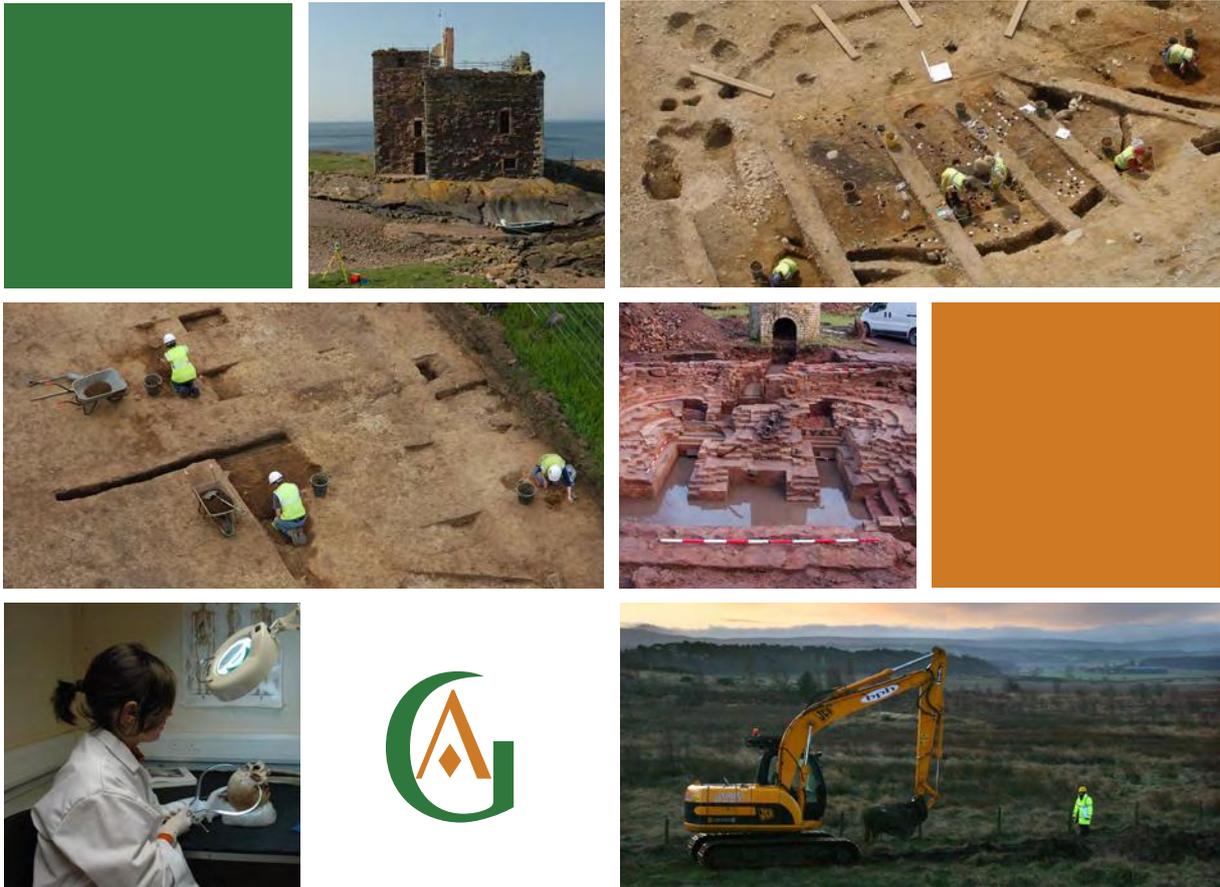


GUARD ARCHAEOLOGY



Soutra Quarry Extension Data Structure Report Project 3262

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Soutra Quarry Extension Excavation

Data Structure Report

On behalf of: Skene Group Ltd

NGR: NT 4610 5907

Project Number: 3262

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25/03/2011

*This document has been prepared in accordance
with GUARD Archaeology Limited standard operating procedures.*

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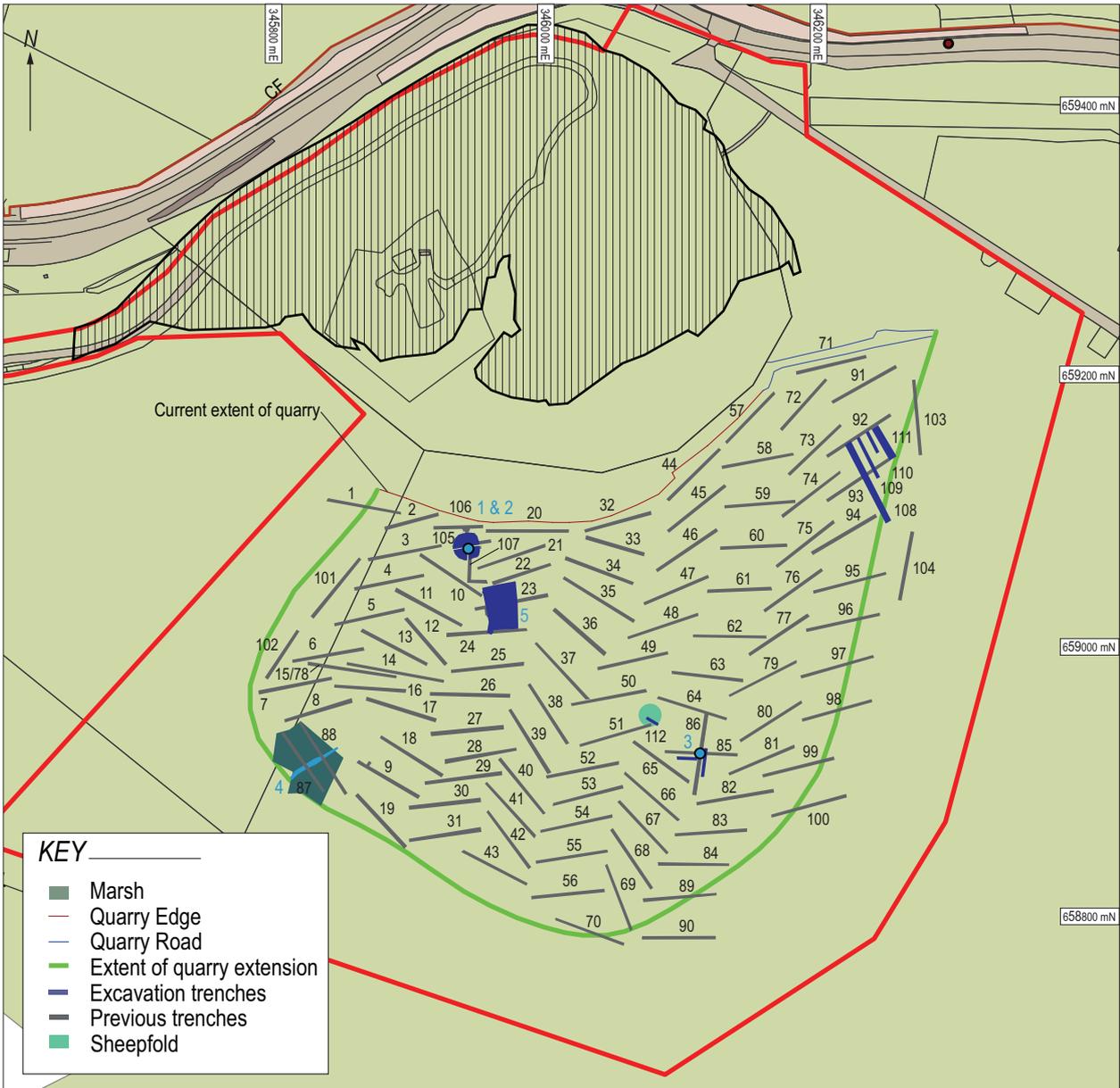
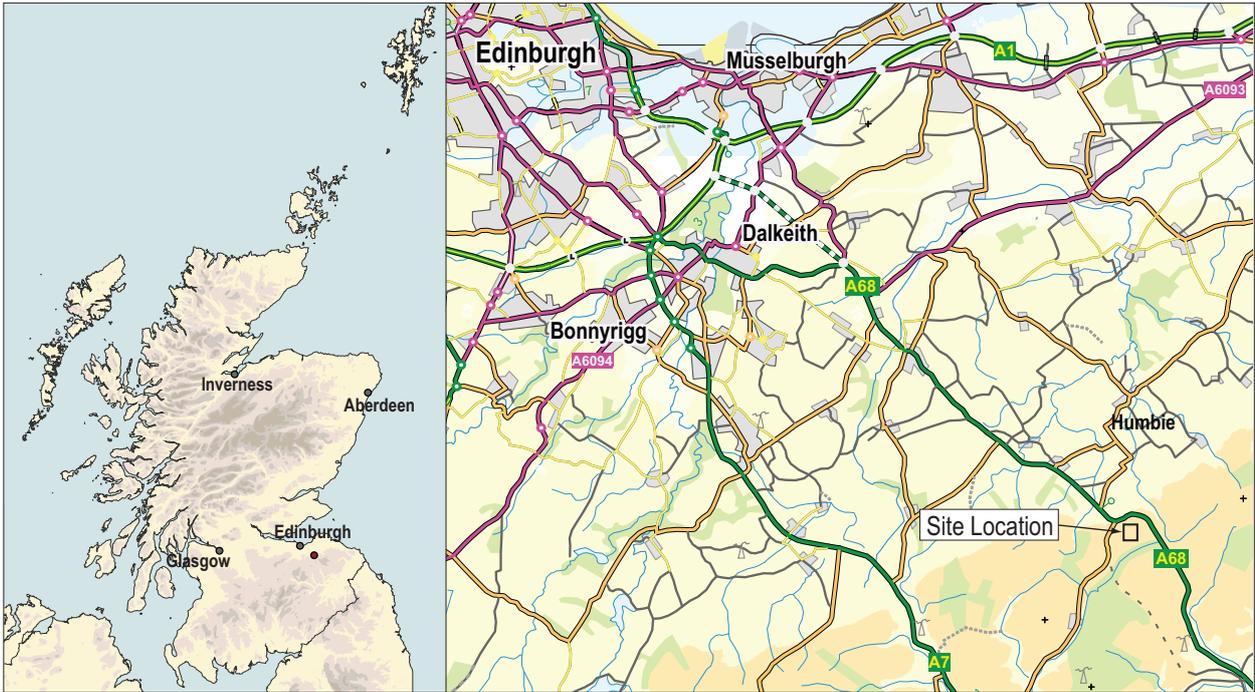


Figure 1: Site location & trench location.

