NAA

ARCHAEOLOGICAL EVALUATION REPORT

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STAINTON QUARRY, FURNESS, CUMBRIA

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STAINTON QUARRY, FURNESS, CUMBRIA

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Summary

This document presents the results of archaeological evaluation of land at Stainton Quarry, in Furness, Cumbria. The report has been prepared by Northern Archaeological Associates Ltd (NAA) for Lafarge Tarmac Ltd. The evaluation was required as a condition of a planning application for extension of the workings at the quarry and comprised the excavation of five trial trenches and a metal detecting survey.

Archaeological features were found in the northern end of a single trench at the east side of the site, while a small quantity of pottery was recovered from subsoil within a second trench at the north end of the site. The remaining trenches contained no archaeological features or finds. All the material recovered from the metal detecting survey was identifiable as modern in date.

The archaeological features comprised remains of part of a building. Three postholes had been excavated into a wider cut, thought to represent terracing into the natural slope to create a level area for construction of the building. One of the postholes contained 10 sherds of early Neolithic pottery and firewaste, which included charred plant remains containing hazelnut shell and cereal grain. The pottery recovered from subsoil at the north of the site was also of early Neolithic date.

Evidence of Neolithic activity was confined to the northern and north-eastern parts of the site, but the features containing both pottery and firewaste are likely to be part of a settlement. The postholes are probably part of a building, and structures of this date are very rare, both locally and nationally.

1.0 INTRODUCTION

1.1 This document presents the results of archaeological evaluation of land at Stainton Quarry, Stainton with Adgarley, in Furness, Cumbria (NGR SD 2480 7300; Fig. 1). The evaluation was required as a condition of a planning application for extension of the workings at the quarry, and comprised the excavation of five trial trenches together with a metal detecting survey.

1.2 This report has been prepared by Northern Archaeological Associates Ltd (NAA) for Lafarge Tarmac Ltd. It is informed by an Environmental Statement (Tarmac Ltd 2010), and the evaluation was carried out in accordance with a Written Scheme of Investigation (WSI). This was submitted to Cumbria County Council Historic Environment Service, in order that the trial trenching constituted a scheme of works approved by the local planning authority (NAA 2012). All archaeological works were undertaken in accordance with relevant standards, guidance and best practice published by English Heritage (1991, 2006) and the Institute for Archaeologists (2009).

1.3 The archaeological evaluation was undertaken to determine the presence or absence of any archaeological remains within the site, and to ascertain the extent, condition, character and date of any such remains. This information will be used by Cumbria County Historic Environment Service (CCHES) to inform on the need for further archaeological mitigation.

1.4 Paragraph 141 within the National Planning Policy Framework states that local planning authorities should require developers to record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and the impact, and to make this evidence (and any archive generated) publicly accessible'. The Planning Policy Statement 5 Practice Guide, which is still current, states that a written scheme of investigation is the tool to control the standards of any investigation, analysis, reporting and archiving (English Heritage 2010).

2.0 LOCATION, TOPOGRAPHY AND GEOLOGY

2.1 Planning approval has been granted for continued extraction at Stainton Quarry, Stainton with Adgarley, Cumbria (Fig. 1), with a condition requiring pre-extraction recording of the archaeological resource with the boundary of the proposed extensions to the current workings. The first area (hereafter referred to as "the site"), comprised a small block of land at the centre of the current workings at the quarry, and measured 1.02ha in size (Fig. 2).

2.2 The solid geology comprises Carboniferous limestone of the Urswick Formation, overlain by boulder clay and morainic sand and gravel deposits (BGS 1977; BGS 1979). Soils on the site are of the Crwbin Association, shallow well-drained loams, often associated with limestone pavement (SSEW 1983).

3.0 SUMMARY ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

3.1 The site has been subject to an Environmental Statement (Tarmac Ltd 2010). The account below summarises the results of the section covering cultural heritage.

Prehistoric

3.2 A number of chance finds of prehistoric material were found during quarrying in a field known as *Stone Close*, some 200-300m south-east of the site, between 1894 and 1912 (Fig. 3). These finds covered a number of periods, and included Neolithic polished stone axes, one of which was stained with haematite (iron ore, used as a pigment, possibly for symbolic body covering) were recovered. Bronze artefacts (palstave, ring, and knife), several stone celts and quern stones (including a beehive quern) were also found, as were animal bone, land snail shells and bloomery waste from iron working. A possible settlement enclosure, formed by a stone boundary, was also recorded in 1904. This area has been completely removed by quarrying. In 1910 several '*cinerary urns*' were also found '*half a mile west*', suggesting a cremation cemetery of possible Bronze Age date to the west of the current quarry.

3.3 A further possible settlement site has been identified c.300m north-east of the site. Here, two roundhouses were thought to lie within an enclosure, although no excavation has taken place to prove its presence. Elsewhere in the vicinity of the quarry, polished stone axes and axe hammers have been found along a former road (Slop Lane) to the west of the site, during repair work in the 19th century (Fig. 3).

Roman

3.4 Roman activity is limited to a single find of a Roman coin (a 4th century bronze coin of Emperor Constantine) at the quarry, and Roman activity is not widely attested on the Furness peninsula.

Early medieval

3.5 From their names, the settlements of both Stainton and Adgarley are likely to have originated in the early medieval period. Stainton derives from the Old English (OE) word *Stan*, or the Old Norse (ON) *Steinn*, ('stony') and *tun* ('farm/settlement/estate'). Adgarley, is derived from the OE personal name *Eadgar* and OE or ON *hlið* ('slope') (Ekwall 1933, 210).

3.6 There are no finds of this date at the quarry. However, a hoard of Viking silver was found near the quarry in 2011. The hoard comprised 12 artefacts including parts of several arm-rings and of silver ingots, together with 79 coins (Finds Liason Office Report 2011-T283). The coins are mostly issues of English kings of the early to mid 10th century, the latest being that of Eadwig (AD 955-59). A number of Anglo-Scandinavian (York minted) issues were also present, as were

two Islamic coins. The find is comparable in content and date with a number hoards from northern England and on the composition of the coins, is thought to have been deposited in AD 955-59.

