRAILERS/CARS/CARAVANS Location: Dagenham, Essex Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Cedr.0028 Permit Version: 1 Effective Date: 26th October 1956 Issued Date: 26th October 1956 Revocation Date: 8th April 1991 Discharge Type: Discharge Of Other Matter-Surface Water Discharge: Freshwater Stream/River Environment: Receiving Water: Wantz Stream Status: Authorisation revoked Positional Accuracy: Manually corrected supplier location	A13NE (N)	221	2	548200 184100
2	Discharge Consents Operator: London Borough Of Barking Property Type: EDUCATION/NURSERY/SCHOOL/COLLEGE/UNI/TRAINING VENUE Location: St. Peters School, Goresbrook, Dagenham, Essex Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Ceqr.0197 Permit Version: 1 Effective Date: 17th November 1967 Issued Date: 17th November 1967 Revocation Date: 19th May 1992 Discharge Type: Discharge Of Other Matter-Surface Water Discharge: Freshwater Stream/River Environment: Receiving Water: Goresbrook Status: Authorisation revoked Positional Accuracy: Manually corrected supplier location	A13SE (SE)	333	2	548500 183700
3	Discharge Consents Operator: Dagenham Corporation Property Type: SPORT, AMUSEMENT+RECREATION/GOLF CLUB/GYM/THEME PK/SPA Location: Leys Road Swimming Pool, Dagenham, Essex Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Cefr.0003 Permit Version: 1 Effective Date: 27th February 1958 Issued Date: 27th February 1958 Revocation Date: 18th April 1991 Discharge Type: Discharge Of Other Matter-Swimming Pool Contents Discharge: Freshwater Stream/River Environment: Receiving Water: Wantz Stream Status: Authorisation revoked Positional Accuracy: Manually corrected supplier location	A13SW (SW)	390	2	547900 183600

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
4	Discharge Consents Operator: Proprietors Of Hays Wharf Ltd Property Type: WATER TRANSPORT/SEA + INLAND Location: Hays Wharf, Pooles Lane, Dagenham, Essex Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Cetr.0043 Permit Version: 1 Effective Date: 8th April 1969 Issued Date: 8th April 1969 Revocation Date: 15th May 1991 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Tributary Ofgoresbrook Status: Authorisation revoked Positional Accuracy: Manually corrected supplier location	A8NE (SE)	496	2	548400 183400
4	Discharge Consents Operator: Samuel Williams And Son Ltd Property Type: REAL ESTATE ACTIVITIES/BUYING/SELLING/RENTING Location: Dagenham Dock Industrial Estate, Dagenham, Essex Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Cenr.0077 Permit Version: 1 Effective Date: 20th May 1965 Issued Date: 20th May 1965 Revocation Date: 15th February 1988 Discharge Type: Unknown Discharge: Freshwater Stream/River Environment: Receiving Water: Tributary Ofgoresbrook Status: Authorisation revoked Positional Accuracy: Manually corrected supplier location	A8NE (SE)	496	2	548400 183400
5	Discharge Consents Operator: Essex County Council Property Type: Undefined Or Other Location: Between Lodge Avenue & Chequerslane, A13 Trunk Road, Dagenham Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Cekr.0115 Permit Version: 1 Effective Date: 16th January 1963 Issued Date: 16th January 1963 Revocation Date: 19th March 1991 Discharge Type: Discharge Of Other Matter-Surface Water Discharge: Freshwater Stream/River Environment: Receiving Water: Tributariesof Goresbrook Status: Authorisation revoked Positional Accuracy: Manually corrected supplier location	A14SW (E)	518	2	548700 183700
6	Discharge Consents Operator: Thames Water Utilities Ltd Property Type: PUMPING STATION ON SEWERAGE NETWORK (WATER COMPANY) Location: Scrattons Farm Pumping Stationabbey Mills Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Temp.1874 Permit Version: 2 Effective Date: 3rd September 2010 Issued Date: 3rd September 2010 Revocation Date: 19th August 2014 Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Gores Brook Status: Surrendered under EPR 2010 Positional Accuracy: Located by supplier to within 100m	A8NW (S)	565	2	548100 183300

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
6	Discharge Consents Operator: Thames Water Utilities Ltd Property Type: PUMPING STATION ON SEWERAGE NETWORK (WATER COMPANY) Location: Scrattons Farm Pumping Station/Abbey Mills Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Temp.1874 Permit Version: 1 Effective Date: 2nd November 1989 Issued Date: 2nd November 1989 Revocation Date: 2nd September 2010 Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Gores Brook Status: Temporary Consents (Water Act 1989, Section 113) Positional Accuracy: Located by supplier to within 100m	A8NW (S)	565	2	548100 183300
7	Discharge Consents Operator: Ford Motor Company Ltd Property Type: MAKING OF MOTOR VEHICLES+TRAILERS/CARS/CARAVANS Location: Thames Avenue, Dagenham, Essex, Rm9 6de Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Ctlr.0053 Permit Version: 1 Effective Date: 14th November 1978 Issued Date: 14th November 1978 Revocation Date: 29th November 1991 Discharge Type: Discharge Of Other Matter-Surface Water Discharge: Freshwater Stream/River Environment: Receiving Water: Beam Status: Authorisation revoked Positional Accuracy: Manually corrected supplier location	A18SW (N)	628	2	548100 184500
7	Discharge Consents Operator: Ford Motor Company Ltd Property Type: MAKING OF MOTOR VEHICLES+TRAILERS/CARS/CARAVANS Location: Thames Avenue, Dagenham, Essex, Rm9 6de Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Ctlr.0052 Permit Version: 1 Effective Date: 8th August 1978 Issued Date: 8th August 1978 Revocation Date: 29th November 1991 Discharge Type: Discharge Of Other Matter-Surface Water Discharge: Freshwater Stream/River Environment: Receiving Water: Trib Of Beam Status: Authorisation revoked Positional Accuracy: Manually corrected supplier location	A18SW (N)	628	2	548100 184500
7	Discharge Consents Operator: Ford Motor Company Ltd Property Type: MAKING OF MOTOR VEHICLES+TRAILERS/CARS/CARAVANS Location: Thames Avenue, Dagenham, Essex, Rm9 6de Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Ctlr.0047 Permit Version: 1 Effective Date: 11th April 1978 Issued Date: 11th April 1978 Revocation Date: 29th November 1991 Discharge Type: Discharge Of Other Matter-Surface Water Discharge: Freshwater Stream/River Environment: Receiving Water: Trib Of Beam Status: Authorisation revoked Positional Accuracy: Manually corrected supplier location	A18SW (N)	628	2	548100 184500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
7	Discharge Consents Operator: Ford Motor Co Ltd Property Type: MAKING OF MOTOR VEHICLES+TRAILERS/CARS/CARAVANS Location: Thames Avenue, Dagenham, Essex, Rm9 6de Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Cewr.0006 Permit Version: 1 Effective Date: 7th February 1972 Issued Date: 7th February 1972 Revocation Date: 29th November 1991 Discharge Type: Discharge Of Other Matter-Surface Water Discharge: Freshwater Stream/River Environment: Receiving Water: Beam Status: Authorisation revoked Positional Accuracy: Manually corrected supplier location	A18SW (N)	628	2	548100 184500
8	Discharge Consents Operator: London Borough Of Barking Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY) Location: Pooles Sewer, Dagenham Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Cepr.0139 Permit Version: 1 Effective Date: 23rd June 1966 Issued Date: 23rd June 1966 Revocation Date: 19th May 1992 Discharge Type: Discharge Of Other Matter-Surface Water Discharge: Freshwater Stream/River Environment: Receiving Water: Goresbrook Status: Authorisation revoked Positional Accuracy: Manually corrected supplier location	A18SE (NE)	691	2	548500 184500
9	Discharge Consents Operator: Nuttall Wayss & Freytag Kier Jv Property Type: MAKING OF OTHER TRANSPORT EQUIP/SHIPS/TRAINS/BIKES Location: Land Adjacent To The Gores Brook South Of London, Tilbury &, South End Railway, Near Choats Road, Dagenham, Essex Authority: Environment Agency, Thames Region Catchment Area: Thames Reference: CATM.3629 Permit Version: 1 Effective Date: 15th January 1999 Issued Date: 1st April 1999 Revocation Date: 20th August 2002 Discharge Type: Trade Effluent Discharge: Freshwater Stream/River Environment: Receiving Water: Gores Brook Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A8SW (S)	868	2	548150 182990
10	Discharge Consents Operator: Biffa Waste Services Limited Property Type: WASTE COLLECTION/TREATMENT/DISPOSAL/MATERIALS RECOVERY Location: Biffa Waste Services Limited Barking Transfer Station Maybell Farm, Ripple Road Barking, Essex Ig11 0tw Authority: Environment Agency, Thames Region Catchment Area: Non-Tidal (River Roding) Reference: Canm.1093 Permit Version: 1 Effective Date: 24th August 2006 Issued Date: 13th September 2006 Revocation Date: Not Supplied Discharge Type: Trade Effluent Discharge-Site Drainage Discharge: Freshwater Stream/River Environment: Receiving Water: To Mogs Farm Sewer Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A7NW (SW)	884	2	547477 183338

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
10	Discharge Consents Operator: Parkdale Investments Limited Property Type: WASTE COLLECTION/TREATMENT/DISPOSAL/MATERIALS RECOVERY Location: Biffa Waste Services Limited Barking Transfer Station Maybell Farm, Ripple Road Barking, Essex Ig11 0tw Authority: Environment Agency, Thames Region Catchment Area: Non-Tidal (River Roding) Reference: Canm.1093 Permit Version: 1 Effective Date: 24th August 2006 Issued Date: 13th September 2006 Revocation Date: Not Supplied Discharge Type: Trade Effluent Discharge-Site Drainage Discharge: Freshwater Stream/River Environment: Receiving Water: To Mogs Farm Sewer Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A7NW (SW)	884	2	547477 183338
11	Discharge Consents Operator: Ford Motor Company Limited Property Type: MAKING OF MOTOR VEHICLES+TRAILERS/CARS/CARAVANS Location: Ford Motor Company Site, Chequers Lane, Dagenham, Essex Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: CTWC.0110 Permit Version: 1 Effective Date: 10th July 1985 Issued Date: 10th July 1985 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Onto Land Environment: Receiving Water: Alluvium Status: Transferred from COPA 1974 Positional Accuracy: Located by supplier to within 100m	A9SW (SE)	903	2	548700 183100
12	Discharge Consents Operator: Ctrl (Uk) Limited Property Type: GROUNDWATER REMEDIATION SITES/CIVIL ENGINEERING Location: Ctrl Contract 576 Gate 10h Choats Road, Dagenham Essex Rm9 6px Authority: Environment Agency, Thames Region Catchment Area: Non-Tidal (River Roding) Reference: Canm.1304 Permit Version: 1 Effective Date: 6th September 2007 Issued Date: 6th September 2007 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Gores Brook Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A8SW (S)	931	2	547880 182980
13	Discharge Consents Operator: Amec Civil Engineering Ltd Property Type: LAND TRANSPORT + VIA PIPELINES/FREIGHT Location: Land North Of Gores Brook Off Chequers Lane, Adj. To Ford Motor Company, Dagenham, Essex Authority: Environment Agency, Thames Region Catchment Area: Ingrebourne Reference: CANM.0058 Permit Version: 1 Effective Date: 14th December 1999 Issued Date: 19th January 2000 Revocation Date: 29th December 2006 Discharge Type: Trade Effluent Discharge: Freshwater Stream/River Environment: Receiving Water: The Gores Brook Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A9SW (SE)	942	2	548620 183010

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
13	Discharge Consents Operator: Amec Civil Engineering Ltd Property Type: LAND TRANSPORT + VIA PIPELINES/FREIGHT Location: Land North Of Gores Brook Off Chequers Lane, Adj. To Ford Motor Company, Dagenham, Essex Authority: Environment Agency, Thames Region Catchment Area: Non-Tidal (River Roding) Reference: CANM.0057 Permit Version: 1 Effective Date: 14th December 1999 Issued Date: 20th December 1999 Revocation Date: 29th December 2006 Discharge Type: Trade Effluent Discharge: Freshwater Stream/River Environment: Receiving Water: Gores Brook Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A9SW (SE)	947	2	548600 182995
13	Discharge Consents Operator: Amec Civil Engineering Ltd Property Type: MAKING OF OTHER TRANSPORT EQUIP/SHIPS/TRAINS/BIKES Location: Ctrl - Utilities Diversions Land South Of Gores Brook, Off Chequers Lane, Adj To Ford Motor Company, Dagenham, Essex Authority: Environment Agency, Thames Region Catchment Area: Ingrebourne Reference: CANM.0059 Permit Version: 1 Effective Date: 19th January 2000 Issued Date: 19th January 2000 Revocation Date: 29th December 2006 Discharge Type: Trade Effluent Discharge: Freshwater Stream/River Environment: Receiving Water: The Gores Brook Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A9SW (SE)	961	2	548600 182980
14	Discharge Consents Operator: Ford Motor Co Ltd Property Type: SALE OF MOTOR VEHICLES/MAINTENANCE + REPAIR Location: New Car Park, Dagenham Bridge, Dagenham, Essex Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Cewr.0028 Permit Version: 1 Effective Date: 4th April 1972 Issued Date: 4th April 1972 Revocation Date: 29th November 1991 Discharge Type: Discharge Of Other Matter-Surface Water Discharge: Freshwater Stream/River Environment: Receiving Water: Dagenham Breach Status: Authorisation revoked Positional Accuracy: Manually corrected supplier location	A9NE (SE)	955	2	548900 183200
15	Discharge Consents Operator: Dagenham Borough Council. Property Type: Undefined Or Other Location: Chequers Lane, Dagenham, Essex Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Cefr.0051 Permit Version: 1 Effective Date: 22nd December 1958 Issued Date: 22nd December 1958 Revocation Date: 19th May 1992 Discharge Type: Discharge Of Other Matter-Surface Water Discharge: Freshwater Stream/River Environment: Receiving Water: Goresbrook Status: Authorisation revoked Positional Accuracy: Manually corrected supplier location	A9NE (E)	963	2	549100 183500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
16	Integrated Pollution Prevention And Control Name: Urban Mining Energy Limited Location: Thames Gateway Energy Facility Epr/Pp3808pr, London Sustainable Industries Park, Choats Road,,, DAGENHAM, Essex, RM9 6LF Authority: Environment Agency - South East Region, North East Thames Area Permit Reference: PP3808PR Original Permit Ref: Pp3808pr Effective Date: 18th April 2019 Status: Effective Application Type: Transfer App. Sub Type: Whole limited change in management Positional Accuracy: Located by supplier to within 10m Activity Code: 5.1 A(1) (B) Activity Description: THE INCINERATION OF NON-HAZARDOUS WASTE IN AN INCINERATION OR CO-INCINERATION PLANT WITH A CAPACITY EXCEEDING 3 TONNES PER HOUR. Primary Activity: Y	A8SE (S)	975	2	548340 182890
16	Integrated Pollution Prevention And Control Name: Thames Gateway Waste To Energy Limited Location: Thames Gateway Energy Facility Epr/Cp3737cv, London Sustainable Industries Park, Choats Road,,, DAGENHAM, Essex, RM9 6LF Authority: Environment Agency - South East Region, North East Thames Area Permit Reference: MP3939QP Original Permit Ref: Cp3737cv Effective Date: 11th April 2019 Status: Superseded By Variation Application Type: Variation App. Sub Type: Standard Positional Accuracy: Located by supplier to within 10m Activity Code: 5.1 A(1) (B) Activity Description: THE INCINERATION OF NON-HAZARDOUS WASTE IN AN INCINERATION OR CO-INCINERATION PLANT WITH A CAPACITY EXCEEDING 3 TONNES PER HOUR. Primary Activity: Y	A8SE (S)	975	2	548340 182890
16	Integrated Pollution Prevention And Control Name: Thames Gateway Waste To Energy Limited Location: Thames Gateway Energy Facility Epr/Cp3737cv, London Sustainable Industries Park, Choats Road,,, DAGENHAM, Essex, RM9 6LF Authority: Environment Agency - South East Region, North East Thames Area Permit Reference: LP3036AG Original Permit Ref: Cp3737cv Effective Date: 19th August 2015 Status: Superseded By Variation Application Type: Variation App. Sub Type: Substantial Positional Accuracy: Located by supplier to within 10m Activity Code: 5.1 A(1) (A) Activity Description: Incineration Of Hazardous Waste Primary Activity: Y	A8SE (S)	975	2	548340 182890
16	Integrated Pollution Prevention And Control Name: Thames Gateway Waste To Energy Ltd Location: Thames Gateway Energy Facility, London Sustainable Industries Park, Choats Road,,, DAGENHAM, Essex, RM9 6LF Authority: Environment Agency - South East Region, North East Thames Area Permit Reference: CP3737CV Original Permit Ref: Cp3737cv Effective Date: 13th September 2012 Status: Superseded By Variation Application Type: Transfer App. Sub Type: Whole without Fit and Proper Person Positional Accuracy: Located by supplier to within 10m Activity Code: 5.1 A(1) (A) Activity Description: Incineration Of Hazardous Waste Primary Activity: Y	A8SE (S)	975	2	548340 182890
16	Integrated Pollution Prevention And Control Name: Thames Gateway Power Ltd Location: Thames Gateway Energy Facility Epr/Jp3237ky, London Sustainable Industries Park, Choats Road,,, DAGENHAM, Essex, RM9 6LF Authority: Environment Agency - South East Region, North East Thames Area Permit Reference: JP3237KY Original Permit Ref: Jp3237ky Effective Date: 22nd December 2010 Status: Superseded By Variation Application Type: Application App. Sub Type: New Positional Accuracy: Located by supplier to within 10m Activity Code: 5.1 A(1) (A) Activity Description: Incineration Of Hazardous Waste Primary Activity: Y	A8SE (S)	975	2	548340 182890