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Executive Summary

- 1.1 A programme of archaeological excavation was undertaken by GUARD Archaeology Ltd of specific archaeologically sensitive areas identified by a previous evaluation of the proposed Soutra Quarry Extension area. This work comprised the excavation of the cairn, post-hole circle, sheepfolds and a select area of plough marks. The complete excavation of the cairn recovered a large fragment of late Neolithic/early Bronze Age beaker pottery and a cremation burial. All 14 post-holes forming the post-hole circle were fully investigated but no artefacts or additional archaeological features were uncovered. Further investigation of the cultivation marks uncovered a possibly field boundary while excavation within the sheepfolds encountered no artefacts or dating evidence.

Introduction

- 2.1 This report sets out the results of an archaeological excavation of archaeologically sensitive areas within the Soutra Quarry Extension Area. This work was undertaken by GUARD Archaeology Ltd on behalf of Skene Group. This report is submitted in accordance with planning conditions 16 and 17 (Ref 09/00897/MIN).

Site Location, Topography and Geology

- 3.1 The proposed development location lies to the east of Soutra Mains farm adjacent to the A68 to the south of Humber in the Scottish Borders (Figure 1). The quarry extension area covers approximately 12.69 hectares, is centred around NGR NT 4610 5907 and sits between 360 metres and 368 metres AOD.
- 3.2 The site is bounded by the existing quarry to the north and rough pasture and moorland to the south, east and west. While the development area is currently rough pasture the lower adjacent fields have been cropped but consist of grassland with pockets of conifer plantation. Wind turbines are located on the moorland to the south and east (Figure 1).
- 3.3 The underlying solid geology consists of wacke belonging to the Leadhills Supergroup (British Geological Survey Geological Digimap; <http://digimap.edina.ac.uk>).

Archaeological Background

- 4.1 The previous evaluation was undertaken by GUARD in November 2010 and examined 10.85 % of the 12.69 ha Soutra Quarry Extension Area subject to evaluation. Four sites of potential archaeological significance identified in a previous environmental impact assessment, comprising Soutra Hill Cairn (Site 1); Soutra Edge Beacon Stance (Site 2); Soutra Hill Old Sheepfold (Site 3) and Soutra Hill Trackway (Site 4) were evaluated. Numerous ploughmarks were also revealed during the evaluation across the quarry extension area. The Soutra Hill Cairn (Site 1) and a previously unknown post-hole circle (Site 5) were concluded to be of sufficient archaeological significance to merit further excavation. The Scottish Borders Council Archaeologist also considered the old sheepfold (Site 3) and a selection of plough furrows to merit further excavation as the form and alternating directions of the plough furrows may be consistent with other known instances of prehistoric cord rig.
- 4.2 The evaluation discovered that the centre of the cairn (Site 1), already understood as much denuded had been thoroughly disturbed by the excavation of a pit, from which the stones and any other features had been removed. Furthermore, two wooden posts had been inserted into the fill of this pit. This may relate to perhaps the modern use of the cairn as a bonfire site as burnt material including burnt and melted bitumen or plastic was also recovered from the pit. The insertion of the gravel and concrete foundations for the Ordnance Survey trig point had also caused some disturbance to the surface of the cairn. No remains of the medieval beacon stance (Site 2) were recovered. However, despite this modern disturbance, the evaluation did

confirm the prehistoric origins of the cairn. The flint tools and pottery sherd recovered from the cairn appear to date to the late Neolithic or Early Bronze Age (approximately 3000 – 2000 BC) and while the precise location of these finds within the cairn derive from likely secondary deposition, due to the later disturbance of the site, they nevertheless indicate the likely date of the cairn itself. A layer of charcoal evident beneath the cairn, however, may hold the most reliable evidence for the date of the cairn. A radiocarbon date from this could provide a terminus post quem for the cairn; ie a date on or after which the cairn was constructed.

- 4.3 The evaluation also discovered a potentially related timber circle (Site 5) a short distance to the south-east of the cairn. While a Bronze Age date would be expected for such a structure of timber uprights, no artefacts were recovered from any of the sample post-holes examined to demonstrate a date, though charcoal recovered from one of the post-holes indicates the potential for acquiring a radiocarbon date. There was no evidence for any other features in the immediate vicinity of this structure.

Aims and Objectives

- 5.1 The aim of the excavation was to:

- fully investigate the prehistoric cairn (Site 1);
- fully investigate the post-hole circle (Site 5);
- selectively investigate the sheepfold (Site 3);
- selectively investigate the plough furrows.

- 5.2 The objectives were therefore to:

- Conduct an archaeological excavation to recover evidence to determine the character, date and extent of the prehistoric cairn and post-hole circle;
- Conduct an archaeological excavation to determine the character and date of the sheepfold and its stratigraphic relationship to the plough furrows;
- Conduct an archaeological excavation of selected plough furrows in order to further investigate the interphase, morphology of rig ends, the possibility of headlands and the potential for evidence for field boundaries, specifically in an area where there is a clear change in direction of the cord rig apparent on Aerial Photographs;
- Submit a report to data structure level for agreement to Scottish Borders Council, on completion of the excavation;
- Submit, if post-excavation works are required, an accompanying post-excavation research design and costing alongside the data structure report, which will outline arrangements for post-excavation works.

Fieldwork Methodology

- 6.1 The excavation areas were photographed and a brief written description made prior to the commencement of ground-breaking works.

- 6.2 A machine excavator fitted with a c. 2 .5m wide flat-bladed (toothless) ditching bucket and operated under supervision by GUARD Archaeologists,

- excavated topsoil from unexcavated peripheral areas of the cairn (Site 1) to allow hand-excavation of the underlying archaeological features;

- re-excavated those parts of trenches 85 and 86 that crossed the old sheepfold and machine excavated a section through the centre of the sheepfold as deep as the underlying natural subsoil (Site 3);
 - investigated another apparent old sheepfold recognised during a field visit by RCAHMS staff during the excavation.
 - excavated a new north/south aligned 50 m long trench centred on NT 46218 59108, and subject to where the interphase of plough furrows occurs, expanded a box trench around this to highlight relationships and allow for hand excavation of the end of the furrows in order to ascertain their profile
 - excavated an expanded area around the post-hole circle (Site 5), that extended as far as evaluation trench 22 to the north and trench 24 to the south and 10 m width from the edge of the post-hole circle to allow hand-cleaning and excavation of any archaeological features encountered.
- 6.3 The terram placed over the cairn and the post-hole circle was removed and the surface below cleaned and excavated by hand by the on-site archaeologists to recover evidence in order to determine the character and extent of these features. All archaeological features encountered within and around the cairn and the post-hole circle were fully excavated by the on-site archaeologists.
- 6.4 The sections of the machine cut trenches through the sheepfold were hand-cleaned by the on-site archaeologists, sample extracted and recorded. Special attention was given to any features or artefacts encountered either within or immediately below the sheepfold that may provide a date for the sheepfold. Any plough furrows observed to cut across or be cut by the sheepfold were hand excavated and recorded.
- 6.5 Hand-excavation of plough furrows within the selected new trench was undertaken in order to ascertain their profile, date, extent and interrelationships.
- 6.6 A full record of excavated features was made using a single context planning system using pro forma sheets, drawings and photographs. All archaeological features were photographed and recorded at an appropriate scale. Filed drawings were drawn at 1:10 or 1:20 where appropriate. All levels were tied into Ordnance Datum and the trenches accurately located with the National Grid.
- 6.7 All archaeological finds were dealt with by the on-site archaeologists. Significant small finds were three dimensionally located prior to collection. All finds will be processed to MAP2 type standards and subject to specialist assessment. Palaeo-environmental samples were taken where appropriate. Conservation of finds was appraised to allow for specialist study.
- 6.8 All excavated feature fills and horizons were sampled, using bulk soil samples, for palaeoenvironmental evidence.
- 6.9 On completion of the excavation, the backfilling of the excavation areas will be undertaken by machine.

Results

- 7.1 The excavation was undertaken between 17 January and 4 February 2011 in very variable weather that included snow, hard frosts and gale force winds. The trial trench evaluation and subsequent excavation amounted to 15,337 m², representing over 12% of the proposed 12.69 ha quarry extension area.