Later medieval

3.7 Stainton is recorded in the Domesday Book as '*Kings land that contained two farms*' held by Tostig, who controlled the extensive manor of *Hougun* (Haume, near Dalton-in-Furness), in 1065 (Williams and Martin 1992, 796). Adgarley is thought to have been a dependent part of Bolton (*Bodletun*), and is not mentioned. Adgarley first appears AD 1180x90 as *Eadgarlith* in the Coucher Book of Furness Abbey (Ekwall 1922, 210). William the Conqueror granted Furness to Roger de Poitou, and by the middle of the 12th century it had became a detached part of Lonsdale Hundred in Lancashire (Farrer and Brownbill 1914, 2). While both settlements are mentioned in a number of contemporary medieval records, it is unclear at what point they became linked administratively. In 1717, Stainton with Adgarley formed a district within the local parish structure, but 'Bolton with Adgarley' was still marked on late 18th century maps (Ekwall *op cit*, 210; Farrer and Brownbill *op cit*, 328-30; Tarmac Ltd 2010, 8.10-8.13).

Post-medieval and modern

3.8 Iron mining occurred in the area from the post-medieval period, if not earlier, though only on a very small scale. Conditions in these early mine workings were quite hazardous. A diary kept by a local yeoman recorded that on May 26 1838, two men suffocated at Stainton Iron Ore works when a cabin caught fire and smoke came down through the shaft wall.

3.9 There were two mining companies at Stainton in the 19th century. Stainton Mine is recorded as being held by Brogden and Company between 1850 and 1890, with 3,000 tonnes of ore produced in 1883, said to be some of the richest in Furness.

3.10 Quarrying at Stainton is likely to have commenced at around the same time. The Crown Quarry was opened in 1866 when a branch line was constructed, part of the early Furness Railway, for the transport of limestone that was in high demand at the blast furnaces in Barrow. The Devonshire Quarry is believed to predate it. In the 1880s the Barrow Haematite Steel Company operated both the Devonshire and Crown Quarries. The Devonshire Quarry produced limestone blocks for building and monumental purposes. A fossiliferous stone, known as Ulverston Marble, in large demand during the 19th century, was quarried there. In 1942, Devonshire Quarry was mechanised and a modern stone treatment plant was constructed, at which time Crown Quarry closed (Tarmac 2010, 8.10-8.13).

4.0 AIMS AND OBJECTIVES

4.1 The main aim of the evaluation was to determine whether unrecorded sub-surface archaeological remains existed within the proposed development area. If remains were present, the trial trenching aimed to confirm their location, extent, nature, date and importance, in order that an informed assessment of the impact could be undertaken and a suitable mitigation strategy agreed.

4.2 The objectives of the evaluation were:

- to establish the presence, nature, extent, preservation and significance of any archaeological remains within the site;
- to provide a detailed record of any such archaeological remains;
- to recover and assess any associated structural, artefactual and environmental evidence;
- to determine which areas within the proposed area of topsoil stripping require archaeological mitigation in the form of preservation *in situ,* open area investigation in advance of stripping, or monitoring of soil stripping during construction works;
- to prepare an illustrated report on the results of the evaluation to be deposited with the Historic Environment Record (HER) held by Cumbria County Historic Environment Service (CCHES) and the National Monuments Record (NMR); and
- to evaluate the potential for further unrecorded significant archaeological remains to be present within the site.

5.0 METHODOLOGY

5.1 Five 50m by 2m trial trenches were excavated within the proposed development area (Fig. 2). The number, size and locations of the trenches were considered to provide an appropriate excavation sample. All trenches were surveyed using GPS and the information transferred to AutoCAD software and reproduced for incorporation within the report.

5.2 A full methodology is presented in the Written Scheme of Investigation (WSI) for the present work (NAA 2012). All trial trenches were excavated by a mechanical excavator fitted with a toothless ditching bucket under the direct supervision of a monitoring archaeologist. All features were investigated further by hand. A photographic record of the site was undertaken using 35mm format black and white prints. Digital images were also taken using a digital camera at a resolution of 10 megapixels. A drawn record of all archaeological features was made at an appropriate scale. Written descriptions of archaeological

features/deposits were recorded on *pro forma* sheets, using the NAA recording system.

5.3 A metal detecting survey was also carried out, on the surface of the field, spoil heaps and the exposed surfaces of the trenches. Finds thought to be pre-modern in date were located using GPS.

6.0 RESULTS

Trench 1

6.1 This was positioned within the northern part of the site. This part of the field contained a large natural gully, approximately 250m in width, running from south-west down to north-east. Removal of turf showed that the gully was formed by ridges of bedrock, the area between being filled with subsoil (101) and natural clay (102).

6.2 No archaeological features were identified in this trench. However, a patch of subsoil, *c.*3.5m in length and 0.1m deep, located near the lowest point of the trench and in the lee of a bedrock ridge, had been left during machining. The subsoil was removed by hand to ensure it did not mask any archaeological features. While no features were seen, the subsoil did however contain five small sherds of early Neolithic pottery, found within an area *c.*1.5m in diameter (Fig. 4; Appendix B). The pottery was not in any concentrated area, and was not associated with any other material.

Trenches 2, 3 and 5

6.3 These were positioned at the east, centre and south of the field (respectively). None of these trenches contained archaeological features or finds. A similar sequence of topsoil, subsoil and clay natural was encountered in each. Due to the absence of any features in these trenches, deeper sondages were machine-excavated in Trenches 3 and 5 to check that natural subsoil had indeed been reached.

6.4 A number of discoloured patches were identified in the machined surfaces of Trenches 2 and 5 and were investigated to establish whether they were archaeological features. The patches proved to be either small, isolated areas of subsoil, or soil which had accumulated around individual, degraded boulders (Plate 2), and none proved to be archaeological in nature.