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
16	Integrated Pollution Prevention And Control Name: Thames Gateway Power Ltd Location: Thames Gateway Energy Facility, London Sustainable Industries Park, Choats Road,, DAGENHAM, Essex, RM9 6LF Authority: Environment Agency, Thames Region Permit Reference: JP3237KY Original Permit Ref: Jp3237ky Effective Date: 22nd December 2010 Status: Effective Application Type: Application App. Sub Type: New Positional Accuracy: Located by supplier to within 100m Activity Code: 5.1 A(1) (A) Activity Description: Incineration Of Hazardous Waste Primary Activity: Y	A8SE (S)	975	2	548340 182890
17	Local Authority Pollution Prevention and Controls Name: Johns Mobile Car Repairs Location: 1 Levine Gardens, Barking, IG11 0UH Authority: London Borough of Barking And Dagenham, Environmental Health Department Permit Reference: M/015028 Dated: Not Supplied Process Type: Local Authority Pollution Prevention and Control Description: PG6/34 Respraying of road vehicles Status: Permitted Positional Accuracy: Manually positioned to the address or location	A8NW (SW)	539	3	547958 183372
18	Local Authority Pollution Prevention and Controls Name: Eurocraft Ltd Location: Unit 1a-C Maybells Industrial Estate, Ripple Road, Barking, IG11 0TP Authority: London Borough of Barking And Dagenham, Environmental Health Department Permit Reference: M/015011 Dated: Not Supplied Process Type: Local Authority Pollution Prevention and Control Description: PG6/34 Respraying of road vehicles Status: Permitted Positional Accuracy: Manually positioned to the address or location	A7NE (SW)	653	3	547665 183473
19	Local Authority Pollution Prevention and Controls Name: Asda Service Station Location: Merriellands Crescent, Ripple Road, DAGENHAM, Essex, RM9 6SJ Authority: London Borough of Barking And Dagenham, Environmental Health Department Permit Reference: M/006389 Dated: 10th June 1999 Process Type: Local Authority Pollution Prevention and Control Description: PG1/14 Petrol filling station Status: Permitted Positional Accuracy: Automatically positioned to the address	A9NW (SE)	657	3	548682 183404
19	Local Authority Pollution Prevention and Controls Name: Prestige Dry Cleaner Location: Asda Superstore, Merriellands Crescent, DAGENHAM, RM9 Authority: London Borough of Barking And Dagenham, Environmental Health Department Permit Reference: M/007045 Dated: Not Supplied Process Type: Local Authority Pollution Prevention and Control Description: PG6/46 Dry cleaning Status: Application exempt from APC Positional Accuracy: Manually positioned to the address or location	A9NW (SE)	659	3	548694 183413
20	Local Authority Pollution Prevention and Controls Name: Commercial Psv Painters Ltd Location: Unit 9 Maybells Industrial Estate, Ripple Road, Barking, IG11 0TP Authority: London Borough of Barking And Dagenham, Environmental Health Department Permit Reference: M/014948 Dated: Not Supplied Process Type: Local Authority Pollution Prevention and Control Description: PG6/34 Respraying of road vehicles Status: Permitted Positional Accuracy: Manually positioned to the address or location	A7NE (SW)	674	3	547732 183365

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
21	Local Authority Pollution Prevention and Controls Name: Laundrette & Dry Cleaners Location: 14 Woodward Road, Dagenham, RM9 Authority: London Borough of Barking And Dagenham, Environmental Health Department Permit Reference: M/008482 Dated: Not Supplied Process Type: Local Authority Pollution Prevention and Control Description: PG6/46 Dry cleaning Status: Application exempt from APC Positional Accuracy: Manually positioned to the address or location	A17SE (NW)	766	3	547604 184369
22	Local Authority Pollution Prevention and Controls Name: Railfreight Distribution Location: Box Lane, Barking, IG11 0SQ Authority: London Borough of Barking And Dagenham, Environmental Health Department Permit Reference: Not Supplied Dated: Not Supplied Process Type: Local Authority Pollution Prevention and Control Description: PG3/16 Mobile screening and crushing processes Status: Application exempt from APC Positional Accuracy: Manually positioned to the address or location	A7SE (SW)	784	3	547780 183190
23	Local Authority Pollution Prevention and Controls Name: Grosvenor Dry Cleaners Location: 497 Gale Street, Dagenham, Rm9 4tp Authority: London Borough of Barking And Dagenham, Environmental Health Department Permit Reference: M/007035 Dated: 8th October 2007 Process Type: Local Authority Pollution Prevention and Control Description: PG6/46 Dry cleaning Status: Permitted Positional Accuracy: Manually positioned to the address or location	A17SE (NW)	812	3	547666 184497
24	Local Authority Pollution Prevention and Controls Name: Texaco Service Station Location: 796 Ripple Road, BARKING, Essex, IG11 0TT Authority: London Borough of Barking And Dagenham, Environmental Health Department Permit Reference: M/006386 Dated: 2nd February 1999 Process Type: Local Authority Pollution Prevention and Control Description: PG1/14 Petrol filling station Status: Permitted Positional Accuracy: Automatically positioned to the address	A7NW (SW)	869	3	547394 183516
25	Local Authority Pollution Prevention and Controls Name: Station Garage Location: Gale Street, Dagenham, Essex, Rm9 4nv Authority: London Borough of Barking And Dagenham, Environmental Health Department Permit Reference: M/007890 Dated: Not Supplied Process Type: Local Authority Air Pollution Control Description: PG1/14 Petrol filling station Status: Site Closed Positional Accuracy: Manually positioned to the address or location	A17NE (NW)	895	3	547615 184562
25	Local Authority Pollution Prevention and Controls Name: Ironing Maids Location: 490 Gale Street, Dagenham, Rm9 4nu Authority: London Borough of Barking And Dagenham, Environmental Health Department Permit Reference: M/009032 Dated: Not Supplied Process Type: Local Authority Pollution Prevention and Control Description: PG6/46 Dry cleaning Status: Application exempt from APC Positional Accuracy: Located by supplier to within 10m	A17NE (NW)	936	3	547608 184609
26	Local Authority Pollution Prevention and Controls Name: Hunts Holdings Limited Location: 75-77 Chequers Lane, Dagenham, Essex, Rm9 6la Authority: London Borough of Barking And Dagenham, Environmental Health Department Permit Reference: Not Supplied Dated: Not Supplied Process Type: Local Authority Pollution Prevention and Control Description: PG3/16 Mobile screening and crushing processes Status: Permitted Positional Accuracy: Located by supplier to within 10m	A9NE (E)	935	3	549082 183530

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
27	Local Authority Pollution Prevention and Controls Name: Lords Linen Services Ltd Location: Unit 6 Rippleside Commercial, Rippleside Road, Barking, Ig11 0rj Authority: London Borough of Barking And Dagenham, Environmental Health Department Permit Reference: M/009206 Dated: Not Supplied Process Type: Local Authority Pollution Prevention and Control Description: PG6/46 Dry cleaning Status: Permitted Positional Accuracy: Manually positioned to the address or location	A7NW (W)	985	3	547271 183510
	Nearest Surface Water Feature	A14NW (E)	446	-	548650 183915
28	Pollution Incidents to Controlled Waters Property Type: Not Given Location: A13 At Dagenham Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 18th September 1992 Incident Reference: NE920505 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14SW (E)	498	2	548700 183800
29	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Gores Brook Road, DAGENHAM Authority: Environment Agency, Thames Region Pollutant: Storm Sewage Note: Confirmed incident Incident Date: 1st June 1999 Incident Reference: THNE1999043202 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 10m	A14NW (NE)	513	2	548600 184200
30	Pollution Incidents to Controlled Waters Property Type: Not Given Location: DAGENHAM, Essex Authority: Environment Agency, Thames Region Pollutant: General Note: Confirmed incident Incident Date: 31st May 1999 Incident Reference: THNE1999043175 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 10m	A17SE (NW)	806	2	547680 184500
31	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Choates Lane, DAGENHAM Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Not Supplied Incident Date: 10th November 1997 Incident Reference: THNE1997030811 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A9NW (SE)	814	2	548800 183300

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
32	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Chequers Lane, DAGENHAM Authority: Environment Agency, Thames Region Pollutant: Unknown Sewage Note: Confirmed As A Pollution Incident Incident Date: 9th January 1990 Incident Reference: NE900012 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A9NE (SE)	831	2	548900 183400
33	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Choats Lane, DAGENHAM Authority: Environment Agency, Thames Region Pollutant: Chemicals - Unknown Note: Confirmed As A Pollution Incident Incident Date: 4th November 1993 Incident Reference: NE930756 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8SE (S)	878	2	548400 183000
34	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Chequers Lane, DAGENHAM Authority: Environment Agency, Thames Region Pollutant: Chemicals - Unknown Note: Confirmed As A Pollution Incident Incident Date: 23rd March 1994 Incident Reference: NE940189 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A9SW (SE)	903	2	548700 183100
35	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Choats Lane, DAGENHAM Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 11th May 1993 Incident Reference: NE930385 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A9SW (SE)	942	2	548600 183000
36	Substantiated Pollution Incident Register Authority: Environment Agency - Thames Region, North East Area Incident Date: 28th November 2014 Incident Reference: 1298086 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: Grey Water	A7NW (SW)	858	2	547514 183332
37	Substantiated Pollution Incident Register Authority: Environment Agency - Thames Region, North East Area Incident Date: 28th November 2001 Incident Reference: 45500 Water Impact: Category 3 - Minor Incident Air Impact: Category 2 - Significant Incident Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Atmospheric Pollutants and Effects: Smoke Pollutant: Contaminated Water: Firefighting Run-Off	A7NW (SW)	920	2	547412 183372

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
38	Water Abstractions Operator: Barking Riverside Limited Licence Number: 08/37/54/0059 Permit Version: 1 Location: Ship & Shovel Relief Sewer, Barking- Pont A Authority: Environment Agency, Thames 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: Ship & Shovel Relief Sewer, Choats Road, Barking Essex Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 14th January 2005 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A7SE (SW)	956	2	547750 183010
	Water Abstractions Operator: Bellway Homes Ltd Licence Number: 28/39/45/0011 Permit Version: Not Supplied Location: Barking Reach, Near Coal Wharf, River Road, BARKING Authority: Environment Agency, Thames Region Abstraction: Dust Suppression Abstraction Type: Not Supplied Source: Tidal Daily Rate (m3): 60 Yearly Rate (m3): 10800 Details: Not Supplied 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	A2SE (S)	1753	2	547620 182200
	Water Abstractions Operator: Cemex Uk Materials Limited Licence Number: Th/037/0054/016 Permit Version: 2 Location: Point A At Choats Road, Chequer Lane, Dagenham, Essex Authority: Environment Agency, Thames Region Abstraction: Mineral Products: Mineral Washing Abstraction Type: Water may be abstracted from a single point Source: Tidal Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 21st December 2018 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(S)	1876	2	548051 181986
	Water Abstractions Operator: Cemex Uk Materials Limited Licence Number: Th/037/0054/016 Permit Version: 1 Location: Point A At Choats Road, Chequer Lane, Dagenham, Essex Authority: Environment Agency, Thames Region Abstraction: Mineral Products: Mineral Washing Abstraction Type: Water may be abstracted from a single point Source: Tidal Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 4th August 2014 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(S)	1876	2	548051 181986

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Groundwater Vulnerability Map Combined Secondary Superficial Aquifer - High Vulnerability Classification: High Combined Vulnerability: Unproductive Bedrock Aquifer, Productive Superficial Aquifer Pollutant Speed: High Bedrock Flow: Mixed Dilution: <300 mm/year Baseflow Index: >70% Superficial: >90% Patchiness: >10m Thickness: High Superficial Recharge: High	A13SW (NE)	0	4	548199 183867
	Groundwater Vulnerability - Soluble Rock Risk None				
	Bedrock Aquifer Designations Aquifer Designation: Unproductive Strata	A13SW (NE)	0	4	548199 183867
	Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A13SW (NE)	0	4	548199 183867
	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				
39	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 509.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: The Gores Catchment Name: Thames Primacy: 1	A14NW (E)	448	5	548652 183909
40	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 165.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A8NE (S)	468	5	548258 183391
41	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 113.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: The Gores Catchment Name: Thames Primacy: 1	A14SW (E)	483	5	548680 183768
42	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 18.9 Watercourse Level: Underground Permanent: True Watercourse Name: The Gores Catchment Name: Thames Primacy: 1	A14SW (E)	483	5	548680 183768

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
43	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: Thames Primacy: 1	A8NW (S)	489	5	548173 183368
44	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 48.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A8NW (S)	522	5	548172 183335
45	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 23.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A14SW (E)	567	5	548752 183704
46	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 125.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: The Gores Catchment Name: Thames Primacy: 1	A14SW (E)	567	5	548747 183687
47	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 94.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A8NW (S)	567	5	548090 183299
48	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 19.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A8NW (S)	577	5	548166 183281
49	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 108.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A8NW (SW)	643	5	547927 183271
50	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 115.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A8NW (S)	644	5	547955 183258
51	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 38.7 Watercourse Level: Underground Permanent: True Watercourse Name: The Gores Catchment Name: Thames Primacy: 1	A14SW (SE)	649	5	548787 183568

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
52	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 54.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A7NE (SW)	654	5	547830 183313
53	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 10.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A8NW (S)	658	5	548062 183212
54	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A8NW (S)	660	5	548071 183208
55	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 103.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A8NW (S)	661	5	548076 183207
56	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: Thames Primacy: 1	A7NE (SW)	665	5	547779 183337
57	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 18.6 Watercourse Level: Underground Permanent: True Watercourse Name: The Gores Catchment Name: Thames Primacy: 1	A19SW (NE)	667	5	548738 184275
58	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 418.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: The Gores Catchment Name: Thames Primacy: 1	A19SW (NE)	667	5	548738 184275
59	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 63.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A7NE (SW)	670	5	547779 183330
60	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 50.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: The Gores Catchment Name: Thames Primacy: 1	A9NW (SE)	670	5	548791 183530

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
61	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 111.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A8SE (S)	676	5	548253 183182
62	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 9.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A8SW (S)	689	5	548171 183168
63	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: The Gores Catchment Name: Thames Primacy: 1	A9NW (SE)	699	5	548794 183480
64	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 73.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: The Gores Catchment Name: Thames Primacy: 1	A9NW (SE)	702	5	548795 183474
65	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 23.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: The Gores Catchment Name: Thames Primacy: 1	A9NW (SE)	744	5	548795 183401
66	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 142.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: The Gores Catchment Name: Thames Primacy: 1	A9NW (SE)	758	5	548794 183378
67	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 388.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A8SW (S)	831	5	548057 183037
68	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 39.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A7NW (SW)	858	5	547512 183335
69	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 262.3 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A7NW (SW)	860	5	547512 183331

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
70	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 113.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: The Gores Catchment Name: Thames Primacy: 1	A9NW (SE)	864	5	548808 183237
71	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 9.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A7NW (SW)	879	5	547478 183347
72	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 317.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A7NW (SW)	884	5	547477 183338
73	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 507.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: The Gores Catchment Name: Thames Primacy: 1	A8SW (S)	884	5	548191 182972
74	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 63.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A9SW (SE)	900	5	548636 183065
75	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 301.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: The Gores Catchment Name: Thames Primacy: 1	A8SW (S)	903	5	548125 182957
76	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 99.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 2	A8SE (S)	917	5	548209 182939
77	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A17NE (NW)	933	5	547800 184725
78	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 15.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A17NE (NW)	934	5	547795 184724

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
79	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 139.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: The Gores Catchment Name: Thames Primacy: 1	A9SW (SE)	940	5	548698 183055
80	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 139.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: The Gores Catchment Name: Thames Primacy: 1	A9SW (SE)	940	5	548698 183055
81	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A7SE (SW)	941	5	547782 183010
82	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 319.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A7SE (SW)	942	5	547781 183010
83	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 20.3 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A7SE (SW)	942	5	547781 183010
84	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 44.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: The Gores Catchment Name: Thames Primacy: 1	A9SW (SE)	956	5	548821 183124
85	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 76.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A7SE (SW)	961	5	547777 182990
86	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 111.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A9SW (SE)	986	5	548814 183081
87	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 333.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A9SW (SE)	994	5	548624 182954

