



REPORT NO: ZZ24032-1
DATE: NOVEMBER 2024

**ALBION MILL & ALBION HOUSE
ALBION STREET, BURY**

PRELIMINARY RISK ASSESSMENT

**PREPARED FOR
BRACKNELL PROPERTIES LTD**

**ZIG ZAG
ENVIRONMENTAL**

SUITE 10
RAILWAY HOUSE
RAILWAY ROAD
CHORLEY
PR6 0HW
WWW.ZIGZAG.COM

PROJECT DETAILS

SITE/PROJECT	ALBION MILL & ALBION HOUSE, ALBION STREET, BURY PRELIMINARY RISK ASSESSMENT	
CLIENT	BRACKNELL PROPERTIES LTD	
JOB NO	ZZ24032	
REPORT NO	ZZ24032-1	
STATUS	FINAL	
REVISION		
ISSUE DATE	22 NOVEMBER 2024	
WRITTEN BY	MARTIN LOVELOCK BENG (HONS) CGEOL FGS MCIWM	SIGNATURE 
CHECKED BY	DAVID KILLICK BSc (HONS)	SIGNATURE <i>DKillick</i>
APPROVED BY	MARTIN LOVELOCK BENG (HONS) CGEOL FGS MCIWM	SIGNATURE 

REVISION HISTORY

REVISION REF	DATE	NATURE OF REVISION

DISCLAIMER

THIS REPORT HAS BEEN PREPARED BY ZIG ZAG ENVIRONMENTAL LIMITED (ZZE) WHO HAVE EXERCISED SUCH PROFESSIONAL SKILL, CARE AND DILIGENCE AS MAY REASONABLY BE EXPECTED OF A PROPERLY QUALIFIED AND COMPETENT CONSULTANT, EXPERIENCED IN PREPARING REPORTS OF A SIMILAR NATURE. HOWEVER, TO THE EXTENT THAT THE REPORT IS BASED OR RELIES UPON INFORMATION CONTAINED IN RECORDS, REPORTS OR OTHER MATERIALS PROVIDED TO ZZE, WHICH HAVE NOT BEEN INDEPENDENTLY PRODUCED OR VERIFIED, ZZE GIVES NO WARRANTY, REPRESENTATION OR ASSURANCE AS TO THE ACCURACY OR COMPLETENESS OF SUCH INFORMATION.

THIS REPORT IS PREPARED SOLELY FOR THE BENEFIT OF THE CLIENT. IT MAY NOT BE RELIED UPON BY, OR SUBMITTED TO, A THIRD PARTY FOR THEIR RELIANCE FOR THE PURPOSES OF VALUATION, MORTGAGE, INSURANCE AND REGULATORY APPROVAL, UNTIL ALL INVOICES HAVE BEEN SETTLED IN FULL.

THOSE USING THIS INFORMATION IN SUBSEQUENT ASSESSMENTS OR EVALUATIONS DO SO AT THEIR OWN RISK

TABLE OF CONTENTS

1.	INTRODUCTION	1
2.	SITE DESCRIPTION	1
2.1	SITE LOCATION	1
2.2	SITE DESCRIPTION	2
2.3	SURROUNDING LAND USE.....	3
2.4	TOPOGRAPHY	4
2.5	PROPOSED DEVELOPMENT.....	4
3.	SITE HISTORY	5
4.	GEOLOGY.....	6
5.	MINING & GROUND STABILITY	7
6.	HYDROGEOLOGY.....	8
7.	HYDROLOGY	8
8.	LANDFILL SITES & CONTAMINATED LAND.....	9
9.	RADON.....	11
10.	SENSITIVE LAND USES	11
11.	PRELIMINARY CONCEPTUAL MODEL.....	11
12.	CONCLUSIONS & RECOMMENDATIONS	15

LIST OF PHOTOGRAPHS

- PHOTOGRAPH NO 1 – VIEW DOWN ALBION STREET FROM THE NORTH
- PHOTOGRAPH NO 2 – GENERAL VIEW OF ALBION HOUSE FROM THE NORTH
- PHOTOGRAPH NO 3 – GENERAL VIEW OF ALBION HOUSE FROM THE SOUTH
- PHOTOGRAPH NO 4 – OFFICE IN THE NORTHERN PART OF ALBION HOUSE
- PHOTOGRAPH NO 5 – KITCHEN/WELFARE FACILITIES IN THE NORTHERN PART
OF ALBION HOUSE
- PHOTOGRAPH NO 6 – EASTERN WORKSPACE
- PHOTOGRAPH NO 7 – WESTERN WORKSPACE
- PHOTOGRAPH NO 8 – ALBION HOUSE SEMI-BASEMENT
- PHOTOGRAPH NO 9 – ALBION HOUSE SSEMI-BASEMENT
- PHOTOGRAPH NO 8 – VIEW OF LAND TO THE EAST OF ALBION HOUSE FROM
THE SOUTH
- PHOTOGRAPH NO 9 – WOOD AND PALLETS
- PHOTOGRAPH NO 10 – WOOD AND OTHER RUBBISH
- PHOTOGRAPH NO 11 – VIEW OF ALBION MILL FROM THE SOUTH
- PHOTOGRAPH NO 11 – VIEW OF ALBION MILL FROM THE NORTH
- PHOTOGRAPH NO 12 – WESTERN SECTION OF THE MILL
- PHOTOGRAPH NO 13 – VIEW TOWARDS THE GARAGE
- PHOTOGRAPH NO 14 – PANELLING & WOODEN PALLETS TO THE WEST OF THE
MILL
- PHOTOGRAPH NO 15 – TYRES TO THE WEST OF THE MILL
- PHOTOGRAPH NO 16 – INTERNAL VIEW OF ALBION MILL
- PHOTOGRAPH NO 17 – GENERAL RUBBISH INSIDE THE MILL
- PHOTOGRAPH NO 18 – INTERNAL VIEW OF ALBION MILL
- PHOTOGRAPH NO 20 – LAND TO THE SOUTH OF THE MILL
- PHOTOGRAPH NO 21 – STREAM TO THE WEST

LIST OF APPENDICES

APPENDIX A - HISTORICAL OS MAPS
APPENDIX B - GOOGLE EARTH IMAGES
APPENDIX C - GEOLOGICAL RECORDS
APPENDIX D - ENVIROCHECK REPORT
APPENDIX E - COAL AUTHORITY MINING REPORT
APPENDIX F - PHOTOGRAPHS
APPENDIX G - DRAWINGS

LIST OF DRAWINGS

GOLD SKETCH STUDIOS DRAWINGS
DRAWING NO GSS23089.4-502 ALBION MILL EXISTING PLANS
DRAWING NO GSS24089.1-002A ALBION HOUSE EXISTING PLANS
DRAWING NO GSS24090.1-002A ALBION MILL REAR EXISTING PLANS
DRAWING NO GSS24089.1-003A ALBION HOUSE PROPOSED PLANS
(LEVEL B1)
DRAWING NO GSS24089.1-003B ALBION HOUSE PROPOSED PLANS
(LEVEL D)
DRAWING NO GSS23089.4-003 ALBION MILL PROPOSED PLANS GROUND
FLOOR
DRAWING NO GSS24090.1-003A ALBION MILL REAR PROPOSED PLANS

1. INTRODUCTION

Zig Zag Environmental Ltd (ZZE) has been instructed by Gold Sketch Studios, on behalf of Bracknell Properties Ltd to prepare a Preliminary Risk Assessment (PRA) for Albion House and Albion Mill, Albion Street, Bury.

The site is located and approximately 600 m to the west of Bury town centre. It comprises an existing and long established, former cotton mill.

Planning permission is being sought for the proposed conversion of first, second and third floors of Albion Mill, Albion Mill Rear and Albion House from Class E retail into 20 no self-contained flats with associated bin and bike stores. An earlier application (Ref 70789) was recently withdrawn to provide the applicant an opportunity to address some concerns raised by the local planning authority relating to noise, traffic and contamination.

The local authority contaminated land officer has advised that *'the site comprises a historical textile mill which is currently vacant but had been in use most recently for storage and retail. The floors proposed for conversion are understood to have been in commercial use (Class E). Geology at the site comprises river terrace deposits overlying sandstone, a secondary aquifer. The site is radon class 2; as such no protection measures are required.'*

Due to the sensitivity of the proposed end use, as a minimum, a Desk Study and Preliminary Risk Assessment will be required.'

This PRA has been produced to support the planning application. It comprises a site walkover and assessment of the environmental setting and historical development of the site, based on available records in order to produce a preliminary conceptual site model to identify potential pollutant linkages with respect to the proposed development and the environmental setting, in accordance with appropriate planning policy and guidance.

The conclusions and recommendations presented in this report are the result of our professional interpretation of the information obtained. Zig Zag Environmental reserves the right to amend the conclusions and recommendations if further information becomes available.

2. SITE DESCRIPTION

2.1 SITE LOCATION

The site is located either side of Albion Street, approximately 600 m to the west of Bury town centre. The approximate National Grid Reference for the centre of the site is 379620, 410750.

The existing building layouts are illustrated on the following Gold Sketch Studios drawings, presented in Appendix H:

Drawing No GSS24089.1-002A Albion House Existing Plans

Drawing No GSS23089.4-502 Albion Mill Existing Plans

Drawing No GSS24090.1-002A Albion Mill Rear Existing Plans.

2.2 SITE DESCRIPTION

An engineer from ZZE visited the site on 11 November 2024 for a walkover/inspection. Conditions during the visit were dry and mild. A series of photographs from the site inspection are presented at Appendix F.

The site is located either side of Albion Street, an old, cobbled road, with Albion House to the east and the Albion Mill is to the west.

The buildings to be converted are currently vacant but it is evident from signage that they were most recently occupied by Pur-o-Lux Limited, a family-run business manufacturing bespoke beds and mattresses, that had occupied the site since 1977¹. The site also housed a large sales showroom which was to the north-west of the main mill building.