The Cairn and Beacon Stance

- 7.2 Once stripped of topsoil the cairn was revealed to be 9 m in diameter and survived to a maximum height of 0.4 m, the central area having been heavily disturbed by the insertion of the modern concrete Ordnance Survey trig point and other modern pits (Figure 2, Plate 1). Following on from the evaluation the remaining sections of the cairn were stripped of turf by machine under archaeological supervision and the concrete trig point removed. Initially the east/west baulk next to the evaluation trench was maintained along with the north/south baulk although the turf had been removed from the northern half of the baulk during the evaluation phase. The full extent of the cairn was now revealed and the whole cairn was cleaned to remove the last of the topsoil and any loose stones. When this was completed the cairn was photographed and the additional areas planned. While this was taking place excavation continued in the north east quadrant as this area had already been fully exposed and planned during the evaluation. As the stones forming the cairn were removed sherds of prehistoric pottery (SF 13) including a decorated rim, were recovered from the soil matrix surrounding the stones (105002). Further investigation uncovered a large fragment of beaker pottery (SF 14) just north of the evaluation trench. Once the stones had been removed from this quadrant, excavation continued in the north-west quadrant north of the evaluation trench with the removal of the stones down to the layer of re-deposited subsoil (105003). At the western edge of the cairn a shallow depression, possibly representing a stone setting or the remains of a kerb edge (105022) was revealed. This was investigated and fully excavated but no artefacts were recovered. Further cleaning around the feature did not reveal any further stones or structures that would indicate a continuous kerb marking the edge of the cairn. It should also be noted that there was a great deal of root penetration and residual topsoil around the edge of the cairn, which was also investigated and removed. In the north-west quadrant there was no such a clear division between the cairn material and the re-deposited subsoil as many of the stones were partly in the re-deposited subsoil. No artefacts were recovered in this area.
- 7.3 Once the stones forming the cairn had been removed from the whole of the northern half of the cairn and the trench cleaned to expose the layer of re-deposited subsoil (105003), excavation continued with the removal of this layer. Removal of the re-deposited subsoil in the north east quadrant uncovered a small pit (cut 105023; fill 105024). Initially the intention was to half-section the pit and excavation began with the removal of the northern half but at a depth of 0.08m a large deposit of cremated bone was uncovered. As the weather conditions were deteriorating and there was already torrential rain and gales it was decided to abandon the half section and to recover the contents of the pit (100% was recovered) for examination back in the laboratory (see below). The fully excavated pit was sub-oval in plan, measuring 0.6 m by 0.4 m and 0.2 m deep, with a slightly undercutting edge along the southern side (Figure 3, Plate 2 & 3). The re-deposited subsoil on the western side of the pit was a pink/light red colour and contained flecks of charcoal. Once the pit was fully excavated the rest of the layer of re-deposited subsoil was removed but no further features were encountered.
- 7.4 As the re-deposited subsoil was being removed the feature described as possible pit or linear ditch (105006) uncovered during the evaluation stage was fully investigated. Once the full extent of the feature was defined it became apparent that it was the lowest deposit of the charcoal rich spread 105005 and largely confined to the area of the evaluation trench. Deposit 105005 was more extensive than it appeared in the evaluation trench and it extended to the south underneath the east/west baulk. Although no artefacts were recovered from this feature charcoal was present and a bulk environmental soil sample was kept. Once the baulk was removed the full extent of the feature was revealed. This irregular shaped spread was 2.5 m north/south by 1.5m east/west with a maximum depth of 0.04 m.
- 7.5 In the south east quadrant removal of the trig point had disturbed the baulks and a number of stones that had been planned previously during the evaluation phase. Initially these loose stones and the residual topsoil were removed and the quadrant planned before excavation continued with the investigation of the remaining stones. During this process another large pit (105016) was uncovered partly beneath the foundation trench (105025) for the concrete trig point (105012). As this was investigated it became clear that the pit contained a stone setting

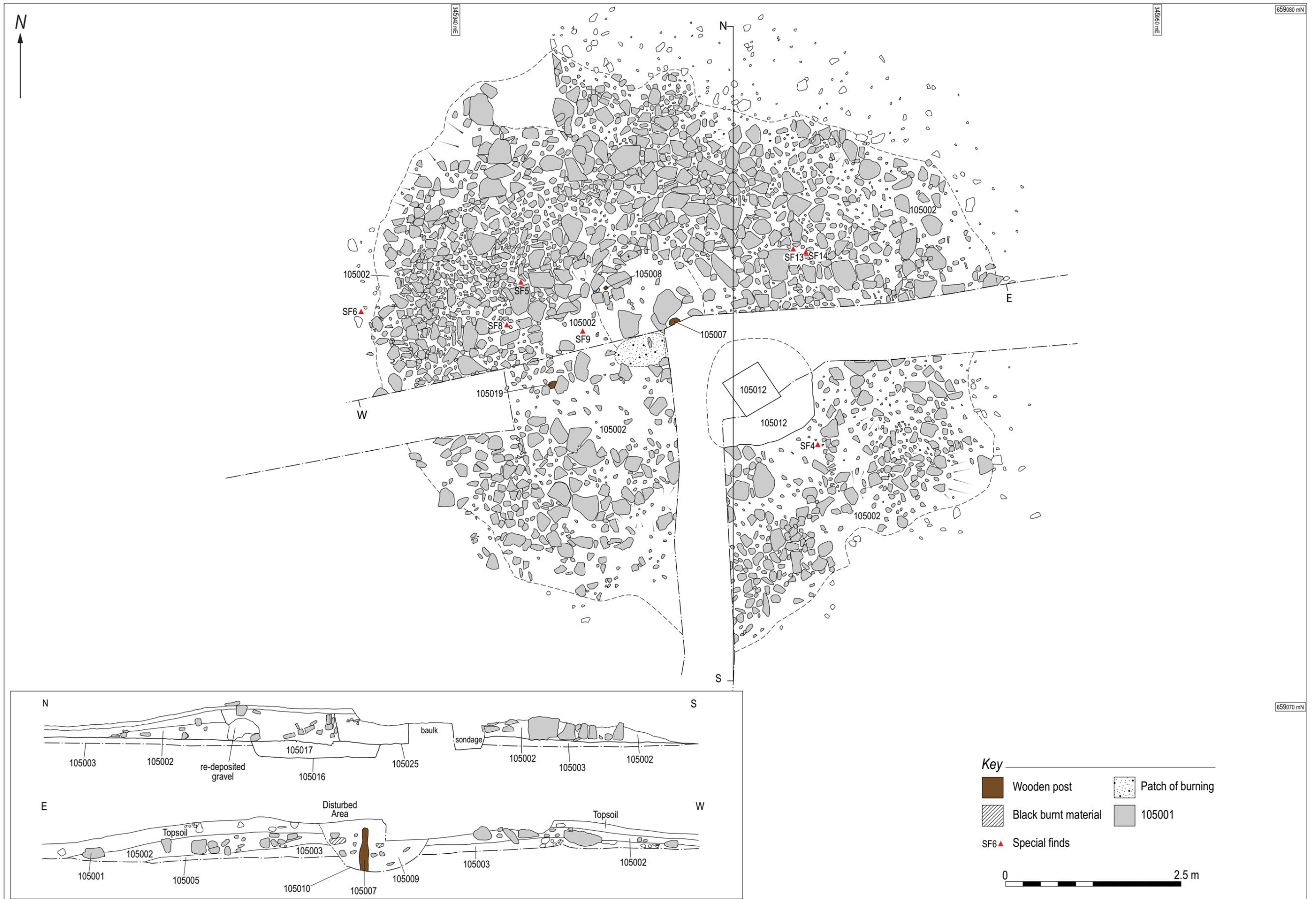


Figure 2: Plan and sections of Cairn.