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
88	Historical Landfill Sites Licence Holder: London Borough of Barking and Dagenham Location: Renwick Road Name: Renwick Road Landfill Site Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD11046 First Input Date: 31st December 1977 Last Input Date: 30th April 1993 Specified Waste: Deposited Waste included Inert, Industrial, Commercial, Household and Type: Special Waste EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 5060/0006 BGS Ref: Not Supplied Other Ref: DL369, CR 043, 8BD004	A8SW (S)	862	2	548046 183007
89	Licensed Waste Management Facilities (Locations) Licence Number: 80688 Location: Maybell's Farm, Ripple Road, Barking, Essex, IG11 0TT Operator Name: Cumper Anthony Leslie Operator Location: Not Supplied Authority: Environment Agency - Thames Region, North East Area Site Category: Metal Recycling Sites (Vehicle Dismantlers) Licence Status: Revoked Issued: 27th January 2006 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: 10th October 2014 Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A7NE (SW)	751	2	547538 183491
89	Licensed Waste Management Facilities (Locations) Licence Number: 80109 Location: Maybell Farm, Ripple Road, Barking, Essex, IG11 0TT Operator Name: L Watkinson & Sons Ltd Operator Location: Maybell Farm, Ripple Road, Barking, Essex, IG11 0TT Authority: Environment Agency - Thames Region, North East Area Site Category: Household, Commercial And Industrial Transfer Stations Licence Status: Modified Issued: 12th April 1994 Last Modified: 12th November 2002 Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A7NE (SW)	771	2	547529 183466
89	Licensed Waste Management Facilities (Locations) Licence Number: 80109 Location: Maybell Farm, Ripple Road, Barking, Essex, IG11 0TT Operator Name: Biffa Waste Services Ltd Operator Location: Not Supplied Authority: Environment Agency - Thames Region, North East Area Site Category: Household, Commercial And Industrial Transfer Stations Licence Status: Modified Issued: 12th April 1994 Last Modified: 22nd August 2011 Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A7NW (SW)	807	2	547499 183446
90	Licensed Waste Management Facilities (Locations) Licence Number: 404947 Location: Maybell Farm, Ripple Road, Barking, London, IG11 0TT Operator Name: Biffa Waste Services Limited Operator Location: Not Supplied Authority: Environment Agency - Thames Region, North East Area Site Category: Asbestos Waste Transfer Station Licence Status: Issued Issued: 28th September 2018 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	A7NW (SW)	828	2	547504 183399

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
91	Licensed Waste Management Facilities (Locations) Licence Number: 404661 Location: Barking Eurohub, Box Lane, Renwick Road, Barking, Essex, IG11 0SQ Operator Name: D B Cargo (U K) Limited Operator Location: Not Supplied Authority: Environment Agency - Thames Region, North East Area Site Category: Inert & Excavation WTS Licence Status: Modified Issued: 17th July 2018 Last Modified: 6th February 2019 Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A7NW (SW)	950	2	547490 183218
	Local Authority Landfill Coverage Name: London Borough of Barking And Dagenham - Has supplied landfill data		0	3	548199 183867
92	Local Authority Recorded Landfill Sites Location: Not Supplied Reference: Not Supplied Authority: London Borough of Barking And Dagenham, Environmental Health Department Last Reported Status: Unknown Types of Waste: Domestic, Industrial, Refuse Date of Closure: Not Supplied Positional Accuracy: Positioned by the supplier Boundary Quality: Moderate	A8SE (S)	791	3	548207 183065
93	Local Authority Recorded Landfill Sites Location: Not Supplied Reference: Not Supplied Authority: London Borough of Barking And Dagenham, Environmental Health Department Last Reported Status: Unknown Types of Waste: Pulverised Fuel Ash And Other Waste Of Energy Generation Date of Closure: Not Supplied Positional Accuracy: Positioned by the supplier Boundary Quality: Moderate	A7SE (SW)	938	3	547785 183013
94	Potentially Infilled Land (Non-Water) Bearing Ref: SW Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1996	A7NW (SW)	989	-	547286 183463
95	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1950	A8NE (S)	412	-	548280 183451
96	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1950	A8NE (S)	427	-	548354 183456
97	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1950	A8NE (SE)	458	-	548398 183440
98	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1950	A8NW (S)	481	-	548173 183376
99	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1950	A8NE (SE)	491	-	548450 183430
100	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1950	A8NE (SE)	521	-	548530 183448
101	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1950	A8NW (S)	543	-	548008 183346
102	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1950	A8NW (S)	555	-	548099 183310

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
103	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1950	A9NW (SE)	613	-	548565 183359
104	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1950	A8NW (SW)	621	-	547870 183327
105	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1950	A7NE (SW)	629	-	547765 183396
106	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1950	A8NE (SE)	636	-	548464 183275
107	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1950	A7NE (SW)	648	-	547678 183464
108	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1950	A8NE (S)	660	-	548273 183199
109	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1950	A8SE (S)	669	-	548261 183189
110	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1950	A7NE (SW)	696	-	547623 183458
111	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1950	A7NE (SW)	725	-	547780 183261
112	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1950	A8SE (S)	732	-	548359 183140
113	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1950	A8SW (S)	735	-	548052 183136
114	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1950	A8SW (SW)	762	-	547880 183162
115	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1950	A8SW (S)	770	-	547967 183120
116	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1950	A8SW (S)	797	-	548177 183060
117	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1950	A8SE (S)	802	-	548341 183065
118	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1950	A7SE (SW)	817	-	547807 183137
119	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1950	A7NW (SW)	818	-	547484 183450
120	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1950	A8SE (S)	833	-	548421 183051
121	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1950	A8SE (S)	838	-	548435 183050
122	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1950	A9NE (SE)	864	-	549000 183518
123	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1950	A8SE (S)	879	-	548537 183042

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
124	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1950	A7NW (SW)	900	-	547389 183452
125	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1946	A9NE (SE)	914	-	549034 183468
126	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1950	A7SE (SW)	918	-	547767 183044
127	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1950	A7SE (SW)	930	-	547613 183129
128	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1950	A9SW (SE)	936	-	548627 183020
129	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A9NE (SE)	947	-	549057 183442
130	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A9NE (SE)	958	-	549071 183445
131	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1950	A8SE (S)	960	-	548441 182926
132	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A9NE (SE)	962	-	549078 183451
133	Registered Waste Transfer Sites Licence Holder: Premier Insulation Co Licence Reference: DL100 Site Location: Adelphi Works, Ripple Road, Barking, Essex Operator Location: As Site Address Authority: Environment Agency - Thames Region, North East Area Site Category: Transfer Max Input Rate: Very Small (Less than 10,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Licence Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 1st July 1982 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the road within the address or location Boundary Quality: Not Supplied Authorised Waste: Asbestos	A7NE (SW)	672	2	547700 183400
134	Registered Waste Transfer Sites Licence Holder: L Watkinson & Sons Ltd Licence Reference: DL303 Site Location: Maybells Farm, Ripple Road, BARKING, Essex, IG11 0TT Operator Location: As Site Address Authority: Environment Agency - Thames Region, North East Area Site Category: Transfer 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: 29th October 1998 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Located by supplier to within 100m Boundary Quality: Not Supplied Authorised Waste: Lwra Cat. Bii General Scrap Metal Waste - Some Only Lwra Cat. A Inert Waste Lwra Cat. Bi General Non-Putrescible Waste Lwra Cat. C Putrescible Waste - Some Only Lwra Cat. E Difficult General Waste - Some Only Some Liquid Special Wastes Some Solid Special Wastes Prohibited Waste: Waste Not Otherwise Specified	A7NW (SW)	782	2	547520 183460

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
135	Registered Waste Transfer Sites Licence Holder: L Watkinson & Sons Ltd Licence Reference: DL303 Site Location: Maybells Farm, Ripple Road, BARKING, Essex, IG11 0TT Operator Location: As Site Address Authority: Environment Agency - Thames Region, North East Area Site Category: Transfer 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: Record supersededSuperseded Dated: 1st August 1990 Preceded By: DL303 Licence: Superseded By: DL303 Licence: Positional Accuracy: Manually positioned to the road within the address or location Boundary Quality: Not Supplied Authorised Waste: Electric Cable/Wire Electric/Electronic Comp/Fixt/Fit/Appl Empty Used Containers Grinding Sludge/Dust L.W.R.A. Cat. A = Inert Wastes L.W.R.A. Cat. Bi Gen.Non-Putresc Waste L.W.R.A. Cat. C 'Putresc.' Lighting Lamps, Tubes, Fluorescents Lwra Cat. E = Diff. Gen.W - Comprising Machinery Max.Waste Permitted By Licence-Stated Rubber/Latex (Including Tyres) Prohibited Waste: Animal Carcasses/Proc./Glue Wastes Waste From Civic Amenity Sites	A7NW (SW)	829	2	547505 183395
135	Registered Waste Transfer Sites Licence Holder: L Watkinson & Sons Ltd Licence Reference: DL303 Site Location: Maybells Farm, Ripple Road, BARKING, Essex, IG11 0TT Operator Location: As Site Address Authority: Environment Agency - Thames Region, North East Area Site Category: Transfer 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: Record supersededSuperseded Dated: 1st August 1989 Preceded By: Not Given Licence: Superseded By: DL303 Licence: Positional Accuracy: Manually positioned to the road within the address or location Boundary Quality: Not Supplied Authorised Waste: L.W.R.A. Cat. A = Inert Wastes L.W.R.A. Cat. B = General Wastes L.W.R.A. Cat. E = Difficult Gen. Some Max.Waste Permitted By Licence-Stated Prohibited Waste: Clinical - As In Coll/Disp.Reg's Of '88 Notifiable Wastes Poisonous, Noxious, Polluting Wastes Sludge/Liquid Waste N.O.S. Special Wastes Environment Agency Contaminated Soil Or Similar Mat'ls must give specific authorisation for this waste to be acceptedWaste requires prior approval	A7NW (SW)	833	2	547500 183395

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
136	Registered Waste Transfer Sites Licence Holder: Mc Donald Insul. & Maint. Ltd Licence Reference: DL348 Site Location: 7 Rippleside Commercial Estate, Ripple Road, BARKING, Essex, IG11 0AJ Operator Location: As Site Address Authority: Environment Agency - Thames Region, North East Area Site Category: Transfer Max Input Rate: Very Small (Less than 10,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Licence Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 1st July 1991 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: Asbestos (Special Waste) Bonded Asbestos, Asbestos Cement Sheet Max.Waste Permitted By Licence-States Clinical - As In Coll/Disp.Reg's Of '88 Special Wastes N.O.S. Prohibited Waste: Waste N.O.S.	A7NW (W)	978	2	547285 183495
136	Registered Waste Transfer Sites Licence Holder: Mc Donald Ins.& Main.Ltd Licence Reference: DL129 Site Location: Unit 7 Rippleside Commercial Estate, Ripple Road, Barking, Essex Operator Location: Riverside Works, Hertford Road, BARKING, Essex, IG11 8BN Authority: Environment Agency - Thames Region, North East Area Site Category: Transfer Max Input Rate: Very Small (Less than 10,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Licence Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 1st August 1983 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: Asbestos Biodegradable/Putrescible Waste Prohibited Waste: Clinical Wastes Notifiable Wastes Special Wastes	A7NW (W)	981	2	547280 183500
137	Registered Waste Treatment or Disposal Sites Licence Holder: L Watkinson & Sons Ltd Licence Reference: DL303 Site Location: Maybells Farm, Ripple Road, BARKING, Essex, IG11 0TT Operator Location: As Site Address Authority: Environment Agency - Thames Region, North East Area Site Category: Scrapyard - with Transfer Station 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: Record supersededSuperseded Dated: 1st November 1994 Preceded By: DL303 Licence: Superseded By: DL303 Licence: Positional Accuracy: Manually positioned to the road within the address or location Boundary Quality: Not Supplied Authorised Waste: Feerous Items/Light Ferr/Unsorted Scra H'Hold Waste/Sim'R From Trade/Ind/Com. Lwra Cat. A = Inert Wastes Lwra Cat. Bi Gen.Non-Putresc Max.Waste Permitted By Licence Most Lwra Cat. E = Difficult Gen.W Some Lwra Cat. C 'Putresc' Prohibited Waste: Clinical - As In Coll/Disp.Reg's Of '88 Special Wastes Waste N.O.S.	A7NW (SW)	830	2	547500 183400

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: Thames Group	A13SW (NE)	0	1	548199 183867
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic: no data Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: no data Concentration: Lead Concentration: <100 mg/kg Nickel: no data Concentration:	A9NE (SE)	870	1	549000 183500
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic: <15 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A9NE (SE)	884	1	549000 183469
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 548368, 183757 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured: 14.60 mg/kg Concentration: Cadmium Measured: 0.10 mg/kg Concentration: Chromium Measured: 61.60 mg/kg Concentration: Lead Measured: 133.50 mg/kg Concentration: Nickel Measured: 18.90 mg/kg Concentration:	A13SE (SE)	190	1	548368 183757
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 548259, 184128 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured: 13.70 mg/kg Concentration: Cadmium Measured: 0.30 mg/kg Concentration: Chromium Measured: 56.30 mg/kg Concentration: Lead Measured: 118.70 mg/kg Concentration: Nickel Measured: 14.00 mg/kg Concentration:	A13NE (N)	257	1	548259 184128
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 548708, 183806 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured: 15.30 mg/kg Concentration: Cadmium Measured: 1.20 mg/kg Concentration: Chromium Measured: 73.90 mg/kg Concentration: Lead Measured: 557.80 mg/kg Concentration: Nickel Measured: 34.90 mg/kg Concentration:	A14SW (E)	505	1	548708 183806

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 547849, 183450 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 18.80 mg/kg Concentration: Cadmium Measured 0.70 mg/kg Concentration: Chromium Measured 62.80 mg/kg Concentration: Lead Measured 248.30 mg/kg Concentration: Nickel Measured 29.00 mg/kg Concentration:	A7NE (SW)	533	1	547849 183450
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 548682, 184159 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 20.80 mg/kg Concentration: Cadmium Measured 0.40 mg/kg Concentration: Chromium Measured 68.70 mg/kg Concentration: Lead Measured 400.70 mg/kg Concentration: Nickel Measured 17.50 mg/kg Concentration:	A14NW (NE)	556	1	548682 184159
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 547640, 183788 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 14.10 mg/kg Concentration: Cadmium Measured 1.00 mg/kg Concentration: Chromium Measured 61.00 mg/kg Concentration: Lead Measured 210.10 mg/kg Concentration: Nickel Measured 24.20 mg/kg Concentration:	A12SE (W)	558	1	547640 183788
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 548197, 183288 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 12.90 mg/kg Concentration: Cadmium Measured 0.30 mg/kg Concentration: Chromium Measured 47.40 mg/kg Concentration: Lead Measured 39.50 mg/kg Concentration: Nickel Measured 19.40 mg/kg Concentration:	A8NW (S)	568	1	548197 183288
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 548605, 183364 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 19.30 mg/kg Concentration: Cadmium Measured 0.40 mg/kg Concentration: Chromium Measured 62.70 mg/kg Concentration: Lead Measured 131.90 mg/kg Concentration: Nickel Measured 24.00 mg/kg Concentration:	A9NW (SE)	634	1	548605 183364

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 547645, 184217 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 14.80 mg/kg Concentration: Cadmium Measured 0.30 mg/kg Concentration: Chromium Measured 66.70 mg/kg Concentration: Lead Measured 150.60 mg/kg Concentration: Nickel Measured 21.00 mg/kg Concentration:	A17SE (NW)	644	1	547645 184217
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 547300, 183812 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 13.40 mg/kg Concentration: Cadmium Measured 0.30 mg/kg Concentration: Chromium Measured 63.10 mg/kg Concentration: Lead Measured 117.40 mg/kg Concentration: Nickel Measured 20.80 mg/kg Concentration:	A12SW (W)	895	1	547300 183812
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 548314, 184786 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 20.10 mg/kg Concentration: Cadmium Measured 0.30 mg/kg Concentration: Chromium Measured 65.00 mg/kg Concentration: Lead Measured 247.00 mg/kg Concentration: Nickel Measured 21.00 mg/kg Concentration:	A18NE (N)	914	1	548314 184786
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 547779, 184714 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 13.20 mg/kg Concentration: Cadmium Measured 0.50 mg/kg Concentration: Chromium Measured 58.10 mg/kg Concentration: Lead Measured 56.00 mg/kg Concentration: Nickel Measured 15.40 mg/kg Concentration:	A17NE (NW)	932	1	547779 184714

