

Report

Coal Mining Risk Assessment

PROJECT REF: 65208322

Gomersal St Mary's Church of England
Voluntary Controlled Primary School

**Report prepared for:
Department of Education**

FINAL
65208322-SWE-XX-XX-T-J-2001
Rachel Thomson

27/02/2023

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Status / Revisions

VER.	DATE	CHANGE CONCERNS	REVIEWED	APPROVED
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C02	27-02-23	Inclusion of Development Plans	SC	SC

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65208322-SWE-XX-XX-D-GE-0001 – Historic Borehole Location Plan

Appendices

Appendix A: Development Plans

Appendix B: Extracts from Preliminary Risk Assessment Report including Consultant's Coal Mining Report (RSK Geosciences Ltd)

Appendix C: Historical Borehole Records (British Geological Survey)

1 Introduction

This report has been prepared by Sweco on the instructions of Turner & Townsend Limited on behalf of The Department of Education, which is proposing to reconstruct the existing building at Gomersal St. Mary's CE (C) Primary School, Cleckheaton, referred to as the site in this report.

The site is located within the Development High Risk Area that defined as an area where recorded coal mining risks are present at the surface or shallow depths and are likely to affect new development. In consideration of the above, a Coal Mining Risk Assessment (CMRA) is required to provide information for a feasibility study and subsequently to support a planning application.

The CMRA is a review of published geological and historical coal mining data to identify any coal mining legacy risk and to provide mitigation strategy to demonstrate to the planning authority that the site can be made safe and stable for the proposed development or if the desk based assessment cannot provide adequate evidence to discount the risk posed by the past mining activity then details of any proposed intrusive investigation should be set out within the report.

1.1 Proposed Scheme

The site is currently a primary school which has been identified as a Target Block under The School Rebuilding Programme (SRP). The existing building is to be demolished, with a new school building built on the site. Presently, three options are being considered during the feasibility stage: Options a, b and c. Schematic plans of the options are presented in Appendix A.

1.2 Scope

The preparation of this report included the following tasks:

- Identify shallow mining constraints to development.
- Identify risks associated with any workings / poor ground conditions, and
- Provide recommendations for additional ground investigation and/or potential mitigation measures.

1.3 Reference Material

List of data sources examined for the Coal Mining Risk Assessment:

- British Geological Survey (BGS)(2003). Sheet 77, Huddersfield, 1:50,000 Scale Geology Map Soil and Drift.
- BGS website – Historical boreholes, geology and hydrogeology information from the GeoIndex Onshore Online Maps. Available from: <http://www.bgs.ac.uk/>, (Accessed February 2023).
- The Coal Authority Coal Mining Report for Gomersal St Marys C of E Primary Reference 5100331883001 dated 17 October 2022 was contained within the Appendices of the Preliminary Risk Assessment produced by RSK Geosciences.
- Ordnance Survey Historical Maps contained within the Appendices of the Preliminary Risk Assessment produced by RSK Geosciences.

- Hydrogeological Map of Southern Yorkshire and Adjoining Areas. Institute of Geological Sciences (1982).
- A Preliminary Risk Assessment, Project No 35055-R01, November 2022 was carried out by RSK Geosciences for the site and has been used as a source of desk-based information throughout this Coal Mining Risk Assessment Report. Relevant extracts are presented in Appendix B.

1.4 Site Location and Description

The site is located approximately 1.6km east of the Cleckheaton town centre. The centre of the site area lies at an approximate National Grid Reference (NGR) co-ordinates: E:420760 and N:425700.

The site is roughly rectangular in shape and covers an approximate area of 0.91 hectares. A single storey primary school consisting of four blocks with hard standing, playgrounds, car parks and vegetated playing fields currently occupy the site area.

The site is located within a residential area, with housing and associated infrastructure surrounding the site. The site plan sourced from RSK report is presented in Appendix B.

2 Site History

Historical maps indicate the site was undeveloped agricultural land from 1854 to 1988. The main school building of the Gomersal St Mary's CE school was built between 1988 – 1989. The most recent map from 2022 shows that the outline of the buildings has remained unchanged to the present day.

The earliest available map from 1854 indicates four coal pits were located within 250m distance of Site with the nearest being Marsh House Coal Pit situated approximately 115m north-west. By 1894, all the four coal pits are absent but Little Gomersal Colliery is shown approximately 350m south-east of the Site. By 1908 the word colliery is removed but the excavation is still shown on the map and an 'old shaft' is shown 680m to the north west of the site. By 1966, the shaft is no longer shown on the map.

3 Site Walk Over

No site walkover has been undertaken to date by a Sweco Geotechnical Engineer. Details of the site walkover undertaken by an Engineer from RSK Geosciences are presented Preliminary Risk Assessment Report.

4 Anticipated Ground Conditions

4.1 Published Geology

4.1.1 Artificial Deposits

Available BGS mapping (British Geological Survey, 2023) indicates that no artificial deposits are present within Gomersal St. Mary's Primary School, Cleckheaton.

4.1.2 Superficial Deposits

The BGS mapping indicates that Superficial deposits are not present within the site boundary or surrounding area.

4.1.3 Solid Geology

The BGS mapping indicates that the site is underlain by bedrock of the Pennine Lower Coal Measures Formation, which comprises mudstone, siltstone and sandstone.

4.1.4 Structural Geology

No faults are recorded within the site boundary; however, it should be noted that a normal fault trending in an east to west direction is recorded approximately 85m towards the north of the site.

An inferred coal seam is recorded on available BGS mapping (British Geological Survey, 2023) running from the site in a north-western to south-eastern trend.

4.1.5 Hydrogeology

The MAGIC website data indicates that the Pennine Lower Coal Measures Formation is a secondary A aquifer which is defined as permeable layers that can support local water supplies, and may form an important source of base flow to rivers

4.2 BGS Borehole Records

A total of three historical borehole records located 60m to the north of the site were obtained and reviewed from the online BGS records. A plan showing the distribution of the available exploratory hole data are presented on Drawing 65208322-SWE-XX-XX-D-GE-0001. Copies of the borehole logs together with detail assessment of the ground conditions is presented in Appendix C. A summary of the ground conditions is presented below.

The ground conditions comprise weathered bedrock consisting of stiff clay becoming shelly clay with depth to between 2.8m and 3.8m below ground level (m bgl) followed by bedrock comprising interbedded layers of soft to hard light grey mudstone with occasional sandstone layers to 10m bgl. Possible voids were noted between 3.2m and 6m bgl in all three boreholes.

No groundwater strikes were recorded within these historical BGS exploratory.

5 Historical Mining Data

The Coal Authority interactive map indicates that the site is located within a Coal Mining Reporting Area, Development High Risk Area, Abandoned Mines Catalogue Area and Surface Coal Resource Area. In addition, the entire site is within an area of probable shallow coal mine workings with a coal outcrop shown to run through the site in a north-western to south-eastern trend.

The Coal Authority Coal Mining Report for 'Gomersal St. Mary's Primary School (Reference 51003318853001), dated October 2022 is contained within the Appendices of the Preliminary Risk Assessment produced by RSK Geosciences which is presented in Appendix B. The main findings of the report are as follows:

5.1 Past Underground Mining

A single mine is located within the site boundary at a dept of 106m bgl and 0.57m of coal was extracted from it.

5.2 Shallow Workings

Shallow workings are probably located under the site but no spine roadway is located under the site.

5.3 Shafts and Audits

There are no mine entries recorded on site, however two mine entries are recorded approximately 100m south of the site.

5.4 Outcrops

Coal outcrop named Flockton Thick is located within the site.

5.5 Opencast Mines

One unlicensed opencast mine is recorded approximately 400m towards the south-east of the site.

5.6 Site Investigations

None recorded within 50m of the site boundary.

5.7 Remediated Sites

There are no remediated sites within 50m of the site boundary (where the Coal Authority has undertaken remedial works following report of a hazard relating to coal mining under the Coal Authority's Emergency Surface Hazard Call Out procedures).

5.8 Coal Mining Subsidence

The Coal Authority has not yet received a damage notice or claim for the subject property, or any property within 50 meters of the enquiry boundary, since 31st October 1994.

There is no current Stop Notice delaying the start of remedial works or repairs to the property.

The Coal Authority is not aware of any request having been made to carry out preventative works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991.

5.9 Mine Gas

None recorded within 500m of the site boundary.

5.10 Mine Water Treatment Schemes

None recorded within 500m of the site boundary.

5.11 Future Underground Mining and Coal Mining Licensing

None recorded.

5.12 Non-coal Mining Data Review

The Envirocheck Report contained within the Preliminary Risk Assessment Report (RSK, Nov 2022), indicates that there is no hazard associated with Non-Coal Mining Areas of Great Britain in, or within close proximity to the site.

6 Coal Mining Risk Assessment

An assessment of the risk posed by historical coal mining and the recommended mitigation measures to alleviate the risks identified at Gomersal St. Mary's Primary School, Cleakheaton site is detailed in **Table 6.1**. The risk matrix highlighting the methodology behind the assessment is presented in **Table 6.2** and comments associated with risk rating in **Table 6.3**.

Table 6.1 – Coal Mining Risk Assessment.

Item	Hazard	Probability (P)	Impact (I)	Risk without mitigation	Mitigation	Probability (P)	Impact (I)	Residual Risk With Mitigation
Shallow recorded/ unrecorded mining	Potential to ground collapse causing land instability during and post construction and potential pathway to the surface for mine gas and water.	5	4	20	<p>Prior to construction, abandoned mine plans to be reviewed and intrusive ground investigation is undertaken to quantify risk and if necessary, design stabilization measures. If shallow mine workings are encountered, treatment that can include grouting may be required depending on the depth and extent of the working.</p> <p>Temporary works design should also consider the potential for instability.</p>	1	4	4
Recorded/ unrecorded mine entries	Potential to ground collapse causing land instability during and post construction and potential pathway to the surface for mine gas and water.	2	5	10	<p>Prior to construction it is recommended that a ground investigation is undertaken to determine whether there is a presence of mine entries onsite, and if necessary, design stabilization measures.</p>	1	4	4

Item	Hazard	Probability (P)	Impact (I)	Risk without mitigation	Mitigation	Probability (P)	Impact (I)	Residual Risk With Mitigation
Mine gas emissions	Presence of toxic and explosive pressurised gases beneath the site associated with shallow workings and mine entries. Future construction may disturb strata and lead to gas migration.	4	2	8	Gas monitoring during and post ground investigation. During construction works all plant and equipment should be fitted with spark arrestors and alarms as appropriate. Assessments to be made against Wilson and Card Classification set out in CIRIA C665 and BS8485.	3	1	3
Contamination associated with historical mining	Contaminated material (e.g. shaft fill) may be encountered on site. This may require disposal from site or may be suitable for reuse.	4	2	8	Upon discovery of any shafts and adits it will be necessary to obtain samples of shaft fill materials and the mine water, which should undergo a broad suite of chemical testing, to permit assessment and if required remediation design. If fill materials are recorded within the boreholes, then this material should also undergo a broad suite of chemical testing. When contaminated soil is encountered it should be remediated.	1	2	2
Geological features (faults, fissures and breaklines)	Shear stress, differential movements and ground movements are consequences of encountering a fault on site. Fault zone weakening, along with	2	3	6	Upon completion of the intrusive ground investigation, design stabilization measures should be in place in case any of the mentioned hazards occur.	1	4	4

Item	Hazard	Probability (P)	Impact (I)	Risk without mitigation	Mitigation	Probability (P)	Impact (I)	Residual Risk With Mitigation
	creation / closing of pathways for mine gas and water emissions are also related.							
Spontaneous Combustion	Combustion and underground fires Recorded coal seams on site are not recorded on the Coal Seams in Yorkshire with a History of Spontaneous Combustion, however the Coal Mining Report record the main coal seam(Flockton Thick) within proximity to the site, therefore the risk cannot be completely discounted	2	4	8	Contractor Risk and Method Statements (RAMS) to include measures to reduce potential for spontaneous combustion.	1	4	4
Mine gas sites and areas	Health & Safety / remediation costs Asphyxiation, explosion, noxious gases	2	5	10	Contractor RAMS to prevent man entry to deep excavations and buried chambers without gas monitoring in place. The likelihood of the risk affecting the future site developments lowered due to the above ground nature of	1	5	5

Item	Hazard	Probability (P)	Impact (I)	Risk without mitigation	Mitigation	Probability (P)	Impact (I)	Residual Risk With Mitigation
					the works. If gas is encountered protection to be provided in the new building.			

Table 6.2 – Risk Matrix.

