

Proposed Car Park, off Bala Road, Wrexham

**STAGE 1 & 2 CONTAMINATION
ASSESSMENT**

For: Wrexham County Council

November 2021

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PROPOSED CAR PARK OFF BALA ROAD, WREXHAM

STAGE 1 & 2 CONTAMINATION ASSESSMENT

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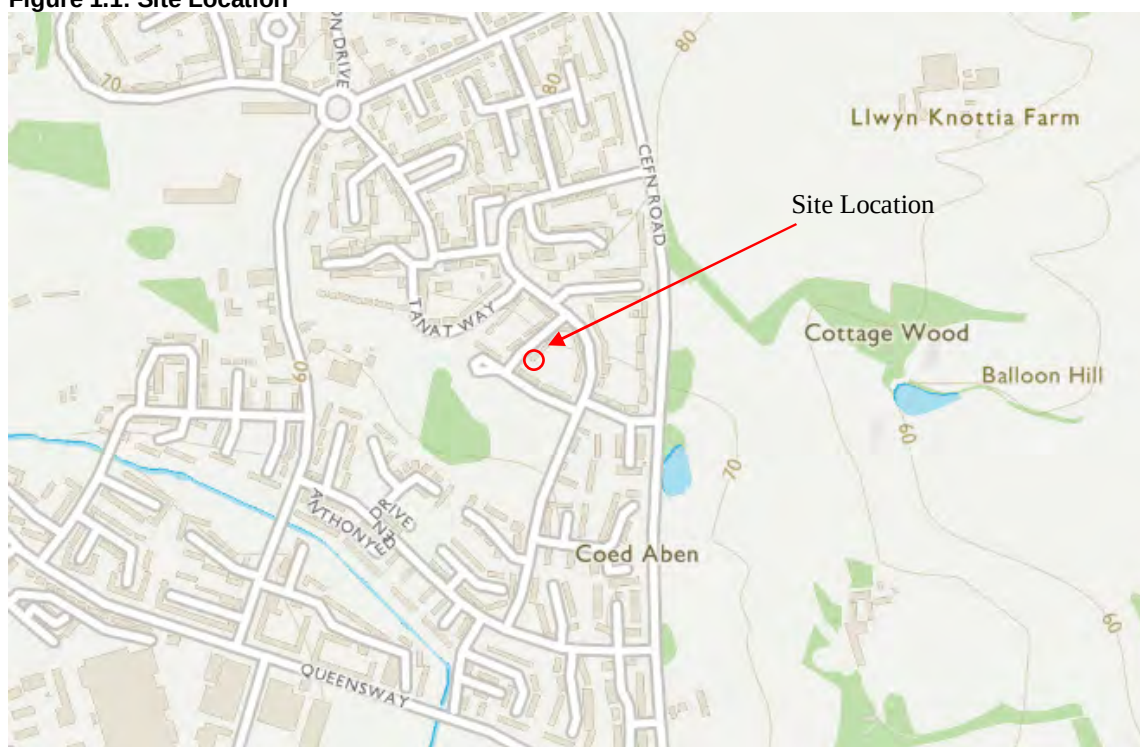
1. Introduction

- 1.1. Planning permission has been granted (ref. P/2021/0783) by Wrexham City Council for the change of use of a vacant parcel of land off Bala Road, Wrexham, to a proposed off-street parking.
- 1.2. Smith Grant LLP (SGP) has been duly instructed by Wrexham City Council to undertake a combined Stage 1 & 2 Contamination Assessment to partially satisfy Condition 5 which relates to contaminated land.
- 1.3. This report described the work carried out by SGP including a background review of the site's history, setting, geology, hydrogeology and the ground conditions encountered, and discusses the contamination implications with regards to the proposed development.

Table 1.1: Site Details

Address	Land off Bala Road, Wrexham. LL13 9LG
National Grid Reference	335170, 350080
Local Authority	Wrexham County Council; (WCC)
Planning Ref.	P/2021/0783
Site Area	0.05 Ha
Current Nature of Site	Open, grassed, unused land
Proposed Use	Off street parking

Figure 1.1: Site Location



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Figure 1.2: Site Location



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- 1.4. Condition 5 of the approved Planning Consent relates to Contaminated Land and is worded as follows:

5	<i>No development or phase of development, shall commence until the following components of a scheme to deal with the risks associated with contamination at the site, have been submitted to and approved in writing by the Local Planning Authority:</i> <i>1. A preliminary risk assessment which has identified:</i> <i>- all previous uses</i> <i>- potential contaminants associated with those uses</i> <i>- a conceptual model of the site indicating sources, pathways and receptors</i> <i>- potentially unacceptable risks arising from contamination at the site</i> <i>2. A site investigation scheme, based on (1) to provide information for a detailed assessment of the risk to all receptors that may be affected, including those off site.</i> <i>3. The results of the site investigation and the detailed risk assessment referred to in (2) and, based on these, an options appraisal and remediation strategy giving full details of the remediation measures required and how they are to be undertaken.</i> <i>4. A verification plan providing details of the data that will be collected in order to demonstrate that the works set out in the remediation strategy in (3) are complete and identifying any requirements for longer-term monitoring of pollutant linkages, maintenance and arrangements for contingency action.</i> <i>The remediation strategy and its relevant components shall be carried out in accordance with the approved details.</i>
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- 1.5. This report describes the Stage 1 & 2 Contaminated Land Assessment undertaken by SGP in accordance with the brief agreed with the client. The assessment methodology follows the framework described in the EA / DEFRA Contaminated Land Report 11: Model Procedures for the Management of Contaminated Land 2004 as amended in Land Condition Risk Management (LCRM)¹, and has been prepared with reference to the Planning Practice Guidance provided in relation to land affected by contamination².
- 1.6. The assessment comprises a review of third-party information on the environmental setting of the site and the site's previous and current uses with respect to potential risks to the environment and/or human health and a site inspection.

¹ <https://www.gov.uk/guidance/land-contamination-how-to-manage-the-risks/stage-1-risk-assessment>

2. Planning and Legislative Context

2.1. Planning Policy Wales and Guidance

2.1.1. The Welsh Government Planning Policy Wales 2018 (PPW)³ sets out the Government's planning policies for Wales and how these are expected to be applied. The policy provides general guidance to Local Authorities on taking land condition into account in planning policies and decisions. Figures 3 and 4 of the National Sustainable Placemaking Outcomes, under section 'Maximising environmental protection and limiting environment impact', states that:

'Negative environmental impacts should be avoided in the wider public interest. This means acting in the long term to respect environmental limits and operating in an integrated way so that resources and/or assets are not irreversibly damaged or depleted. The polluter pays principle applied where pollution cannot be prevented and applying the precautionary principle ensures cost effective measures to prevent environmental damage.'

2.1.2. Chapter 3 'Strategic and Spatial Choices' under PPW refers to Environmental Sustainability, and that:

Section 3.32 – 'Ensuring resilient locational choices for infrastructure and built development, taking into account water supplies, water quality and reducing, wherever possible, air and noise pollution and environmental risks, such as those posed by flood risk, coastal change, land contamination and instability'.

Section 3.7 - 'Good design promotes environmental sustainability and contributes to the achievement of the well-being goals. Developments should seek to...prevent the generation of waste and pollution'.

2.1.3. Chapter 6 'Distinctive and Natural Places' under PPW refers to the De-Risking Development and Physical Ground Conditions and Land Instability, states that:

Section 6.9.13 – 'When considering development proposals, Planning Authorities should take into account the nature, scale and extent of surface and subsurface hazards which may pose risks to human and environmental health, to ensure that:

- New development is not undertaken without an understanding of the risks, including those associated with the previous land use, pollution, groundwater, flood risk, subsidence, landslips, rock falls, mine and landfill gas emissions and rising groundwater from abandoned mines.***

² Planning Practice Guidance (PPG): Land Affected by Contamination, issued 12 June 2014, last updated 22 July 2019, www.gov.uk

- ***Development does not take place without appropriate remediation or precautions.***
- ***Consideration is given to the potential impacts which remediation of land, including contamination might have upon the natural and historic environment.***

2.1.4. Section 6.9.19. Where land contamination issues arise, the planning authority will require evidence of a detailed investigation and risk assessment prior to the determination of the application...”

2.1.5. No further guidance with regards to contamination or land stability is provided within the Technical Advice Notes (2-24).

2.2. Local Planning Policy and Guidance

2.2.1. The WCBC Unitary Development Plan (UDP)⁴ was adopted in 2005 and sets out the strategic policies applicable to the plan area. WCBC is currently preparing a new Local Development Plan 2 (2013-2028); however, all policies in the current adopted UDP will remain effective until replaced by the new LDP.

2.2.2. A number of specific policies under the UDP relate to contaminated land, these are as follows:

- General Development Principles (Policy GDP1): All new development should ensure that development does not result in, or is subject to, flooding, soil erosion, landslides or contamination either on or off the site.
- Protection of Controlled Waters (Policy EC14): Development which would have an unacceptable adverse impact upon the capacity, flow, quality or availability of controlled waters and associated land will not be permitted.

2.3. Legislation

2.3.1. Land contamination can harm human health, groundwaters, surface waters, soils, ecosystems and property. As such it is controlled, either directly or indirectly, through a range of legislation, including, but not limited to:

- Part IIA of the Environmental Protection Act 1990: establishes a system for identifying and remediating statutorily defined ‘contaminated land’; and focuses on addressing contaminated land that meets the specific legal definition and cannot be dealt with via other means, including planning.

³ Welsh Government, Planning Policy Wales, Edition 10, December 2018, <https://gov.wales/planning-policy-wales>

⁴ Wrexham County Borough Council, Unitary Development Plan, 14 February 2005

- Water Environment Regulations 2017: replaces previous legislation and outlines duties of regulators in relation to characterisation and classification of water bodies, environmental permitting, abstraction, and impoundment of water.
- Building Act 1984 (United Kingdom); requires the prevention of waste, undue consumption, or contamination of water and the protection or enhancing of the environment.
- Environmental Permitting Regulations: impose provisions to prevent ground and water contamination from operations requiring an Environmental Permit to operate; and implement controls for operations relating to the treatment or handling of contaminated soils.

2.3.2. Similarly, when dealing with land that may be unstable, the planning system works alongside a number of other regimes including Building Regulations and the Coal Authority's responsibility for public safety risks arising from past coal mining activities.

2.4. National Best Practice and Guidance

2.4.1. The Environment Agency (EA) **Land Contamination: Risk Management Guidance**⁵ provides an overarching framework for the assessment and investigation of land contamination. It replaces the previous Contaminated Land Report 11: Model Procedures for the Management of Contaminated Land 2004.

2.4.2. It is designed to be used in a range of regulatory and management contexts such as voluntary remediation, planning, assessing liabilities or under the Part 2A contaminated land regime. The guidance sets out a phased approach to the assessment of land contamination and specifies requirements for reports produced as part of the process, including Preliminary Risk Assessments (PRAs) and Generic and Detailed Quantitative Risk Assessments (GQRAs and DQRAs).

2.4.3. The EA Guidance is supported by, and cross-refers to, an extensive range of additional statutory and non-statutory guidance relating to aspects such as site investigations, protection of groundwater, understanding and managing asbestos, definition of waste and the specific investigation and assessment procedures under Part IIA. Where necessary, such guidance is referred to in the following report.

⁵ Land Contamination: Risk Management, issued 5th June 2019, last updated 23rd December 2019, [www.gov.uk](https://www.gov.uk/guidance/land-contamination-risk-management)

3. Scope of Assessment

3.1. Scope of Assessment

3.1.1. In undertaking the assessment, SGP carried out the following activities:

- site inspection to view the existing site and its setting;
- review of comprehensive historical mapping information;
- review of comprehensive environmental setting information (geology, hydrology, hydrogeology, industrial land use, mineral excavation / extraction, landfilling / waste management activities);
- review of development proposals;
- development of preliminary conceptual site model (CSM) with regards to ground contamination;
- preliminary limited intrusive site investigation including the collection of representative soil samples, submission for chemical analysis, and comparison to generic human health criteria;
- production of refined conceptual site model and risk assessment with outline recommendations for remedial works, where deemed necessary.

3.1.2. The information has been used to determine i) the potential for any ground contamination to be present on or near the site due to historical and current land uses, and ii) the potential for any such contamination to pose a constraint to the proposed use of the site and / or to impact the surrounding environment. The information has also been used to inform the risk assessment and determine any further work and or investigations that may be required to identify any remedial requirements to ensure the site is suitable for the proposed redevelopment with regards to ground contamination.

3.2. Sources of Information

3.2.1. The baseline data has been obtained through a desk study and site visit. The principal sources of information consulted in the preparation of this report include:

Table 3.1: Information Sources

Date and reference	Author and source	Purpose and information content
Topography, geology, hydrogeology, hydrology, extraction and infilling		
http://mapapps.bgs.ac.uk [accessed October 2021]	British Geological Survey.	distribution of geological units at surface including drift and artificial deposits, faults and mineral outcrops

Date and reference	Author and source	Purpose and information content
https://www.ordnancesurvey.co.uk/osmaps/ [accessed October 2021]	Ordnance Survey (OS), Explorer Map, 1: 10,000	general mapping information including structures, boundaries, ground features, water features etc
http://www.ukradon.org [accessed October 2021]	UK Health Security Agency	mapping defining radon affected areas in England & Wales
http://mapapps2.bgs.ac.uk/coalauthority/home.html [accessed October 2021]	Coal Authority	mapping defining coal mining risks
Historical data		
Satellite imagery	various	recent historical features.
Envirocheck Report Historical Mapping 286507536_1_1; October 2021 (provided in Appendix B)	Envirocheck: Landmark Information Group	historical mapping at 1:2,500, 1: 10,000 and 1: 10,560 from 1879 onwards.
Information Review		
Envirocheck Report Datasheet 286507536_1_1; October 2021 (provided in Appendix B)	Envirocheck: Landmark Information Group	hydrological, waste, hazardous substances, geological, land uses, and natural stability hazards based on historical data and geological records.
BRE 211	Public Health England	guidance for the installation of radon protection measures.
https://magic.defra.gov.uk/MagicMap [accessed October 2021]	Defra	web-based interactive map containing information on nature conservation areas, aquifer designations, source protection and nitrate vulnerable zones.
www.zeticauxo.com	Zetica	unexploded bomb risk mapping.
Former Landfill Sites – Stage 2 Contamination Assessment, Bala Road; October 2007 (ref. R786-R27)	SGP	Intrusive investigation within former landfill off Bala Road, Wrexham

3.3. Site Inspection

3.3.1. An inspection of the site and in the immediate surrounding area was undertaken by C Salwa, SGP Consultant, on 20 October 2021. A photographic record of salient features is provided in Appendix A. A limited site investigation was completed concurrently with the site walkover.

3.4. Site Investigation

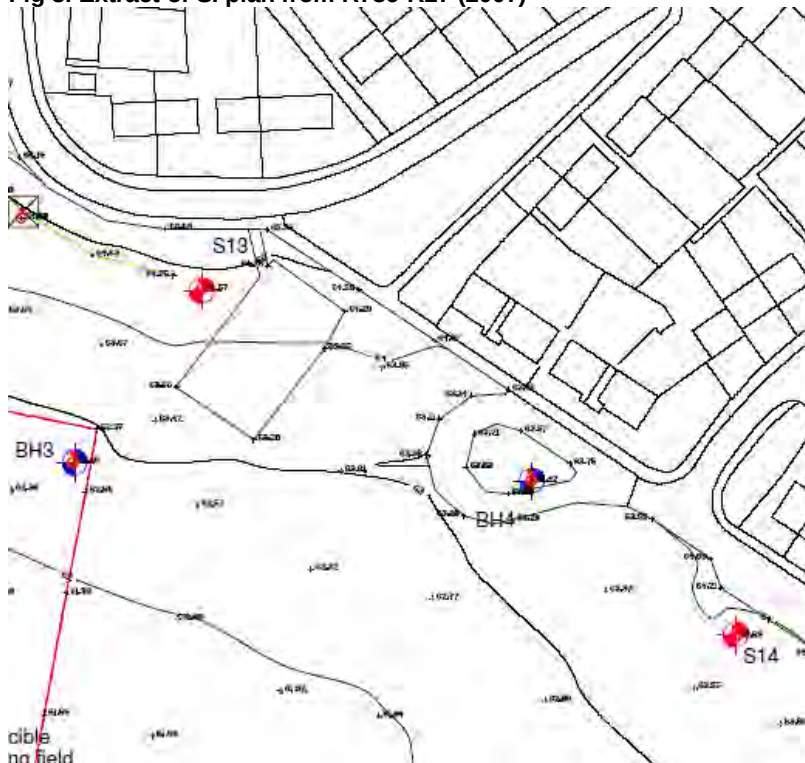
3.4.1. SGP are not aware of any intrusive investigations having taken place on site to date, however SGP undertook a site investigation (ref. R786-R27) within the wider area to the east, west and south on behalf of WCBC in 2007 to assess the contamination of the former landfill site.

3.4.2. The assessment reported that the landfill site operated as an uncontained and unlicensed domestic waste landfill in the 1960's with a last input of waste in the late 1960's.

3.4.3. The investigation consisted of the drilling of 11 gas monitoring wells, soil and groundwater sampling and a gas monitoring programme.

3.4.4. No entries were drilled on the proposed car park site; however, two entries were located to the west (S13) and east (BH4). An extract of the site investigation location plan provided within the report is presented below:

Fig 3. Extract of SI plan from R786-R27 (2007)



3.4.5. Ground conditions within BH04 were reported as surface cover of topsoil with 0.55m of made ground onto natural strata of a clay underlain by silt to the base of the borehole at 5m bgl. The ground within S13 reported a sandy soil fill to 1.8m bgl underlain by natural clayey sand. No domestic waste (landfill material) was reported within either entry.

3.4.6. Elsewhere within the wider area to the south, landfill material (domestic waste) has been reported to a maximum depth of 4.9m bgl (BH08).

3.4.7. Gas monitoring reported elevated concentrations of methane (max 12.7%) within S13 which is located to the west of the proposed car park. Elevated concentrations of methane and carbon dioxide were also reported across the wider landfill area. A spike survey was undertaken within the vicinity of S13 to establish the extent of methane, however no elevated concentrations were recorded.

- 3.4.8. Elevated concentrations of arsenic, zinc and hydrocarbons were reported within the landfill material when compared to generic assessment criteria which were appropriate at the time of reporting, however no exceedances were reported within samples from BH04 and S13. The assessment concluded that the elevated soil concentrations recorded are unlikely to pose a risk to human health.
- 3.4.9. Given the absence of domestic waste within BH04 and S13 it would suggest that landfilled material does not extend this close to Bala Road and therefore waste deposits may not be present beneath the proposed car park area, however this remains uncertain and can only be confirmed through intrusive investigation.

4. Development History and Current Status

4.1. Historical Development

4.1.1. A summary of significant features, developments and land uses shown on historical Ordnance Survey maps is provided in Table 4.1 below. Copies of selected maps are provided in Drawings D01-D06.

Table 4.1: Summary of Development History

map	site	Surrounds (all distances are approximate)
1879, 1:10,560	Open land with a line of trees	The immediate surrounding area is mapped as agricultural land. Scattered farmhouses mapped in the area. Woodland (Central Park) 260m to the east and south-east. Town Sewage Tanks ca. 750 m south-west.
1881, 1:10,560	No significant changes to site.	No significant changes to surrounds.
1899, 1:2,500 See Drawing D01	The line of trees is mapped as a footpath. No other significant changes.	No significant changes to surrounds. Wrexham-Ellesmere Railway between 750m and 1000m south-west of the site. Kingsmills Brick Works and clay pit 800m, and Abenbury Brik Works 900m, both to the south-west. Housing development 1000m to the west.
1899-1900, 1:10,560	No significant changes to site.	No significant changes to surrounds.
1900, 1:10,560	Site not covered by mapping	Partial coverage, no significant changes
1912, 1:2,500 See Drawing D02	No significant changes to site.	No significant changes to surrounds.
1911-1912, 1:10,560	No significant changes to site.	No significant changes to surrounds.
1914-1915, 1:10,560	No significant changes to site.	No significant changes to surrounds.
1937 1:2,500	No significant changes to site.	No coverage east of site. Housing development between 750m north-west of the site.
1938-1954, 1:10,560	No significant changes to site.	No significant changes to surrounds. Further housing development 800m to the south-west.
1954, 1:10,560	No significant changes to site.	No coverage east of site. Engineering Works mapped ca.600m south-west of the site. Housing development between ca.120m and 1000m to the north.

map	site	Surrounds (all distances are approximate)
1959-1989, 1:2,500	No significant changes to site.	Housing development immediately to the north of the site. Electrical substation 150m to the west. Prince Charles Road mapped ca. 200m to the west. Bala Road mapped immediately to east of the site.
1958-1984, 1:2,500	No significant changes to site.	Building to the west and the substation are not mapped.
1959, 1:1,250 See Drawing D03	No significant changes to site.	Bala Road mapped immediately east of the site.
1960-1961, 1:2,500	No significant changes to site.	No significant changes to surrounds.
1964, 1:10,000	No significant changes to site.	No significant changes to surrounds.
1966-1979, 1:1,250	No significant changes to site.	No coverage east of site. No significant changes to surrounds.
1968, 1:1,250 See Drawing D04	The site is mapped as refuse tip	The site and immediate surroundings mapped as refuse tip (140mx40m). Primary school mapped 110m to the west and an electric substation.
1968, 1:10,000	No significant changes to site.	Partial coverage.
1975-1988, 1:2,500	Site not covered by mapping	Partial coverage.
1974-1979, 1:10,000	Site not covered by mapping	Partial coverage.
1981-1983, 1:10,000	No significant changes to site.	Partial coverage.
1985, 1:2,500	Site not covered by mapping	Partial coverage.
1988, 1:10,000	Site not covered by mapping	Partial coverage.
1990, 1:1,250	Site not covered by mapping	Partial coverage.
1990-1993, 1:10,000	The site is no longer mapped as refuse tip	Refuse tip off Bala Road is no longer mapped. Railway Wrexham – Ellesmere is no longer mapped. No other significant changes to surrounds.
1992, 1:10,000	No significant changes to site.	No significant changes to surrounds.

map	site	Surrounds (all distances are approximate)
1992, 1:1,250 See Drawing D05	The site is no longer mapped as refuse tip.	The site and the surrounds no longer mapped as refuse tip. Play area 15m to the west of the site.
1996, 1:1,250	Site not covered by mapping	Partial coverage.
2000, 1:10,000	No significant changes to site.	No significant changes to surrounds.
2003, 1:10,000	No significant changes to site.	No significant changes to surrounds.
2005, 1:10,000	No significant changes to site.	No significant changes to surrounds.
2006 Satellite imagery	Site covered by grass in its entirety with a turning circle off Bala road forming the eastern boundary	No significant changes to site.
2009, 1:10,1000	No significant changes to site.	No significant changes to surrounds.
2012 Satellite imagery	No significant changes to site.	Possible parcel of wooded area to the immediate south within the wider playing field
2013, 1:10,000	No significant changes to site.	No significant changes to surrounds.
2018 Satellite imagery	No significant changes to site.	No significant changes to surrounds.
2021, 1:10,000 & aerial photo	No significant changes to site.	No significant changes to surrounds.

Note: Dates refer to dates provided on OS mapping; actual dates may differ

4.2. Historical Summary

4.2.1. The earliest available mapping (1879) provided by Envirocheck shows that the site was open agricultural land. On the 1968 map the site is part of a refuse tip, on the 1992 and the 1990-1992 maps the refuse tip is no longer mapped.

4.2.2. The immediate surroundings were mapped as agricultural land. The area becomes residential from 1959.

4.2.3. Further information pertaining to the landfill as reported within the 2007 SGP Contamination Assessment Report (ref. R786-R27) reports that the landfill site operated as an uncontained and unlicensed domestic waste landfill in the 1960's with the last input of waste in the late 1960's. This is consistent within the mapping from 1968 which shows that the landfill area extended onto the site itself.

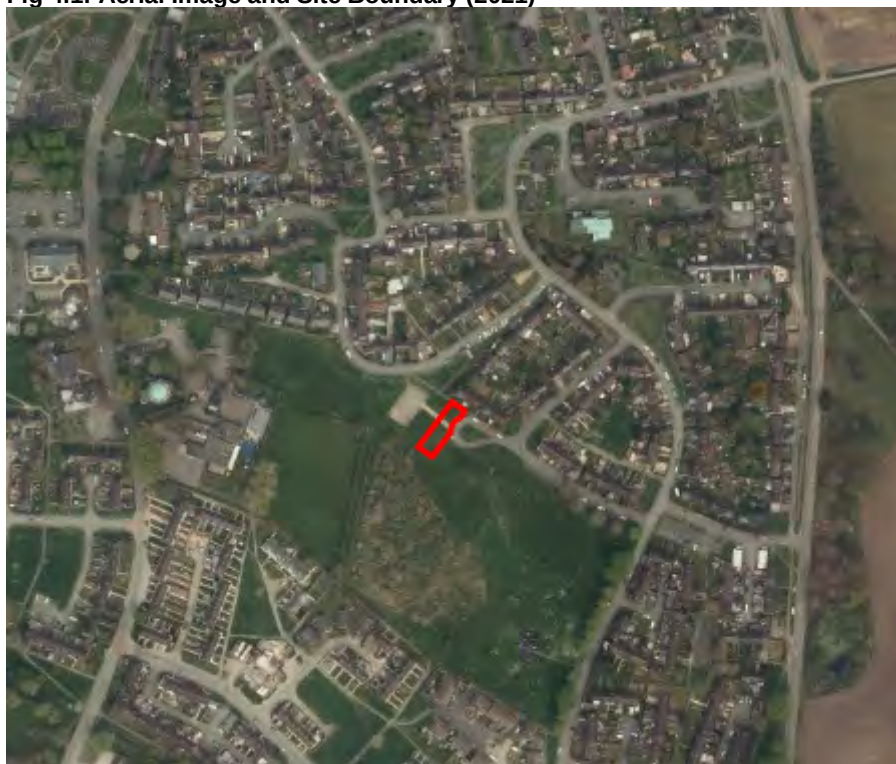
4.3. Present Land Condition

4.3.1. A summary of existing significant features, recent activities and land uses from contemporaneous aerial photography, site inspections and anecdotal evidence is provided in Table 3.2 below.

Table 4.2: Present Land Condition

Site Description	The site forms part of the wider recreational area (former landfill) immediately off Bala Road. No structures or areas of hardstanding are present within the site covered by grass and a gravel track which extends from Bala road to the west to an existing car park.
Boundaries	north: footpath in front of the houses off Bala Road west: recreation ground south: recreation ground east: Bala Road
Services	No services are present on site according to plans provided by WCBC. No overhead cables or manholes were observed during the site walkover, and no services detected with CAT and Genny detection.
Structures	No structures on site.
Surfaces / Vegetation	The site is covered with grass with gravel track. No invasive weed species were observed; however a full vegetation survey has not been carried out. The surface is capped soil over a former refuse tip.

Fig 4.1: Aerial Image and Site Boundary (2021)



Red line shows approximate site boundary: for accurate boundary refer to plans in Drawing D07 and planning application.

4.4. Adequacy of Information

4.4.1. Whilst there are some gaps in the historical map coverage it is considered that the available mapping provides adequate coverage of the site and immediate surroundings.

5. Site Characterisation

5.1. The environmental setting of the site is described in Table 5.1 below:

Table 5.1: Environmental Setting

Site Setting and Topography	The site is a vacant parcel of land located in the north of a larger recreational ground (former landfill) in the eastern part of Wrexham. The site is bound by Bala Road to the east within a predominantly residential and recreational setting. The site lies at about 65m aod and is flat.
Geology	BGS, historical OS mapping and site observations indicate the potential ground conditions to be: <u>Made ground</u>: May be present although uncertain whether the extent of landfill material is present beneath the site or part of the site. <u>Superficial Deposits</u>: BGS mapping shows the site to be underlain by Glaciofluvial Sheet Deposits, sand, and gravel. Possible Glaciolacustrine Deposits; clay and silt to the south. Both of the Quaternary period. <u>Bedrock</u>: BGS mapping shows the underlying bedrock to be the Salop Formation – mudstone, sandstone and conglomerate of the Carboniferous and Permian periods. <u>Faults</u>: - BGS mapping does not show faults in the immediate vicinity of the site. <u>BGS Records</u> The nearest BGS borehole records are shown at the distance of more than 350m. Intrusive investigation entries by SGP in 2007 (as discussed in Section 3.4) which were located to the east and west of the site along the periphery of the recreational ground did not encounter landfill waste although some made ground soils consisting of sandy soil fill and ash were encountered. Domestic waste materials were encountered within entries within the centre of the former landfill, however the extent of landfill wastes and whether they extent below part or all of the site remain uncertain.
Natural Ground Stability	The site is in an area where collapsible ground, landslide, and running sand hazards are described as very low, and there is no record of hazards from compressible ground, shrinking and swelling clay, or ground dissolution.
Hydrology / Drainage	The Envirocheck report states that the site has potential for groundwater flooding occurring at the surface. The site is not in the area of potential flooding from rivers. Surface water drainage will predominantly be via infiltration into soft landscaping or runoff into drains on Bala Road. The nearest mapped watercourse is River Gwenfro located 300m to the south-west.
Hydrogeology / Groundwater	The underlying bedrock and the superficial deposits support Secondary A aquifers. The site is in an area of high aquifer vulnerability.
Industrial	The site is located in an area of predominantly residential and recreational land use. The

Landuse / Nearby Contaminative Activities	nearest Contemporary Trade Directory Entry within the Envirocheck Report is located 237m to the northeast associated with Amen Heating and Planning (inactive). The nearest active Contemporary Trade Directory Entry is Sylvia Jeffery Ltd; clothing and fabrics manufacturer 506m to the south-west.
Excavation / Mining	<u>Mining</u> The site is located in an area which may be affected by coal mining activity but is not located within a 'development high risk area' according to Coal Authority mapping. <u>Excavation</u> There is no evidence of excavation works on the site from the reviewed mapping, however it is envisaged that some excavation has historically taken place prior to landfilling.
Landfilling / Waste Disposal	The Envirocheck report identifies that land approximately 7m to the south as a landfill although historical mapping from 1968 maps the refuse tip as extending across the site. Envirocheck information states that the first input of was in September 1966 with the last input in April 1971. Anecdotal information provided within an earlier SGP report referenced landfilling in the 1960's with the last deposition taking place in the late 1960's. Types of waste deposit included inert, industrial, commercial, household and special waste. Previous investigation works on the landfill confirmed the presence of inert (ash) and domestic wastes to a maximum depth of 4.9m bgl. No entries were carried out on the site and so it is uncertain whether the landfill extends beneath the site. Historical mapping would suggest it does whilst boreholes drilled along the periphery to the east and west of the site did not encounter any landfill material, this may suggest little or no landfill waste in the north of the site but the presence/deeper deposits in the southern part.
Radon	The site lies within an area where 5% - 10% of homes are estimated to be at or above the Radon Action Level meaning that basic radon protective measures are necessary in the construction of new dwellings and extensions.
UXO Risk	The UXO risk map identified that the site is located within an area of Low Risk. There are no identified Luftwaffe targets within the surrounding area.
Nature Conservation	No areas of the site or surrounding land within 500m have been identified as statutory designated nature conservation sites.

6. Preliminary Conceptual Site Model and Risk Assessment

6.1. Methodology

6.1.1. Information from the desk study has been used to identify the likely source-pathway-target relationships that may exist at the site during and following the proposed development. Principal factors that may determine potential sources of contaminants at the site, receptor vulnerability and potential pathways have been identified and each assessed in turn to derive a Conceptual Site Model (CSM).

6.2. Site Sources

6.2.1. The earliest available mapping (1879) provided by Envirocheck shows that the site was open agricultural land. The site was mapped as being part of a refuse tip in 1968 mapping, whilst information within the Envirocheck report confirms landfilling took place between 1966 and 1971 where inert, household, industrial and special wastes were deposited. The landfill was subsequently capped and landscaped forming the existing recreational playing field of which the site forms part of.

6.2.2. It is uncertain whether landfill material is present beneath the site, however intrusive investigation across the landfill has historically taken place and included the collection of samples for chemical testing. Only limited exceedances were reported, however the presence and composition of made ground / landfill waste beneath the site is unknown

6.2.3. The site lies within an area where 5% - 10% of homes are estimated to be at or above the Radon Action level.

6.3. Off-Site Sources

6.3.1. The landfill extends to the east, west and south of the site and this has been confirmed through previous site investigation works.

6.3.2. The immediate surroundings were mapped as agricultural land between 1879 and 1959 with residential development since this period. The only potential off-site source to impact the site is the former landfill.

6.4. Potential Receptors

6.4.1. The proposed use of the site is for a car park which is to be covered in hardstanding, the development is considered to be of low risk with respect to human health.

6.4.2. The principle vulnerable receptors for the proposed use will be:

- construction workers who may be exposed to contaminants during preparatory and construction works;

- future site visitors;
- future maintenance workers;
- residents of the neighbouring houses;
- buildings / structures;
- controlled waters (underlying superficial and bedrock aquifers).

6.5. Human Health Risk Assessment

6.5.1. The potential for significant contamination to be present that may pose an acute risk to construction workers during the development is moderate and dependent on the presence of landfill wastes. Contaminants associated with landfill can include metals, PAHs, hydrocarbon and asbestos although it is noted that a previous Contamination Assessment undertaken by SGP in 2007 did not report any significantly elevated concentrations within the landfill waste when compared to generic assessment criteria available at the time of production.

6.5.2. Elevated concentrations of ground gas (methane and carbon dioxide) have been recorded within the wider landfill area. Given that the proposed development is for a car park then there is a negligible risk to future site users. Depending on development requirements, if excavations are to take place, there is a potential human health risk to workers within enclosed spaces.

6.5.3. The site lies within an area where 5% - 10% of homes are estimated to be at or above the Radon Action level.

6.6. Property Risk Assessment

6.6.1. The Envirocheck Report states that the site is located within an area where natural soils are classed as posing a very low risk from collapsible ground, landslide and running sand and no risk from compressible ground, shrinking and swelling clay or ground dissolution.

6.7. Controlled Waters Risk Assessment

6.7.1. The site is in an area of moderate environmental sensitivity as far as groundwater is concerned with the superficial deposits supporting a Secondary A aquifer. The nearest surface watercourse is River Gwenfro located 300m to the south-west.

6.7.2. Flow to the watercourse is likely to be predominantly via infiltration through the superficial sands, gravels, silt, clay (glaciofluvial and glaciolacustrine deposits) and groundwater baseflow. No pollution sources have been identified on the site other than the potential for leaching of made ground / landfill waste if present, however any impact to controlled waters through the leaching of wastes is considered to be negligible compared to that of the wider landfill area.

6.8. Preliminary Conceptual Site Model (CSM)

6.8.1. The preliminary CSM has been derived for the site using the information described above,

describing the potential contamination sources, pathways and receptors as summarised below in Table 6.1:

Table 6.1: Preliminary Conceptual Site Model

Receptor	Source / Contaminant	Pathway / Exposure	Pollutant Linkage (in absence of mitigation)	Further Investigation / Potential mitigation
1. humans – construction workers / future maintenance workers	metals / metalloids / asbestos / PAHs / hydrocarbons	dermal contact / ingestion / inhalation – short term exposure	Low Likelihood – extent, depth, and nature of made ground unknown. If landfill wastes present, these could pose and acute risk to future site workers depending on their depth present and chemistry.	site investigation to confirm ground conditions and confirm chemistry of site soils <i>mitigated through use of standard occupational hygiene measures; provision of services in clean trenches</i>
	ground gas (methane, carbon dioxide)	accumulation within voids, confined spaces and service runs to toxic concentrations	Likely – Excavations are anticipated to be limited given development proposals; however, potential remains for the ingress of landfill gas from either waste deposits on site (if present) or migration from landfill area to east, west and south into excavations	site investigation to confirm ground conditions and confirm chemistry of site soils <i>Use of gas meters prior to entering any excavations</i>
2. humans – adjacent site users and neighbouring residents	metals / metalloids / asbestos / PAHs / hydrocarbons	wind blow / dermal contact / ingestion / inhalation	Unlikely – Deep excavations are not proposed, and site will be covered by hardstanding providing a physical barrier to any made ground / landfill wastes if present	site investigation to confirm ground conditions and confirm chemistry of site soils <i>mitigated through provision of surfaced hardstanding / built development</i>
3. humans – future site users	metals / metalloids / asbestos / PAHs / hydrocarbons	dermal contact / ingestion / inhalation	Unlikely – Development proposals for site-wide hardstanding cover which will provide a physical barrier to any made ground / landfill wastes if present	site investigation to confirm ground conditions and confirm chemistry of site soils <i>mitigated through provision of surfaced hardstanding / built development</i>

Receptor	Source / Contaminant	Pathway / Exposure	Pollutant Linkage (in absence of mitigation)	Further Investigation / Potential mitigation
	ground gas (methane, carbon dioxide)	accumulation within voids, confined spaces and service runs to toxic concentrations	Unlikely – No enclosed spaces present under development proposal (car park)	None required
	radon gas from natural ground		Unlikely – The site lies within an area where 5% - 10% of homes are estimated to be at or above the Radon Action, however no structures or enclosed spaces proposed under development proposals which are limited to a concrete slab	None required
4. property / services	ground gas (methane)	accumulation within voids, confined spaces and service runs to flammable concentrations	Low Likelihood – Excavations are anticipated to be limited given development proposals; however, potential remains for the ingress of landfill gas from either waste deposits on site (if present) or migration from landfill area to east, west and south into excavations	site investigation to confirm ground conditions and confirm chemistry of site soils Use of gas meters prior to entering any excavations
	pH, sulphate and organic contaminants	chemical attack of buried concrete and plastic materials	Low Likelihood – No buried concrete or plastic materials (water pipelines) proposed under development proposals. Concrete slab for car park to be constructed on material above any landfill waste if present.	site investigation to confirm ground conditions and confirm chemistry of site soils mitigated through provision of surfaced hardstanding / built development
4. vegetation / landscaping	leachable metals / metalloids may be present within made ground / natural soils	plant uptake	Unlikely — Made ground / landfill waste if present anticipated to be below a capping later. Vegetation was apparently in a healthy state before being removed.	site investigation to confirm ground conditions and confirm chemistry of site soils
5. ecosystems / protected species & habitats n/a – no ecosystems / protected habitats in immediate vicinity				

Receptor	Source / Contaminant	Pathway / Exposure	Pollutant Linkage (in absence of mitigation)	Further Investigation / Potential mitigation
6. surface waters	leachable metals / metalloids / PAHs	Leaching from soils and migration via groundwater which provides baseflow to surface watercourse	Unlikely – Any input from leaching of made ground / landfill waste if present is considered to be negligible compared to that from wider area. Development proposals for hardstanding cover will reduce leaching rates from the site in any case.	No Actions
7. groundwater – Secondary A aquifer within superficial deposits	leachable metals / metalloids / PAHs	migration via saturated zone	Unlikely – Any input from leaching of made ground / landfill waste if present is considered to be negligible compared to that from wider area. Development proposals for hardstanding cover will reduce leaching rates from the site in any case.	No Actions

7. Investigation Methodology

7.1. Objectives and Rationale

7.1.1. Assessment of the ground conditions and contamination status of the site with regards to risks from chemical composition of shallow soils was completed through the excavation of 4 machine excavated trial pits. Two representative samples were collected from the made ground capping and another two samples were collected from the refuse tip materials were encountered to assess their contamination status.

7.1.2. Intrusive investigations have therefore been undertaken to:

- confirm the general shallow ground conditions underlying the site;
- assess the presence, extent, and nature of any made ground (historical refuse tip) and associated soil contamination;
- inform the remedial requirements necessary for the development to remove any contamination risks identified and allow the proposed redevelopment to take place without risks to human health or the wider environment.

7.1.3. Sample collection was designed to:

- include 4 samples from the capping material and underlying refuse tip materials for human health assessment risk assessment;
- include any soils having contamination indicators.

7.1.4. The investigation was undertaken in accordance with appropriate guidance (BS 10175:2011 +A2:2017 and LCRM (2020)).

7.2. General

7.2.1. SGP carried out intrusive investigation works on 20 October 2021 consisting of 4 machine (JCB) excavated trial pits (TP01-TP04).

7.2.2. A total of 4 entries were excavated with the proposed car park, achieving 1 entry per 6m spacing. Copies of the trial-pit logs and photographs are provided in Appendix C with the location of the entries detailed in Drawing D01. Laboratory test certificates are provided in Appendix D. The site investigation was undertaken by SGP Consultant C Salwa.

7.2.3. SGP works were carried out as per the proposal and involved:

- excavation of trial pits to a maximum depth of 3.3m bgl;
- collection of 4 soil samples from for a range of laboratory analysis, as detailed in Table 7.1;

7.3. Chemical Analysis

7.3.1. Chemical analysis of soils was carried out by Eurofins Chemtest (EC), working where possible to MCERTS and / or ISO 17025 accreditation. Soil samples were stored in appropriate containers as advised by the laboratory, placed in chilled cool boxes, and delivered to the laboratory within 48 hours of collection. Chain of custody documentation was completed and is retained by SGP.

7.3.2. Summaries of the sampled strata, sample reference, depth and chemical test suite is provided below:

Table 7.1. Summary of Soil Chemical Analysis

Strata	Description	Sample ref	Depth (m bgl)	Analytical suite
Made Ground (capping)	Slightly clayey gravelly sand. Gravel is brick, concrete and sandstone	TP01ES1	0.2	SGP Suite
		TP02ES1	0.1	SGP Suite
Made Ground - Refuse Tip	Glass, rags, paper, wood, plastic, metal scrap, etc.	TP03ES1	0.5	SGP Suite
		TP04ES1	0.7	SGP Suite

SGP Suite = pH, metals / metalloids, PAHs (16 speciated), TPH CWG + BTEX, asbestos

8. Investigation Observations & Results

8.1. Physical Observations

8.1.1. Trial pit logs and photographs of the excavations are presented in Appendix C. The site investigation revealed that the general succession of strata can be represented by placed made ground (capping) overlying made ground comprising refuse tip materials, underlain by natural soil comprising Glaciofluvial Sheet Deposits.

Made ground – capping

8.1.2. Encountered in each test location from ground level to depths of between 0.4m and 1.1m, represented by placed made ground comprising slightly clayey slightly gravelly sand with rare boulders. Gravel is brick, concrete, and sandstone.

Made ground – historical refuse tip

8.1.3. Encountered in each test location from depths of between 0.4m and 1.1m down to depths of between 1.6m and 2.8m. Represented by gravel of brick with plastics (TP01 and TP02), and in TP02, TP03 and TP04 represented by refuse tip materials comprise glass (bottles and jars), rags, paper, wood, plastic, rubber, metal scrap.

Glaciofluvial Sheet Deposit

8.1.4. Encountered at each test location from depths of between 1.6m and 2.8m down to the base of trial pits at depths of between 2.4m and 3.3m. Natural deposits comprise dark grey to light grey or brown clayey sand with occasional wood.

8.2. Groundwater Conditions

8.2.1. Groundwater inflow was observed within made ground (refuse tip) in TP02, TP03, and TP04 at depths of 1.9m, 1.6m, and 1.7m respectively. No groundwater was encountered in TP01.

8.3. Contamination Indicators

8.3.1. Organic odour from refuse tip materials, no staining or free product was observed in the made ground materials.

8.4. Results of Soil Chemical Analysis

8.4.1. The complete soil analytical data is presented in Appendix D (lab ref. 21-36854). The results of the soil analyses are compared to human health critical values (CVs) for initial screening purposes. Given the proposed development is for a car park within a recreational ground surrounded by residential housing, CVs derived for a Public Open Space 1 (POS_{resi}) for a soil with 1% soil organic matter have been adopted.

8.4.2. The DEFRA published Category 4 Screening Level (C4SL) for lead in soils under a POS_{reso} scenario has also been adopted. This is intended to demonstrate that land is not Contaminated Land as defined under Part IIA of the Environmental Protection Act. The adoption of the C4SL in a planning scenario has not been universally accepted, however in the absence of other generic screening criteria for lead following the withdrawal of the SGV by the EA it is considered appropriate to utilise the screening criterion.

8.4.3. In the absence of accepted screening criteria for asbestos in soils, its presence above quantifiable detection limits (<0.001%) is considered sufficient to warrant further risk assessment.

8.4.4. The assessment criteria are intended for use for screening purposes only. Exceedances indicate that either more specific detailed site-specific risk assessment is required to better quantify risks to human health, or that remediation or mitigation is required to reduce risks by breaking the source-pathway-target relationship between solid phase contaminants and receptors.