ALBION HOUSE

Albion House is a long rectangular building that fronts onto Albion Street (Photograph No 1). It is of brick construction with a slate roof. There is a newer/repaired section at the southern end of the building with a roller shutter door (Photograph No 3).

The northernmost part of Albion House is occupied by a series of offices with staff welfare facilities (kitchen and bathroom) (Photograph Nos 4 & 5). The main part of the building comprises a loading bay at the southern end, the former retail shop in the western part of the building and storage and back of house areas in the eastern part of the building (Photograph Nos 6 & 7). A plant room is also located in the western section of the building which houses an electricity substation.

There is a semi-basement appears to have been used for material storage and currently houses pattern templates, desks, cardboard and other materials associated with furniture manufacture (Photograph No 8 & 9). The basement floor is part concrete and part brick pavers. No signs of contamination were evident during the site inspection.

There is a narrow cobbled outdoor area immediately to the east of Albion House, which is defined by a gated entrance at the northern end, a part brick, stone and blockwork wall to the east and part of the building to the south. There is a small amount of general material in this area including a pile of bricks, timber and wooden pallets, tyres and some general rubbish (Photograph Nos 8, 9 & 10).

¹ The Bury Times on-line article dated 25 February 2024

ALBION MILL

The mill is a 3-story building also of brick construction, with a basement. It comprises an upturned L-shaped building. The main rectangular section opposite Albion House (Photograph Nos 1 and 11) is to be redeveloped for residential use. The perpendicular section off the northern end extends to the west and houses a garage which is to be retained.

The internal sections of the mill are illustrated on Photograph Nos 14, 15 & 16. The ground floor comprises a large workshop/storage area with some smaller rooms including offices, warehouses, workshops and toilets. Most of the furniture has been removed but some general rubbish remains, including cardboard boxes, old desks, an old piano and a gas bottle. No specific evidence of contamination was identified during the inspection.

There is evidence of access to a basement, but this was not inspected due to safety considerations. Anecdotal evidence² indicates that the mill was connected to Albion House beneath Albion Road although it has been blocked off. This has not been confirmed.

The western section of the mill houses a series of smaller rooms, including a plant room and stairwell and the chimney.

The westernmost part of the mill houses a garage for vehicle servicing and repairs. The garage has a separate gated access at the southern end of the mill (Photograph No 12 & 13) and an area of external yard. Above the garage door is a plaque showing 'Albion Mill 1877'. This area is surfaced with stone setts and/or asphalt.

There are numerous vehicles parked in this part of the site along with some used tyres, metal panelling and wooden pallets (Photograph Nos 13 & 14). There is also a part metal panelled building which also appears to have some asbestos cement panelling on the front elevation (Photograph No 13).

To the south of the mill is a stone sett/asphalt surfaced yard and some storage containers (Photograph No 20).

2.3 SURROUNDING LAND USE

As stated previously the site is surrounded by other commercial/industrial activities. The land around the proposed development is described as follows:

North	A car park with some other commercial property beyond including the Tile Warehouse.
East	Bridge Trading Estate, which extends to the River Irwell
South	A yard and some storage containers (Photograph No 20).

² From discussions with the owner of the garage

West A drainage channel which is some 2 m below the level of the mill (Photograph No 21), with other commercial properties beyond.

These neighbours can be seen on the Ordnance Survey maps and Google Earth images presented at Appendices A & B.

2.4 TOPOGRAPHY

The site is relatively flat and level. The commercial buildings to the south-west and west, beyond the drainage channel are approximately 2 m lower than the site itself.

2.5 PROPOSED DEVELOPMENT

Planning permission is being sought for the conversion of first, second and third floors of Albion Mill, Albion Mill Rear and Albion House from Class E retail into 20 no self-contained flats with associated bin and bike stores. The proposed development layout is illustrated on the following Gold Sketch Studio drawings, presented in Appendix H:

Drawing No GSS24089.1-003A Albion House Proposed Plans (Level B1)

Drawing No GSS24089.1-003B Albion House Proposed Plans (Level 0)

Drawing No GSS23089.4-003 Albion Mill Proposed Plans Ground Floor

Drawing No GSS24090.1-003A Albion Mill Rear Proposed Plans

It can be seen, from this and other drawings in the planning application, that:

ALBION HOUSE

The semi basement is to be retained but there is no clear proposed use (Drawing No GSS24089.1-003A). The ground floor (Level 1) (Drawing No GSS24089.1-003B) will comprise the following:

- A communal entrance
- A stairwell
- 2 no apartments
- A communal area
- Gym
- Plant room
- Mail room
- Bike store
- Bin store

Other apartments will be developed on the upper floors.

ALBION MILL

ZZE advised that the basement is to be infilled.

The ground floor will comprise a series of large rooms to be used for storage. Apartments will be located on the upper floors.

ALBION MILL REAR

The ground floor of the rear section of the mill, including the existing garage (Drawing No GSS24090.1-003A) will comprise:

- A separate entrance
- Bike Store
- Bin Store
- Stair Core
- Part of a ground floor apartment

There are no external gardens or landscaped areas.

3. SITE HISTORY

Copies of historic Ordnance Survey (OS) maps for the period 1850 to 2024, obtained from Landmark have been reviewed (Appendix A). In addition, internet searches and historical aerial photograph imagery, between 2000 and 2023 from Google Earth have also been reviewed (Appendix B).

Albion Mills (Cotton) is shown to be present on the earliest available OS map, from 1850. This map shows a series of buildings forming the mill to the west of what becomes Albion Street as well as a chimney and boilers. Two other buildings are shown on the land to the east of the road.

Other buildings are shown to the west, including Brooksmouth Mill (Cotton) and possibly some terraced houses, to the north and to the east, including a warehouse close to the site boundary and wharf to the north-east.

The Manchester, Bolton & Bury Canal is located between 20 and 45 m to the east of the site with the River Irwell beyond, some 45 – 70 m from the mill boundary. There is a spur off the canal which runs immediately to the east of Albion House, between the wharf and the canal. On the 1893 edition map the general area is well developed. Albion Mills (Cotton) occupies the entire area to the west of the road and the northern building to the east is labelled Albion Works. Arctic Mill (Cotton) and Victoria Mill are now located to the south along with Elton Paper Mills. The land immediately to the north and west is occupied by housing.

A reservoir is located between 37 and 145 m to the south-west of the site. This is still evident today.

Corporation Gas Works is shown some 40 m to the north-west of the Albion Mill site although the gas holders are around 200 m from the part of the mill being redeveloped. The gas holders are still present but much of the rest of the former gas works site has been cleared.

The Albion Mill and Works site layout and surrounding land remains unchanged until present day. On the 1929 map the mill is labelled 'Cotton Weaving & Spinning' and on the 1937 map 'Shoe & Slipper'. Later maps show it only as Mills.

The Arctic Mill site immediately to the south is cleared sometime between 1958 and 1978

The Brooksmouth Mill site to the south-west is also partially cleared by 1958.

The 1982 map shows the redevelopment of the former Bury Canal Wharf to the north-east as Bridge Trading Estate along with the reclamation of the canal and associated spur. A new Works building has also been constructed to the south-west.

Some further trading estate buildings have been constructed on the land to the east by 1988.

The 2001 aerial photograph shows some ongoing redevelopment to the north of Bury Bridge and Bolton Street, some 200 m from the site.

The Google Earth photographs show similar conditions at the site and surrounding area up for the entire period. Records show that Pur-o-Lux occupied the site during this period.

4. GEOLOGY

The site geology is illustrated on the Geology Report produced by Landmark which has sourced data from the British Geological Survey (Appendix C).

No artificial ground & landslip material is identified at the site, or the land immediately surrounding the site.

The superficial soils underlying the site comprise river terrace deposits (sand & gravel) associated with the River Irwell. These deposits will be underlain by glacial soils, probably glaciofluvial sand and gravel or glacial till (Boulder Clay).

The underlying solid geology comprises south-westerly dipping Cannel Rock sandstone of the Pennine Lower Coal Measures.

An Envirocheck Report has been obtained from Landmark (Appendix D). According to Landmark the estimated soil chemistry designations are as follows:

Arsenic	15 - 25 mg/kg
Cadmium	<1.8 mg/kg
Chromium	60 - 90 mg/kg
Lead	200 - 300 mg/kg
Nickel	30 - 45 mg/kg

These concentrations would generally not represent a significant potential human health risk to the approved development. However, the lead concentrations quoted exceed the C4SL limit for residential land use with homegrown produce (200 mg/kg) and may have been a concern if any gardens or landscaped areas were being proposed.

5. MINING & GROUND STABILITY

There are no BGS recorded mineral sites within 1 km of the.

According to Landmark the site is *'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'*.

ZZE has obtained a Coal Mining Report for the site (Appendix E). The following is noted, from the report:

- *'The property is not within a surface area that could be affected by any past recorded underground coal mining'.*
- *'The property is not within a surface area that could be affected by present (or future) underground mining'.*
- *'There are no recorded coal mine entries known to the Coal Authority within, or within 20 metres, of the boundary of the property.'*
- *'The Coal Authority is not aware of any damage due to geological faults or other lines of weakness that have been affected by coal mining'.*
- *'The property is not within the boundary of an opencast site from which coal has been removed by opencast methods'.*
- *'The Coal Authority has not received a damage notice or claim for the subject property, or any property within 50 metres of the enquiry boundary, since 31 October 1994'.*
- *'There is no record of a mine gas emission requiring action'.*
- *'The property has not been subject to remedial works, by or on behalf of the Coal Authority, under its Emergency Surface Hazard Call Out procedures'.*

TCA notes that *'in the unlikely event of any coal mining related subsidence damage, the Coal Authority or the mine operator has a duty to take remedial action in respect of subsidence caused by the withdrawal of support from land or property in connection with lawful coal mining operations'*. On the basis of the information presented above Zig Zag Environmental concludes that the proposed development is not affected by shallow coal/coal mine workings and no specific investigation or mitigation measures are required.