Trench 4

6.5 This was located close to the eastern edge of the site. The northern end of this trench contained a number of archaeological features. Two postholes (408 and 410) were exposed in the eastern section of the trench, with a third (412) identified in its base (Figs. 4 and 5; Plate 1). The southerly of the two postholes

seen in section (410), was 0.45m wide and 0.25m deep and contained ten fragments of handmade pottery of early Neolithic date. With the exception of one sherd, the pottery was of the same fabric as the fragments found in Trench 1 (Appendix B). The posthole had been backfilled with charcoal-rich firewaste (409). Palaeoenvironmental assessment of this fill identified 53 fragments of charred hazelnut shell and seven carbonised cereal grains (Appendix D). Identifiable grains comprised three of wheat, and two of barley. Charcoal of hazel, willow or poplar, and oak, was also present.

6.6 Posthole 408, 0.4m wide and 0.15m deep, lay 0.85m to the north. Four probable packing stones remained *in situ*, and the lower 0.1m was filled with a similar material (407) to that in posthole 410. The surviving fill did not contain any artefacts and was considered too small to sample. The third posthole, 412, was 0.15m in diameter and survived 0.1m in depth. Assessment of the fill did not produce any artefacts or ecofacts.

6.7 Postholes 408 and 410 lay in the base of a much wider cut (414). This feature was 0.4m deep and occupied the northernmost 3.5m of the trench, extending beyond its end. The cut had a flat base (into which the postholes had themselves been cut), and could be traced in both sections of the trench. Cut 414 is interpreted as terracing into the gently sloping natural ground, to create a level area on which a structure, represented by the postholes, could be built. The presence of pottery, and of firewaste which contained charred hazelnut shell and grain, suggests that the structure was domestic in character, although its shape, size and position in relation to the trench cannot be established.

6.8 The southern end of the trench contained two further features, pits 403 and 405 (Fig. 4). These were initially thought to be related to the prehistoric features at the northern end, although they were undated and contained no visible charcoal. However, metal detecting of the trench surface uncovered a vehicle clutch plate from what had been thought to be natural clay, close to pit 403 (Appendix C). It is clear that part, or all, of the southern end of the trench has suffered considerable disturbance in the recent past. The extent of this disturbance is unclear, as the material is very similar to the natural clay. The presence of dated features at the trench's northern end shows however that this disturbance did not extend for the trench's full length.

7.0 DISCUSSION

7.1 Archaeological features, of early Neolithic date, were confined to one end of Trench 4, although pottery of this date was also recovered from Trench 1. The postholes and terracing, pottery and associated firewaste containing charred food remains, all indicate an early Neolithic structure in this location. The postholes all lay at or near the eastern edge of the trench, which may indicate that the structure lies partly, or largely, under the track east of the site. However, as the terraced area also continued beyond the trench to the west, the area of settlement may extend for some distance in this part of the site.

7.2 The pottery fragments recovered from subsoil in Trench 1 are also of early Neolithic date, and are probably associated with the same settlement. Although they did not relate to any archaeological features, they demonstrate some activity to the west of the settlement evidence in Trench 4. The limited quantity and individual size of the pottery sherds, together with the area over which they were found, does not suggest the presence of a whole, disturbed vessel or vessels. It is more likely to represent a small amount of pottery dumped here or washed down from higher up the slope.

7.3 With the exception of one fragment, all the pottery had parallels in finds of Grimston Style wares from elsewhere in Cumbria. The remaining sherd, although coarser than the other finds, can also be paralleled in early Neolithic pottery traditions. Stone implements of Neolithic date were among the artefacts recovered from the Stone Closes field. This area is *c.*200-300m from the excavated remains and may be part of the same activity.

7.4 Within the wider area, early Neolithic activity was been found at two locations to the east of Barrow-in-Furness, some 2-3km from Stainton. Excavations at Roose Quarry and Holbeck Park have uncovered early Neolithic occupation including pottery, flint and charred grain (Hodgson and Brennand 2006, 32). Further finds of early Neolithic pottery have been reported from Walney Island (Appendix B). None were associated with structures, and evidence for domestic buildings is rare both in Cumbria and nationally (Hodgson and Brennand 2006, 32).

7.5 The limit of modern disturbance at the southern end of Trench 4 is unclear, although it is likely to be associated with modern quarrying. No archaeological features were encountered in Trenches 2, 3 and 5. This suggests that Neolithic activity was confined to the north and north-east parts of the site.

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APPENDIX A: CONTEXT CATALOGUE

Context	Interpretative description	Trench	Notes
100	Topsoil	1	
101	Subsoil	1	Contained pottery
102	Natural clay	1	
103	Bedrock	1	
200	Topsoil	2	
201	Subsoil	2	
202	Natural clay	2	
300	Topsoil	3	
301	Subsoil	3	
302	Natural clay	3	
400	Topsoil	4	
401	Subsoil	4	
402	Fill of pit 403	4	Modern
403	Pit cut	4	Modern
404	Fill of pit 405	4	Modern
405	Pit cut	4	Modern
406	Natural clay	4	
407	Fill of posthole 408	4	
408	Posthole cut	4	
409	Fill of posthole 410	4	Sampled. Contained pottery, charred grain and hazelnut shell
410	Posthole cut	4	
411	Fill of posthole 412	4	Sampled
412	Posthole cut	4	
413	Fill of cut 414	4	
414	Cut for possible terracing of ground	4	
415	Fill of pit 403	4	
416	Redeposited natural fill of cut 417	4	Modern
417	Cut of disturbed area	4	Modern
500	Topsoil	5	
501	Subsoil	5	
502	Natural clay	5	

APPENDIX B: HANDMADE POTTERY

T. G. Manby

Two sherd groups were recovered from the evaluation Trenches:

Description

SQF 13, Trench 1, Context 101. Patch of subsoil, in a wide, natural gully running through part of the field. Small Sherds = 5. Crumbs= 1. Weight = 10gm. Fabrics = 1.