8.4.5. The results are summarised below:

Table 8.1: Summary of Soils Analysis

Contaminant	Number of Samples	Range of Concentrations (mg/kg or indicated)	Soil standard adopted and concentration for a public open space (residential) scenario (mg/kg or indicated)	Exceedances
Asbestos screen	4	NAD	<0.001%	None
arsenic	4	6.5-30	S4UL 79	None
cadmium	4	0.14-2.4	S4UL 120	None
chromium III	4	15-46	S4UL 1,500	None
Chromium (VI)	4	<0.5	S4UL 7.7	None
copper	4	21-88	S4UL 2,400	None
lead	4	35-250	C4SL 630	None
mercury	4	<0.1-0.21	S4UL 16.3	None
nickel	4	15-44	S4UL 230	None
zinc	4	53-440	S4UL 81,000	None
naphthalene	4	<0.1-6.3	S4UL 4,900	None
acenaphthylene	4	<0.1-1.3	S4UL 15,000	None
acenaphthene	4	<0.1-10	S4UL 15,000	None
fluorene	4	<0.1-12	S4UL 9,900	None
phenanthrene	4	<0.1-61	S4UL 3,100	None
anthracene	4	<0.1-22	S4UL 74,000	None
fluoranthene	4	0.29-69	S4UL 3,100	None

Contaminant	Number of Samples	Range of Concentrations (mg/kg or indicated)	Soil standard adopted and concentration for a public open space (residential) scenario (mg/kg or indicated)	Exceedances
pyrene	4	0.31-68	S4UL 7,400	None
benzo(a)anthracene	4	<0.1-28	S4UL 29	None
chrysene	4	<0.1-31	S4UL 57	None
benzo(a)pyrene	4	<0.1-20	S4UL 5.7	(1): TP3-ES1
indeno(123cd)pyrene	4	<0.1-14	S4UL 82	None
dibenzo(ah)anthracene	4	<0.1-4.1	S4UL 29	None
benzo(ghi)perylene	4	<0.1-14	S4UL 640	None
benzo(b)fluoranthene	4	<0.1-27	S4UL 3.7	(1): TP3-ES1
benzo(k)fluoranthene	4	<0.1-11	S4UL 100	None
aliphatic C5-C6	4	<1	S4UL 304 (sol)	None
aliphatic C6-C8	4	<1	S4UL 600,000	None
aliphatic C8-C10	4	<1-100	S4UL 13,000	None
aliphatic C10-C12	4	<1-420	S4UL 13,000	None
aliphatic C12-C16	4	<1-310	S4UL 13,000	None
aliphatic C16-C21	4	<1-320	S4UL 250,000	None
aliphatic C21-C35	4	<1-3,000	S4UL 250,000	None
aromatic C6-C7	4	<1	S4UL 56,000	None
aromatic C7-C8	4	<1	S4UL 56,000	None
aromatic C8-C10	4	<1-77	S4UL 5,000	None
aromatic C10-C12	4	<1-190	S4UL 5,000	None
aromatic C12-C16	4	<1-290	S4UL 5,100	None
aromatic C16-C21	4	<1-990	S4UL 3,800	None
aromatic C21-C35	4	<1-4,600	S4UL 3,800	None
Benzene	4	<0.001	S4UL 73	None
Toluene	4	<0.001	S4UL 56,000	None
Ethylbenzene	4	<0.001	S4UL 25,000	None
m/p-xylene	4	<0.001-0.0094	S4UL 43,000	None
o-xylene	4	<0.001	S4UL 43,000	None

Notes to table:

S4UL:	Suitable For Use Levels published by Chartered Institute of Environmental Health and Land Quality Management Ltd, residential with plant uptake scenario (1% SOM); copyright Land Quality Management Ltd reproduced with permission publication number S4UL3102. All rights reserved.
GAC:	Generic Assessment Criteria published by CL:AIRE for human health risk assessment for a residential scenario with consumption of homegrown produce (1% SOM).
C4SL:	Category 4 Screening Levels published by CL:AIRE (C4SLs); 'residential without home grown produce land use' (at 1% SOM)

8.4.6. Exceedances were limited to the PAHs benzo(a)pyrene with a concentration of 20 mg/kg compared to the criteria of 5.7 mg/kg and benzo(k)fluoranthene at 12 mg/kg (criteria of 3.7 mg/kg) both within the landfill material within TP3.

8.4.7. No positive incidences of asbestos were reported.

8.4.8. Exceedances were limited to the landfill wastes within TP3, no exceedances were reported with the surface capping material.

9. Revised Conceptual Site Model and Risk Assessment

9.1. Methodology

9.1.1. Information from the current site investigation has been used to refine the likely source-pathway-target relationships identified in the preliminary Conceptual Site Model (CSM). A Tier 1 risk assessment has been undertaken by comparison of contaminant concentrations in soils to generic screening criteria. These are values appropriate to the intended end-use of the site as a car park and indicate whether potentially unacceptable risks to receptors are likely to exist, requiring either more detailed site-specific risk assessment or remediation to break the potential contaminant linkage.

9.2. Sources

9.2.1. Made ground is present across the site, typically present as two types. The first is associated with capping material of a clayey gravelly sand with brick, concrete and sandstone inclusions, below which landfill wastes were encountered. Waste material consisting of bricks and plastic within TP1 whilst domestic refuse of glass, rags, paper, wood, metal and rubber were present within TP2 (1-2.3m bgl), TP3 (0.4-1.7m bgl) and TP4 (0.5-2.8m bgl).

9.2.2. Elevated concentrations of the PAHs benzo(a)pyrene and benzo(k)fluoranthene were reported within the waste materials within TP3. No exceedances were reported within the 2 samples collected from the capping material.

9.3. Potential Targets

9.3.1. The principal vulnerable receptors, assuming the development of the site as a car park, will be:

- construction / maintenance workers
- future site users (car park)

9.4. Human Health Risk Assessment

9.4.1. The exceedances of PAHs present are unlikely to pose an acute risk to future site workers providing normal occupational hygiene measures are adopted. Approximately 0.5m of capping material is present above landfill wastes, which depending on construction methods of the car park slab are unlikely to be encountered during site works.

9.4.2. The presence of hardstanding across the car park will provide a physical barrier between future site users and the underlying made ground / landfill materials therefore breaking the pollutant-receptor linkage.

9.4.3. The presence of landfill waste is likely to give rise to elevated concentrations of carbon dioxide and methane, these have been reported across the wider landfill area through historical monitoring. No buildings or enclosed structures are proposed and so there is only limited risk of the ingress and accumulation of ground gas. This would be limited to any excavations associated with construction works, if groundworkers are required to enter excavations then gas detectors and appropriate PPE/RPE should be used as necessary, however based on current development proposals any excavations are of very limited depth, i.e., surface regrading works to remove vegetation cover.

9.5. Controlled Waters Risk Assessment

9.5.1. Landfill materials are present beneath most of the site, and these continue across the wider recreational ground area. Impact of leaching of fill materials from the site are considered to be negligible compared to that of the wider surrounds. The development proposals of hardstanding cover will reduce leaching rates of the site fills, therefore the risk to controlled waters is considered to remain negligible.

9.6. Conceptual Site Model

9.6.1. The revised CSM is summarised below:

Table 9.1. Revised Conceptual Site Model

Receptor	Source / Contaminant	Pathway / Exposure	Pollutant Linkage (in absence of mitigation)	Further Investigation / Recommended Works
1. humans – construction workers / future maintenance workers	PAHs	Dermal contact / ingestion / inhalation – short term exposure	Unlikely – Minor exceedances of PAHs reported within landfill waste. Excavations into waste are unlikely based on current development proposals	Good occupational hygiene and correct PPE should be implemented by workers.
	ground gas (methane, carbon dioxide)	accumulation within voids, confined spaces and service runs to toxic concentrations	Likely – Excavations are anticipated to be limited given development proposals; however, potential remains for the ingress of landfill gas from either waste deposits on site (if present) or migration from landfill area to east, west and south into excavations	Use of gas meters prior to entering any excavations and appropriate PPE/RPE as necessary Use of gas meters prior to entering any excavations
3. humans – future site users	PAHs	Dermal contact / ingestion / inhalation	Unlikely – Elevated PAHs within landfill waste present at depth below capping later. Development proposals for site-wide hardstanding which will provide a permanent physical barrier to the underlying fills.	No action
	Ground gas (methane, carbon dioxide)	Accumulation within voids, confined spaces and service runs to toxic concentrations	Unlikely – No structures or enclosed spaces under development proposals	No action
	Radon gas from natural ground		Unlikely – No structures or enclosed spaces under development proposals	No action
4. property / services	Ground gas (methane)	Accumulation within voids, confined spaces and service runs to flammable concentrations	Likely – Excavations are anticipated to be limited given development proposals; however, potential remains for the ingress of landfill gas from either waste deposits on site (if present) or migration from landfill area to east, west and south into excavations	Use of gas meters prior to entering any excavations and appropriate PPE/RPE as necessary Use of gas meters prior to entering any excavations

Receptor	Source / Contaminant	Pathway / Exposure	Pollutant Linkage (in absence of mitigation)	Further Investigation / Recommended Works
	pH, sulphate, organic contaminants	Chemical attack of buried concrete and plastic materials	Unlikely – No buried concrete or plastic materials (water pipes) under development proposals	No action
4. vegetation / landscaping	leachable metals / metalloids	plant uptake	Unlikely – hardstanding cover	No action
5. ecosystems / protected species & habitats n/a – no ecosystems / protected habitats in immediate vicinity				
6. surface waters -	leachable metals / metalloids / PAHs	Leaching from soils and migration via groundwater which provides baseflow to surface watercourse	Unlikely – Any input from leaching of made ground / landfill waste if present is considered to be negligible compared to that from wider area. Development proposals for hardstanding cover will reduce leaching rates from the site in any case.	No actions
7. groundwater – Secondary A aquifer within superficial deposits	Leachable metals / metalloids / organics	Leaching from soils and migration via unsaturated zone and surface water run-off into deeper groundwater	Unlikely – Any input from leaching of made ground / landfill waste if present is considered to be negligible compared to that from wider area. Development proposals for hardstanding cover will reduce leaching rates from the site in any case.	No action

10. Conclusions

- 10.1 The earliest available mapping (1879) provided by Envirocheck shows that the site was open agricultural land up until the 1960's when the site and wider surrounding area formed a landfill. The landfill is understood to have operated between 1966 and 1971 with mapping from 1968 showing the site being located within the refuse tip. Waste received to the landfill is reported as inert, industrial, commercial, household and special waste according to the Envirocheck Report.
- 10.2 Previous investigation works have been undertaken by SGP within the wider landfill area and reported elevated concentrations of metals (arsenic and zinc) and hydrocarbons within the landfill material. Elevated concentrations of carbon dioxide and methane have also been historically reported during routine gas monitoring of the landfill.
- 10.3 The main contamination risk was identified as the presence of made ground, predominantly landfill wastes if present beneath the site which may contain elevated concentrations of typical urban contaminants including heavy metals, PAHs, hydrocarbons and asbestos fibres. No built structures or enclosed spaces are proposed on the development proposal of a car park surfaced with hardstanding and whilst excavations are anticipated to be significantly limited in depth (limited to only surface regrading / turf removal) the potential for accumulation of landfill gases within excavations has been considered.
- 10.4 Four machine excavated trial-pits were dug across the site with made ground encountered with each entry, the general succession of strata was a clayey gravelly sand with brick and tarmac (capping layer) with made ground of gravel of brick and plastic (TP01) or glass, jars, rags, paper, wood, plastic, metal and rubber (TP02, TP03 and TP04). Made ground extended to 1.6m bgl in TP01 down to a maximum of 2.8m bgl in TP04. Natural glaciofluvial deposits of sand were encountered below the made ground in all entries.
- 10.5 Contamination indicators were limited to the presence of landfill wastes, predominantly within TP02-TP04 with only inert material (bricks and plastic) within TP01. No staining or free product was observed although waste odours were reported during excavation through the waste materials.
- 10.6 Soil samples were collected from both the surface capping material) and the landfill wastes and submitted for a general suite of contaminants. Concentrations were compared to generic assessment criteria for a public open space within a residential setting which is considered applicable given the development proposals.
- 10.7 Exceedances were limited to the PAHs benzo(a)pyrene and benzo(k)fluoranthene with TP03 and were associated with the landfill wastes. No other exceedances were reported.

- 10.8 Current development proposals are for a car park which is to be surface in its entirety with hardstanding cover. The presence of hardstanding provides a physical barrier to the deeper waste deposits and breaks the pollutant-receptor pathway. There is a potential for limited contaminant exposure during construction works, limited to excavations, however these are considered to be only limited in depth (surface scrape / minor regrading) and are unlikely to be to a depth where waste materials are present. Provided normal occupational hygiene and the use of correct PPE is employed then it is considered there is no risk to human health.
- 10.9 Similarly, the landfill materials beneath the site and wider area have historically been reported to generate concentration of methane and carbon dioxide. Whilst no enclosed buildings or structures are proposed, such gases could accumulate within any excavations or trenches. It is again considered these are to be very limited depth, however gas meters and appropriate PPE as necessary should be used prior to entering any excavations.

11. Recommendations

11.1 No further remedial works with regards to contamination are required.

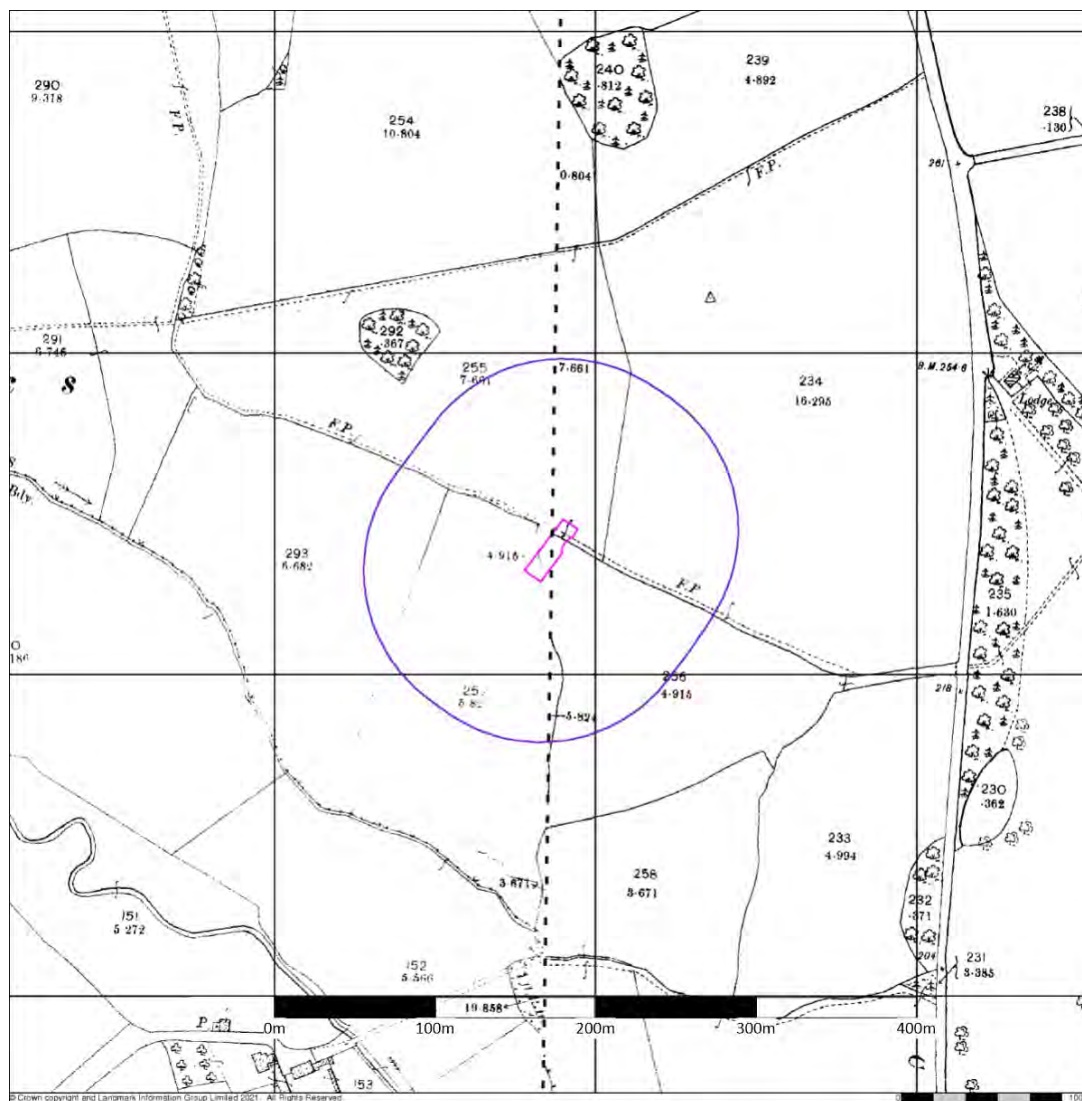
11.2 It is recommended that excellent levels of occupational hygiene are maintained by construction works during the construction of the car park and gas meters are used prior to entering any excavations of trenches.

1.1. Limitations

1.1.1. This report has been prepared by SGP for the sole and exclusive use of Wrexham County Borough Council. Reasonable skill, care and diligence has been exercised within the budget available, and in accordance with the technical requirements of the brief. Notwithstanding the efforts made by the professional team in undertaking the assessment and preparing this report, it is possible that other ground conditions and contamination as yet undetected may exist. Reliance on the findings of this report must therefore be limited accordingly. Such reliance must be based on the whole report and not on extracts which may lead to incomplete or incorrect conclusions when taken out of context.

1.1.2. SGP reserves the right to alter any of the foregoing information in the event of new information being disclosed or provided and in the light of changes to legislation, guidelines and responses by the statutory and regulatory authorities.

DRAWINGS

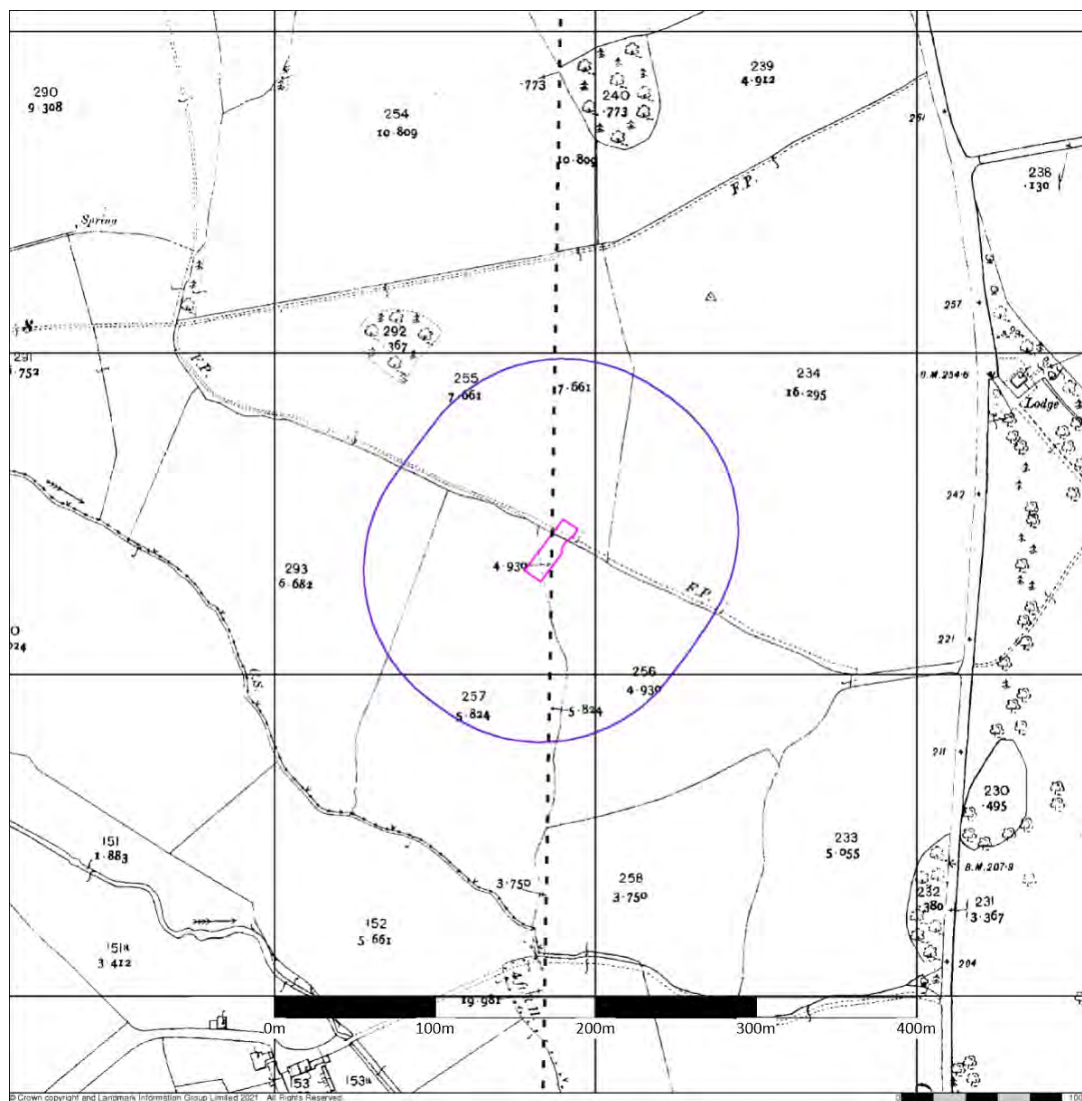


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D01: Historical Map – 1899

1:2,500

Pink line shows approximate site boundary

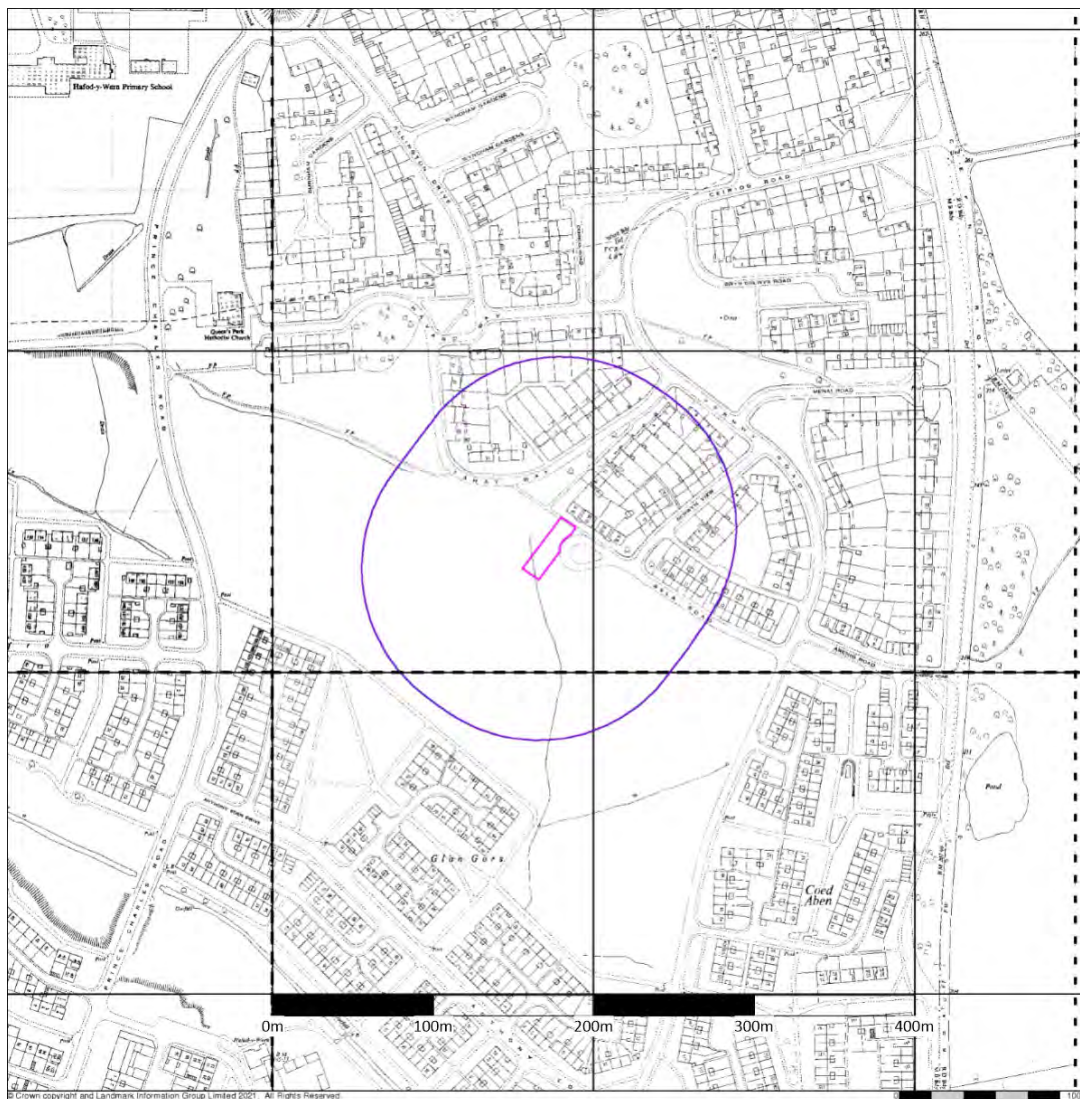


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D02: Historical Map – 1912

1:2,500

Pink line shows approximate site boundary

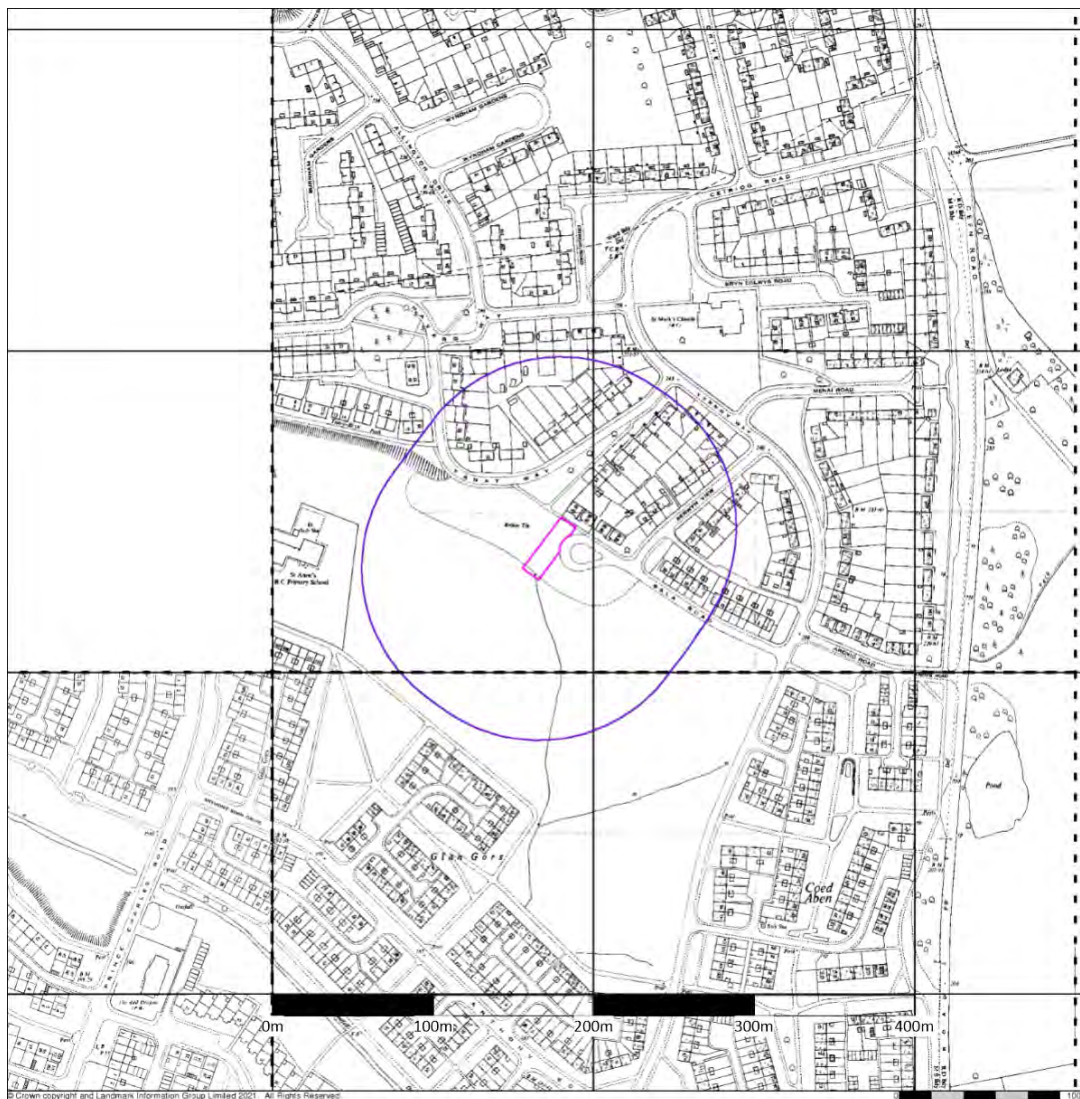


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D03: Historical Map – 1959

1:2500

Pink line shows approximate site boundary

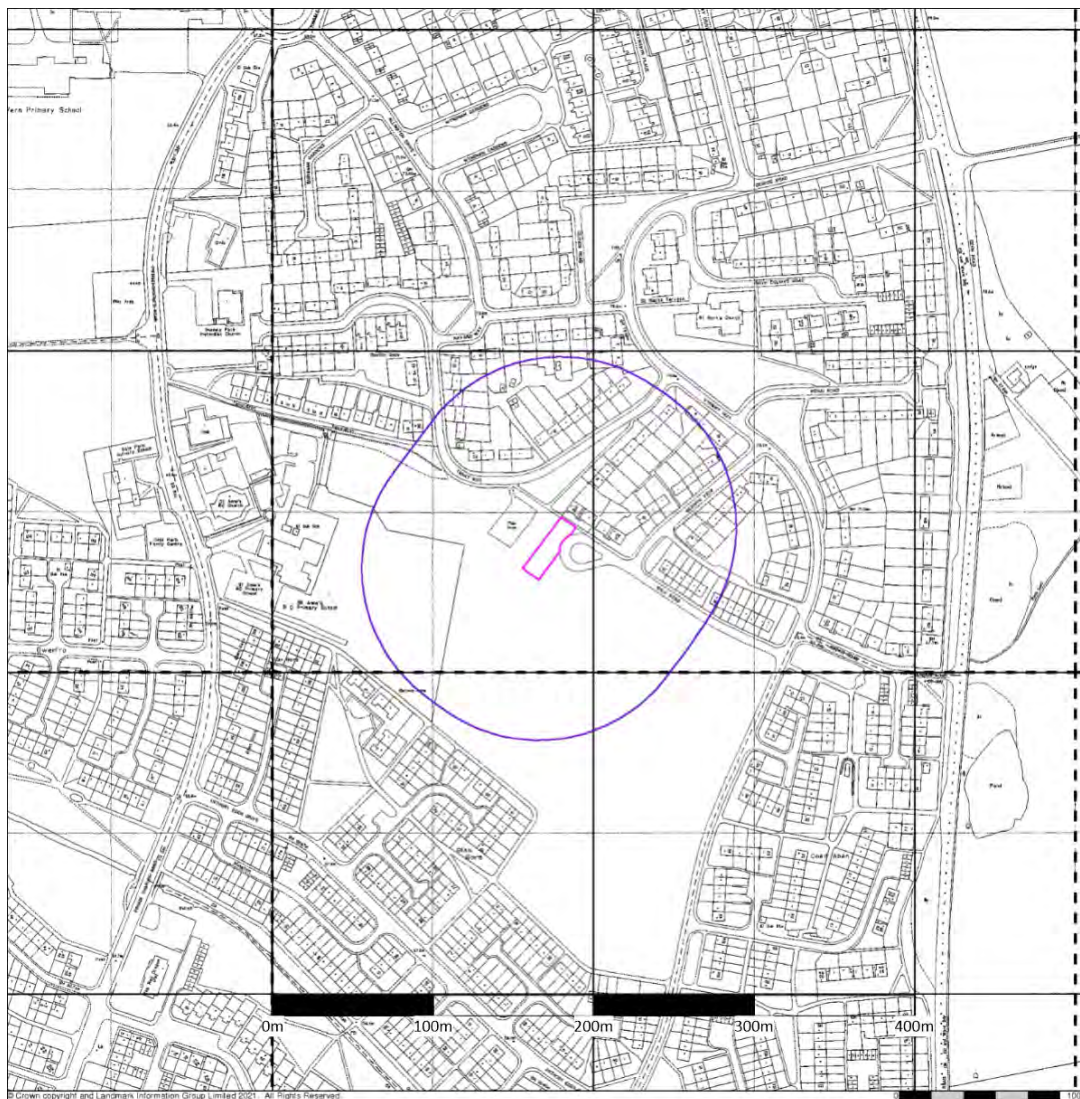


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D04: Historical Map – 1968

1:2,500

Pink line shows approximate site boundary

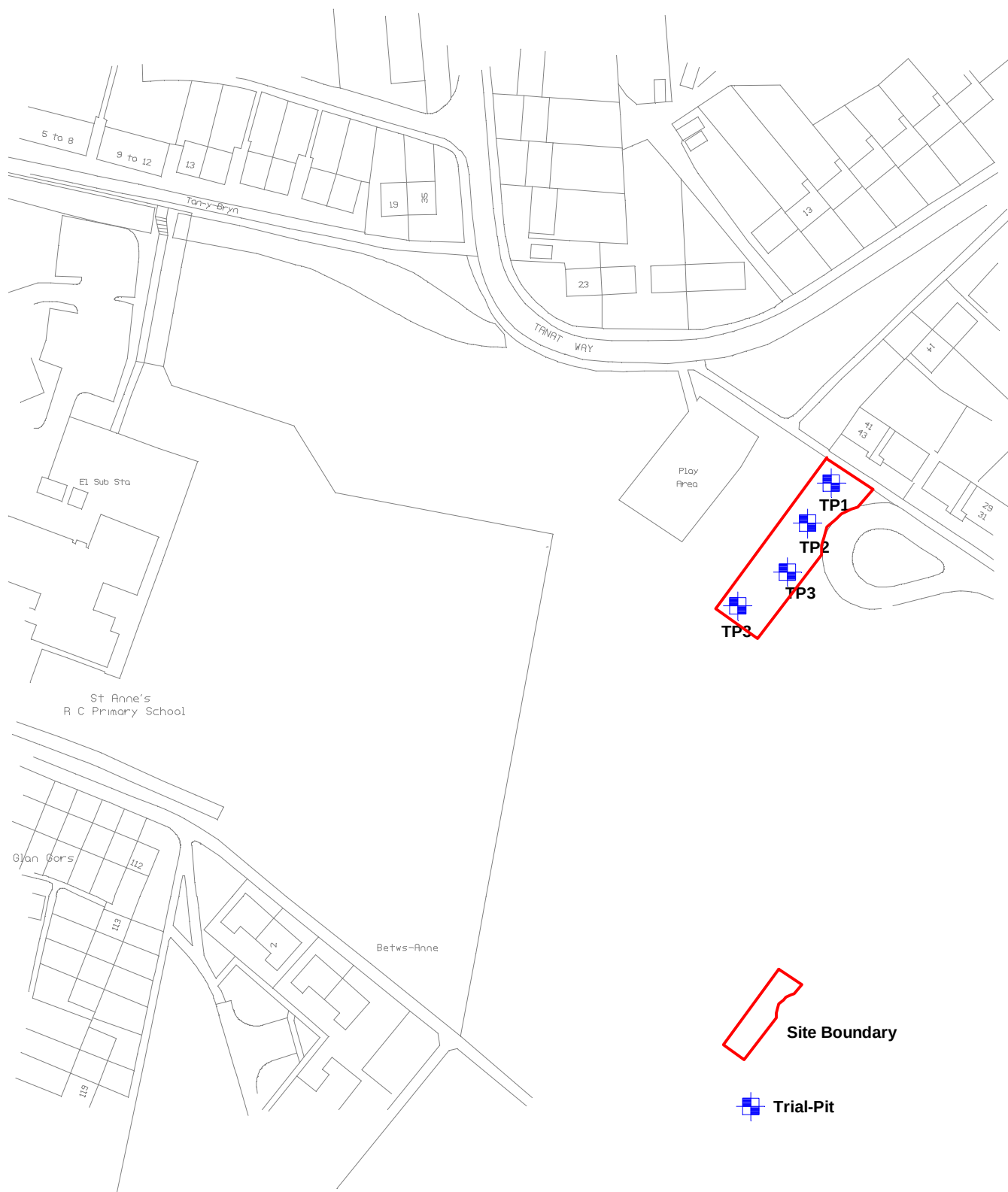


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D05: Historical Map – 1992

1:2,500

Pink line shows approximate site boundary



Site Boundary



Trial-Pit



Smith Grant LLP
Station House
Station Road
Ruabon, LL14 6DL
Tel: 01978 822367
Fax: 01978 824718

www.smithgrant.co.uk
email: consult@smithgrant.co.uk

Project:
Proposed Car Park, Bala Road, Wrexham

Drawing:
Site Investigation Location Plan

Drawn:
DW

Date:
04.11.21

Job No:
R3044

Checked:
CS

Scale:
1:1,250 @ A4

Drg No:
D06



Notes

Break out concrete and return to grassed area
Provide 16 parking spaces 2.5m x 4.8m

Surface water to be discharged to either soakaway or existing highway system depending on ground conditions

KEY

- Precast Concrete HB2 full height Kerb
- Precast Concrete BN Kerb 125 x 150mm
- Precast Concrete DL1/DR1 Kerb
- Precast Concrete EBN Kerb

HARDSTANDING SPECIFICATION

Surface Course, Dense Bitumen Macadam, 10mm nominal size, depth 40mm
Binder Course, Dense Bitumen Macadam, 20mm nominal size, depth 60mm
Sub-base, Granular Sub-base Type I, depth 250mm

FOOTWAY SPECIFICATION

Surface Course, Dense Bitumen Macadam, 10mm nominal size, depth 20mm
Binder Course, Dense Bitumen Macadam, 20mm nominal size, depth 60mm
Sub-base, Granular Sub-base Type I, depth 150mm

All setting out to be agreed with WCBC prior to commencing works on site



Wrexham
County Borough Council

WREXHAM COUNTY BOROUGH COUNCIL

Housing Services,
Housing and Public Protection Department,
Ruthin Road,
Wrexham,
LL13 7TU

Tel: (01978) 315300 Fax: (01978) 315355

Project: Bala Road

Detail: Proposed parking area – Option1

Drawn By: AC	Date: Oct 2020	Checked By:
Scale: 1:2000A3 1:2500A3	Project No: HBS1022	Dwg No: QW01-b Rev: Preliminary

APPENDIX A

Site Walkover Photographic Record

1.



View from Bala Road towards west.

2.



Residential area to the north of the site.

3.



View towards Bala Road, east of the site.

4.



Recreation area to the south and south-west.

5.



Bala Road east of the site and residential houses to the north.

6.



Footpath immediately north of the site and residential buildings.

7.