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Urban Soil Chemistry Averages Source: British Geological Survey, National Geoscience Information Service Sample Area: London Count Id: 7209 Arsenic Minimum Concentration: 1.00 mg/kg Arsenic Average Concentration: 17.00 mg/kg Arsenic Maximum Concentration: 161.00 mg/kg Cadmium Minimum Concentration: 0.10 mg/kg Cadmium Average Concentration: 0.90 mg/kg Cadmium Maximum Concentration: 165.20 mg/kg Chromium Minimum Concentration: 13.00 mg/kg Chromium Average Concentration: 79.00 mg/kg Chromium Maximum Concentration: 2094.00 mg/kg Lead Minimum Concentration: 11.00 mg/kg Lead Average Concentration: 280.00 mg/kg Lead Maximum Concentration: 10000.00 mg/kg Nickel Minimum Concentration: 2.00 mg/kg Nickel Average Concentration: 28.00 mg/kg Nickel Maximum Concentration: 506.00 mg/kg	A13SW (NE)	0	1	548199 183867
	Coal Mining Affected Areas In an area that might not be affected by coal mining				
	Non Coal Mining Areas of Great Britain No Hazard				
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (NE)	0	1	548199 183867
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (NE)	0	1	548199 183867
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (NE)	0	1	548199 183867
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (NE)	0	1	548199 183867
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (NE)	0	1	548199 183867
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (NE)	0	1	548199 183867
	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	A13SW (NE)	0	1	548199 183867
	Radon Potential - Radon Protection Measures Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A13SW (NE)	0	1	548199 183867

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
138	Contemporary Trade Directory Entries Name: Home Help Cleaning Location: 11, Hatfield Road, Dagenham, Essex, RM9 6JP Classification: Cleaning Services - Domestic Status: Active Positional Accuracy: Automatically positioned to the address	A13NE (NE)	360	-	548478 184107
138	Contemporary Trade Directory Entries Name: Glint Management & Cleaning Services Ltd Location: 4, Hatfield Road, Dagenham, Essex, RM9 6JP Classification: Commercial Cleaning Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NE (NE)	394	-	548518 184112
139	Contemporary Trade Directory Entries Name: Advance Roofing Location: 4, Lullington Road, Dagenham, Essex, RM9 6EJ Classification: Cladding Suppliers & Installers Status: Inactive Positional Accuracy: Automatically positioned to the address	A18SE (N)	399	-	548348 184249
140	Contemporary Trade Directory Entries Name: Eco Aggregates Location: Ripple Rd, Dagenham, Essex, RM9 6XW Classification: Sand, Gravel & Other Aggregates Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A12SE (SW)	457	-	547846 183560
141	Contemporary Trade Directory Entries Name: H Smith Food Group Plc Location: Pooles La, Dagenham, Essex, RM9 6RS Classification: Meat - Wholesale Status: Inactive Positional Accuracy: Manually positioned to the address or location	A8NE (S)	493	-	548326 183378
142	Contemporary Trade Directory Entries Name: A M P M Location: 54, Arden Crescent, Dagenham, Essex, RM9 6TP Classification: Car Breakdown & Recovery Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NE (NW)	515	-	547779 184185
143	Contemporary Trade Directory Entries Name: Puriel Location: 28, Romsey Road, Dagenham, Essex, RM9 6BL Classification: Commercial Cleaning Services Status: Active Positional Accuracy: Automatically positioned to the address	A12NE (W)	519	-	547676 183926
144	Contemporary Trade Directory Entries Name: John'S Mobile Car Repairs Location: 1, Levine Gardens, Barking, Essex, IG11 0UH Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NW (SW)	538	-	547958 183373
145	Contemporary Trade Directory Entries Name: Mobile Car Clean Ltd Location: 84, Downing Road, Dagenham, RM9 6NB Classification: Car Washing & Polishing Equipment & Supplies Status: Active Positional Accuracy: Automatically positioned to the address	A14NW (E)	547	-	548748 183943
146	Contemporary Trade Directory Entries Name: Car Medic Location: 38, Walfrey Gardens, Dagenham, Essex, RM9 6JB Classification: Car Breakdown & Recovery Services Status: Active Positional Accuracy: Automatically positioned to the address	A18SE (NE)	578	-	548487 184378
147	Contemporary Trade Directory Entries Name: A Shalom Maintenance Location: 53, Levine Gardens, Barking, Essex, IG11 0UH Classification: Boilers - Servicing, Replacements & Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NE (SW)	599	-	547812 183395
148	Contemporary Trade Directory Entries Name: 247 Mobile Tyres Location: 545, Gale Street, Dagenham, RM9 4TS Classification: Tyre Dealers Status: Active Positional Accuracy: Automatically positioned to the address	A17SE (NW)	600	-	547696 184215

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
149	Contemporary Trade Directory Entries Name: Screwfix Location: Unit 13, Maybells Commercial Estate, Ripple Road, Barking, IG11 0TP Classification: Builders' Merchants Status: Active Positional Accuracy: Automatically positioned to the address	A7NE (SW)	628	-	547660 183526
150	Contemporary Trade Directory Entries Name: R F A Group Ltd Location: Unit 12, Maybells Commercial Estate, Ripple Road, Barking, Essex, IG11 0TP Classification: Concrete Reinforcements Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NE (SW)	650	-	547704 183430
151	Contemporary Trade Directory Entries Name: H G Rent Location: Unit 1, Maybells Commercial Estate, Ripple Road, Barking, Essex, IG11 0TP Classification: Freight Forwarders Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NE (SW)	653	-	547665 183473
151	Contemporary Trade Directory Entries Name: One Call Furniture Location: Unit 1, Maybells Commercial Estate, Ripple Road, Barking, Essex, IG11 0TP Classification: Furniture Manufacturers - Home & Office Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NE (SW)	653	-	547665 183473
152	Contemporary Trade Directory Entries Name: Asda Petrol Location: Merriellands Crescent, Dagenham, Essex, RM9 6SJ Classification: Petrol Filling Stations Status: Active Positional Accuracy: Automatically positioned to the address	A9NW (SE)	657	-	548682 183405
153	Contemporary Trade Directory Entries Name: Sea Systems International Freight Ltd Location: Unit 10, Maybells Commercial Estate, Ripple Road, Barking, Essex, IG11 0TP Classification: Freight Forwarders Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NE (SW)	660	-	547731 183386
153	Contemporary Trade Directory Entries Name: Ecomix Concrete Location: Unit 9, Maybells Commercial Estate, Ripple Road, Barking, IG11 0TP Classification: Concrete & Mortar Ready Mixed Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NE (SW)	674	-	547732 183365
153	Contemporary Trade Directory Entries Name: Commercial P S V Painters Ltd Location: Unit 9, Maybells Commercial Estate, Ripple Road, Barking, Essex, IG11 0TP Classification: Commercial Vehicle Servicing, Repairs, Parts & Accessories Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NE (SW)	674	-	547733 183365
154	Contemporary Trade Directory Entries Name: Eddie Stobart Location: Goresbrook Park, Pooles Lane, Dagenham, Essex, RM9 6RS Classification: Road Haulage Services Status: Active Positional Accuracy: Manually positioned to the address or location	A8NE (SE)	686	-	548483 183229
155	Contemporary Trade Directory Entries Name: B J S Location: Unit 4, Maybells Commercial Estate, Ripple Road, Barking, Essex, IG11 0TP Classification: Road Haulage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NE (SW)	702	-	547640 183425
156	Contemporary Trade Directory Entries Name: B & J Domestic Repairs Location: 440, Hedgemans Road, Dagenham, Essex, RM9 6BU Classification: Domestic Appliances - Servicing, Repairs & Parts Status: Inactive Positional Accuracy: Automatically positioned to the address	A17SE (NW)	706	-	547696 184380
156	Contemporary Trade Directory Entries Name: A B & J Domestic Appliances Location: 440, Hedgemans Road, Dagenham, Essex, RM9 6BU Classification: Washing Machines - Servicing & Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A17SE (NW)	706	-	547696 184380

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
156	Contemporary Trade Directory Entries Name: B & J Domestic Repairs Location: 440, Hedgemans Road, Dagenham, Essex, RM9 6BU Classification: Domestic Appliances - Servicing, Repairs & Parts Status: Inactive Positional Accuracy: Automatically positioned to the address	A17SE (NW)	706	-	547696 184380
157	Contemporary Trade Directory Entries Name: Armour Enviromental Services Ltd Location: 56, Coombes Road, Dagenham, Essex, RM9 6UJ Classification: Pest & Vermin Control Status: Inactive Positional Accuracy: Automatically positioned to the address	A14NE (E)	706	-	548911 183919
158	Contemporary Trade Directory Entries Name: Cars Wanted Location: 34, Downing Road, Dagenham, RM9 6NR Classification: Salvage Dealers Status: Active Positional Accuracy: Automatically positioned to the address	A14SE (E)	724	-	548929 183842
159	Contemporary Trade Directory Entries Name: Maybell Car Spares Ltd Location: Ripple Rd, Barking, Essex, IG11 0TT Classification: Car Breakers & Dismantlers Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A12SE (SW)	727	-	547536 183546
159	Contemporary Trade Directory Entries Name: A C Dismantlers Location: Ripple Road, Barking, Essex, IG11 0TT Classification: Car Breakers & Dismantlers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NE (SW)	751	-	547528 183509
160	Contemporary Trade Directory Entries Name: A B Clean Location: 4, Coleman Road, Dagenham, RM9 6JU Classification: Cleaning Services - Domestic Status: Active Positional Accuracy: Automatically positioned to the address	A19SW (NE)	739	-	548556 184524
161	Contemporary Trade Directory Entries Name: Biffa Waste Services Ltd Location: Maybell Farm, Ripple Road, Barking, Essex, IG11 0TT Classification: Waste Disposal Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NE (SW)	775	-	547531 183455
161	Contemporary Trade Directory Entries Name: Hales Waste Control Ltd Location: Maybell Farm, Ripple Road, Barking, Essex, IG11 0TT Classification: Waste Disposal Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NE (SW)	775	-	547531 183455
162	Contemporary Trade Directory Entries Name: M & J Car Sales Location: 11, Stamford Road, Dagenham, Essex, RM9 4HB Classification: Car Dealers - Used Status: Inactive Positional Accuracy: Automatically positioned to the address	A17SE (NW)	800	-	547584 184397
163	Contemporary Trade Directory Entries Name: Time Talk Location: Unit 3, Merriellands Retail Park, Merriellands Crescent, Dagenham, Essex, RM9 6SJ Classification: Telecommunications Equipment & Systems Status: Inactive Positional Accuracy: Automatically positioned to the address	A9NE (SE)	801	-	548914 183481
164	Contemporary Trade Directory Entries Name: J D Installations Location: 37, Ivy Walk, DAGENHAM, Essex, RM9 5RX Classification: Boilers - Servicing, Replacements & Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A18NW (N)	810	-	548097 184683

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
164	Contemporary Trade Directory Entries Name: Staley Ltd Location: 30, Ivy Walk, Dagenham, Essex, RM9 5RX Classification: Cleaning Services - Domestic Status: Inactive Positional Accuracy: Automatically positioned to the address	A18NW (N)	821	-	548133 184698
164	Contemporary Trade Directory Entries Name: Staley Ltd Location: 30, Ivy Walk, Dagenham, RM9 5RX Classification: Cleaning Services - Domestic Status: Active Positional Accuracy: Automatically positioned to the address	A18NW (N)	821	-	548132 184698
165	Contemporary Trade Directory Entries Name: Nicole Dry Cleaning Location: 497, Gale Street, Dagenham, Essex, RM9 4TP Classification: Dry Cleaners Status: Active Positional Accuracy: Automatically positioned to the address	A17SE (NW)	812	-	547666 184497
166	Contemporary Trade Directory Entries Name: Eastern Dairies (London) Ltd Location: 7, Comyns Road, Dagenham, Essex, RM9 6PB Classification: Dairies Status: Inactive Positional Accuracy: Automatically positioned to the address	A14NE (E)	821	-	549002 184072
167	Contemporary Trade Directory Entries Name: Office Green Ltd Location: 10-11, Portland Commercial Estate, Ripple Road, Barking, Essex, IG11 0TW Classification: Recycling Centres Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NW (SW)	821	-	547460 183488
167	Contemporary Trade Directory Entries Name: Office Green Technologies Location: 10-11, Portland Commercial Estate, Ripple Road, BARKING, Essex, IG11 0TW Classification: Waste Disposal Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NW (SW)	821	-	547460 183488
167	Contemporary Trade Directory Entries Name: Mands 2000 Plc Location: Portland Commercial Est, Ripple Rd, Barking, Essex, IG11 0TW Classification: Textile Manufacturing Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A7NW (SW)	842	-	547436 183488
168	Contemporary Trade Directory Entries Name: Royal Clean Location: 18, Nutbrowne Road, Dagenham, Essex, RM9 6BQ Classification: Commercial Cleaning Services Status: Active Positional Accuracy: Automatically positioned to the address	A14SE (E)	823	-	549021 183750
169	Contemporary Trade Directory Entries Name: Liquid Smoke Location: 30a, Goresbrook Road, Dagenham, RM9 6UR Classification: Printers Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SE (E)	827	-	549010 183666
170	Contemporary Trade Directory Entries Name: Kuehne Nagel Ltd Location: Unit 1, Orion Park, Messina Way, Dagenham, RM9 6FF Classification: Road Haulage Services Status: Active Positional Accuracy: Automatically positioned to the address	A9NW (SE)	851	-	548750 183202
171	Contemporary Trade Directory Entries Name: Trust Ford Location: Unit 3, Orion Park, Messina Way, Dagenham, RM9 6FF Classification: Commercial Vehicle Dealers Status: Active Positional Accuracy: Automatically positioned to the address	A9NE (SE)	855	-	548894 183350

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
172	Contemporary Trade Directory Entries Name: Pest Tech Location: 157, Ford Road, Dagenham, Essex, RM9 6LT Classification: Pest & Vermin Control Status: Inactive Positional Accuracy: Automatically positioned to the address	A19SE (NE)	857	-	548982 184236
173	Contemporary Trade Directory Entries Name: Texaco Location: Ripple Road, Barking, Essex, IG11 0TT Classification: Petrol Filling Stations Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NW (SW)	869	-	547394 183516
173	Contemporary Trade Directory Entries Name: Texaco Location: 796 Ripple Road, Barking, Essex, IG11 0TT Classification: Petrol Filling Stations Status: Active Positional Accuracy: Automatically positioned to the address	A7NW (SW)	869	-	547394 183516
173	Contemporary Trade Directory Entries Name: Star Barking Location: Ripple Rd, Barking, Essex, IG11 0TT Classification: Petrol Filling Stations - 24 Hour Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A12SW (W)	888	-	547362 183544
174	Contemporary Trade Directory Entries Name: Pressed 4 Time Location: Heathway, Dagenham, Essex, RM9 6AZ Classification: Ironing & Home Laundry Services Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A14SE (E)	874	-	549077 183786
175	Contemporary Trade Directory Entries Name: Breakdown Recovery 24 Hours Location: 239, Downing Road, Dagenham, Essex, RM9 6LU Classification: Car Breakers & Dismantlers Status: Active Positional Accuracy: Automatically positioned to the address	A19SE (NE)	878	-	548937 184359
176	Contemporary Trade Directory Entries Name: Mr Engine Location: Unit 6, Portland Commercial Estate, Ripple Road, Barking, Essex, IG11 0TW Classification: Car Engine Tuning & Diagnostic Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NW (SW)	882	-	547454 183376
176	Contemporary Trade Directory Entries Name: Bاندلکس Ltd Location: Unit 3, Portland Commercial Est, Ripple Rd, Barking, Essex, IG11 0TW Classification: Packaging & Wrapping Equipment & Supplies Status: Inactive Positional Accuracy: Manually positioned to the address or location	A7NW (SW)	896	-	547410 183421
176	Contemporary Trade Directory Entries Name: The Realistic Trading Co Ltd Location: Unit 5, Portland Commercial Estate, Ripple Road, Barking, Essex, IG11 0TW Classification: Soft Furnishings - Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NW (SW)	921	-	547409 183373
176	Contemporary Trade Directory Entries Name: A13 Steel Ltd Location: Unit 5 Portland Commercial Estate, Ripple Road, Barking, Essex, IG11 0TW Classification: Metal Products - Fabricated Status: Inactive Positional Accuracy: Manually positioned to the address or location	A7NW (SW)	924	-	547404 183377
177	Contemporary Trade Directory Entries Name: Essex Cleaning Services Location: 4, Flamstead Road, Dagenham, Essex, RM9 4JH Classification: Cleaning Services - Domestic Status: Active Positional Accuracy: Automatically positioned to the address	A12NW (W)	885	-	547308 183895
178	Contemporary Trade Directory Entries Name: Combine Motor Services Location: 500 Gale Street, Dagenham, Essex, RM9 4NU Classification: Commercial Vehicle Servicing, Repairs, Parts & Accessories Status: Active Positional Accuracy: Manually positioned to the address or location	A17NE (NW)	896	-	547614 184563

