



**WRITTEN SCHEME OF
INVESTIGATION**

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**ARCHAEOLOGICAL
TRIAL TRENCHING**

**WINDY HILL QUARRY
MARWOOD
COUNTY DURHAM**

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ARCHAEOLOGICAL TRIAL TRENCHING
WINDY HILL QUARRY, MARWOOD, COUNTY DURHAM
WRITTEN SCHEME OF INVESTIGATION

1.0 INTRODUCTION

- 1.1 This report presents a Written Scheme of Investigation for archaeological trial trenching in advance of an extension to Windy Hill Quarry, near Barnard Castle, County Durham (Figure 1; NZ 023 217). Archaeological evaluation, in the form of trial trenches, is required to test for the presence or absence of archaeological remains within the extension area.
- 1.2 There are no heritage assets (archaeological sites or findspots) within the extent of the quarry (which is of 19th-century origin), but a number of prehistoric cup-marked stones have been recorded at Hawkesley Hill, 1km to the east, and there is a settlement of probable prehistoric to Roman date at Knot Hill, Marwood, 2.5km to the south-east.
- 1.3 The report has been produced by Northern Archaeological Associates Ltd on behalf of F & R Jackson in order to comply with a condition of planning (ref. CMA/6/43).

2.0 LOCATION, TOPOGRAPHY AND GEOLOGY

- 2.1 Barnard Castle lies on the north bank of the Tees some 23km to the west of Darlington, County Durham (Figure 1). To the north-west of Barnard Castle is the large rural parish of Marwood, comprising numerous isolated farmsteads within an area of farmland and moorland. Windy Hill Quarry is situated to the north of the B6278, a minor road leading north-westwards from Barnard Castle to Egglestone. The area of development forms an extension to the east of the existing quarry, totalling some 0.45 ha in extent (Figure 2; NZ 023 217). It is intended that the area will be worked in several phases; the initial area of working is highlighted on Figure 2.
- 2.2 The area encompassing the quarry comprises rolling farmland, predominantly used for grazing or hay crop, with the quarry standing at approximately 300m above Ordnance Datum (aOD).
- 2.3 The solid geology of the quarry comprises Carboniferous sandstone of the Stainmore Formation; sedimentary bedrock formed approximately 313 to 326 million years ago (British Geology Service online); there are no superficial deposits recorded in the area (*ibid.*). The soils in the vicinity are mapped as well-drained loams of the Rivington 2 association (Jarvis *et al.* 1984, 262–5), with slowly-permeable, seasonally waterlogged loams of the Brickfield 3 association alongside the road to the south (*op. cit.* 123–6).

3.0 ARCHAEOLOGICAL INVESTIGATION METHODOLOGY

Evaluation

- 3.1 In order to demonstrate the presence or absence of archaeological remains, four trenches will be excavated across the extension area (Figure 2). Each trench will measure 20m by 2m, and there is a contingency for an additional trench of similar dimensions (or an equivalent area) if required to clarify the extent of possible archaeological features. Trench 1 will be within an area intended for stripping and quarrying during 2016. The other trenches will be dispersed across the remaining area, which will be retained under pasture until a later date.
- 3.2 Each trench will be excavated using a 360° excavator or JCB fitted with a toothless bucket, operating at all times under the supervision of an archaeologist. Excavation will continue to the maximum working depth, natural horizons or until archaeological deposits or features are visible, whichever is encountered first.
- 3.3 Where archaeological features or deposits are encountered, machine excavation will cease to allow the archaeologist to assess and, where necessary excavate and record the remains.
- 3.4 Sampling and assessment of relevant, securely stratified archaeological deposits will be undertaken in accordance with published guidelines (Campbell *et al.* 2011).

Recording

- 3.5 The location and extent of each trench and any archaeological features will be accurately tied into the National Grid and subsequently located on an up-to-date Ordnance Survey map base. A drawn record of all archaeological features will be made at an appropriate scale.
- 3.6 Written descriptions of archaeological features/deposits will be recorded on NAA pro-forma context sheets, which employ standard archaeological recording conventions. Adequate resources will be provided during fieldwork to ensure that site records are double-checked and internally consistent.
- 3.7 A photographic record of the site and the archaeological monitoring will be taken using black and white print and digital formats as appropriate. Photographs will include a clearly visible, graduated metric scale.