Risk (R)							Summary of Probability		Summary of Impact		
		Impact (I)					Probability (P)	Rating	Impact (I)	Rating	Description
		5	4	3	2	1					
Probability (P)	5	25	20	15	10	5	Negligible	1	Very Low	1	No loss of serviceability of development proposals
	4	20	16	12	8	4	Unlikely	2	Low	2	Minor remedial works could be required to maintain serviceability
	3	15	12	9	6	3	Probable	3	Medium	3	Moderate remedial works could be required to maintain serviceability
	2	10	8	6	4	2	Likely	4	High	4	Significant remedial works could be required to maintain serviceability
	1	5	4	3	2	1	Very Likely	5	Very High	5	Loss of serviceability possible requiring major remedial works

Table 6.3 – Risk Rating description.

Risk Ratings		
17 – 25	Intolerable	Unacceptable – work must not start on the project until risk has been reduced. If risk cannot be reduced project should not proceed.
13 – 16	Intolerable	Unacceptable – work must not start on the project until risk has been reduced. If risk cannot be reduced project should not proceed.
10 – 12	Substantial	Early Attention Required – work must not start until risk has been reduced.
5 – 9	Tolerable	Regular Attention Required – must consider more cost effective solutions or improvements at no additional cost.
1 - 4	Trivial	Monitoring recommended – no other action required.

7 Conclusions and Recommendations

7.1 General

The following recommendations are in accordance with the guidance document CIRIA C758D Abandoned Mine Workings Manual and will be applicable to any future development of the site.

7.2 Conclusions

In consideration of the information provided in Section 5, on coal mining and mine shafts, the risk associated with coal mining is considered to be high. There is potential for unrecorded surface workings and untreated mine entries to be encountered across the site. It is recommended that abandoned mine plans are sourced from Coal Authority before commencing the site investigation.

It is therefore recommended that any historical mining risks associated with the proposed development, will require quantifying and if necessary, treatment to be implemented following an appropriately detailed intrusive ground investigation.

The Coal Authority report indicates that the site has been in the zone of influence from one coal seam recorded beneath the site. From the three historical borehole records located towards the north of the site, evidence of possible shallow mining has been recorded in all the boreholes.

Two shafts are located within the vicinity of the site and therefore the presence of other shafts cannot be discounted.

Ground gas (methane, carbon monoxide, carbon dioxide and hydrogen sulphide) can be associated with coal mining. It is recommended that a full geo-environmental assessment is undertaken in terms of both Coal Authority requirements for both ground investigation and treatment and for future site use.

7.3 Recommendations

It is recommended that an intrusive ground investigation should be undertaken to allow the identified risks to be characterised and better understood and to fully develop any necessary treatment options. The ground investigation relates to the part of the Gomersal St. Mary's Primary School, Cleckheaton proposed for redevelopment only.

The following ground investigation is recommended:

- It is recommended that abandoned mine plans are sourced from Coal Authority before commencing the site investigation.
- Boring of three (3 No.) cable percussion boreholes to a maximum of 8.0 mbgl with SPTs and U100's, as appropriate at 1m intervals to 5m, then at 2m intervals.
- Trial trenches to investigate shallow workings within the hard surfaced areas and to take contaminated samples.
- Rotary Open Hole drilling of five (5 No.) probe holes to a depth of 40 mbgl for abandoned shallow mineworking.

- Installation of one (3 No.) 50mm diameter well for groundwater and gas monitoring to a maximum of 5 mbgl depth in the borehole.
- Monitoring of gas and groundwater in the installed monitoring well on six (6 No.) occasions following site work completion.

Figures

Figure 1 – Site Location Plan



C01	07.02.2023	-	AT	RT	DG
REV	DATE	REVISION	MADE	CHK	APP
DRAWING STATUS					
FINAL ISSUE					
SUITABILITY DESCRIPTION					
SUITABLE FOR INFORMATION					

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CLIENT	TURNER & TOWNSEND LTD
PROJECT	GOMERSAL ST. MARY'S CE(C) PRIMARY SCHOOL, CLECKHEATON

DRAWING TITLE							
SITE LOCATION PLAN							
SCALE		SWECO REF.		STATUS	REVISION		
NTS @A3		65208322		S2	C01		
PROJECT	ORIGINATOR	VOLUME/ SYSTEM	LEVELS & LOCATIONS	TYPE	ROLE	NUMBER	
65208322	SWE	XX	XX	D	GE	FIG 1	

Drawing

65208322-SWE-XX-XX-D-GE-0001 – Historic Borehole Location Plan

LEGEND
 SE22 HISTORIC BOREHOLE LOCATION (BGS)

SE22NW460

SE22NW459

SE22NW458



NOTES

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Client
TURNER & TOWNSEND LTD

Project Title
**GOMERSAL ST. MARY'S CE(C)
 PRIMARY SCHOOL
 CLECKHEATON**

Drawing Title
**EXPLORATORY HOLE LOCATION
 PLAN**

Purpose Of Issue FINAL ISSUE			
Status S2	Status Description SUITABLE FOR INFORMATION		
Designed AT	Drawn AT	Checked RT	Approved DG
Sheet Size A3	Scale NTS	SWECO Ref 65208322	Revision C01

Drawing Number
65208322-SWE-XX-XX-D-GE-0001

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Appendix A

Development Plans

Contextual information – option a



Notes:

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- Site boundary shown in red.
- Site Area = 9005 m²
- Building area = - m²
- Total playground area = - m²
- Car Park / Access Area = - m²
- Grass Area = - m²
- Sports Pitch = - m²

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Client: Gomersal St Mary's Church of England Voluntary Controlled Primary School Project: Turner & Townsend (T&T)	
Drawing Title: OPTION A Site Phasing Drawing Number: 221029-Nap-ZZ-01-DR-A-02001	Date: 15/06 @ A3 Revision: 221029 Scale: 1:1 Drawing Number: 221029-Nap-ZZ-01-DR-A-02001

Contextual information – option b



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Site boundary shown in red.
 Site Area = 9005 m²
 Building area = - m²
 Total playground area = - m²
 Car Park / Access Area = - m²
 Grass Area = - m²
 Sports Pitch = - m²

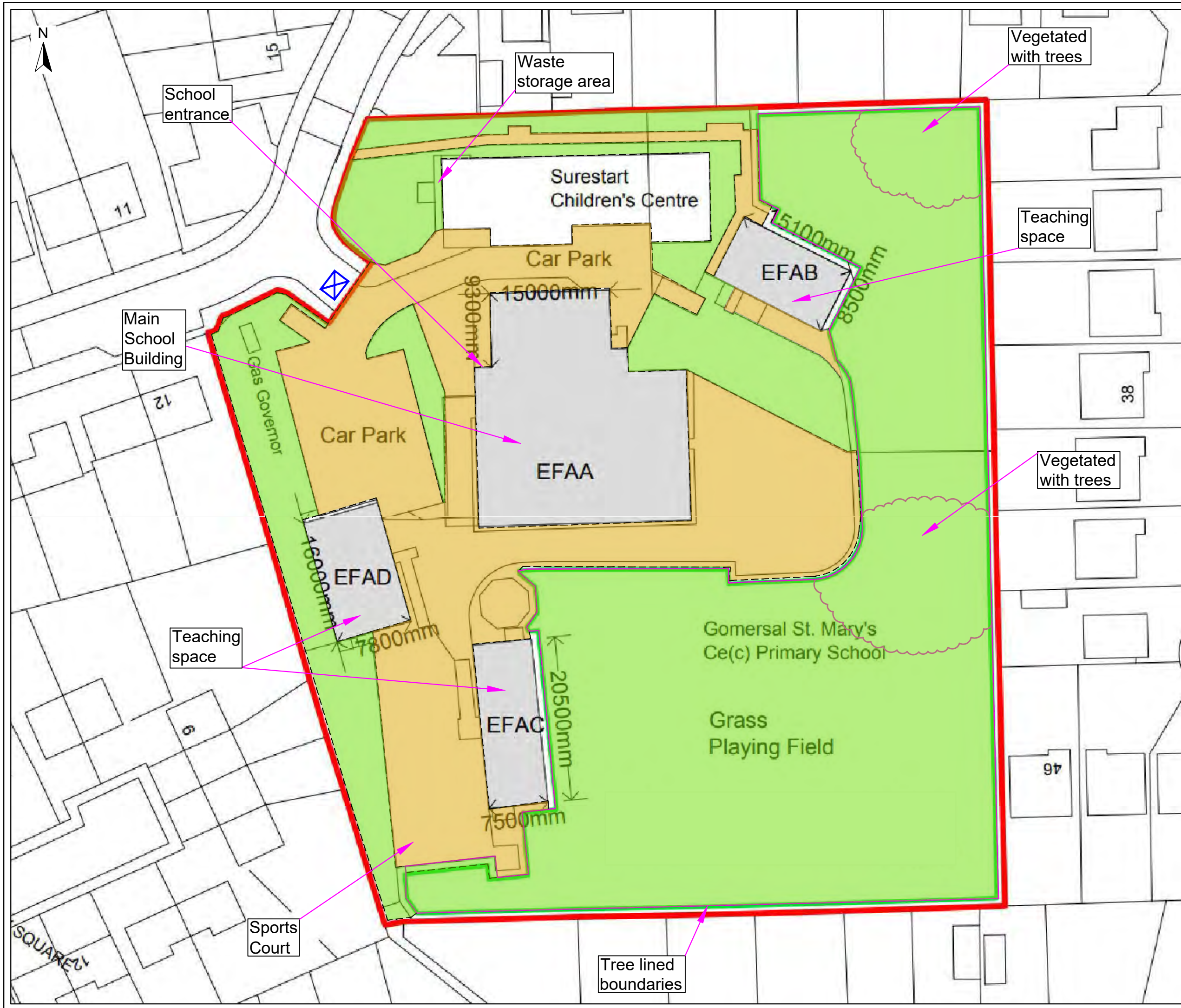
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Client: Gomersal St Mary's Church of England Voluntary Controlled Primary School Design: Turner & Townsend (T&T)	
Project: OPTION B (L-shape plan) Site Phasing	Scale: 1:500 @ A3 Date: 22/10/25 UK
Drawing Number: 221029-Nap-ZZ-01-DR-A-02002	

Contextual information – option c



Appendix B

Preliminary Risk Assessment Report including Consultants Coal Mining Report (RSK Geosciences Ltd)



- LEGEND**
- Site boundary
 - Hardstanding
 - Vegetated
 - Fenceline
 - X Access to site

C01	24.10.2022	First Issue	BS	AM	AM
Rev	Date	Amendment	Drawn	Chkd	Appd

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Client
Turner and Townsend

Project Name
Gomersal St Mary's Primary School

Description
Site Features Plan

Project ID	Drawing no.	Revision
350556	12101	C01

File name
350556-CS-121-SS-D-C-12101-C01

Dimensions	Scale	Size
m	NTS	A3

Consultants

Coal Mining Report

This report is based on and limited to the records held by the Coal Authority at the time the report was produced.

Client name

NLIS Hub

Enquiry address

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 @coalauthority

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Approximate position of property



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Section 1 – Mining activity and geology

Past underground mining

Colliery	Seam	Mineral	Coal Authority reference	Depth (m)	Direction to working	Dipping rate of seam worked (degrees)	Dipped direction of seam worked	Extraction thickness (cm)	Year last mined
unnamed	MIDDLETON MAIN	Coal	6Z18	106	Beneath Property	4.0	North-West	57	1868

Probable unrecorded shallow workings

Yes.

Spine roadways at shallow depth

No spine roadway recorded at shallow depth.

Mine entries

Entry type	Reference	Grid reference	Treatment description	Mineral	Conveyancing details
Shaft	420425-013	420749 425577		Coal	
Shaft	420425-014	420753 425557		Coal	

Abandoned mine plan catalogue numbers

The following abandoned mine plan catalogue numbers intersect with some, or all, of the enquiry boundary:

1569	1560	FGB487
M31	M49	9069
PO0	M1	1845

Our records show we have more plans than those shown above which could affect the enquiry boundary.

Please contact us on 0345 762 6848 to determine the exact abandoned mine plans you require based on your needs.

Outcrops

Seam name	Mineral	Seam workable	Distance to outcrop (m)	Direction to outcrop	Bearing of outcrop
FLOCKTON THICK	Coal	Yes	Within	N/A	132

Geological faults, fissures and breaklines

No faults, fissures or breaklines recorded.

Opencast mines

Please refer to the "Summary of findings" map (on separate sheet) for details of any opencast areas within 500 metres of the enquiry boundary.

Coal Authority managed tips

None recorded within 500 metres of the enquiry boundary.