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
178	Contemporary Trade Directory Entries Name: M O T Tester Co Uk Location: Gale Street, Dagenham, Essex, RM9 4NU Classification: Mot Testing Centres Status: Inactive Positional Accuracy: Automatically positioned to the address	A17NE (NW)	903	-	547612 184570
178	Contemporary Trade Directory Entries Name: Xclusive Cars Location: 500 Gale Street, Dagenham, Essex, RM9 4NU Classification: Car Dealers - Used Status: Active Positional Accuracy: Manually positioned within the geographical locality	A17NE (NW)	904	-	547612 184571
178	Contemporary Trade Directory Entries Name: Breakeryard.Com Location: 496, Gale Street, Dagenham, Essex, RM9 4NU Classification: Car Breakers & Dismantlers Status: Inactive Positional Accuracy: Manually positioned to the address or location	A17NE (NW)	918	-	547610 184588
178	Contemporary Trade Directory Entries Name: Speedys Domestic Appliances Location: 494, Gale Street, Dagenham, Essex, RM9 4NU Classification: Washing Machines - Servicing & Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A17NE (NW)	924	-	547609 184595
178	Contemporary Trade Directory Entries Name: Ironing Maids Location: 490, Gale Street, Dagenham, Essex, RM9 4NU Classification: Ironing & Home Laundry Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A17NE (NW)	935	-	547608 184609
178	Contemporary Trade Directory Entries Name: Ironing Maids Location: 490, Gale Street, Dagenham, Essex, RM9 4NU Classification: Ironing & Home Laundry Services Status: Active Positional Accuracy: Automatically positioned to the address	A17NE (NW)	935	-	547608 184609
179	Contemporary Trade Directory Entries Name: Toyota Centre Location: Chequers La, Dagenham, Essex, RM9 6QD Classification: Car Dealers Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A14SE (E)	906	-	549064 183566
179	Contemporary Trade Directory Entries Name: Thornton (International) Ltd Location: Chequers La, Dagenham, Essex, RM9 6LA Classification: Tank Cleaning & Repairing Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A9NE (E)	921	-	549065 183526
180	Contemporary Trade Directory Entries Name: Casemore Engineering Co Ltd Location: Fiesta Dr, Dagenham, Essex, RM9 6SA Classification: Engineers - General Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A9NE (SE)	912	-	549006 183418
181	Contemporary Trade Directory Entries Name: Original Cleaners Dagenham Location: 112, Ford Road, Dagenham, Essex, RM9 6LT Classification: Carpet, Curtain & Upholstery Cleaners Status: Inactive Positional Accuracy: Automatically positioned to the address	A19SE (NE)	923	-	549039 184270
182	Contemporary Trade Directory Entries Name: Baboo Wholesale Meats Ltd Location: Rima House, Ripple Road, Barking, IG11 0RH Classification: Meat - Wholesale Status: Active Positional Accuracy: Automatically positioned to the address	A7NW (SW)	929	-	547344 183482
183	Contemporary Trade Directory Entries Name: Easy Cleaning Dagenham Location: 3, Ron Todd Close, Dagenham, Essex, RM10 9PN Classification: Cleaning Services - Domestic Status: Inactive Positional Accuracy: Automatically positioned to the address	A14NE (E)	933	-	549132 183989

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
184	Contemporary Trade Directory Entries Name: 247 Service Providers Location: Chequers La, Dagenham, Essex, RM9 6PS Classification: Car Dealers - Used Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A9NE (SE)	947	-	549081 183496
185	Contemporary Trade Directory Entries Name: S J H Tyres Location: 2 New Rd, Rainham, Essex, RM13 8RS Classification: Tyre Dealers Status: Inactive Positional Accuracy: Manually positioned to the address or location	A14SE (E)	954	-	549114 183563
186	Contemporary Trade Directory Entries Name: London Docklands Heliport Location: Dagenham, Essex, RM9 6SA Classification: Airports Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A9NE (SE)	962	-	548964 183264
187	Contemporary Trade Directory Entries Name: Steve Baddock Ltd Location: 75-77 Chequers La, Dagenham, Essex, RM9 6QJ Classification: Recycling Centres Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A9NE (SE)	967	-	549070 183422
187	Contemporary Trade Directory Entries Name: Steve Baddock Plant Hire Ltd Location: 75-77 Chequers La, Dagenham, Essex, RM9 6QJ Classification: Recycling Centres Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A9NE (SE)	967	-	549070 183422
188	Contemporary Trade Directory Entries Name: Prontaprint Barking & Stratford Location: Unit 7, Rippleside Commercial Estate, Ripple Road, Barking, Essex, IG11 0RJ Classification: Printers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NW (W)	969	-	547289 183509
188	Contemporary Trade Directory Entries Name: Prontaprint Barking & Stratford Location: Unit 7, Rippleside Commercial Estate, Ripple Road, Barking, Essex, IG11 0RJ Classification: Printers Status: Active Positional Accuracy: Automatically positioned to the address	A7NW (W)	969	-	547289 183509
188	Contemporary Trade Directory Entries Name: Al Badia Meats Location: Unit 7, Rippleside Commercial Estate, Ripple Road, Barking, IG11 0RJ Classification: Meat - Wholesale Status: Active Positional Accuracy: Automatically positioned to the address	A7NW (W)	977	-	547285 183496
188	Contemporary Trade Directory Entries Name: Prontaprint Location: Unit 6, Rippleside Commercial Estate, Ripple Road, Barking, IG11 0RJ Classification: Printers Status: Active Positional Accuracy: Automatically positioned to the address	A7NW (W)	988	-	547269 183508
188	Contemporary Trade Directory Entries Name: Lords Linen Location: Unit 6, Rippleside Commercial Estate, Ripple Road, Barking, Essex, IG11 0RJ Classification: Laundries & Launderettes Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NW (W)	990	-	547271 183499
189	Contemporary Trade Directory Entries Name: Minster Insulation & Dry Lining Location: Ripple Road, Barking, Essex, IG11 0SY Classification: Insulation Materials Status: Active Positional Accuracy: Manually positioned to the road within the address or location	A12SW (W)	970	-	547270 183560
189	Contemporary Trade Directory Entries Name: Jewson Location: Ripple Road, Barking, Essex, IG11 0SY Classification: Builders' Merchants Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A12SW (W)	985	-	547253 183566

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
190	Contemporary Trade Directory Entries Name: Ovensclean Location: 3, Stamford Gardens, Dagenham, Essex, RM9 4ET Classification: Cleaning Services - Domestic Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NW (W)	980	-	547227 184048
191	Contemporary Trade Directory Entries Name: Maids Of London Location: 79, Meadow Road, Dagenham, Essex, RM9 5PR Classification: Cleaning Services - Domestic Status: Inactive Positional Accuracy: Automatically positioned to the address	A19NW (NE)	998	-	548614 184785
192	Fuel Station Entries Name: Asda Dagenham Location: Merriellands Crescent , , Dagenham, Outer London, RM9 6SJ Brand: ASDA Premises Type: Hypermarket Status: Open Positional Accuracy: Manually positioned to the address or location	A9NW (SE)	740	-	548812 183432
193	Fuel Station Entries Name: Barking Service Station Location: 796, Ripple Road , , Barking, Outer London, IG11 0TT Brand: TEXACO Premises Type: Petrol Station Status: Open Positional Accuracy: Automatically positioned to the address	A7NW (SW)	869	-	547394 183516
194	Fuel Station Entries Name: Station Garage Location: Gale Street , , Dagenham, Outer London, RM9 4NU Brand: Unbranded Premises Type: Not Applicable Status: Obsolete Positional Accuracy: Automatically positioned to the address	A17NE (NW)	902	-	547612 184569
195	Points of Interest - Commercial Services Name: Xtra Clean Mobile Valeting Location: 1 Elstow Road, Dagenham, RM9 6AU Category: Personal, Consumer and other Services Class Code: Vehicle Cleaning Services Positional Accuracy: Positioned to address or location	A13NW (W)	55	6	548138 183875
196	Points of Interest - Commercial Services Name: Bumfum Transport Ltd Location: 12 Shaw Avenue, Barking, IG11 0UG Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A8NW (S)	474	6	548100 183392
197	Points of Interest - Commercial Services Name: R H Freight Services Ltd Location: 1 Pooles Lane, Dagenham, RM9 6RS Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A8NE (S)	493	6	548326 183378
197	Points of Interest - Commercial Services Name: Kuehne Nagel Drinks Logistics Ltd Location: Pooles Lane, Dagenham, RM9 6RS Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A8NE (S)	493	6	548326 183378
198	Points of Interest - Commercial Services Name: Carter Commercials Location: 67 Downing Road, Dagenham, RM9 6NA Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A14SW (E)	542	6	548748 183855
199	Points of Interest - Commercial Services Name: Car Medic Location: 38 Walfrey Gardens, Dagenham, RM9 6JB Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A18SE (NE)	578	6	548487 184378

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
200	Points of Interest - Commercial Services Name: A13 Hand Car Wash Location: Unit 1 Maybells Commercial Estate, Ripple Road, Barking, IG11 0TP Category: Personal, Consumer and other Services Class Code: Vehicle Cleaning Services Positional Accuracy: Positioned to address or location	A7NE (SW)	653	6	547665 183473
200	Points of Interest - Commercial Services Name: B J S Location: Unit 4 Maybells Commercial Estate, Ripple Road, Barking, IG11 0TP Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A7NE (SW)	703	6	547639 183425
201	Points of Interest - Commercial Services Name: Pengelly Global Logistics Ltd Location: 53 Coleman Road, Dagenham, RM9 6JU Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A18SE (N)	687	6	548386 184540
202	Points of Interest - Commercial Services Name: Armour Environmental Services Ltd Location: 56 Coombes Road, Dagenham, RM9 6UJ Category: Contract Services Class Code: Pest and Vermin Control Positional Accuracy: Positioned to address or location	A14NE (E)	706	6	548911 183919
202	Points of Interest - Commercial Services Name: Cars Wanted Location: 34 Downing Road, Dagenham, RM9 6NR Category: Recycling Services Class Code: Scrap Metal Merchants Positional Accuracy: Positioned to address or location	A14SE (E)	724	6	548929 183842
203	Points of Interest - Commercial Services Name: Asda Dagenham Location: Merriellands Crescent, Dagenham, Outer London, Barking And Dagenham, RM9 6SJ Category: Personal, Consumer and other Services Class Code: Vehicle Cleaning Services Positional Accuracy: Positioned to address or location	A9NW (SE)	740	6	548812 183431
204	Points of Interest - Commercial Services Name: A C Dismantlers Location: Maybell Farm, Ripple Road, Barking, IG11 0TT Category: Recycling Services Class Code: Scrap Metal Merchants Positional Accuracy: Positioned to address or location	A7NE (SW)	751	6	547528 183509
204	Points of Interest - Commercial Services Name: Biffa Waste Services Ltd Location: Maybell Farm, Ripple Road, Barking, IG11 0TT Category: Recycling Services Class Code: Recycling, Reclamation and Disposal Positional Accuracy: Positioned to address or location	A7NE (SW)	775	6	547531 183455
205	Points of Interest - Commercial Services Name: Kuehne + Nagel Ltd Location: Unit 1 Orion Park, Messina Way, Dagenham, RM9 6FF Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A9NW (SE)	807	6	548745 183255
206	Points of Interest - Commercial Services Name: Pest Tech Location: 157 Ford Road, Dagenham, RM9 6LT Category: Contract Services Class Code: Pest and Vermin Control Positional Accuracy: Positioned to address or location	A19SE (NE)	857	6	548982 184236
207	Points of Interest - Commercial Services Name: Car Wash Location: 796 Ripple Road, Barking, Essex, IG11 0TT Category: Personal, Consumer and other Services Class Code: Vehicle Cleaning Services Positional Accuracy: Positioned to address or location	A7NW (SW)	869	6	547394 183516
208	Points of Interest - Commercial Services Name: Breakdown Recovery 24 Hours Location: 239 Downing Road, Dagenham, RM9 6LU Category: Recycling Services Class Code: Scrap Metal Merchants Positional Accuracy: Positioned to address or location	A19SE (NE)	878	6	548937 184358

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
209	Points of Interest - Commercial Services Name: Combine Motor Services Location: Station Service Station, Gale Street, Dagenham, RM9 4NU Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A17NE (NW)	898	6	547590 184544
209	Points of Interest - Commercial Services Name: Station Garage Location: Gale Street, Dagenham, RM9 4NU Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A17NE (NW)	903	6	547612 184570
209	Points of Interest - Commercial Services Name: Station Garage Dagenham Ltd Location: Gale Street, Dagenham, RM9 4NU Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A17NE (NW)	903	6	547612 184570
209	Points of Interest - Commercial Services Name: Hand Car Wash Location: Gale Street, Dagenham, RM9 4NU Category: Personal, Consumer and other Services Class Code: Vehicle Cleaning Services Positional Accuracy: Positioned to address or location	A17NE (NW)	903	6	547612 184570
209	Points of Interest - Commercial Services Name: Breakeryard Ltd Location: 496a Gale Street, Dagenham, RM9 4NU Category: Recycling Services Class Code: Scrap Metal Merchants Positional Accuracy: Positioned to address or location	A17NE (NW)	918	6	547610 184588
210	Points of Interest - Manufacturing and Production Name: Tank Location: RM9 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A8NE (SE)	680	6	548536 183261
211	Points of Interest - Manufacturing and Production Name: Maybells Commercial Estate Location: IG11 Category: Industrial Features Class Code: Business Parks and Industrial Estates Positional Accuracy: Positioned to an adjacent address or location	A7NE (SW)	724	6	547641 183389
212	Points of Interest - Manufacturing and Production Name: Old Essex Works Location: IG11 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A7NE (SW)	730	6	547576 183468
213	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A7NE (SW)	730	6	547728 183294
213	Points of Interest - Manufacturing and Production Name: Works Location: IG11 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A7NE (SW)	730	6	547728 183294
214	Points of Interest - Manufacturing and Production Name: Tanks Location: RM9 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A9NW (SE)	799	6	548826 183352
214	Points of Interest - Manufacturing and Production Name: Cooling Tank Location: RM9 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A9NW (SE)	848	6	548833 183286

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
215	Points of Interest - Manufacturing and Production Name: Factory Location: RM9 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A17SE (NW)	816	6	547541 184370
216	Points of Interest - Manufacturing and Production Name: Portland Commercial Estate Location: IG11 Category: Industrial Features Class Code: Business Parks and Industrial Estates Positional Accuracy: Positioned to an adjacent address or location	A7NW (SW)	870	6	547436 183429
217	Points of Interest - Manufacturing and Production Name: Tank Location: IG11 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A7NW (SW)	879	6	547495 183323
218	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A9NE (SE)	977	6	548938 183209
219	Points of Interest - Public Infrastructure Name: Dagenham Location: Merriellands Crescent, Dagenham, RM9 6SJ Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A9NW (SE)	726	6	548812 183457
219	Points of Interest - Public Infrastructure Name: Asda Petrol Location: Merriellands Crescent, Dagenham, RM9 6SJ Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A9NW (SE)	740	6	548812 183432
219	Points of Interest - Public Infrastructure Name: Asda Dagenham Location: Merriellands Crescent, Dagenham, RM9 6SJ Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A9NW (SE)	740	6	548812 183432
220	Points of Interest - Public Infrastructure Name: Texaco Star Ltd Location: Ripple Road, Barking, IG11 0TT Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A7NW (SW)	869	6	547394 183516
220	Points of Interest - Public Infrastructure Name: Barking Service Station Location: Ripple Road, Barking, IG11 0TT Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A7NW (SW)	869	6	547394 183516
220	Points of Interest - Public Infrastructure Name: Barking Service Station Location: 796 Ripple Road, Barking, Essex, IG11 0TT Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A7NW (SW)	869	6	547394 183516
220	Points of Interest - Public Infrastructure Name: Texaco Location: Ripple Road, Barking, IG11 0TT Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A7NW (SW)	870	6	547393 183515
221	Points of Interest - Recreational and Environmental Name: Play Area Location: RM9 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A13SW (SW)	141	6	548084 183768

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
222	Points of Interest - Recreational and Environmental Name: Skatepark Location: RM9 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A13NE (NE)	236	6	548401 184005
223	Points of Interest - Recreational and Environmental Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A13NE (E)	259	6	548453 183950
223	Points of Interest - Recreational and Environmental Name: Playground Location: Dagenham Avenue, RM9 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A13NE (E)	259	6	548453 183949
223	Points of Interest - Recreational and Environmental Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A13NE (E)	313	6	548513 183933
224	Points of Interest - Recreational and Environmental Name: Play Area Location: RM9 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A14NW (NE)	541	6	548668 184154
225	Points of Interest - Recreational and Environmental Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A8NW (S)	565	6	548006 183324
225	Points of Interest - Recreational and Environmental Name: Playground Location: IG11 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A8NW (S)	567	6	548001 183323
225	Points of Interest - Recreational and Environmental Name: Playground Location: Morrison Road, IG11 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A8NW (S)	571	6	548003 183318
226	Points of Interest - Recreational and Environmental Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A18NW (N)	806	6	548040 184670
226	Points of Interest - Recreational and Environmental Name: Playground Location: Ivyhouse Road, RM9 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A18NW (N)	806	6	548041 184670
226	Points of Interest - Recreational and Environmental Name: Skatepark Location: RM9 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A18NW (N)	818	6	547977 184668
227	Points of Interest - Recreational and Environmental Name: Playground Location: Ivy Walk, RM9 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A18NW (N)	907	6	548009 184767