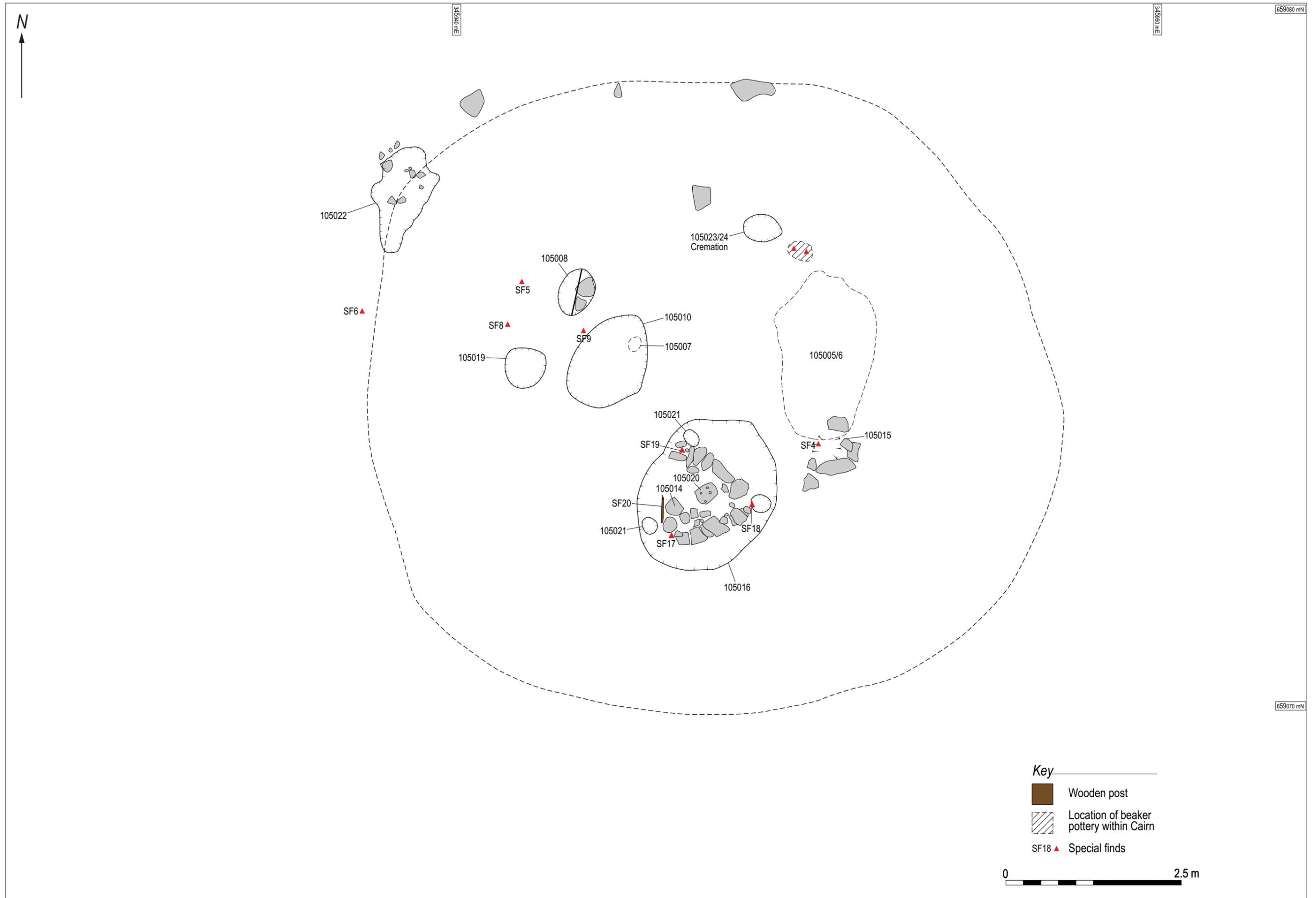


Figure 3: Post-Ex Plan of Cairn.

or foundation (105014) and that the pit continued to the west under the north/south baulk. After recording the east facing section of the baulk, which mainly contained deposits consisting of the upper fill of the pit and disturbed material from the insertion of the trig point, the baulk was removed to allow the full extent of the pit to be investigated. The pit, which had been cut into the subsoil, was oval in shape (2.3 m by 1.9 m) and contained a triangular shaped stone setting (105014). This setting was built of roughly shaped stones that survived to two courses along the south side. Further investigation revealed three posts (105018) consisting of wooden posts with iron bolts and plates at each of the corners of the triangle. Another wooden post was also recovered lying on the foundation stones (SF 20). In the middle of the stone setting was a rounded stone with traces of iron on the upper surface; this stone was sitting on a pedestal of subsoil which indicated that the pit had been excavated to leave this central pedestal.

- 7.6 Removal of the loose material and stones to the east of the foundation trench for the trig point and against the east/west baulk revealed several stones that were initially interpreted as the possible remnants of a heavily disturbed stone setting or small cist (105015). Two large stones appeared to form a right angle with the east/west baulk then forming another side to the setting. Further investigation revealed that there were no stones within the section face of the baulk and no deposits that could be an undisturbed fill of the setting. Removal of the baulk did not reveal any other structural stones or deposits associated with it. When the stone were removed it was found to be sitting directly on the natural subsoil.
- 7.7 The evaluation had demonstrated that the central area of the cairn had been disturbed by the excavation of a foundation trench for the concrete trig point and other recent features including a pit (105010) and two post-holes that still contained rough wooden posts (105007 within pit 105010 and 105008). During the excavation in the south west quadrant and the removal of the east/west baulk, another wooden post (105019) was uncovered similar to the previous two forming a triangle with pit 105010.
- 7.8 Removal of the cairn material and the re-deposited subsoil in the south west quadrant did not reveal any further archaeological features or recover any artefacts.

Post-hole Circle

- 7.9 An area approximately 34 m north/south by 25 m east/west centred on the 4.5 m diameter post-hole circle was excavated by machine under archaeological supervision. The whole area was then cleaned by hand but no further archaeological features were revealed (Figure 4, Plate 4). Once this was completed the remaining fourteen post-holes, which included six post-holes that had been partially excavated during the evaluation phase, were fully excavated and recorded. The post-holes were between 0.05 m and 0.15 m deep with a similar fill consisting of loose dark grey loam with occasional stones and modern roots. No artefacts were recovered from any of the post-holes. The shape and size of the post-holes varied quite considerably. Post-holes 23002/18 and 23003/28 were much bigger than the others and could represent a double post-hole or indicate that post had been replaced; unfortunately this could not be confirmed by excavation as the fills were completely uniform with no packing stones or re-cuts that might indicate phasing.

Plough Marks and Cord Rig

- 7.10 A new north/south trench (Trench 108) aligned 50 m long and 5 m wide (double width) and centred on NT 46218 59108 was excavated to investigate where the interphase of plough furrows occurred. However, as the furrows in this trench were very faint and only visible at the north end, three smaller additional trenches (Trenches 109-111) were excavated to the east parallel to Trench 108. In these trenches the furrows were much more pronounced and clearly visible and in the easternmost trench (Trench 111) the furrows appeared to stop indicating a possible field boundary (Figure 5, Plate 5). As a result this trench was widened to 5 m to allow the investigation of the boundary. These three trenches were cleaned by hand, photographed and planned and environmental samples were recovered from a selection of furrows in Trenches 110 and 111. A sample was also recovered from the field boundary.

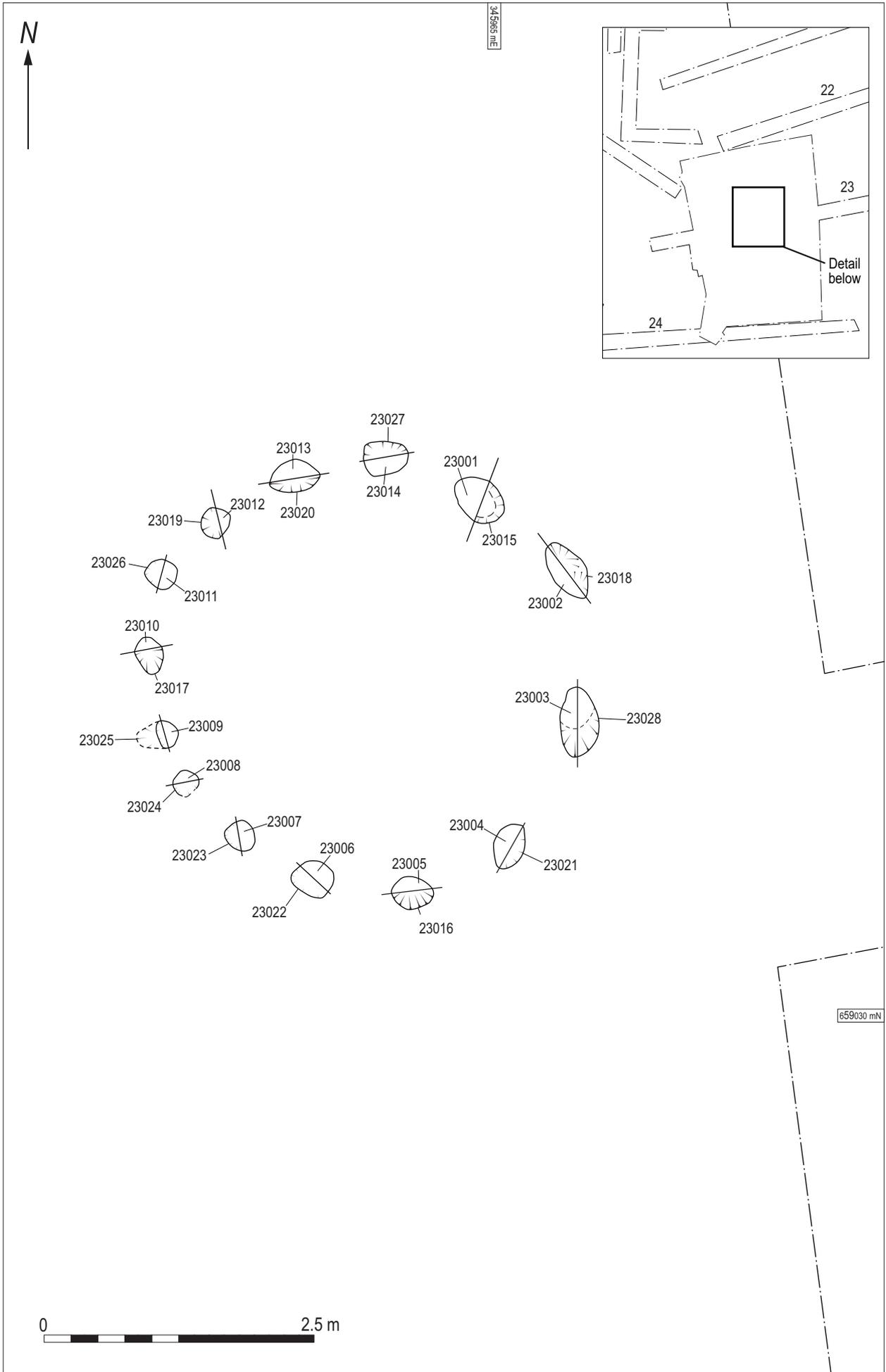


Figure 4: Excavation plan of trench 23 postholes.