Fabric 1: Hard compact ware; dark grey brown exterior, brown interior, grey core. Common angular temper, erupting at the surfaces. Much white quartzite, dark igneous, scattered golden mica, and harsh sand. All unweathered, and with sharply fractured edges. There is a moulded shoulder fragment, rounded exterior angle and acute interior angle. Other fragments are wall sherds. Wall thickness 7-8mm.

SQF 13, Trench 4, Context 409. Fill of post hole (one of three). Sherds= 3. Small Sherds = 5. Crumbs = 2. Weight = 40gm. Fabrics= 2.

Fabric 1: Same as in Context 101. Variants:- a. smooth dark grey exterior, b. buff exterior, both with grey core and interior. Common angular temper, angular white quartzite, with some clear quartz, rare mica and harsh sand. All unweathered, with sharp fractured edges. Sherds= 2. Small Sherds= 5. Crumbs = 2. All wall fragments. Wall thickness 7-8mm.

Fabric 2: Coarse Ware, buff exterior; rough grey interior, grey cord. Laminated structure. Common angular temper, dark igneous, white quartzite, scarce white flint and ironstone, harsh sand. Also some angular inclusions of grog or shale? Shoulder sherd, shallow rounded angle. 3.7x4.1cm. Sherds= 1. Wall thickness 12mm.

Attribution and discussion

This assemblage consists of small fragments in two fabrics, with two shoulder profiles. It comes from a region where comparative ceramic material is limited, only the Early Bronze Age types are well known. For earlier and later periods, this is very limited as some recently excavated assemblages are unpublished (Barrowclough 2010, 79, Fig. 31).

Fabric 1: A hard fabric, with dark surfaces and the use of angular white quartzite temper, with mica. This has parallels in the Early Neolithic Grimston Style bowls from Ehenside Tarn, on the Cumberland coast (Piggott 1931, 96, Fig. 7. 1-4; Manby 2007. 65-67, Fig. 42. (An alternative if in eastern regions of England, would be that this fabric resembles some Late Bronze Age Fine Ware, but there is nothing of this character known from North-western England).

Fabric 2: The rounded shoulder profile and buff exterior suggests early Bronze Age Collared Urn, however the laminated wall structure is characteristic of Early Neolithic pottery along with the angular white quartzite temper. This is likely to be coarse ware version of Early Neolithic ceramic tradition.

Regionally Early Neolithic pottery is represented by the mid-19th century Ehenside Tarn finds, and the fragmentary remains of four Grimston Style bowls preserved (Piggott 1931). Small sherds have been surface recoveries from Walney Island and on the Westmorland Fells at Howe Robin 6 and at Shap. Early Neolithic pottery has been reported from recent excavations at Roose Quarry and Holbeck Park, Barrow-in-Furness (Hodgson and Brennard 2006), Silloth on the Cumberland coast and at Carlisle Airport (Flynn, P. 1998). These excavations have yet to.be published but pre-2005 Neolithic ceramic finds in the region have been reviewed (Manby 2007).

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APPENDIX C: METAL DETECTOR SURVEY FINDS

Philip N Wood

The metal detector survey of the field surface, exposed trench surfaces and spoil heaps, produced a total of 35 finds, totalling 7.05kg in weight. The majority (30) of the finds were iron, with two aluminium and 3 composite finds. Identifiable finds are given a summary description in table C1 below.

All the finds were modern and with the exception of a vehicle clutch plate, all were recovered from the interface of topsoil and subsoil. The clutch plate was found in redeposited natural (415) at the southern end of Trench 4. Most of the finds derive from an agricultural context, as they include horseshoes, nails and a staple, pieces of plough and the head of a hammer. Other finds included a light bulb, probably from a vehicle, a piece of aluminium foil and a number of rods and bars.

None of the material is of archaeological value, and have all been discarded following discussions with CCHES.

Material	Number	Description
Fe	2	Complete and part horseshoe
Composite	1	Vehicle clutch plate, diameter 0.28m
Fe	1	Hammer head
Fe	6	Nails (5) and fencing staple (1)
Fe	3	Plough parts, including one ploughshare
Fe	1	Hook
Fe	9	Rods and bars, bent and straight
Fe	1	Washer
Composite	1	Fe and rubber washer
Al	1	Scrunched-up foil
Composite	1	Light bulb, from vehicle or torch
Fe	4	Rectangular or curved Fe plates, two pierced
Al	1	Disc
Fe	1	Piece of thin rust
Fe	2	Unidentifiable

Table C1. List of metal detected finds

APPENDIX D: PALAEOBOTANICAL AND CHARCOAL ASSESSMENT

Lynne Lowrie

Two small bulk environmental samples (four litres from context 409 and two litres from context 411), and a hand-collected charred hazelnut shell from the evaluation at Stainton Quarry were submitted for assessment. This summary presents the results in accordance with English Heritage (1991).

Both samples were taken from the fills of post holes and were processed in their entirety by the bucket method of flotation. All the data taken during this process was recorded using NAA *pro forma* recording sheets. The dried residues were sieved using a 4mm mesh. The larger fraction of the retent residues was sorted whilst the smaller sized fraction was retained. The palaeobotanical identifications were undertaken using Cappers *et. al.* (2006); Cappers and Neef (2012); Hather (2000); and Jacomet (2006). Nomenclature for plant taxa followed Stace (2010).

Sample 409 AA yielded pottery, charred plant remains and charcoal. Comminuted charcoal made up a large proportion of the 12.7g flot from 409 AA. The fragments that were greater than 2mm were identified. The most abundant species was hazel (*Corylus avellena*) with less significant quantities of willow/poplar (*Salix/Populus*), with a single timbered fragment of oak (*Quercus*). Three grains of wheat (cf. *Tritcum aestivum*), two grains of naked barley (*Hordeum vulgare)* and two indeterminate cereal grains originated within this flot along with fifty-two fragments of charred hazelnut shell.