Finds recording

- 3.8 All finds processing, conservation work and storage will be carried out in compliance with guidelines issued by the Chartered Institute for Archaeologists (CIfA 2014a). Pottery and animal bone will be collected as bulk samples. Significant artefacts will be three-

dimensionally recorded prior to removal. Finds will be appropriately recorded and processed using the NAA system and submitted for post-excavation assessment.

- 3.9 All finds recovered will be appropriately packaged and stored under optimum conditions. Finds recovery and storage strategies will be in accordance with published guidelines (EH 1995; Watkinson and Neal 2001).
- 3.10 Any artefacts considered to be treasure, such as gold or silver, recovered during the course of the archaeological monitoring, will be dealt with in accordance with the Treasure Act Code of Practice (HMSO 1996, revised 2002). Any such finds will also be reported to the Finds Liaison Officer for the North-East. Where removal cannot be effected on the same working day as the discovery, suitable security measures will be taken to protect the finds from theft.

Human remains

- 3.11 Although considered unlikely, in the event that human remains (inhumations or cremations) are encountered during the groundworks, they will be investigated, planned and recorded but initially left in place and secured until the client, the Coroner and the Durham County Council Archaeology Section are contacted.
- 3.12 If excavation / removal of human remains are considered necessary then an application for an Authority to Excavate Human Remains will be made to the Ministry of Justice. Time will be allowed within the schedule for this to happen. Recovery and processing of any human remains will be undertaken in accordance with relevant legislation and published guidelines (McKinley and Roberts 1993; EH 2004). Where practicable, the excavation will be widened in order to permit recovery of the whole burial.

4.0 REPORTING

- 4.1 A summary of the trenching results will be produced as soon as possible following completion of fieldwork. If no archaeological remains are encountered during the monitoring, then this will represent the final report.
- 4.2 Where more extensive archaeological remains are encountered, then further archaeological investigation may be required. The nature and extent of any additional investigation will be agreed with the client and the DCC Archaeology Section, but may include specialist assessment of artefactual material. The table overleaf lists the materials that may be encountered and the specialists used by NAA.

Typical specialist requirements

| Material | Specialist |
|-----------------------------|---|
| Flint | Frederick Foulds |
| Prehistoric pottery | Alex Gibson |
| Animal bone | Angela Trentacoste (University of Oxford) |
| Palaeoenvironmental remains | Jonathan Baines (NAA) |
| Human remains | Malin Holst (York Osteoarchaeology Ltd) |
| Roman pottery | David Griffiths (NAA) |
| Medieval pottery | Christopher Cumberpatch |

4.3 The trenching results will be incorporated into the post-excavation assessment of any additional investigations, in accordance with national guidance (EH 2008; ClfA 2014b; HE 2015a). This report will include the following elements:

- work location and an eight figure grid reference;
- a summary of the project's background and results;
- a site narrative;
- an interpretation of the results in an appropriate context;
- an assessment of the stratigraphic, written, drawn and photographic records;
- a catalogue and post-excavation assessment of each category of artefact recovered during the watching brief (including a conservation assessment if appropriate);
- a summary of the potential for further analysis, if appropriate;
- an appendix containing a list and summary description of all contexts recorded; and
- a summary of the contents of the project archive and its location.

4.4 The report will be accompanied by excavation plans, sections drawings and photographic plates as appropriate.

4.5 Copies of the final report will be provided to the Client, Historic England, the Museum receiving the archive and the Durham Historic Environment Record within two months of the completion of the post-excavation reporting.

4.6 An OASIS record will be created for the work, and an appropriately formatted report will be uploaded to OASIS within three months of completion. The OASIS number will be referenced in the written report.