Play area to the west and a footpath connecting with Bala Road

APPENDIX B

Envirocheck Report (includes Historical Plans)

Envirocheck[®] Report:

Datasheet

Order Details:

Order Number:

286507536_1_1

Customer Reference:

R3044

National Grid Reference:

335170, 350080

Slice:

A

Site Area (Ha):

0.05

Search Buffer (m):

1000

Site Details:

Off Street Parking, Bala Road

WREXHAM

LL13 9LH

Client Details:

Mr D Wayland

Smith Grant Partnership

Station House

Station Road

Ruabon

Wrexham

LL14 6DL

Report Section	Page Number
Summary	-
Agency & Hydrological	1
Waste	21
Hazardous Substances	-
Geological	25
Industrial Land Use	28
Sensitive Land Use	33
Data Currency	34
Data Suppliers	39
Useful Contacts	40

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 2			5	30
Prosecutions Relating to Controlled Waters			n/a	n/a	n/a
Enforcement and Prohibition Notices					
Integrated Pollution Controls					
Integrated Pollution Prevention And Control					
Local Authority Integrated Pollution Prevention And Control					
Local Authority Pollution Prevention and Controls					
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 11		Yes		
Pollution Incidents to Controlled Waters	pg 11		1	3	21
Prosecutions Relating to Authorised Processes					
Registered Radioactive Substances					
River Quality	pg 15			1	
River Quality Biology Sampling Points	pg 16				1
River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register	pg 16				5
Water Abstractions	pg 17				1 (*1)
Water Industry Act Referrals					
Groundwater Vulnerability Map	pg 17	Yes	n/a	n/a	n/a
Bedrock Aquifer Designations	pg 17	Yes	n/a	n/a	n/a
Superficial Aquifer Designations	pg 17	Yes	n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences	pg 17		Yes	n/a	n/a
Flooding from Rivers or Sea without Defences				n/a	n/a
Areas Benefiting from Flood Defences				n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences				n/a	n/a
OS Water Network Lines	pg 18			8	16

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Waste					
BGS Recorded Landfill Sites	pg 21		1		
Historical Landfill Sites	pg 21	1	1	1	3
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)					
Licensed Waste Management Facilities (Locations)	pg 22				1
Local Authority Landfill Coverage	pg 22	1	n/a	n/a	n/a
Local Authority Recorded Landfill Sites	pg 22	1	1	1	2
Registered Landfill Sites	pg 23				3
Registered Waste Transfer Sites	pg 24				1
Registered Waste Treatment or Disposal Sites					
Hazardous Substances					
Control of Major Accident Hazards Sites (COMAH)					
Explosive Sites					
Notification of Installations Handling Hazardous Substances (NIHHS)					
Planning Hazardous Substance Consents					
Planning Hazardous Substance Enforcements					
Geological					
BGS 1:625,000 Solid Geology	pg 25	Yes	n/a	n/a	n/a
BGS Recorded Mineral Sites	pg 25				4
CBSCB Compensation District			n/a	n/a	n/a
Coal Mining Affected Areas	pg 25	Yes	n/a	n/a	n/a
Mining Instability	pg 25	Yes	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 25	Yes	Yes	n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 26		Yes	n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 26	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 26	Yes	Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 27		Yes	n/a	n/a
Radon Potential - Radon Affected Areas	pg 27	Yes	n/a	n/a	n/a
Radon Potential - Radon Protection Measures	pg 27	Yes	n/a	n/a	n/a

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Industrial Land Use					
Contemporary Trade Directory Entries	pg 28		1	4	43
Fuel Station Entries	pg 32				1
Gas Pipelines					
Underground Electrical Cables					
Sensitive Land Use					
Ancient Woodland	pg 33			1	2
Areas of Adopted Green Belt					
Areas of Unadopted Green Belt					
Areas of Outstanding Natural Beauty					
Environmentally Sensitive Areas					
Forest Parks					
Local Nature Reserves					
Marine Nature Reserves					
National Nature Reserves					
National Parks					
Nitrate Sensitive Areas					
Nitrate Vulnerable Zones					
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	A13NE (E)	0	1	335172 350077
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (N)	4	1	335172 350100
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13NW (W)	6	1	335150 350077
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NE (NE)	15	1	335200 350100
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (NW)	26	1	335150 350100
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NE (N)	54	1	335172 350150
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13SE (S)	58	1	335172 350000
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NE (N)	58	1	335200 350150
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SE (E)	74	1	335250 350050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (NW)	96	1	335100 350150
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SE (S)	114	1	335200 349950
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (NW)	136	1	335050 350150
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13NW (W)	156	1	335000 350077
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SE (E)	167	1	335350 350050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13SW (SW)	169	1	335000 350000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SE (SE)	185	1	335350 350000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (NW)	206	1	335000 350200
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SE (SE)	208	1	335300 349900
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (N)	219	1	335100 350300
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SE (E)	230	1	335400 350000
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NW (N)	256	1	335150 350350
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SE (S)	272	1	335250 349800

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	A13SE (SE)	317	1	335350 349800
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SE (SE)	323	1	335450 349900
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A18SE (N)	354	1	335172 350450
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A18SW (N)	355	1	335150 350450
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SW (SW)	374	1	334850 349850
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A8NE (SE)	403	1	335350 349700
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A18SW (N)	412	1	335100 350500
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A8NE (SE)	428	1	335400 349700
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A18SW (N)	442	1	335000 350500
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A8NE (SE)	471	1	335400 349650
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A18SW (N)	472	1	335050 350550
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12SE (W)	485	1	334700 349900
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A18SW (N)	488	1	335000 350550
1	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Wrexham Queens Park Minafon - Authority: Natural Resources Wales Catchment Area: River Dee Reference: Cm0174401 Permit Version: 1 Effective Date: 20th October 1989 Issued Date: 20th October 1989 Revocation Date: 16th March 1998 Discharge Type: Unspecified Discharge Environment: Not Supplied Receiving Water: Gwenfro Status: Consent expired Positional Accuracy: Located by supplier to within 100m	A13SW (SW)	307	2	335000 349800

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
2	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso Near Minafon Queens Park Wrexham, Near Min Afon, Queens Park, Wrexham, L13 8tt Authority: Natural Resources Wales Catchment Area: GWENFRO Reference: Cg0346601 Permit Version: 2 Effective Date: 11th October 2019 Issued Date: 11th October 2019 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: River Gwenfro Status: Effective Positional Accuracy: Located by supplier to within 10m	A13SW (S)	311	2	335050 349770
2	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso Near Minafon Queens Park Wrexham, Queens Park Wrexham Authority: Natural Resources Wales Catchment Area: GWENFRO Reference: CG0346601 Permit Version: 1 Effective Date: 12th August 1994 Issued Date: 12th August 1994 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: River Gwenfro Status: Effective Positional Accuracy: Located by supplier to within 100m	A13SW (S)	311	2	335050 349770
2	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso Near Minafon Queens Park Wrexham, Queens Park Wrexham Authority: Natural Resources Wales Catchment Area: GWENFRO Reference: Cg0346601 Permit Version: 1 Effective Date: 12th August 1994 Issued Date: 12th August 1994 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: River Gwenfro Status: Effective Positional Accuracy: Located by supplier to within 10m	A13SW (S)	311	2	335050 349770
3	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Wrexham Queens Park Bryn Hafod Authority: Natural Resources Wales Catchment Area: River Dee Reference: Cm0174501 Permit Version: 1 Effective Date: 20th October 1989 Issued Date: 20th October 1989 Revocation Date: 16th March 1998 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Gwenfro Status: Consent expired Positional Accuracy: Located by supplier to within 100m	A8NW (S)	463	2	335100 349600

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
4	Discharge Consents Operator: Wrexham Maelor Borough Council Property Type: Undefined Or Other Location: Wrexham Whitegate Factory Estate Authority: Natural Resources Wales Catchment Area: River Dee Reference: Cm0114501 Permit Version: 1 Effective Date: 18th November 1966 Issued Date: 18th November 1966 Revocation Date: 8th April 1993 Discharge Type: Miscellaneous Discharges - Surface Water Discharge: Not Supplied Environment: Receiving Water: Ditch Leading To River Gwenfro Status: Consent expired Positional Accuracy: Located by supplier to within 10m	A8NW (S)	654	2	334925 349450
5	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Wrexham Queens Park Y Wern - S, LI13 8ul Authority: Natural Resources Wales Catchment Area: River Dee Reference: Cm0174301 Permit Version: 2 Effective Date: 14th April 2009 Issued Date: 14th April 2009 Revocation Date: 31st March 2010 Discharge Type: Public Sewage: Storm Sewage Overflow Discharge: Freshwater Stream/River Environment: Receiving Water: Gwenfro Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 100m	A12SE (W)	677	2	334500 349900
5	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Wrexham Queens Park Y Wern - S, LI13 8ul Authority: Natural Resources Wales Catchment Area: River Dee Reference: CM0174301 Permit Version: 1 Effective Date: 20th October 1989 Issued Date: 20th October 1989 Revocation Date: 13th April 2009 Discharge Type: Public Sewage: Storm Sewage Overflow Discharge: Freshwater Stream/River Environment: Receiving Water: Gwenfro Status: New Consent, by Application (Water Resources Act 1991, Section 88) Positional Accuracy: Located by supplier to within 100m	A12SE (W)	677	2	334500 349900
6	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Wrexham Queens Park Light Ind. Authority: Natural Resources Wales Catchment Area: River Dee Reference: Cm0174601 Permit Version: 1 Effective Date: 20th October 1989 Issued Date: 20th October 1989 Revocation Date: 16th March 1998 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Gwenfro Status: Consent expired Positional Accuracy: Located by supplier to within 100m	A8SW (S)	710	2	334900 349400

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
7	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Station - Water Company Location: Wrexham Queens Park Ps Authority: Natural Resources Wales Catchment Area: River Dee Reference: Cm0175101 Permit Version: 1 Effective Date: 19th October 1989 Issued Date: 19th October 1989 Revocation Date: 16th March 1998 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Gwenfro Status: Consent expired Positional Accuracy: Located by supplier to within 100m	A7SE (SW)	753	2	334800 349400
7	Discharge Consents Operator: Company Secretary Property Type: Sewerage Network - Pumping Station - Water Company Location: Wrexham Queens Park Ps Authority: Natural Resources Wales Catchment Area: River Dee Reference: Cm0066601 Permit Version: 1 Effective Date: 24th September 1971 Issued Date: 24th September 1971 Revocation Date: 12th January 1996 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Un-Named Trib. Of Clywedog Status: Consent expired Positional Accuracy: Located by supplier to within 100m	A7SE (SW)	753	2	334800 349400
7	Discharge Consents Operator: Company Secretary Property Type: Sewerage Network - Pumping Station - Water Company Location: Wrexham Queens Park Ps Authority: Natural Resources Wales Catchment Area: River Dee Reference: Cm0066602 Permit Version: 1 Effective Date: 24th September 1971 Issued Date: 24th September 1971 Revocation Date: 12th January 1996 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Clywedog Status: Consent expired Positional Accuracy: Located by supplier to within 100m	A7SE (SW)	753	2	334800 349400
7	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Sso At Queens Park Wrexham, Storm Sewage Overflow, Queens Park, Wrexham, Wales Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Cm0109701 Permit Version: 2 Effective Date: 30th October 2002 Issued Date: 29th October 2002 Revocation Date: 31st March 2010 Discharge Type: Public Sewage: Storm Sewage Overflow Discharge: Freshwater Stream/River Environment: Receiving Water: River Gwenfro Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A7SE (SW)	789	2	334780 349370

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
7	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Sso At Queens Park Wrexham, Storm Sewage Overflow, Queens Park, Wrexham, Wales Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Cm0109701 Permit Version: 1 Effective Date: 26th July 1966 Issued Date: 26th July 1966 Revocation Date: 29th October 2002 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: River Gwenfro Status: New Consent, by Application (Water Resources Act 1991, Section 88) Positional Accuracy: Located by supplier to within 10m	A7SE (SW)	789	2	334780 349370
8	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Sso At Queensway Wrexham, Wales, Uk Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Cm0109601 Permit Version: 2 Effective Date: 29th October 2002 Issued Date: 28th October 2002 Revocation Date: 31st March 2010 Discharge Type: Public Sewage: Storm Sewage Overflow Discharge: Freshwater Stream/River Environment: Receiving Water: River Gwefro Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A12SW (W)	789	2	334381 349921
8	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Sso At Queensway Wrexham, Wales, Uk Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Cm0109601 Permit Version: 1 Effective Date: 26th July 1966 Issued Date: 26th July 1966 Revocation Date: 28th October 2002 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: River Gwefro Status: New Consent, by Application (Water Resources Act 1991, Section 88) Positional Accuracy: Located by supplier to within 10m	A12SW (W)	789	2	334381 349921
8	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Pont Wen Queens Park Wrexham Authority: Natural Resources Wales Catchment Area: GWENFRO Reference: CG0350601 Permit Version: 1 Effective Date: 14th September 1994 Issued Date: 14th September 1994 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: River Gwenfro Status: Surrendered Positional Accuracy: Located by supplier to within 100m	A12SW (W)	790	2	334380 349920

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
8	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Pont Wen Queens Park Wrexham Authority: Natural Resources Wales Catchment Area: GWENFRO Reference: Cg0350601 Permit Version: 1 Effective Date: 14th September 1994 Issued Date: 14th September 1994 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: River Gwenfro Status: Surrendered Positional Accuracy: Located by supplier to within 10m	A12SW (W)	790	2	334380 349920
9	Discharge Consents Operator: Wrexham Maelor Borough Council Property Type: Undefined Or Other Location: Wrexham Abenbury Works Authority: Natural Resources Wales Catchment Area: River Dee Reference: Cm0037801 Permit Version: 1 Effective Date: 14th December 1966 Issued Date: 14th December 1966 Revocation Date: 11th July 1991 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Gwenfro Status: Consent expired Positional Accuracy: Located by supplier to within 100m	A7SE (SW)	842	2	334800 349300
9	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso Nr Kingŷ S Mills Queens Park Wr, River Close, Kings Mill, Wrexham, LI13 0nq Authority: Natural Resources Wales Catchment Area: GWENFRO Reference: Cg0346602 Permit Version: 4 Effective Date: 11th October 2019 Issued Date: 11th October 2019 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: River Gwenfro Status: Effective Positional Accuracy: Located by supplier to within 10m	A7SE (SW)	860	2	334760 349300
9	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso Nr Kingŷ S Mills Queens Park Wr, River Close, Kings Mill, Wrexham, LI13 0nq Authority: Natural Resources Wales Catchment Area: GWENFRO Reference: Cg0346602 Permit Version: 4 Effective Date: 11th October 2019 Issued Date: 11th October 2019 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: River Gwenfro Status: Effective Positional Accuracy: Located by supplier to within 10m	A7SE (SW)	860	2	334760 349300

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
9	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso Nr King'S Mills Queens Park Wr, Queens Park Wrexham Authority: Natural Resources Wales Catchment Area: GWENFRO Reference: Cg0346602 Permit Version: 3 Effective Date: 3rd May 2010 Issued Date: 3rd February 2010 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: River Gwenfro Status: Effective Positional Accuracy: Located by supplier to within 10m	A7SE (SW)	860	2	334760 349300
9	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso Nr King'S Mills Queens Park Wr, Queens Park Wrexham Authority: Natural Resources Wales Catchment Area: GWENFRO Reference: Cg0346602 Permit Version: 3 Effective Date: 3rd May 2010 Issued Date: 3rd February 2010 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: River Gwenfro Status: Effective Positional Accuracy: Located by supplier to within 10m	A7SE (SW)	860	2	334760 349300
9	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso Nr King'S Mills Queens Park Wr, Queens Park Wrexham Authority: Natural Resources Wales Catchment Area: GWENFRO Reference: Cg0346602 Permit Version: 3 Effective Date: 3rd May 2010 Issued Date: 3rd February 2010 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: River Gwenfro Status: Effective Positional Accuracy: Located by supplier to within 10m	A7SE (SW)	860	2	334760 349300
9	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso Nr King'S Mills Queens Park Wr, Queens Park Wrexham Authority: Natural Resources Wales Catchment Area: GWENFRO Reference: Cg0346602 Permit Version: 3 Effective Date: 3rd May 2010 Issued Date: 3rd February 2010 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: River Gwenfro Status: Effective Positional Accuracy: Located by supplier to within 10m	A7SE (SW)	860	2	334760 349300

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
9	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso Nr King'S Mills Queens Park Wr, Queens Park Wrexham Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Cg0346602 Permit Version: 2 Effective Date: 31st March 2009 Issued Date: 27th March 2009 Revocation Date: 2nd May 2010 Discharge Type: Public Sewage: Storm Sewage Overflow Discharge: Freshwater Stream/River Environment: Receiving Water: River Gwenfro Status: Varied by Application - (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A7SE (SW)	860	2	334760 349300
9	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso Nr King'S Mills Queens Park Wr, Queens Park Wrexham Authority: Natural Resources Wales Catchment Area: Not Given Reference: CG0350501 Permit Version: 1 Effective Date: 14th September 1994 Issued Date: 14th September 1994 Revocation Date: 31st March 2010 Discharge Type: Public Sewage: Storm Sewage Overflow Discharge: Freshwater Stream/River Environment: Receiving Water: River Gwenfro Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A7SE (SW)	860	2	334760 349300
9	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso Nr King'S Mills Queens Park Wr, Queens Park Wrexham Authority: Natural Resources Wales Catchment Area: Not Given Reference: CG0346602 Permit Version: 1 Effective Date: 12th August 1994 Issued Date: 12th August 1994 Revocation Date: 30th March 2009 Discharge Type: Public Sewage: Storm Sewage Overflow Discharge: Freshwater Stream/River Environment: Receiving Water: River Gwenfro Status: New Consent, by Application (Water Resources Act 1991, Section 88) Positional Accuracy: Located by supplier to within 100m	A7SE (SW)	860	2	334760 349300
9	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Queensway Industrial Estate, Manafon, Wrexham Authority: Natural Resources Wales Catchment Area: GWENFRO Reference: Cg0418901 Permit Version: 3 Effective Date: 31st March 2010 Issued Date: 3rd February 2010 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Clwydog Status: Surrendered Positional Accuracy: Located by supplier to within 10m	A7SE (SW)	861	2	334761 349299

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
9	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Queensway Industrial Estate, Manafon, Wrexham Authority: Natural Resources Wales Catchment Area: GWENFRO Reference: Cg0418901 Permit Version: 3 Effective Date: 31st March 2010 Issued Date: 3rd February 2010 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Clwyddog Status: Effective Positional Accuracy: Located by supplier to within 10m	A7SE (SW)	861	2	334761 349299
9	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Queensway Industrial Estate, Manafon, Wrexham Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Cg0418901 Permit Version: 2 Effective Date: 31st March 2010 Issued Date: 23rd March 2009 Revocation Date: 30th March 2010 Discharge Type: Public Sewage: Storm Sewage Overflow Discharge: Freshwater Stream/River Environment: Receiving Water: Clwyddog Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A7SE (SW)	861	2	334761 349299
9	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Queensway Industrial Estate, Manafon, Wrexham Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Cg0418901 Permit Version: 1 Effective Date: 31st March 2009 Issued Date: 4th March 2005 Revocation Date: 30th March 2010 Discharge Type: Public Sewage: Storm Sewage Overflow Discharge: Freshwater Stream/River Environment: Receiving Water: Clwyddog Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Manually corrected supplier location	A7SE (SW)	861	2	334761 349299
10	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Wrexham Queens Park Whitegates Authority: Natural Resources Wales Catchment Area: River Dee Reference: Cm0174201 Permit Version: 1 Effective Date: 20th October 1989 Issued Date: 20th October 1989 Revocation Date: 16th March 1998 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Gwenfro Status: Consent expired Positional Accuracy: Located by supplier to within 100m	A12SW (W)	896	2	334300 349800

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
11	Discharge Consents Operator: Clwyd County Council Property Type: Undefined Or Other Location: Abenbury Road Sewerage Authority: Natural Resources Wales Catchment Area: River Dee Reference: Cm0031901 Permit Version: 1 Effective Date: 19th November 1965 Issued Date: 19th November 1965 Revocation Date: 5th April 1995 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Gwenfro Status: Consent expired Positional Accuracy: Located by supplier to within 10m	A8SW (S)	924	2	334850 349190
12	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Wrexham Queens Park Cooks Weir Authority: Natural Resources Wales Catchment Area: River Dee Reference: Cm0186101 Permit Version: 1 Effective Date: 20th October 1989 Issued Date: 20th October 1989 Revocation Date: 16th March 1998 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Gwenfro Status: Consent expired Positional Accuracy: Located by supplier to within 100m	A12SW (W)	992	2	334200 349800
	Nearest Surface Water Feature	A13SW (W)	41	-	335117 350077
13	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Behind Queensway Sports Centre Authority: Environment Agency, Welsh Region Pollutant: Unknown Note: River Gwenfro Incident Date: 30th April 1998 Incident Reference: 35639 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13NE (NE)	237	3	335300 350300
14	Pollution Incidents to Controlled Waters Property Type: Not Given Location: WREXHAM Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Not Supplied Incident Date: 5th September 1996 Incident Reference: 29870 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13NE (NE)	298	3	335400 350300
15	Pollution Incidents to Controlled Waters Property Type: Miscellaneous Premises: Surface Runoff Location: 1 Tuttle Street, WREXHAM Authority: Environment Agency, Welsh Region Pollutant: Mud/Clay/Soil Note: Vandalism Incident Date: 20th September 1995 Incident Reference: 25948 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Runoff Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A8NE (S)	383	3	335300 349700

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
16	Pollution Incidents to Controlled Waters Property Type: Road (Lost Load) Location: Cefndra, WREXHAM Authority: Environment Agency, Welsh Region Pollutant: Mud/Clay/Soil Note: Accidental Spillage/Leakage Incident Date: 1st February 1992 Incident Reference: 3544 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Leakage Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A8NE (S)	478	3	335300 349600
17	Pollution Incidents to Controlled Waters Property Type: Road (Lost Load) Location: Garmor Road, QUEENSWAY Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Not Supplied Incident Date: 17th February 1995 Incident Reference: 22652 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A12SE (SW)	616	3	334600 349800
18	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Plas Noble Authority: Environment Agency, Welsh Region Pollutant: Farm Effluent/Slurry Note: Not Supplied Incident Date: 18th April 1991 Incident Reference: 2609 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A8NW (SW)	632	3	334890 349490
19	Pollution Incidents to Controlled Waters Property Type: Not Given Location: QUEENSFERRY Authority: Environment Agency, Welsh Region Pollutant: Oils - Diesel (Including Agricultural) Note: Not Supplied Incident Date: 1st July 1994 Incident Reference: 21362 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A12SE (W)	658	3	334501 350001
19	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Storm Overflow Location: Maccies Scrap Yard Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Blocked Sewer Incident Date: 21st April 1992 Incident Reference: 4180 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Overflow Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A12SE (W)	659	3	334501 349996
20	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Ennos Packaging, Queensway Industrial Estate Authority: Environment Agency, Welsh Region Pollutant: Unknown Note: Not Supplied Incident Date: 28th December 1991 Incident Reference: 3606 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A7NE (SW)	668	3	334800 349500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
20	Pollution Incidents to Controlled Waters Property Type: Land Location: Mojo, WREXHAM Authority: Environment Agency, Welsh Region Pollutant: Foam/Soap Suds Note: Not Supplied Incident Date: 16th April 1991 Incident Reference: 2306 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A7NE (SW)	672	3	334800 349495
21	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Cefn Park Farm, Llwynknotia Cefn Road, WREXHAM Authority: Environment Agency, Welsh Region Pollutant: Miscellaneous - Fire water / Foam Note: Emergency Overflow Incident Date: 25th May 1997 Incident Reference: 32344 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Runoff Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14SW (SE)	677	3	335800 349800
22	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Queenspark Youth Centre Authority: Environment Agency, Welsh Region Pollutant: Oils - Diesel (Including Agricultural) Note: Vandalism Incident Date: 18th April 1997 Incident Reference: 31936 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Leakage Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A12NW (W)	709	3	334450 350130
23	Pollution Incidents to Controlled Waters Property Type: Road (Lost Load) Location: Argyle Street, WREXHAM Authority: Environment Agency, Welsh Region Pollutant: Light Oil Note: Accidental Spillage/Leakage Incident Date: 6th October 1994 Incident Reference: 21366 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Runoff Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A12NW (NW)	782	3	334450 350400
24	Pollution Incidents to Controlled Waters Property Type: Warehouses Location: Mojos Authority: Environment Agency, Welsh Region Pollutant: Unknown Note: Not Supplied Incident Date: 16th April 1991 Incident Reference: 2632 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Leakage Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A7SE (SW)	797	3	334800 349350
24	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Kings Mill, WREXHAM Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Unknown; River Gwenfro Incident Date: 26th July 1998 Incident Reference: 36263 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Overflow Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A7SE (SW)	842	3	334800 349300

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
25	Pollution Incidents to Controlled Waters Property Type: Road (Lost Load) Location: Route To 18, Brecon Road, WREXHAM Authority: Environment Agency, Welsh Region Pollutant: Mud/Clay/Soil Note: Accidental Spillage/Leakage Incident Date: 5th February 1996 Incident Reference: 27313 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Spillage Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A17SE (NW)	846	3	334500 350600
26	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Kings Mill, WREXHAM Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Unknown; River Gwenfro Incident Date: 19th July 1998 Incident Reference: 36228 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Overflow Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A7SE (SW)	862	3	334765 349295
27	Pollution Incidents to Controlled Waters Property Type: Council Premises Location: Queenspark, Pumping Station Authority: Environment Agency, Welsh Region Pollutant: Mud/Clay/Soil Note: Weather Incident Date: 14th December 1994 Incident Reference: 22045 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Burst Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A7SE (SW)	890	3	334700 349300
28	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Rivulet Road By, Mart Ground Authority: Environment Agency, Welsh Region Pollutant: Oils - Diesel (Including Agricultural) Note: Not Supplied Incident Date: 28th March 1996 Incident Reference: 27775 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A12SW (W)	892	3	334305 349800
28	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Rivulet Road By, Mcdermotts Scrap Yard Authority: Environment Agency, Welsh Region Pollutant: Oils - Diesel (Including Agricultural) Note: Not Supplied Incident Date: 28th March 1996 Incident Reference: 27775 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A12SW (W)	893	3	334305 349795
28	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Storm Overflow Location: Rivulet Road, Mc Derwoths, WREXHAM Authority: Environment Agency, Welsh Region Pollutant: Unknown Note: Not Supplied Incident Date: 31st May 1991 Incident Reference: 3077 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Overflow Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A12SW (W)	898	3	334300 349795

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
29	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Sewerage Location: WREXHAM Authority: Environment Agency, Welsh Region Pollutant: Farm Effluent/Slurry Note: Neglect Incident Date: 11th April 1991 Incident Reference: 2610 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Overflow Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A12SW (W)	927	3	334260 349830
30	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Queens Park, WREXHAM Authority: Environment Agency, Welsh Region Pollutant: Oils - Petrol Note: Vandalism Incident Date: 2nd April 1996 Incident Reference: 28190 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Direct Discharge Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A12NW (W)	965	3	334200 350195
30	Pollution Incidents to Controlled Waters Property Type: Road (Lost Load) Location: Queens Park, WREXHAM Authority: Environment Agency, Welsh Region Pollutant: Foam/Soap Suds Note: Vandalism Incident Date: 2nd April 1996 Incident Reference: 28190 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Direct Discharge Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A12NW (W)	966	3	334200 350200
31	Pollution Incidents to Controlled Waters Property Type: Warehouses Location: Queensferry Industrial Estate, QUEENSFERRY Authority: Environment Agency, Welsh Region Pollutant: Unknown Note: Accidental Spillage/Leakage Incident Date: 13th September 1991 Incident Reference: 3209 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Leakage Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A7SE (SW)	977	3	334700 349200
	River Quality Name: Gwenfro GQA Grade: River Quality C Reach: Conf.Clywedog - Willow Road Wrexham Estimated Distance (km): 2.4 Flow Rate: Flow less than 0.31 cumecs Flow Type: River Year: 2000	A13SW (SW)	307	3	334939 349847

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
32	River Quality Biology Sampling Points Name: Clywedog (Dee) Reach: Outfall 5 Fords Sewage Treatment Works To Confluence Gwenfro Kings Mill Estimated Distance: 2.20 Positional Accuracy: Located by supplier to within 100m Year: 1990 GQA Grade: River Quality Biology GQA Grade D - Fair Year: 1995 GQA Grade: River Quality Biology GQA Grade A - Very Good Year: 2000 GQA Grade: River Quality Biology GQA Grade C - Fairly Good Year: 2002 GQA Grade: River Quality Biology GQA Grade Not Supplied Year: 2003 GQA Grade: River Quality Biology GQA Grade Not Supplied Year: 2004 GQA Grade: River Quality Biology GQA Grade B - Good Year: 2005 GQA Grade: River Quality Biology GQA Grade B - Good Year: 2006 GQA Grade: River Quality Biology GQA Grade B - Good Year: 2007 GQA Grade: River Quality Biology GQA Grade B - Good Year: 2008 GQA Grade: River Quality Biology GQA Grade B - Good Year: 2009 GQA Grade: River Quality Biology GQA Grade B - Good	A7SE (SW)	977	3	334700 349200
33	Substantiated Pollution Incident Register Authority: Natural Resources Wales Incident Date: 22nd July 2005 Incident Reference: 332137 Water Impact: Category 2 - Significant Incident Air Impact: Category 3 - Minor Incident Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Crude Sewage	A12SE (W)	641	2	334522 349975
33	Substantiated Pollution Incident Register Authority: Natural Resources Wales Incident Date: 27th December 2006 Incident Reference: 458540 Water Impact: Category 2 - Significant Incident Air Impact: Category 4 - No Impact Land Impact: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 10m Pollutant: Crude Sewage	A12SE (W)	654	2	334507 349987
34	Substantiated Pollution Incident Register Authority: Natural Resources Wales Incident Date: 2nd July 2006 Incident Reference: 412311 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: Crude Sewage	A12SW (W)	665	2	334497 349976
34	Substantiated Pollution Incident Register Authority: Natural Resources Wales Incident Date: 19th December 2001 Incident Reference: 48973 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: Crude Sewage	A12SW (W)	706	2	334457 349969
35	Substantiated Pollution Incident Register Authority: Natural Resources Wales Incident Date: 5th December 2018 Incident Reference: 1807596 Water Impact: Category 3 - Minor Incident Air Impact: Category 4 - No Impact Land Impact: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 10m Pollutant: Crude Sewage	A7SE (SW)	902	2	334721 349274

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
36	Water Abstractions Operator: Morgan Sindall Construction & Infrastructure Ltd Licence Number: Wa/067/0007/0017 Permit Version: Not Supplied Location: Wrexham Tank, Wynnstay Avenue, Caia Park, Wrexham, Wrexham, LI13 9bt Authority: Natural Resources Wales Abstraction: Construction:Dewatering Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A17SE (NW)	755	2	334642 350626
	Water Abstractions Operator: Wrexham County Borough Licence Number: 24/67/7/0147 Permit Version: 100 Location: River Gwenfro Authority: Environment Agency, Welsh Region Abstraction: Other Industrial/Commercial/Public Services: Effluent/Slurry Dilution Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: River Gwenfro Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 24th February 1967 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(W)	1933	3	333230 350220
	Groundwater Vulnerability Map Combined Classification: Secondary Superficial Aquifer - High Vulnerability Combined Vulnerability: High Combined Aquifer: Productive Bedrock Aquifer, Productive Superficial Aquifer Pollutant Speed: High Bedrock Flow: Well Connected Fractures Dilution: 300-550 mm/year Baseflow Index: >70% Superficial Patchiness: >90% Superficial Thickness: >10m Superficial Recharge: High	A13NE (E)	0	2	335172 350077
	Bedrock Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A13NE (E)	0	2	335172 350077
	Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A13NE (E)	0	2	335172 350077
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SW (SW)	207	2	335026 349905
	Flooding from Rivers or Sea without Defences None				
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				
	Flood Defences None				

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
37	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 344.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Gwenfro Catchment Name: Dee Primacy: 1	A13SW (SW)	285	4	334983 349839
38	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 16.3 Watercourse Level: Underground Permanent: True Watercourse Name: Afon Gwenfro Catchment Name: Dee Primacy: 1	A13SW (SW)	300	4	334930 349868
39	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 233.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Gwenfro Catchment Name: Dee Primacy: 1	A13SW (SW)	307	4	334916 349875
40	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 24.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Gwenfro Catchment Name: Dee Primacy: 1	A8NW (S)	436	4	335134 349623
41	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Gwenfro Catchment Name: Dee Primacy: 1	A8NW (S)	460	4	335129 349600
42	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 397.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Gwenfro Catchment Name: Dee Primacy: 1	A8NW (S)	465	4	335128 349595
43	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 13.5 Watercourse Level: Underground Permanent: True Watercourse Name: Afon Gwenfro Catchment Name: Dee Primacy: 1	A12SE (W)	467	4	334701 349960
44	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 226.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Gwenfro Catchment Name: Dee Primacy: 1	A12SE (W)	477	4	334689 349967
45	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 52.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A14SW (E)	592	4	335776 350020

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
46	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 17.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A14SW (E)	644	4	335829 350026
47	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 18.5 Watercourse Level: Underground Permanent: True Watercourse Name: Afon Gwenfro Catchment Name: Dee Primacy: 1	A12SW (W)	695	4	334468 349969
48	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: Dee Primacy: 1	A8NW (SW)	712	4	334865 349413
49	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 8.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A8NW (SW)	713	4	334859 349415
50	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 205.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Gwenfro Catchment Name: Dee Primacy: 1	A12SW (W)	713	4	334450 349967
51	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Gwenfro Catchment Name: Dee Primacy: 1	A8NW (SW)	720	4	334859 349407
52	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 311.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Gwenfro Catchment Name: Dee Primacy: 1	A8NW (SW)	721	4	334857 349407
53	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 16.7 Watercourse Level: Underground Permanent: True Watercourse Name: Afon Gwenfro Catchment Name: Dee Primacy: 1	A12SW (W)	902	4	334279 349855
54	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 273.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Gwenfro Catchment Name: Dee Primacy: 1	A12SW (W)	918	4	334265 349845

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
55	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 112.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A14SE (E)	932	4	336117 350011
56	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 149.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A14SE (E)	984	4	336155 349909
57	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 3.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 2	A14SE (E)	984	4	336155 349909
58	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 582.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Clywedog Catchment Name: Dee Primacy: 1	A7SE (S)	984	4	334792 349147
59	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 6.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Gwenfro Catchment Name: Dee Primacy: 1	A7SE (SW)	988	4	334726 349173
60	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 19.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Gwenfro Catchment Name: Dee Primacy: 1	A7SE (SW)	993	4	334728 349167

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
61	BGS Recorded Landfill Sites Site Name: Bala Rd Location: WREXHAM, Clwyd Authority: British Geological Survey, National Geoscience Information Service Ground Water: Information not available Surface Water: Information not available Geology: N/A Positional Accuracy: Positioned by the supplier Boundary Accuracy: Moderate	A13SE (S)	7	-	335177 350062
62	Historical Landfill Sites Licence Holder: Wrexham Rural District Council Location: Wrexham, Clwyd Name: Bala Road Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD14242 First Input Date: 30th September 1966 Last Input Date: 30th April 1971 Specified Waste Type: Deposited Waste included Inert, Industrial, Commercial, Household and Special Waste EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 6955/0004 BGS Ref: 104 Other Ref: Not Supplied	A13NE (E)	0	2	335172 350077
63	Historical Landfill Sites Licence Holder: Wrexham Borough Council Location: Rear Of Benjamin Road, Queens Park Name: The Dunks Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD14264 First Input Date: 31st January 1960 Last Input Date: 31st December 1980 Specified Waste Type: Deposited Waste included Inert, Industrial, Commercial, Household and Special Waste EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 6955/0057 BGS Ref: Not Supplied Other Ref: Not Supplied	A13NW (W)	228	2	334931 350095
64	Historical Landfill Sites Licence Holder: Wrexham Borough Council Location: Rear Of Benjamin Road, Queens Park Name: The Dunks 3 Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD14263 First Input Date: 31st December 1970 Last Input Date: 31st December 1980 Specified Waste Type: Deposited Waste included Inert Waste EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 6955/0056 BGS Ref: Not Supplied Other Ref: Not Supplied	A8NW (S)	471	2	335137 349588
65	Historical Landfill Sites Licence Holder: Marshall Refractories Limited Location: Kings Mill, Wrexham Name: Marshall Refractories Limited off Abenbury Road Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD14256 First Input Date: 31st December 1968 Last Input Date: 31st December 1987 Specified Waste Type: Deposited Waste included Inert Waste EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 6955/0041 BGS Ref: Not Supplied Other Ref: WD/003	A8SW (S)	715	2	334936 349381

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
66	Historical Landfill Sites Licence Holder: Wrexham Borough Council Location: Rear Of Benjamin Road, Queens Park Name: The Dunks No.2 Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD14262 First Input Date: 31st December 1960 Last Input Date: 31st December 1980 Specified Waste Type: Deposited Waste included Inert, Industrial, Commercial, Household and Special Waste EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 6955/0055 BGS Ref: Not Supplied Other Ref: Not Supplied	A12SW (W)	720	2	334442 349974
67	Historical Landfill Sites Licence Holder: Moler Products Limited Location: Wrexham, Adenbury Name: Abenbury Road Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD14767 First Input Date: 1st December 1947 Last Input Date: 31st December 1983 Specified Waste Type: Deposited Waste included Inert and Industrial Waste EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 6955/0001 BGS Ref: Not Supplied Other Ref: WMBC L/16	A8SW (S)	904	2	334893 349197
68	Licensed Waste Management Facilities (Locations) Licence Number: 37040 Location: Queensway Civic Amenity Site, Queensway, Wrexham, Clwyd, LL13 8UN Operator Name: 3 C Waste Ltd Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Household, Commercial And Industrial Transfer Stations Licence Status: Surrendered Issued: 1st October 1992 Last Modified: 10th December 2003 Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: 23rd June 2008 IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A8NW (SW)	647	2	334885 349476
	Local Authority Landfill Coverage Name: Wrexham County Borough Council - Has supplied landfill data		0	5	335172 350077
69	Local Authority Recorded Landfill Sites Location: Glan Gors, Bala Road, Wrexham Reference: 6955/0004 Authority: Wrexham County Borough Council Last Reported Status: Closed Types of Waste: Not Supplied Date of Closure: Not Supplied Positional Accuracy: Positioned by the supplier Boundary Quality: Good	A13NE (E)	0	5	335172 350077
70	Local Authority Recorded Landfill Sites Location: The Dunks, Prince Charles Road, Wrexham Reference: Not Supplied Authority: Wrexham County Borough Council Last Reported Status: Closed Types of Waste: Not Supplied Date of Closure: Not Supplied Positional Accuracy: Positioned by the supplier Boundary Quality: Good	A13NW (W)	225	5	334933 350089

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
71	Local Authority Recorded Landfill Sites Location: The Dunks 3, Queensway, Wrexham Reference: 6955/0056 Authority: Wrexham County Borough Council Last Reported Status: Closed Types of Waste: Not Supplied Date of Closure: Not Supplied Positional Accuracy: Positioned by the supplier Boundary Quality: Good	A8NW (S)	464	5	335127 349596
72	Local Authority Recorded Landfill Sites Location: The Dunks2, Queensway, Wrexham Reference: 6955/0055 Authority: Wrexham County Borough Council Last Reported Status: Closed Types of Waste: Not Supplied Date of Closure: Not Supplied Positional Accuracy: Positioned by the supplier Boundary Quality: Good	A12SW (W)	714	5	334449 349967
73	Local Authority Recorded Landfill Sites Location: Marshall Refractories Ltd, King'S Mills, Wrexham Reference: 6955/0041 Authority: Wrexham County Borough Council Last Reported Status: Closed Types of Waste: Not Supplied Date of Closure: Not Supplied Positional Accuracy: Positioned by the supplier Boundary Quality: Good	A8SW (S)	717	5	334920 349385
74	Registered Landfill Sites Licence Holder: Jones Brothers Ruthin (Holding) Co Ltd Licence Reference: L36 Site Location: Kingsmill, Bryn Y Grog Hill, Wrexham, Clwyd Licence Easting: 334650 Licence Northing: 349150 Operator Location: Denbigh Hill, Denbigh, Denbighshire Authority: Environment Agency Wales, North Area Site Category: Landfill Max Input Rate: Large (Equal to or greater than 75,000 and less than 250,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 1st December 1981 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the road within the address or location Boundary Accuracy: Not Applicable Authorised Waste: Rubble Subsoil	A7SE (SW)	945	3	334700 349237
75	Registered Landfill Sites Licence Holder: Maelor Products Ltd Licence Reference: L16 Site Location: Abenbury Works, Kingsmills, Wrexham, Clwyd Licence Easting: 335000 Licence Northing: 349100 Operator Location: As Site Address Authority: Environment Agency Wales, North Area Site Category: Landfill Max Input Rate: Undefined Waste Source: No known restriction on source of waste Restrictions: Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 1st June 1977 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste: Clay Waste Fired Or Unfired Waste Offcuts/Dust From Insul'G Bricks	A8SW (S)	973	3	335000 349100

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
75	Registered Landfill Sites Licence Holder: Moler Products Licence Reference: L16 Site Location: Abenbury Works, Kingsmills, Wrexham, Clwyd Licence Easting: 335000 Licence Northing: 349100 Operator Location: As Site Address Authority: Environment Agency Wales, North Area Site Category: Landfill Max Input Rate: Very Small (Less than 10,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 1st June 1977 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste: Waste Offcuts/Dust Ex Insulting Bricks	A8SW (S)	973	3	335000 349100
76	Registered Waste Transfer Sites Licence Holder: Hlc Wrexham Ltd Licence Reference: NOW-503-L (L73) Site Location: Queensway Civic Amenity Site, Wrexham, Clwyd Operator Location: 4 Churchill Court, 58 Station Road, North Harrow, Middlesex, Ha2 7sa Authority: Environment Agency Wales, North Area Site Category: Civic Amenity Max Input Rate: Very Small (Less than 10,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Licence Status: Operational as far as is knownOperational Dated: 1st October 1992 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: Household & Commercial Waste Max.Waste Permitted By Licence Waste Lub'N Oil From Petrol/Diesel Eng Prohibited Waste: Agricultural Wastes Ammonia Animal Carcasses, Offal Cadmium Compounds Carcinogenic/Mutagenic/Teratogenic Sub Clinical - As In Control.Waste Regs'92 Cyanide Compounds Drummed Waste Fluorine Compounds Industrial Wastes Likely Danger Arise Combust'N/Fume/Gas Liquid Waste N.O.S. List I Substances In Eec Dir. 80/68 Mercury Compounds Nitrate Compounds Organohalogens Organometallic Cpds Organophosphorus Cmpds Organosilicon Cpds Organosulphur Cmpds Pcb's/Pcts/Naphthalenes Percussive/Explosive/Similar Waste Poisonous, Noxious, Polluting Wastes Pressurised/Liquified Gas Spec.Waste (Epa'90:S62/1996 Regs)N.O.S Special Forms Of Asbestos Sub'S Control. Radioactive Subs Act'60 Sub'S Deleterious To Groundwater Sub'S In E.P(Prosc.Proc/Subs) Regs '91 Sulphide Compounds Waste N.O.S. Waste With Viable Pathogenic Organisms	A8NW (SW)	641	3	334870 349490

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: Warwickshire Group	A13NE (E)	0	1	335172 350077
77	BGS Recorded Mineral Sites Site Name: Cefn Park Sand Pit Location: Wrexham, Denbighshire Source: British Geological Survey, National Geoscience Information Service Reference: 184998 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Quaternary Geology: Glaciofluvial Sheet Deposits, Devensian Commodity: Sand Positional Accuracy: Located by supplier to within 10m	A9NW (SE)	566	1	335518 349616
78	BGS Recorded Mineral Sites Site Name: Kingsmills Brick Works Location: Kings Mills, Wrexham, Clwyd Source: British Geological Survey, National Geoscience Information Service Reference: 18896 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Quaternary Geology: Glaciolacustrine Deposits, Devensian Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m	A8SW (S)	795	1	334944 349295
79	BGS Recorded Mineral Sites Site Name: Abenbury Location: Kings Mills, Wrexham, Flintshire Source: British Geological Survey, National Geoscience Information Service Reference: 9066 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous, Permian Geology: Salop Formation Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A8SW (S)	957	1	334850 349155
80	BGS Recorded Mineral Sites Site Name: Spring Lodge Sand Pit Location: Wrexham, Denbighshire Source: British Geological Survey, National Geoscience Information Service Reference: 184975 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Quaternary Geology: Glaciofluvial Sheet Deposits, Devensian Commodity: Sand Positional Accuracy: Located by supplier to within 10m	A17NE (NW)	991	1	334586 350889
	Coal Mining Affected Areas Description: In an area which may be affected by coal mining activity. It is recommended that a coal mining report is obtained from the Coal Authority. Contact details are included in the Useful Contacts section of this report.	A13NE (E)	0	6	335172 350077
	Mining Instability Mining Evidence: Inconclusive Coal Mining Source: Ove Arup & Partners Boundary Quality: As Supplied	A13NE (E)	0	-	335172 350077
	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	A13NE (E)	0	1	335172 350077
	Potential for Collapsible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	39	1	335137 350030
	Potential for Collapsible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	58	1	335172 350000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	59	1	335176 350000
	Potential for Collapsible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (W)	156	1	335000 350077
	Potential for Collapsible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	169	1	335000 350000
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	178	1	335000 350149
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	0	1	335172 350077
	Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	4	1	335162 350055
	Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	58	1	335172 350000
	Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13NW (W)	156	1	335000 350077
	Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	169	1	335000 350000
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	170	1	335332 350000
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	178	1	335000 350149
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	0	1	335172 350077
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	58	1	335172 350000
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (W)	156	1	335000 350077
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	169	1	335000 350000
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	0	1	335172 350077
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	58	1	335172 350000
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (W)	156	1	335000 350077
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	169	1	335000 350000
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	0	1	335172 350077
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	4	1	335162 350055

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	39	1	335137 350030
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	58	1	335172 350000
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	59	1	335176 350000
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NW (W)	156	1	335000 350077
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	169	1	335000 350000
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	170	1	335332 350000
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	178	1	335000 350149
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	0	1	335172 350077
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	4	1	335162 350055
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	39	1	335137 350030
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	58	1	335172 350000
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	59	1	335176 350000
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (W)	156	1	335000 350077
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	169	1	335000 350000
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	170	1	335332 350000
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	178	1	335000 350149
	Radon Potential - Radon Affected Areas Affected Area: The property is in an Intermediate probability radon area (5 to 10% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	0	1	335172 350077
	Radon Potential - Radon Protection Measures Protection Measure: Basic radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	0	1	335172 350077

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
81	Contemporary Trade Directory Entries Name: Amen Heating & Plumbing Ltd Location: 150, Gwenfro, WREXHAM, Clwyd, LL13 8TR Classification: Boilers - Servicing, Replacements & Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SW (W)	237	-	334919 350058
82	Contemporary Trade Directory Entries Name: Barloworld Handling Ltd Location: 104, Coed Aben, Wrexham, Clwyd, LL13 9NY Classification: Fork Lift Trucks Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SE (SE)	251	-	335277 349833
82	Contemporary Trade Directory Entries Name: Barloworld Handling Ltd Location: 104, Coed Aben, Wrexham, Clwyd, LL13 9NY Classification: Fork Lift Trucks Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SE (SE)	251	-	335277 349833
83	Contemporary Trade Directory Entries Name: K K Commercial Group Location: 30, Ceiriog Road, Wrexham, Clwyd, LL13 9HY Classification: Commercial Vehicle Dealers Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NE (NE)	274	-	335370 350294
84	Contemporary Trade Directory Entries Name: Nats Domestic Location: 6, Conway Drive, WREXHAM, Clwyd, LL13 9HR Classification: Cleaning Services - Domestic Status: Inactive Positional Accuracy: Automatically positioned to the address	A18SE (N)	372	-	335235 350464
85	Contemporary Trade Directory Entries Name: Sylvia Jeffery Ltd Location: Queensway Industrial Estate, Queensway, Wrexham, Clwyd, LL13 8YR Classification: Clothing & Fabrics - Manufacturers Status: Active Positional Accuracy: Automatically positioned to the address	A8NW (SW)	506	-	334918 349617
86	Contemporary Trade Directory Entries Name: Dampcure Location: 10, Montrose Gardens, Wrexham, Clwyd, LL13 9BN Classification: Damp & Dry Rot Control Status: Inactive Positional Accuracy: Automatically positioned to the address	A18SW (N)	531	-	335126 350624
87	Contemporary Trade Directory Entries Name: The Grappler Location: Queensway House, Coed y Bryn, Wrexham, LL13 8YD Classification: Sports Equipment Manufacturers & Distributors Status: Active Positional Accuracy: Automatically positioned to the address	A8NE (S)	554	-	335328 349529
88	Contemporary Trade Directory Entries Name: New 2 You Location: Queensway, Wrexham, Clwyd, LL13 8UN Classification: Recycling Services Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A12SE (SW)	566	-	334687 349749
89	Contemporary Trade Directory Entries Name: J S Digital Location: 6, Falcon Road, Wrexham, Clwyd, LL13 9AB Classification: Photographic Processors Status: Inactive Positional Accuracy: Automatically positioned to the address	A18SW (N)	599	-	335134 350693
90	Contemporary Trade Directory Entries Name: Floor Sealants Location: Cefn Road, Abenbury, Wrexham, Clwyd, LL13 9TT Classification: Concrete Contractors Status: Inactive Positional Accuracy: Automatically positioned to the address	A18SE (N)	605	-	335317 350685