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
227	Points of Interest - Recreational and Environmental Name: Playground Location: Ivy Walk, RM9 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A18NW (N)	909	6	547996 184766
227	Points of Interest - Recreational and Environmental Name: Adventure Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A18NW (N)	923	6	548008 184783
227	Points of Interest - Recreational and Environmental Name: Playground Location: Ivy Walk, RM9 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A18NW (N)	931	6	547983 184786
227	Points of Interest - Recreational and Environmental Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A18NW (N)	952	6	547968 184804
228	Points of Interest - Recreational and Environmental Name: Skateboard Park Location: Ripple Road, RM9 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A12SW (W)	932	6	547280 183672

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
229	Local Nature Reserves Name: Scrattons Ecopark Amd Extension Multiple Area: Y Area (m2): 19244.94 Source: Natural England Designation Date: 15th March 2006	A8NE (S)	470	8	548254 183388

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices London Borough of Greenwich - Environmental Health Department London Borough of Bexley - Environmental Health Department London Borough of Barking And Dagenham - Health and Consumer Services Environment Agency - Head Office London Borough of Newham - Environmental Health Department London Borough of Redbridge - Environmental Health Department London Borough of Havering - Environmental Health Department	April 2014 January 2015 July 2014 June 2020 March 2015 October 2014 October 2017	Annual Rolling Update Annual Rolling Update Annual Rolling Update Annually Annual Rolling Update Annual Rolling Update Annual Rolling Update
Discharge Consents Environment Agency - Southern Region Environment Agency - Thames Region	July 2020 July 2020	Quarterly Quarterly
Enforcement and Prohibition Notices Environment Agency - Thames Region	March 2013	Annual Rolling Update
Integrated Pollution Controls Environment Agency - Thames Region	October 2008	Variable
Integrated Pollution Prevention And Control Environment Agency - South East Region - Kent & South London Area Environment Agency - South East Region - North East Thames Area Environment Agency - Thames Region	July 2020 July 2020 July 2020	Quarterly Quarterly Quarterly
Local Authority Integrated Pollution Prevention And Control London Borough of Havering - Environmental Health Department London Borough of Redbridge - Environmental Health Department London Borough of Greenwich - Environmental Health Department London Borough of Bexley - Environmental Health Department London Borough of Barking And Dagenham - Environmental Health Department London Port Health Authority - Environmental Services London Borough of Newham - Environmental Health Department	April 2015 December 2014 June 2014 March 2015 May 2016 October 2014 September 2013	Variable Variable Variable Variable Variable Variable Variable
Local Authority Pollution Prevention and Controls London Borough of Havering - Environmental Health Department London Borough of Redbridge - Environmental Health Department London Borough of Greenwich - Environmental Health Department London Borough of Bexley - Environmental Health Department London Borough of Newham - Environmental Health Department London Borough of Barking And Dagenham - Environmental Health Department London Port Health Authority - Environmental Services	April 2015 December 2014 June 2014 March 2015 March 2015 May 2016 October 2014	Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update
Local Authority Pollution Prevention and Control Enforcements London Borough of Havering - Environmental Health Department London Borough of Redbridge - Environmental Health Department London Borough of Greenwich - Environmental Health Department London Borough of Bexley - Environmental Health Department London Borough of Barking And Dagenham - Environmental Health Department London Port Health Authority - Environmental Services London Borough of Newham - Environmental Health Department	April 2015 December 2014 June 2014 March 2015 May 2016 October 2014 September 2013	Variable Variable Variable Variable Variable Variable Variable
Nearest Surface Water Feature Ordnance Survey	August 2020	
Pollution Incidents to Controlled Waters Environment Agency - Southern Region Environment Agency - Thames Region	December 1999 September 1999	Not Applicable Not Applicable
Prosecutions Relating to Authorised Processes Environment Agency - Thames Region	March 2013	Annual Rolling Update
Prosecutions Relating to Controlled Waters Environment Agency - Thames Region	March 2013	Annual Rolling Update
Registered Radioactive Substances Environment Agency - Thames Region	June 2016	

Agency & Hydrological	Version	Update Cycle
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 - South East Region - Kent & South London Area Environment Agency - South East Region - North East Thames Area Environment Agency - Thames Region - North East Area Environment Agency - Thames Region - South East Area	July 2020 July 2020 July 2020 July 2020	Quarterly Quarterly Quarterly Quarterly
Water Abstractions Environment Agency - Southern Region Environment Agency - Thames Region	July 2020 July 2020	Quarterly Quarterly
Water Industry Act Referrals Environment Agency - Thames Region	October 2017	Quarterly
Groundwater Vulnerability Map Environment Agency - Head Office	June 2018	As notified
Groundwater Vulnerability - Soluble Rock Risk Environment Agency - Head Office	June 2018	As notified
Bedrock Aquifer Designations Environment Agency - Head Office	January 2018	Annually
Superficial Aquifer Designations Environment Agency - Head Office	January 2018	Annually
Source Protection Zones Environment Agency - Head Office	October 2019	Quarterly
Extreme Flooding from Rivers or Sea without Defences Environment Agency - Head Office	September 2020	Quarterly
Flooding from Rivers or Sea without Defences Environment Agency - Head Office	September 2020	Quarterly
Areas Benefiting from Flood Defences Environment Agency - Head Office	September 2020	Quarterly
Flood Water Storage Areas Environment Agency - Head Office	September 2020	Quarterly
Flood Defences Environment Agency - Head Office	September 2020	Quarterly
OS Water Network Lines Ordnance Survey	June 2020	Quarterly
Surface Water 1 in 30 year Flood Extent Environment Agency - Head Office	October 2013	Annually
Surface Water 1 in 100 year Flood Extent Environment Agency - Head Office	October 2013	Annually
Surface Water 1 in 1000 year Flood Extent Environment Agency - Head Office	October 2013	Annually
Surface Water Suitability Environment Agency - Head Office	October 2013	Annually
BGS Groundwater Flooding Susceptibility British Geological Survey - National Geoscience Information Service	May 2013	Annually

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	October 2019	Quarterly
Integrated Pollution Control Registered Waste Sites Environment Agency - Thames Region	October 2008	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries) Environment Agency - South East Region - Kent & South London Area Environment Agency - South East Region - North East Thames Area Environment Agency - Thames Region - North East Area Environment Agency - Thames Region - South East Area	July 2020 July 2020 July 2020 July 2020	Quarterly Quarterly Quarterly Quarterly
Licensed Waste Management Facilities (Locations) Environment Agency - South East Region - Kent & South London Area Environment Agency - South East Region - North East Thames Area Environment Agency - Thames Region - North East Area Environment Agency - Thames Region - South East Area	July 2020 July 2020 July 2020 July 2020	Quarterly Quarterly Quarterly Quarterly
Local Authority Landfill Coverage London Borough of Barking And Dagenham - Environmental Health Department London Borough of Bexley - Environmental Health Department London Borough of Greenwich - Environmental Health Department London Borough of Havering - Environmental Health Department London Borough of Newham London Borough of Redbridge - Environmental Health Department	May 2000 May 2000 May 2000 May 2000 May 2000 May 2000	Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable
Local Authority Recorded Landfill Sites London Borough of Barking And Dagenham - Environmental Health Department London Borough of Bexley - Environmental Health Department London Borough of Greenwich - Environmental Health Department London Borough of Havering - Environmental Health Department London Borough of Newham London Borough of Redbridge - Environmental Health Department	May 2000 May 2000 May 2000 May 2000 May 2000 May 2000	Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable
Potentially Infilled Land (Non-Water) Landmark Information Group Limited	December 1999	Not Applicable
Potentially Infilled Land (Water) Landmark Information Group Limited	December 1999	Not Applicable
Registered Landfill Sites Environment Agency - Thames Region - North East Area Environment Agency - Thames Region - South East Area	March 2003 March 2003	Not Applicable Not Applicable
Registered Waste Transfer Sites Environment Agency - Thames Region - North East Area Environment Agency - Thames Region - South East Area	March 2003 March 2003	Not Applicable Not Applicable
Registered Waste Treatment or Disposal Sites Environment Agency - Thames Region - North East Area Environment Agency - Thames Region - South East Area	June 2015 March 2003	Not Applicable Not Applicable

Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH) Health and Safety Executive	April 2018	Bi-Annually
Explosive Sites Health and Safety Executive	March 2017	Annually
Notification of Installations Handling Hazardous Substances (NIHHS) Health and Safety Executive	November 2000	Not Applicable
Planning Hazardous Substance Enforcements London Borough of Barking And Dagenham London Borough of Greenwich - Planning Department London Borough of Havering - Planning Department London Borough of Newham London Borough of Redbridge London Port Health Authority - Environmental Services London Borough of Bexley - Development Control	February 2016 February 2016 February 2016 February 2016 February 2016 January 2008 January 2016	Variable Variable Variable Variable Variable Annual Rolling Update Variable
Planning Hazardous Substance Consents London Borough of Barking And Dagenham London Borough of Greenwich - Planning Department London Borough of Havering - Planning Department London Borough of Newham London Borough of Redbridge London Port Health Authority - Environmental Services London Borough of Bexley - Development Control	February 2016 February 2016 February 2016 February 2016 February 2016 January 2008 January 2016	Variable Variable Variable Variable Variable Annual Rolling Update Variable

Geological	Version	Update Cycle
BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service	January 2009	Not Applicable
BGS Estimated Soil Chemistry British Geological Survey - National Geoscience Information Service	October 2015	Annually
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	June 2020	Bi-Annually
BGS Urban Soil Chemistry British Geological Survey - National Geoscience Information Service	October 2015	Annually
BGS Urban Soil Chemistry Averages British Geological Survey - National Geoscience Information Service	October 2015	Annually
CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011	Not Applicable
Coal Mining Affected Areas The Coal Authority - Property Searches	March 2014	Annual Rolling Update
Mining Instability Ove Arup & Partners	October 2000	Not Applicable
Non Coal Mining Areas of Great Britain British Geological Survey - National Geoscience Information Service	May 2015	Not Applicable
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	April 2020	Annually
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Radon Potential - Radon Affected Areas British Geological Survey - National Geoscience Information Service	July 2011	Annually
Radon Potential - Radon Protection Measures British Geological Survey - National Geoscience Information Service	July 2011	Annually

Industrial Land Use	Version	Update Cycle
Contemporary Trade Directory Entries Thomson Directories	July 2020	Quarterly
Fuel Station Entries Catalist Ltd - Experian	September 2020	Quarterly
Gas Pipelines National Grid	September 2020	
Points of Interest - Commercial Services PointX	September 2020	Quarterly
Points of Interest - Education and Health PointX	September 2020	Quarterly
Points of Interest - Manufacturing and Production PointX	September 2020	Quarterly
Points of Interest - Public Infrastructure PointX	September 2020	Quarterly
Points of Interest - Recreational and Environmental PointX	September 2020	Quarterly
Underground Electrical Cables National Grid	August 2020	

Sensitive Land Use	Version	Update Cycle
Ancient Woodland Natural England	April 2020	Bi-Annually
Areas of Adopted Green Belt London Borough of Barking And Dagenham London Borough of Bexley - Development Control London Borough of Greenwich London Borough of Havering - Planning Department London Borough of Newham London Borough of Redbridge	June 2020 June 2020 June 2020 June 2020 June 2020 June 2020	As notified As notified As notified As notified As notified As notified
Areas of Unadopted Green Belt London Borough of Barking And Dagenham London Borough of Bexley - Development Control London Borough of Greenwich London Borough of Havering - Planning Department London Borough of Newham London Borough of Redbridge	June 2020 June 2020 June 2020 June 2020 June 2020 June 2020	As notified As notified As notified As notified As notified As notified
Areas of Outstanding Natural Beauty Natural England	June 2019	Bi-Annually
Environmentally Sensitive Areas Natural England	January 2017	
Forest Parks Forestry Commission	April 1997	Not Applicable
Local Nature Reserves Natural England	April 2020	Bi-Annually
Marine Nature Reserves Natural England	July 2019	Bi-Annually
National Nature Reserves Natural England	July 2019	Bi-Annually
National Parks Natural England	April 2017	Bi-Annually
Nitrate Sensitive Areas Natural England	April 2016	Not Applicable
Nitrate Vulnerable Zones Environment Agency - Head Office Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	December 2017 October 2015	Bi-Annually
Ramsar Sites Natural England	August 2020	Bi-Annually
Sites of Special Scientific Interest Natural England	May 2020	Bi-Annually
Special Areas of Conservation Natural England	July 2020	Bi-Annually
Special Protection Areas Natural England	September 2020	Bi-Annually

A selection of organisations who provide data within this report

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

Contact	Name and Address	Contact Details
1	British Geological Survey - Enquiry Service British Geological Survey, Environmental Science Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
2	Environment Agency - National Customer Contact Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk
3	London Borough of Barking And Dagenham - Environmental Health Department Roycroft House, Linton Road, Barking, Essex, IG11 8HE	Telephone: 020 8592 4500 Fax: 020 82272806 Website: www.barking-dagenham.gov.uk
4	Environment Agency - Head Office Rio House, Waterside Drive, Aztec West, Almondsbury, Bristol, Avon, BS32 4UD	Telephone: 01454 624400 Fax: 01454 624409
5	Ordnance Survey Adanac Drive, Southampton, Hampshire, SO16 0AS	Telephone: 03456 05 05 05 Email: customerservices@ordnancesurvey.co.uk Website: www.ordnancesurvey.gov.uk
6	PointX 7 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY	Website: www.pointx.co.uk
7	London Borough of Barking And Dagenham 127 Ripple Road, Municipal Offices, Barking, Essex, IG11 7PB	Telephone: 0208 227 3933 Fax: 0208 227 3919 Website: www.barking-dagenham.gov.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
-	Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org
-	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

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

APPENDIX B

DS1.



DS2.



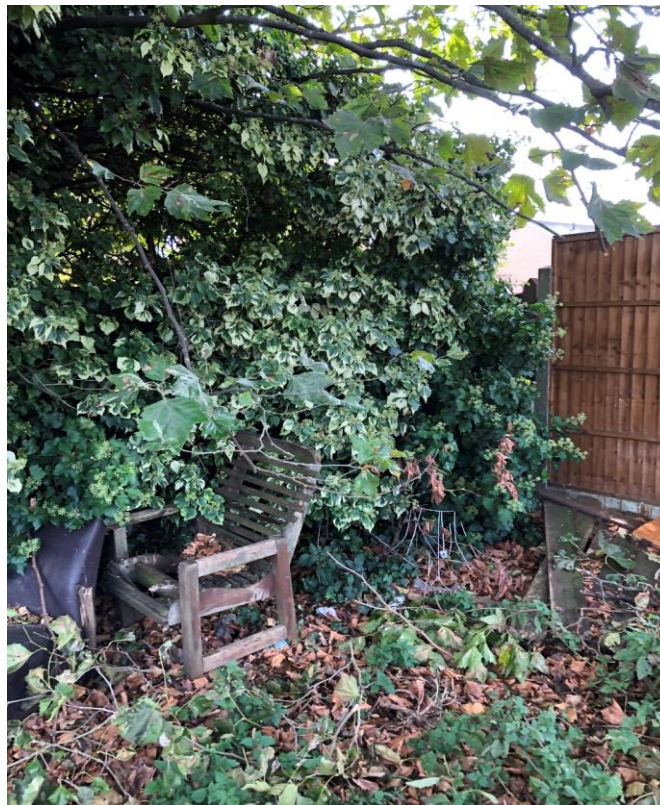
1.



2.



3.



TITLE: Site Photographs			REF: LS4745
PROJECT: Goresbrook Road, Dagenham, RM9 6XS			FIGURE 1
CLIENT: Be First Ltd.			DATE: 02/10/2020
PREP: MM	CHECK: TK	VERSION V1	SHEET: 1 OF 1

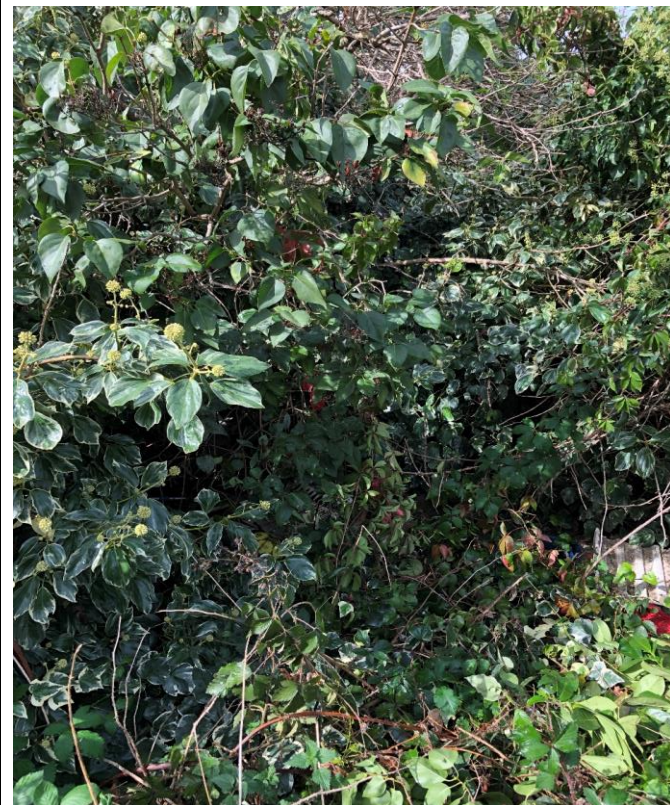
4.