5.0 MONITORING INSPECTION

5.1 During the course of the archaeological monitoring, access will be made available at all reasonable times to representatives of the Client and Durham CC in order that they might inspect the archaeological works being undertaken on site.

5.2 Access to the site will be on the basis of prior notification and will be subject to any necessary health and safety requirements.

5.3 All relevant parties will be given a minimum of five days' notice of the start of works. They will be kept informed of progress and will be notified of the discovery of any unexpected or important archaeological remains.

6.0 PERSONNEL

6.1 NAA has been commissioned by F and R Jackson to undertake the archaeological investigation.

6.2 The Project Manager, with responsibility for day-to-day management of the archaeological investigation and reporting, will be Oliver Cooper. He has an MA in Archaeology and Heritage and over 19 years' archaeological experience, prior to which he worked for five years in quarry management. Since 2004 Oliver has been responsible for the management of a range of NAA archaeological fieldwork projects, including work in the Barnard Castle area. He has also worked with local archaeology groups over the past fifteen years.

6.3 The Project Officer undertaking the archaeological fieldwork, and any assistants (if required) have not yet been determined, but will be appropriately qualified and experienced.

7.0 SITE ARCHIVE

7.1 The site archive will contain all of the data collected during the investigative work detailed in section 3.0 above, including site records, photographs and finds. It will be

quantified, ordered, indexed and internally consistent. Where wholly negative results are obtained, the project will be archived internally at NAA.

7.2 Archive consolidation will be undertaken immediately following the conclusion of fieldwork:

- the site record will be checked, cross-referenced and indexed as necessary; and
- any retained finds will be cleaned, conserved, marked and packaged in accordance with the requirements of the recipient museum

7.3 Archiving work will be carried out in accordance with national guidelines (ClfA 2014c; HE 2015a). In addition to the site records, photographs and artefacts, the archive will contain:

- site matrices, where appropriate;
- registers of all contexts, drawings and photographs;
- a summary of the artefact record; and
- a summary of the environmental record.

7.4 The integrity of the primary field record will be preserved. Security copies will be maintained where appropriate.

7.5 The archiving of any digital data arising from the project will be undertaken in a manner consistent with professional standards and guidance (ADS/Digital Antiquity 2011; HE 2015b).

7.6 A copy of the site report and the full site archive will be deposited with the Bowes Museum within six months of completion of the post-excavation work and all reports. Deposition shall be in accordance with the museum's requirements and written guidelines on archive standards and procedures (Society of Museum Archaeologists 1995; ClfA 2014a; 2014c). NAA will liaise with the museum curator regarding their requirements in ordering, boxing and labelling the site archive.

8.0 PROGRAMME

8.1 The start date for groundworks is currently uncertain, but the period of trenching is likely to extend over a period of one to two days, subject to access and safety requirements. The need for, and timing of, any further investigative work will be dependent upon the results of the trenching. The Client will ensure that the archaeological contractor is kept informed of the correct groundworks schedule so that suitable archaeological presence can be maintained. Sufficient notice of the start of works should be given to Durham CC.

9.0 CONFIDENTIALITY, COPYRIGHT AND PUBLICITY

- 9.1 The copyright of any written, graphic or photographic records and any reports will rest with NAA. NAA will grant additional licences in favour of the client, Historic England, Durham County Council and the repository accepting the archive to use such documentation for their statutory functions and to provide copies to third parties as an incidental to such functions.
- 9.2 During the course of the archaeological work, no publicity will be entered into with respect to the results of the work without the express consent of the client.
- 9.3 NAA may produce an online article for their website, using photographs and images from the report, unless otherwise instructed not to by the client.