The Envirocheck Report (Appendix D) also contains information on ground stability, as summarised below:

Collapsible Ground	Very Low
Compressible Ground	No Hazard
Ground Dissolution	No Hazard
Landslide	Very Low
Running Sand	Very Low
Shrinking or Swelling Clay	No Hazard Low

6. HYDROGEOLOGY

The Envirocheck Report contains information on the environmental setting of the site and the groundwater information has been sourced from the EA Groundwater Vulnerability Maps.

Both the superficial soils and the underlying Coal Measures sandstone are classified by the EA as a *'Secondary A Aquifers'*.

Secondary Aquifers are described as *'permeable layers capable of supporting water supplies at local rather than strategic scale (often with limited yields), and in some cases forming an important source of base flow to rivers'*.

The site is not within a currently defined groundwater source protection zone.

There are no active licenced groundwater abstractions within 250 m of the site.

According to Landmark there is *'limited potential for groundwater flooding to occur'* at the site.

7. HYDROLOGY

The site is located within the River Irwell catchment. The River Irwell is located to the east of the site and flows in a southerly direction towards Manchester.

According to Landmark, the closest surface water feature is at the site. This is a southerly flowing drainage channel to the west of the mill (Photograph No 21). It can be seen from the historic OS maps that this brook feeds the reservoir to the south-west of the site.

There are two active surface water abstractions within 250 m of the site, as follows:

- Cemex UK Materials Ltd, abstracts water from the River Irwell, at RMC Northern Bury Canal Wharf, some 46 m to the south-east of the site. The water is used for construction – general use
- JR Crompton plc abstracts water from an un-named river its Bury premises, some 99 m to the south-east of the site.

There are two recorded pollution incidents to controlled waters within 100 m of the site, as follows:

Category 3 – minor incident. Rubble, litter or solids polluted the River Irwell in June 1995, some 37 m to the north-east of the site, upstream.

Category 3 – minor incident. Rubble, litter or solids polluted the Elton Brook in May 1995, some 40 m to the south-east of the site, downstream.

There are no substantiated pollution incidents within 500 m of the transfer station site, as follows:

There is one active consented discharge to controlled waters within 150 m of the site. United Utilities has permission to discharge Public Sewage: Storm Sewage Overflow to the River Irwell at Tanpits Road Combined Sewer Overflow, Harvard Road, Bury some 77 m to the south-east of the site, downstream.

8. LANDFILL SITES & CONTAMINATED LAND

Information provided in the Envirocheck Report indicates there is one BGS recorded landfill and three historical landfill sites within 250 m of the site, although some appear to be duplicate entries.

- King George V Playing Fields, some 190 m to the north-west
- British Gas Corporation, Victoria Street, Bury, approximately 150 m to the west. Deposited wastes included inert waste. Operated 1984/85.
- British Gas Corporation, Victoria Street, Bury, approximately 152 m to the west. Deposited wastes included inert waste. Operated 1976 – 90. This is almost certainly the same site referenced above.
- Wellington Street, Bury, some 175 m to the south.
- King George V Playing Fields, 190 m to the north-west. Deposited waste included inert, commercial and household waste, and liquid sludge. Operated 1967 – 74. This is the same listing as at Bullet 1.

Two former British Gas sites are also listed under the Registered Landfill heading:

- Elton Works, Victoria Street, Bury, 31 m to the north-west. Operated around 1984.
- Adj. Gasworks Off Ainsworth Road, Bury, 179 m to the west. Operated around 1983.

These sites operated around the time when British Gas decommissioned a lot of their sites, carrying out remediation and reclamation works to make them safe. The licenses for these sites were surrendered/lapsed or cancelled.

Landmark also reports on the possible presence of potentially infilled land. Nine areas of potentially infilled land (water) have been identified within 250 m of the development site, as follows:

Unknown filled ground (pond, marsh, river, stream, dock etc)

2 m south-west (1850 mapping)

27 m east (1931 mapping)

63 m south (1956 mapping)

149 m east (1894 mapping)

158 m south (1850 mapping)

164 m west (1850 mapping)

194 m south (1850 mapping)

205 m south (1850 mapping)

220 m north-east (1894 mapping)

Given the age of the most of the identified features (from 1850 OS mapping) these potential contamination/hazardous gas sources are considered relatively low risk.

The potentially infilled land identified to the east of the development site is likely to be the former Manchester, Bolton & Bury Canal and associated spur to the east of Albion House, which has been occupied by the Bridge Trading Estate since before 1982.

There is one COMAH site within 150 m. Vecom Sillivan Metal Treatment Ltd has a site at Sillivan Works to the north of the site. This is also an IPPC site for the 'disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving physico-chemical

treatment’.

Cemex UK Materials operates a Local Authority PPC site at Bolton Road, some 29 m to the south-east of the site. The site is used for PG3/1 - blending, packing, loading and use of bulk cement

Transco operated a Notification of Installations Handling Hazardous Substances (NIHHS) site at Victoria Street, some 115 m to the north-west of the site, but this is listed as being non active. Landmark also lists this site under Planning Hazardous Substances (Part C, Flammable Substance (Not in Parts A&B), Gas or gases flammable in air, when held as a gas, where amount held is ≥ 15 tonnes).

There are numerous Contemporary Trade Directory Entries within 100 m of the site.

There are no active fuel filling stations within 500 m of the site. An obsolete fuel filling station (Texaco - Bolton Road Service Station) was located approximately 174 m to the west of the site.

9. RADON

According to Landmark the site is ‘*in an Intermediate probability radon area (1 to 3% of homes are estimated to be at or above the Action Level)*’ and consequently ‘*no radon protection measures are necessary in the construction of new dwellings or extensions*’.

10. SENSITIVE LAND USES

There are no potentially sensitive land uses within 500 m of the site.

11. PRELIMINARY CONCEPTUAL MODEL

The Environment Act 1995 makes provision for a risk-based framework for the identification, assessment and management of potentially contaminated land through the assessment of risk.

The process of risk assessment is an evaluation of the probability of harm, and comprises the identification of sources of contamination, receptors that may be affected by the contamination and pathways by which the receptors may be harmed. In this section of the report Zig Zag Environmental provides a qualitative assessment of risks based on potential contamination, plausible pathways and all significant receptors.

The risk assessment is based upon the approved development, ie the construction of a new waste transfer building at the site. Should the nature of the development change or the activities undertaken on the site alter in the future the environmental assessment should be reviewed and altered accordingly.

On-Site Potential Contaminative Sources

The development site comprises two buildings that are part of Albion Works, formerly Albion Mill (cotton) which dates to the early 1800's. It is proposed to convert the first, second and third floors of Albion Mill, Albion Mill Rear and Albion House from Class E retail into 20 no self-contained flats with associated bin and bike stores.

For the past 47 years most of the buildings have been occupied by Pur-o-Lux Limited, a family-run business manufacturing bespoke beds and mattresses. It is not known precisely what the buildings were used for prior to their occupation by Pur-o-Lux in 1977, although on the 1937 OS map it is labelled 'Shoe & Slipper'.

There is a garage to the rear/west of the mill.

No specific evidence of contamination or significant potential contamination sources were identified within the existing buildings during the site inspection.

Off-Site Potential Contaminative Sources

The site is located in an area dominated by commercial and industrial land use.

Historically other mills were located to the south and west, a gas works was located to the north-west and Elton Paper Mills to the south.

Landmark has identified three landfill sites within 250 m of the development, King George V Playing Fields (190 m to the north-west), the former gas works at Victoria Street (150 m to the west) and Wellington Street (175 m to the south). Note: distances are measured from the wider Albion Mill site boundary rather than from the proposed development units and so will actually be slightly further away.

Landmark has also identified some potentially infilled ground, although some of these features are taken from very old OS maps.

The most significant area of filled ground is probably the former Manchester, Bolton & Bury Canal, located to the east of the site, and the canal spur which is situated immediately to the east of Albion House.

Conclusions

Based on the available information reviewed as part of this assessment, the potential for significant contamination to be present at the site is considered to be **Low to Moderate**.

The highest risk of contamination exists at the rear of the site occupied by the garage.

Potential Contaminative Pathways

The proposed development comprises the conversion of first, second and third floors of Albion Mill, Albion Mill Rear and Albion House from Class E retail into 20 no self-contained flats with associated bin and bike stores. Albion House has a semi-basement which is to be retained but is not designated with any particular use. There also appears to be a basement beneath Albion Mill which was not inspected during the walkover survey, due to health and safety considerations. ZZE has been advised that this will be infilled.

No external works are proposed as part of this application eg there will be no residential gardens or outside landscaped areas.

Based on the proposed development, the following potential contamination pathways may exist:

- (i) Ingestion of contaminated soil
- (ii) Inhalation of contaminative dust/fibres/vapours
- (iii) Physical contact
- (iv) Build-up of hazardous gases (eg carbon dioxide, methane) under the building leading to migration into the new building
- (v) Dissolution or suspension (leaching) of contaminants from site soils into groundwater
- (vi) Lateral migration of contaminants in shallow groundwater (dissolved and immiscible phases) providing base flow to surface waters

Potential Receptors

The potential receptors that may be affected by contamination or hazardous gas at the site are as follows:

1. Future Site Users
2. Buildings and Structures (including water supply pipes)
3. Controlled waters
4. Adjacent Properties
5. Construction Workers

Risk Assessment

The assessment of risk is based on the concept of the source – pathway - receptor linkage.

Risks posed to each of the identified potential receptors are discussed separately below in accordance with CIRIA Guidance Document: Contaminated Land Risk Assessment – A Guide to Good Practice.