Section 2 – Investigative or remedial activity

Please refer to the 'Summary of findings' map (on separate sheet) for details of any activity within the area of the site boundary.

Site investigations

None recorded within 50 metres of the enquiry boundary.

Remediated sites

None recorded within 50 metres of the enquiry boundary.

Coal mining subsidence

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 current Stop Notice delaying the start of remedial works or repairs to the property.

The Coal Authority is not aware of any request having been made to carry out preventive works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991.

Mine gas

None recorded within 500 metres of the enquiry boundary.

Mine water treatment schemes

None recorded within 500 metres of the enquiry boundary.

Section 3 – Licensing and future mining activity

Future underground mining

None recorded.

Coal mining licensing

None recorded within 200 metres of the enquiry boundary.

Court orders

None recorded.

Section 46 notices

No notices have been given, under section 46 of the Coal Mining Subsidence Act 1991, stating that the land is at risk of subsidence.

Withdrawal of support notices

The property is in an area where notices to withdraw support were given in 1951 and 1954.

The property is not in an area where a notice has been given under section 41 of the Coal Industry Act 1994, cancelling the entitlement to withdraw support.

Payments to owners of former copyhold land

The property is not in an area where a relevant notice has been published under the Coal Industry Act 1975/Coal Industry Act 1994.

Section 4 – Further information

The following potential risks have been identified and as part of your risk assessment should be investigated further.

Development advice

The site is within an area of historical coal mining activity. Should you require advice and/or support on understanding the mining legacy, its risks to your development or what next steps you need to take, please contact us.

For further information on specific site or ground investigations in relation to any issues raised in Section 4, please call us on 0345 762 6848 or email us at groundstability@coal.gov.uk.

Section 5 – Data definitions

The datasets used in this report have limitations and assumptions within their results. For more guidance on the data and the results specific to the enquiry boundary, please **call us on 0345 762 6848** or **email us at groundstability@coal.gov.uk**.

Past underground coal mining

Details of all recorded underground mining relative to the enquiry boundary. Only past underground workings where the enquiry boundary is within 0.7 times the depth of the workings (zone of likely physical influence) allowing for seam inclination, will be included.

Probable unrecorded shallow workings

Areas where the Coal Authority believes there to be unrecorded coal workings that exist at or close to the surface (less than 30 metres deep).

Spine roadways at shallow depth

Connecting roadways either, working to working, or, surface to working, both in-seam and cross measures that exist at or close to the surface (less than 30 metres deep), either within or within 10 metres of the enquiry boundary.

Mine entries

Details of any shaft or adit either within, or within 100 metres of the enquiry boundary including approximate location, brief treatment details where known, the mineral worked from the mine entry and conveyance details where the mine entry has previously been sold by the Authority or its predecessors British Coal or the National Coal Board.

Abandoned mine plan catalogue numbers

Plan numbers extracted from the abandoned mines catalogue containing details of coal and other mineral abandonment plans deposited via the Mines Inspectorate in accordance with the Coal Mines Regulation Act and Metalliferous Mines Regulation Act 1872. A maximum of 9 plan extents that intersect with the enquiry boundary will be included. This does not infer that the workings and/or mine entries shown on the abandonment plan will be relevant to the site/property boundary.

Outcrops

Details of seam outcrops will be included where the enquiry boundary intersects with a conjectured or actual seam outcrop location (derived by either the British Geological Survey or the Coal Authority) or intersects with a defined 50 metres buffer on the coal (dip) side of the outcrop. An indication of whether the Coal Authority believes the seam to be of sufficient thickness and/or quality to have been worked will also be included.

Geological faults, fissures and breaklines

Geological disturbances or fractures in the bedrock. Surface fault lines (British Geological Survey derived data) and fissures and breaklines (Coal Authority derived data) intersecting with the enquiry boundary will be included. In some circumstances faults, fissures or breaklines have been known to contribute to surface subsidence damage as a consequence of underground coal mining.

Opencast mines

Opencast coal sites from which coal has been removed in the past by opencast (surface) methods and where the enquiry boundary is within 500 metres of either the licence area, site boundary, excavation area (high wall) or coaling area.

Coal Authority managed tips

Locations of disused colliery tip sites owned and managed by the Coal Authority, located within 500 metres of the enquiry boundary.

Site investigations

Details of site investigations within 50 metres of the enquiry boundary where the Coal Authority has received information relating to coal mining risk investigation and/or remediation by third parties.

Remediated sites

Sites where the Coal Authority has undertaken remedial works either within or within 50 metres of the enquiry boundary following report of a hazard relating to coal mining under the Coal Authority's Emergency Surface Hazard Call Out procedures.

Coal mining subsidence

Details of alleged coal mining subsidence claims made since 31 October 1994 either within or within 50 metres of the enquiry boundary. Where the claim relates to the enquiry boundary confirmation of whether the claim was accepted, rejected or whether liability is still being determined will be given. Where the claim has been discharged, whether this was by repair, payment of compensation or a combination of both, the value of the claim, where known, will also be given.

Details of any current 'Stop Notice' deferring remedial works or repairs affecting the property/site, and if so the date of the notice.

Details of any request made to execute preventative works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991. If yes, whether any person withheld consent or failed to comply with any request to execute preventative works.

Mine gas

Reports of alleged mine gas emissions received by the Coal Authority, either within or within 500 metres of the enquiry boundary that subsequently required investigation and action by the Coal Authority to mitigate the effects of the mine gas emission.

Mine water treatment schemes

Locations where the Coal Authority has constructed or operates assets that remove pollutants from mine water prior to the treated mine water being discharged into the receiving water body.

These schemes are part of the UK's strategy to meet the requirements of the Water Framework Directive. Schemes fall into 2 basic categories: Remedial – mitigating the impact of existing pollution or Preventative – preventing a future pollution incident.

Mine water treatment schemes generally consist of one or more primary settlement lagoons and one or more reed beds for secondary treatment. A small number are more specialised process treatment plants.

Future underground mining

Details of all planned underground mining relative to the enquiry boundary. Only those future workings where the enquiry boundary is within 0.7 times the depth of the workings (zone of likely physical influence) allowing for seam inclination will be included.

Coal mining licensing

Details of all licenses issued by the Coal Authority either within or within 200 metres of the enquiry boundary in relation to the under taking of surface coal mining, underground coal mining or underground coal gasification.

Court orders

Orders in respect of the working of coal under the Mines (Working Facilities and Support) Acts of 1923 and 1966 or any statutory modification or amendment thereof.

Section 46 notices

Notice of proposals relating to underground coal mining operations that have been given under section 46 of the Coal Mining Subsidence Act 1991.

Withdrawal of support notices





Published notices of entitlement to withdraw support and the date of the notice. Details of any revocation notice withdrawing the entitlement to withdraw support given under Section 41 of the Coal Industry Act 1994.

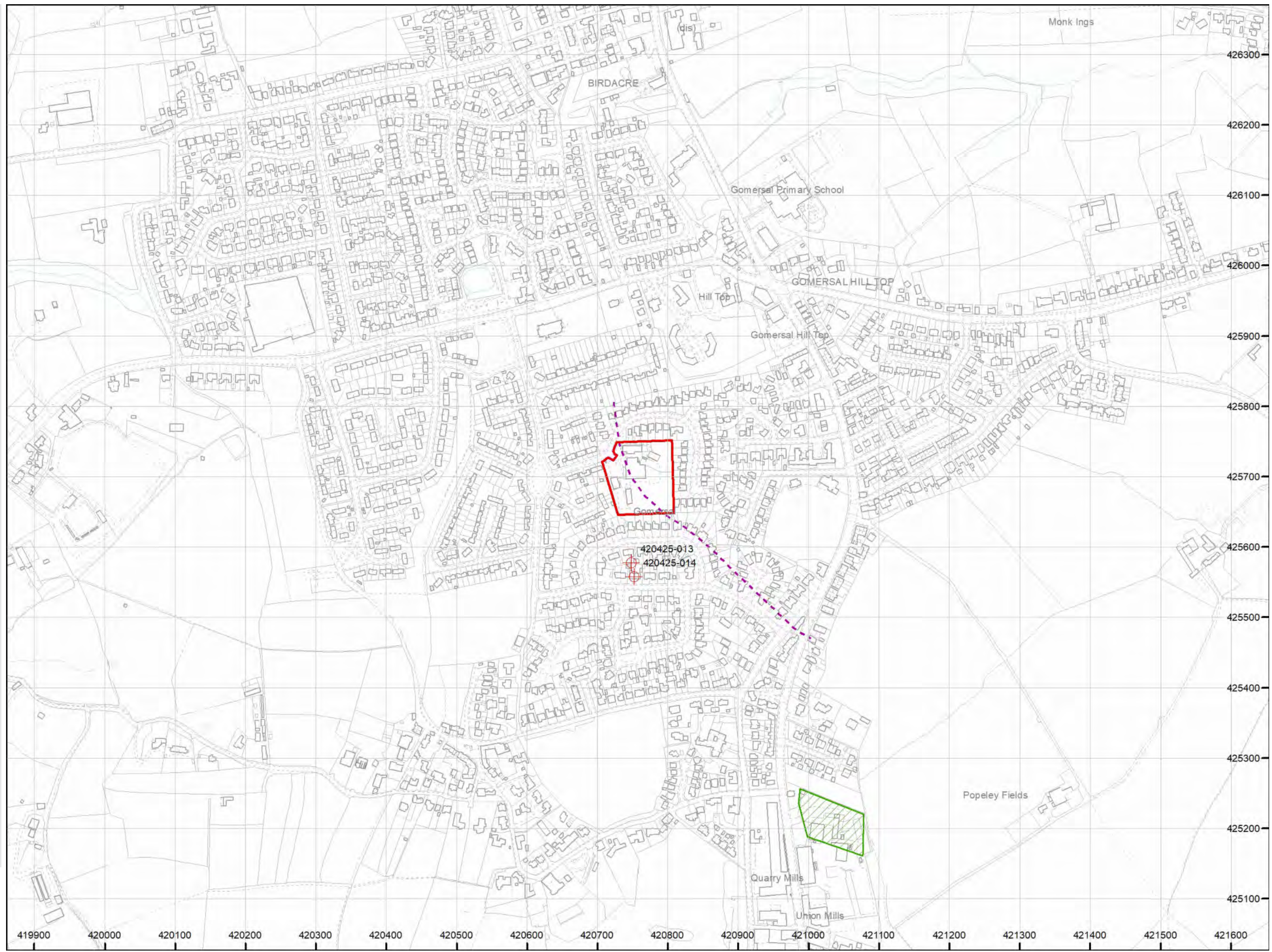
Payment to owners of former copyhold land

Relevant notices which may affect the property and any subsequent notice of retained interests in coal and coal mines, acceptance or rejection notices and whether any compensation has been paid to a claimant.

The map highlights any specific surface or subsurface features within or near to the boundary of the site.