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
91	Contemporary Trade Directory Entries Name: Ray Uk Ltd Location: Unit 4, Whitegate Industrial Estate, Whitegate Road, Wrexham, Clwyd, LL13 8UG Classification: Plastic Products - Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NE (SW)	613	-	334716 349638
92	Contemporary Trade Directory Entries Name: Hmc Fleet Maintenance Centre Location: Queensway, Wrexham, Clwyd, LL13 8UN Classification: Garage Services Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A12SE (SW)	618	-	334583 349833
93	Contemporary Trade Directory Entries Name: Fibrax Location: Queensway Industrial Estate, Queensway, Wrexham, Clwyd, LL13 8YR Classification: Car Component Manufacturers Status: Active Positional Accuracy: Automatically positioned to the address	A7NE (SW)	619	-	334834 349536
93	Contemporary Trade Directory Entries Name: Fibrax Location: Queensway Industrial Estate, Queensway, Wrexham, Clwyd, LL13 8YR Classification: Rubber & Plastic Products - Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NE (SW)	619	-	334834 349536
93	Contemporary Trade Directory Entries Name: Syliva Jeffreys (Wrexham) Ltd Location: Unit 6, Whitegate Industrial Estate, Whitegate Road, Wrexham, Clwyd, LL13 8UG Classification: Children & Babywear - Manufacturers & Wholesalers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NE (SW)	647	-	334813 349517
94	Contemporary Trade Directory Entries Name: Aa Extrusions Ltd Location: Unit 5, Whitegate Industrial Estate, Whitegate Road, Wrexham, Clwyd, LL13 8UG Classification: Plastic Products - Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NE (SW)	623	-	334724 349616
94	Contemporary Trade Directory Entries Name: Cadence Engineering Ltd Location: Unit 5, Whitegate Industrial Estate, Whitegate Road, Wrexham, Clwyd, LL13 8UG Classification: Electrical Engineers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NE (SW)	623	-	334724 349616
94	Contemporary Trade Directory Entries Name: K G Coating Ltd Location: Unit 5, Whitegate Industrial Estate, Whitegate Road, Wrexham, Clwyd, LL13 8UG Classification: Coating Specialists Status: Active Positional Accuracy: Automatically positioned to the address	A7NE (SW)	623	-	334724 349616
94	Contemporary Trade Directory Entries Name: Brymar Electrics Ltd Location: Unit 8, Whitegate Industrial Estate, Whitegate Road, Wrexham, Clwyd, LL13 8UG Classification: Wire Products - Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NE (SW)	645	-	334741 349572
94	Contemporary Trade Directory Entries Name: E G S Road Distribution Location: Unit 8, Whitegate Industrial Estate, Whitegate Road, Wrexham, Clwyd, LL13 8UG Classification: Road Haulage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NE (SW)	645	-	334741 349572

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
95	Contemporary Trade Directory Entries Name: Jacobs Location: Unit 1, Whitegate Industrial Estate, Whitegate Road, WREXHAM, Clwyd, LL13 8UG Classification: Laboratories Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NE (SW)	627	-	334666 349674
95	Contemporary Trade Directory Entries Name: Withersdale Plastics Ltd Location: Unit 1, Whitegate Industrial Estate, Whitegate Road, Wrexham, Clwyd, LL13 8UG Classification: Plastics - Injection Moulding Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NE (SW)	627	-	334666 349674
95	Contemporary Trade Directory Entries Name: Thomas Repairs Location: Unit 28, Whitegate Industrial Estate, Whitegate Road, Wrexham, LL13 8UG Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NE (SW)	665	-	334623 349668
95	Contemporary Trade Directory Entries Name: Bruce Armstrong Location: Unit 25, Whitegate Industrial Estate, Whitegate Road, Wrexham, Clwyd, LL13 8UG Classification: Precision Engineers Status: Active Positional Accuracy: Automatically positioned to the address	A7NE (SW)	671	-	334630 349649
96	Contemporary Trade Directory Entries Name: John Hine Location: Unit 10, Whitegate Industrial Estate, Whitegate Road, Wrexham, Clwyd, LL13 8UG Classification: Ceramic Manufacturers, Supplies & Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NE (SW)	679	-	334755 349517
96	Contemporary Trade Directory Entries Name: Turkington Engineering Ltd Location: Unit 12, Whitegate Industrial Estate, Whitegate Road, Wrexham, Clwyd, LL13 8UG Classification: Boiler Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NE (SW)	703	-	334723 349511
97	Contemporary Trade Directory Entries Name: Froghall Garage Location: Queensway, Wrexham, Clwyd, LL13 8UN Classification: Garage Services Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A12SW (W)	694	-	334471 349954
98	Contemporary Trade Directory Entries Name: Bizzy Bees Launderette Location: Unit 5, Queens Court Complex, Queensway, Wrexham, LL13 8UH Classification: Dry Cleaners Status: Active Positional Accuracy: Automatically positioned to the address	A12NW (W)	700	-	334473 350214
99	Contemporary Trade Directory Entries Name: Wrexham Cleaners Ltd Location: Unit 19, Whitegate Industrial Estate, Whitegate Road, Wrexham, Clwyd, LL13 8UG Classification: Cleaning Services - Domestic Status: Active Positional Accuracy: Automatically positioned to the address	A7NE (SW)	710	-	334650 349568
99	Contemporary Trade Directory Entries Name: Tricane Ltd Location: Unit 18, Whitegate Industrial Estate, Whitegate Road, Wrexham, Clwyd, LL13 8UG Classification: Clothing & Fabrics - Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NE (SW)	718	-	334653 349554

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
99	Contemporary Trade Directory Entries Name: W Parrot & Sons Location: Unit 18, Whitegate Industrial Estate, Whitegate Road, Wrexham, Clwyd, LL13 8UG Classification: Precision Engineers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NE (SW)	718	-	334653 349554
99	Contemporary Trade Directory Entries Name: Wrexham Cnc Location: Unit 15, Whitegate Industrial Estate, Whitegate Road, Wrexham, Clwyd, LL13 8UG Classification: Mechanical Engineers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NE (SW)	736	-	334667 349516
100	Contemporary Trade Directory Entries Name: Anson Location: Queensway Industrial Estate, Queensway, Wrexham, Clwyd, LL13 8YR Classification: Packaging Materials Manufacturers & Suppliers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NE (SW)	727	-	334788 349437
100	Contemporary Trade Directory Entries Name: E P Packaging Ltd Location: Queensway Industrial Estate, Queensway, Wrexham, Clwyd, LL13 8YR Classification: Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NE (SW)	727	-	334788 349437
101	Contemporary Trade Directory Entries Name: Choice 1 Maid Location: 38, Newquay Drive, Wrexham, Clwyd, LL13 0JX Classification: Cleaning Services - Domestic Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SW (S)	743	-	335027 349328
102	Contemporary Trade Directory Entries Name: Hohner Automation Location: Unit 14, Whitegate Industrial Estate, Whitegate Road, Wrexham, LL13 8UG Classification: Oil & Gas Exploration Supplies & Services Status: Active Positional Accuracy: Automatically positioned to the address	A7NE (SW)	747	-	334669 349499
103	Contemporary Trade Directory Entries Name: England & North Wales Contract Cleaning Location: 56, Garner Road, Wrexham, Clwyd, LL13 8SF Classification: Commercial Cleaning Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A17SE (NW)	771	-	334501 350470
104	Contemporary Trade Directory Entries Name: Queensway Gearbox Centre Location: Queensway, Wrexham, Clwyd, LL13 8UN Classification: Garage Services Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A12NW (W)	774	-	334386 350137
105	Contemporary Trade Directory Entries Name: Auto Cosmetic Repairs Location: 8, Fishguard Close, Wrexham, Clwyd, LL13 0JH Classification: Car Body Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SW (S)	800	-	334906 349302
106	Contemporary Trade Directory Entries Name: M G S Technical Services Ltd Location: 18, Newport Close, WREXHAM, Clwyd, LL13 0JZ Classification: Industrial Engineers Status: Active Positional Accuracy: Automatically positioned to the address	A8SW (S)	852	-	335059 349213
106	Contemporary Trade Directory Entries Name: Mtc Transport Location: 10, Newport Close, Wrexham, Clwyd, LL13 0JZ Classification: Road Haulage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SW (S)	886	-	335024 349184

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
107	Contemporary Trade Directory Entries Name: S G Automotive Ltd Location: Frog Hall Garage, Access Road to Frog Hall Properties, Wrexham, LL13 0NT Classification: Mot Testing Centres Status: Active Positional Accuracy: Automatically positioned to the address	A8SE (S)	906	-	335319 349165
108	Contemporary Trade Directory Entries Name: Garry'S Paint & Body Shop Location: Abenbury Garage, Abenbury Road, Wrexham, Clwyd, LL13 0NT Classification: Car Body Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SW (S)	954	-	334847 349159
109	Contemporary Trade Directory Entries Name: J Car Sales W X M Ltd Location: 24, Rose Grove, Wrexham, LL13 9DP Classification: Car Dealers - Used Status: Inactive Positional Accuracy: Automatically positioned to the address	A18NW (N)	963	-	335017 351045
110	Contemporary Trade Directory Entries Name: Frog Hall Garage Ltd Location: 4, Red Lion Cottages, Abenbury Road, Wrexham, Clwyd, LL13 0NT Classification: Mot Testing Centres Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SE (S)	967	-	334796 349165
111	Contemporary Trade Directory Entries Name: Molly Maid Chester Location: 5, The Orchards, Wrexham, Clwyd, LL13 0NR Classification: Cleaning Services - Domestic Status: Active Positional Accuracy: Automatically positioned to the address	A7SE (SW)	970	-	334613 349261
112	Contemporary Trade Directory Entries Name: North Wales Carpet Cleaning Location: 26, Tanydre, Wrexham, Clwyd, LL13 9AU Classification: Carpet, Curtain & Upholstery Cleaners Status: Inactive Positional Accuracy: Automatically positioned to the address	A17NE (NW)	996	-	334688 350963
113	Fuel Station Entries Name: Taurus Service Station Brooklands Location: 194, Holt Road , Llan-Y-Pwll , Wrexham, Wrexham, LL13 9EB Brand: Nisa Premises Type: Petrol Station Status: Open Positional Accuracy: Automatically positioned to the address	A18NW (N)	989	-	335007 351070

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
114	Ancient Woodland Name: Not Supplied Reference: 33415 Area(m ²): 22835.86 Type: Ancient and Semi-Natural Woodland	A13NE (E)	298	2	335482 350144
115	Ancient Woodland Name: Not Supplied Reference: 33413 Area(m ²): 9060.57 Type: Ancient and Semi-Natural Woodland	A9NW (SE)	642	2	335667 349658
116	Ancient Woodland Name: Not Supplied Reference: 33414 Area(m ²): 18294.53 Type: Ancient and Semi-Natural Woodland	A14SE (E)	932	2	336117 350011

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices Chester City Council (now part of Cheshire West and Chester Council) - Environmental Health Department Natural Resources Wales Cheshire West and Chester Council - Environmental Health Department Wrexham County Borough Council - Public Protection Department	August 2008 June 2020 October 2017 October 2017	Annually Annually Annually
Discharge Consents Environment Agency - Welsh Region Natural Resources Wales	August 2014 July 2021	Quarterly Quarterly
Enforcement and Prohibition Notices Environment Agency - North West Region Environment Agency - Welsh Region	March 2013 March 2013	
Integrated Pollution Controls Environment Agency - North West Region Environment Agency - Welsh Region	January 2009 January 2009	
Integrated Pollution Prevention And Control Environment Agency - Welsh Region Environment Agency - North West Region Natural Resources Wales	January 2021 July 2021 July 2021	Quarterly Quarterly Quarterly
Local Authority Integrated Pollution Prevention And Control Wrexham County Borough Council - Environmental Health Department Chester City Council (now part of Cheshire West and Chester Council) - Environmental Health Department Cheshire West and Chester Council - Environmental Health Department	April 2014 December 2008 July 2015	Variable Not Applicable Variable
Local Authority Pollution Prevention and Controls Wrexham County Borough Council - Environmental Health Department Chester City Council (now part of Cheshire West and Chester Council) - Environmental Health Department Cheshire West and Chester Council - Environmental Health Department	April 2014 December 2008 July 2015	Annual Rolling Update Not Applicable Annually
Local Authority Pollution Prevention and Control Enforcements Wrexham County Borough Council - Environmental Health Department Chester City Council (now part of Cheshire West and Chester Council) - Environmental Health Department Cheshire West and Chester Council - Environmental Health Department	April 2014 December 2008 July 2015	Variable Not Applicable Variable
Nearest Surface Water Feature Ordnance Survey	March 2021	
Pollution Incidents to Controlled Waters Environment Agency - Welsh Region	December 1998	
Prosecutions Relating to Authorised Processes Environment Agency - North West Region Environment Agency - Welsh Region Natural Resources Wales	July 2015 July 2015 July 2015	
Prosecutions Relating to Controlled Waters Environment Agency - North West Region Environment Agency - Welsh Region Natural Resources Wales	March 2013 March 2013 March 2013	
Registered Radioactive Substances Natural Resources Wales Environment Agency - North West Region Environment Agency - Welsh Region	January 2015 June 2016 June 2016	Annually Annually Annually
River Quality Environment Agency - Head Office	November 2001	Not Applicable
River Quality Biology Sampling Points Environment Agency - Head Office	April 2012	Annually

Agency & Hydrological	Version	Update Cycle
Substantiated Pollution Incident Register Environment Agency Wales - North Area Environment Agency - North West Region - South Area Natural Resources Wales	January 2021 July 2021 July 2021	Quarterly Quarterly Quarterly
Water Abstractions Environment Agency - Welsh Region Natural Resources Wales	July 2021 July 2021	Quarterly Quarterly
Water Industry Act Referrals Natural Resources Wales Environment Agency - North West Region Environment Agency - Welsh Region	July 2021 October 2017 October 2017	Quarterly Quarterly Quarterly
Groundwater Vulnerability Map Natural Resources Wales	June 2018	As notified
Bedrock Aquifer Designations Natural Resources Wales	January 2018	Annually
Superficial Aquifer Designations Natural Resources Wales	January 2018	Annually
Source Protection Zones Natural Resources Wales Environment Agency - Head Office	July 2017 May 2021	Annual Rolling Update Bi-Annually
Extreme Flooding from Rivers or Sea without Defences Natural Resources Wales	September 2020	Quarterly
Flooding from Rivers or Sea without Defences Natural Resources Wales	September 2020	Quarterly
Areas Benefiting from Flood Defences Natural Resources Wales	November 2019	Quarterly
Flood Water Storage Areas Natural Resources Wales	August 2019	Quarterly
Flood Defences Natural Resources Wales	November 2019	Quarterly
OS Water Network Lines Ordnance Survey	July 2021	Quarterly
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	November 2002	Not Applicable
Historical Landfill Sites Natural Resources Wales	July 2019	Quarterly
Integrated Pollution Control Registered Waste Sites Environment Agency - North West Region Environment Agency - Welsh Region	January 2009 January 2009	Not Applicable Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries) Environment Agency - North West Region - South Area Environment Agency Wales - North Area Natural Resources Wales	July 2021 July 2021 July 2021	Quarterly Quarterly Quarterly
Licensed Waste Management Facilities (Locations) Natural Resources Wales Environment Agency - North West Region - South Area Environment Agency Wales - North Area	April 2021 July 2021 July 2021	Quarterly Quarterly Quarterly
Local Authority Landfill Coverage Cheshire County Council (now part of Cheshire East Council) - Environmental Planning Department Chester City Council (now part of Cheshire West and Chester Council) - Environmental Health Department Wrexham County Borough Council	February 2003 February 2003 February 2003	Not Applicable Not Applicable Not Applicable
Local Authority Recorded Landfill Sites Cheshire County Council (now part of Cheshire East Council) - Environmental Planning Department Chester City Council (now part of Cheshire West and Chester Council) - Environmental Health Department Wrexham County Borough Council	October 2018 October 2018 October 2018	
Registered Landfill Sites Environment Agency - North West Region - South Area Environment Agency Wales - North Area	March 2006 March 2006	Not Applicable Not Applicable
Registered Waste Transfer Sites Environment Agency - North West Region - South Area Environment Agency Wales - North Area	April 2018 April 2018	
Registered Waste Treatment or Disposal Sites Environment Agency - North West Region - South Area Environment Agency Wales - North Area	June 2015 June 2015	
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	August 2001	
Planning Hazardous Substance Enforcements Cheshire West and Chester Council - Planning Department Wrexham County Borough Council - Planning Department Cheshire County Council (now part of Cheshire East Council) - Planning Department Chester City Council (now part of Cheshire West and Chester Council)	April 2016 February 2016 July 2008 October 2008	Variable Variable Annual Rolling Update Not Applicable
Planning Hazardous Substance Consents Cheshire West and Chester Council - Planning Department Wrexham County Borough Council - Planning Department Cheshire County Council (now part of Cheshire East Council) - Planning Department Chester City Council (now part of Cheshire West and Chester Council)	April 2016 February 2016 July 2008 October 2008	Variable Variable Annual Rolling Update Not Applicable

Geological	Version	Update Cycle
BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service	January 2009	Not Applicable
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	May 2021	Bi-Annually
CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011	As notified
Coal Mining Affected Areas The Coal Authority - Property Searches	March 2014	Annual Rolling Update
Mining Instability Ove Arup & Partners	June 1998	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 2021	Quarterly
Fuel Station Entries Catalist Ltd - Experian	August 2021	Quarterly
Gas Pipelines National Grid	October 2021	Annually
Underground Electrical Cables National Grid	May 2021	Annually

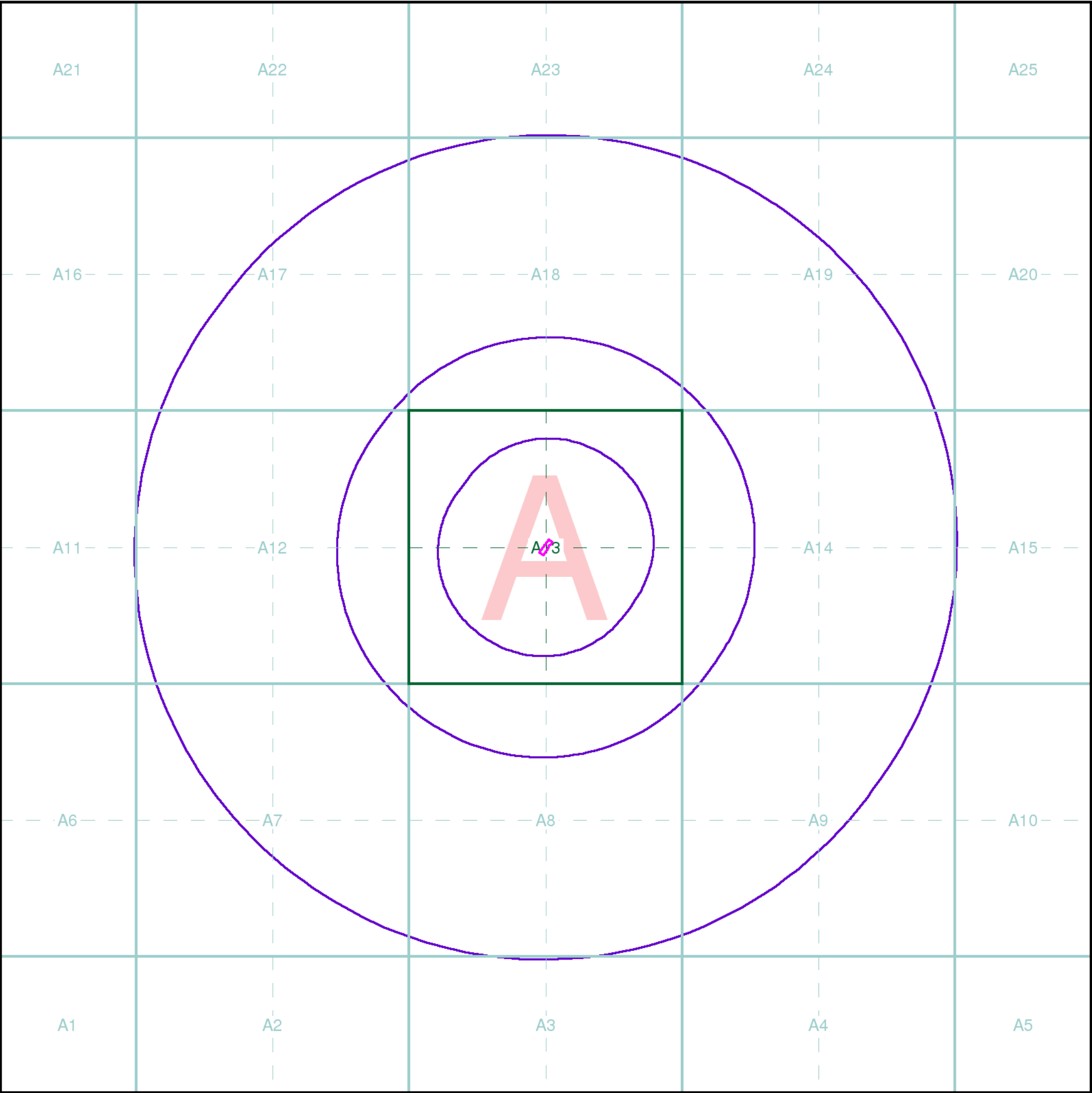
Sensitive Land Use	Version	Update Cycle
Ancient Woodland Natural Resources Wales	September 2018	Bi-Annually
Areas of Adopted Green Belt Cheshire West and Chester Council - Planning Department Chester City Council (now part of Cheshire West and Chester Council) Wrexham County Borough Council	October 2020 October 2020 October 2020	Quarterly Quarterly Quarterly
Areas of Unadopted Green Belt Cheshire West and Chester Council - Planning Department Chester City Council (now part of Cheshire West and Chester Council) Wrexham County Borough Council	October 2020 October 2020 October 2020	Quarterly Quarterly Quarterly
Areas of Outstanding Natural Beauty Natural England Natural Resources Wales	January 2021 June 2019	Bi-Annually Bi-Annually
Environmentally Sensitive Areas Natural England The National Assembly for Wales - GI Services (Department of Planning & Countryside)	January 2017 January 2017	
Forest Parks Forestry Commission	April 1997	Not Applicable
Local Nature Reserves Wrexham County Borough Council Natural England	August 2018 February 2021	Bi-Annually Bi-Annually
Marine Nature Reserves Natural Resources Wales	August 2018	Bi-Annually
National Nature Reserves Natural Resources Wales	July 2019	Bi-Annually
National Parks Natural Resources Wales Natural England	February 2018 February 2018	Annually Bi-Annually
Nitrate Vulnerable Zones The National Assembly for Wales - GI Services (Department of Planning & Countryside) Natural Resources Wales	April 2016 July 2019	Bi-Annually
Ramsar Sites Natural Resources Wales	July 2019	Bi-Annually
Sites of Special Scientific Interest Natural Resources Wales	March 2020	Bi-Annually
Special Areas of Conservation Natural Resources Wales	August 2020	Bi-Annually
Special Protection Areas Natural Resources Wales	August 2018	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	Natural Resources Wales Ty Cambria, 29 Newport Road, Cardiff, CF24 0TP	Telephone: 0300 065 3000 Email: enquiries@naturalresourceswales.gov.uk
3	Environment Agency - National Customer Contact Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk
4	Ordnance Survey Adanac Drive, Southampton, Hampshire, SO16 0AS	Telephone: 03456 05 05 05 Email: customerservices@ordnancesurvey.co.uk Website: www.ordnancesurvey.gov.uk
5	Wrexham County Borough Council Lampet Street, Guildhall, Wrexham, Clwyd, LL11 1WL	Telephone: 01978 292000 Fax: 01978 292502 Website: www.wrexham.gov.uk
6	The Coal Authority - Property Searches 200 Lichfield Lane, Mansfield, Nottinghamshire, NG18 4RG	Telephone: 0345 762 6848 Fax: 01623 637 338 Email: groundstability@coal.gov.uk Website: www2.groundstability.com
-	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.



Index Map

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

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

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

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

A selection of organisations who provide data within this report:



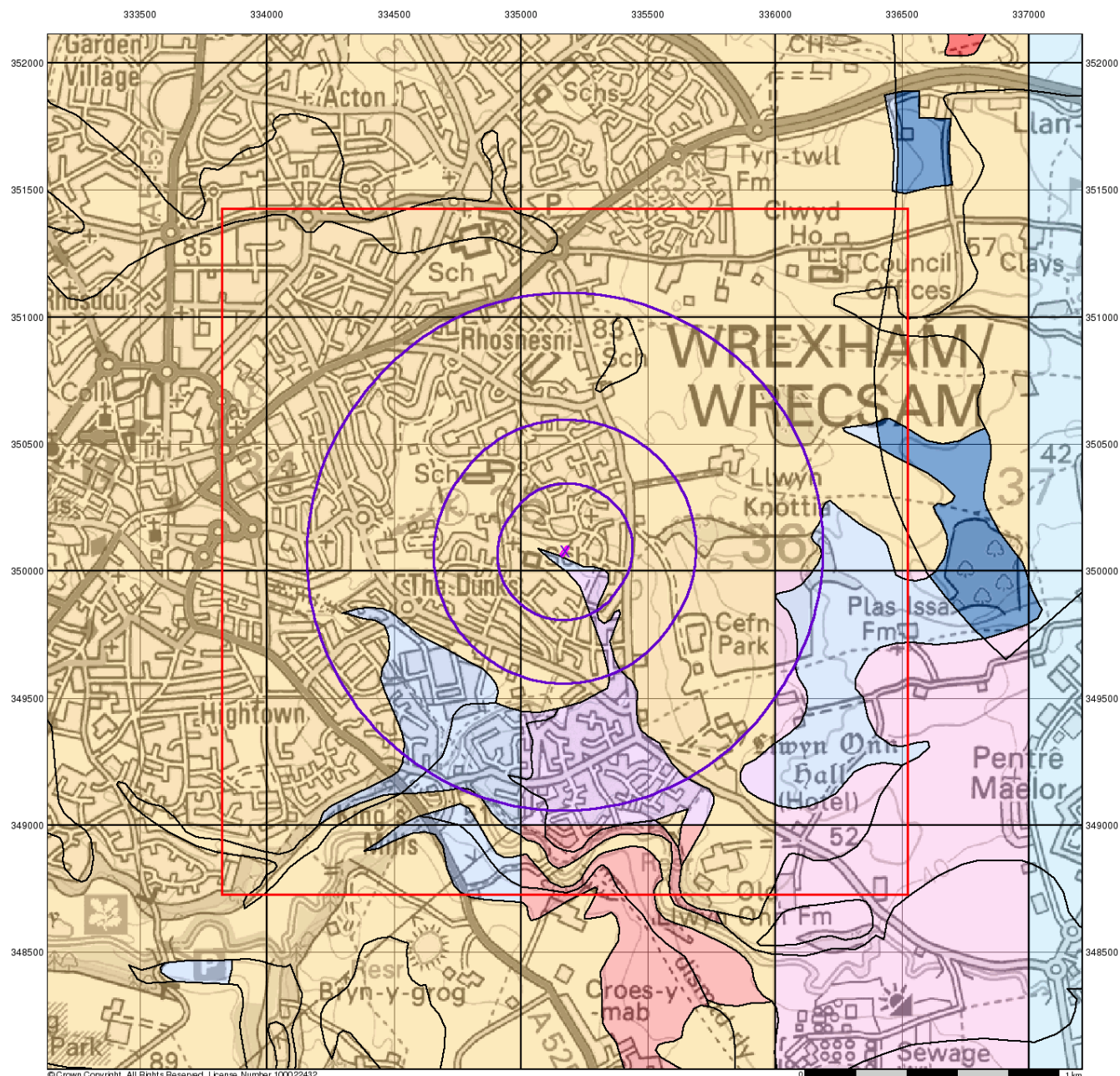
Envirocheck reports are compiled from 136 different sources of data.

Client Details
Mr D Wayland, Smith Grant Partnership, Station House,
Station Road, Ruabon, Wrexham, LL14 6DL

Order Details
Order Number: 286507536_1_1
Customer Ref: R3044
National Grid Reference: 335170, 350080
Site Area (Ha): 0.05
Search Buffer (m): 1000

Site Details
Off Street Parking, Bala Road, WREXHAM, LL13 9LH

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



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Groundwater Vulnerability

General

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

Agency and Hydrological

Bedrock Aquifers

- High Vulnerability, Principal Aquifer
- High Vulnerability, Secondary Aquifer
- Medium Vulnerability, Principal Aquifer
- Medium Vulnerability, Secondary Aquifer
- Low Vulnerability, Principal Aquifer
- Low Vulnerability, Secondary Aquifer

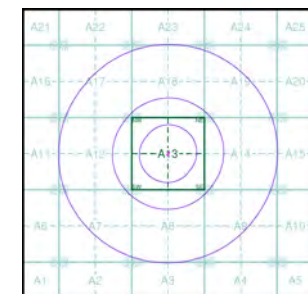
Superficial Aquifers

- High Vulnerability, Principal Aquifer
- High Vulnerability, Secondary Aquifer
- Medium Vulnerability, Principal Aquifer
- Medium Vulnerability, Secondary Aquifer
- Low Vulnerability, Principal Aquifer
- Low Vulnerability, Secondary Aquifer

Unproductive Aquifer

Soluble Rock

Site Sensitivity Context Map - Slice A



Order Details

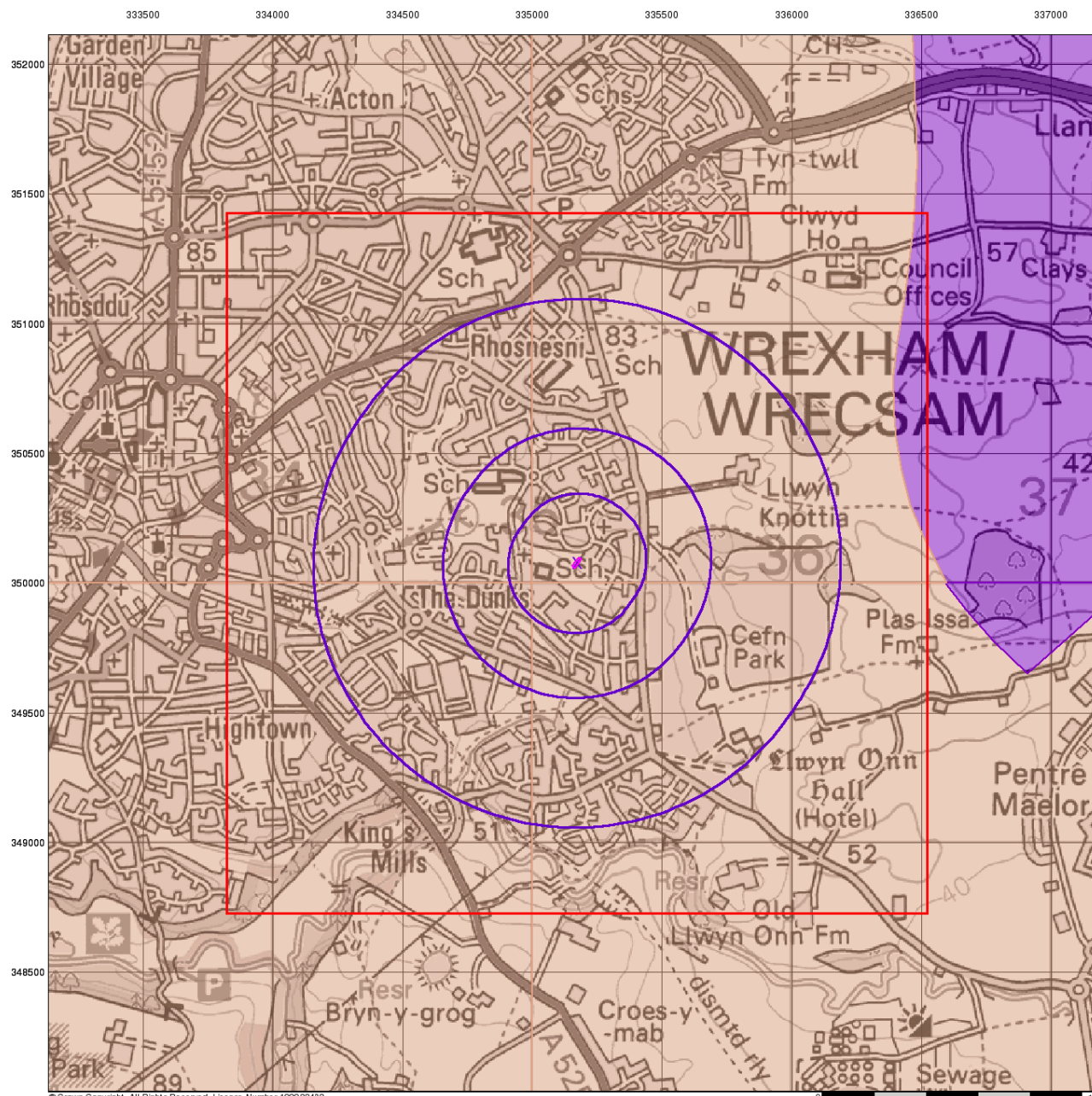
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 Customer Ref: R3044
 National Grid Reference: 335170, 350080
 Slice: A
 Site Area (Ha): 0.05
 Search Buffer (m): 1000

Site Details

Off Street Parking, Bala Road, WREXHAM, LL13 9LH

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Bedrock Aquifer Designation

General

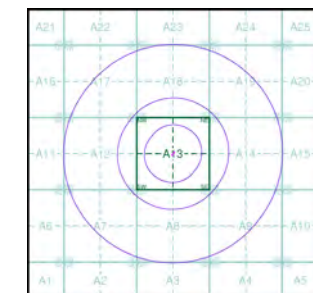
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Geological Classes

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

Site Sensitivity Context Map - Slice A



Order Details

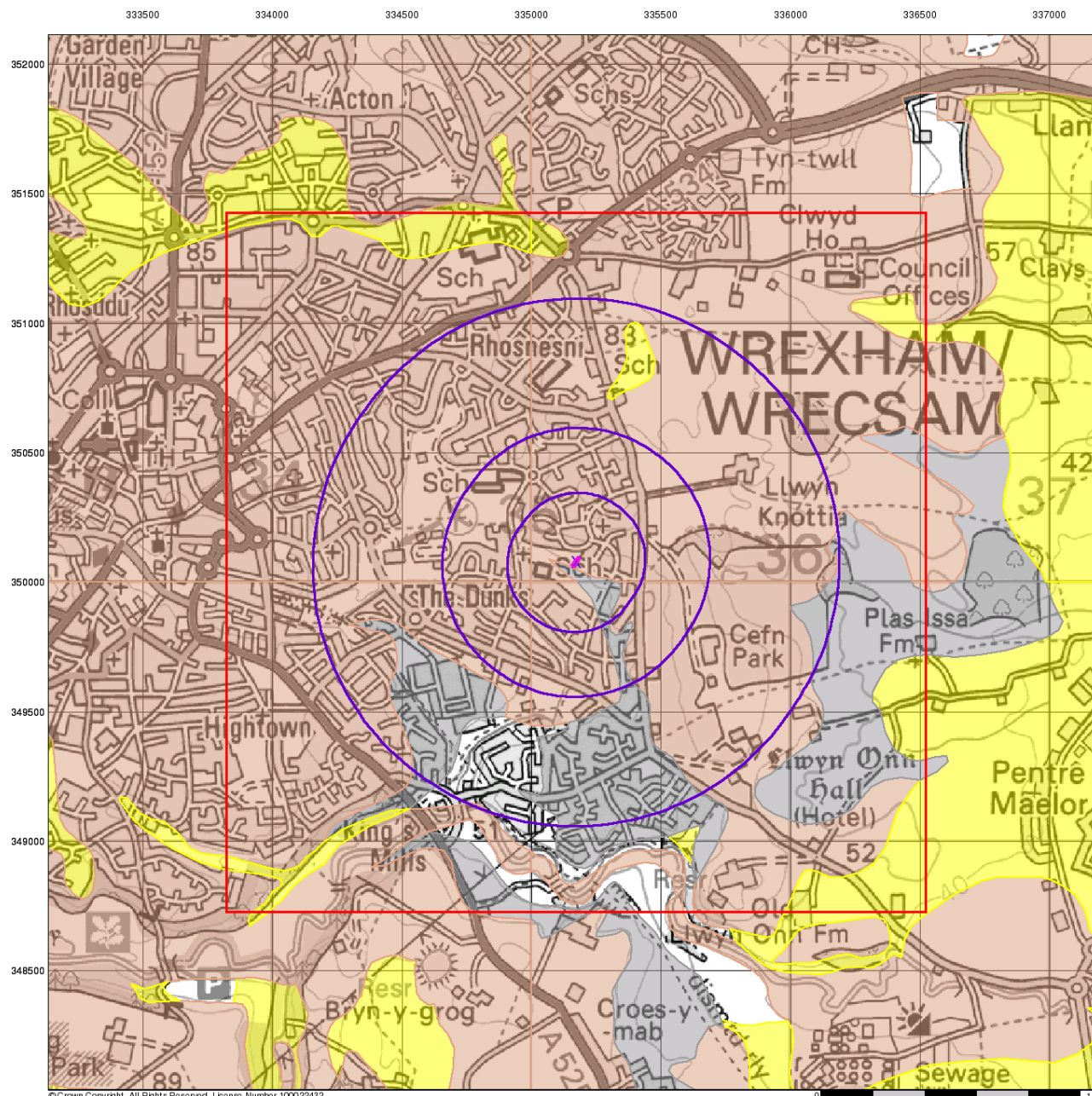
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 Customer Ref: R3044
 National Grid Reference: 335170, 350080
 Slice: A
 Site Area (Ha): 0.05
 Search Buffer (m): 1000

Site Details

Off Street Parking, Bala Road, WREXHAM, LL13 9LH

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Superficial Aquifer Designation

General

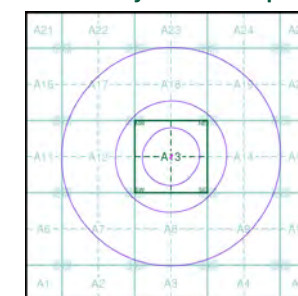
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Geological Classes

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

Site Sensitivity Context Map - Slice A



Order Details

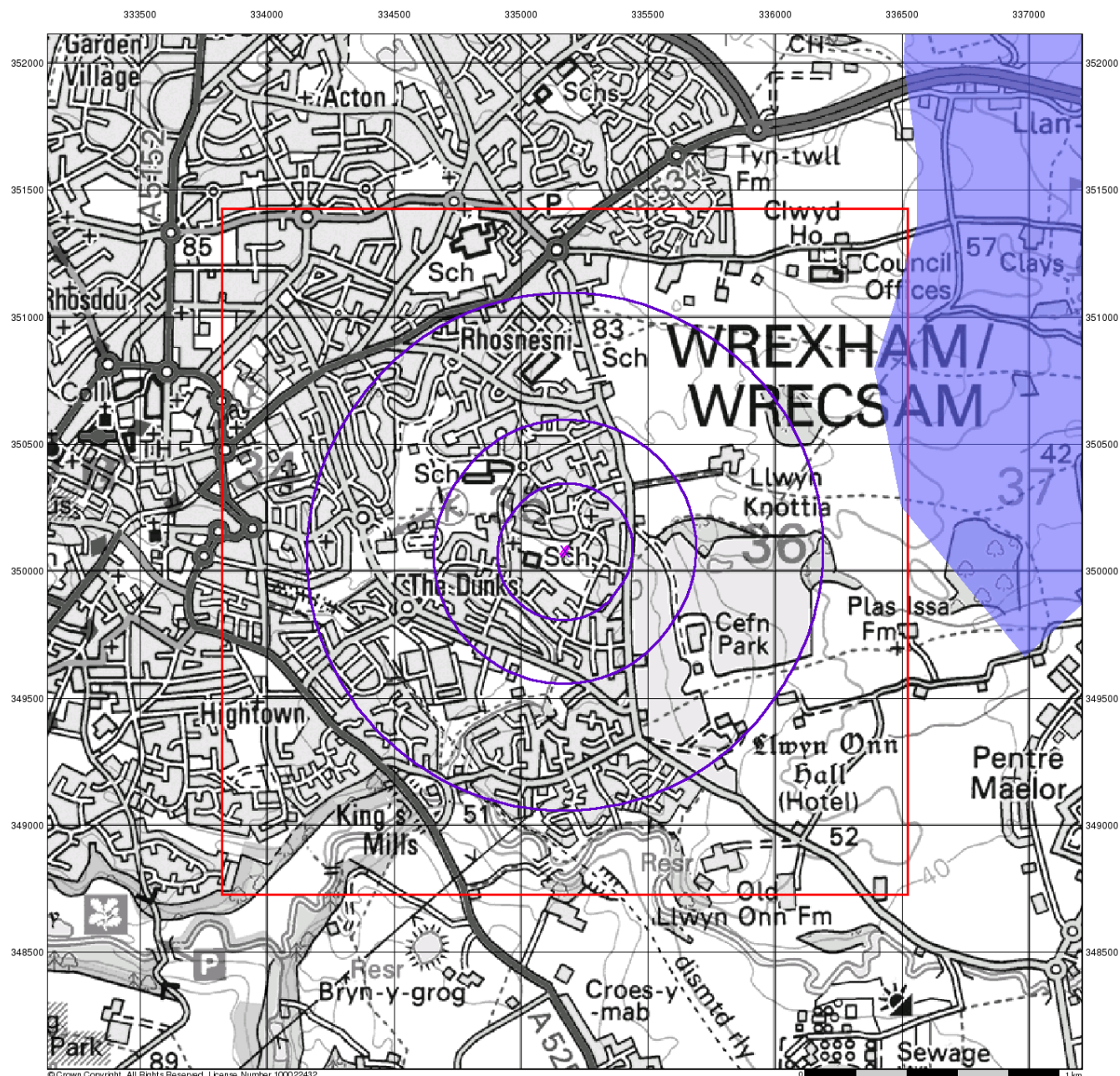
Order Number: 286507536_1_1
 Customer Ref: R3044
 National Grid Reference: 335170, 350080
 Slice: A
 Site Area (Ha): 0.05
 Search Buffer (m): 1000

Site Details

Off Street Parking, Bala Road, WREXHAM, LL13 9LH

Landmark
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Tel: 0844 844 9952
 Fax: 0844 844 9951
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Source Protection Zones

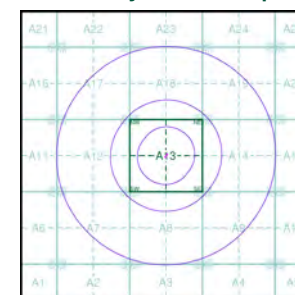
General

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

Agency and Hydrological

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

Site Sensitivity Context Map - Slice A



Order Details

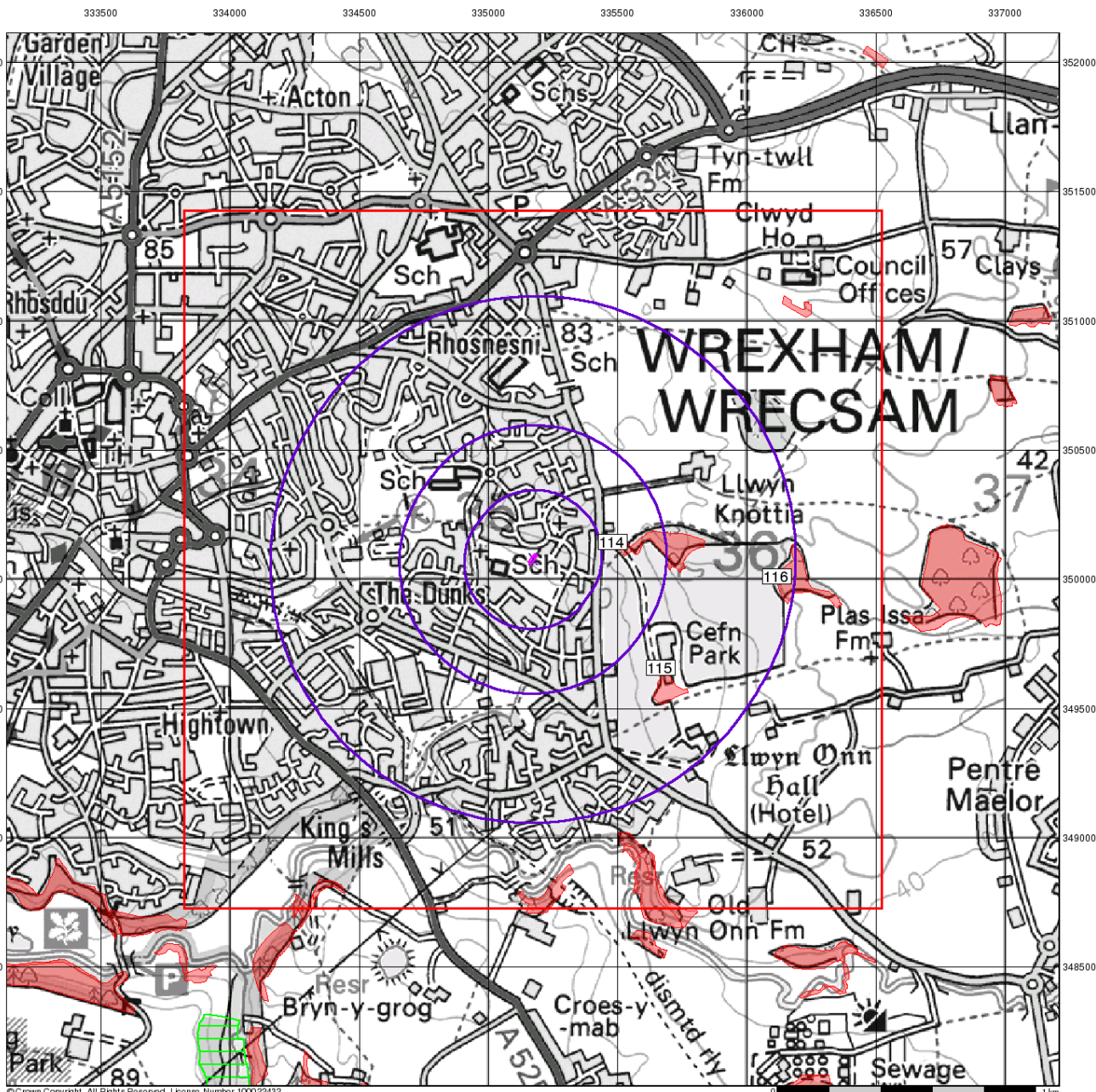
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Sensitive Land Uses