An environmental risk rating of Negligible, Very Low, Low, Moderate or High has been assigned to each identified receptor.

Future Site Users

If there is some ground contamination at the development site, the floor slab of the converted property, the mill basement backfill and the existing hard surfaced external areas will provide a physical barrier between the contamination and any site users. This applies to both the house and mill.

The existing garage at the rear of the mill represents the most significant current source of ground contamination.

There are landfill sites and areas of infilled land within 250 m of the site, the closest of which is the former Manchester, Bolton and Bury Canal and a spur which is located immediately to the east of Albion House.

Albion House has a semi-basement which will be used for storage, including a bike store. There will be no residential apartments in the semi-basement.

It is proposed that the mill basement will be infilled and will not form part of the development. This backfill, along with the floor slabs will provide a physical barrier between any underlying ground contamination and the future residents, but may not prevent the ingress and build-up of hazardous ground gases should they be present within the permeable river terrace deposits beneath and around the development.

The potential risks to future site users, associated with possible ground contamination, is considered to be Moderate.

Risks associated with hazardous ground gas are considered to be Low to Moderate.

Buildings and Structures

Albion Mill and House have been present on the site since the early 1800's. There are no specific signs of instability resulting from aggressive ground conditions.

Potential risk to buildings and structures due to contaminated ground at the development site is considered to be Low.

Notwithstanding this, the foundation engineer should take account of the site-specific conditions for the design of any cast in situ concrete used for ground or basement floor slabs.

Controlled Waters

The site is reported to be underlain by river terrace deposits associated with the River Irwell, which are likely to be underlain by glacial soils and Coal Measures rocks. These strata are

classified as secondary aquifers. Shallow groundwater within the superficial soils is likely to be hydraulically connected to both the drainage channel that forms the western site boundary and the nearby River Irwell.

There are no nearby groundwater abstractions, and the site is not located in a groundwater source protection zone.

The nearest surface water feature, a southerly flowing drainage channel to the west of the mill. This flows to the River Irwell via the reservoir located to the south-west of the site, which is located east of the development site.

There are two surface water abstractions within 250 m of the site, both are downstream of the site, to the south-east.

The potential risk to controlled waters due to contaminated ground beneath the buildings is considered to be Very Low.

Adjacent Properties

The site is surrounded by other commercial and industrial developments.

The potential risk to the existing neighbouring property and people is considered to be Low.

Construction Workers

The existing buildings are to be converted for storage and residential use. There will therefore be limited interaction with the underlying ground as part of the redevelopment proposals.

In the event that contaminated made ground is present at shallow depth beneath the site, construction workers exposure to potential contaminants of concern would be very limited (during the short lifetime of the development works).

Notwithstanding the above, construction workers should adopt standard health & safety precautions including appropriate personal protective equipment (PPE).

The potential risk to the construction workers is considered to be Low.

12. CONCLUSIONS & RECOMMENDATIONS

Zig Zag Environmental has been instructed by Gold Sketch Studios Limited, on behalf of Bracknell Properties to prepare a Preliminary Risk Assessment (PRA) for Albion House and Albion Mill, Albion Street, Bury.

This PRA has been produced to support a planning application for the conversion of first, second and third floors of Albion Mill, Albion Mill Rear and Albion House from Class E retail into 20 no self-contained flats with associated bin and bike stores. No external landscaping works are proposed.

The site and surrounding area have a long history of potentially contaminative land use including mills and a gas works. The site itself has been occupied by Pur-o-Lux, manufacturers of bespoke beds and mattresses for almost 50 years, a relatively low risk activity and a garage used for vehicle servicing and repair at the rear of the mill.

Zig Zag Environmental makes the following conclusions:

- The floor slab of the converted property, the mill basement backfill and the existing hard surfaced external areas will provide a physical barrier between any shallow ground contamination and future site users and residents. Ground conditions should be confirmed and contamination assessed.
- No radon protection measures are required.
- The proposed development is not affected by shallow coal/coal mine workings and no specific investigation or mitigation measures are required.
- There are potential ground gas risks which require further consideration.

Zig Zag Environmental has assessed the degree of ground contamination risk posed by the site and surrounding land and conclude that the potential risks to identified receptors are generally low but there may be risks associated with hazardous ground gases particularly associated with the infilled canal spur immediately adjacent to Albion House.

ZZE recommends a Phase 2 intrusive investigation to include the following:

- Inspection of the shallow ground conditions and recovery of soil samples for chemical analysis. The investigation findings should be assessed to determine whether there are any significant potential risks to the development and future site users/residents or the wider environment.
- Installation of shallow gas monitoring probes and monitoring to meet CIRIA C665 requirements, based on a low gas generation potential source, ie:

Typical/Idealised Period of Monitoring 3 months

Typical/Idealised Frequency of Monitoring 6 visits

In addition, ZZE also recommends that:

- any soil fill imported to backfill the mill basement should be uncontaminated and fit for purpose. If waste soils from other development sites are to be used the developer should ensure that there is a Materials Management Plan in place and the material meets the requirements of the CL:AIRE definition of Waste Code of Practice, ie for direct transfer it should comprise clean, naturally occurring soil materials. Verification samples should be collected for laboratory analysis to confirm the suitability of the soil fill.
- the developer and any appointed contractors maintain a watching brief, particularly during any preparatory groundworks and should contamination be encountered unexpectedly during redevelopment of the site professional advice should be sought and the Local Planning Authority informed.



APPENDIX A

HISTORICAL OS MAPS

Historical Mapping Legends

Ordnance Survey County Series 1:10,560

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

Ordnance Survey Plan 1:10,000

	Chalk Pit, Clay Pit or Quarry		Gravel Pit
	Sand Pit		Disused Pit or Quarry
	Refuse or Slag Heap		Lake, Loch or Pond
	Dunes		Boulders
	Coniferous Trees		Non-Coniferous Trees
	Orchard		Scrub
	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

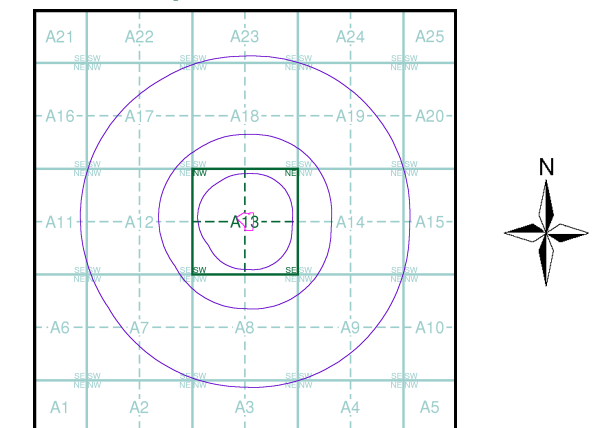
1:10,000 Raster Mapping

	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
Lancashire And Furness	1:10,560	1850 - 1851	3
Lancashire And Furness	1:10,560	1894	4
Lancashire And Furness	1:10,560	1910 - 1911	5
Lancashire And Furness	1:10,560	1931	6
Lancashire And Furness	1:10,560	1938 - 1939	7
Ordnance Survey Plan	1:10,000	1955 - 1956	8
Ordnance Survey Plan	1:10,000	1965 - 1969	9
Ordnance Survey Plan	1:10,000	1974	10
Manchester	1:25,000	1975	11
Ordnance Survey Plan	1:10,000	1980 - 1984	12
Ordnance Survey Plan	1:10,000	1989	13
Ordnance Survey Plan	1:10,000	1992	14
10K Raster Mapping	1:10,000	1999	15
10K Raster Mapping	1:10,000	2006	16
VectorMap Local	1:10,000	2024	17

Historical Map - Slice A



Order Details

Order Number: 362973134_1_1
Customer Ref: ZZ24032
National Grid Reference: 379620, 410750
Slice: A
Site Area (Ha): 0.84
Search Buffer (m): 1000

Site Details

Site at 379620, 410760

Russian Military Mapping Legends

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

a. Not drawn to scale b. Drawn to scale

Government and Administrative Buildings

Military and Industrial Buildings

Military and Communication Areas

Subway Entrance

Fireproof Building

Prominent Fireproof Building

Non-fireproof Building

Non-fireproof Building (non-dwelling)

Factory, mill, and flour mill, with chimneys

Factory, mill, and flour mill, without chimneys

Power Station, drawn to scale

Hydroelectric Power Station

Radio Station, drawn to scale

Telephone Station, drawn to scale

Abandoned Open-pit Mine or Quarry

Open-pit Salt Mine

Pit

Oil Deposit or Well

Oil Seepage

Tailings Pile

Fuel Storage Tanks

Natural Gas Tank

Bench Mark

Drill Hole

Burial Mound

Triangulation Point on Burial Mound

Single-track Railroad

Double-track Railroad

Railroad and Station Building

Coniferous Forest

Deciduous Forest

Mixed Forest

Lawns

Citrus Orchard

Wet Ground

Scattered Vegetation

243.8 Values for prominent elevations
186.0 Numbers for spot elevations, depth soundings, contour lines, etc.
0.2 Velocity of the current, width of river bed, depth of river
180/12 Fractional terms: length and capacity of bridges; depth of fords and condition of the river bottom; height of forest and the diameter of trees

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

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

1:25,000 mapping

a. Not drawn to scale b. Drawn to scale

Government and Administrative Buildings

Military and Industrial Buildings

Military and Communication Areas

Subway Entrance

Partly Demolished Buildings

Demolished Buildings

Built-Up Area with Fireproof Buildings Predominant

Built-Up Area with Non-Fireproof Buildings Predominant

Individual Fireproof Building

Prominent Industrial Building

Individual Dwelling, Fireproof

Ruins of an Individual Dwelling

Factory or Mill Chimney

Factory or Mill with Chimney

Factory or Mill without Chimney

Mine or Open Pit Mine

Operating Shaft or Mine

Non-Operating Shaft or Mine

Salt Mine

Tailings Pile

Pit

Stone Quarry

Gas Pump or Service Station

Fuel Storage or Natural Gas Tank

Oil or Natural Gas Derrick

Small Hydroelectric Power Station

Power Station

Transformer Station

Cemetery

Burial Mound (height in metres)