Sample 411 AA contained no artefacts or ecofacts.

The charred plant remains from 409 AA would be suitable for AMS radiocarbon dating. If not required for this purpose all the residues and the palaeobotanical assemblage can be discarded. No further work is warranted on this assemblage.

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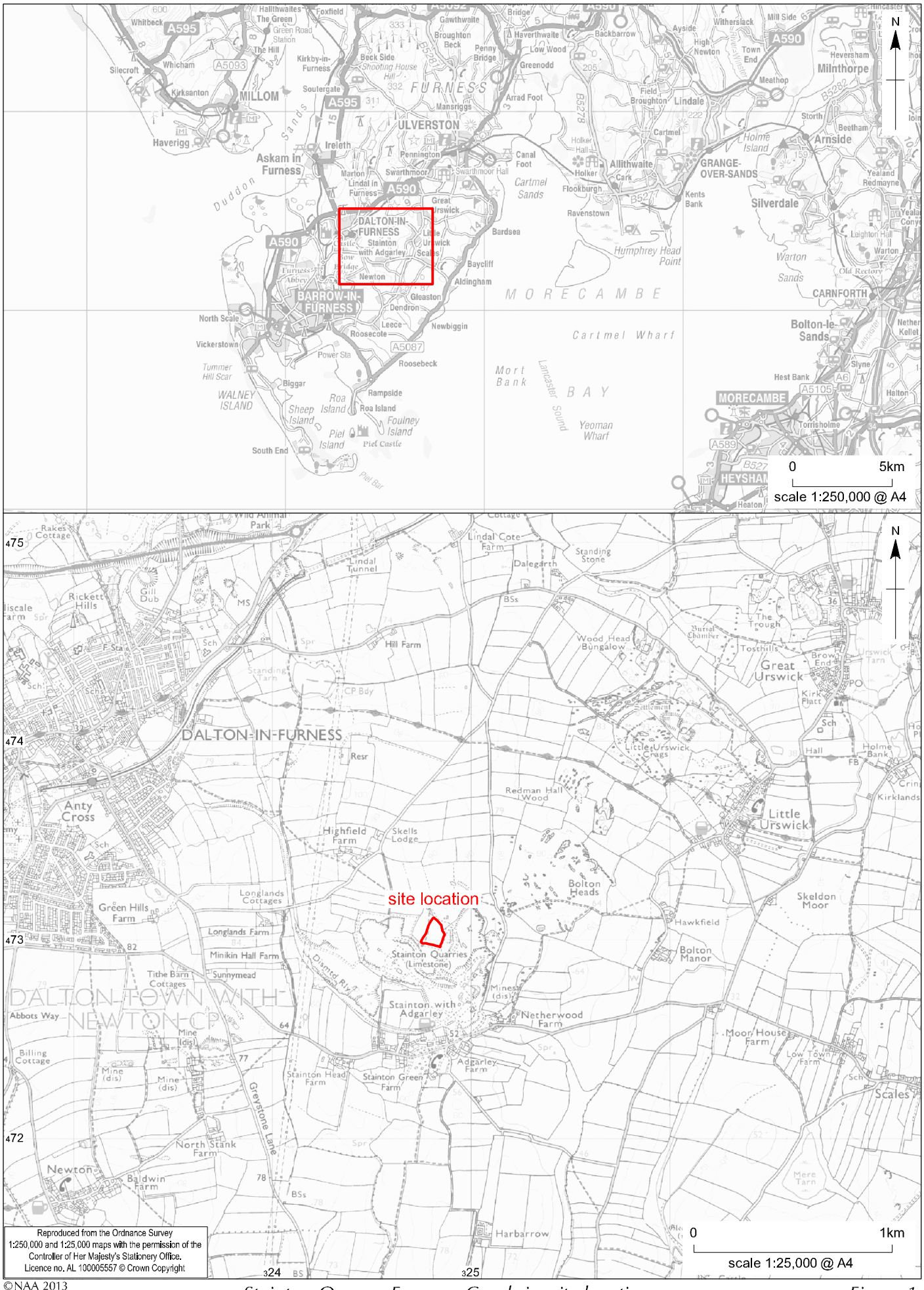
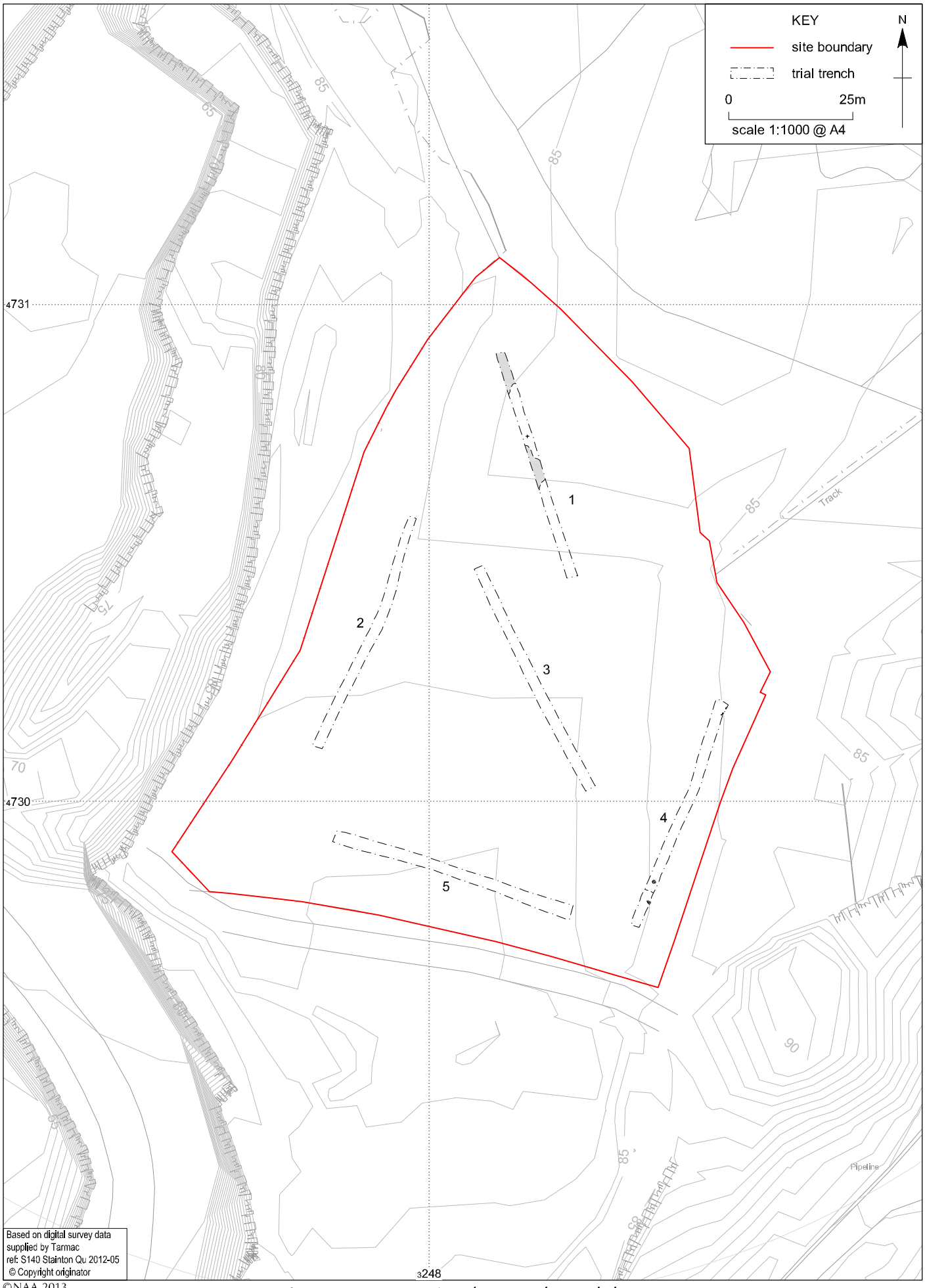
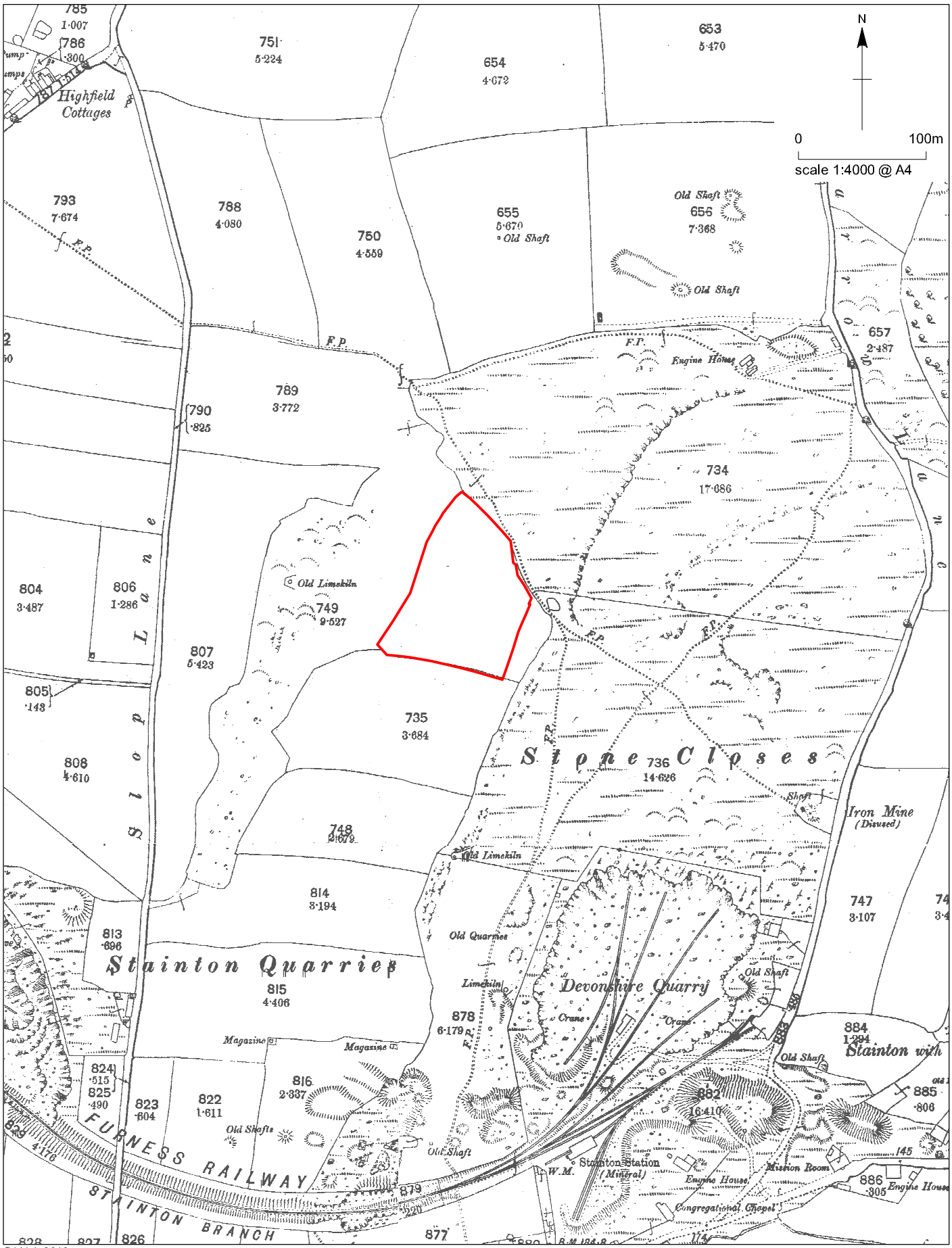