Key

- Approximate position of the enquiry boundary shown 
- Disused mine shaft 
- Outcrop (Conjectured) 
- Unlicensed opencast site 



Historical Mapping Legends

Ordnance Survey County Series 1:10,560

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

Ordnance Survey Plan 1:10,000

- Chalk Pit, Clay Pit or Quarry
- Gravel Pit
- Sand Pit
- Disused Pit or Quarry
- Refuse or Slag Heap
- Lake, Loch or Pond
- Dunes
- Boulders
- Coniferous Trees
- Non-Coniferous Trees
- Orchard
- Scrub
- Coppice
- Bracken
- Heath
- Rough Grassland
- Marsh
- Reeds
- Saltings
- Building
- Glasshouse
- Sloping Masonry
- Pylon
- Electricity Transmission Line
- Pole
- Cutting
- Embankment
- Standard Gauge Multiple Track
- Standard Gauge Single Track
- Siding, Tramway or Mineral Line
- Narrow Gauge
- Geographical County
- Administrative County, County Borough or County of City
- Municipal Borough, Urban or Rural District, Burgh or District Council
- Borough, Burgh or County Constituency
Shown only when not coincident with other boundaries
- Civil Parish
Shown alternately when coincidence of boundaries occurs
- BP, BS** Boundary Post or Stone
- Ch** Church
- CH** Club House
- F E Sta** Fire Engine Station
- FB** Foot Bridge
- Fn** Fountain
- GP** Guide Post
- MP** Mile Post
- MS** Mile Stone
- Pol Sta** Police Station
- PO** Post Office
- PC** Public Convenience
- PH** Public House
- SB** Signal Box
- Spr** Spring
- TCB** Telephone Call Box
- TCP** Telephone Call Post
- W** Well

1:10,000 Raster Mapping

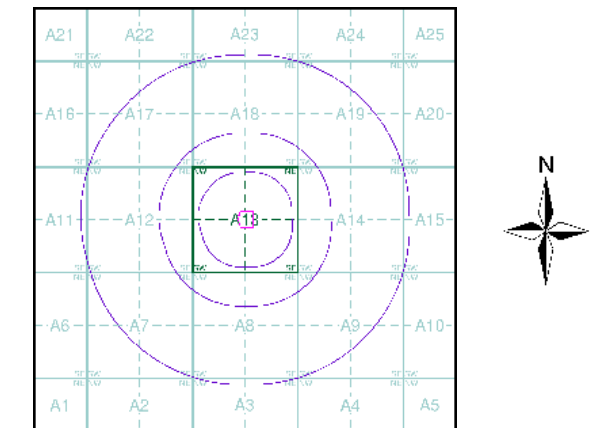
- Gravel Pit
- Rock
- Boulders
- Shingle
- Sand
- Slopes
- Refuse tip or slag heap
- Rock (scattered)
- Boulders (scattered)
- Mud
- Sand Pit
- Top of cliff
- General detail
- Underground detail
- Overhead detail
- Narrow gauge railway
- Multi-track railway
- Single track railway
- County boundary (England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



Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Yorkshire	1:10,560	1854	2
Yorkshire	1:10,560	1894	3
Yorkshire	1:10,560	1908	4
Yorkshire	1:10,560	1931 - 1932	5
Yorkshire	1:10,560	1938	6
Yorkshire	1:10,560	1938 - 1948	7
Yorkshire	1:10,560	1948	8
Ordnance Survey Plan	1:10,000	1955 - 1956	9
Ordnance Survey Plan	1:10,000	1966 - 1967	10
Ordnance Survey Plan	1:10,000	1974 - 1977	11
Ordnance Survey Plan	1:10,000	1983 - 1988	12
Ordnance Survey Plan	1:10,000	1989	13
Ordnance Survey Plan	1:10,000	1991 - 1995	14
10K Raster Mapping	1:10,000	2000	15
Street View	Variable		16

Historical Map - Slice A



Order Details

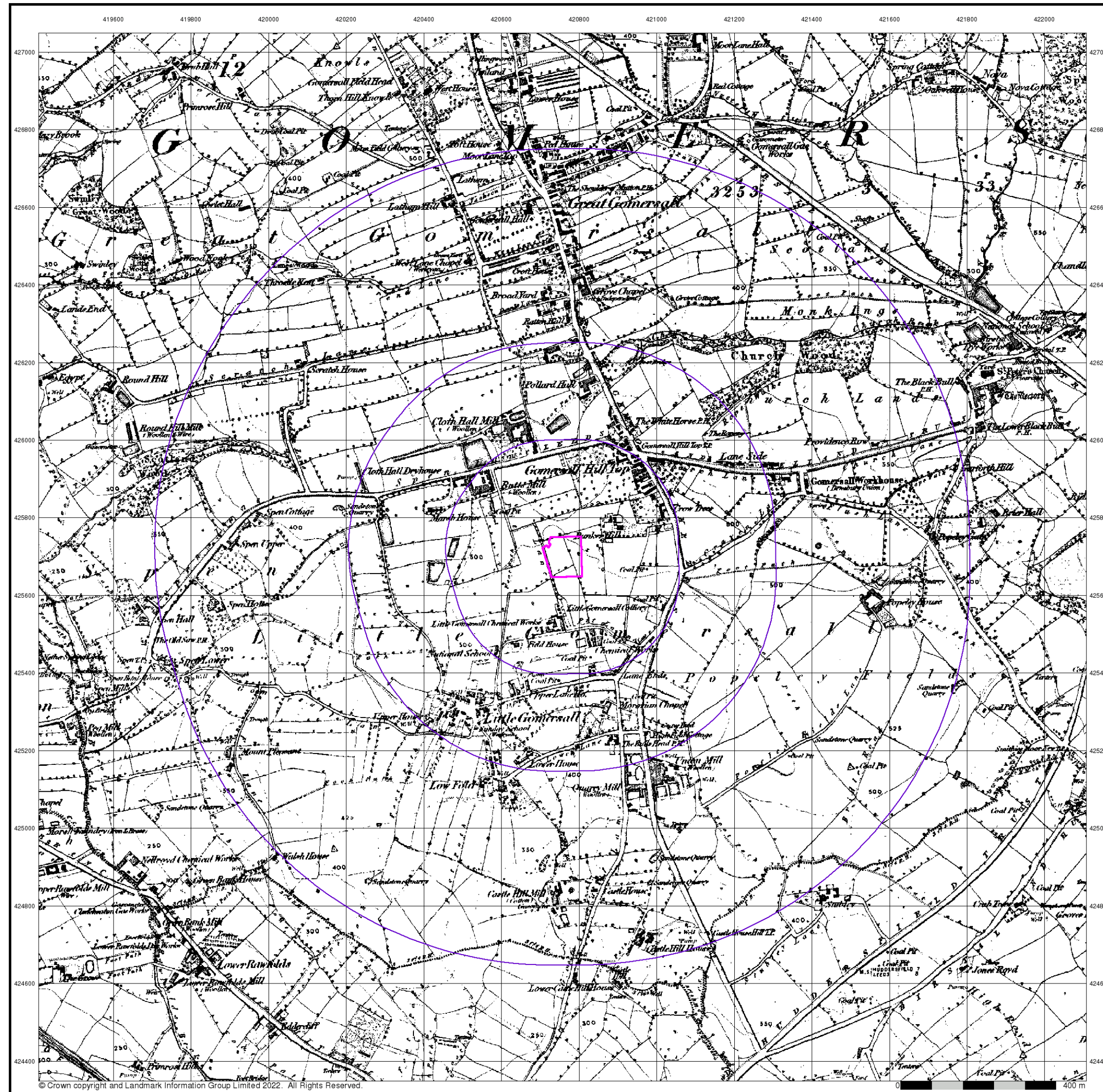
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 Slice: A
 Site Area (Ha): 0.91
 Search Buffer (m): 1000

Site Details

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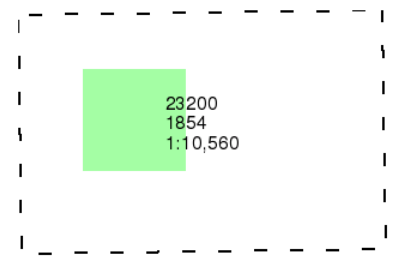
Yorkshire

Published 1854

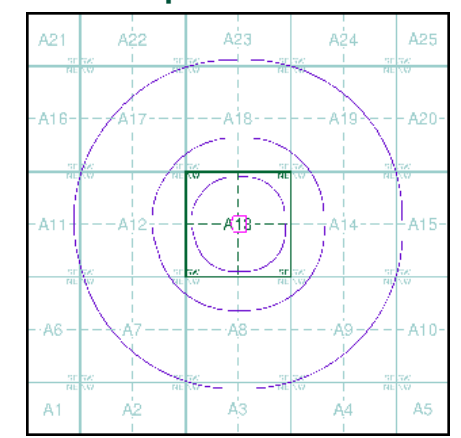
Source map scale - 1:10,560

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: 302715247_1_1
 Customer Ref: 350556
 National Grid Reference: 420760, 425700
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Yorkshire

Published 1894

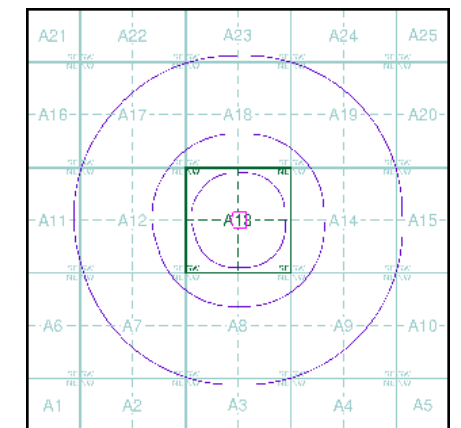
Source map scale - 1:10,560

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Map Name(s) and Date(s)

232NW	1894	1:10,560
232SW	1894	1:10,560

Historical Map - Slice A



Order Details

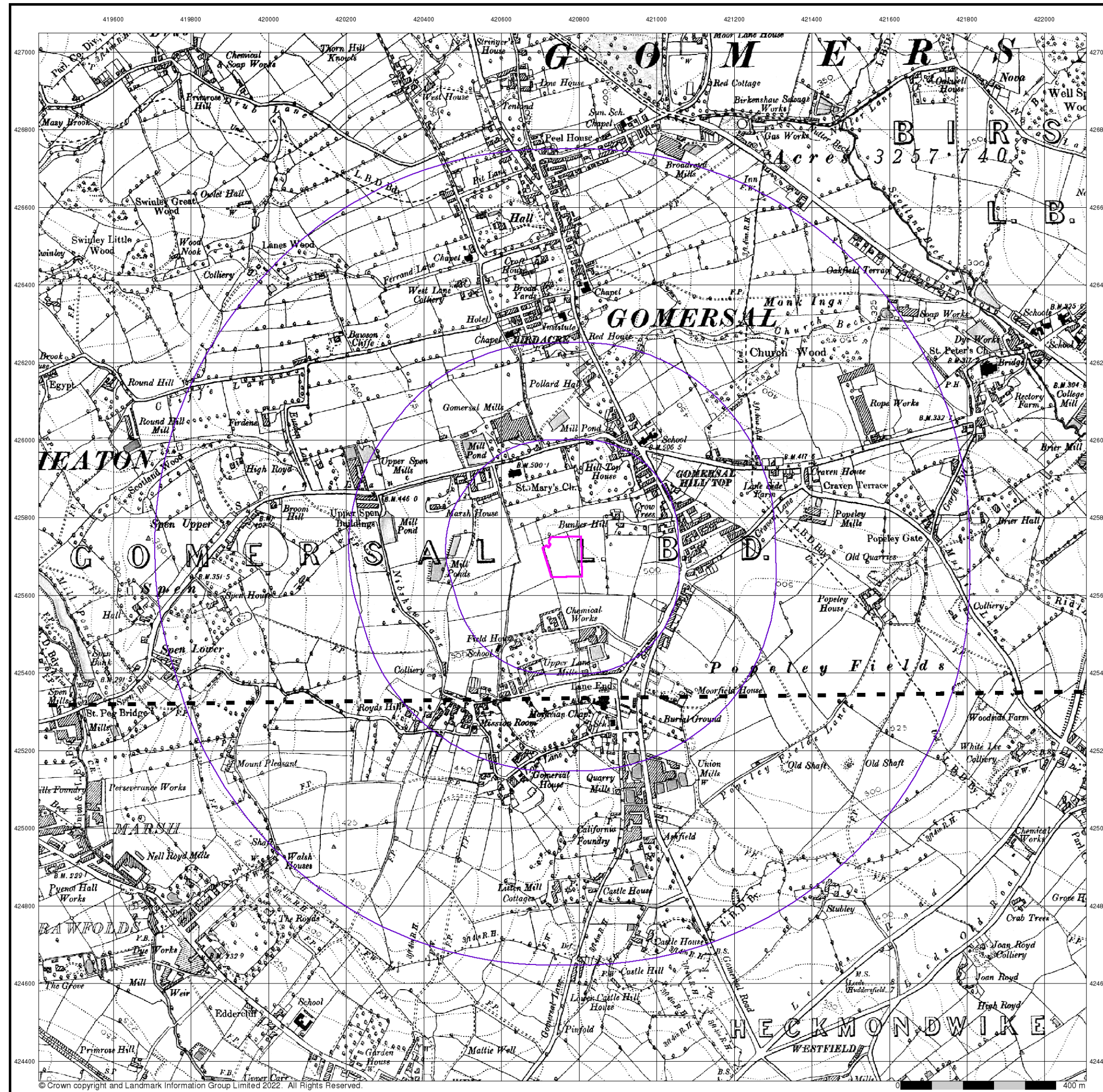
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 Customer Ref: 350556
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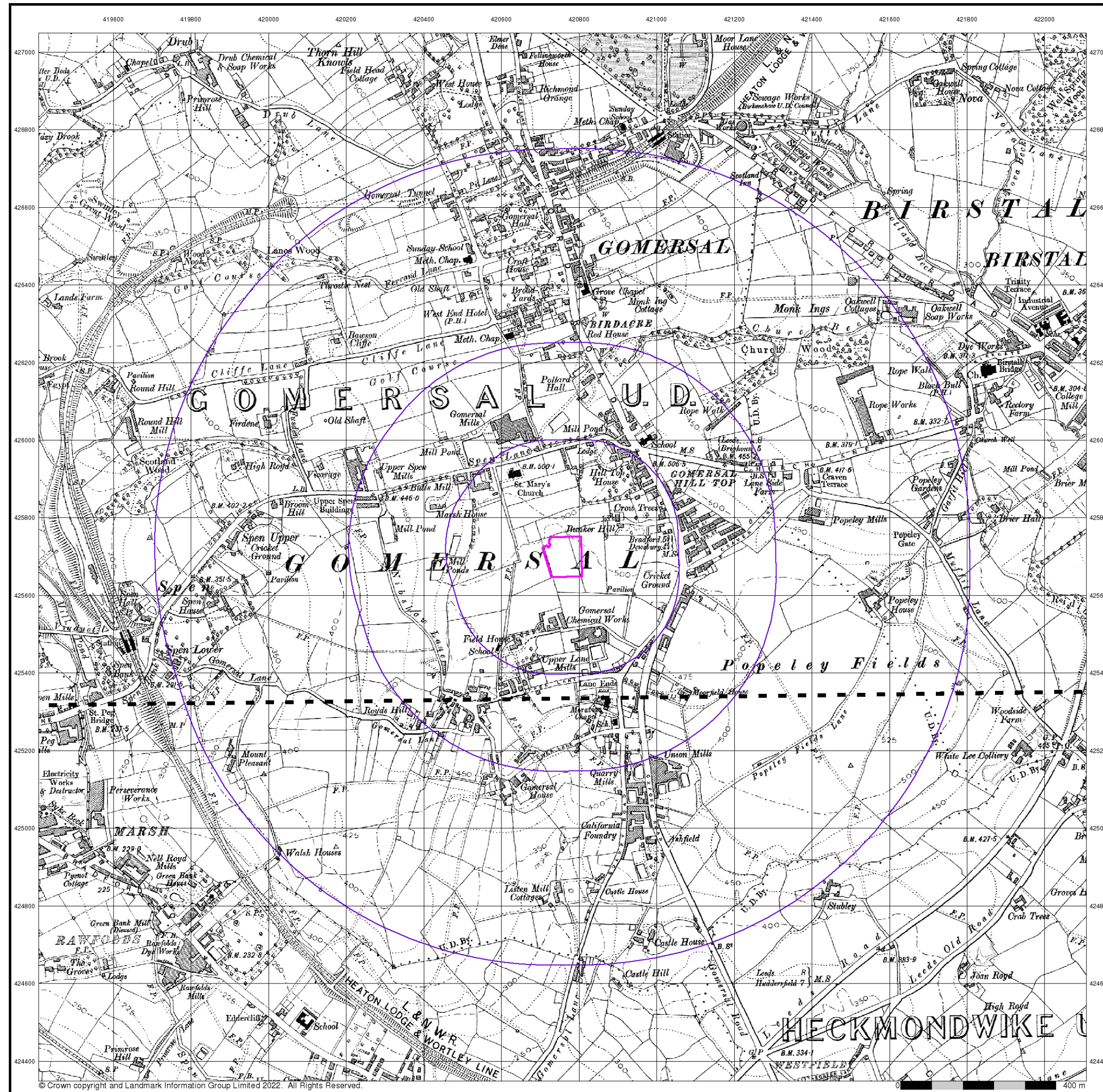
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Yorkshire