Triangulation Point on Burial Mound

Triangulation Point

Bench Mark

Bench Mark (monumented)

Telegraph Office

Telephone Station

Radio Station

Radio Tower

Airfield or Seaplane Base

Landing Strip

Telegraph/Telephone Lines

Main Highway

Highway under Construction

Improved Dirt Road (former truck road)

Double-track Railroad with First Class Station

Railroad Under Construction

Shore Embankment

River or Ditch with Embankment

Water Gauge

Water Level Mark

Well

Water Reservoir or Rain Water Pit

Spring

Isobath with value

Heavy (Index) Contour Line

Contour Line and Value

Half Contour Line

Spot Elevation Value

Coniferous

Deciduous

Mixed

Scrub

Key to Numbers on Mapping

SD71_Manchester

No.	Description
9	Industrial Buildings (Use Unknown)
23	Depot (Railway)
102	Factory (Machinery)

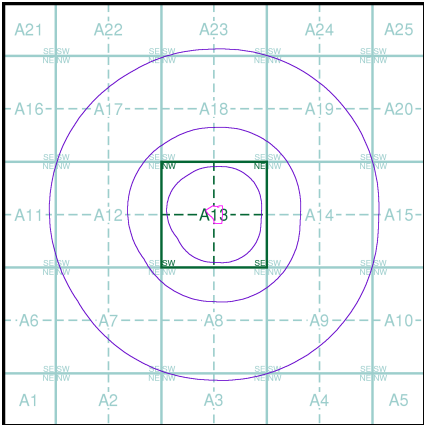
Envirocheck®

LANDMARK INFORMATION GROUP®

Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Lancashire And Furness	1:10,560	1850 - 1851	3
Lancashire And Furness	1:10,560	1894	4
Lancashire And Furness	1:10,560	1910 - 1911	5
Lancashire And Furness	1:10,560	1931	6
Lancashire And Furness	1:10,560	1938 - 1939	7
Ordnance Survey Plan	1:10,000	1955 - 1956	8
Ordnance Survey Plan	1:10,000	1965 - 1969	9
Ordnance Survey Plan	1:10,000	1974	10
Manchester	1:25,000	1975	11
Ordnance Survey Plan	1:10,000	1980 - 1984	12
Ordnance Survey Plan	1:10,000	1989	13
Ordnance Survey Plan	1:10,000	1992	14
10K Raster Mapping	1:10,000	1999	15
10K Raster Mapping	1:10,000	2006	16
VectorMap Local	1:10,000	2024	17

Russian Map - Slice A



Order Details

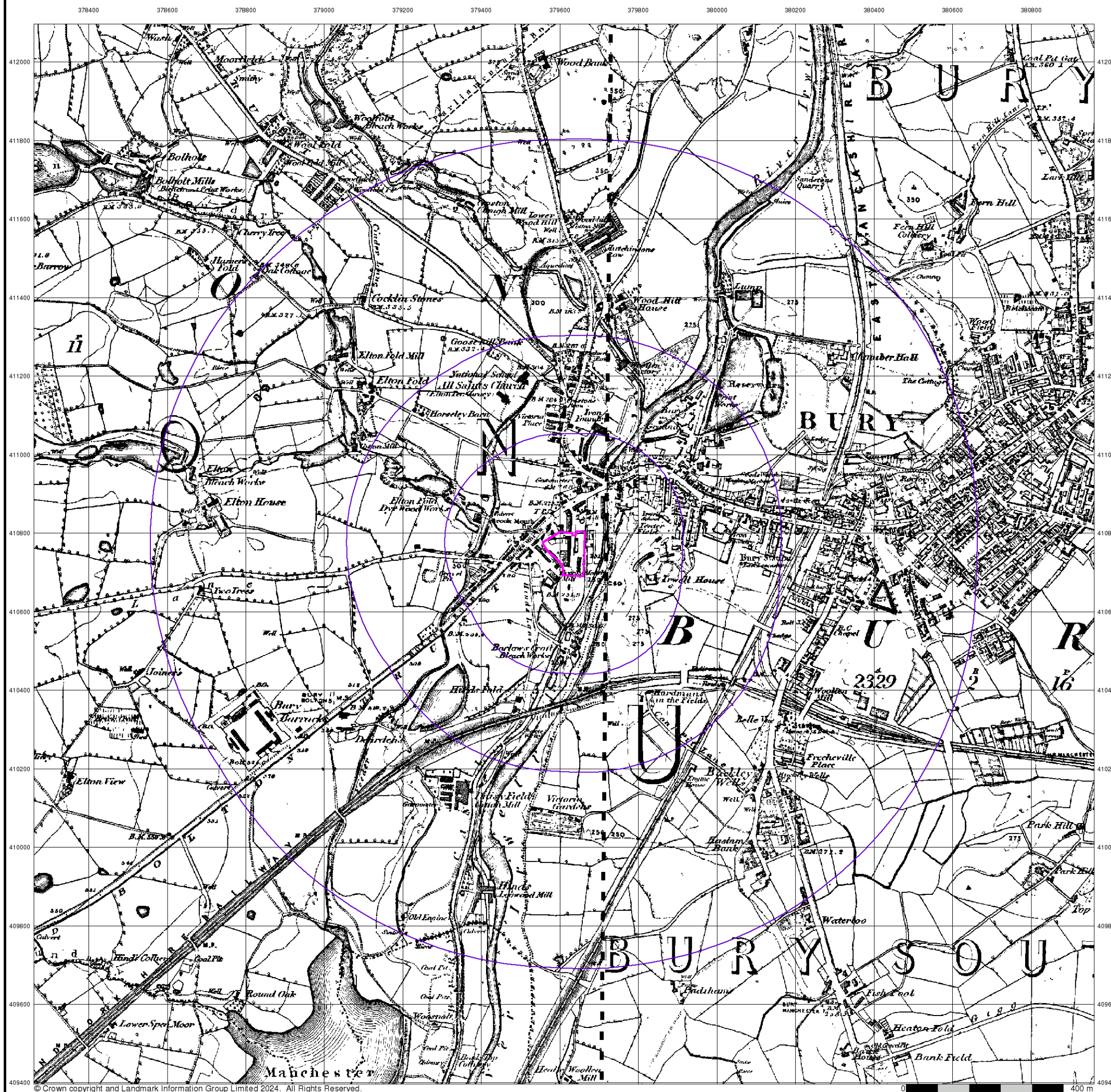
Order Number: 362973134_1_1
Customer Ref: ZZ24032
National Grid Reference: 379620, 410750
Slice: A
Site Area (Ha): 0.84
Search Buffer (m): 1000