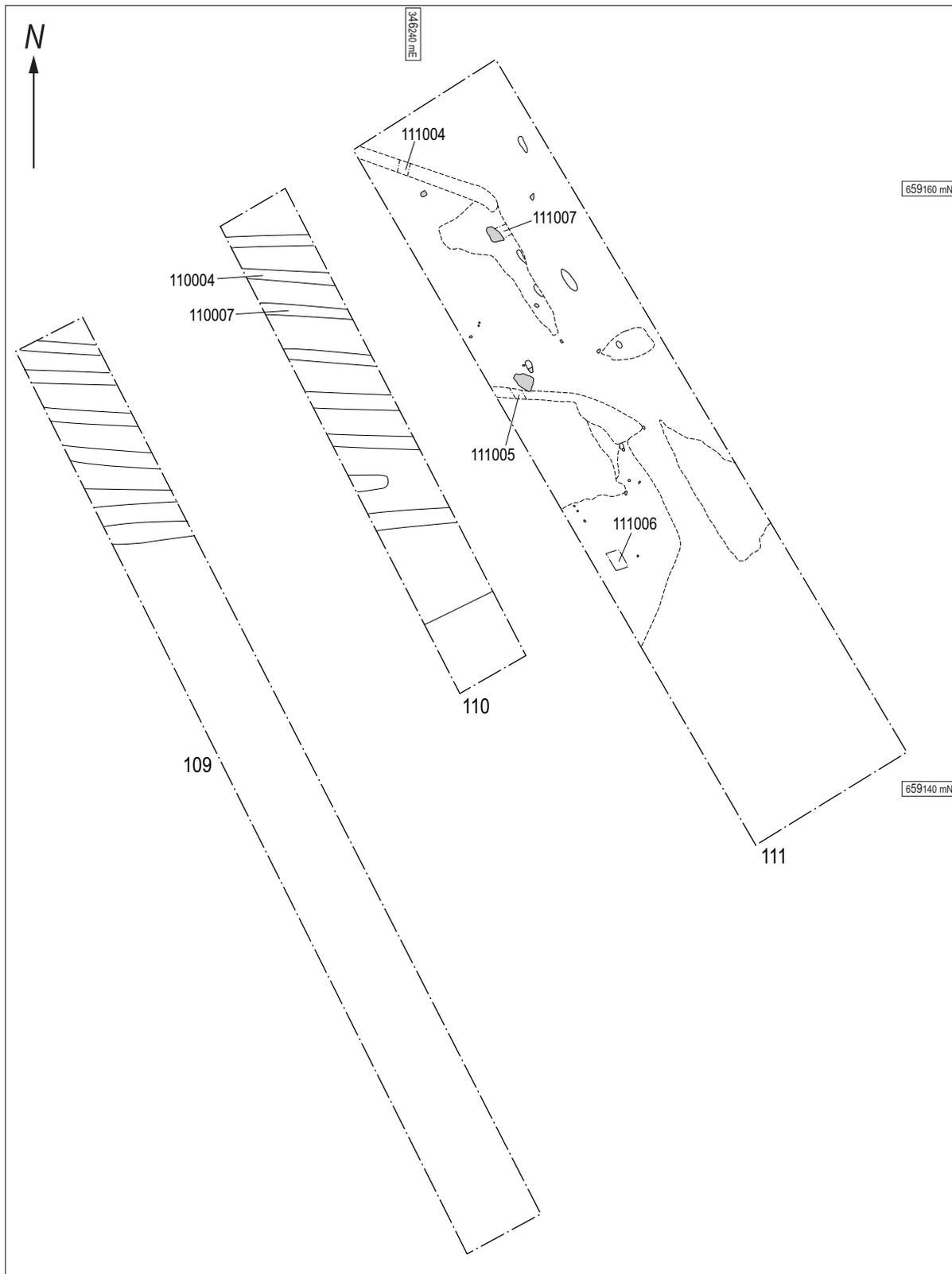


Figure 5: Plan of Trenches 109, 110 & 111.

The Sheepfold

7.11 Further investigation was undertaken around the sheepfold (Site 3) identified during the evaluation, where the cultivation furrows were very clear beneath the topsoil (Figure 6). Here two additional trenches were excavated parallel to the earlier trenches (Trenches 86 & 87) at the point where they crossed. Trench 86 was re-excavated to a depth of approximately 0.5 m below the level of the cultivation marks to investigate the area of hard standing recorded during the evaluation. This confirmed that the area of hard standing was compacted natural gravel

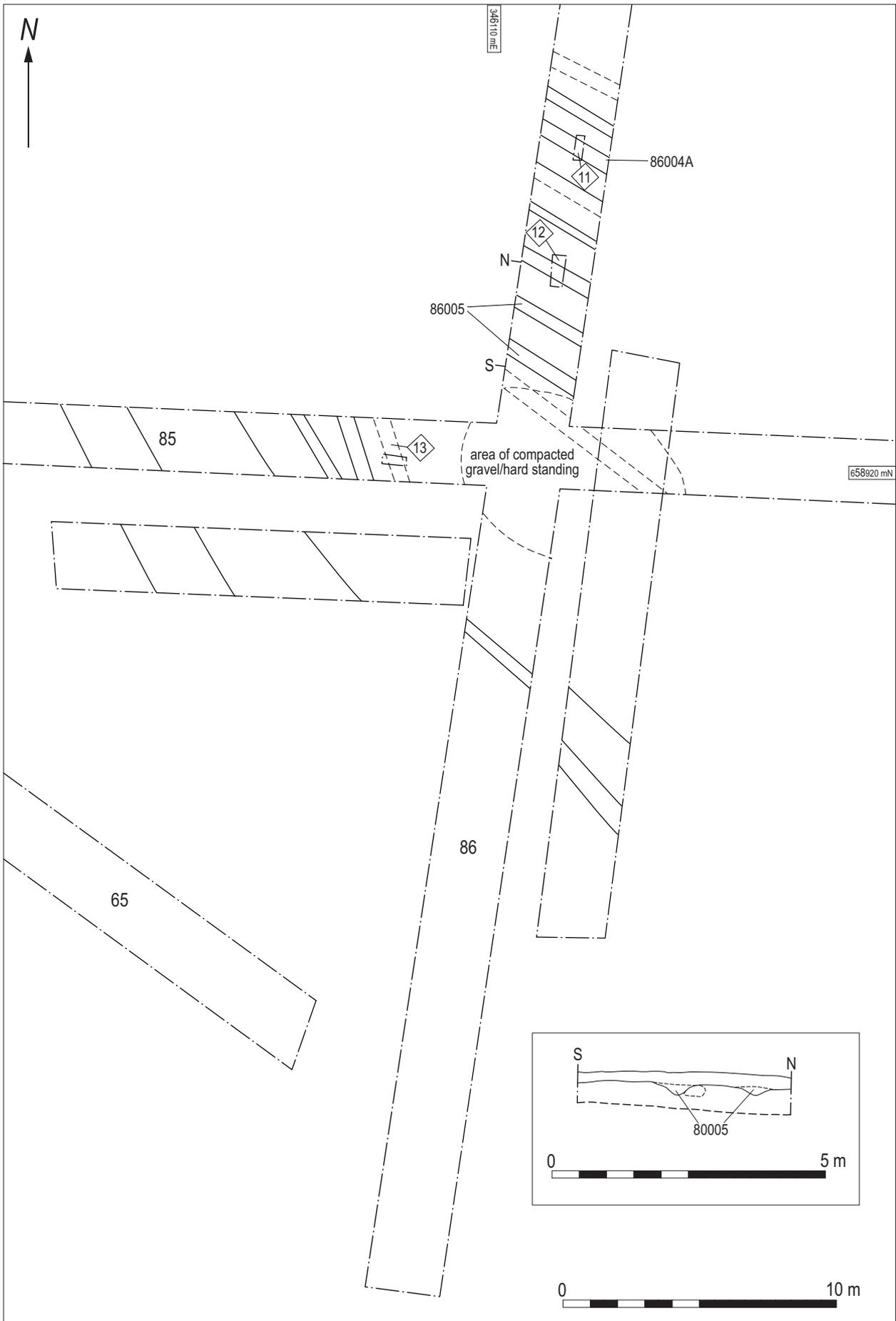


Figure 6: Trench 85 & 86 sheepfold and ploughmark/cord rig.

subsoil. In this trench the section through two of the cultivation furrows was then recorded and environmental samples taken from the fill of the furrows.