Published 1908

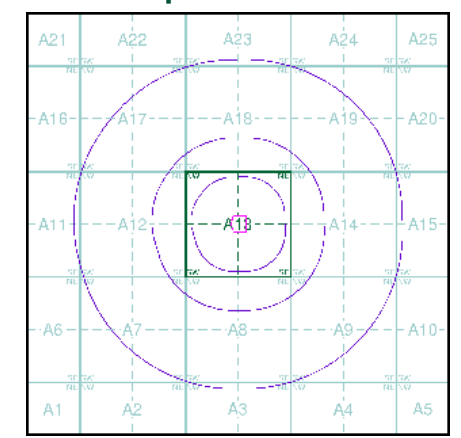
Source map scale - 1:10,560

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)

232NW	1908	1:10,560
232SW	1908	1:10,560

Historical Map - Slice A



Order Details

Order Number: 302715247_1_1
 Customer Ref: 350556
 National Grid Reference: 420760, 425700
 Slice: A
 Site Area (Ha): 0.91
 Search Buffer (m): 1000

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Yorkshire

Published 1931 - 1932

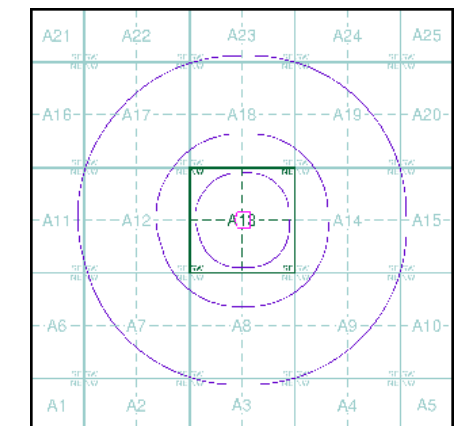
Source map scale - 1:10,560

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Map Name(s) and Date(s)

232NW	1932	1:10,560
232SW	1931	1:10,560

Historical Map - Slice A



Order Details

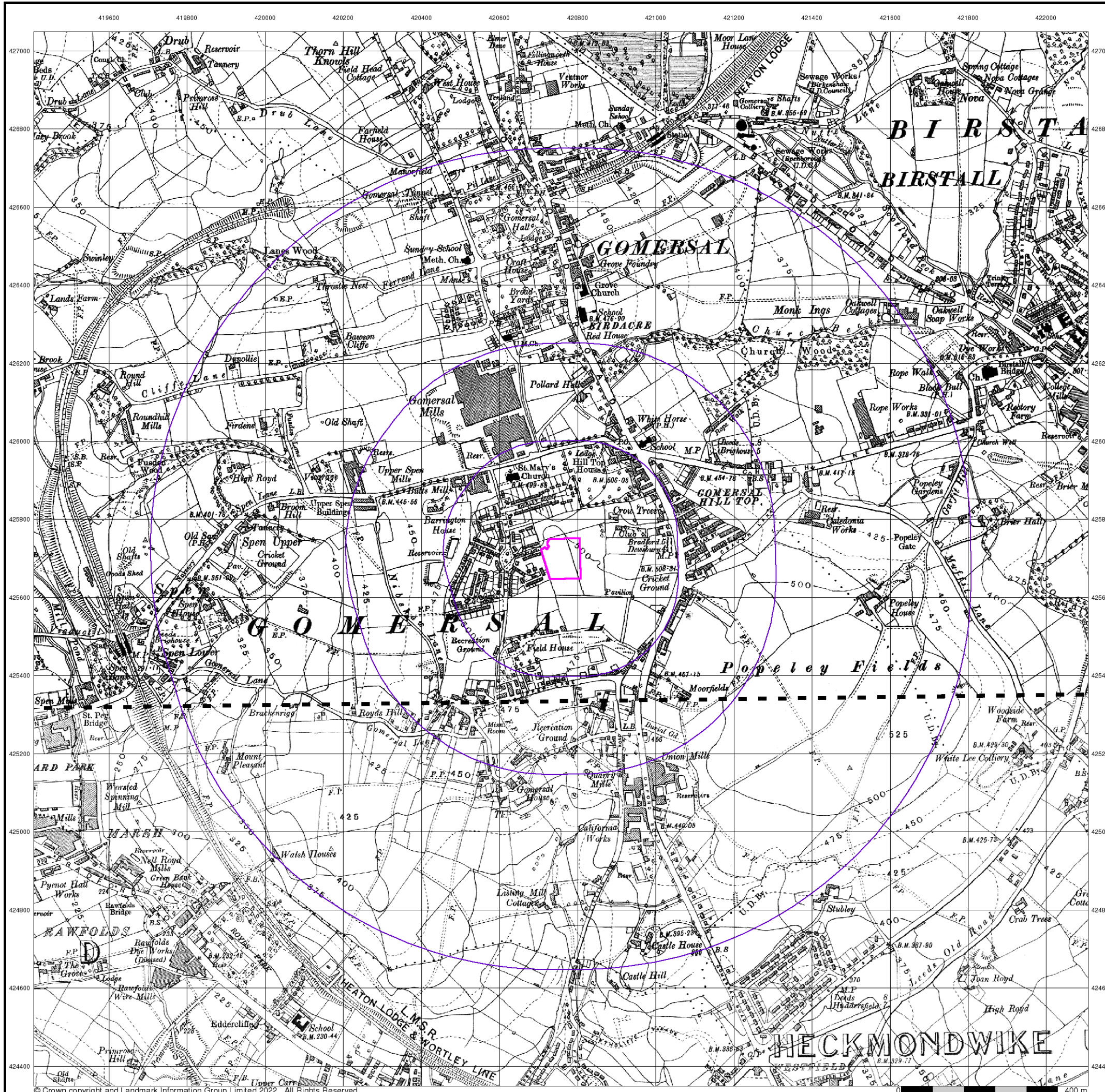
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Yorkshire

Published 1938

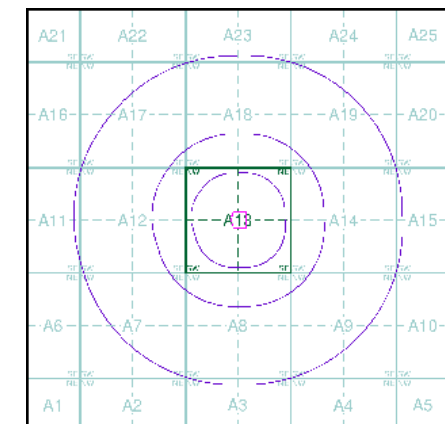
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Map Name(s) and Date(s)

232NW	1938	1:10,560
232SW	1938	1:10,560

Historical Map - Slice A



Order Details

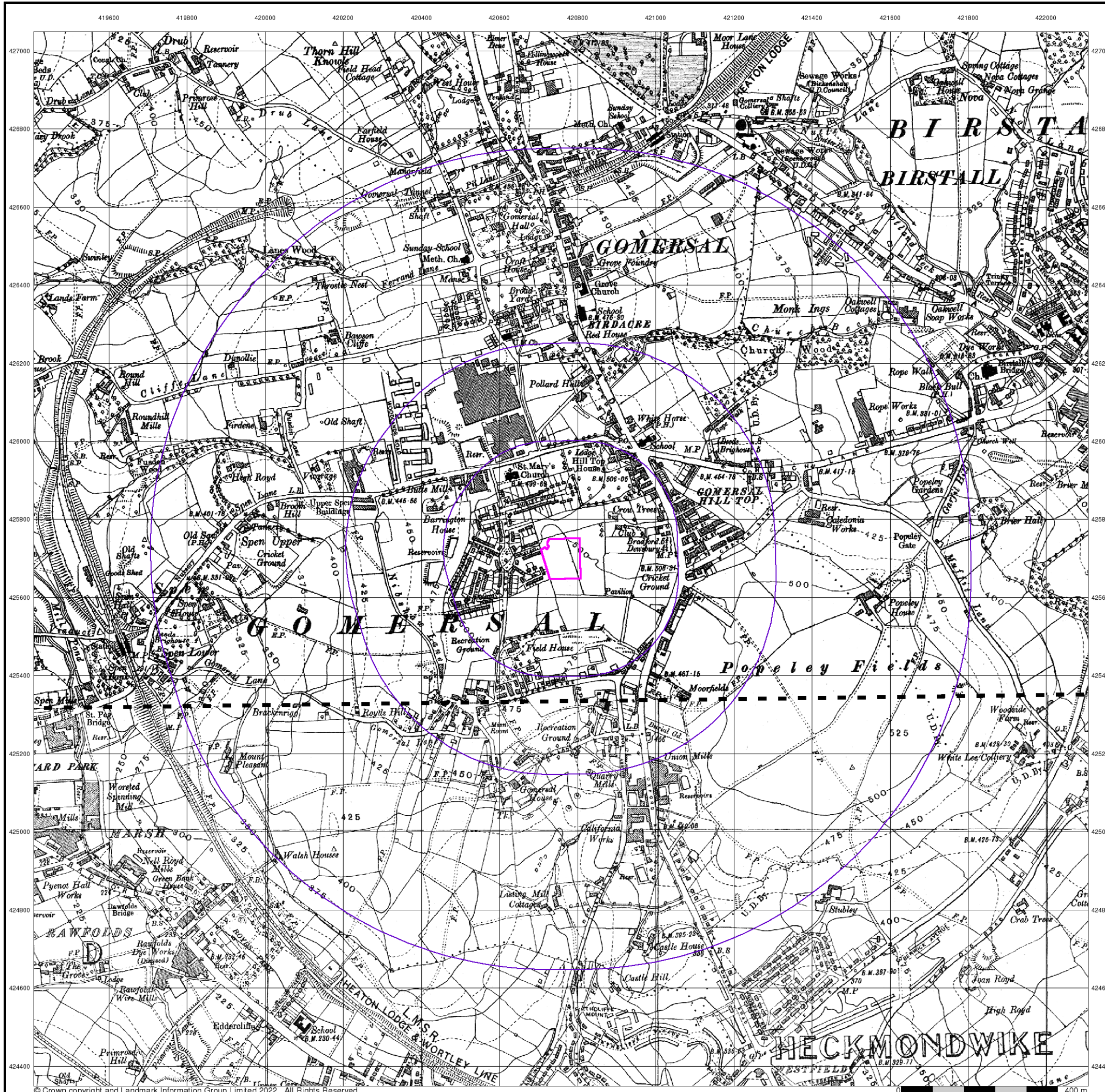
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 Site Area (Ha): 0.91
 Search Buffer (m): 1000