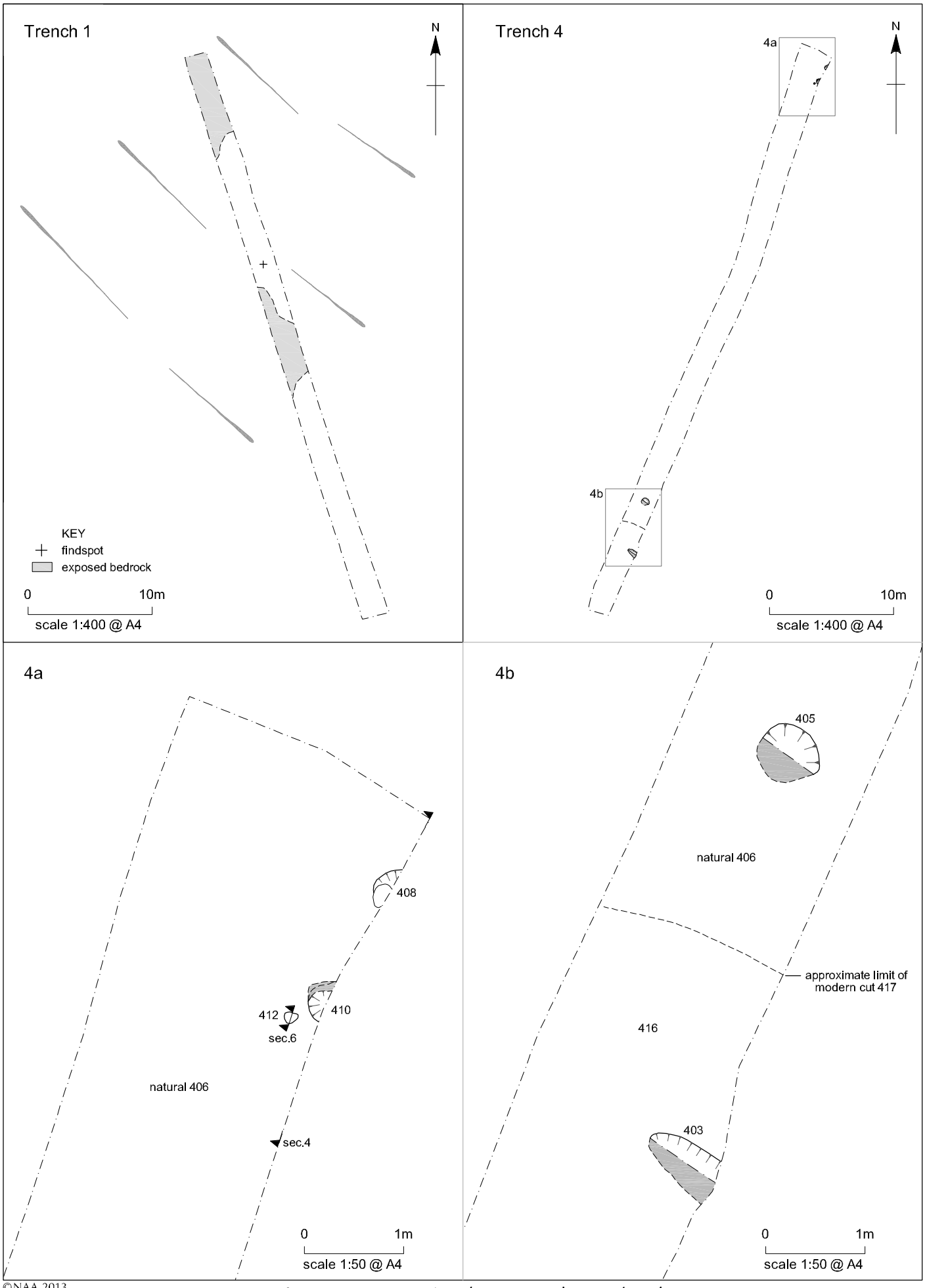
Stainton Quarry, Furness, Cumbria: site location *Figure 1*