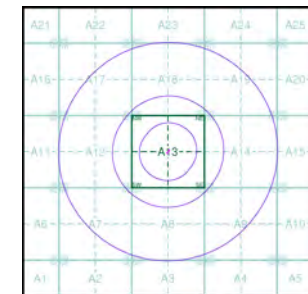
General

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

Sensitive Land Uses

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

Site Sensitivity Context Map - Slice A



Order Details

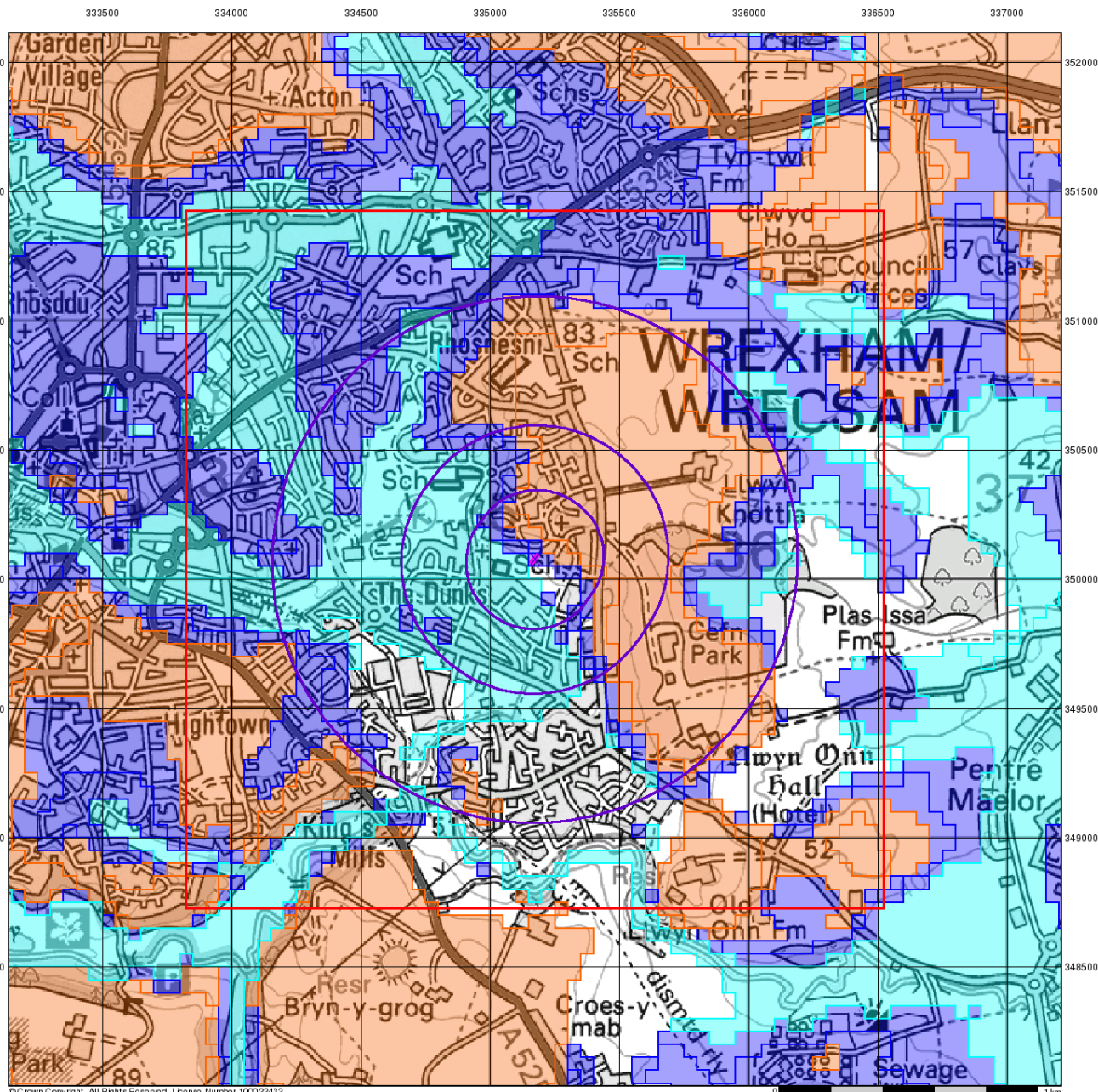
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BGS Flood GFS Data

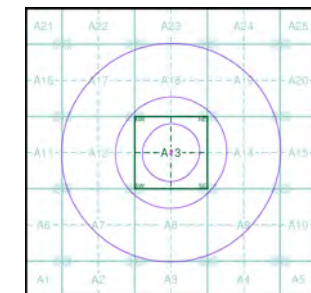
General

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

Agency and Hydrological (Flood)

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

Site Sensitivity Context Map - Slice A



Order Details

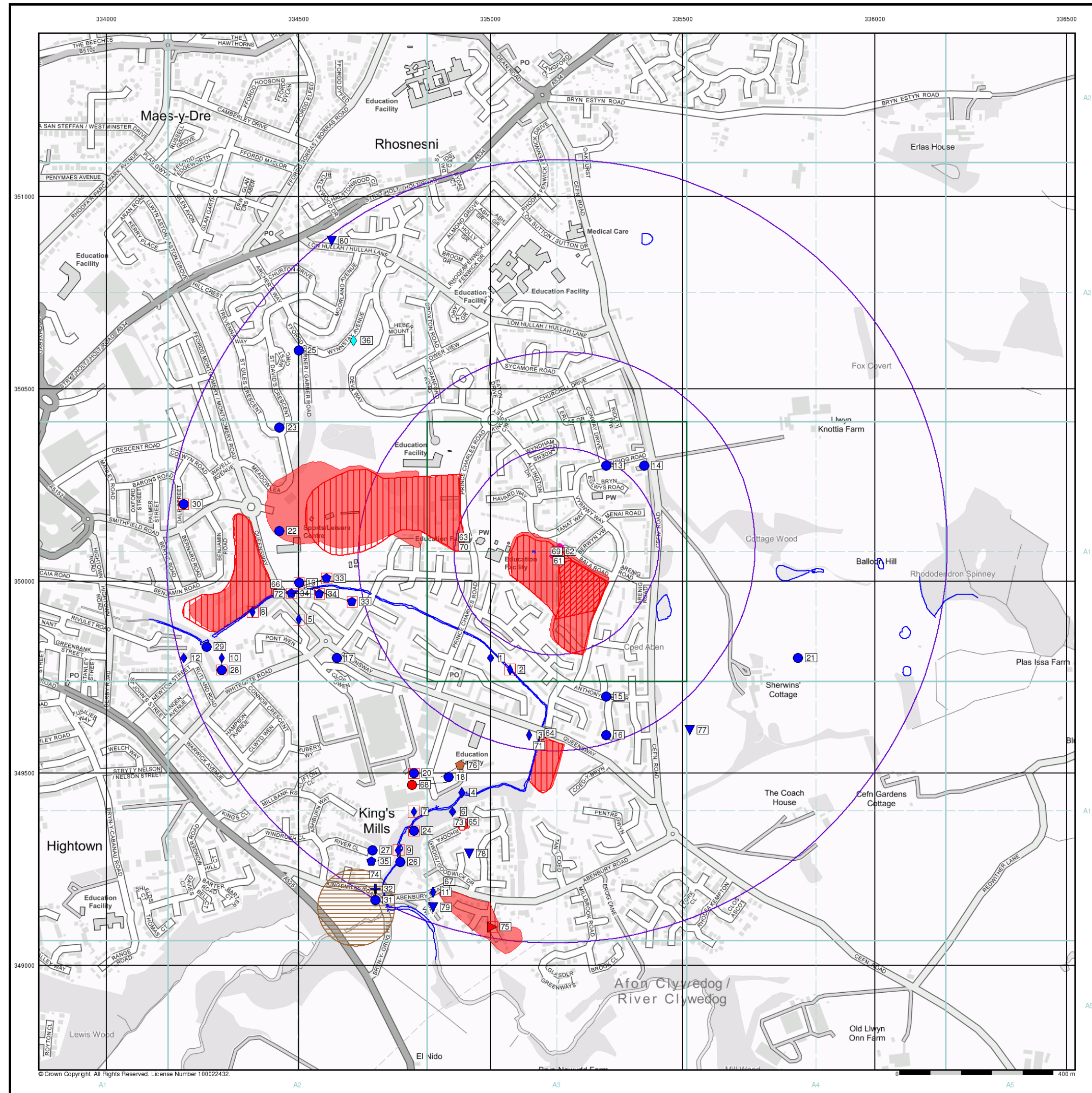
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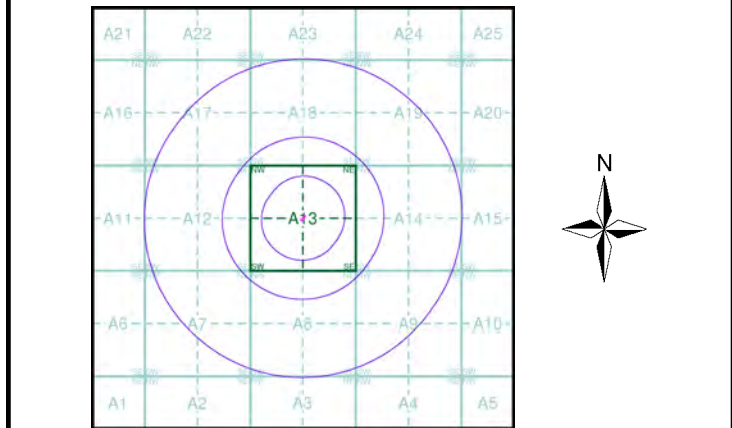
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- General**
 - Specified Site
 - Specified Buffer(s)
 - Bearing Reference Point
 - Map ID
 - Several of Type at Location
- Agency and Hydrological**
 - Contaminated Land Register Entry or Notice (Location)
 - Contaminated Land Register Entry or Notice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

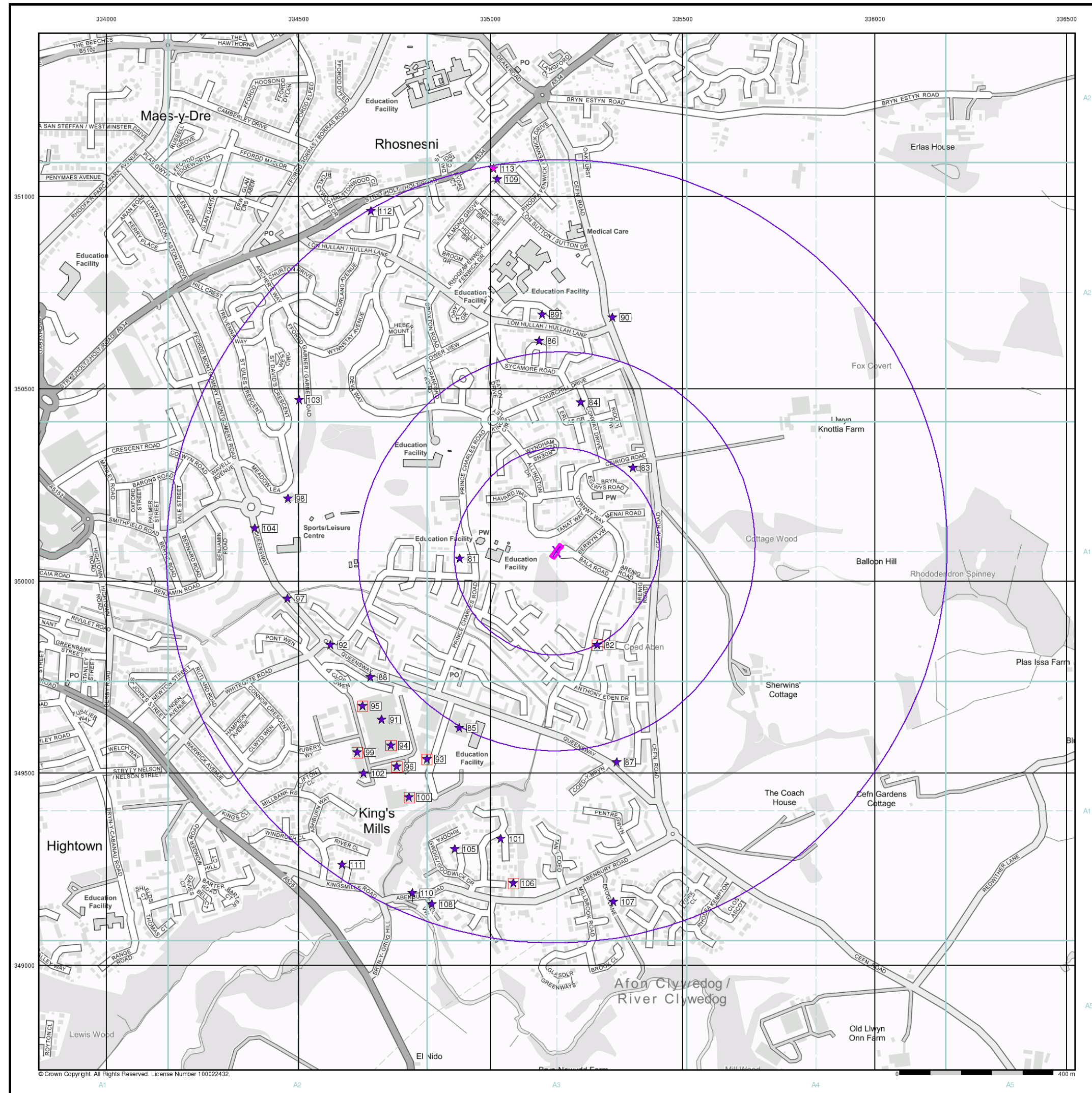
Site Sensitivity Map - Slice A



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Industrial Land Use Map

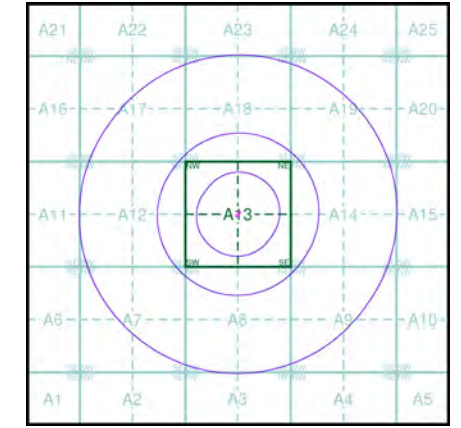
General

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

Industrial Land Use

- Contemporary Trade Directory Entry
- Fuel Station Entry
- Gas Pipeline
- Underground Electrical Cables

Industrial Land Use Map - Slice A

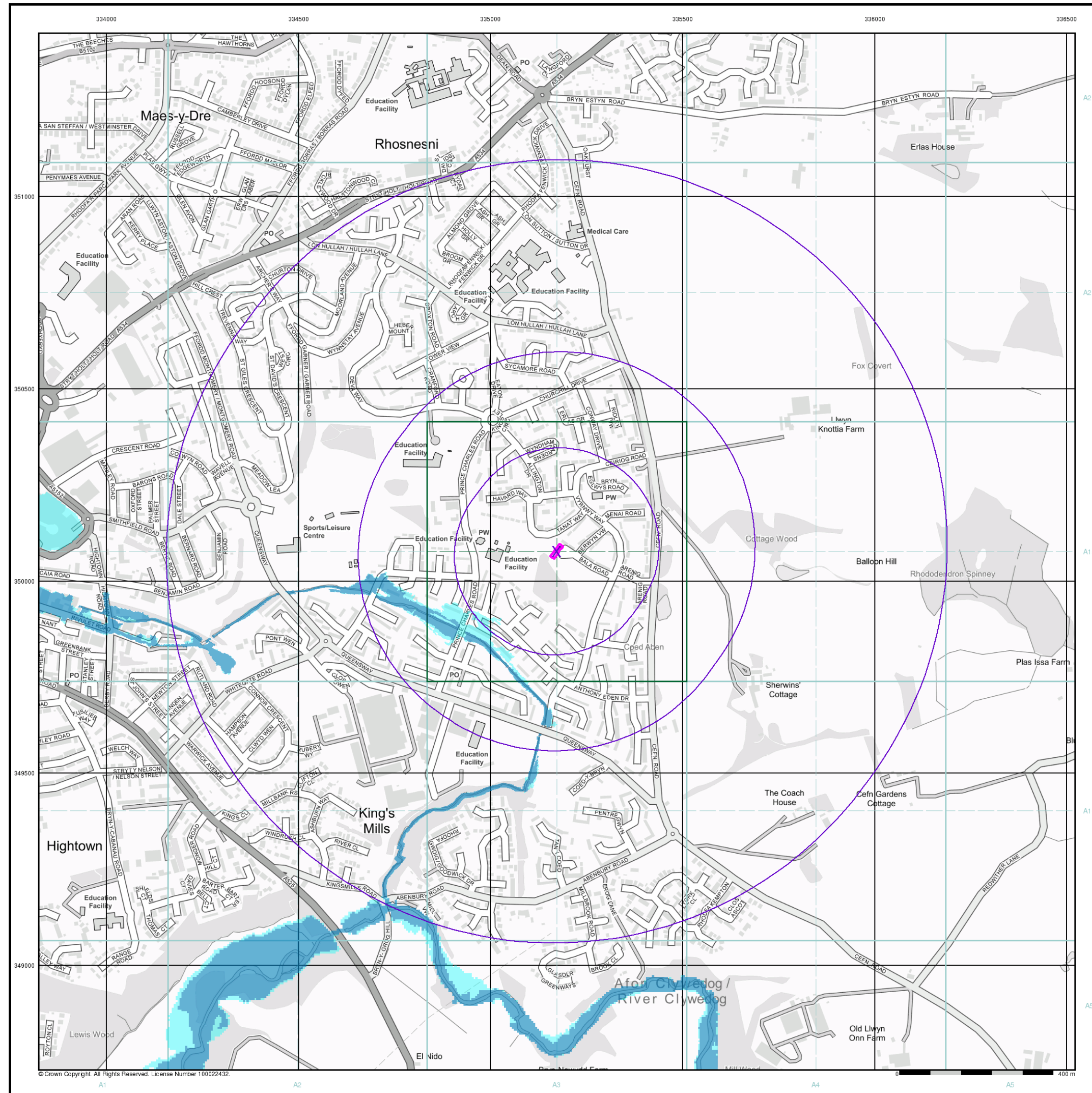


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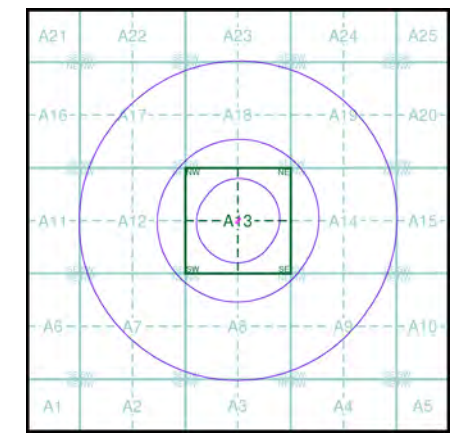
General

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

Agency and Hydrological (Flood)

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

Flood Map - Slice A

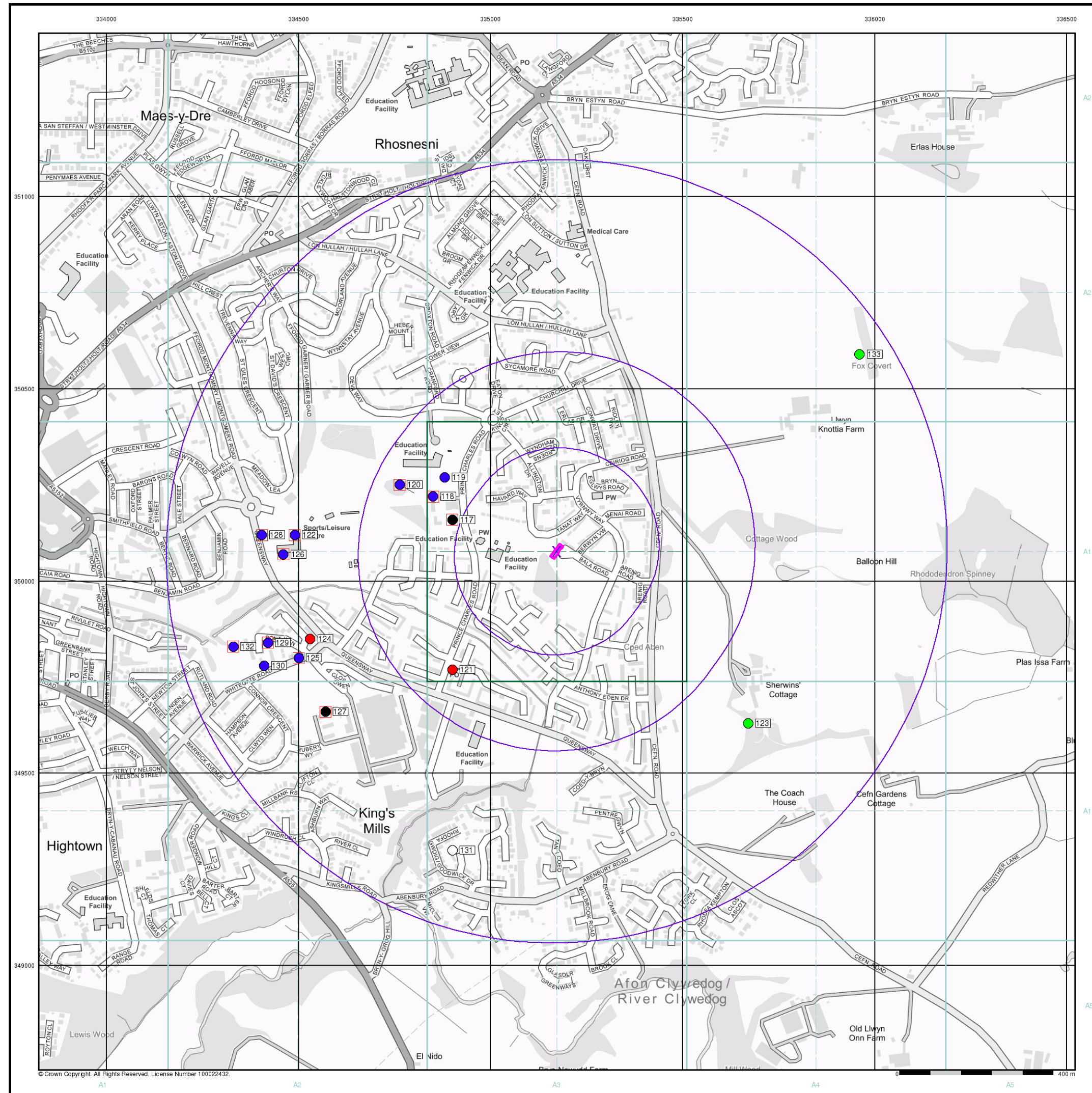


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Site Details

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General

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- Bearing Reference Point
- Map ID
- Several of Type at Location

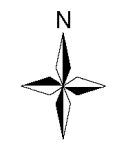
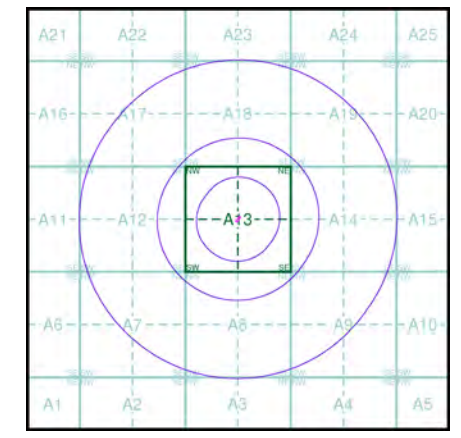
Agency and Hydrological (Boreholes)

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

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

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

Borehole Map - Slice A

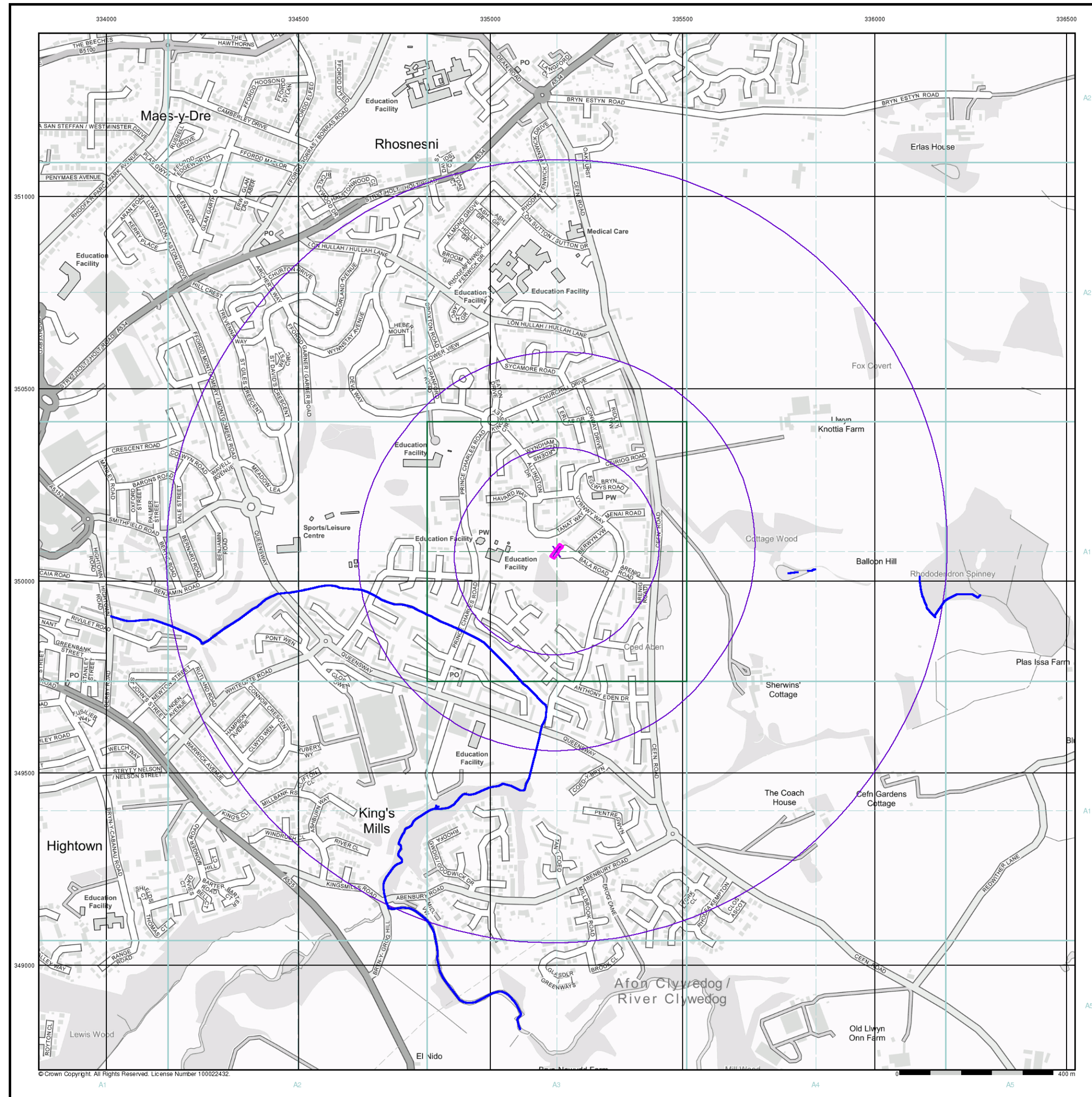


Order Details

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Site Details

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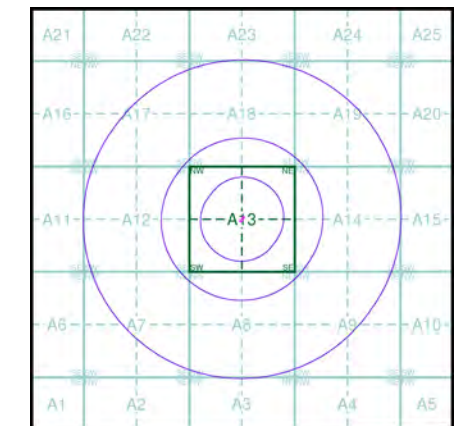
General

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

OS Water Network Data

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

OS Water Network Map - Slice A



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Historical Mapping Legends

Ordnance Survey County Series 1:10,560

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

Ordnance Survey Plan 1:10,000

	Chalk Pit, Clay Pit or Quarry		Gravel Pit
	Sand Pit		Disused Pit or Quarry
	Refuse or Slag Heap		Lake, Loch or Pond
	Dunes		Boulders
	Coniferous Trees		Non-Coniferous Trees
	Orchard		Scrub
	Bracken		Heath
	Marsh		Reeds
	Building		Glasshouse
	Sloping Masonry		Pylon
	Cutting		Embankment
	Road Under		Road Over
	Level Crossing		Foot Bridge
	Standard Gauge Multiple Track		Standard Gauge Single Track
	Siding, Tramway or Mineral Line		Narrow Gauge
	Geographical County		Administrative County, County Borough or County of City
	Municipal Borough, Urban or Rural District, Burgh or District Council		Borough, Burgh or County Constituency
	Civil Parish		
	BP, BS Boundary Post or Stone		Police Station
	Church		Post Office
	Club House		Public Convenience
	Fire Engine Station		Public House
	Foot Bridge		Signal Box
	Fountain		Spring
	Guide Post		Telephone Call Box
	Mile Post		Telephone Call Post
	Mile Stone		Well

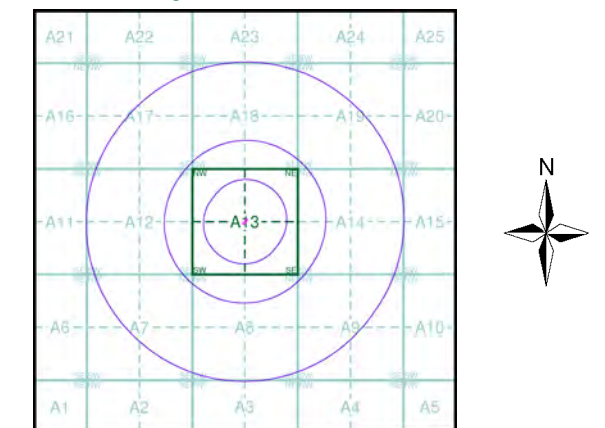
1:10,000 Raster Mapping

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

Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Denbighshire	1:10,560	1879	2
Cheshire	1:10,560	1881	3
Denbighshire	1:10,560	1899 - 1900	4
Flintshire	1:10,560	1900	5
Denbighshire	1:10,560	1914 - 1915	6
Denbighshire	1:10,560	1938 - 1954	7
Denbighshire	1:10,560	1938 - 1954	8
Denbighshire	1:10,560	1954	9
Ordnance Survey Plan	1:10,000	1964	10
Ordnance Survey Plan	1:10,000	1968	11
Ordnance Survey Plan	1:10,000	1974 - 1979	12
Ordnance Survey Plan	1:10,000	1981 - 1983	13
Ordnance Survey Plan	1:10,000	1988	14
Ordnance Survey Plan	1:10,000	1990 - 1993	15
Ordnance Survey Plan	1:10,000	1992	16
10K Raster Mapping	1:10,000	2000	17
Street View	Variable		18

Historical Map - Slice A



Order Details

Order Number: 286507536_1_1
Customer Ref: R3044
National Grid Reference: 335170, 350080
Slice: A
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Search Buffer (m): 1000

Site Details

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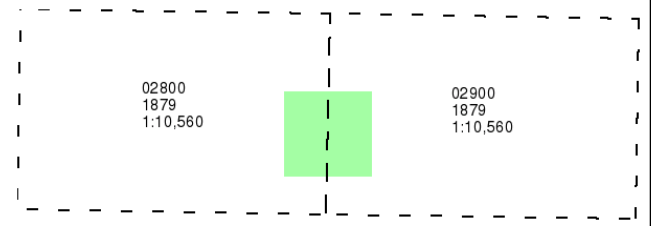
Denbighshire

Published 1879

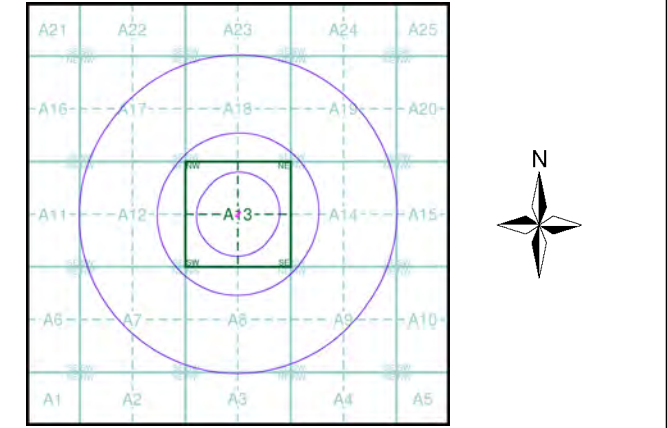
Source map scale - 1:10,560

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

Map Name(s) and Date(s)



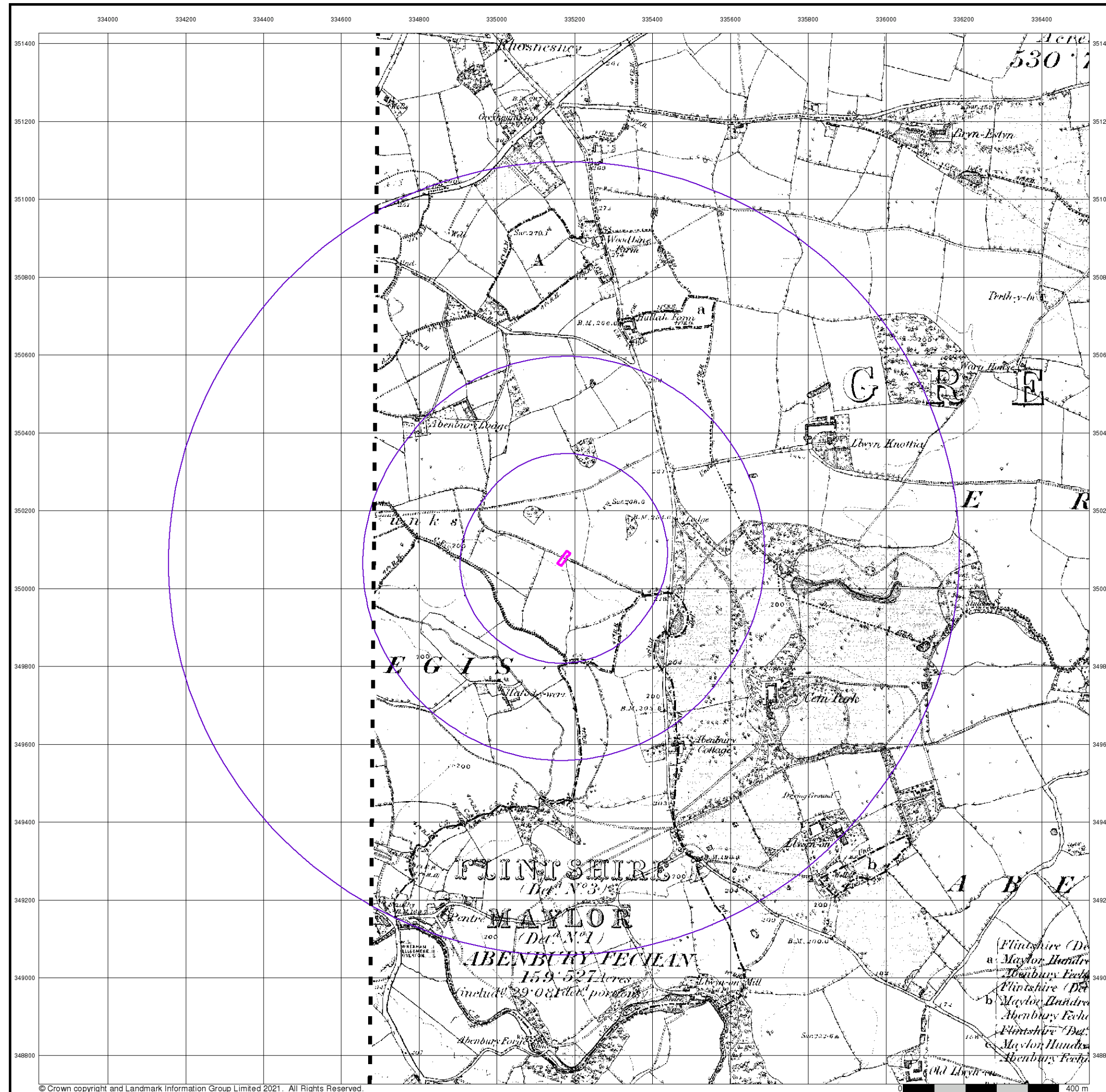
Historical Map - Slice A



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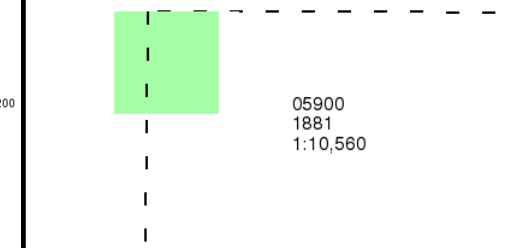
Cheshire

Published 1881

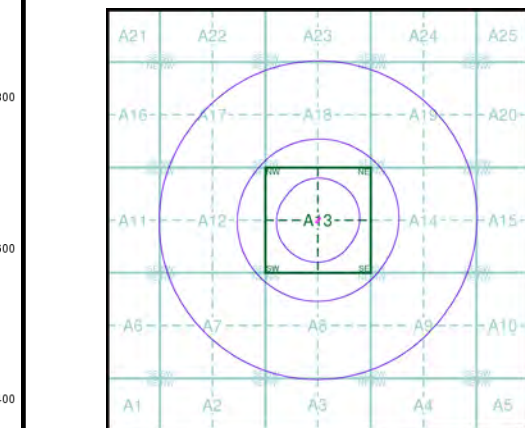
Source map scale - 1:10,560

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Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

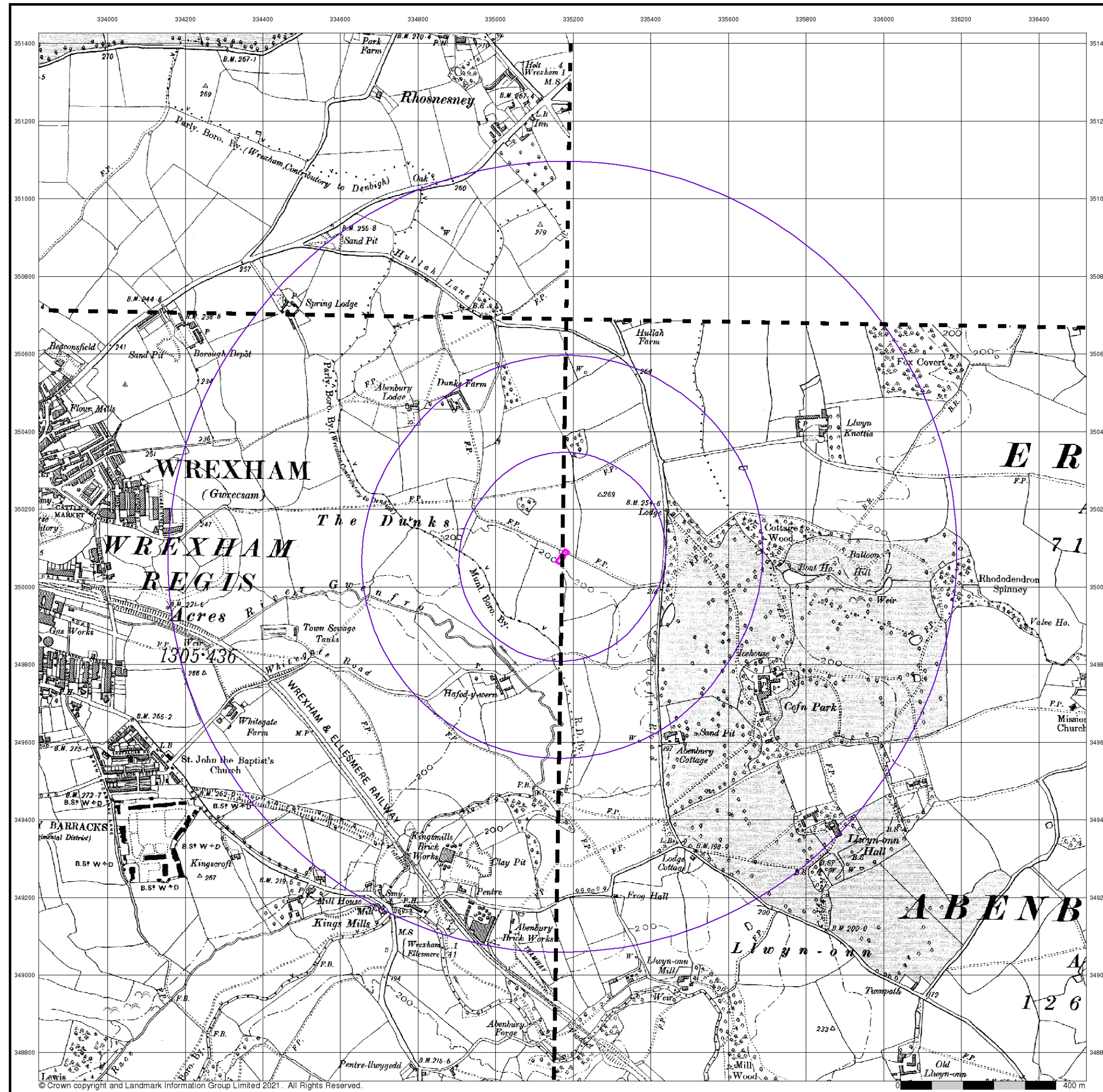
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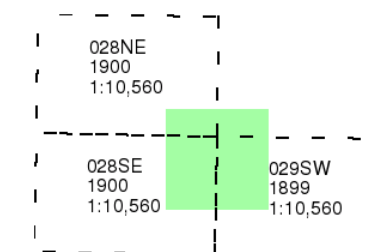
Denbighshire

Published 1899 - 1900

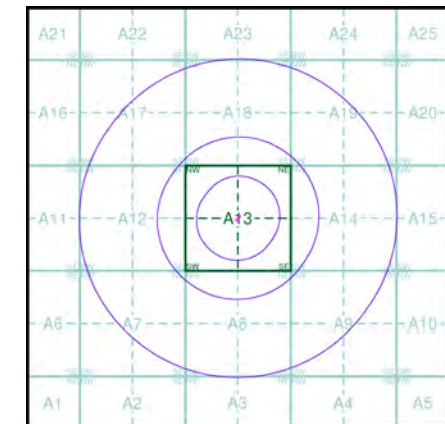
Source map scale - 1:10,560

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Map Name(s) and Date(s)