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Yorkshire

Published 1938 - 1948

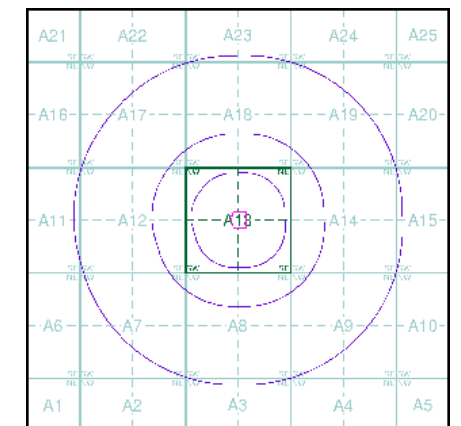
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Map Name(s) and Date(s)

232NW	1948	1:10,560
232SW	1938	1:10,560

Historical Map - Slice A



Order Details

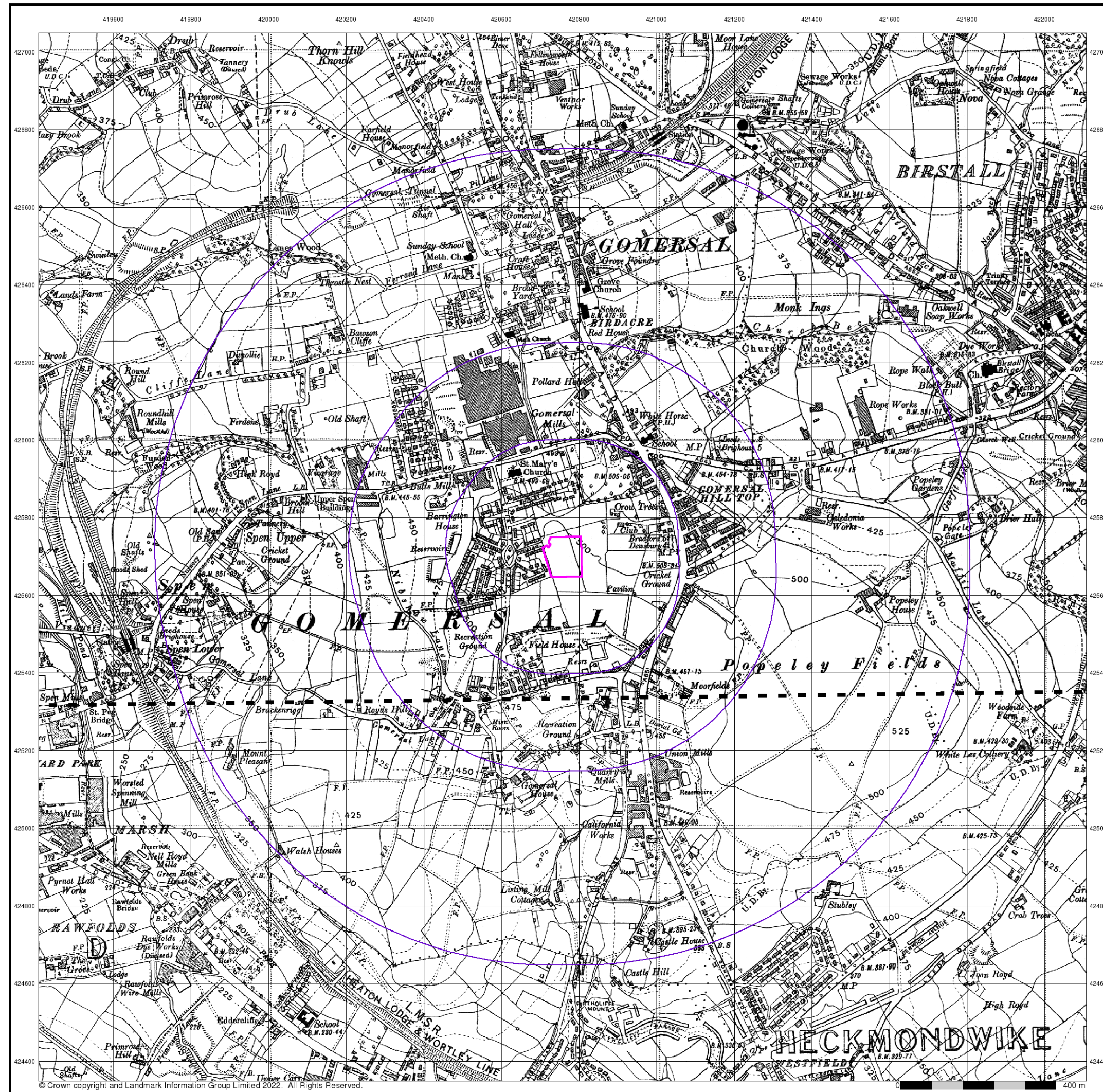
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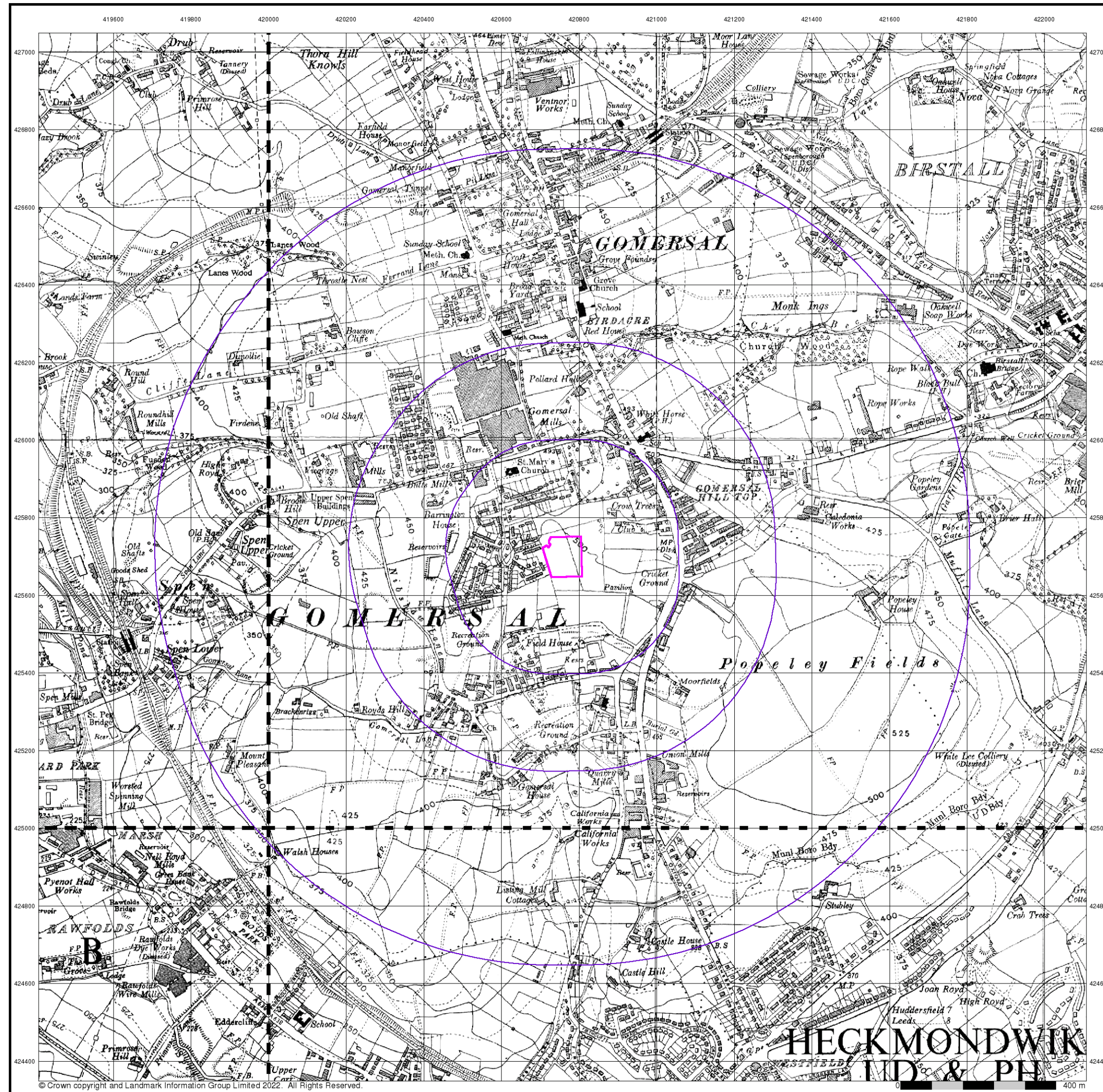
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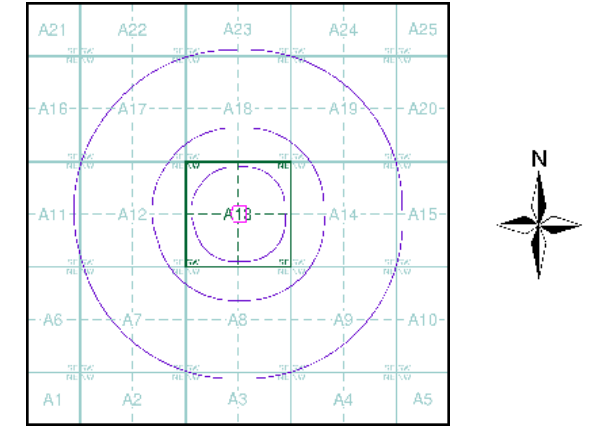
Ordnance Survey Plan
Published 1955 - 1956
Source map scale - 1:10,000

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)

SE12NE	SE22NW
1955	1955
1:10,560	1:10,560
SE12SE	SE22SW
1956	1955
1:10,560	1:10,560

Historical Map - Slice A



Order Details

Order Number: 302715247_1_1
 Customer Ref: 350556
 National Grid Reference: 420760, 425700
 Slice: A
 Site Area (Ha): 0.91
 Search Buffer (m): 1000

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Ordnance Survey Plan

Published 1966 - 1967

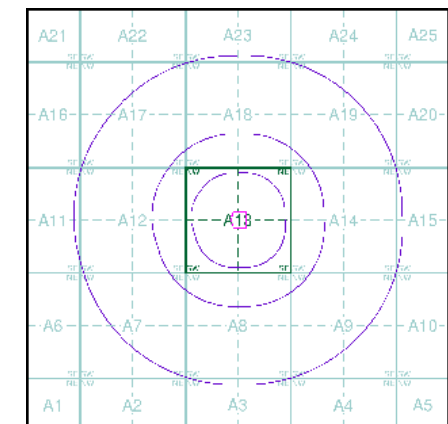
Source map scale - 1:10,000

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)