5.



6.



7.



TITLE: Site Photographs			REF: LS4745
PROJECT: Goresbrook Road, Dagenham, RM9 6XS			FIGURE 1
CLIENT: Be First Ltd.			DATE: 02/10/2020
PREP: MM	CHECK: TK	VERSION V1	SHEET: 1 OF 1

APPENDIX C

Excavation Method

Drive-in Windowless Sampler

Dimensions
Ground Level (mOD)
Client

Be First

**Job
Number
LS4745**
Location
Dates

24/09/2020

Engineer
**Sheet
1/1**

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.20	ES		PID <1.0ppm			Grass overlying light brown slightly gravelly SAND. Sand is fine. Gravels are medium subrounded flints. (TAPLOW GRAVEL MEMBER) ...With rare rootlets to 0.30mbgl		
0.60	D		PID <1.0ppm		(1.20)			
1.00	D		PID <1.0ppm		1.20	Brownish yellow mottled orange slightly clayey very gravelly SAND. Sand is medium to coarse. Gravels are fine to medium subangular flintns. (TAPLOW GRAVEL MEMBER)		
1.50	D		PID <1.0ppm		(0.60)			
					1.80	Refused at 1.80m		

Remarks
**Scale
(approx)**

1:20

**Logged
By**

MM

Figure No.

LS4745.DS1

Excavation Method

Drive-in Windowless Sampler



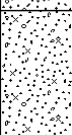
Dimensions
Ground Level (mOD)
Client

Be First

**Job
Number
LS4745**
Location
Dates

24/09/2020

Engineer
**Sheet
1/1**

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.30	ES		PID <1.0ppm		(0.60)	Vegetation over light brown slightly gravelly SAND. Sand is fine. Gravels are medium to coarse subrounded flints. With brick fragments and concrete cobbles. (MADE GROUND)		
					0.60	...With abundant roots to 0.50mbgl		
0.70	D		PID <1.0ppm		(0.25)	Light brown slightly gravelly SAND. Sand is fine. Gravels are medium to coarse subrounded flints. (TAPLOW GRAVEL MEMBER)		
					0.85	Light brownb slightly silty slightly gravelly SAND. Sand is fine to medium. Gravels are medium sub-angular to subrounded flints. (TAPLOW GRAVEL MEMBER)		
1.00	D		PID <1.0ppm		(0.35)			
					1.20	Complete at 1.20m		

Remarks
**Scale
(approx)**

1:20

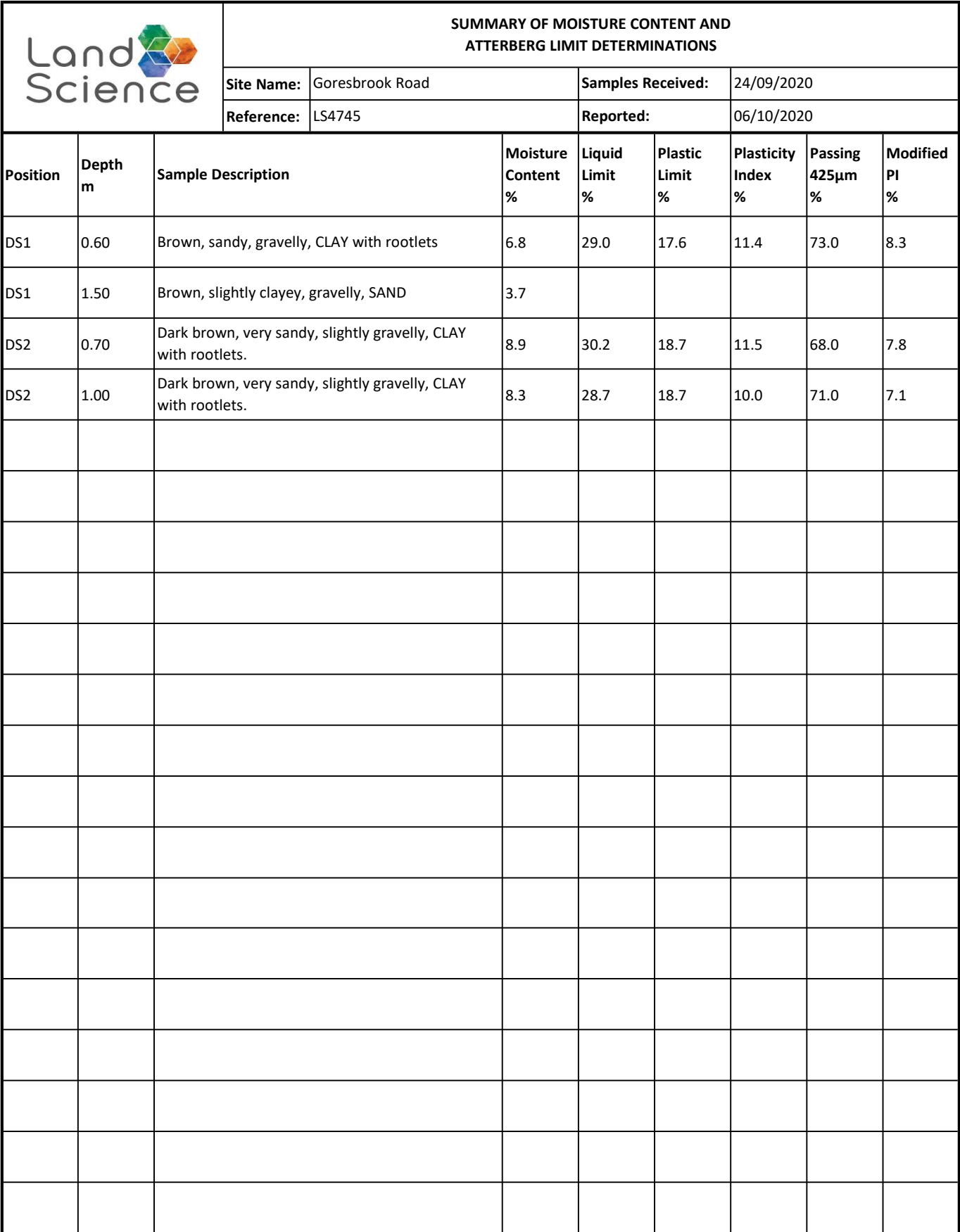
**Logged
By**

MM

Figure No.

LS4745.DS2

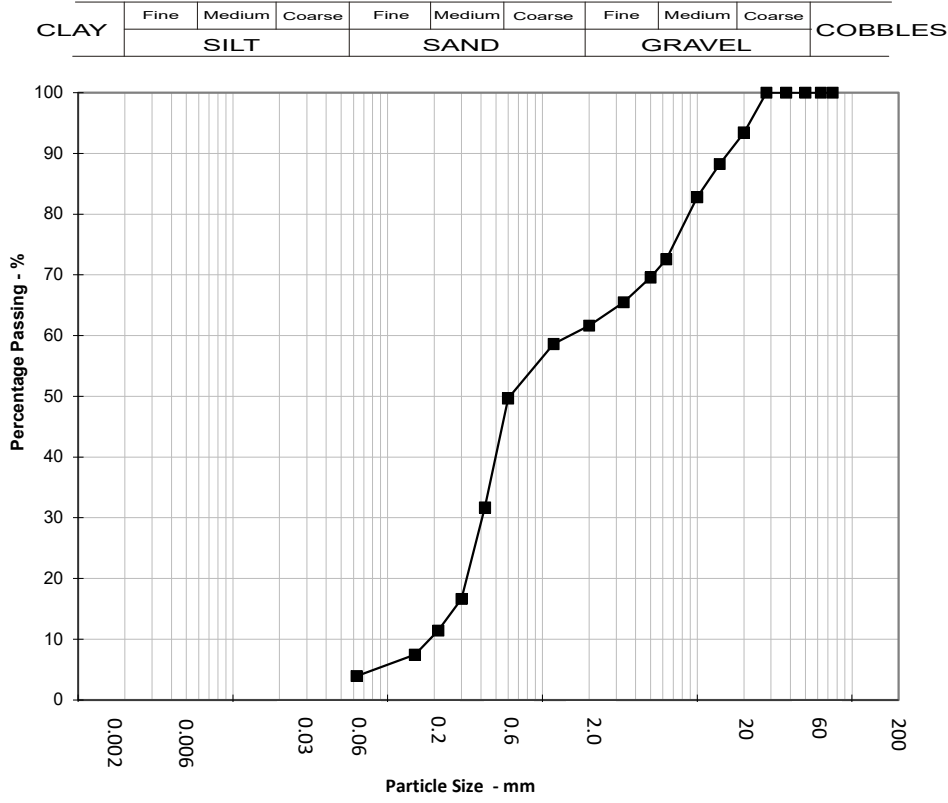
APPENDIX D



SUMMARY OF PARTICLE SIZE DISTRIBUTION

ANALYSIS

Site Name:	Goresbrook Road	Samples Received:	24/09/2020
Reference:	LS4745	Reported:	06/10/2020

Sample Data			Sample Description																																																																																																																				
Position		DS1		Brown, slightly clayey, gravelly, SAND																																																																																																																			
Sample Ref		-																																																																																																																					
Depth		1.50																																																																																																																					
Sieve Analysis				<div><div>CLAY</div><div><div><div>Fine</div><div>Medium</div><div>Coarse</div></div><div>SILT</div><div><div>Fine</div><div>Medium</div><div>Coarse</div></div><div>SAND</div><div><div>Fine</div><div>Medium</div><div>Coarse</div></div><div>GRAVEL</div><div>COBBLES</div></div></div>  <tr><th>mm</th><th>%</th></tr> <tr><td>125</td><td></td></tr> <tr><td>90</td><td></td></tr> <tr><td>75</td><td>100.0</td></tr> <tr><td>63</td><td>100.0</td></tr> <tr><td>50</td><td>100.0</td></tr> <tr><td>37.5</td><td>100.0</td></tr> <tr><td>28</td><td>100.0</td></tr> <tr><td>20</td><td>93.5</td></tr> <tr><td>14</td><td>88.3</td></tr> <tr><td>10</td><td>82.8</td></tr> <tr><td>6.3</td><td>72.6</td></tr> <tr><td>5.0</td><td>69.6</td></tr> <tr><td>3.35</td><td>65.5</td></tr> <tr><td>2.0</td><td>61.6</td></tr> <tr><td>1.18</td><td>58.6</td></tr> <tr><td>0.60</td><td>49.7</td></tr> <tr><td>0.425</td><td>31.7</td></tr> <tr><td>0.30</td><td>16.7</td></tr> <tr><td>0.212</td><td>11.4</td><td colspan="6">Sample Proportions</td><td colspan="4">Grading Analysis</td></tr> <tr><td>0.150</td><td>7.4</td><td colspan="2">Cobbles</td><td colspan="2">0.0</td><td colspan="2">D100</td><td colspan="2">28</td></tr> <tr><td>0.063</td><td>4.0</td><td colspan="2">Gravel</td><td colspan="2">38.4</td><td colspan="2">D60</td><td colspan="2">1.5</td></tr> <tr><td>0.020</td><td></td><td colspan="2">Sand</td><td colspan="2">57.7</td><td colspan="2">D10</td><td colspan="2">0.18</td></tr> <tr><td>0.006</td><td></td><td colspan="2">Silt & Clay</td><td colspan="2">4.0</td><td colspan="2">Uniformity Coeff.</td><td colspan="2">8.3</td></tr> <tr><td>0.002</td><td></td><td colspan="2">-</td><td colspan="2"></td><td colspan="2">-</td><td colspan="2"></td></tr>																mm	%	125		90		75	100.0	63	100.0	50	100.0	37.5	100.0	28	100.0	20	93.5	14	88.3	10	82.8	6.3	72.6	5.0	69.6	3.35	65.5	2.0	61.6	1.18	58.6	0.60	49.7	0.425	31.7	0.30	16.7	0.212	11.4	Sample Proportions						Grading Analysis				0.150	7.4	Cobbles		0.0		D100		28		0.063	4.0	Gravel		38.4		D60		1.5		0.020		Sand		57.7		D10		0.18		0.006		Silt & Clay		4.0		Uniformity Coeff.		8.3		0.002		-				-			
mm	%																																																																																																																						
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0.150	7.4	Cobbles		0.0		D100		28																																																																																																															
0.063	4.0	Gravel		38.4		D60		1.5																																																																																																															
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0.002		-				-																																																																																																																	

BS 1377 : Part 2 : 1990 : Clause 9

Test Results relate only to the sample numbers shown above.

Prepared:

T Curtis

Checked:

E Toms



APPENDIX E



Tom Curtis
Land Science
Unit 10
19 Albert Drive
Burgess Hill
West Sussex
RH15 9TN

i2 Analytical Ltd.
7 Woodshots Meadow,
Croxley Green
Business Park,
Watford,
Herts,
WD18 8YS

t: 01923 225404
f: 01923 237404
e: reception@i2analytical.com

e:

Analytical Report Number : 20-32378

Project / Site name:	Goresbrook Road, RM9 6XS	Samples received on:	28/09/2020
Your job number:	LS4745	Samples instructed on/ Analysis started on:	28/09/2020
Your order number:		Analysis completed by:	07/10/2020
Report Issue Number:	1	Report issued on:	07/10/2020
Samples Analysed:	3 soil samples		

Signed: *A. Czerwińska*

Agnieszka Czerwińska
Technical Reviewer (Reporting Team)
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils - 4 weeks from reporting
leachates - 2 weeks from reporting
waters - 2 weeks from reporting
asbestos - 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.



Analytical Report Number: 20-32378

Project / Site name: Goresbrook Road, RM9 6XS

Lab Sample Number	1632453	1632454	1632455
Sample Reference	DS1	DS1	DS2
Sample Number	4	4	4
Depth (m)	0.20	1.00	0.30
Date Sampled	24/09/2020	24/09/2020	24/09/2020
Time Taken	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status

Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	4.3	5.4	5.6
Total mass of sample received	kg	0.001	NONE	1.3	2	1.3

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	-	Not-detected
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	6.6	5	7.3
Total Cyanide	mg/kg	1	MCERTS	< 1	-	< 1
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.023	0.26	0.023
Sulphide	mg/kg	1	MCERTS	6.3	-	7
Fraction Organic Carbon (FOC)	N/A	0.001	MCERTS	0.015	-	0.017

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	-	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.72	-	0.78
Anthracene	mg/kg	0.05	MCERTS	0.16	-	0.16
Fluoranthene	mg/kg	0.05	MCERTS	2.3	-	1.8
Pyrene	mg/kg	0.05	MCERTS	2	-	1.8
Benzo(a)anthracene	mg/kg	0.05	MCERTS	1.2	-	0.98
Chrysene	mg/kg	0.05	MCERTS	1.2	-	1.1
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	1.4	-	1.2
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.86	-	0.48
Benzo(a)pyrene	mg/kg	0.05	MCERTS	1.3	-	0.83
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.72	-	0.6
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.81	-	0.59
Coronene	mg/kg	0.05	NONE	< 0.05	-	< 0.05

Total PAH

Total WAC-17 PAHs	mg/kg	0.85	NONE	12.7	-	10.3
-------------------	-------	------	------	------	---	------

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	12	-	14
Barium (aqua regia extractable)	mg/kg	1	MCERTS	81	-	150
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.67	-	0.75
Boron (water soluble)	mg/kg	0.2	MCERTS	0.5	-	1
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.5	-	0.6
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	-	< 1.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	24	-	26
Copper (aqua regia extractable)	mg/kg	1	MCERTS	29	-	35
Lead (aqua regia extractable)	mg/kg	1	MCERTS	100	-	170
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.4	-	0.5
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	16	-	20
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	-	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	39	-	43
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	130	-	290



Analytical Report Number: 20-32378

Project / Site name: Goresbrook Road, RM9 6XS

Lab Sample Number					1632453	1632454	1632455
Sample Reference					DS1	DS1	DS2
Sample Number					4	4	4
Depth (m)					0.20	1.00	0.30
Date Sampled					24/09/2020	24/09/2020	24/09/2020
Time Taken					None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)					Units	Limit of detection	Accreditation Status

U/S = Unsuitable Sample I/S = Insufficient Sample



Analytical Report Number : 20-32378
Project / Site name: Goresbrook Road, RM9 6XS

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
1632453	DS1	4	0.2	Brown loam with gravel and vegetation.
1632454	DS1	4	1	Brown loam with gravel and vegetation.
1632455	DS2	4	0.3	Brown loam with gravel and vegetation.