- 7.12 During a site visit by members of the Royal Commission of Ancient and Historic Monuments of Scotland (RCAHMS) in the company of the Scottish Borders Council Archaeologist, another possible sheepfold to the north-west of Site 3 was identified in an area of reeds and undergrowth that had been flattened by the weight of snow in the intervening 8 weeks since the evaluation took place and by the passage of vehicles (Figure 1, Plate 6). This apparent sheepfold consisted of a low circular curving turf covered bank 17.5 m in diameter, 1.5 m wide (maximum) and 0.35 m high (maximum). On the western side 5 m beyond the line of the bank there was a slight dip and then a ridge that ran parallel to the line of the bank and it was suggested that this was the 'turf scar' marking where turf had been cut to built the bank (Strat Halliday pers com). Evaluation trench 51 had in fact examined this sheepfold with the eastern most 5 m of the trench cutting the interior of the sheepfold. Cultivation marks were not recorded in trench 51 but as the trench photographs were taken from the west end of the trench it was decided to check this with another trench across the sheepfold. Therefore a 10 m long by 2 m wide trench was machine excavated across the interior of the sheepfold and the enclosing bank in an area where the bank had been partially flattened by the passage of vehicles and machinery. This trench was excavated by a much smaller machine with a 1 m wide toothless ditching bucket under archaeological supervision. The eastern end of the trench, the area on the line of the turf bank was cleaned by hand, but no cultivation marks were visible or the remains of any foundations for the turf bank.

Prehistoric Pottery Assessment

- 7.13 Approximately 34 sherds of pottery (SF Nos 13 & 14) were recovered together within the matrix of the cairn in close proximity to the cremation burial (Figure 3). All the sherds are from the same vessel, a Late Neolithic/Early Bronze Age Beaker (2150 – 1600 BC). Several sherds can be refitted and more might also be rejoined to enable the full profile of the vessel to be reconstructed. Rim sherds are present, but the presence of base sherds is uncertain. The rim sherds look to be in good condition but pieces towards the base of the pot are more fragmented, possibly due to root infiltration. The most noticeable aspect of this vessel is its decorated surface and rim. Several forms of incised motifs are used, such as horizontal lines made by the fine, square-sectioned teeth of a bone comb, short slashes possibly made by a pointed bone or twig, and infilled triangles made by a comb. These decorative motifs are comparable to many Beaker pots on the east coast of Scotland, northern England and Continental Europe, but the exact arrangement of the motifs are not immediately paralleled by any specific known vessel.

Cremated Bone Assessment

- 7.14 A preliminary assessment of the cremated burial deposit established that the preservation of the bone is generally good and that large identifiable fragments have survived along with many smaller fragments. Initial observation suggests that the four main skeletal areas: skull, axial skeleton (spine, rib cage and pelvic girdle), upper limb (arms) and lower limb (legs) are all represented. Fragments of teeth (root) were also identified but not teeth enamel. The remains appear to be of an adult skeleton but further analysis will be required to determine sex, age and any pathological conditions.

Archaeobotanical Assessment

- 7.15 A total of 47 bulk samples, representing a range of archaeological feature types, were floated, dried and then assessed for the presence of archaeobotanical material. In addition, a single spot find was also examined. The assessment of each sample is recorded in Table 1 below. The majority of the samples (37 samples) contained very little carbonised plant material but abundant modern roots. In some cases it was difficult to determine if a charcoal score of 0 or 1 should be given due to the tangle of roots present within the sample. Such samples are considered to have a low potential for producing identifiable charcoal or other carbonised plant remains and so are unlikely to provide important evidence about the occupation of the site or to produce material suitable for AMS radiocarbon dating. A further 5 samples were considered to

contain moderate amounts of charcoal, which was generally small fragments but which would have the potential to provide some information about the occupation of the site and also AMS radiocarbon dating samples. Only 6 samples were considered to have high potential and these generally contained a significant quantity of large charcoal fragments. These samples have the potential to produce valuable information regarding the cairn and the post-hole circle and also provide the most secure samples for AMS radiocarbon dating. No cereals or other seeds were observed during the preliminary assessment, although the samples were extremely silty and root laden and would need to be examined in detail microscopically during post-excavation analysis to confirm whether seeds were present or not.

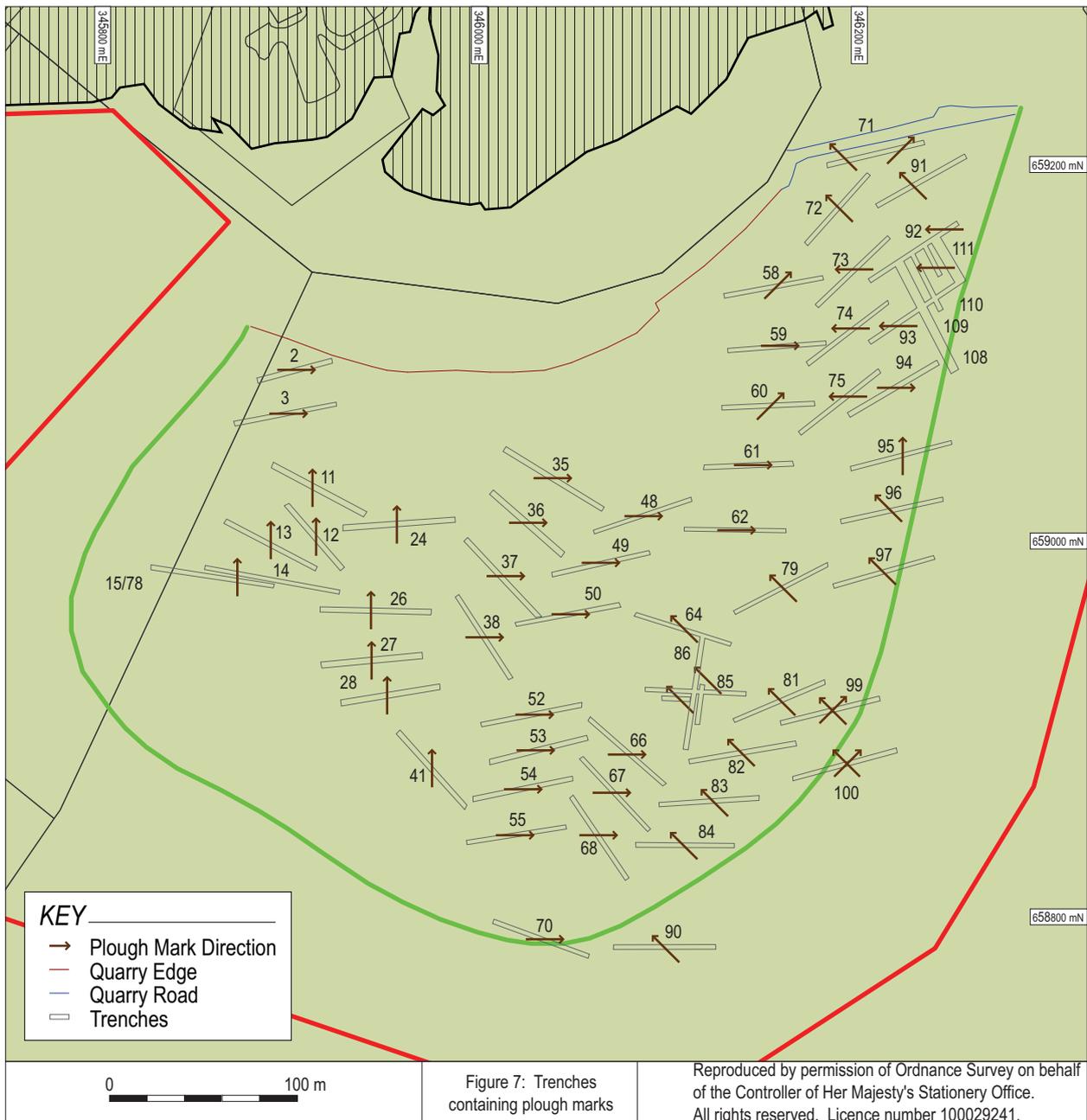
Table 1 Assessment of Samples from Soutra Quarry (* Score in range 0–4)