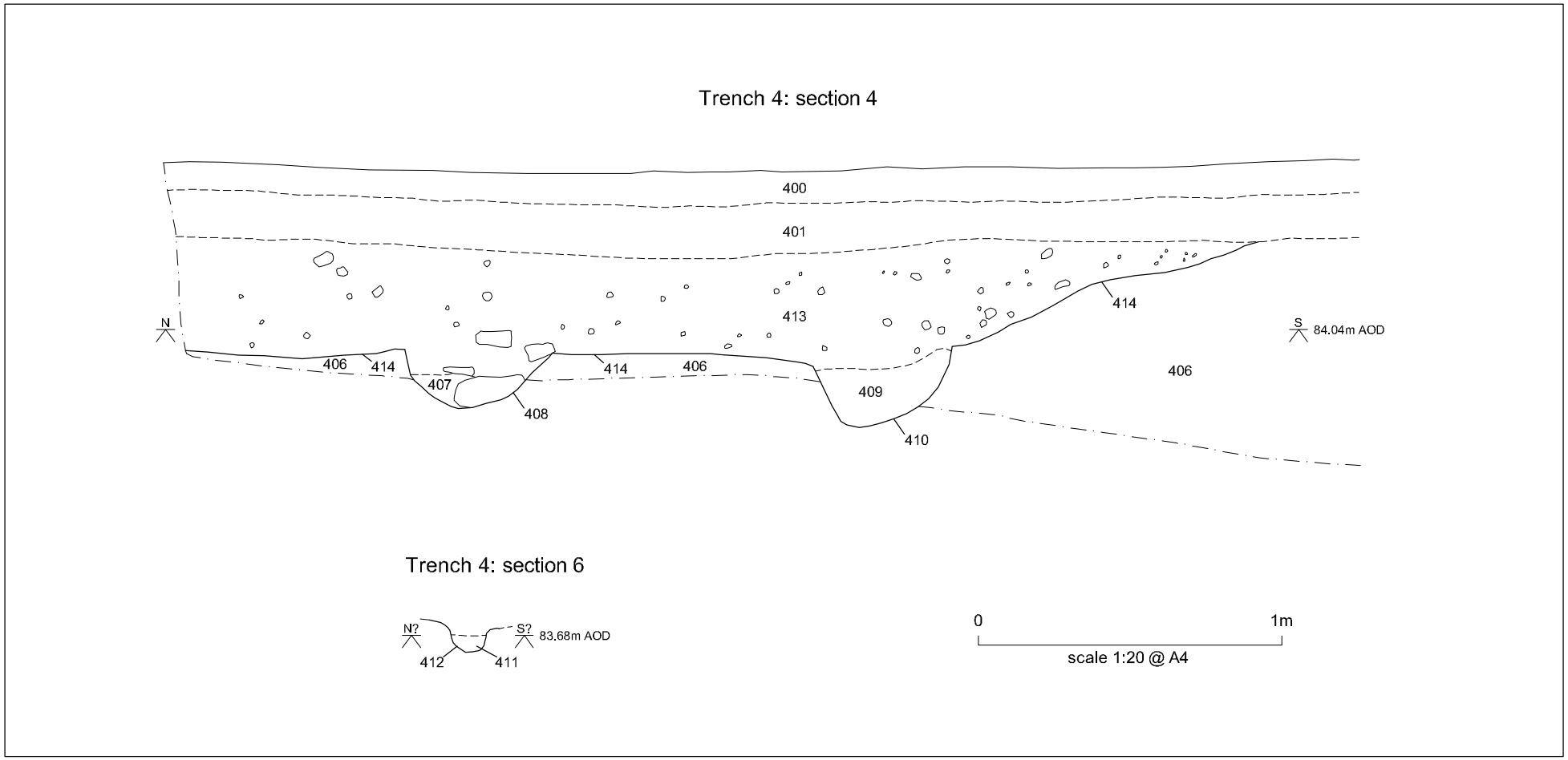
Stainton Quarry, Furness, Cumbria: trial trench locations *Figure 2*



Stainton Quarry, Furness, Cumbria: Ordnance Survey map of 1889 (25 inch series) *Figure 3*



Stainton Quarry, Furness, Cumbria: Trench 1 and 4 plans *Figure 4*



Stainton Quarry, Furness, Cumbria: Trench 4 sections

Figure 5

Plate 1

Stainton Quarry, Furness, Cumbria: Trench 4, postholes at trench edge

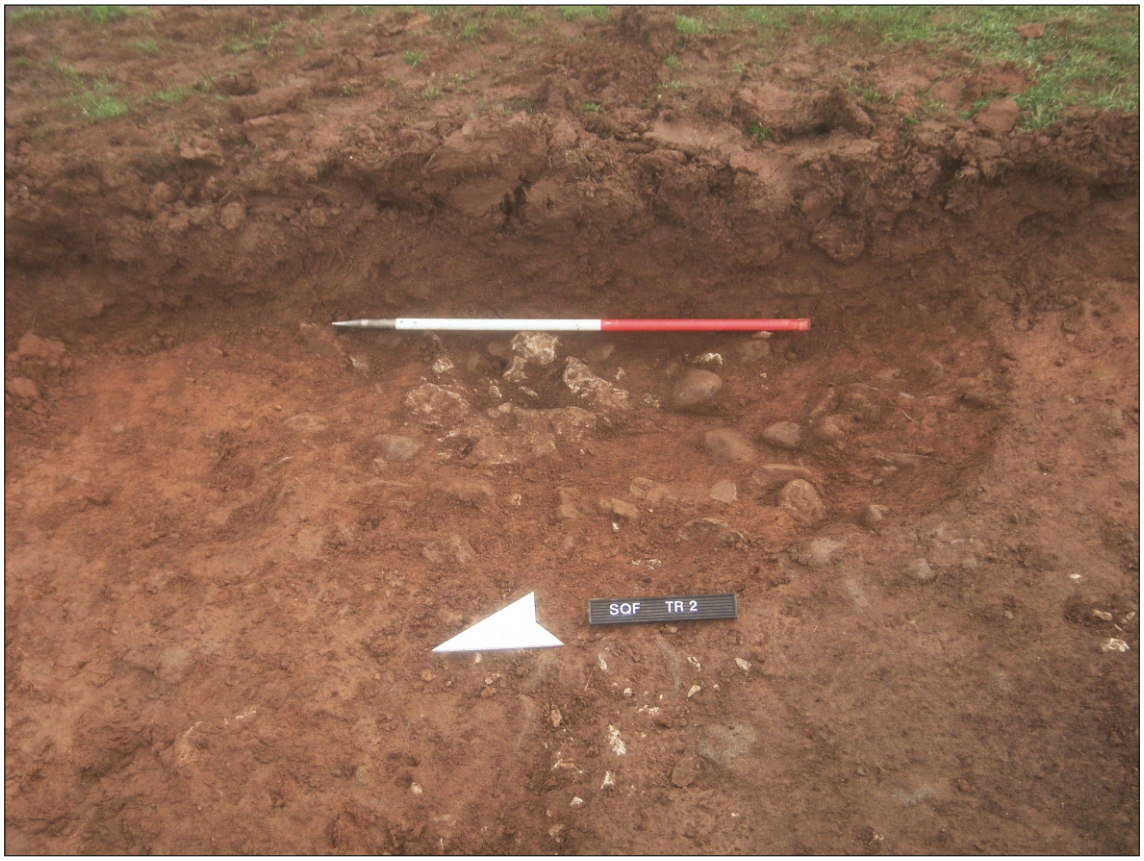


Plate 2

Stainton Quarry, Furness, Cumbria: Trench 2, natural feature, cleaned