10.0 HEALTH AND SAFETY

- 10.1 NAA has a Health and Safety policy and is certified to OHSAS 18001 (2007). All work will comply with the 1974 Health and Safety Act (and its subsequent amendments) and with the Federation of Archaeological Managers and Employers manual on archaeological health and safety (FAME 2010).
- 10.2 A risk assessment which complies with the Management of Health and Safety at Work Regulations (1999) will be prepared by NAA in advance of the commencement of site works. This will be issued and explained to all NAA site staff as part of a formal site induction.
- 10.3 Appropriate personal protective equipment (PPE) will be specified in the risk assessment. This PPE may include – but not be limited to – safety helmets, reflective jacket / vest, reflective trousers and safety boots. The specified PPE will be worn on site at all times by all NAA staff and visitors.
- 10.4 The archaeological work will be supervised by a competent member of NAA staff who has the necessary health and safety training, experience and knowledge.

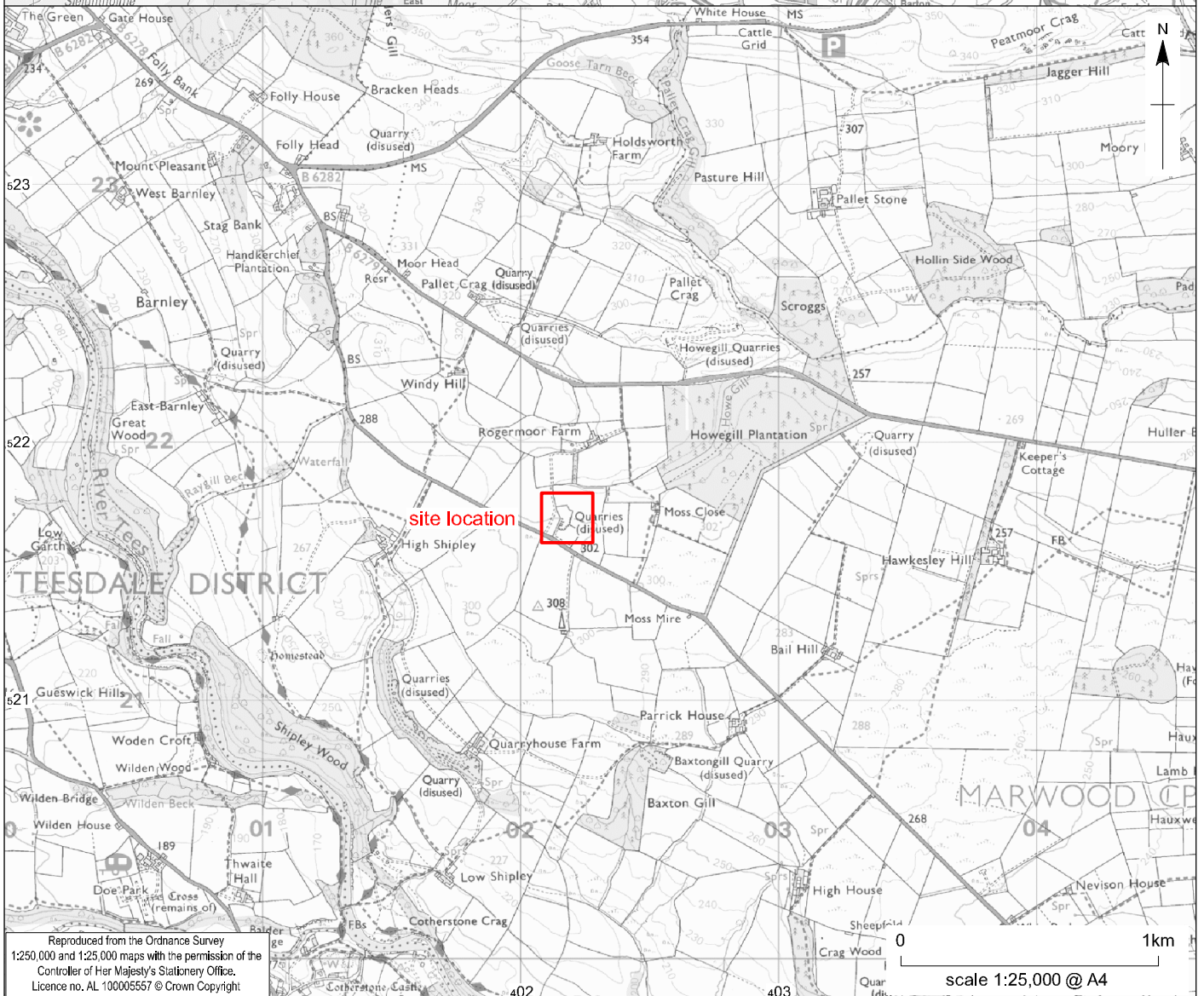
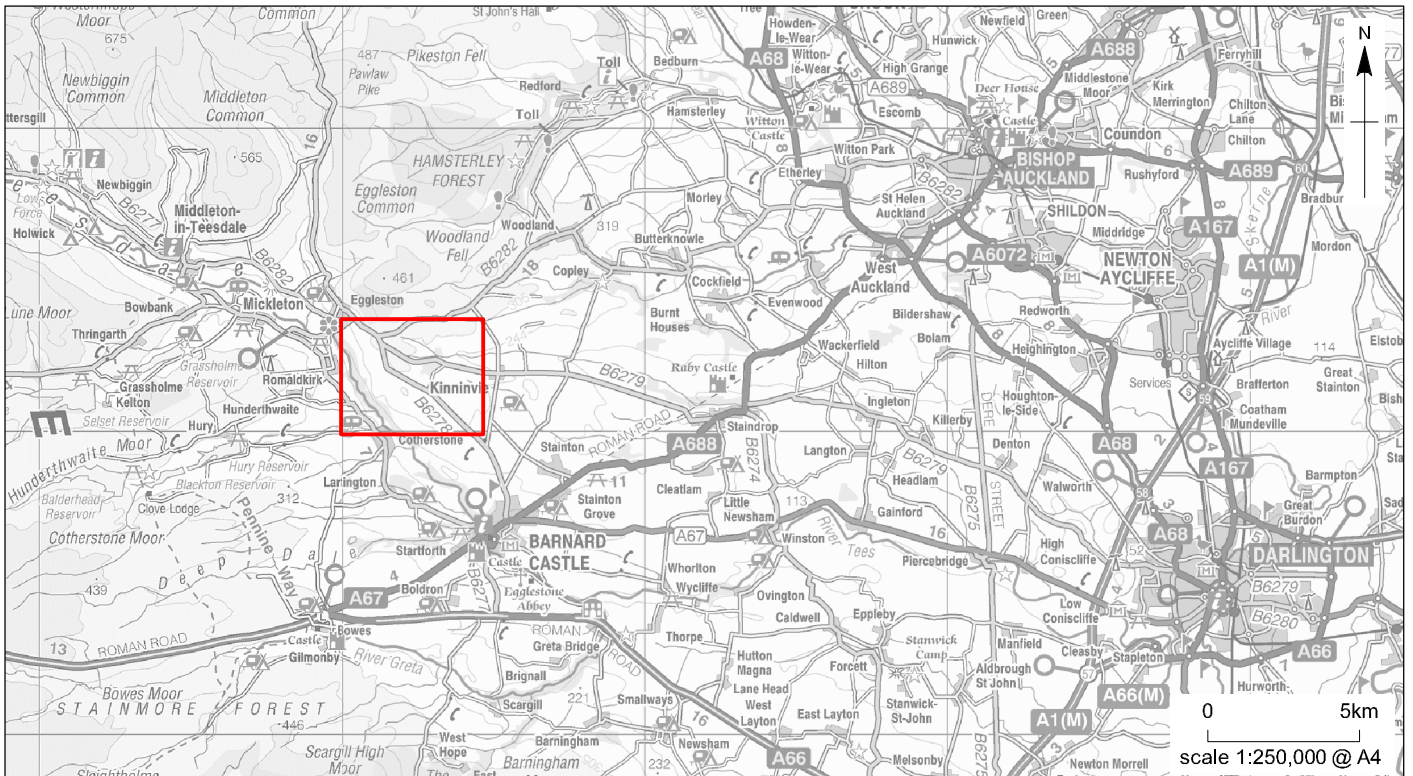
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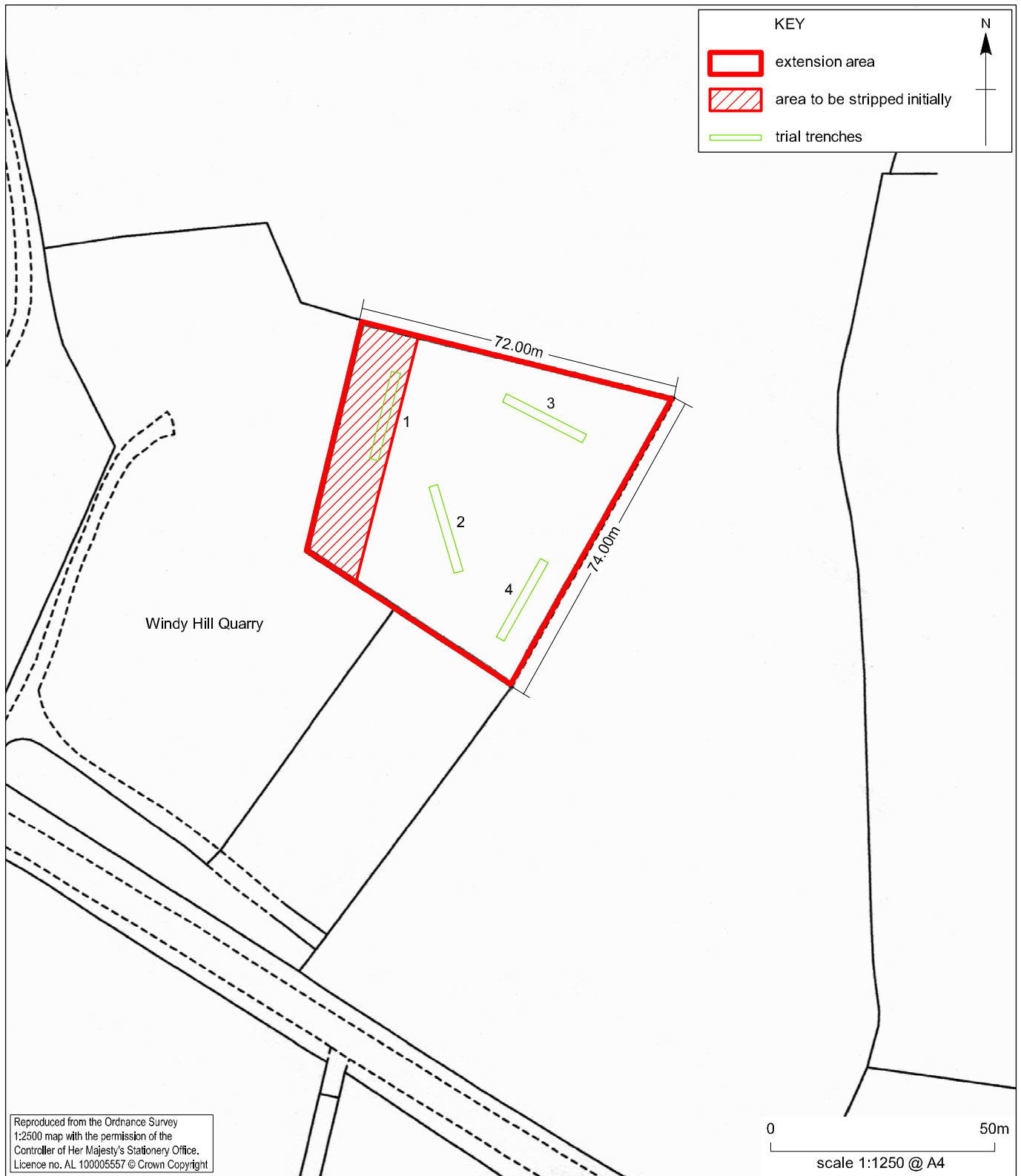
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Windy Hill Quarry: site location

Figure 1



Windy Hill Quarry: trenching plan

Figure 2