Historical Map - Slice A

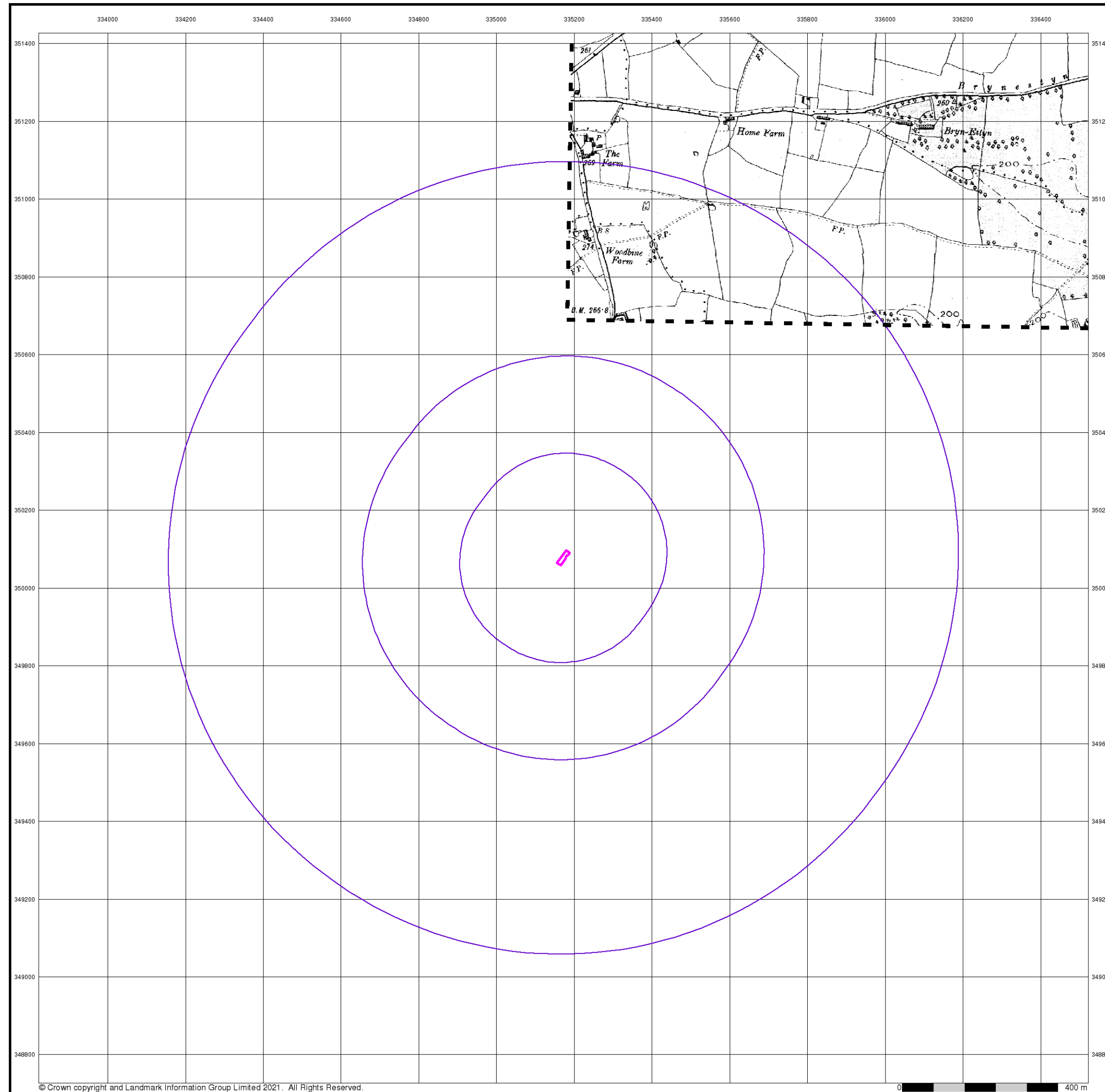


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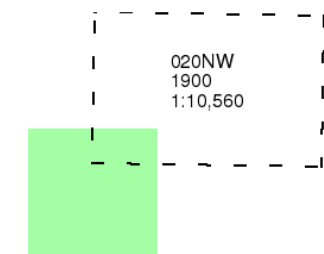
Flintshire

Published 1900

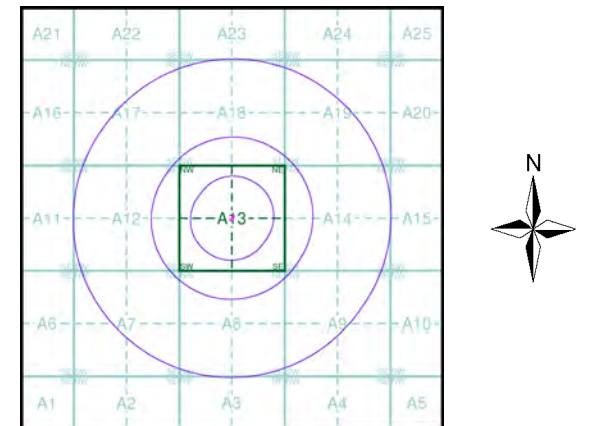
Source map scale - 1:10,560

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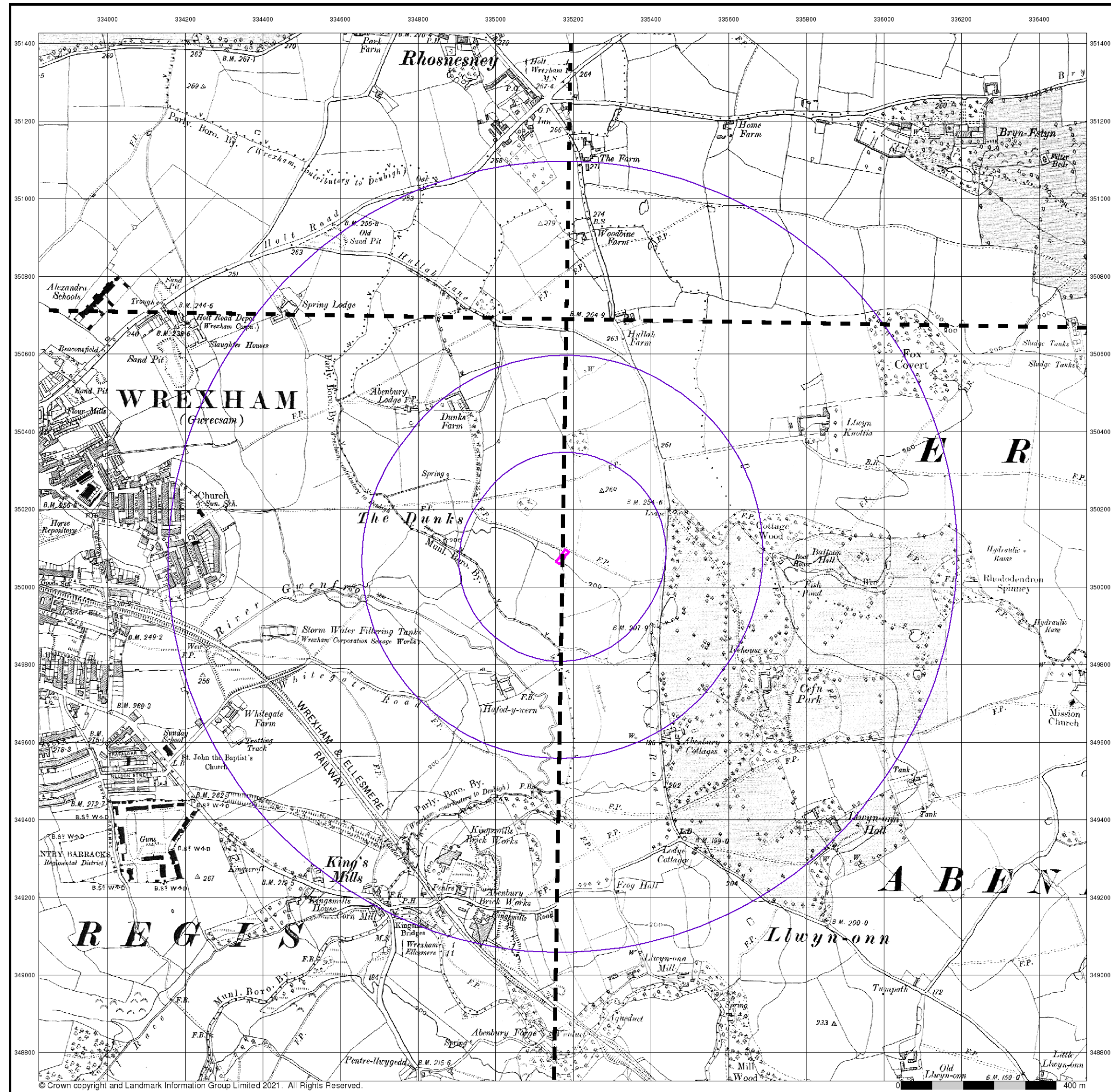


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Customer Ref: R3044
National Grid Reference: 335170, 350080
Slice: A
Site Area (Ha): 0.05
Search Buffer (m): 1000

Site Details

Off Street Parking, Bala Road, WREXHAM, LL13 9LH



Denbighshire

Published 1914 - 1915

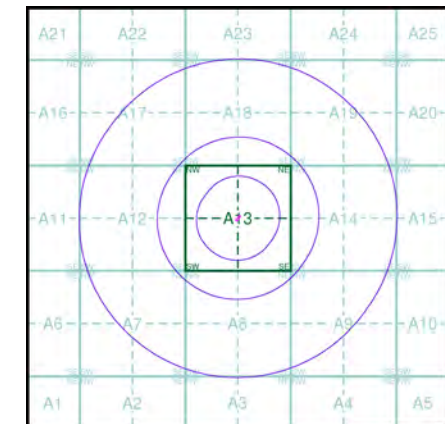
Source map scale - 1:10,560

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

Map Name(s) and Date(s)

028NE 1915 1:10,560	029NW 1914 1:10,560
028SE 1915 1:10,560	029SW 1914 1:10,560

Historical Map - Slice A

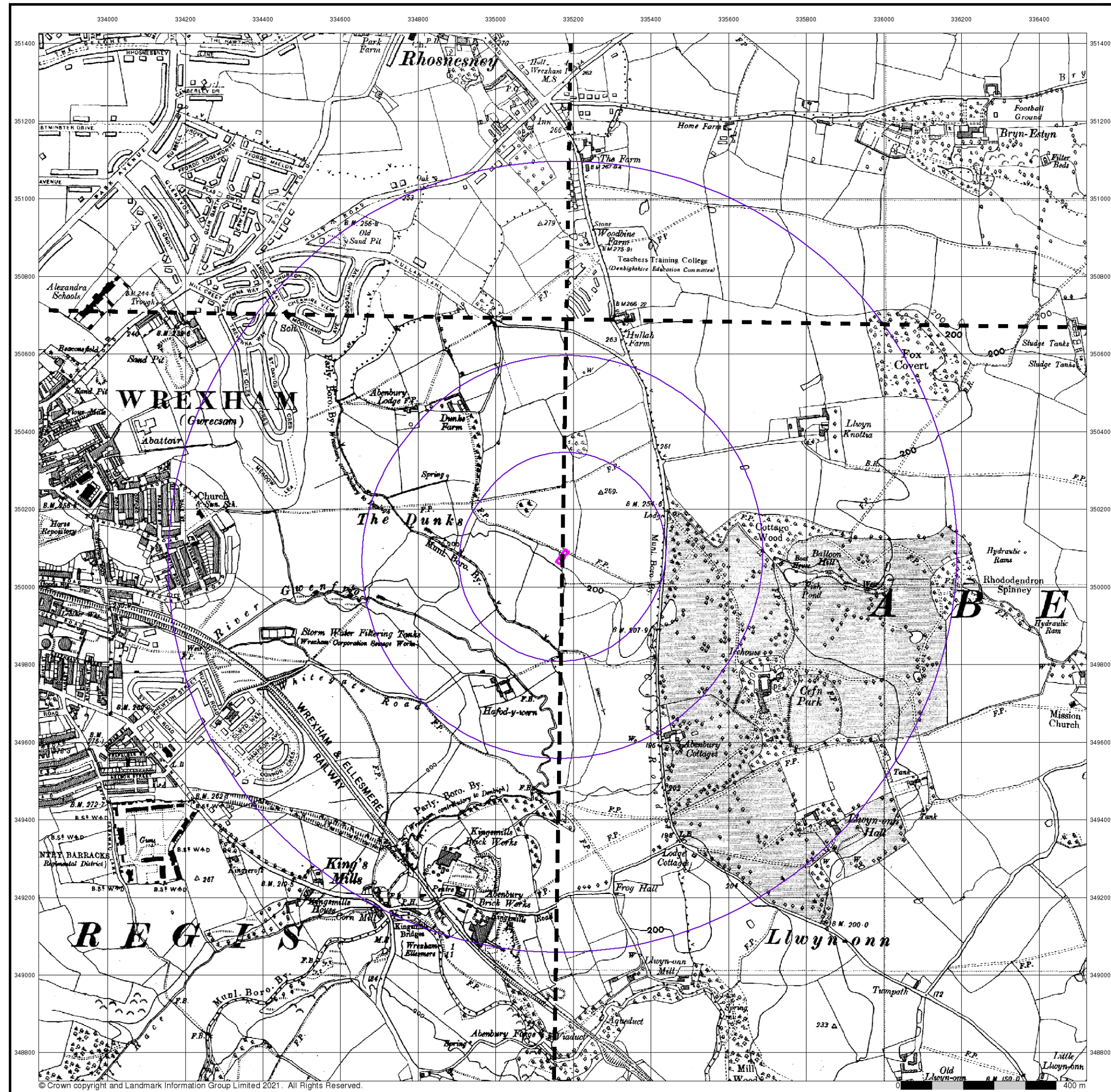


Order Details

Order Number: 286507536_1_1
Customer Ref: R3044
National Grid Reference: 335170, 350080
Slice: A
Site Area (Ha): 0.05
Search Buffer (m): 1000

Site Details

Off Street Parking, Bala Road, WREXHAM, LL13 9LH



Denbighshire

Published 1938 - 1954

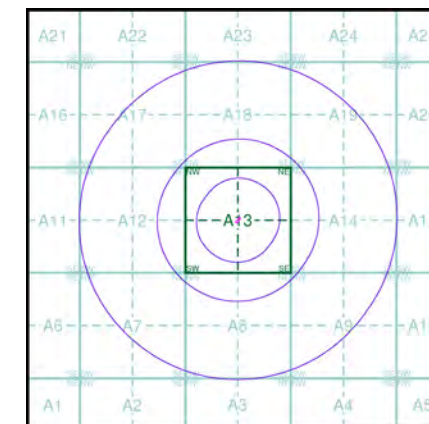
Source map scale - 1:10,560

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

Map Name(s) and Date(s)

028NE 1938 1:10,560	029NW 1954 1:10,560
028SE 1938 1:10,560	029SW 1938 1:10,560

Historical Map - Slice A



Order Details

Order Number: 286507536_1_1
Customer Ref: R3044
National Grid Reference: 335170, 350080
Slice: A
Site Area (Ha): 0.05
Search Buffer (m): 1000

Site Details

Off Street Parking, Bala Road, WREXHAM, LL13 9LH



Denbighshire

Published 1938 - 1954

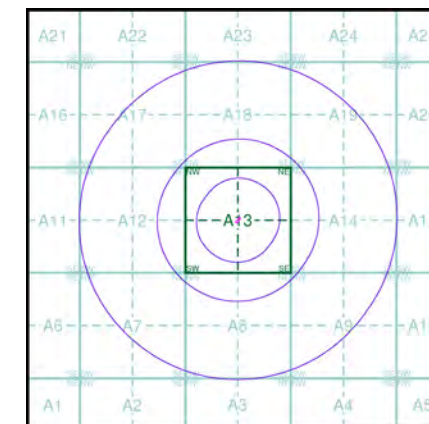
Source map scale - 1:10,560

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

Map Name(s) and Date(s)

028NE 1938 1:10,560		028SE 1938 1:10,560	029SW 1954 1:10,560
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Historical Map - Slice A

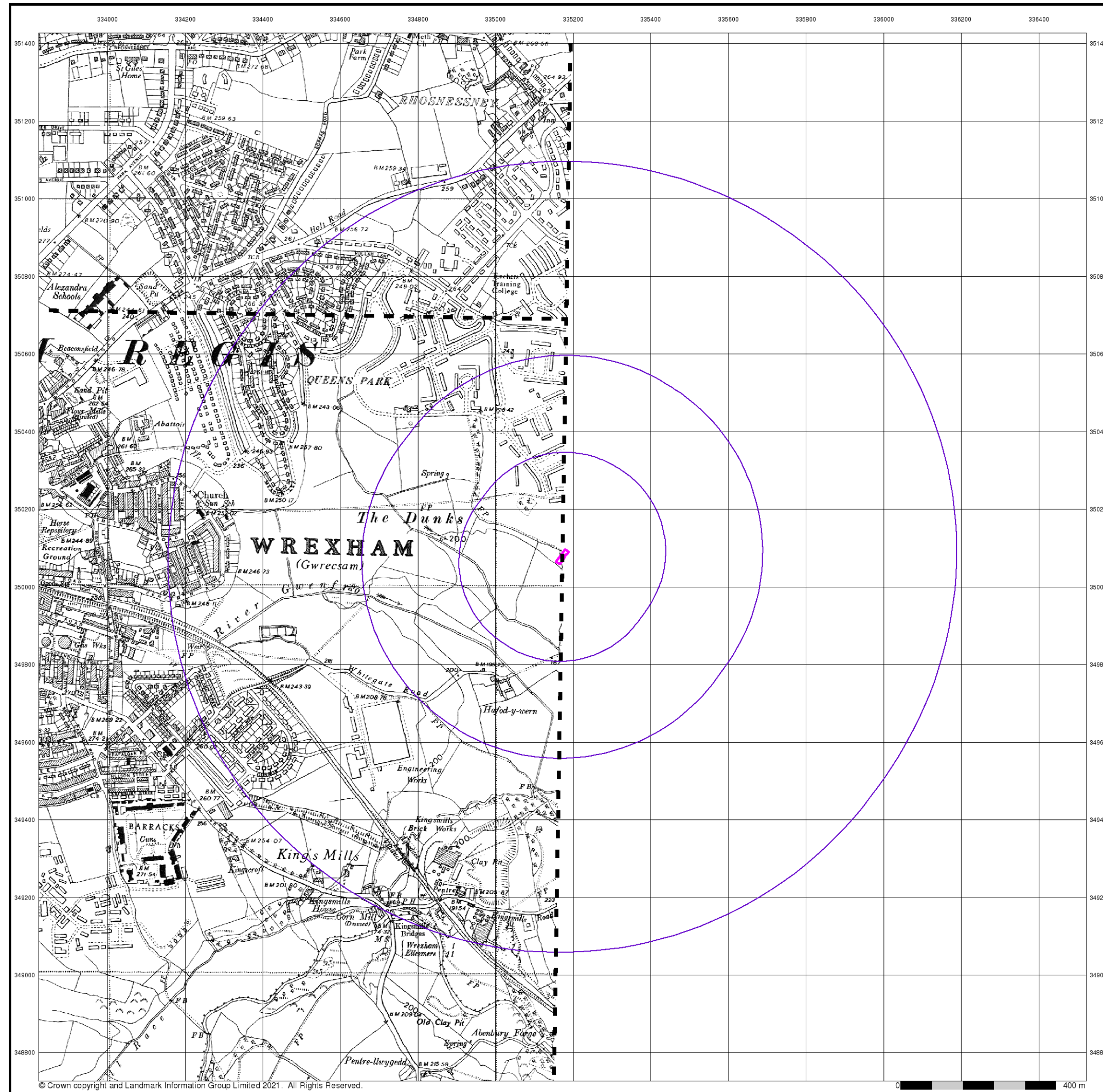


Order Details

Order Number: 286507536_1_1
Customer Ref: R3044
National Grid Reference: 335170, 350080
Slice: A
Site Area (Ha): 0.05
Search Buffer (m): 1000

Site Details

Off Street Parking, Bala Road, WREXHAM, LL13 9LH



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Denbighshire

Published 1954

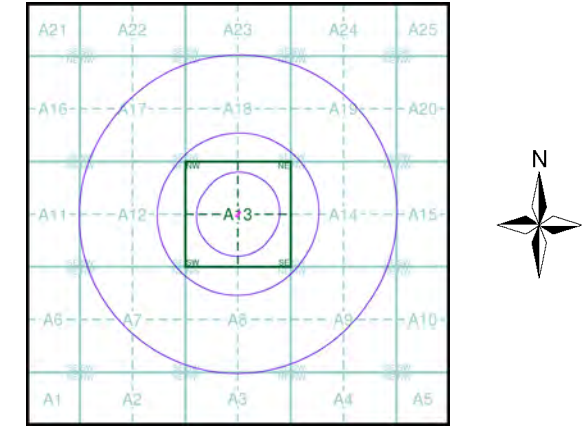
Source map scale - 1:10,560

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

Map Name(s) and Date(s)

028NE	1954	1:10,560
028SE	1954	1:10,560

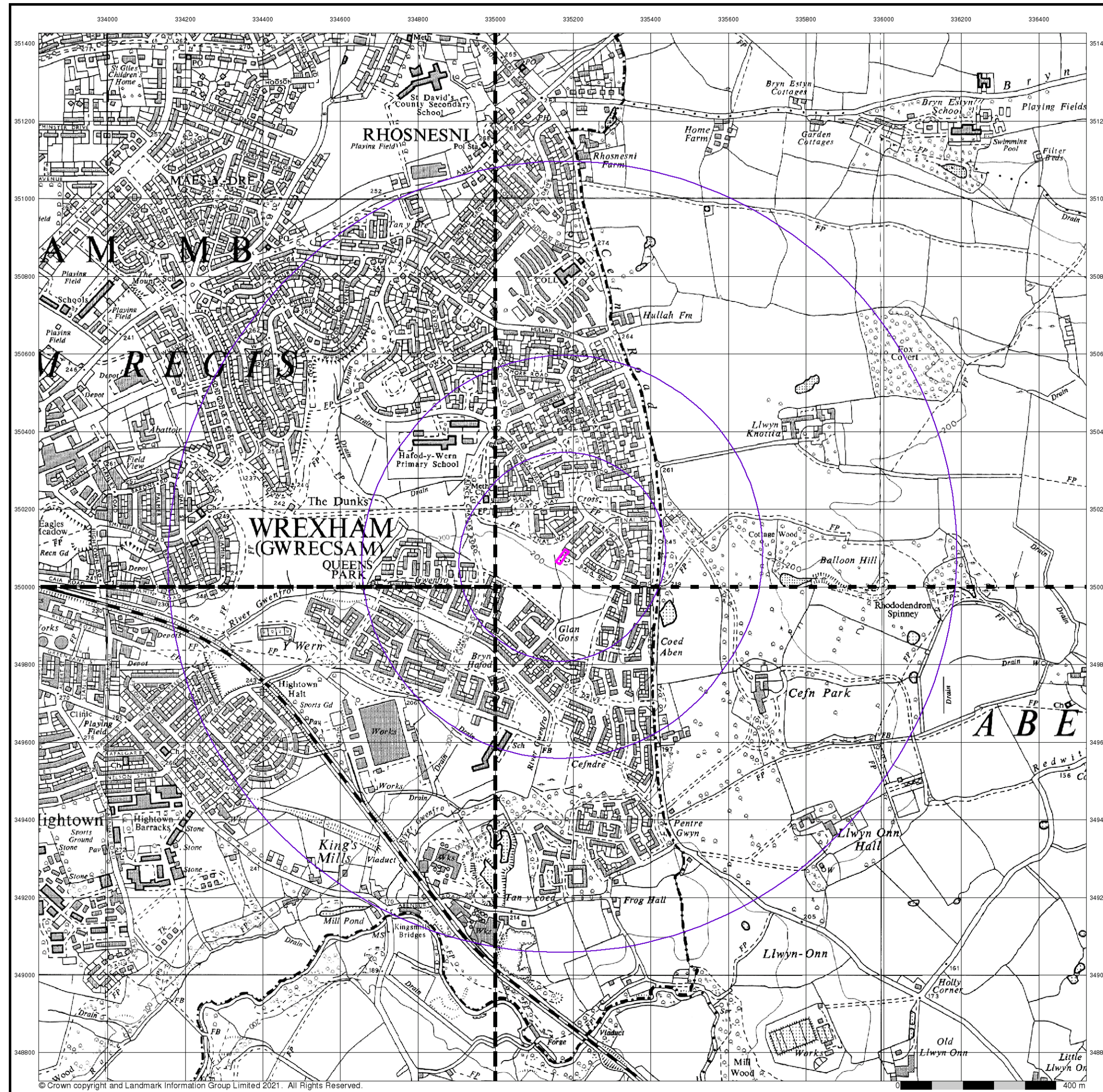
Historical Map - Slice A



Order Details	
Order Number:	286507536_1_1
Customer Ref:	R3044
National Grid Reference:	335170, 350080
Slice:	A
Site Area (Ha):	0.05
Search Buffer (m):	1000

Site Details

Off Street Parking, Bala Road, WREXHAM, LL13 9LH



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Ordnance Survey Plan

Published 1964

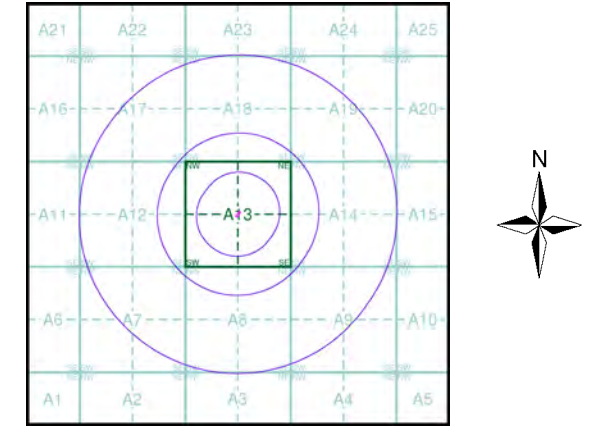
Source map scale - 1:10,000

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

Map Name(s) and Date(s)

SJ35SW	SJ35SE
1964	1964
1:10,560	1:10,560
SJ34NW	SJ34NE
1964	1964
1:10,560	1:10,560

Historical Map - Slice A



Order Details

Order Number: 286507536_1_1

Customer Ref: R3044

National Grid Reference: 335170, 350080

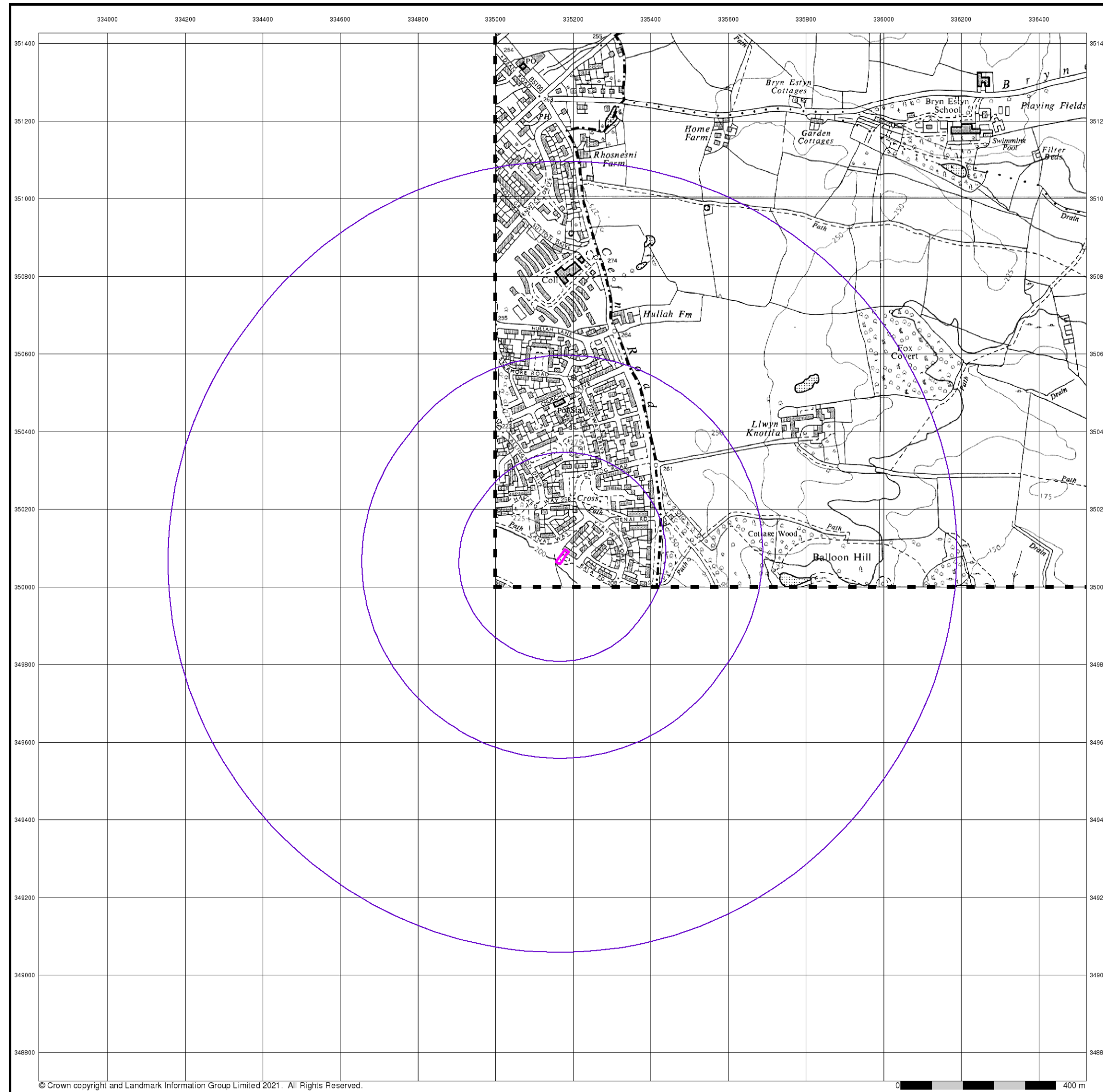
Slice: A

Site Area (Ha): 0.05

Search Buffer (m): 1000

Site Details

Off Street Parking, Bala Road, WREXHAM, LL13 9LH



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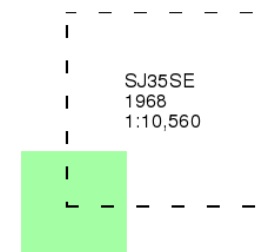
Ordnance Survey Plan

Published 1968

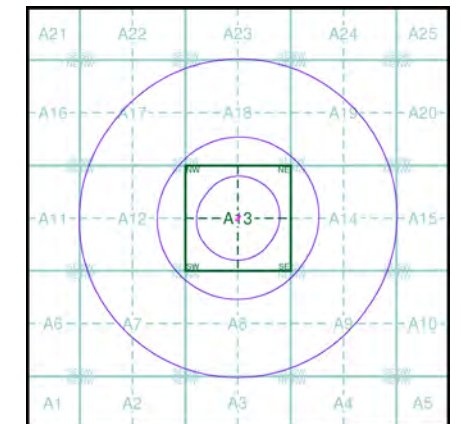
Source map scale - 1:10,000

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

Map Name(s) and Date(s)



Historical Map - Slice A

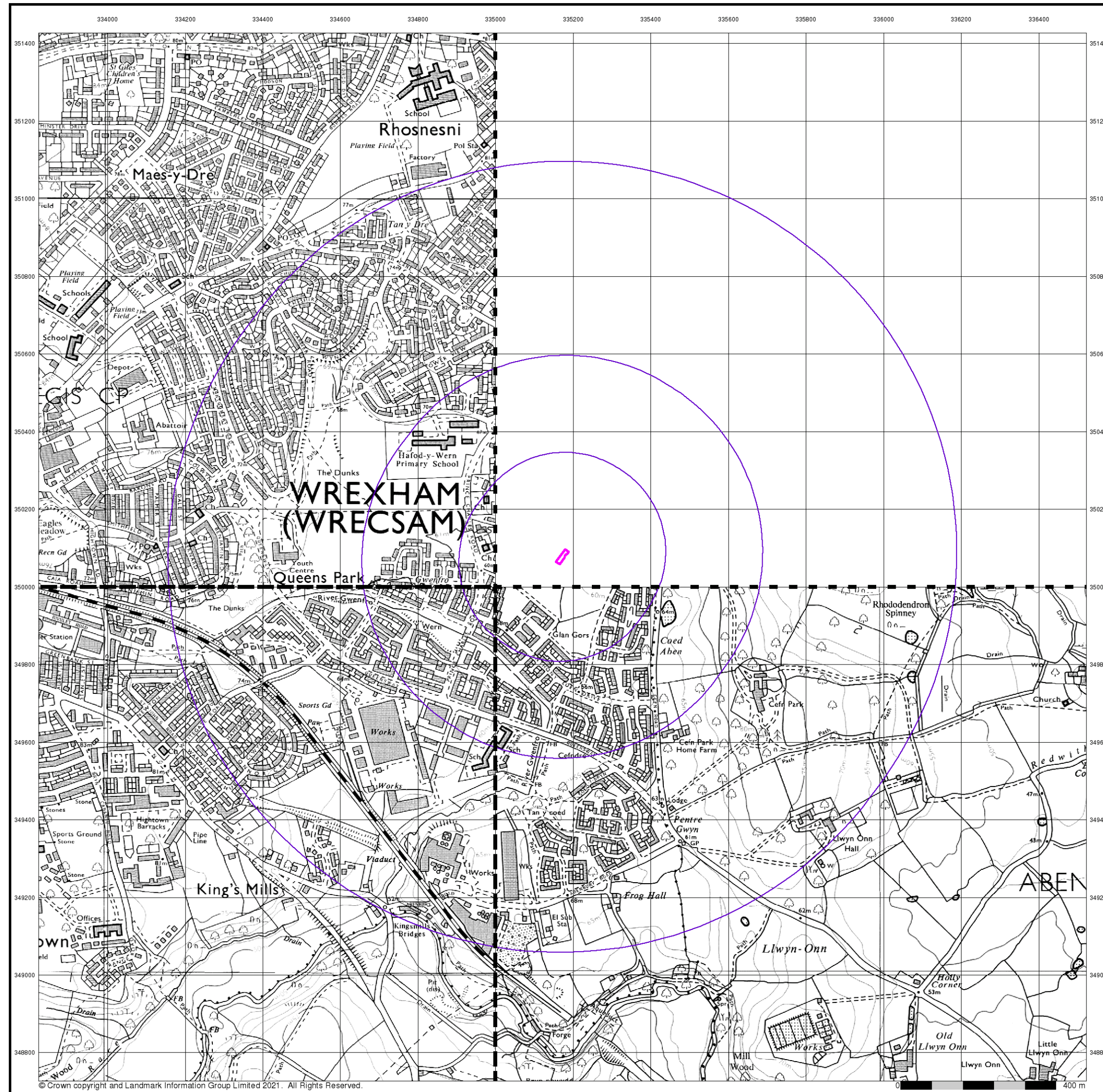


Order Details

Order Number: 286507536_1_1
Customer Ref: R3044
National Grid Reference: 335170, 350080
Slice: A
Site Area (Ha): 0.05
Search Buffer (m): 1000

Site Details

Off Street Parking, Bala Road, WREXHAM, LL13 9LH



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Ordnance Survey Plan

Published 1974 - 1979

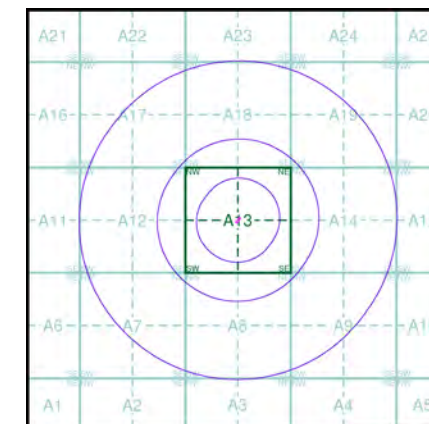
Source map scale - 1:10,000

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

Map Name(s) and Date(s)

SJ35SW	1974	1:10,000
SJ34NW	1979	1:10,000
SJ34NE	1979	1:10,000

Historical Map - Slice A

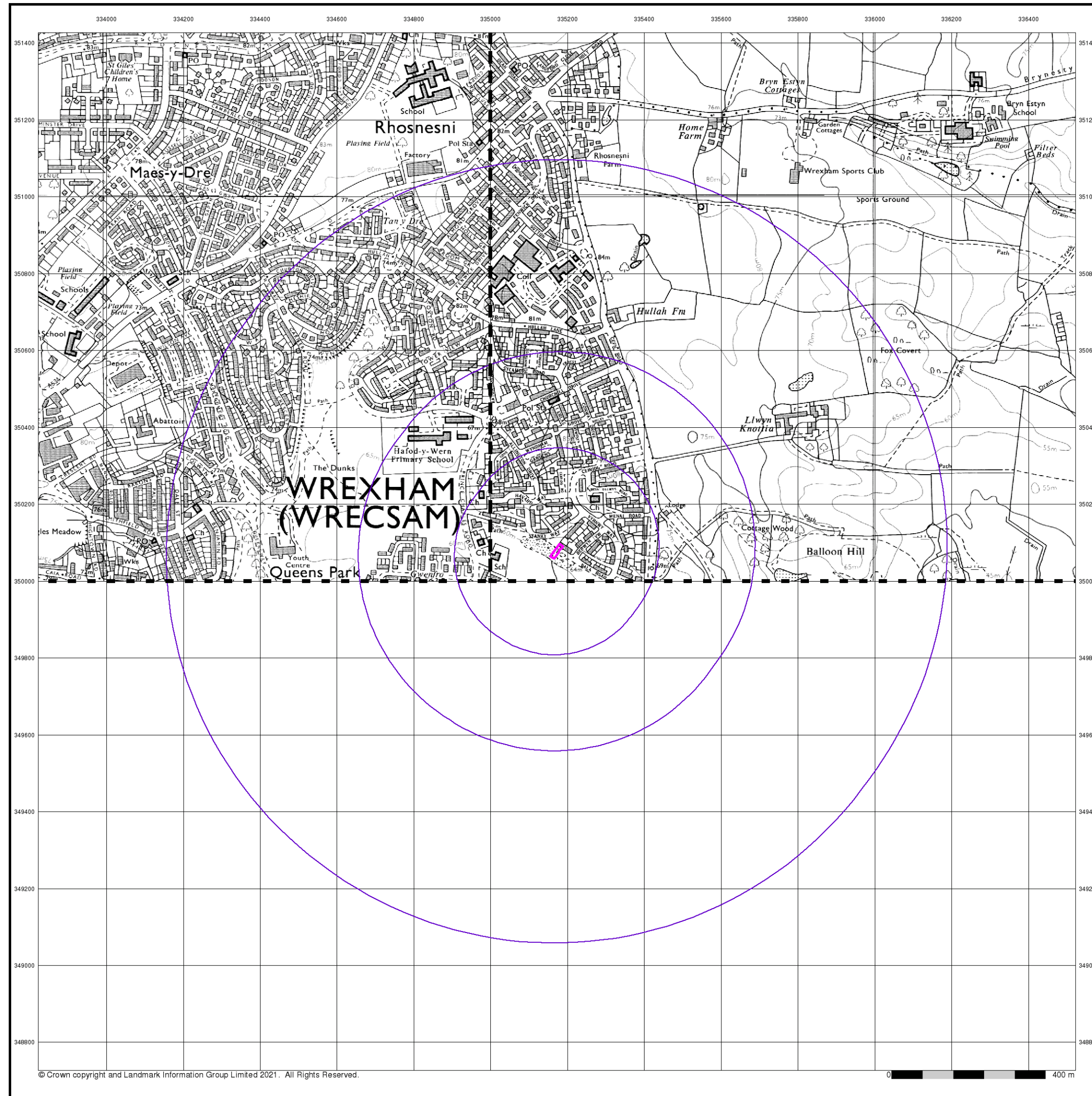


Order Details

Order Number: 286507536_1_1
Customer Ref: R3044
National Grid Reference: 335170, 350080
Slice: A
Site Area (Ha): 0.05
Search Buffer (m): 1000

Site Details

Off Street Parking, Bala Road, WREXHAM, LL13 9LH



Ordnance Survey Plan

Published 1981 - 1983

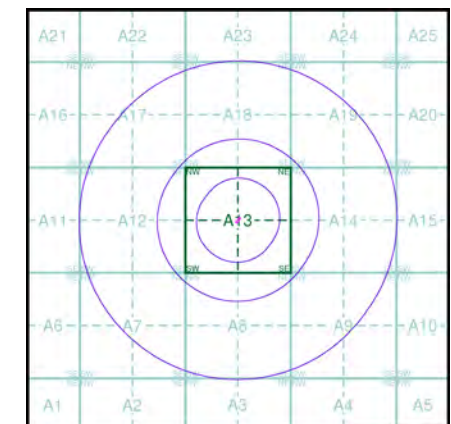
Source map scale - 1:10,000

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

Map Name(s) and Date(s)

SJ35SW 1981 1:10,000	SJ35SE 1983 1:10,000
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Historical Map - Slice A

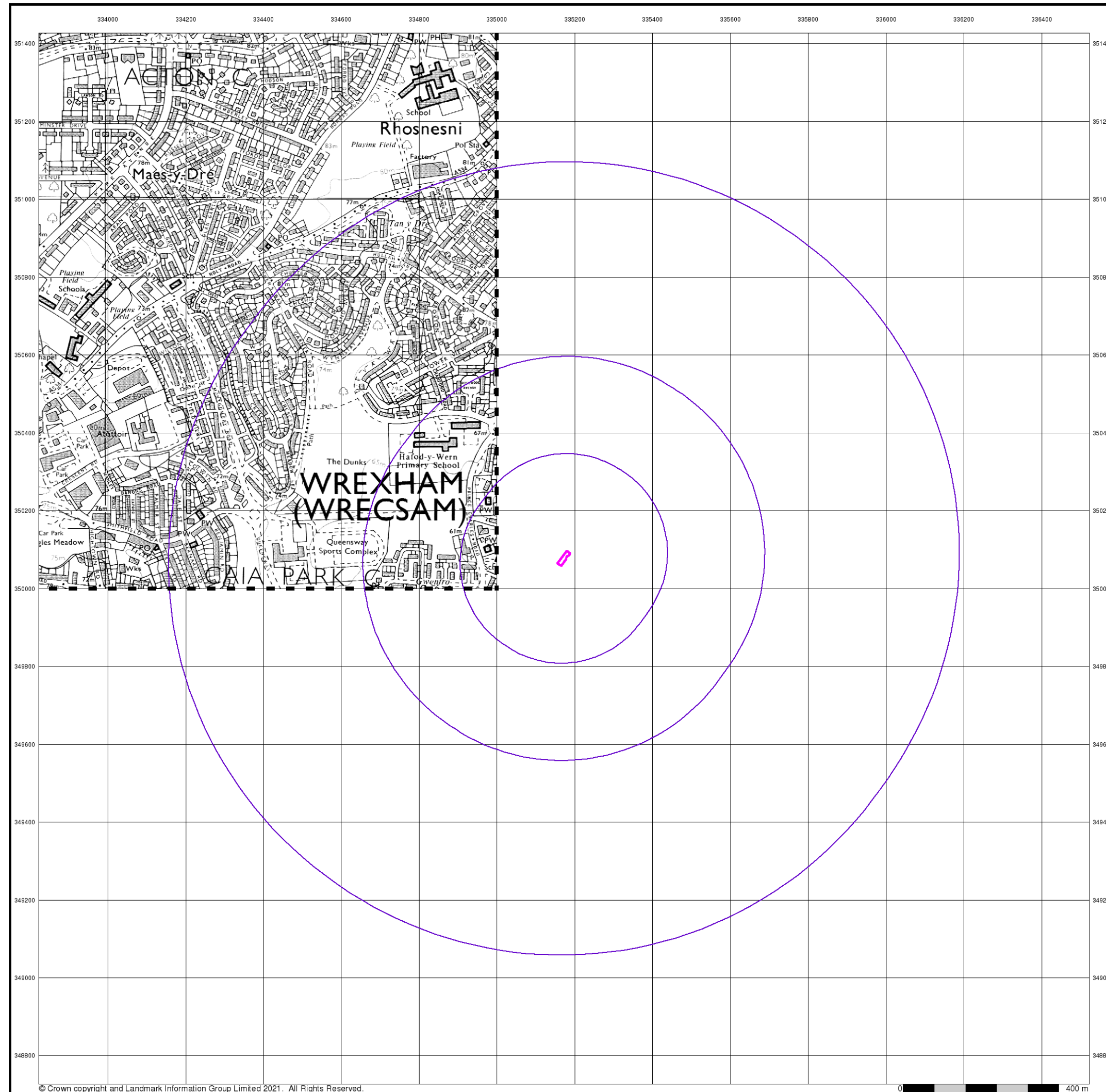


Order Details

Order Number: 286507536_1_1
Customer Ref: R3044
National Grid Reference: 335170, 350080
Slice: A
Site Area (Ha): 0.05
Search Buffer (m): 1000

Site Details

Off Street Parking, Bala Road, WREXHAM, LL13 9LH



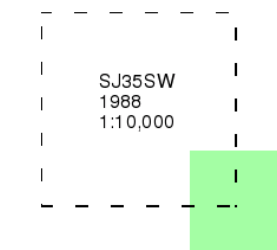
Ordinance Survey Plan

Published 1988

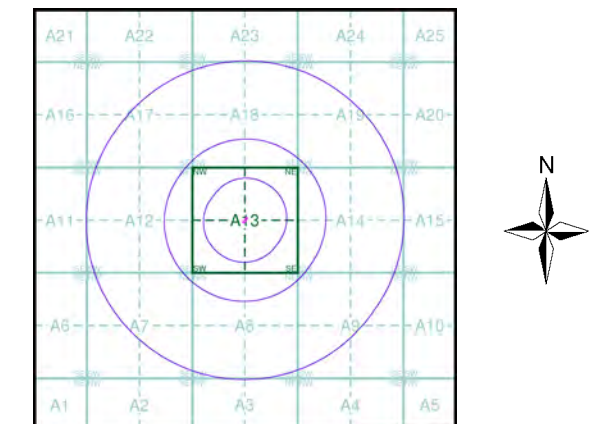
Source map scale - 1:10,000

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

Map Name(s) and Date(s)