Site Details

Site at 379620, 410760

Landmark®
INFORMATION GROUP

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



Envirocheck®

LANDMARK INFORMATION GROUP®

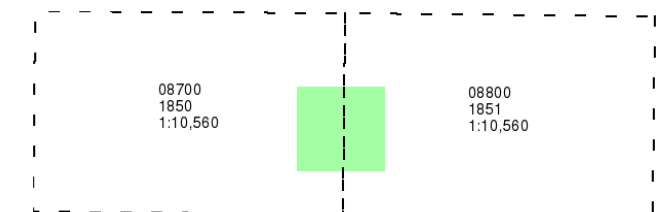
Lancashire And Furness

Published 1850 - 1851

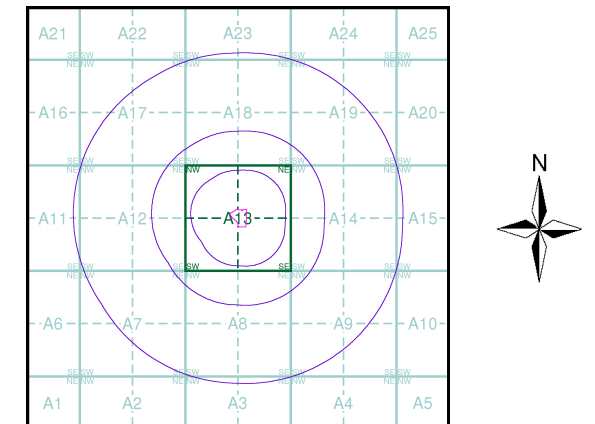
Source map scale - 1:10,560

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

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

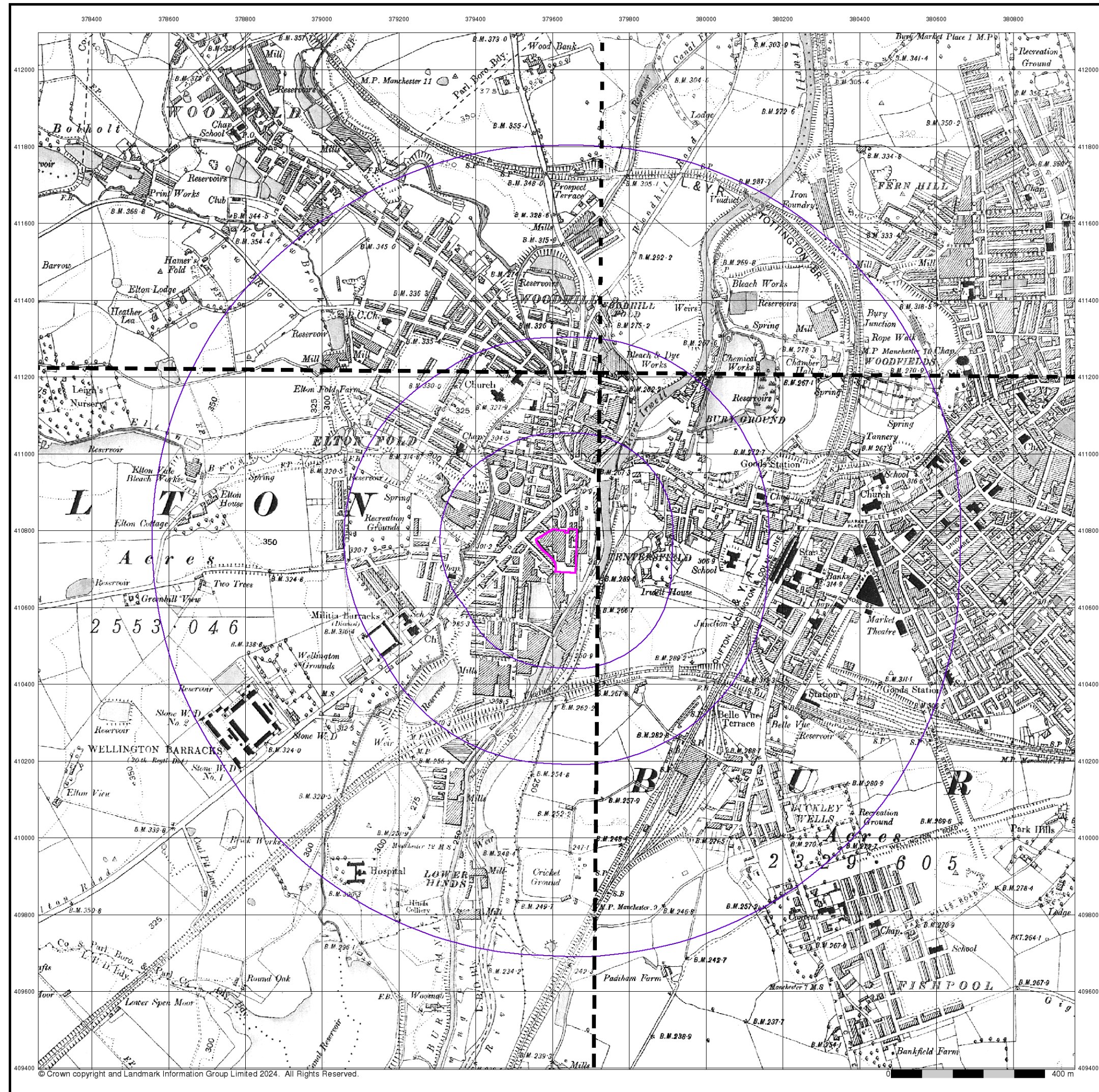
Order Number: 362973134_1_1
Customer Ref: ZZ24032
National Grid Reference: 379620, 410750
Slice: A
Site Area (Ha): 0.84
Search Buffer (m): 1000

Site Details

Site at 379620, 410760

Landmark®
INFORMATION GROUP

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



Envirocheck®

LANDMARK INFORMATION GROUP®

Lancashire And Furness

Published 1894

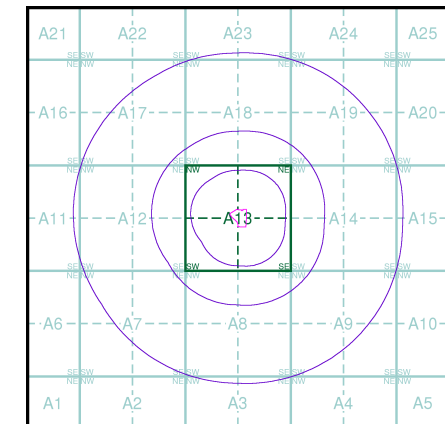
Source map scale - 1:10,560

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)

087NE 1894 1:10,560	088NW 1894 1:10,560
087SE 1894 1:10,560	088SW 1894 1:10,560

Historical Map - Slice A



Order Details

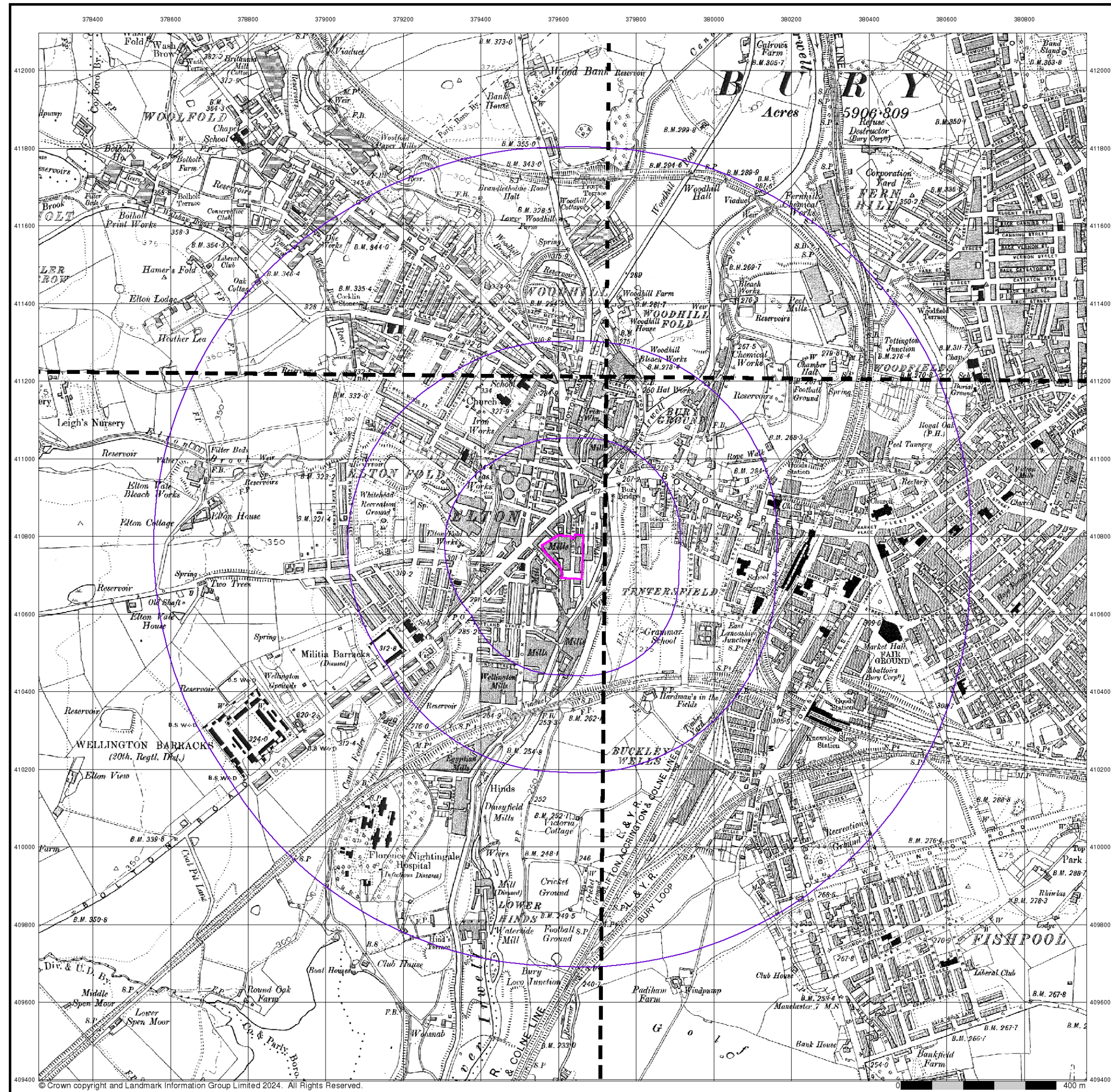
Order Number: 362973134_1_1
Customer Ref: ZZ24032
National Grid Reference: 379620, 410750
Slice: A
Site Area (Ha): 0.84
Search Buffer (m): 1000

Site Details

Site at 379620, 410760

Landmark®
INFORMATION GROUP

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



Lancashire And Furness

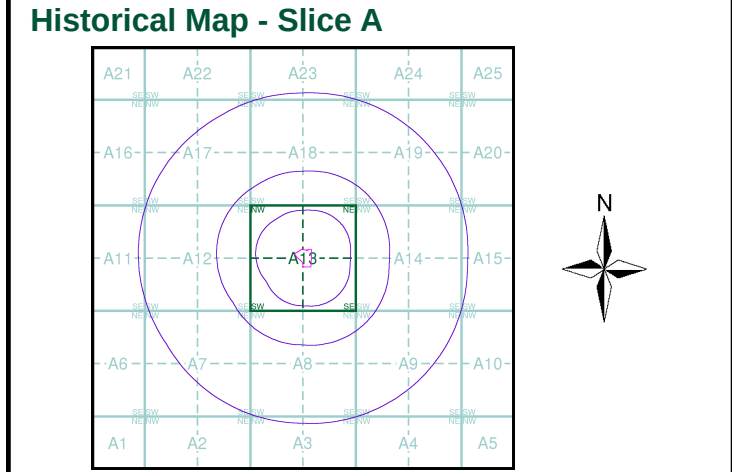
Published 1910 - 1911

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)

087NE 1911 1:10,560	088NW 1911 1:10,560
087SE 1911 1:10,560	088SW 1910 1:10,560



Order Details

Order Number:

362973134_1_1

Customer Ref:

ZZ24032

National Grid Reference:

379620, 410750

Slice:

A

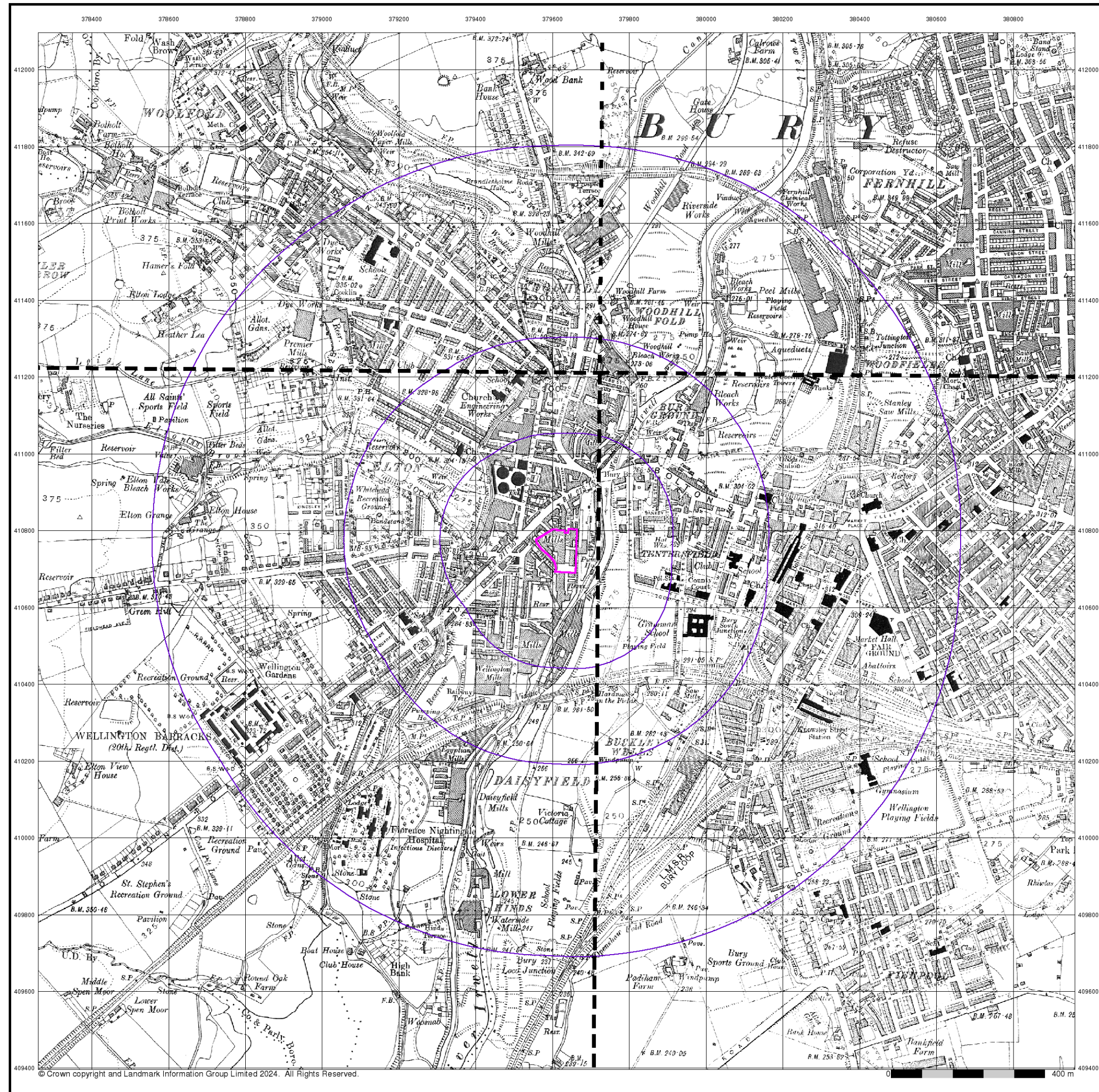
Site Area (Ha):

0.84

Search Buffer (m):

1000

Site at 379620, 410760



Lancashire And Furness

Published 1931

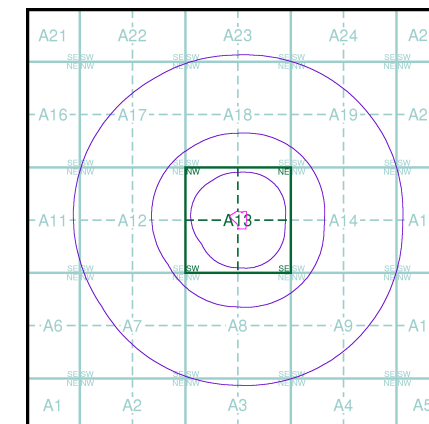
Source map scale - 1:10,560

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)

087NE 1931 1:10,560	088NW 1931 1:10,560
087SE 1931 1:10,560	088SW 1931 1:10,560

Historical Map - Slice A

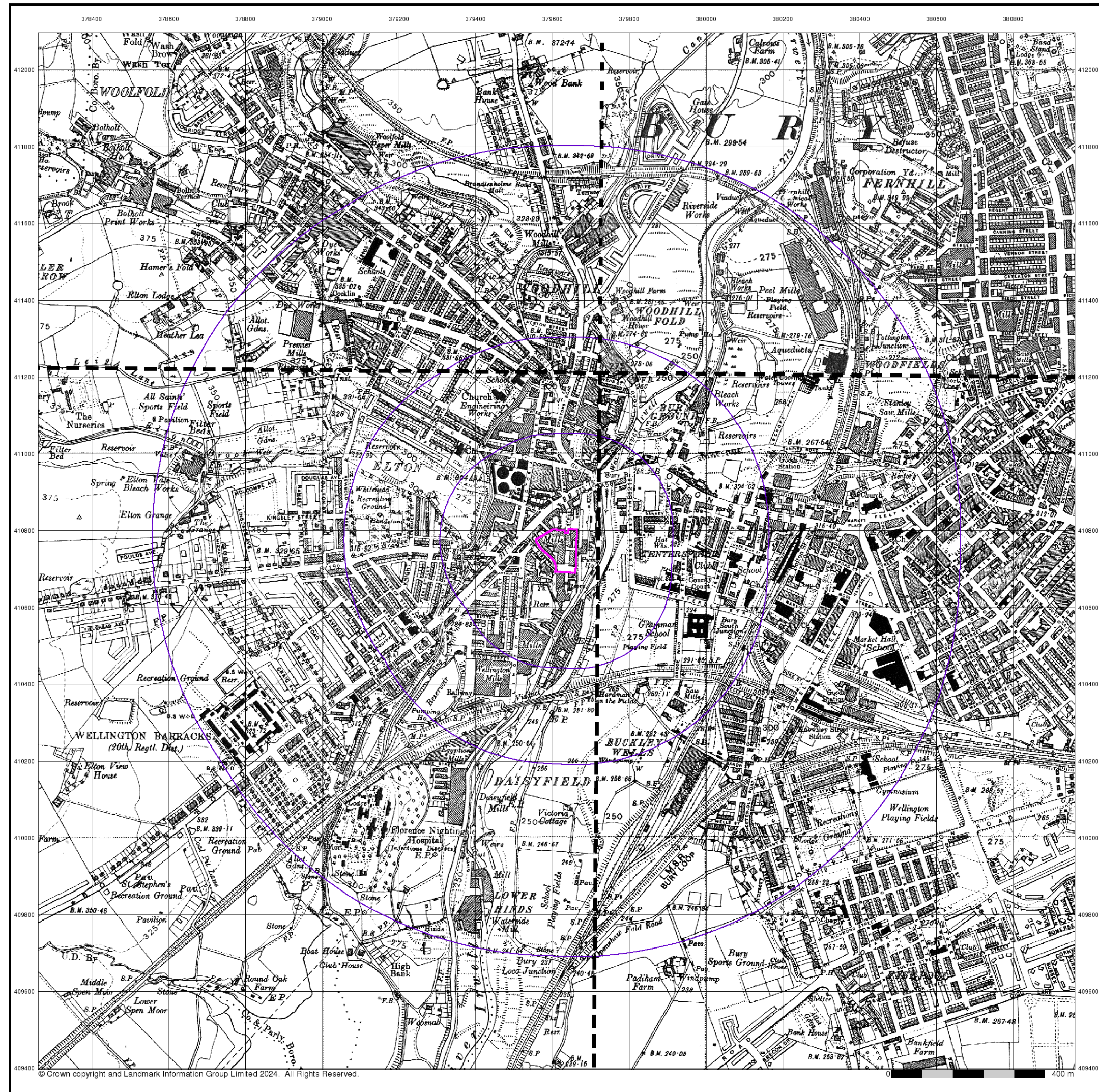


Order Details

Order Number: 362973134_1_1
Customer Ref: ZZ24032
National Grid Reference: 379620, 410750
Slice: A
Site Area (Ha): 0.84
Search Buffer (m): 1000

Site Details

Site at 379620, 410760



Envirocheck®

LANDMARK INFORMATION GROUP®

Lancashire And Furness

Published 1938 - 1939

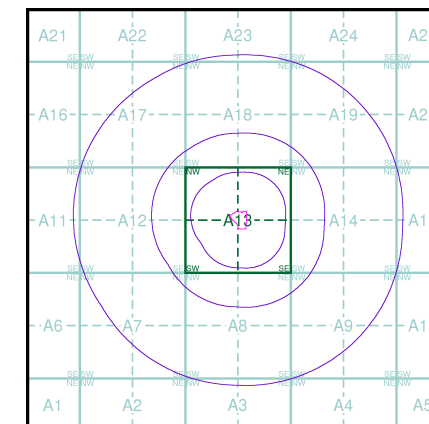
Source map scale - 1:10,560

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)