SE12NE	SE22NW
1967	1966
1:10,560	1:10,560
SE12SE	SE22SW
1966	1967
1:10,560	1:10,560

Historical Map - Slice A



Order Details

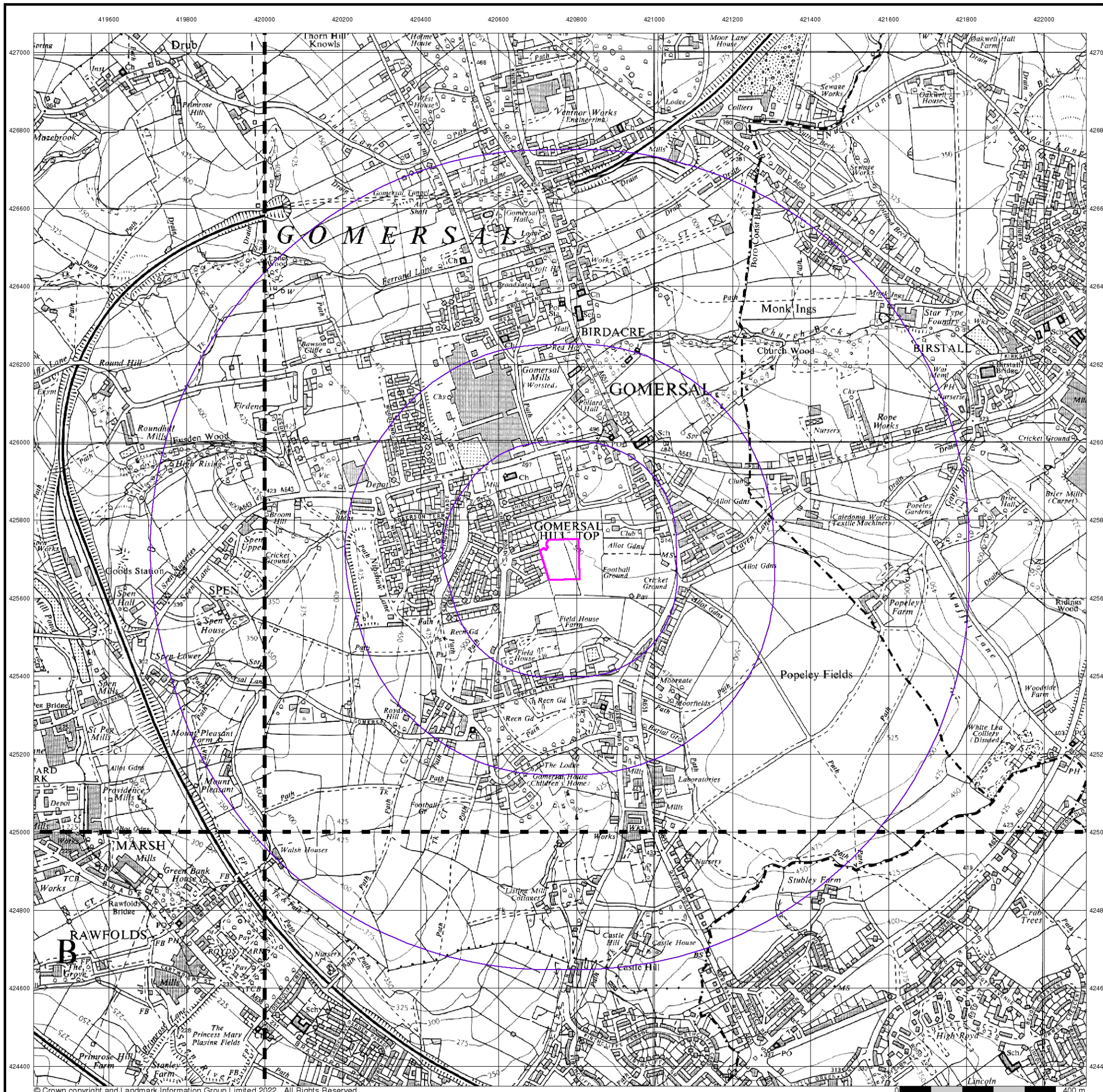
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 Customer Ref: 350556
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 Site Area (Ha): 0.91
 Search Buffer (m): 1000

Site Details

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Ordnance Survey Plan

Published 1974 - 1977

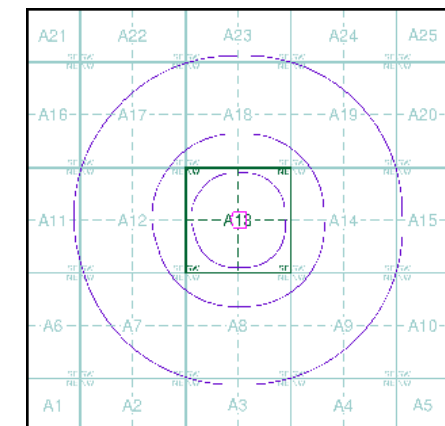
Source map scale - 1:10,000

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)

SE12NE	SE22NW
1976	1976
1:10,000	1:10,000
SE12SE	SE22SW
1977	1974
1:10,000	1:10,000

Historical Map - Slice A



Order Details

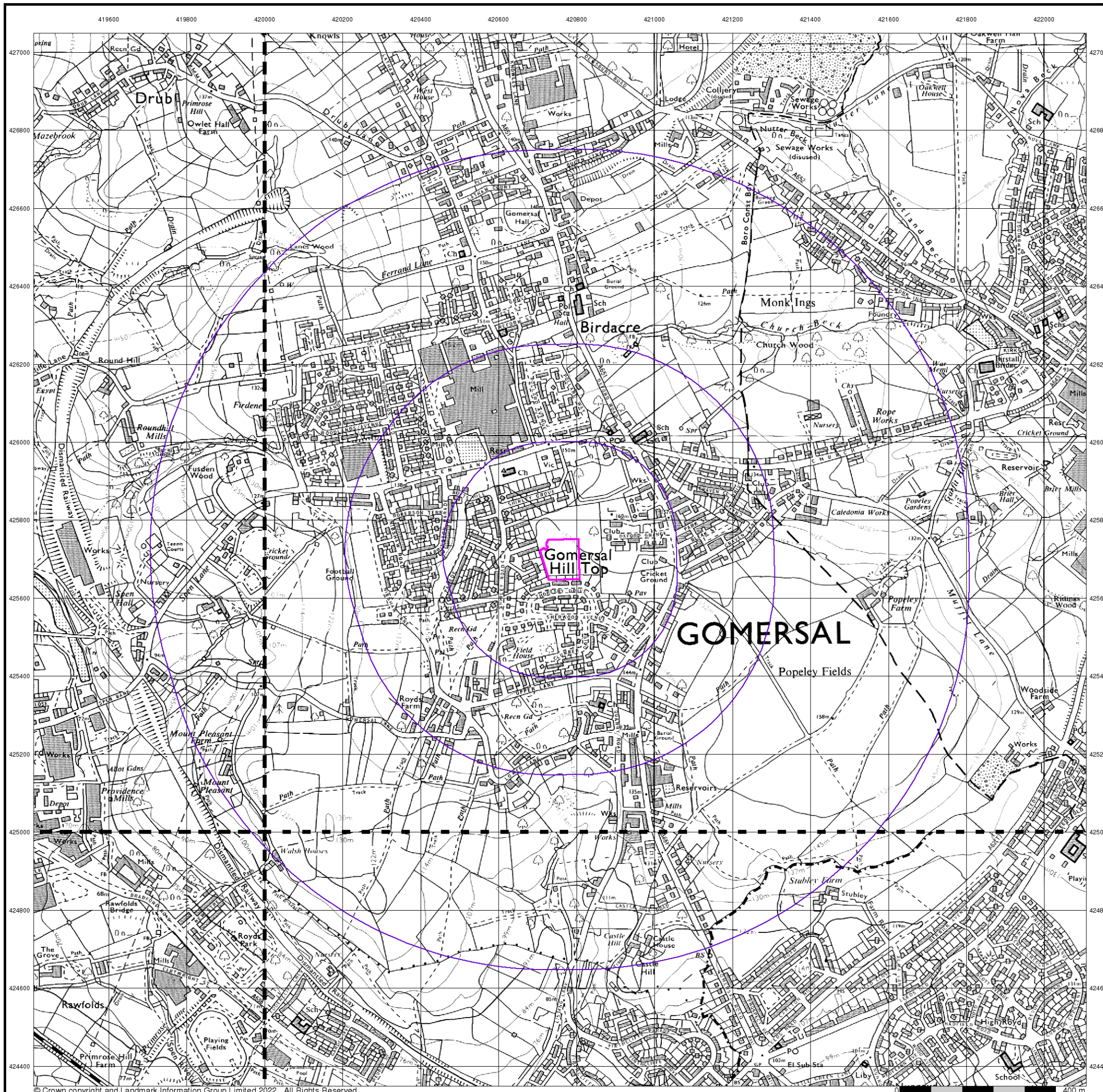
Order Number: 302715247_1_1
 Customer Ref: 350556
 National Grid Reference: 420760, 425700
 Slice: A
 Site Area (Ha): 0.91
 Search Buffer (m): 1000

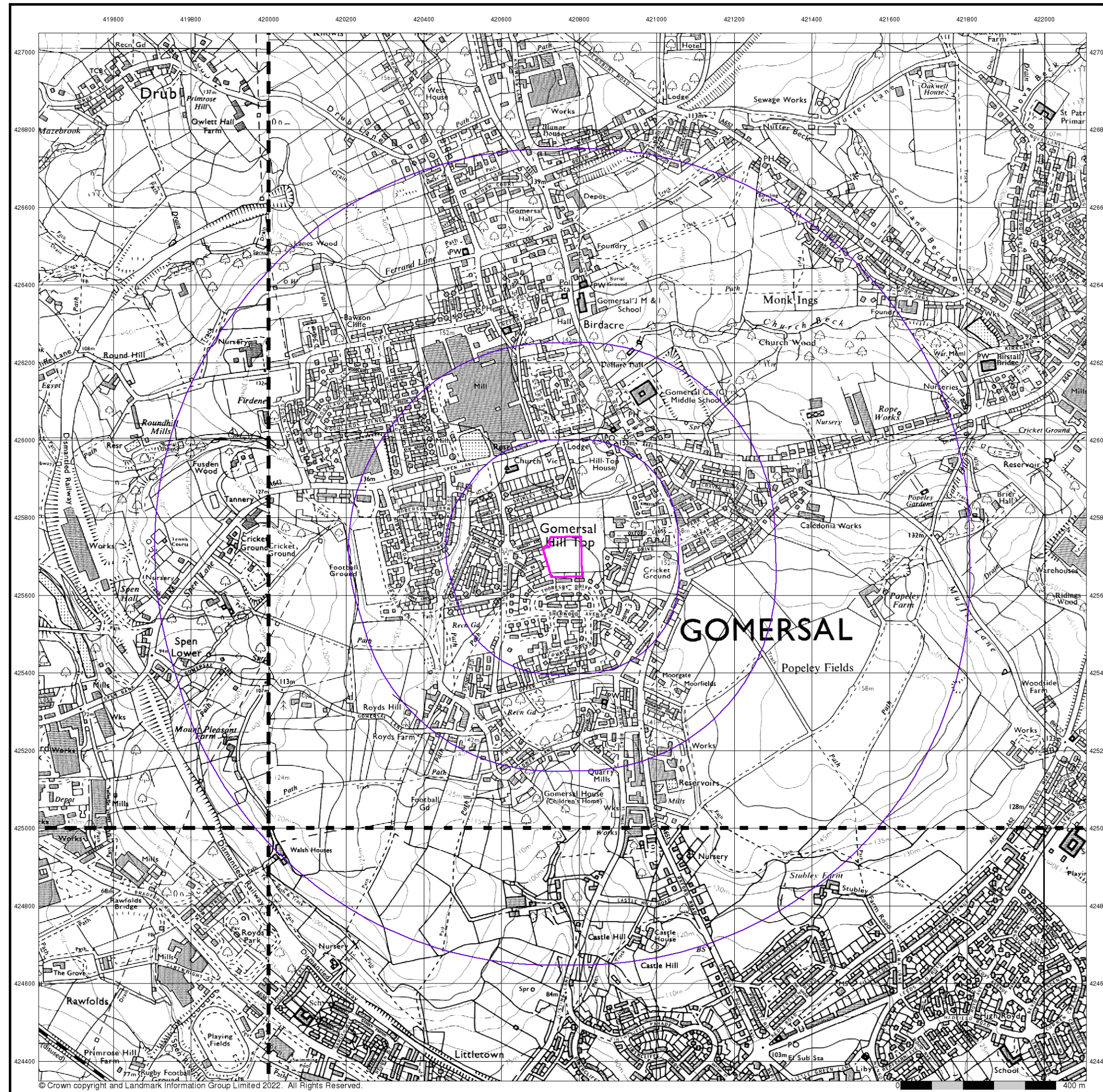
Site Details

Gomersal St. Marys C of E Primary, Shirley Avenue, Gomersal, CLECKHEATON, BD19 4NA