Sample	Context	Feature	Charcoal score*	Comment	Potential
1	23001	Post-hole	0-1	Roots abundant	Poor
2	23005	Post-hole	0	Roots & silt abundant	Poor
3	23010	Post-hole	0-1	Roots & silt abundant	Poor
4	23002	Post-hole	0-1	Mainly silt, roots abundant	Poor
5	23012	Post-hole	3	Small charcoal within roots and silt matrix	Good
6	23013	Post-hole	0-1	Roots & silt	Poor
7	105004	Cairn	4	Large charcoal frags & roots	Good
8	78003	Ploughmark	0-1	Roots abundant	Poor
9	78004	Ploughmark	0-1	Roots & silt	Poor
10	78005	Plouhmark	0-1	Roots & silt abundant	Poor
11	86004A	Ploughmark	0-1	Roots abundant	Poor
12	86004B	Ploughmark	0	Roots abundant	Poor
13	85003	Ploughmark	2	Roots abundant	Moderate
14	105002	Cairn	2	Roots abundant but frequent small charcoal	Moderate
15	105013	Cairn	3	Some large charcoal frags & roots	Good
16	23001	Post-hole	0-1	Roots abundant	Poor
17	23002	Post-hole	0-1	Roots abundant	Poor
18	23003	Post-hole	0-1	Roots abundant	Poor
19	23004	Post-hole	0-1	Roots abundant	Poor
20	23005	Post-hole	0-1	Roots abundant	Poor
21	23006	Post-hole	0-1	Roots abundant	Poor
22	23007	Post-hole	0-1	Roots abundant	Poor
23	23008	Post-hole	0-1	Roots abundant	Poor
24	23009	Post-hole	0-1	Roots abundant	Poor
25	23010	Post-hole	0-1	Roots abundant	Poor
26	23011	Post-hole	0-1	Roots abundant	Poor
27	23012	Post-hole	0-1	Roots abundant	Poor
28	23013	Post-hole	0-1	Roots abundant	Poor
29	23014	Post-hole	0-1	Roots abundant	Poor
30	86005	Cord Rig	0	Roots abundant	Poor
31	86006	Cord Rig	0	Roots abundant	Poor
32	105009	Modern pit	?	Roots & modern(?) charcoal/tar-like material	Poor
33	105009	Modern pit	?	Roots & modern(?) charcoal/tar-like material	Poor
34	105017	Cairn	2	Charcoal & roots	Moderate
36	105018	Cairn	2	Charcoal & roots	Moderate
37	105020	Cairn	2	Roots abundant but frequent small charcoal	Moderate
38	105022	Cairn	0-1	Roots abundant	Poor
39	105003	Cairn	0-1	Roots abundant	Poor
40	105003	Cairn	3	Some large charcoal frags & roots	Good
41	105003	Cairn	1	Roots abundant	Poor
42	105024	Cairn	3	Some large charcoal frags & roots	Good
43	110003	Cord Rig	0	Roots abundant	Poor
44	110004	Cord Rig	0	Roots abundant	Poor

Sample	Context	Feature	Charcoal score*	Comment	Potential
45	111003	Cord Rig	0	Roots abundant	Poor
46	111004	Cord Rig	0	Roots abundant	Poor
47	111005	Cord Rig	0	Roots abundant	Poor
48	111006	Cord Rig	0	Roots abundant	Poor
SF1460	104004	Cairn	4	Needs rinsed. Silt & frequent charcoal	Good

Discussion

- 8.1 The excavation recorded the full extent and dimensions of the cairn while allowing features within the cairn to be investigated. Late Neolithic/Early Bronze Age beaker pottery was recovered from within the matrix of the cairn adjacent to where a pit containing the cremated bones of a burial was found sealed beneath the cairn. In addition to the cremated bone, fragments of charcoal and nut shells were also recovered from the pit which along with the bone will provide suitable material for radiocarbon dating. Therefore while many of the prehistoric artefacts had been disturbed, possibly during the modern re-use of the cairn, an in-situ burial survived, which offers a secure context for comparative analysis.
- 8.2 Other features within the cairn included the modern pit recorded during the previous evaluation and another larger pit that contained a stone built foundation along with three posts forming a triangular base round the stonework. At the centre of this foundation was a circular stone built on a pedestal of natural subsoil. This foundation may relate either to the medieval beacon stance or to an earlier form of Ordnance Survey trig point. Examination of the wooden posts recovered from within this pit will help in dating this feature and to determine its function. Similarly, charcoal fragments recovered from most of the features within the cairn may enable the different phases of activity at the cairn to be dated.
- 8.3 Of the post-hole circle to the south of the cairn, only charcoal from post-hole (23012) was assessed as potentially feasible for radiocarbon dating. No additional archaeological features or artefacts were recovered during the excavation either within the circle or within the surrounding area. A radiocarbon date together with comparative studies may nevertheless reveal the nature and function of this post-hole circle.
- 8.4 Cultivation marks and furrows were examined in two separate areas. The initial assessment has revealed that the environmental samples taken from these were heavily contaminated with modern roots and offer little potential for further meaningful study. The desultory remains of both possible sheepfolds encountered during the evaluation and excavation, also offers little potential for further study. However, the plan produced from the results of both the evaluation and excavation of plough furrows (Figure 7) records the direction of the furrows and, used in conjunction with RCAHMS aerial photograph transcriptions, offers a means of confirming the organisation of plough furrows across the development area.
- 8.5 The total area investigated during both the evaluation and subsequent excavation phase amounts to over 12% of the total 12.69 ha area that will be subject to quarrying (as defined in Figure 1). The only significant archaeological remains discovered during this work relate to the cairn and the post-hole circle. The area between and around the cairn and post-hole circle was subject to intensive trenching to establish if further archaeological remains survived in the vicinity of these sites but no further remains were discovered.



Conclusions

- 9.1 The excavation recovered significant archaeological remains from the cairn, which indicates that this monument originated in the Late Neolithic/Early Bronze Age period (2150 – 1600 BC). Further analysis of these remains, comprising the cremated bone, pottery, flint, charcoal and other archaeobotanical remains along with the metal pegs, is likely to be required by the Scottish Borders Council Archaeologist to meet the stipulations of Planning Condition 16. It is also likely that analysis of the limited amount of charcoal recovered from the post-hole circle will also be required by the Scottish Borders Council Archaeologist as part of a programme to bring the joint results of the excavation of the cairn and post-hole circle to publication.
- 9.2 The excavation, however, did not recover significant archaeological remains from the ploughmarks or the sheepfolds to merit further post-excavation analysis.
- 9.3 The intensive investigation of the Soutra Quarry Extension area, comprising over 12 % of the total area to be subject to ground-breaking works, has revealed archaeological remains of varying significance. The shallow topsoil across the area has allowed modern root contamination of

many of the archaeological features, thus rendering their potential value for archaeobotanical study negligible. Though the cairn had been heavily disturbed in modern times, and possibly earlier, a sufficient depth of stones survived here, and only here, to protect the most significant archaeology encountered in the quarry extension area; the remains of an in-situ cremation burial that relates to the original purpose of the cairn. Given the intensive field investigation already undertaken across the quarry extension area, particularly focused on those areas that revealed archaeological remains of potential significance, and the modern root contamination of most of the archaeological features, the potential for any further archaeological fieldwork to reveal any further significant archaeological remains is extremely low.

- 9.4 GUARD would stress that the final decision on the nature and scope of any future archaeological work rests with the planning authority.

Acknowledgements

- 10.1 GUARD Archaeology Ltd would like to thank Darren Forrester, Willie Shields, Ronnie and Danny from Skene Group Ltd for their assistance and Davy the machine driver who did an excellent job. GUARD also thanks Keith Luke from Ironside Farrar for his assistance and Christopher Bowles of Scottish Borders Council and Strat Halliday and David Cowley from RCAHMS for their help and advice. The GUARD team consisted of Bob Will, Alan Hunter Blair, Owen Godbert and Daniel Sahlen. Technical support was from Aileen Maule and John Kiely. A survey of trench locations was conducted by Fiona Jackson who along with Gillian McSwan produced the illustrations for this report. The report was desk top published by Gillian McSwan. The project was managed for GUARD by Ronan Toolis.

**Soutra Quarry Extension Excavation
Data Structure Report**

Section 2: Appendices



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Appendices

Appendix A: Plates referenced in the text



Plate 1 Cairn, full extent, from the NE.



Plate 2 Cairn, post-excavation, from the SW.



Plate 3 Cairn, beacon stance, large pit with stone setting, from W.



Plate 4 Post-hole circle, from the W.



Plate 5 Plough marks and cord rig, detail of cultivation boundary from N.



Plate 6 Sheepfold with trench 51 in the foreground, from S.

Appendix B: Trench Descriptions

Tr No	Length	Width	Depth	Topsoil/Overburden	Subsoil	Details
85A	15	2.5	0.25	dark brown silt	orange/brown silty clay	extension, plough marks
86B	22	2.5	0.25	dark brown silt	orange/brown silty clay	extension, plough marks
108	66	5	0.3	dark brown silt	orange/brown silty clay	faint cord rig @ N end
109	38	2.5	0.3	dark brown silt	orange/brown silty clay	cord rig
110	18	2.5	0.3	dark brown silt	orange/brown silty clay	cord rig
111	27	5	0.3	dark brown silt	orange/brown silty clay	cord rig- end rig
112	10	2	0.3	dark brown silt	orange/brown silty clay	sheepfold