087NE 1938 1:10,560	088NW 1939 1:10,560
087SE 1938 1:10,560	088SW 1938 1:10,560

Historical Map - Slice A



Order Details

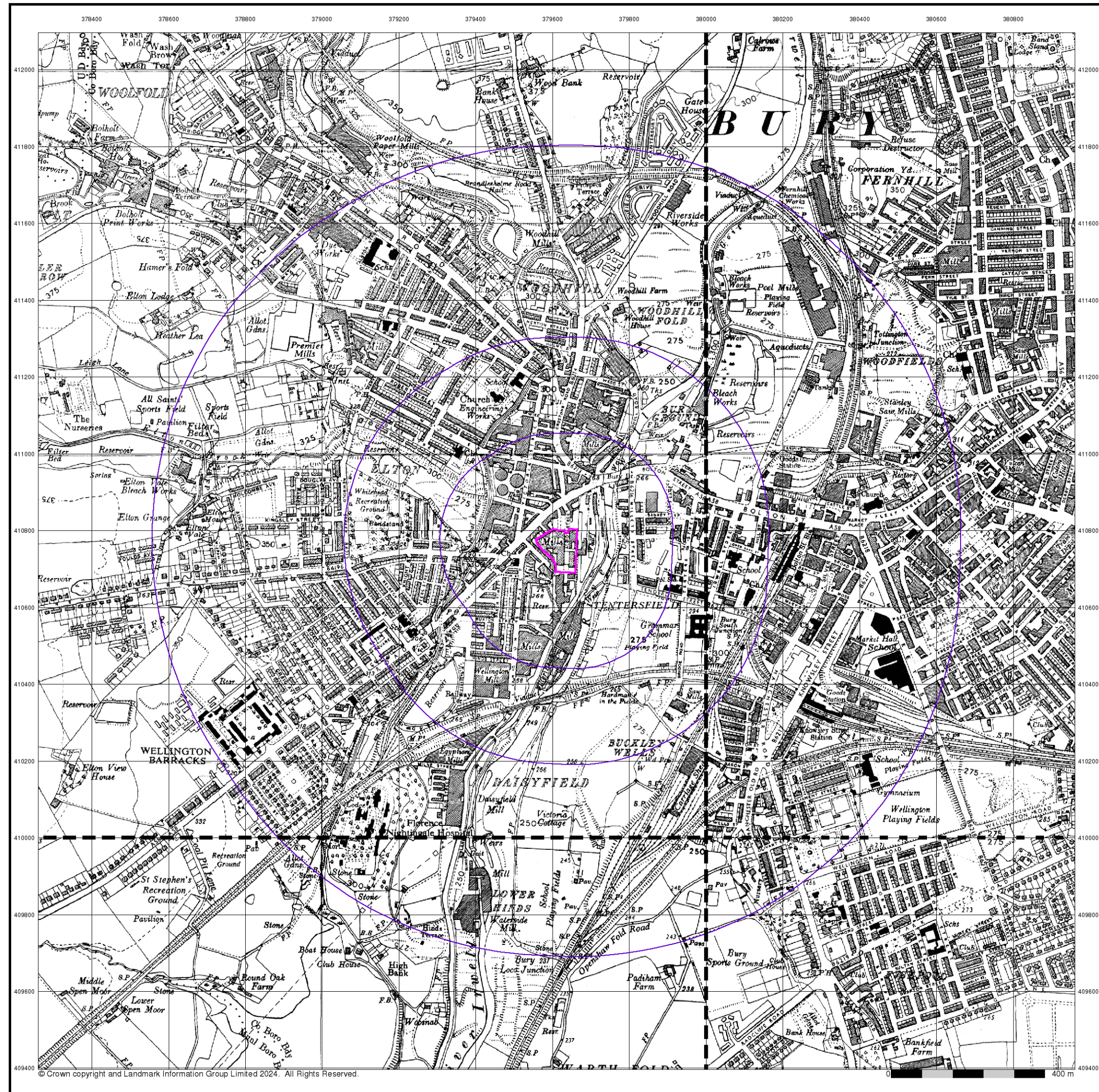
Order Number: 362973134_1_1
Customer Ref: ZZ24032
National Grid Reference: 379620, 410750
Slice: A
Site Area (Ha): 0.84
Search Buffer (m): 1000

Site Details

Site at 379620, 410760

Landmark
INFORMATION GROUP

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



Envirocheck®

LANDMARK INFORMATION GROUP®

Ordnance Survey Plan

Published 1955 - 1956

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)

SD71SE	SD81SW
1956	1956
1:10,560	1:10,560
SD70NE	SD80NW
1955	1955
1:10,560	1:10,560

Historical Map - Slice A

Order Details

Order Number:	362973134_1_1
Customer Ref:	ZZ24032
National Grid Reference:	379620, 410750
Slice:	A
Site Area (Ha):	0.84
Search Buffer (m):	1000

Site Details

Site at 379620, 410760

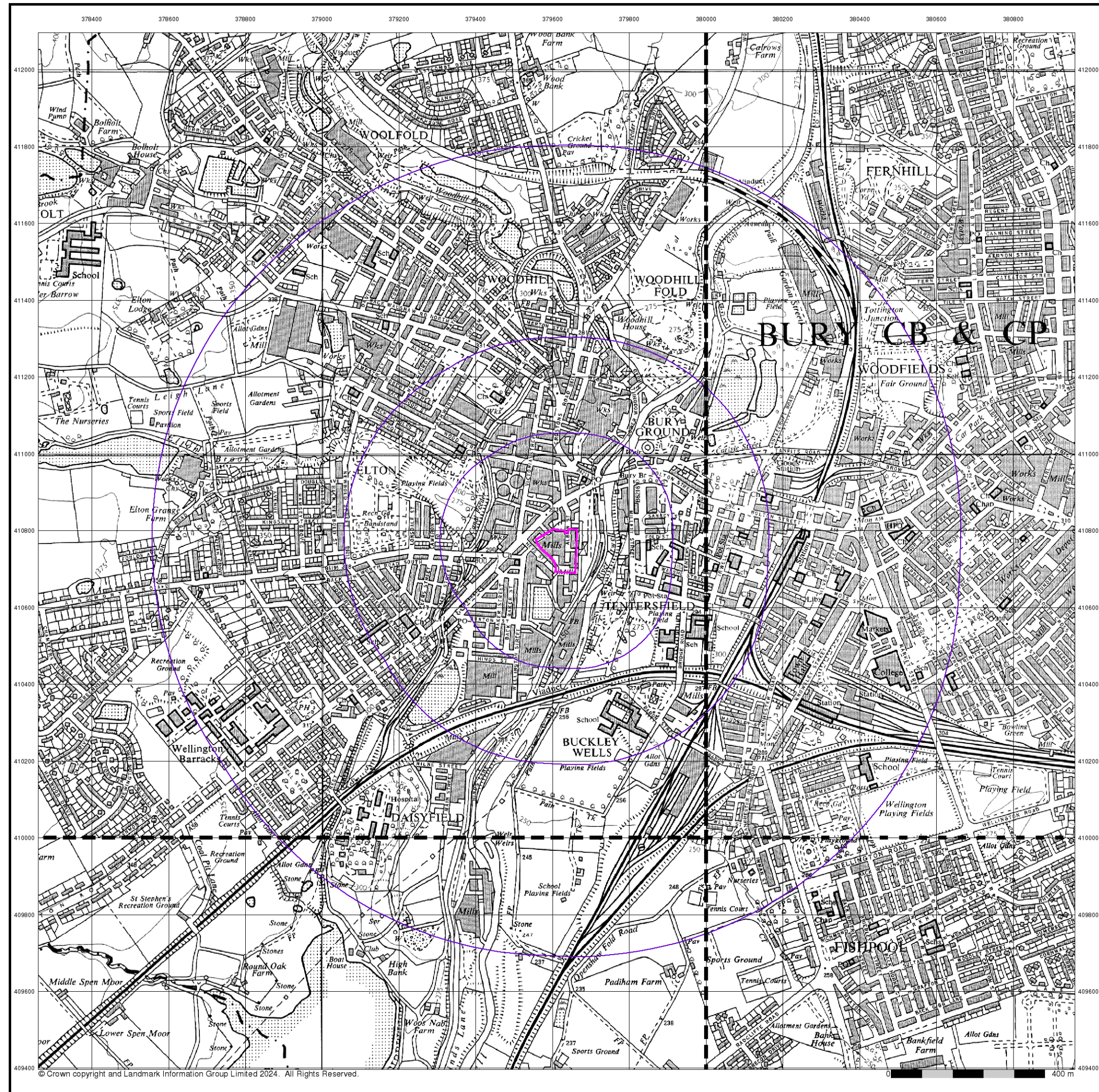
Landmark®

INFORMATION GROUP

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

© Crown copyright and Landmark Information Group Limited 2024. All Rights Reserved.

A Landmark Information Group Service v50.0 08-Nov-2024 Page 8 of 17



Envirocheck®

LANDMARK INFORMATION GROUP®

Ordnance Survey Plan

Published 1965 - 1969

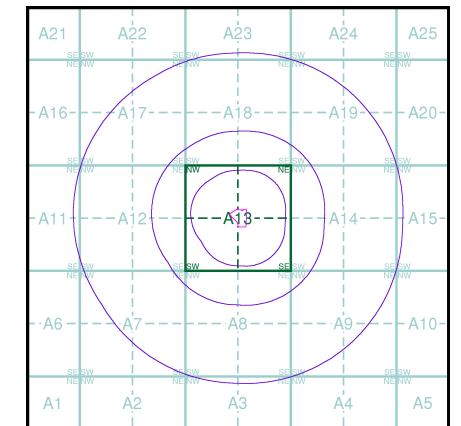
Source map scale - 1:10,000

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)

SD71SE	SD81SW
1969	1967
1:10,560	1:10,560
SD70NE	SD80NW
1965	1965
1:10,560	1:10,560

Historical Map - Slice A



Order Details

Order Number: 362973134_1_1
Customer Ref: ZZ24032
National Grid Reference: 379620, 410750
Slice: A
Site Area (Ha): 0.84
Search Buffer (m): 1000

Site Details

Site at 379620, 410760

Landmark®
LANDMARK INFORMATION GROUP

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