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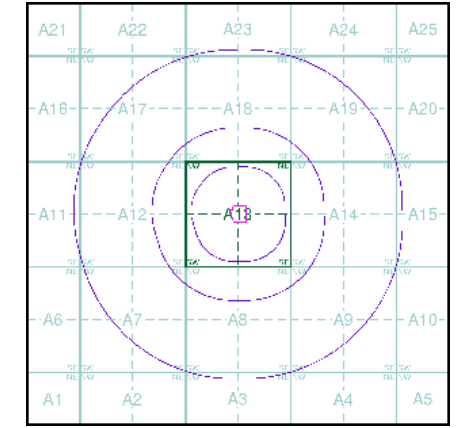
Ordnance Survey Plan
Published 1983 - 1988
Source map scale - 1:10,000

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)

SE12NE	SE22NW
1984	1986
1:10,000	1:10,000
SE12SE	SE22SW
1988	1983
1:10,000	1:10,000

Historical Map - Slice A



Order Details

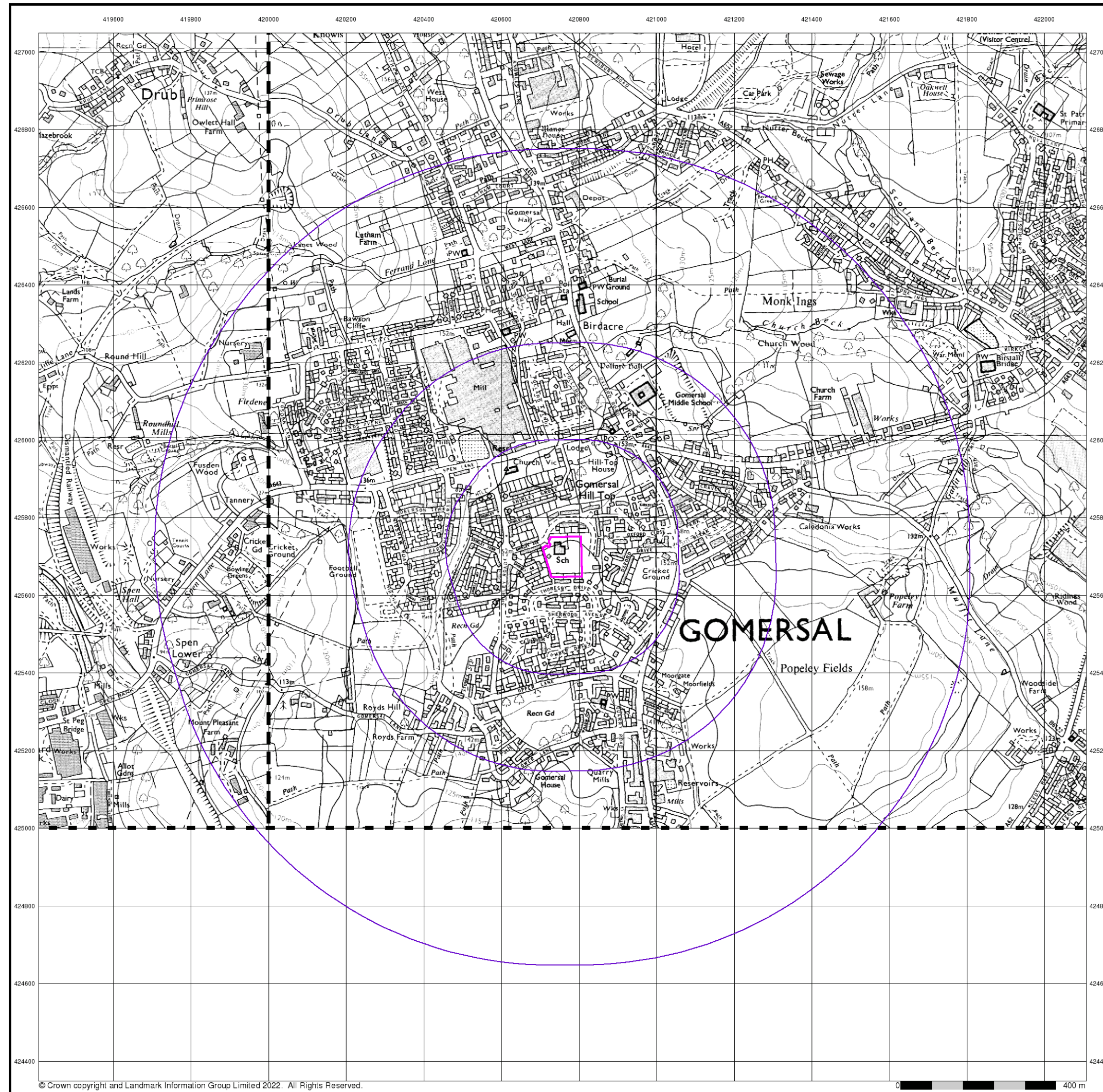
Order Number: 302715247_1_1
 Customer Ref: 350556
 National Grid Reference: 420760, 425700
 Slice: A
 Site Area (Ha): 0.91
 Search Buffer (m): 1000

Site Details

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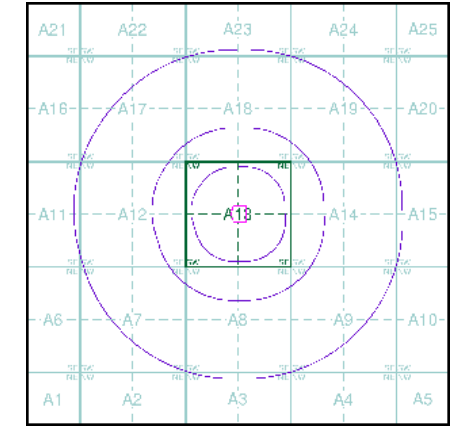
Ordnance Survey Plan
Published 1991 - 1995
Source map scale - 1:10,000

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)

SE 12NE 1991 1:10,000	SE 22NW 1995 1:10,000
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Historical Map - Slice A



Order Details

Order Number: 302715247_1_1
 Customer Ref: 350556
 National Grid Reference: 420760, 425700
 Slice: A
 Site Area (Ha): 0.91
 Search Buffer (m): 1000

Site Details

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Appendix C

Historical Borehole Records (British Geological Survey)

CONSTRUCTION MATERIALS TESTING LTD

Equipment & Methods

Rotary Drilling Air Flushed
100mm Rock Roller Bit.

Gomersal

GE22ND/458

1

Carried out for

John Rodgers & Associates

Ground Level

Co-ordinates

Date

19-6-89

Description	Reduced Level	Legend	Depth Thickness	Samples/Tests			Field Records
				Depth	Sample		
					Type	No.	
Stiff light brown silty CLAY		X	0.90				
Stiff dark grey silty shaley CLAY		X	1.40				
Very stiff light grey silty shaley CLAY		X	2.80				
Medium hard black silty SHALE		X	2.90				
Hard light grey MUDSTONE							
(* Possible Void @ 3.20 - 6.00m)							
Soft light grey MUDSTONE			5.20				
Hard light grey MUDSTONE			6.00				
Hard light brown SANDSTONE and mudstone bands.			6.60				
Medium hard light grey MUDSTONE			7.50				
Borehole Terminated			10.00				

SPT: Where full 0.3m penetration has not been achieved the number of blows for the quoted penetrations is given (not N-values).
 Depth: All depths and reduced levels in metres.
 Thickness, given in brackets in depth column.
 Water: Water level observations during boring are given on last sheet of log.

Sample/Test Key
 D Disturbed Sample
 B Bulk Sample
 W Water Sample
 I Piston (P) Tube (T) or other sample Length to scale
 S Standard Penetration Test
 V Vane Test
 C Core

Remarks
 Becoming moist @ 2.60m
 loss of air return @ 3.20m
 (suggestion of void/loose material).
 Partial air return @ 5.20m
 Full air return @ 6.00m

Logged by

Scale

CONSTRUCTION MATERIALS TESTING LTD

Gomersal

2

Equipment & Methods

Rotary Drilling Air Flushed
100mm Rock Roller Bit

SE22ND 459

Carried out for

John Rodgers & Associates

Ground Level

Co-ordinates

Date

19-6-89

Description	Reduced Level	Legend	Depth & Thickness	Samples/Tests			Field Records	
				Depth	Sample			Test
					Type	No.		
Firm-stiff brown and grey silty shaley CLAY.		---						
		x---	1.20					
Firm-stiff brown silty CLAY		---	1.40					
Firm-stiff grey brown silty CLAY		---	2.00					
Firm-stiff grey brown silty CLAY with bands of mudstone.		---						
		x---	3.10					
Stiff brown/grey silty shaley CLAY.		---						
		x---	3.80					
Medium hard grey and brown MUDSTONE		---						
(* Possible Void @ 4.00 - 6.30m)		---						
		---	6.30					
Hard light grey MUDSTONE with occasional thin bands of sandstone.		---						

		---	10.00					
Borehole Terminated		---						

SPT: Where full 0.3m penetration has not been achieved the number of blows for the quoted penetrations is given (not N-value).

Depths: All depths and reduced levels in metres. Thicknesses given in brackets in depth column.

Water: Water level observations during boring are given on last sheet of log.

Sample/Test Key
 O Disturbed Sample
 B Bulk Sample
 W Water Sample
 I Piston (PI) Tube (I) or core sample length in scale
 S Standard Penetration Test
 V Vane Test
 C Core

Remarks
 Loss of air return @ 4.00m
 No returns to 6.30m

Logged by
 Scale

Ground Conditions Summary

An appraisal of the ground conditions is based on the information available on the British Geological Survey online viewer [Geoindex website, accessed February 2023]. Summary of the findings are presented below.

Three historical borehole records located approximately 60m to the north of the site were obtained and reviewed from the online BGS records. The BGS historical exploratory hole records, and a location plan showing the distribution of the available exploratory hole data for the site and within close proximity of the site are presented on drawing 65208322-SWE-XX-XX-D-GE-001. Where measured in imperial units, borehole depths and thicknesses of strata have been converted to metric units. Copies of the historic borehole logs are presented herein.

Borehole 1 (BGS Reference: SE22NW458) was undertaken in June 1989 by Construction Materials Testing Ltd. Rotary coring drilling techniques were utilised to termination depth. Clay deposits encountered to 2.8m bgl. A thin layer (100mm) of shale was recorded between 2.80 – 2.90m bgl, with bedrock (mudstone) encountered from 2.90m bgl to 6.60m bgl. A possible void is recorded on the log between 3.20 to 6.00m bgl, with loss of air return noted. Sandstone is recorded from 6.6m bgl to 7.5m bgl, with mudstone subsequently recorded to termination depth (10.00m bgl).

Borehole 2 (BGS Reference: SE22NW459) was undertaken in June 1989 by Construction Materials Testing Ltd. Rotary coring drilling techniques were utilised to termination depth. Clay deposits encountered to a depth of 3.8m bgl. Bedrock (mudstone) was encountered from 3.8mbgl to termination depth (10.00m bgl). A possible void is recorded from 4.00m bgl to 6.30m bgl, with loss of air return noted on the log.

Borehole 3 (BGS Reference: SE22NW460) was undertaken in June 1989 by Construction Materials Testing Ltd. Rotary coring drilling techniques were utilised to termination depth. Clay deposits encountered to a depth of 2.8 mbgl. Bedrock (mudstone) was encountered from 2.8 mbgl to termination depth (10.00 mbgl). A possible void is recorded from 4.50 mbgl to 5.50 mbgl, with partial loss of air return recorded, with another possible void recorded between 6.5mbgl to 7.20 mbgl, again with partial loss of air return recorded.

Summary of the historical boreholes located north of the site are presented in **Table B1**.

Table C1 – Historical Boreholes on-site summary.

Reference	Name	Depth (m)	Year	Easting	Northing	Site Section	TP/ BH	Thickness of Clay (m)	Thickness of Made Ground (m)	Depth to Rockhead (m)	Coal Seam Recorded Depth mbgl (thickness) (m)	Groundwater (mbgl)
SE22NW458	Borehole 1	10.0	1989	420710	425781	North of site	BH	2.8	N/A	2.9	No coal seam recorded. "Possible void from 3.2 to 6.0 mbgl"	Dry
SE22NW459	Borehole 2	10.0	1989	420770	425803	North of site	BH	3.8	N/A	3.8	No coal seam recorded. "Possible void from 4.0 to 6.3 mbgl"	Dry
SE22NW460	Borehole 3	10.0	1989	420844	425815	North of site	BH	2.8	N/A	2.8	No coal seam recorded. "Possible void from 4.5 to 5.5 mbgl and between 6.5 to 7.2 mbgl"	Dry

Notes:

mbgl – meters below ground level

TP – trial pit

BH – borehole