Historical Map - Slice A

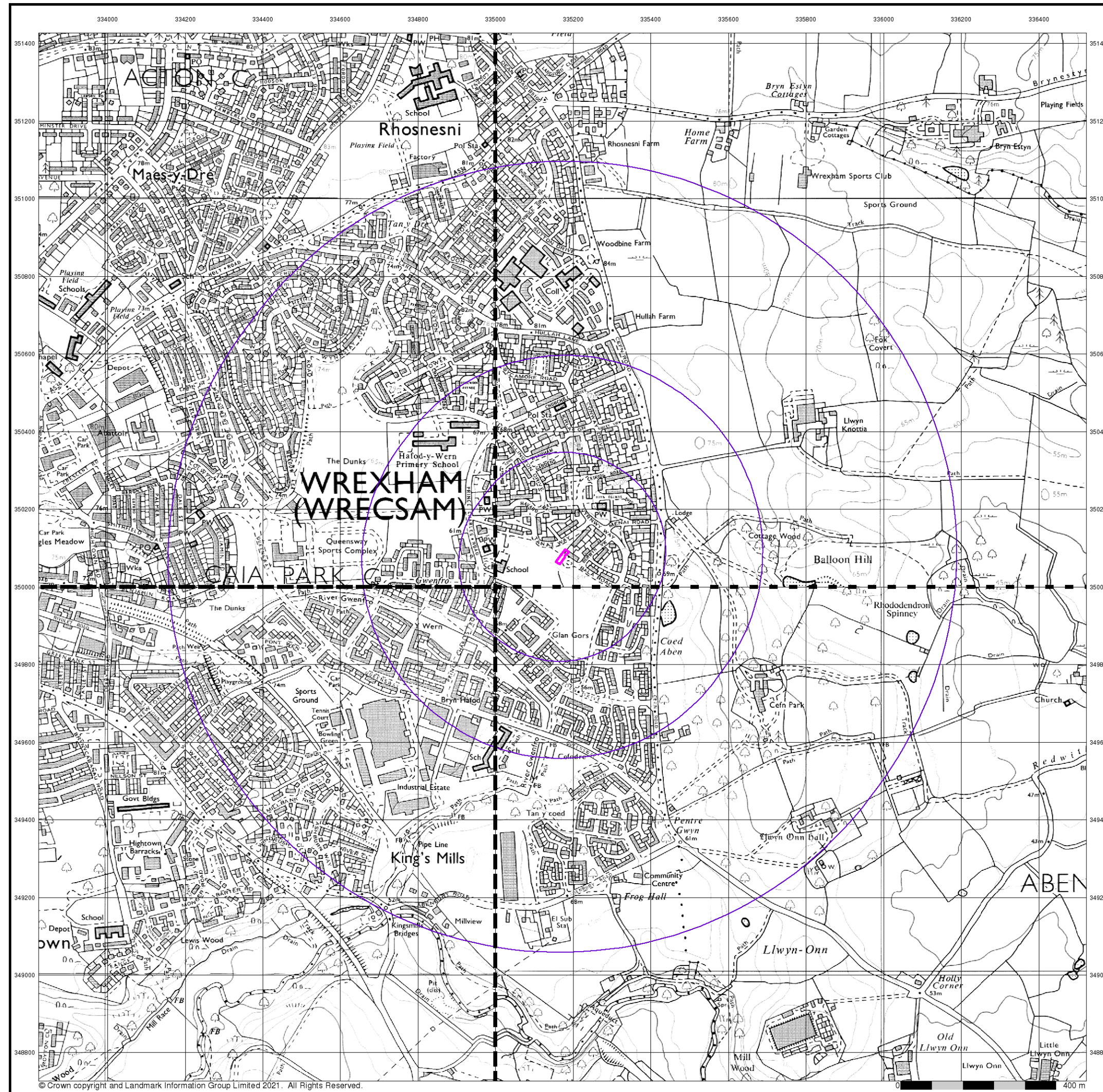


Order Details

Order Number: 286507536_1_1
Customer Ref: R3044
National Grid Reference: 335170, 350080
Slice: A
Site Area (Ha): 0.05
Search Buffer (m): 1000

Site Details

Off Street Parking, Bala Road, WREXHAM, LL13 9LH



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Ordnance Survey Plan

Published 1990 - 1993

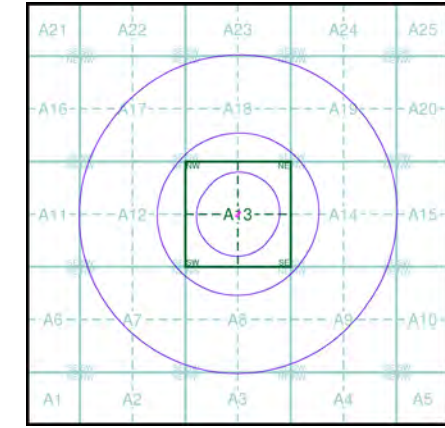
Source map scale - 1:10,000

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

Map Name(s) and Date(s)

SJ35SW	SJ35SE
1990	1992
1:10,000	1:10,000
SJ34NW	SJ34NE
1993	1992
1:10,000	1:10,000

Historical Map - Slice A

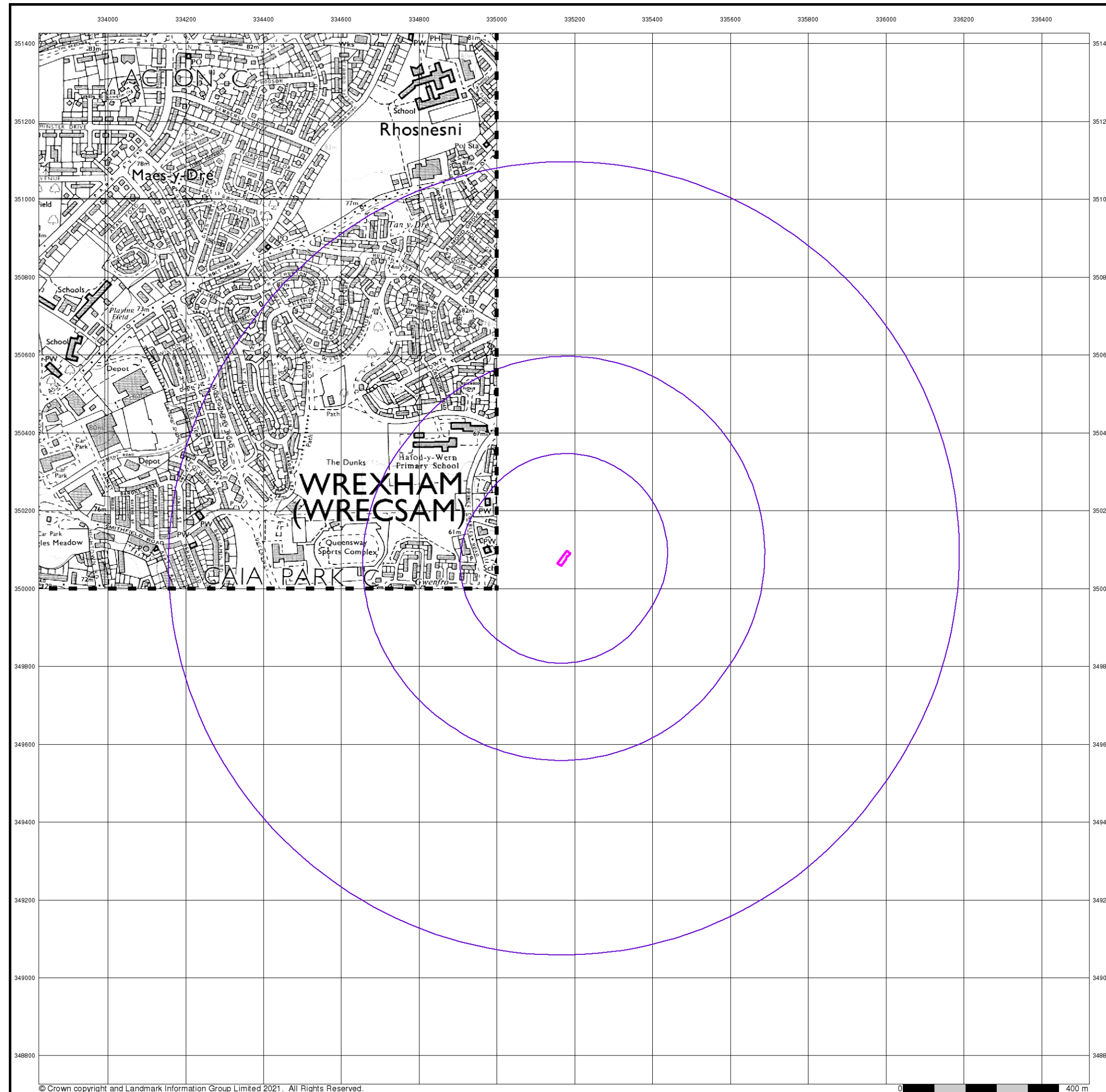


Order Details

Order Number: 286507536_1_1
Customer Ref: R3044
National Grid Reference: 335170, 350080
Slice: A
Site Area (Ha): 0.05
Search Buffer (m): 1000

Site Details

Off Street Parking, Bala Road, WREXHAM, LL13 9LH



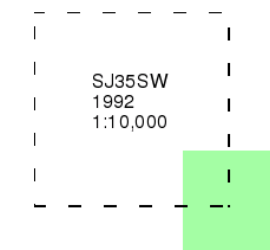
Ordnance Survey Plan

Published 1992

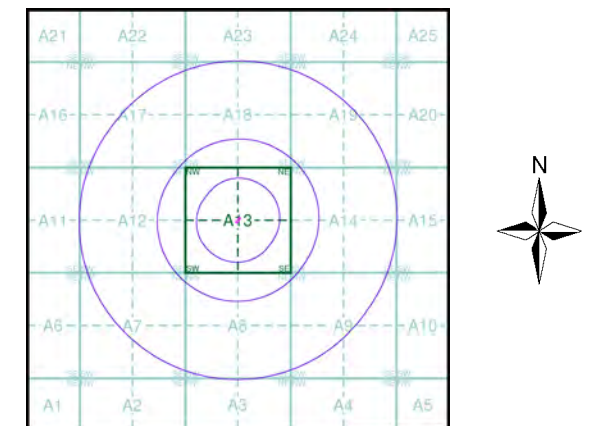
Source map scale - 1:10,000

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

Map Name(s) and Date(s)



Historical Map - Slice A

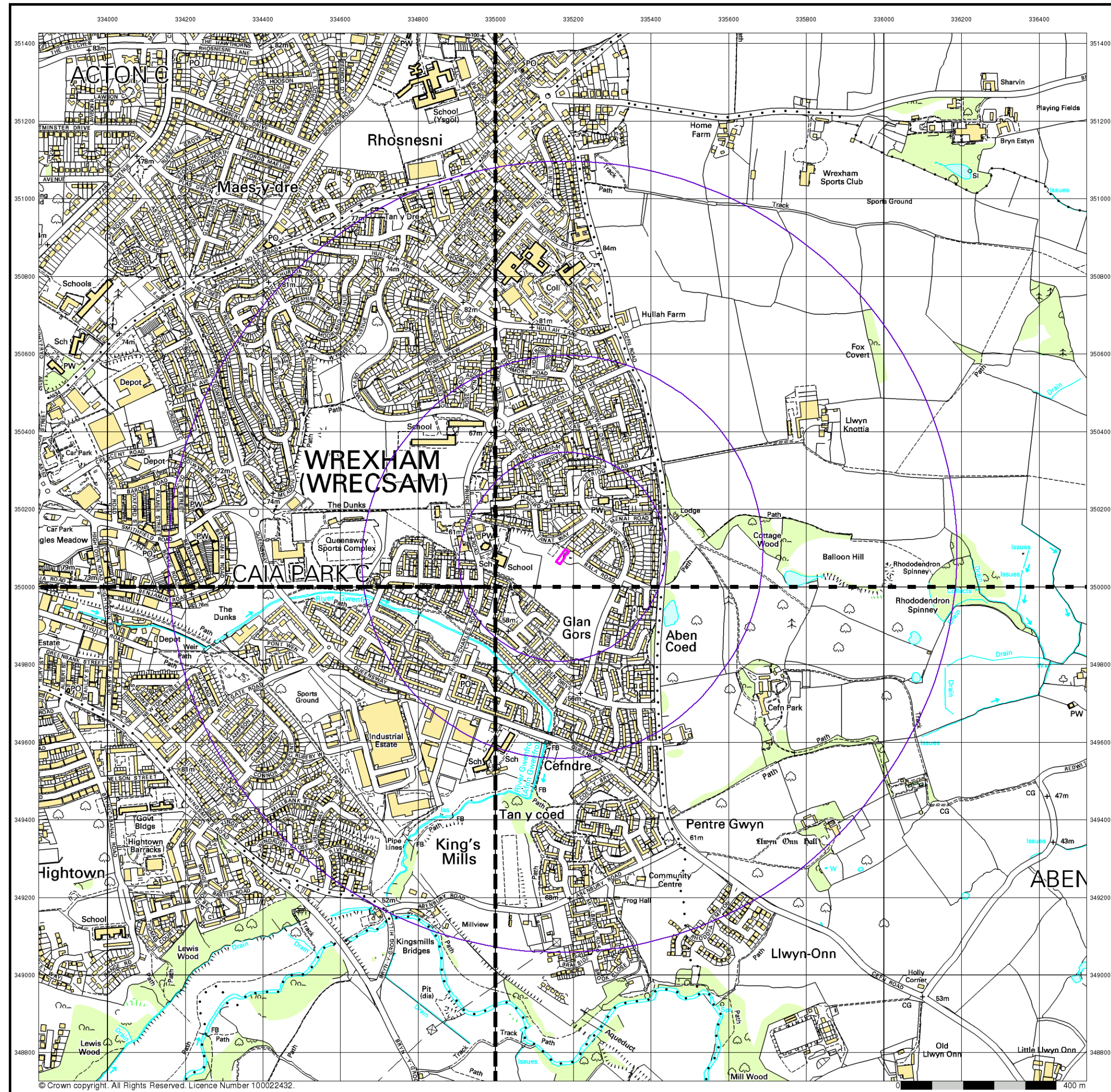


Order Details

Order Number: 286507536_1_1
Customer Ref: R3044
National Grid Reference: 335170, 350080
Slice: A
Site Area (Ha): 0.05
Search Buffer (m): 1000

Site Details

Off Street Parking, Bala Road, WREXHAM, LL13 9LH



Envirocheck[®]

LANDMARK INFORMATION GROUP[®]

10k Raster Mapping

Published 2000

Source map scale - 1:10,000

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

Map Name(s) and Date(s)

SJ35SW	SJ35SE
2000	2000
1:10,000	1:10,000

SJ34NW	SJ34NE
2000	2000
1:10,000	1:10,000

Historical Map - Slice A

Order Details

Order Number: 286507536_1_1
Customer Ref: R3044
National Grid Reference: 335170, 350080
Slice: A
Site Area (Ha): 0.05
Search Buffer (m): 1000

Site Details

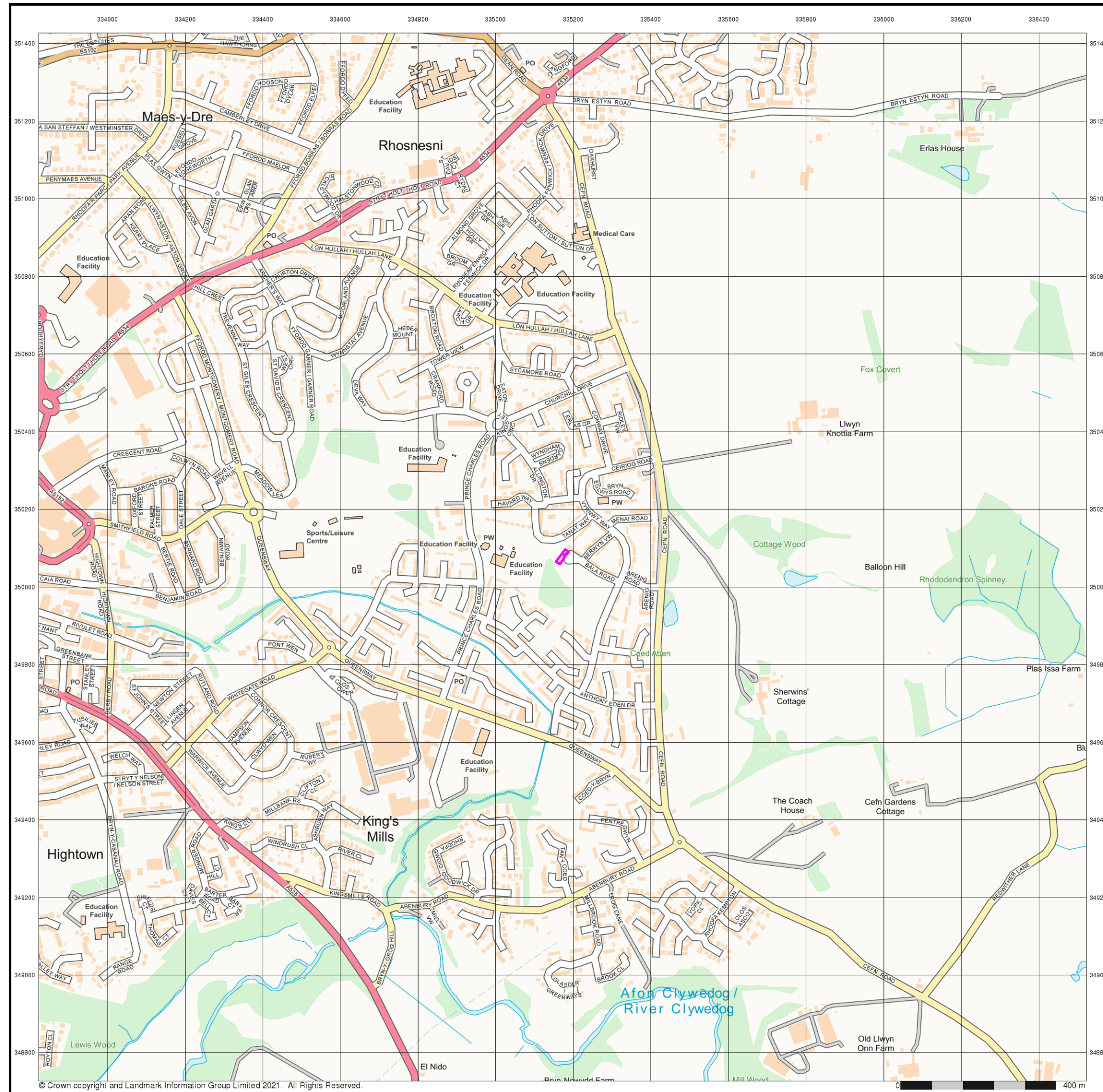
Off Street Parking, Bala Road, WREXHAM, LL13 9LH

Landmark[®]

INFORMATION GROUP

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

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Street View

Published 2021

Source map scale - 1:10,000

Street View is a street-level map for the whole of Great Britain produced by the Ordnance Survey. These maps are provided at a nominal scale of 1:10,000

Map Name(s) and Date(s)

Street View Map - Slice A

Order Details

Order Number:	286507536_1_1
Customer Ref:	R3044
National Grid Reference:	335170, 350080
Slice:	A
Site Area (Ha):	0.05
Search Buffer (m):	1000

Site Details

Off Street Parking, Bala Road, WREXHAM, LL13 9LH

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

	Quarry		Gravel Pit		Sand Pit
	Clay Pit		Shingle		Refuse Heap
	Sloping Masonry		Flat Rock		
	Marsh		Reeds		Osiers
	Rough Pasture		Furze		Wood
	Mixed Wood		Brushwood		Orchard
	Fir		Ford		Stepping Stones
	Ferry		Waterfall		Lock

	Trig. Station	507 	Altitude at Trig. Station
<i>B.M. 325-9</i> 	Bench Mark	342 +	Surface Level
	Arrow denotes flow of water		Antiquities (site of)



Cutting



Embankment

Railway crossing Road

Level Crossing

Road crossing Railway

Railway crossing
River or Canal

Road over
single stream

Road over
River or Canal

-----	County Boundary (Geographical)
- . - . - .	County & Civil Parish Boundary
+ . + . + .	Administrative County & Civil Parish Boundary
Co. Boro. Bdy.	County Borough Boundary (England)
Co. Burgh Bdy.	County Burgh Boundary (Scotland)

<i>B.P.B.S.</i>	Boundary Post or Stone	<i>P.C.B.</i>	Police Call Box
<i>B.R.</i>	Bridle Road	<i>P.</i>	Pump
<i>E.P.</i>	Electricity Pylon	<i>S.P.</i>	Signal Post
<i>F.B.</i>	Foot Bridge	<i>Sl.</i>	Sluice
<i>F.P.</i>	Foot Path	<i>Sp.</i>	Spring
<i>G.P.</i>	Guide Post or Board	<i>T.C.B.</i>	Telephone Call Box
<i>M.S.</i>	Mile Stone	<i>Tr.</i>	Trough
<i>M.P.M.R.</i>	Mooring Post or Ring	<i>W.</i>	Well

Inactive Quarry, Chalk Pit or Clay Pit

Active Quarry, Chalk Pit or Clay Pit

Rock

Boulders

Cliff

Slopes

Top

Top

Roofed Building

Glazed Roof Building

Top

Sloping Masonry

Archway

Non-Coniferous Tree (surveyed)

Coniferous Tree (surveyed)

Non-Coniferous Trees (not surveyed)

Coniferous Trees (not surveyed)

	Orchard Tree		Scrub		Bracken
	Coppice, Osier		Reeds		Marsh, Saltings
	Rough Grassland		Heath		Culvert
	Direction of water flow		Bench Mark		Antiquity (site of)
	Cave Entrance		Triangulation Station		Electricity Pylon

	Electricity Transmission Line
	County Boundary (Geographical)
	County & Civil Parish Boundary
	Civil Parish Boundary
	Admin. County or County Bor. Boundary
	London Borough Boundary
	Symbol marking point where boundary merging changes

BH	Beer House	P	Pillar, Pole or Post
BP, BS	Boundary Post or Stone	PO	Post Office
Cn, C	Capstan, Crane	PC	Public Convenience
Chy	Chimney	PH	Public House
D Fn	Drinking Fountain	Pp	Pump
EI P	Electricity Pillar or Post	SB, S Br	Signal Box or Bridge
FAP	Fire Alarm Pillar	SP, SL	Signal Post or Light
FB	Foot Bridge	Spr	Spring
GP	Guide Post	Tk	Tank or Track
H	Hydrant or Hydraulic	TCB	Telephone Call Box
LC	Level Crossing	TCP	Telephone Call Post
MH	Manhole	Tr	Trough
MP	Mile Post or Mooring Post	Wr Pt, Wr T	Water Point, Water Tap
MS	Mile Stone	W	Well
N TL	Normal Tidal Limit	Wd Pp	Wind Pump

	Cliff		Slopes		Top
	Rock		Rock (scattered)		Boulders (scattered)
	Boulders		Positioned Boulder		Scree
	Non-Coniferous Tree (surveyed)		Coniferous Tree (surveyed)		Non-Coniferous Trees (not surveyed)
	Non-Coniferous Trees (not surveyed)		Coniferous Trees (not surveyed)		Orchard Tree
	Orchard Tree		Scrub		Bracken
	Coppice, Osier		Reeds		Marsh, Saltings
	Rough		Heath		Culvert

 Direction of water flow
  Triangulation Station
  Antiquity (site of)

 Electricity Transmission Line
  Electricity Pylon

BM 291.60m Bench Mark

Buildings with Building Seed

Roofed Building

Glazed Roof Building

• • • • •	Civil parish/community boundary
— — — — —	District boundary
— • — — —	County boundary
○	Boundary post/stone
⊕ ⊖	Boundary mereing symbol (note: these always appear in opposed pairs or groups of three)

Bks	Barracks	P	Pillar, Pole or Post
Bty	Battery	PO	Post Office
Cemy	Cemetery	PC	Public Convenience
Chy	Chimney	Pp	Pump
Cis	Cistern	Ppg Sta	Pumping Station
Dismdt Rly	Dismantled Railway	PW	Place of Worship
El Gen Sta	Electricity Generating Station	Sewage Ppg Sta	Sewage Pumping Station
El P	Electricity Pole, Pillar	SB, S Br	Signal Box or Bridge
El Sub Sta	Electricity Sub Station	SP, SL	Signal Post or Light
FB	Filter Bed	Spr	Spring
Fn / D Fn	Fountain / Drinking Ftn.	Tk	Tank or Track
Gas Gov	Gas Valve Compound	Tr	Trough
GVC	Gas Governor	Wd Pp	Wind Pump
GP	Guide Post	Wr Pt, Wr T	Water Point, Water Tap
MH	Manhole	Wks	Works (building or area)
MP, MS	Mile Post or Mile Stone	W	Well

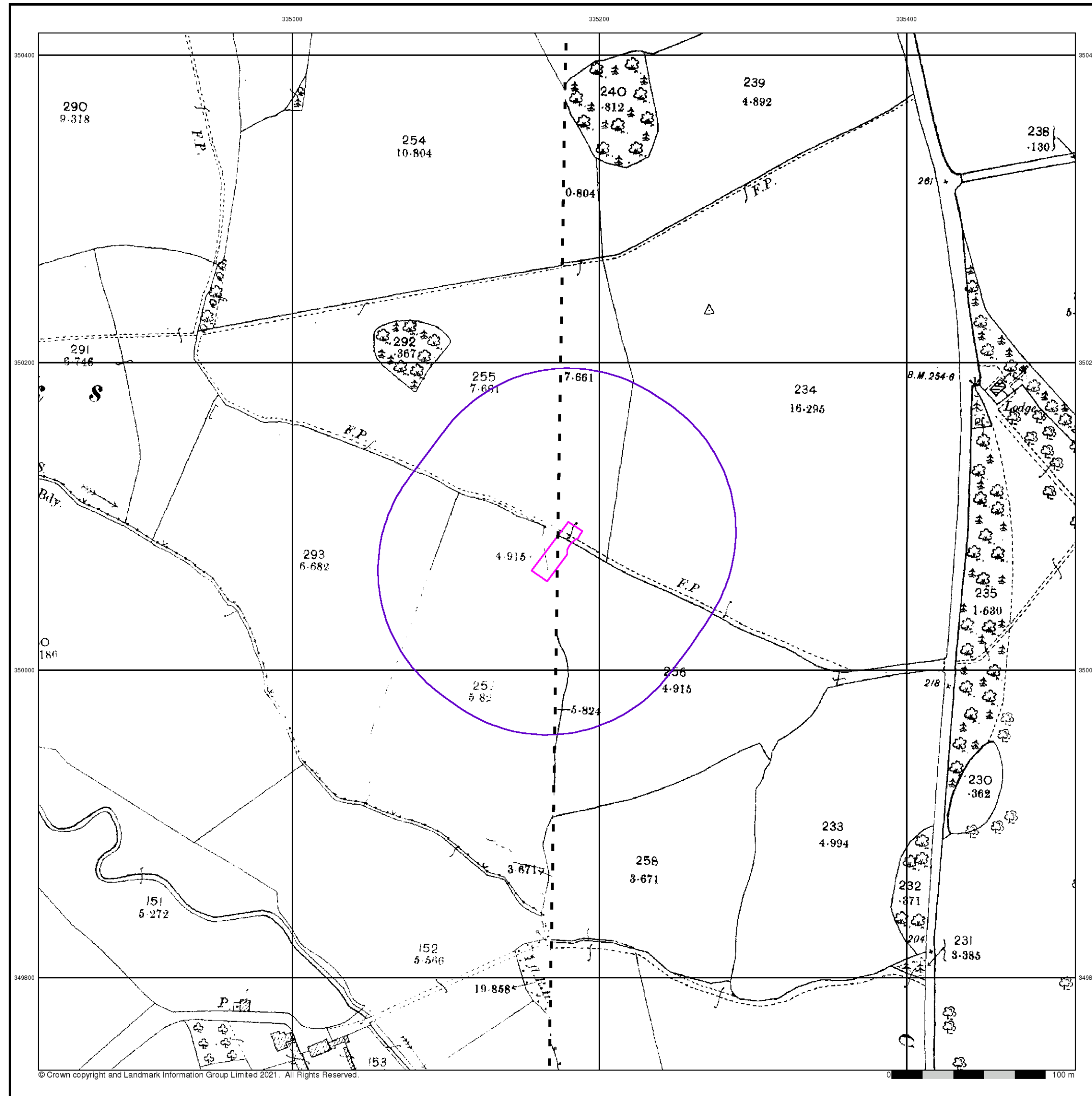
Mapping Type	Scale	Date	Pg
Denbighshire	1:2,500	1899	2
Denbighshire	1:2,500	1912	3
Denbighshire	1:2,500	1937	4
Ordnance Survey Plan	1:1,250	1959	5
Additional SIMs	1:1,250	1959 - 1989	6
Ordnance Survey Plan	1:2,500	1960 - 1961	7
Ordnance Survey Plan	1:1,250	1968	8
Ordnance Survey Plan	1:1,250	1984	9
Additional SIMs	1:1,250	1990	10
Large-Scale National Grid Data	1:1,250	1992	11
Large-Scale National Grid Data	1:1,250	1996	12

A 5x5 grid of points labeled A1 through A25. The points are arranged in a regular pattern. A 3x3 square is highlighted with a thick black border, centered at A13. The points within this square are A12, A13, and A14. A purple circle is drawn around the point A13.



Order Number: 286507536_1_1
Customer Ref: R3044
National Grid Reference: 335170, 350080
Slice: A
Site Area (Ha): 0.05
Search Buffer (m): 100

Off Street Parking, Bala Road, WREXHAM, LL13 9LH



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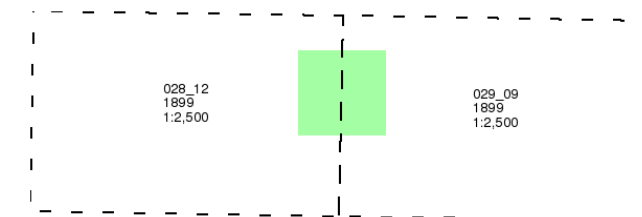
Denbighshire

Published 1899

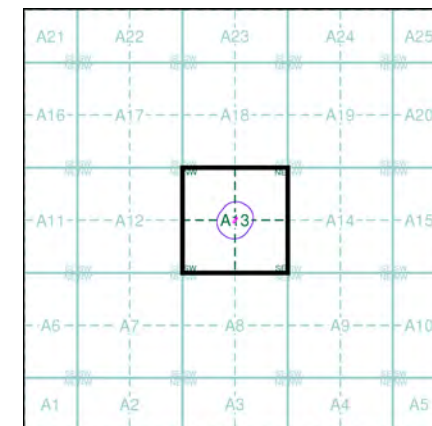
Source map scale - 1:2,500

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

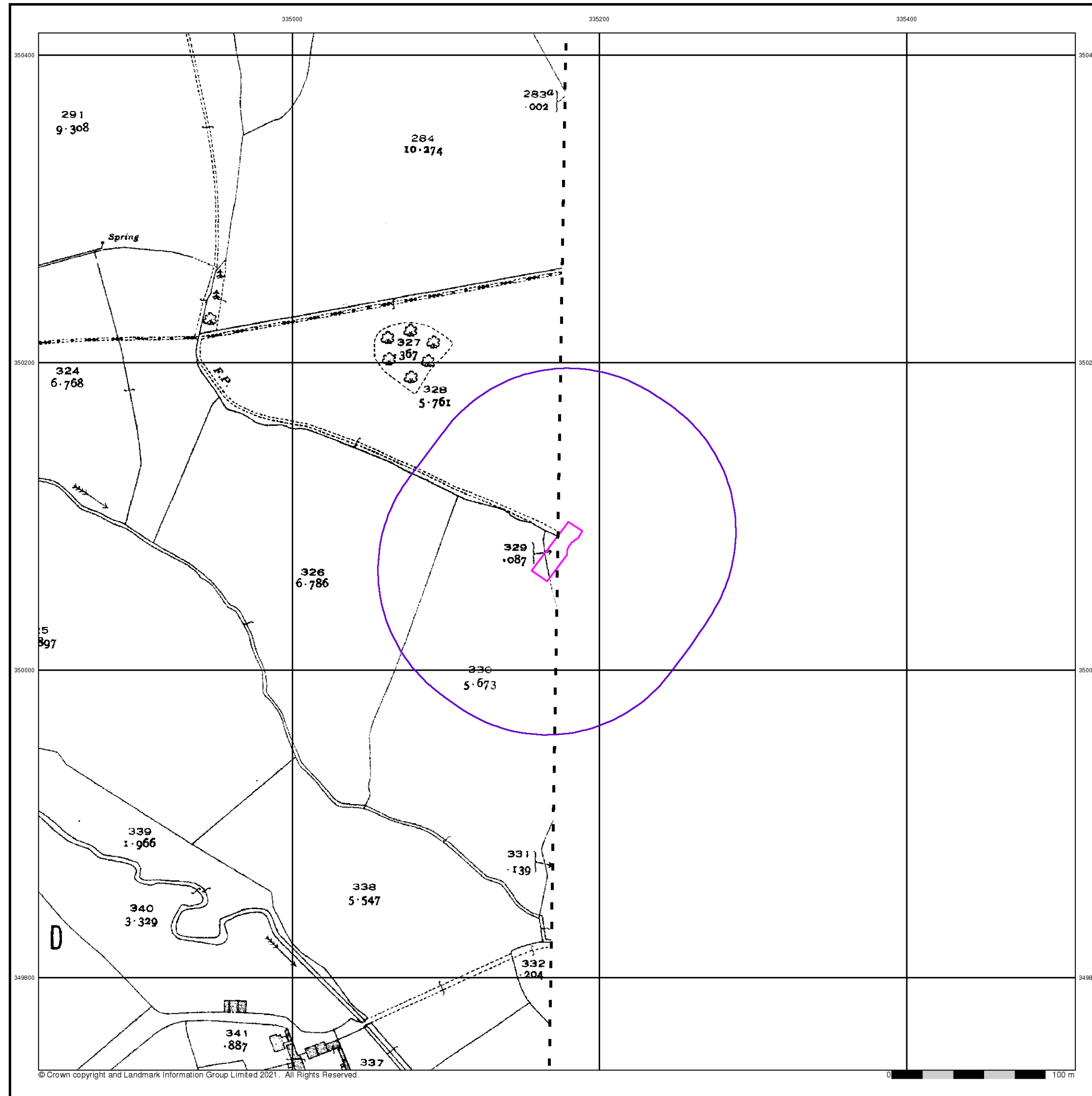
Order Number: 286507536_1_1
Customer Ref: R3044
National Grid Reference: 335170, 350080
Slice: A
Site Area (Ha): 0.05
Search Buffer (m): 100

Site Details

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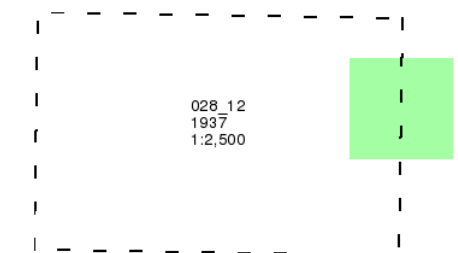
Denbighshire

Published 1937

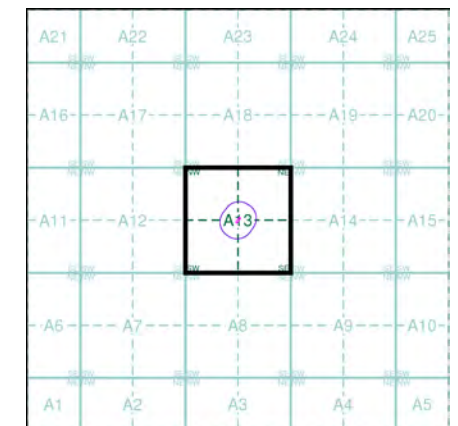
Source map scale - 1:2,500

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

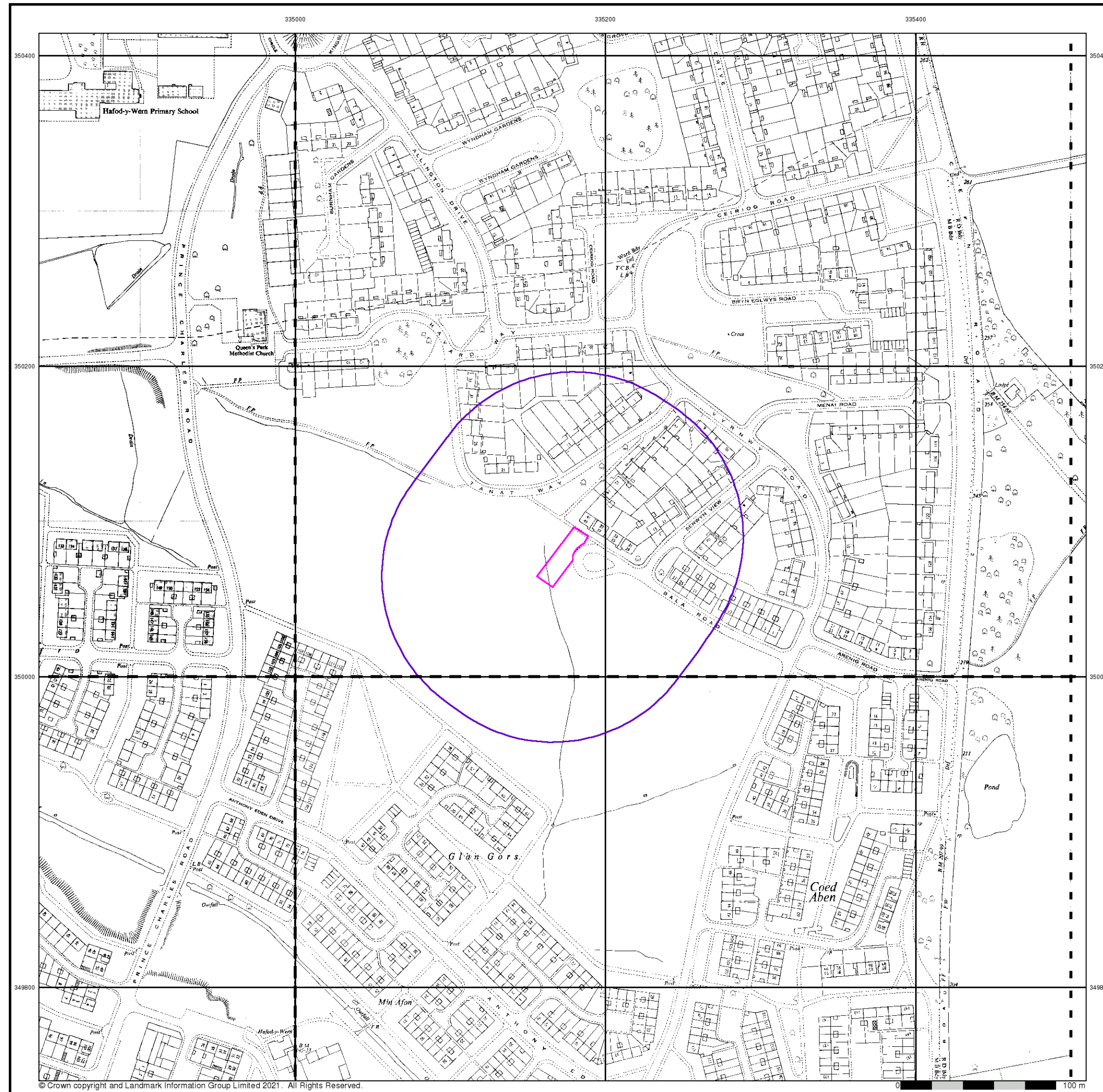


Order Details

Order Number: 286507536_1_1
Customer Ref: R3044
National Grid Reference: 335170, 350080
Slice: A
Site Area (Ha): 0.05
Search Buffer (m): 100

Site Details

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Ordnance Survey Plan

Published 1959

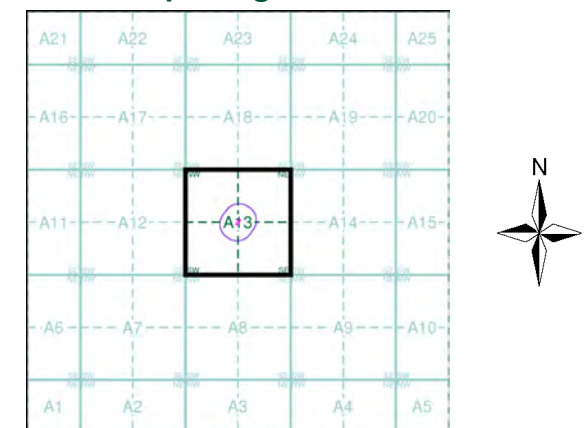
Source map scale - 1:1,250

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)

SJ3450SE 1959 1:1,250	SJ3550SW 1959 1:1,250	SJ3550SE 1959 1:1,250
SJ3449NE 1959 1:1,250	SJ3549NW 1959 1:1,250	

Historical Map - Segment A13

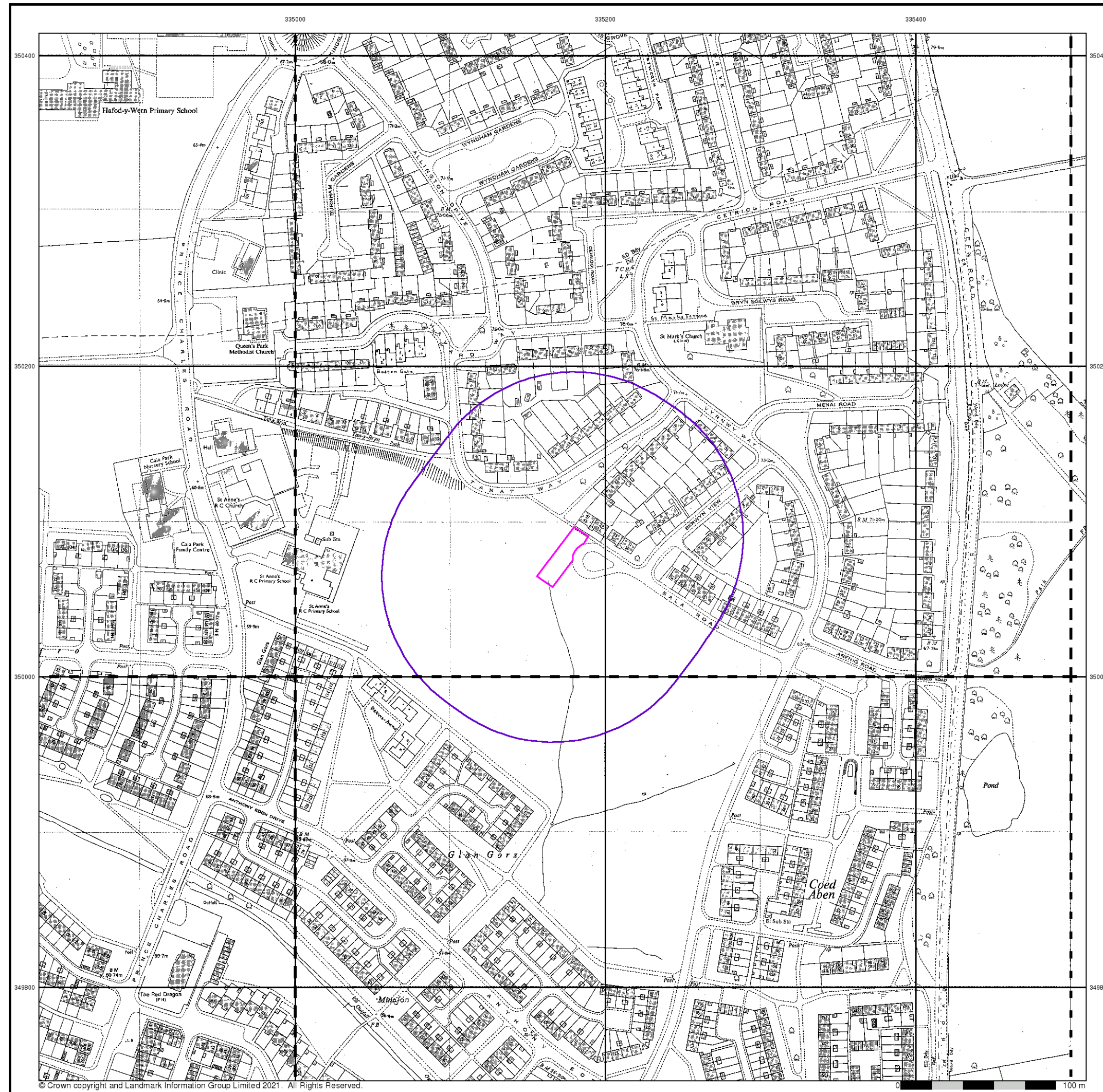


Order Details

Order Number: 286507536_1_1
Customer Ref: R3044
National Grid Reference: 335170, 350080
Slice: A
Site Area (Ha): 0.05
Search Buffer (m): 100