Analytical Report Number : 20-32378

Project / Site name: Goresbrook Road, RM9 6XS

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with disperion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
Hexavalent chromium in soil (Lower Level)	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method	L080-PL	W	MCERTS
Fraction of Organic Carbon in soil	Determination of fraction of organic carbon in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L009-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	MCERTS
Speciated WAC-17 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270. MCERTS accredited except Coronene.	L064-PL	D	NONE
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
Sulphide in soil	Determination of sulphide in soil by acidification and heating to liberate hydrogen sulphide, trapped in an alkaline solution then assayed by ion selective electrode.	In-house method	L010-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
D.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

Waste Classification Report



Y9WZK-B7R5K-JE8LC

Job name

Goresbrook Road

Description/Comments
Project

LS4745

Site

Goresbrook Road, RM9 6XS

Related Documents

#	Name	Description
None		

Waste Stream Template

Land Science Template WM3 v1.1

Classified by

Name:
Tom Kistruck

Company:
Land Science

HazWasteOnline™ Training Record:

Date:
23 Oct 2020 11:42 GMT
Telephone:
0345 604 6494

Course	Date
Hazardous Waste Classification	-
Advanced Hazardous Waste Classification	-

Report

Created by: Tom Kistruck
Created date: 23 Oct 2020 11:42 GMT

Job summary

#	Sample Name	Depth [m]	Classification Result	Hazard properties	Page
1	DS1	0.2	Non Hazardous		2
2	DS2	0.3	Non Hazardous		4

Appendices	Page
Appendix A: Classifier defined and non CLP determinands	6
Appendix B: Rationale for selection of metal species	7
Appendix C: Version	8

Classification of sample: DS1

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:	LoW Code:
DS1	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.2 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
4.3%	
(no correction)	

Hazard properties

None identified

Determinands

Moisture content: **4.3%** No Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number								
1	• pH				6.6 pH		6.6	pH	6.6 pH		
2	phenol				<1 mg/kg		<1	mg/kg	<0.0001 %		<LOD
	604-001-00-2	203-632-7	108-95-2								
3	naphthalene				<0.05 mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
	601-052-00-2	202-049-5	91-20-3								
4	• acenaphthylene				<0.05 mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8								
5	• acenaphthene				<0.05 mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9								
6	• fluorene				<0.05 mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		201-695-5	86-73-7								
7	• phenanthrene				0.72 mg/kg		0.72	mg/kg	0.000072 %		
		201-581-5	85-01-8								
8	• anthracene				0.16 mg/kg		0.16	mg/kg	0.000016 %		
		204-371-1	120-12-7								
9	• fluoranthene				2.3 mg/kg		2.3	mg/kg	0.00023 %		
		205-912-4	206-44-0								
10	• pyrene				2 mg/kg		2	mg/kg	0.0002 %		
		204-927-3	129-00-0								
11	benzo[a]anthracene				1.2 mg/kg		1.2	mg/kg	0.00012 %		
	601-033-00-9	200-280-6	56-55-3								
12	chrysene				1.2 mg/kg		1.2	mg/kg	0.00012 %		
	601-048-00-0	205-923-4	218-01-9								
13	benzo[b]fluoranthene				1.4 mg/kg		1.4	mg/kg	0.00014 %		
	601-034-00-4	205-911-9	205-99-2								
14	benzo[k]fluoranthene				0.86 mg/kg		0.86	mg/kg	0.000086 %		
	601-036-00-5	205-916-6	207-08-9								
15	benzo[a]pyrene; benzo[def]chrysene				1.3 mg/kg		1.3	mg/kg	0.00013 %		
	601-032-00-3	200-028-5	50-32-8								
16	• indeno[123-cd]pyrene				0.72 mg/kg		0.72	mg/kg	0.000072 %		
		205-893-2	193-39-5								

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number								
17	dibenz[a,h]anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-041-00-2	200-181-8	53-70-3								
18	benzo[ghi]perylene				0.81 mg/kg		0.81 mg/kg	0.000081 %			
		205-883-8	191-24-2								
19	coronene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		205-881-7	191-07-1								
20	arsenic { arsenic trioxide }				12 mg/kg	1.32	15.844 mg/kg	0.00158 %			
	033-003-00-0	215-481-4	1327-53-3								
21	barium { barium sulphide }				81 mg/kg	1.233	99.913 mg/kg	0.00999 %			
	016-002-00-X	244-214-4	21109-95-5								
22	beryllium { beryllium oxide }				0.67 mg/kg	2.775	1.859 mg/kg	0.000186 %			
	004-003-00-8	215-133-1	1304-56-9								
23	boron { diboron trioxide; boric oxide }				0.5 mg/kg	3.22	1.61 mg/kg	0.000161 %			
	005-008-00-8	215-125-8	1303-86-2								
24	cadmium { cadmium oxide }				0.5 mg/kg	1.142	0.571 mg/kg	0.0000571 %			
	048-002-00-0	215-146-2	1306-19-0								
25	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %			<LOD
	024-001-00-0	215-607-8	1333-82-0								
26	copper { dicopper oxide; copper (I) oxide }				29 mg/kg	1.126	32.651 mg/kg	0.00327 %			
	029-002-00-X	215-270-7	1317-39-1								
27	lead { lead chromate }			1	100 mg/kg	1.56	155.982 mg/kg	0.01 %			
	082-004-00-2	231-846-0	7758-97-6								
28	mercury { mercury dichloride }				0.4 mg/kg	1.353	0.541 mg/kg	0.0000541 %			
	080-010-00-X	231-299-8	7487-94-7								
29	nickel { nickel chromate }				16 mg/kg	2.976	47.62 mg/kg	0.00476 %			
	028-035-00-7	238-766-5	14721-18-7								
30	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	1.405	<1.405 mg/kg	<0.000141 %			<LOD
	034-002-00-8										
31	vanadium { divanadium pentaoxide; vanadium pentoxide }				39 mg/kg	1.785	69.622 mg/kg	0.00696 %			
	023-001-00-8	215-239-8	1314-62-1								
32	zinc { zinc chromate }				130 mg/kg	2.774	360.639 mg/kg	0.0361 %			
	024-007-00-3	236-878-9	13530-65-9								
Total:									0.0749 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: DS2

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:	LoW Code:
DS2	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.3 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
5.6%	
(no correction)	

Hazard properties

None identified

Determinands

Moisture content: **5.6%** No Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number								
1	• pH				7.3 pH		7.3	pH	7.3 pH		
2	phenol				<1 mg/kg		<1	mg/kg	<0.0001 %		<LOD
	604-001-00-2	203-632-7	108-95-2								
3	naphthalene				<0.05 mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
	601-052-00-2	202-049-5	91-20-3								
4	• acenaphthylene				<0.05 mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8								
5	• acenaphthene				<0.05 mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9								
6	• fluorene				<0.05 mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		201-695-5	86-73-7								
7	• phenanthrene				0.78 mg/kg		0.78	mg/kg	0.000078 %		
		201-581-5	85-01-8								
8	• anthracene				0.16 mg/kg		0.16	mg/kg	0.000016 %		
		204-371-1	120-12-7								
9	• fluoranthene				1.8 mg/kg		1.8	mg/kg	0.00018 %		
		205-912-4	206-44-0								
10	• pyrene				1.8 mg/kg		1.8	mg/kg	0.00018 %		
		204-927-3	129-00-0								
11	benzo[a]anthracene				0.98 mg/kg		0.98	mg/kg	0.000098 %		
	601-033-00-9	200-280-6	56-55-3								
12	chrysene				1.1 mg/kg		1.1	mg/kg	0.00011 %		
	601-048-00-0	205-923-4	218-01-9								
13	benzo[b]fluoranthene				1.2 mg/kg		1.2	mg/kg	0.00012 %		
	601-034-00-4	205-911-9	205-99-2								
14	benzo[k]fluoranthene				0.48 mg/kg		0.48	mg/kg	0.000048 %		
	601-036-00-5	205-916-6	207-08-9								
15	benzo[a]pyrene; benzo[def]chrysene				0.83 mg/kg		0.83	mg/kg	0.000083 %		
	601-032-00-3	200-028-5	50-32-8								
16	• indeno[123-cd]pyrene				0.6 mg/kg		0.6	mg/kg	0.00006 %		
		205-893-2	193-39-5								

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number								
17	dibenz[a,h]anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-041-00-2	200-181-8	53-70-3								
18	benzo[ghi]perylene				0.59 mg/kg		0.59 mg/kg	0.000059 %			
		205-883-8	191-24-2								
19	coronene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		205-881-7	191-07-1								
20	arsenic { arsenic trioxide }				14 mg/kg	1.32	18.485 mg/kg	0.00185 %			
	033-003-00-0	215-481-4	1327-53-3								
21	barium { barium sulphide }				150 mg/kg	1.233	185.024 mg/kg	0.0185 %			
	016-002-00-X	244-214-4	21109-95-5								
22	beryllium { beryllium oxide }				0.75 mg/kg	2.775	2.082 mg/kg	0.000208 %			
	004-003-00-8	215-133-1	1304-56-9								
23	boron { diboron trioxide; boric oxide }				1 mg/kg	3.22	3.22 mg/kg	0.000322 %			
	005-008-00-8	215-125-8	1303-86-2								
24	cadmium { cadmium oxide }				0.6 mg/kg	1.142	0.685 mg/kg	0.0000685 %			
	048-002-00-0	215-146-2	1306-19-0								
25	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %			<LOD
	024-001-00-0	215-607-8	1333-82-0								
26	copper { dicopper oxide; copper (I) oxide }				35 mg/kg	1.126	39.406 mg/kg	0.00394 %			
	029-002-00-X	215-270-7	1317-39-1								
27	lead { lead chromate }			1	170 mg/kg	1.56	265.169 mg/kg	0.017 %			
	082-004-00-2	231-846-0	7758-97-6								
28	mercury { mercury dichloride }				0.5 mg/kg	1.353	0.677 mg/kg	0.0000677 %			
	080-010-00-X	231-299-8	7487-94-7								
29	nickel { nickel chromate }				20 mg/kg	2.976	59.525 mg/kg	0.00595 %			
	028-035-00-7	238-766-5	14721-18-7								
30	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	1.405	<1.405 mg/kg	<0.000141 %			<LOD
	034-002-00-8										
31	vanadium { divanadium pentaoxide; vanadium pentoxide }				43 mg/kg	1.785	76.763 mg/kg	0.00768 %			
	023-001-00-8	215-239-8	1314-62-1								
32	zinc { zinc chromate }				290 mg/kg	2.774	804.502 mg/kg	0.0805 %			
	024-007-00-3	236-878-9	13530-65-9								
Total:									0.138 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Appendix A: Classifier defined and non CLP determinands

■ pH (CAS Number: PH)

Description/Comments: Appendix C4
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: None.

■ acenaphthylene (EC Number: 205-917-1, CAS Number: 208-96-8)

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 17 Jul 2015
Hazard Statements: Acute Tox. 4 H302 , Acute Tox. 1 H330 , Acute Tox. 1 H310 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315

■ acenaphthene (EC Number: 201-469-6, CAS Number: 83-32-9)

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 17 Jul 2015
Hazard Statements: Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410 , Aquatic Chronic 2 H411

■ fluorene (EC Number: 201-695-5, CAS Number: 86-73-7)

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 06 Aug 2015
Hazard Statements: Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

■ phenanthrene (EC Number: 201-581-5, CAS Number: 85-01-8)

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 06 Aug 2015
Hazard Statements: Acute Tox. 4 H302 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Carc. 2 H351 , Skin Sens. 1 H317 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410 , Skin Irrit. 2 H315

■ anthracene (EC Number: 204-371-1, CAS Number: 120-12-7)

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 17 Jul 2015
Hazard Statements: Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315 , Skin Sens. 1 H317 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

■ fluoranthene (EC Number: 205-912-4, CAS Number: 206-44-0)

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 21 Aug 2015
Hazard Statements: Acute Tox. 4 H302 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

■ pyrene (EC Number: 204-927-3, CAS Number: 129-00-0)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 2014
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 21 Aug 2015
Hazard Statements: Skin Irrit. 2 H315 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

■ indeno[123-cd]pyrene (EC Number: 205-893-2, CAS Number: 193-39-5)

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 06 Aug 2015
Hazard Statements: Carc. 2 H351

■ benzo[ghi]perylene (EC Number: 205-883-8, CAS Number: 191-24-2)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 28/02/2015
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 23 Jul 2015
Hazard Statements: Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

• **coronene** (EC Number: 205-881-7, CAS Number: 191-07-1)

Description/Comments: Data from C&L Inventory Database; no entries in Registered Substances or Pesticides Properties databases; SDS: Sigma Aldrich, 1907/2006 compliant, dated 2012 - no entries; IARC – Group 3, not carcinogenic.

Data source:

<http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=17010&HarmOnly=no?fc=true&lang=en>

Data source date: 16 Jun 2014

Hazard Statements: STOT SE 2 H371

• **barium sulphide** (EC Number: 244-214-4, CAS Number: 21109-95-5)

CLP index number: 016-002-00-X

Description/Comments:

Data source: Regulation 1272/2008/EC - Classification, labelling and packaging of substances and mixtures. (CLP)

Additional Hazard Statement(s): EUH031 >= 0.8 %

Reason for additional Hazards Statement(s):

14 Dec 2015 - EUH031 >= 0.8 % hazard statement sourced from: WM3, Table C12.2

Appendix B: Rationale for selection of metal species

arsenic {arsenic trioxide}

Reasonable case CLP species based on hazard statements/molecular weight and most common (stable) oxide of arsenic. Industrial sources include: smelting; main precursor to other arsenic compounds (edit as required)

barium {barium sulphide}

No Cr(VI) detected.

beryllium {beryllium oxide}

Reasonable case CLP species based on hazard statements/molecular weight. Industrial sources include: most common (non alloy) form, used in ceramics (edit as required)

boron {diboron trioxide; boric oxide}

Reasonable case CLP species based on hazard statements/ molecular weight, physical form and low solubility. Industrial sources include: fluxing agent for glass/enamels; additive for fibre optics, borosilicate glass (edit as required)

cadmium {cadmium oxide}

Reasonable case CLP species based on hazard statements/molecular weight, very low solubility in water. Industrial sources include: electroplating baths, electrodes for storage batteries, catalysts, ceramic glazes, phosphors, pigments and nematocides. (edit as required) Worst case compounds in CLP: cadmium sulphate, chloride, fluoride & iodide not expected as either very soluble and/or compound's industrial usage not related to site history (edit as required)

chromium in chromium(VI) compounds {chromium(VI) oxide}

Worst case CLP species based on hazard statements/molecular weight. Industrial sources include: production stainless steel, electroplating, wood preservation, anti-corrosion agents or coatings, pigments (edit as required)

copper {dicopper oxide; copper (I) oxide}

Reasonable case CLP species based on hazard statements/molecular weight and insolubility in water. Industrial sources include: oxidised copper metal, brake pads, pigments, antifouling paints, fungicide. (edit as required) Worse case copper sulphate is very soluble and likely to have been leached away if ever present and/or not enough soluble sulphate detected. (edit as required)

lead {lead chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

mercury {mercury dichloride}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

nickel {nickel chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

selenium {selenium compounds with the exception of cadmium sulposelenide and those specified elsewhere in this Annex}

Harmonised group entry used as most reasonable case. Pigment cadmium sulposelenide not likely to be present in this soil. No evidence for the other CLP entries: sodium selenite, nickel II selenite and nickel selenide, to be present in this soil. (edit as required)

vanadium {divanadium pentaoxide; vanadium pentoxide}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

zinc {zinc chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

Appendix C: Version

HazWasteOnline Classification Engine: **WM3 1st Edition v1.1, May 2018**
 HazWasteOnline Classification Engine Version: 2020.289.4500.8764 (15 Oct 2020)
 HazWasteOnline Database: 2020.290.4501.8765 (16 Oct 2020)

This classification utilises the following guidance and legislation:

WM3 v1.1 - Waste Classification - 1st Edition v1.1 - May 2018
CLP Regulation - Regulation 1272/2008/EC of 16 December 2008
1st ATP - Regulation 790/2009/EC of 10 August 2009
2nd ATP - Regulation 286/2011/EC of 10 March 2011
3rd ATP - Regulation 618/2012/EU of 10 July 2012
4th ATP - Regulation 487/2013/EU of 8 May 2013
Correction to 1st ATP - Regulation 758/2013/EU of 7 August 2013
5th ATP - Regulation 944/2013/EU of 2 October 2013
6th ATP - Regulation 605/2014/EU of 5 June 2014
WFD Annex III replacement - Regulation 1357/2014/EU of 18 December 2014
Revised List of Wastes 2014 - Decision 2014/955/EU of 18 December 2014
7th ATP - Regulation 2015/1221/EU of 24 July 2015
8th ATP - Regulation (EU) 2016/918 of 19 May 2016
9th ATP - Regulation (EU) 2016/1179 of 19 July 2016
10th ATP - Regulation (EU) 2017/776 of 4 May 2017
HP14 amendment - Regulation (EU) 2017/997 of 8 June 2017
13th ATP - Regulation (EU) 2018/1480 of 4 October 2018
14th ATP - Regulation (EU) 2020/217 of 4 October 2019
15th ATP - Regulation (EU) 2020/1182 of 19 May 2020
POPs Regulation 2004 - Regulation 850/2004/EC of 29 April 2004
1st ATP to POPs Regulation - Regulation 756/2010/EU of 24 August 2010
2nd ATP to POPs Regulation - Regulation 757/2010/EU of 24 August 2010