Site Details

Off Street Parking, Bala Road, WREXHAM, LL13 9LH



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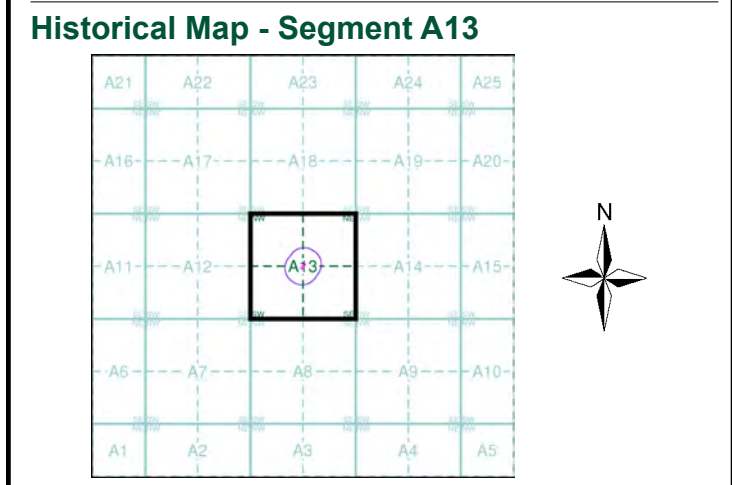
Additional SIMs
Published 1959 - 1989
Source map scale - 1:1,250

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)

SJ3450SE	SJ3550SW	SJ3550SE
1959	1989	1959
1:1,250	1:1,250	1:1,250

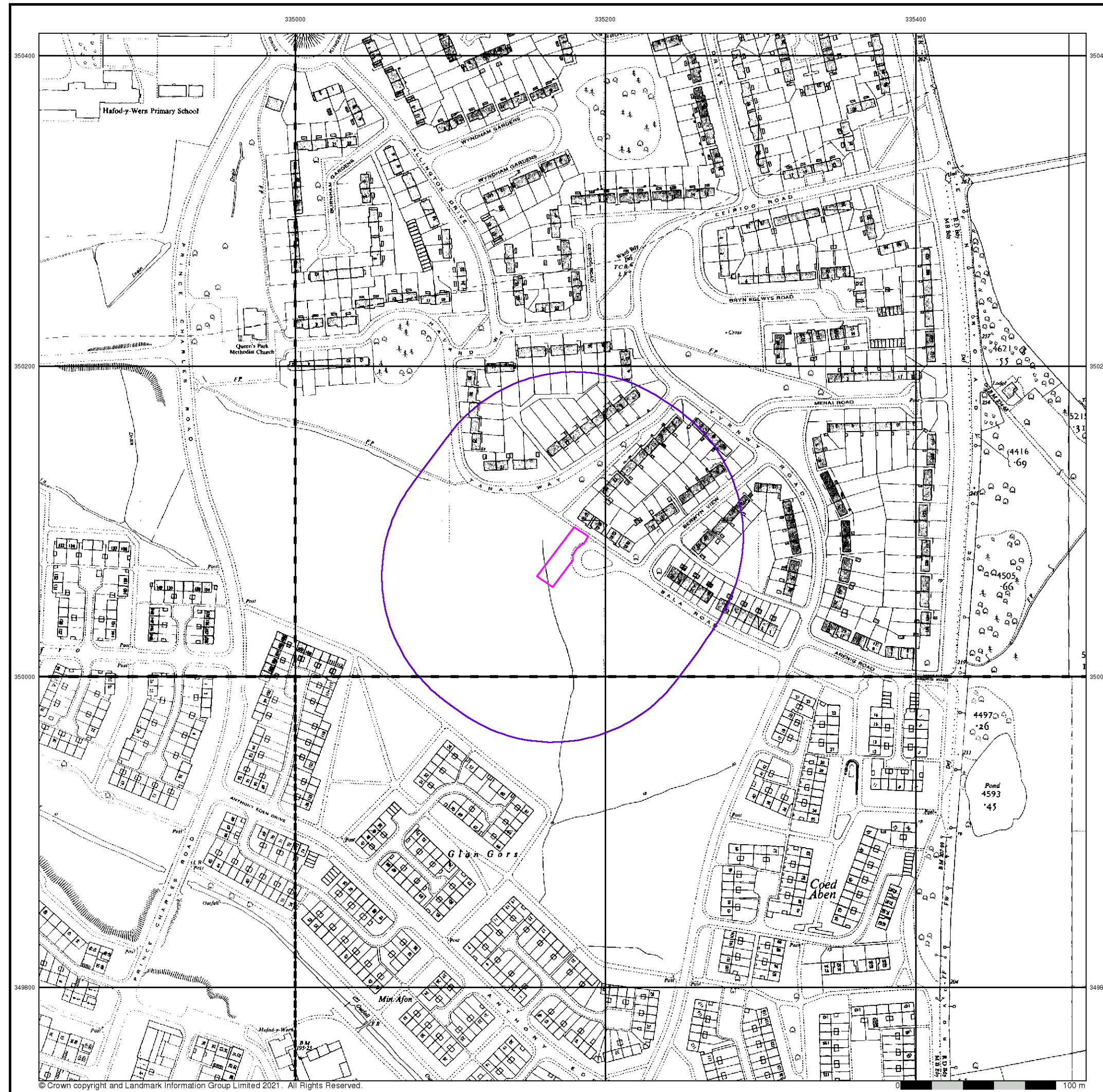
SJ3449NE	SJ3549NW
1989	1989
1:1,250	1:1,250



Order Details

Order Number: 286507536_1_1
Customer Ref: R3044
National Grid Reference: 335170, 350080
Slice: A
Site Area (Ha): 0.05
Search Buffer (m): 100

Site Details
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Ordnance Survey Plan

Published 1960 - 1961

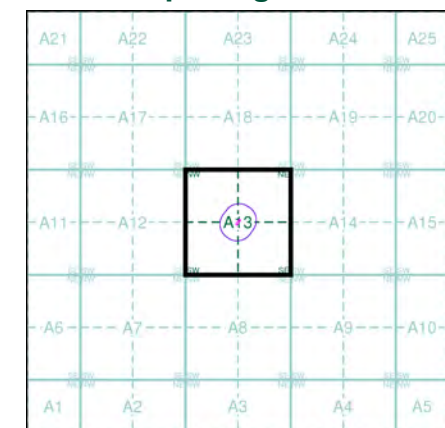
Source map scale - 1:2,500

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)

SJ3450	SJ3550
1960	1960
12,500	12,500
SJ3449	SJ3549
1961	1961
12,500	12,500

Historical Map - Segment A13

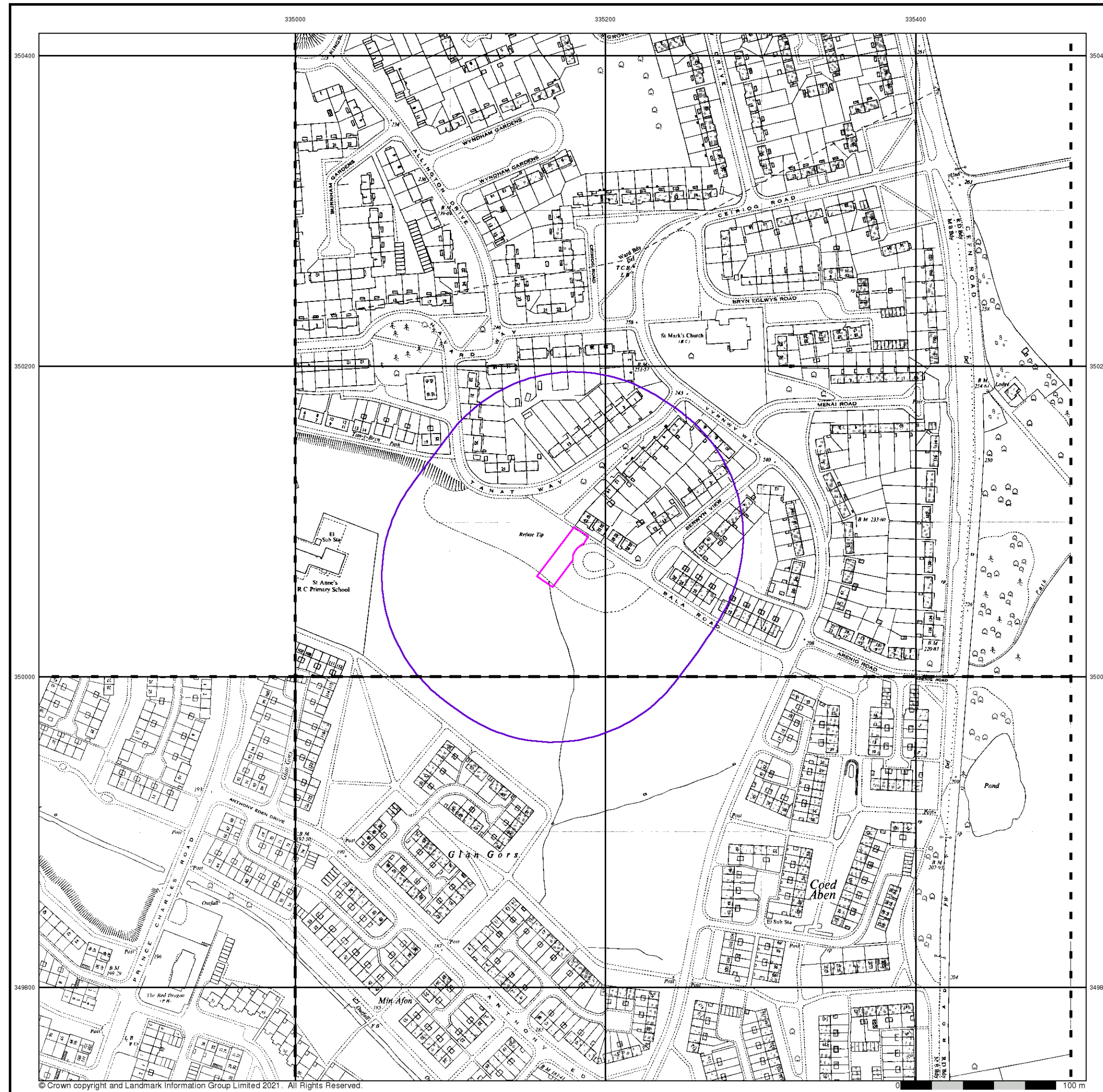


Order Details

Order Number: 286507536_1_1
Customer Ref: R3044
National Grid Reference: 335170, 350080
Slice: A
Site Area (Ha): 0.05
Search Buffer (m): 100

Site Details

Off Street Parking, Bala Road, WREXHAM, LL13 9LH



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Ordnance Survey Plan

Published 1968

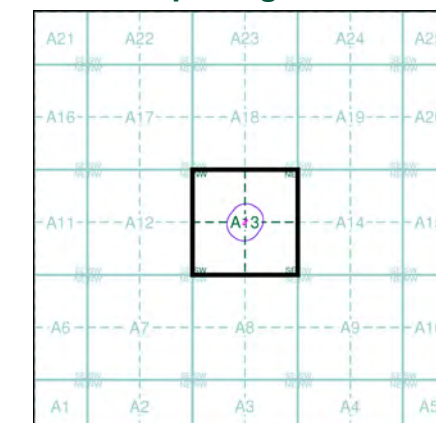
Source map scale - 1:1,250

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)

SJ3550SW	
1968	
1:1,250	
SJ3449NE	SJ3549NW
1968	1968
1:1,250	1:1,250

Historical Map - Segment A13

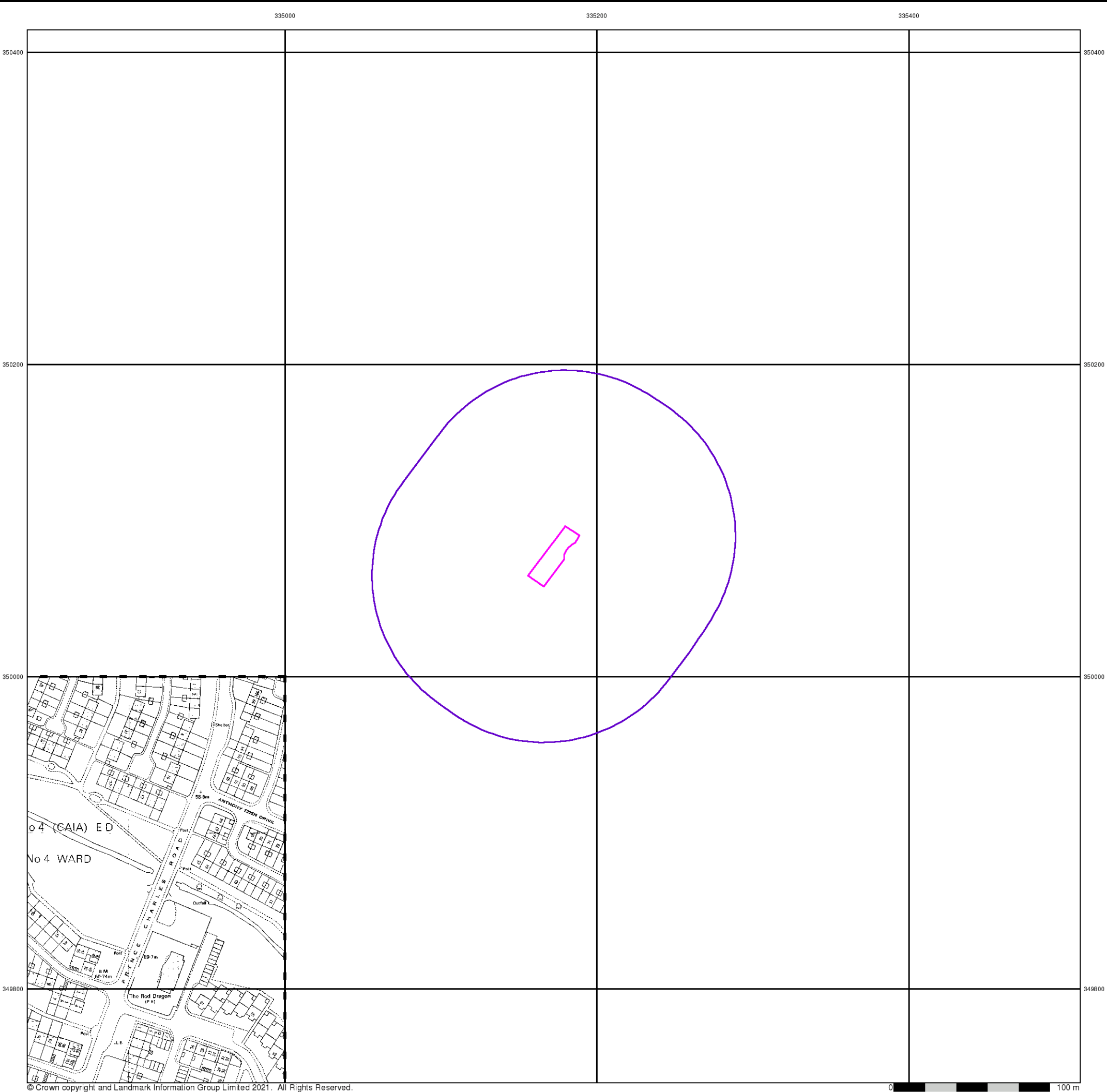


Order Details

Order Number: 286507536_1_1
Customer Ref: R3044
National Grid Reference: 335170, 350080
Slice: A
Site Area (Ha): 0.05
Search Buffer (m): 100

Site Details

Off Street Parking, Bala Road, WREXHAM, LL13 9LH



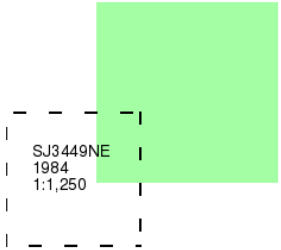
Ordnance Survey Plan

Published 1984

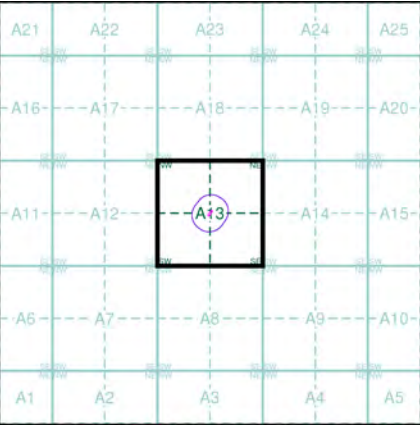
Source map scale - 1:1,250

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

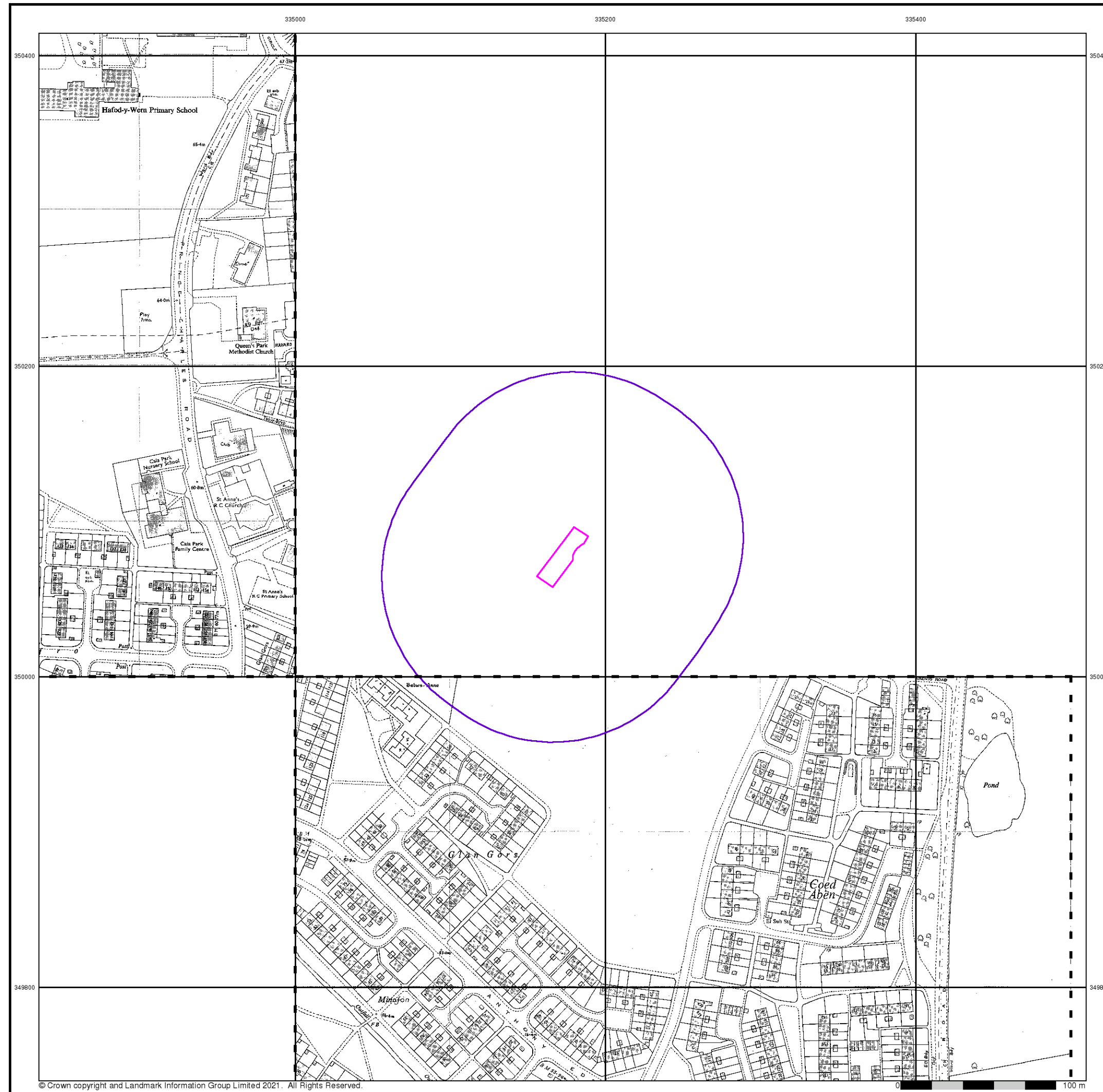


Order Details

Order Number: 286507536_1_1
Customer Ref: R3044
National Grid Reference: 335170, 350080
Slice: A
Site Area (Ha): 0.05
Search Buffer (m): 100

Site Details

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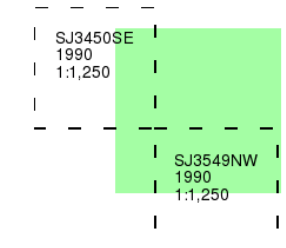
Additional SIMs

Published 1990

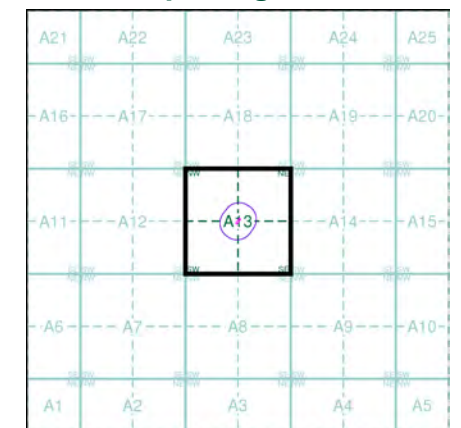
Source map scale - 1:1,250

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

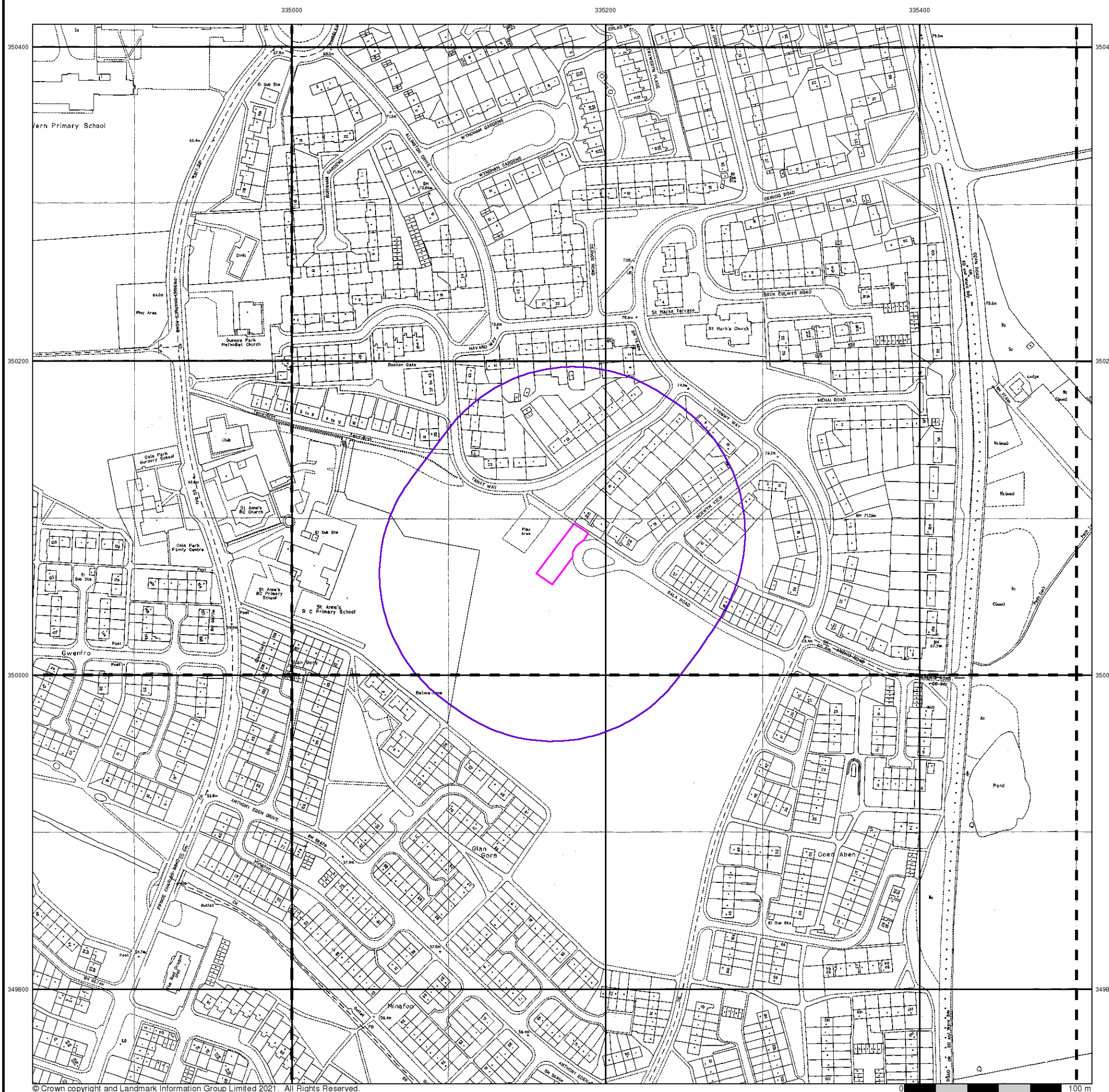


Order Details

Order Number: 286507536_1_1
Customer Ref: R3044
National Grid Reference: 335170, 350080
Slice: A
Site Area (Ha): 0.05
Search Buffer (m): 100

Site Details

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Large-Scale National Grid Data

Published 1992

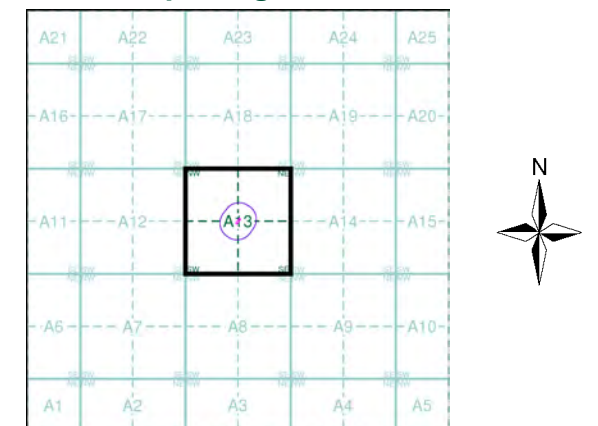
Source map scale - 1:1,250

'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.

Map Name(s) and Date(s)

SJ3450SE 1992 1:1,250	SJ3550SW 1992 1:1,250	SJ3550SE 1992 1:1,250
SJ3449NE 1992 1:1,250	SJ3549NW 1992 1:1,250	SJ3549NE 1992 1:1,250

Historical Map - Segment A13



Order Details

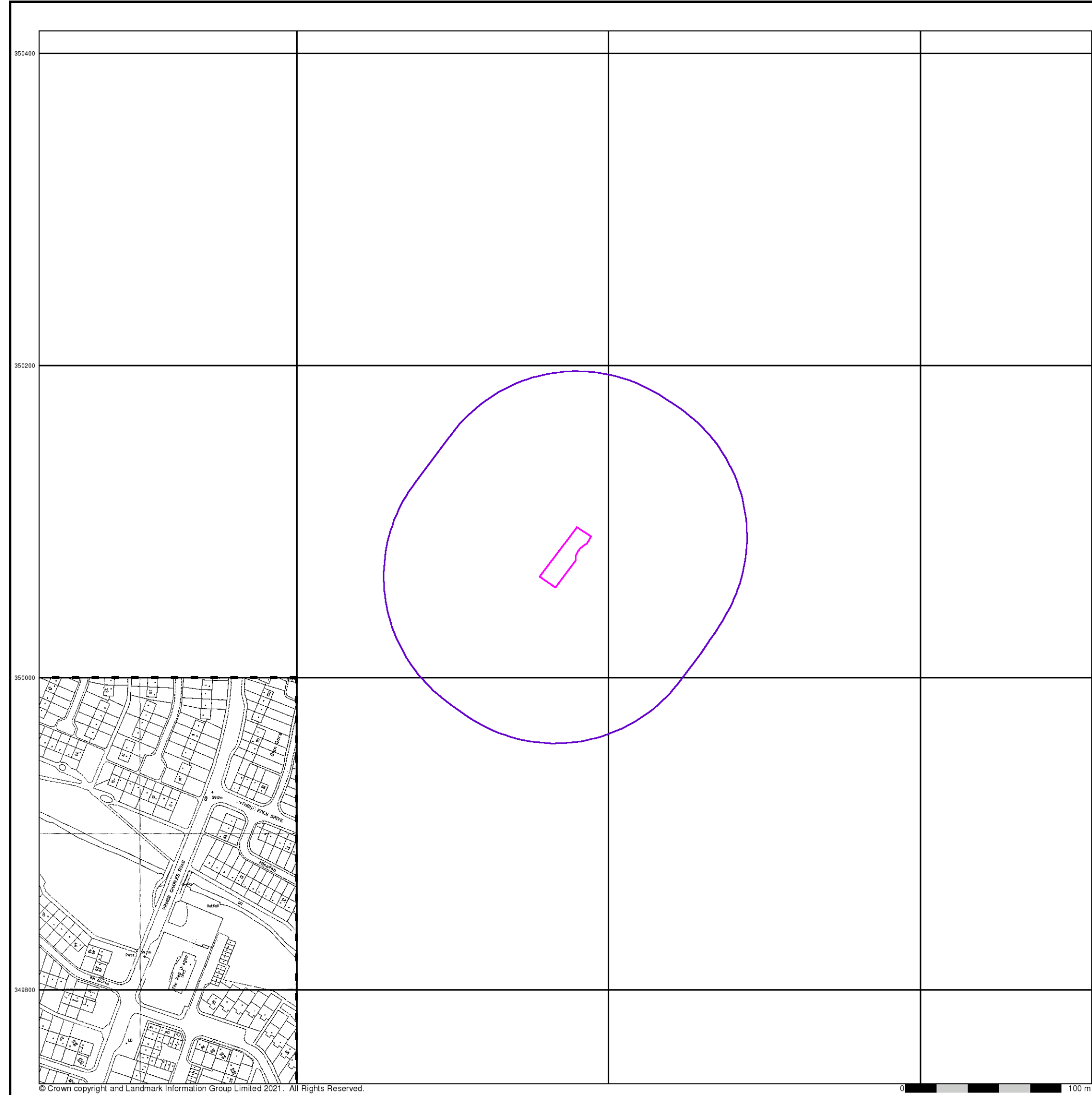
Order Number: 286507536_1_1
Customer Ref: R3044
National Grid Reference: 335170, 350080
Slice: A
Site Area (Ha): 0.05
Search Buffer (m): 100

Site Details

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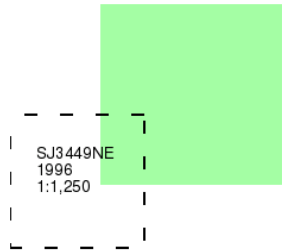
Large-Scale National Grid Data

Published 1996

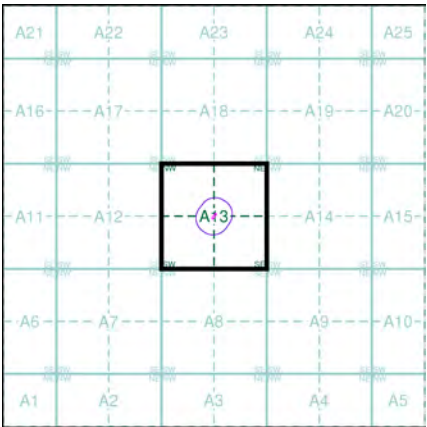
Source map scale - 1:1,250

'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

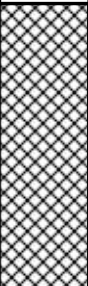
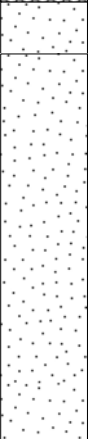
Order Number: 286507536_1_1
Customer Ref: R3044
National Grid Reference: 335170, 350080
Slice: A
Site Area (Ha): 0.05
Search Buffer (m): 100

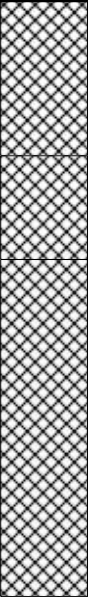
Site Details

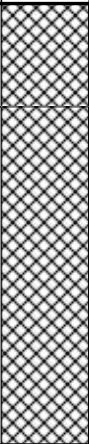
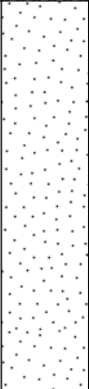
Off Street Parking, Bala Road, WREXHAM, LL13 9LH

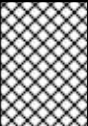
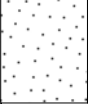
APPENDIX C

Trial Pits Logs and Photographs

SHEET: 1 of 1	LOCATION: See Plan	PROJECT: Land off Bala Road, Wrexham	ENGINEER: CS		JOB NO. R3044	TRIAL PIT NO. TP01
		EXCAVATED BY: JCB backhoe excavator	CLIENT: Wrexham County Council		DATE: 20.10.21	
DEPTH (m)	SAMPLES	Field records	DEPTH (m)	DESCRIPTION OF STRATA	LEGEND	
0.2	ES1		0	MADE GROUND: brown slightly clayey slightly gravelly sand with rare boulders. Gravel is brick, concrete, sandstone and rare tarmac.		
1.1			MADE GROUND: gravel of bricks with plastics.			
1.6			Dark grey clayey SAND with occasional wood, (GLACIOFLUVIAL SHEET DEPOSITS).			
1.8			Light grey clayey SAND with lenses of sandy clay and occasional wood (GLACIOFLUVIAL SHEET DEPOSITS).			
			Terminated at 3.3m			
 Smith Grant LLP Station House, Station Road, Ruabon, Wrexham LL146DL Tel: 01978822367 Fax: 019788247182 www.smithgrant.co.uk email: consult@smithgrant.co.uk		GROUND WATER: No groundwater encountered				
		REMARKS: Sidewalls stable				
		ES: environmental jar sample for general contamination suite				
		Excavator: JCB				
SCALE: 1:250		LOGGED BY: CS		FIGURE NO. TP01		

SHEET: 1 of 1	LOCATION: See Plan	PROJECT: Land off Bala Road, Wrexham	ENGINEER: CS		JOB NO. R3044	TRIAL PIT NO. TP02
		EXCAVATED BY: JCB backhoe excavator	CLIENT: Wrexham County Council		DATE: 20.10.21	
DEPTH (m)	SAMPLES	Field records	DEPTH (m)	DESCRIPTION OF STRATA		LEGEND
0.1	ES1		0	MADE GROUND: brown slightly clayey slightly gravelly sand. Gravel is brick, concrete, and sandstone.		
0.6			MADE GROUND: gravel and cobbles of bricks.			
1			MADE GROUND: glass bottles, jars, rags, paper, wood, plastic, rubber, metal scrap (former tip).			
2.3			Light brown slightly clayey SAND with occasional wood (GLACIOFLUVIAL SHEET DEPOSITS). Terminated at 2.4m due to collapsing sidewalls and rapid groundwater inflow			
 Smith Grant LLP Station House, Station Road, Ruabon, Wrexham LL146DL Tel: 01978822367 Fax: 019788247182 www.smithgrant.co.uk email: consult@smithgrant.co.uk		GROUND WATER: Groundwater inflow at 1.9m				
		REMARKS: Sidewalls collapsing				
		ES: environmental jar sample for general contamination suite Excavator: JCB				
SCALE: 1:250		LOGGED BY: CS		FIGURE NO. TP02		

SHEET: 1 of 1	LOCATION: See Plan	PROJECT: Land off Bala Road, Wrexham	ENGINEER: CS		JOB NO. R3044	TRIAL PIT NO. TP03
		EXCAVATED BY: JCB backhoe excavator	CLIENT: Wrexham County Council		DATE: 20.10.21	
DEPTH (m)	SAMPLES	Field records	DEPTH (m)	DESCRIPTION OF STRATA		LEGEND
0.5	ES1		0	MADE GROUND: brown slightly clayey slightly gravelly sand. Gravel is brick, concrete, and sandstone.		
			0.4	MADE GROUND: glass bottles, jars, rags, paper, wood, plastic, rubber, metal scrap (former tip).		
			1.7	Light brown slightly clayey SAND with occasional wood (GLACIOFLUVIAL SHEET DEPOSITS).		
				Terminated at 3.2m		
 Smith Grant LLP Station House, Station Road, Ruabon, Wrexham LL146DL Tel: 01978822367 Fax: 019788247182 www.smithgrant.co.uk email: consult@smithgrant.co.uk		GROUND WATER: Groundwater inflow at 1.6m				
		REMARKS: Sidewalls collapsing				
		ES: environmental jar sample for general contamination suite				
		Excavator: JCB				
SCALE: 1:250		LOGGED BY: CS		FIGURE NO. TP03		

SHEET: 1 of 1	LOCATION: See Plan	PROJECT: Land off Bala Road, Wrexham	ENGINEER: CS		JOB NO. R3044	TRIAL PIT NO. TP04
		EXCAVATED BY: JCB backhoe excavator	CLIENT: Wrexham County Council		DATE: 20.10.21	
DEPTH (m)	SAMPLES	Field records	DEPTH (m)	DESCRIPTION OF STRATA		LEGEND
0.7	ES1		0	MADE GROUND: brown slightly clayey slightly gravelly sand. Gravel is brick, concrete, and sandstone.		
			0.5	MADE GROUND: glass bottles, jars, rags, paper, wood, plastic, rubber, metal scrap (former tip).		
			2.8	Light brown SAND with occasional wood (GLACIOFLUVIAL SHEET DEPOSITS).		
				Terminated at 3.2m		
 Smith Grant LLP Station House, Station Road, Ruabon, Wrexham LL146DL Tel: 01978822367 Fax: 019788247182 www.smithgrant.co.uk email: consult@smithgrant.co.uk		GROUND WATER: Groundwater inflow at 1.7m				
		REMARKS: Sidewalls collapsing				
		SCALE: 1:250		LOGGED BY: CS		FIGURE NO. TP04

ES: environmental jar sample for general contamination suite

Excavator: JCB

Site investigation photographic record. Land off Bala Rd, Wrexham 20.10.2021.

TP1

TRIAL PITS



Location



Arisings: natural ground



Excavation hole

TP2



Location



Arisings



Excavation hole

TP3



Location



Excavation hole



Arisings

TP4



Location



Excavation hole



Arisings

APPENDIX D

Analytical Results



2183

Final Report

Report No.: 21-36854-1
Initial Date of Issue: 28-Oct-2021
Client Smith Grant LLP
Client Address: Station House, Station Road
Ruabon
Wrexham
LL14 6DL
Contact(s): Cezary Salwa
Project R3044 BALA ROAD, WREXHAM

Quotation No.:	Date Received:	22-Oct-2021
Order No.:	Date Instructed:	22-Oct-2021
No. of Samples:		4
Turnaround (Wkdays):	Results Due:	28-Oct-2021
Date Approved:		28-Oct-2021

Approved By:



Details: Glynn Harvey, Technical Manager

Results - Soil

Project: R3044 BALA ROAD, WREXHAM

Client: Smith Grant LLP	Chemtest Job No.:				21-36854	21-36854	21-36854	21-36854
Quotation No.:	Chemtest Sample ID.:				1304148	1304149	1304150	1304151
Order No.:	Client Sample Ref.:				ES1	ES1	ES1	ES1
	Sample Location:				TP1	TP2	TP3	TP4
	Sample Type:				SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				0.2	0.1	0.5	0.7
	Date Sampled:				20-Oct-2021	20-Oct-2021	20-Oct-2021	20-Oct-2021
	Asbestos Lab:				DURHAM	DURHAM	DURHAM	DURHAM
Determinand	Accred.	SOP	Units	LOD				
ACM Type	U	2192		N/A	-	-	-	-
Asbestos Identification	U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
Moisture	N	2030	%	0.020	10	15	23	19
pH	U	2010		4.0	8.8	8.6	8.5	8.5
Arsenic	U	2450	mg/kg	1.0	6.5	8.5	14	30
Cadmium	U	2450	mg/kg	0.10	0.14	2.4	1.3	0.52
Chromium	U	2450	mg/kg	1.0	17	15	46	31
Copper	U	2450	mg/kg	0.50	21	30	80	88
Mercury	U	2450	mg/kg	0.10	< 0.10	0.19	0.21	0.21
Nickel	U	2450	mg/kg	0.50	15	16	34	44
Lead	U	2450	mg/kg	0.50	35	140	250	120
Selenium	U	2450	mg/kg	0.20	0.28	0.51	0.36	0.56
Zinc	U	2450	mg/kg	0.50	53	440	230	220
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50
Organic Matter	U	2625	%	0.40	0.78	3.6	13	10
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	U	2680	mg/kg	1.0	< 1.0	< 1.0	100	< 1.0
Aliphatic TPH >C10-C12	U	2680	mg/kg	1.0	< 1.0	< 1.0	420	< 1.0
Aliphatic TPH >C12-C16	U	2680	mg/kg	1.0	< 1.0	< 1.0	310	< 1.0
Aliphatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	< 1.0	320	21
Aliphatic TPH >C21-C35	U	2680	mg/kg	1.0	< 1.0	< 1.0	3000	310
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	33	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	4200	330
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	U	2680	mg/kg	1.0	< 1.0	< 1.0	77	< 1.0
Aromatic TPH >C10-C12	U	2680	mg/kg	1.0	< 1.0	< 1.0	190	< 1.0
Aromatic TPH >C12-C16	U	2680	mg/kg	1.0	< 1.0	< 1.0	290	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	< 1.0	990	33
Aromatic TPH >C21-C35	U	2680	mg/kg	1.0	370	< 1.0	4600	140
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	330	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	370	< 5.0	6500	180
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	370	< 10	11000	510
Naphthalene	U	2700	mg/kg	0.10	< 0.10	< 0.10	6.3	< 0.10
Acenaphthylene	U	2700	mg/kg	0.10	< 0.10	< 0.10	1.3	< 0.10
Acenaphthene	U	2700	mg/kg	0.10	< 0.10	< 0.10	10	< 0.10

Results - Soil

Project: R3044 BALA ROAD, WREXHAM

Client: Smith Grant LLP	Chemtest Job No.:				21-36854	21-36854	21-36854	21-36854
Quotation No.:	Chemtest Sample ID.:				1304148	1304149	1304150	1304151
Order No.:	Client Sample Ref.:				ES1	ES1	ES1	ES1
	Sample Location:				TP1	TP2	TP3	TP4
	Sample Type:				SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				0.2	0.1	0.5	0.7
	Date Sampled:				20-Oct-2021	20-Oct-2021	20-Oct-2021	20-Oct-2021
	Asbestos Lab:				DURHAM	DURHAM	DURHAM	DURHAM
Determinand	Accred.	SOP	Units	LOD				
Fluorene	U	2700	mg/kg	0.10	< 0.10	< 0.10	12	< 0.10
Phenanthrene	U	2700	mg/kg	0.10	< 0.10	0.65	61	2.4
Anthracene	U	2700	mg/kg	0.10	< 0.10	0.26	22	0.54
Fluoranthene	U	2700	mg/kg	0.10	0.29	2.7	69	2.8
Pyrene	U	2700	mg/kg	0.10	0.31	2.9	68	2.6
Benzo[a]anthracene	U	2700	mg/kg	0.10	< 0.10	2.1	28	1.5
Chrysene	U	2700	mg/kg	0.10	< 0.10	2.3	31	2.3
Benzo[b]fluoranthene	U	2700	mg/kg	0.10	< 0.10	2.8	27	1.2
Benzo[k]fluoranthene	U	2700	mg/kg	0.10	< 0.10	1.1	11	2.3
Benzo[a]pyrene	U	2700	mg/kg	0.10	< 0.10	2.0	20	1.4
Indeno(1,2,3-c,d)Pyrene	U	2700	mg/kg	0.10	< 0.10	1.5	14	0.94
Dibenz(a,h)Anthracene	U	2700	mg/kg	0.10	< 0.10	0.45	4.1	1.4
Benzo[g,h,i]perylene	U	2700	mg/kg	0.10	< 0.10	1.5	14	0.87
Total Of 16 PAH's	U	2700	mg/kg	2.0	< 2.0	20	400	20
Benzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	U	2760	µg/kg	1.0	< 1.0	< 1.0	9.4	< 1.0
o-Xylene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0

Test Methods

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation

The results relate only to the items tested

Uncertainty of measurement for the determinands tested are available upon request

None of the results in this report have been recovery corrected

All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis

All Asbestos testing is performed at the indicated laboratory

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

- A - Date of sampling not supplied
- B - Sample age exceeds stability time (sampling to extraction)
- C - Sample not received in appropriate containers
- D - Broken Container
- E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt

All water samples will be retained for 14 days from the date of receipt

Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:

customerservices@chemtest.com