Appendix C: List of Context

Context No.	Area	Description	Interpretation
23001	Tr 23	Loose dark grey organic loam with occasional pebbles. It is 0.40m in diameter and 0.11m deep.	Fill of posthole 23015
23002	Tr 23	Loose dark grey organic loam with occasional pebbles. It is 0.60m long, 0.32m wide and 0.06m deep.	Fill of posthole 23018
23003	Tr 23	Loose dark grey organic loam with occasional pebbles. It is 0.33m long, 0.2m wide and 0.1m deep.	Fill of posthole 23028
23004	Tr 23	Loose dark grey organic loam with occasional pebbles. It is 0.45m long, 0.3m wide and 0.1m deep.	Fill of posthole 23021
23005	Tr 23	Loose dark grey organic loam with occasional pebbles. It is 0.36m long, 0.30m wide and 0.11m deep.	Fill of posthole 23016
23006	Tr 23	Loose dark grey organic loam with occasional pebbles. It is 0.4m long, 0.3m wide and 0.15m deep.	Fill of posthole 23022
23007	Tr 23	Loose dark grey organic loam with occasional pebbles. It is 0.3m long, 0.3m wide and 0.1m deep.	Fill of posthole 23023
23008	Tr 23	Loose dark grey organic loam with occasional pebbles. It is 0.3m long, 0.28m wide and 0.08m deep.	Fill of posthole 23024
23009	Tr 23	Loose dark grey organic loam with occasional pebbles. It is 0.3m long, 0.2m wide and 0.1m deep.	Fill of posthole 23025
23010	Tr 23	Loose dark grey organic loam with occasional pebbles. It is 0.36m long, 0.26m wide and 0.15m deep.	Fill of posthole 23017
23011	Tr 23	Loose dark grey organic loam with occasional pebbles. It is 0.3m in diameter and 0.15m deep.	Fill of posthole 23026
23012	Tr 23	Loose dark grey organic loam with occasional pebbles and one angular stone It is 0.30m in diameter and 0.15m thick.	Fill of posthole 23019
23013	Tr 23	Loose dark grey organic loam with occasional pebbles. It is 0.50m long, 0.30m wide and 0.11m thick.	Fill of posthole 23020
23014	Tr 23	Loose dark grey organic loam with occasional pebbles. It is 0.40m long, 0.30m wide and 0.1m deep.	Fill of posthole 23027
23015	Tr 23	Oval shaped cut with rounded corners, fairly vertical sides and a flattish base. It is 0.40m in diameter and 0.11m deep.	Cut of posthole
23016	Tr 23	Oval shaped cut with rounded corners, fairly vertical sides and a flat base. It is 0.36m long, 0.30m wide and 0.11m deep.	Cut of posthole
23017	Tr 23	Oval shaped cut with rounded corners, fairly vertical sides and a rounded base. It is 0.36m long, 0.26m wide and 0.15m deep.	Cut of posthole
23018	Tr 23	Oval shaped cut with rounded corners, vertical sides and an undulating base. It is 0.60m long, 0.32m wide and 0.06m deep	Cut of posthole
23019	Tr 23	Circular cut with concave sides and a V-shaped base. It is 0.30m in diameter and 0.15m deep	Cut of posthole
23020	Tr 23	Oval shaped cut with rounded corners with gradually sloping sides and a slightly concave base. It is 0.50m long, 0.30m wide and 0.11m deep.	Cut of posthole

Context No.	Area	Description	Interpretation
23021	Tr 23	sub-oval in plan with sloping sides and a rounded base. It is 0.45 x 0.3m x 0.1m	Cut of posthole
23022	Tr 23	sub-circular in plan with gently sloping sides and a rounded base, 0.4m x 0.3m x 0.15m	Cut of posthole
23023	Tr 23	circular in plan with sloping sided and a rounded base, 0.3m x 0.3m x 0.1m	Cut of posthole
23024	Tr 23	circular in plan with sloping sided and a rounded base, 0.3m x 0.3m x 0.1m	Cut of posthole
23025	Tr 23	sub-circular in plan with sloping sided and a rounded base, 0.3m x 0.2m x 0.1m, damaged on W side	Cut of posthole
23026	Tr 23	small circular posthole, steeply sloping sided and flat base, 0.3m in diameter & 0.15m deep	Cut of posthole
23027	Tr 23	sub-oval in plan, steeply sloping sides and a flat base. 0.4m x 0.3m x 0.1m	Cut of posthole
23028	Tr 23	sub-oval in plan, some damage to sides, 0.33m x 0.2m x 0.1m	Cut of posthole
86005	Tr 86	shallow linear feature 0.35m wide & 0.10 deep, sample 30	cut and fill of possible cord rig
86006	Tr 86	shallow linear feature 0.3m wide & 0.08 deep, sample 31	cut and fill of possible cord rig
105001	Tr 105	Drystone pile of sub-angular and sub-rounded pebbles, cobbles and boulders that are piled up to form a cairn that is 9m E-W and 7.6m N-S. Truncated at the centre by OS trig point and by 2 wooden posts.	Stones forming a cairn. Possible disturbance around the edges
105002	Tr 105	Medium compaction dark brown sandy silt and occasional gravel patches. It is 9m long, 7.6m wide and 0.30-0.40m thick. Stones 105001 sit within this deposit	Matrix between stones of cairn. Overlies 105003.
105003	Tr 105	Very heavily compacted deposit of orange/ brown silt with frequent sub-angular pebbles and cobbles pressed into it. It is up to 0.25m thick	re-deposited subsoil below cairn stones and fill 105002.
105004	Tr 105	loose charcoal rich pale grey silt clay	discrete lense of charcoal rich silt above 105005
105005	Tr 105	Medium compaction red/orange sandy silt with moderate pebbles. It is c.1m E-W; N-S extent and depth unknown.	Area of scorching above subsoil and below cairn material. Found at E end of cairn.
105006	Tr 105	Loose-medium black/dark brown silty sand with occasional sub-angular pebbles. It is 0.3m wide; length and depth unknown	Possible linear feature at E edge of cairn.
105007	Tr 105	Vertically positioned wooden post within pit 105010.	Possible precursor to OS trig point.
105008	Tr 105	Vertically positioned wooden post surrounded by drystone setting 105011.	Possible precursor to OS trig point.
105009	Tr 105	Loose dark brown silty sand with occasional sub-angular pebbles and cobbles and slag/tar on its west side. It extends 1.5m and 0.7m thick	Fill of pit 105010
105010	Tr 105	Sub-circular cut that is 1.5m in diameter and 0.7m deep. Sides are moderately steep and concave, and the base is slightly rounded.	Cut of pit to insert wooden post 105007.
105011	Tr 105	Sub-rectangular drystone setting of 6-7 cobbles around wooden post 105008	Probably pre-dates pit 105010.
105012	Tr 105	Squared concrete block with coarse concrete base. It is 0.60m long and wide with chamfered corners.	OS trig point. Bench mark 53064=368.7410m (Site TBM)
105 013	Tr 105	deposit surrounding beaker pottery sf 14	
105014	Tr 105	stone setting/foundation within pit 105016	foundation
105 015	Tr 105	putative stone setting within cairn matrix	
105016	Tr 105	cut for large oval pit cut through cairn material	cut for pit
105017	Tr 105	fill of large pit 105016	fill
105018	Tr 105	3 posts within pit 10516	anchoring points?
105019	Tr 105	wooden post	modern?
105020	Tr 105	central pad within stone foundation 105014	part of 105014
105021	Tr 105	postholes for posts 105018	within pit 105016

Context No.	Area	Description	Interpretation
105022	Tr 105	possible stone setting NW quadrant at edge of cairn material	shallow [it?
105023	Tr 105	cut for cremation pit 105024	cremation pit
105024	Tr 105	fill of pit 105023 -cremated bone	cremation
105025	Tr 105	cut of foundation trench for concrete trig point 105012	modern pit
110001	Tr 110	topsoil	
110002	Tr 110	subsoil	
11003	Tr 110	shallow linear feature 0.4m wide & 0.04 deep, sample 43	cut and fill of cord rig
11004	Tr 110	shallow linear feature 0.3m wide & 0.04 deep, sample 44	cut and fill of cord rig
111001	Tr 111	topsoil	
111002	Tr 111	subsoil	
111003	Tr 111	shallow linear feature 0.3m wide & 0.04 deep, sample 44	cord rig - general
111004	Tr 111	investigation cord rig - N, sample 45	cord rig
111005	Tr 111	investigation cord rig - middle, sample 46	cord rig
111006	Tr 111	investigation of cord rig - south, sample 47	cord rig
111007	Tr 111	possible field boundary at end of rig, sample 48	

Appendix D: List of Finds

Find No.	Area	Context No.	No. of Pieces	Material	Description
1	Tr 105	Topsoil	1	Glass	complete bottle, Smith's Milton Bridge dated 1912
2	Tr 105	Topsoil	38	metal	metal straps nails - modern
3	Tr 105	Topsoil	41	Glass	bottle glass - modern, includes 2 sherds that have melted
4	Tr 105	002	1	Quartz	flake
5	Tr 105	002	1	Flint	flake
6	Tr 105	002	1	Flint	blade possibly from Yorkshire
7	Tr 105	002	1	Shell	Limpet , 1 complete 7 1 fragment
8	Tr 105	002	1	Flint	flake
9	Tr 105	002	1	pottery	Late neolithic/early bronze age
10	Tr 105	004	small bag	charcoal	charcoal rich deposit below cairn material
11	Tr 105	008	1	wood	post- small
12	Tr 105	007	1	wood	post-large
13	Tr 105	002	2	pottery	coarse/abraded -prehistoric
14	Tr 105	002	lots	pottery	half vessel -decorated beaker?
15	Tr 105	002	1	pottery	abraded NO MUD
16	Tr 105	002	1	pottery	decorated NO CINDER
17	Tr 105	018	1	metal & wood	metal peg/support
18	Tr 105	018	1	metal & wood	metal peg/support
19	Tr 105	018	1	metal & wood	metal peg/support
20	Tr 105	017	1	wood	wooden post probably part of 018
21	Tr 105	019	1	wood	wooden post same as sf11 &12
22	Tr 105	u/s		metal	recovered from topsoil same as sf2

Appendix E: List of Samples

Sample No.	Area	Context No.	Size s, m, l	Reason for Sampling				Application/Comments Numbered sequence continues from evaluation
				Pot	Bone	Lithics	Botanics	
1	Tr 23	23001	L	y	y	y	y	fill of posthole
2	Tr 23	23005	L	y	y	y	y	fill of posthole
3	Tr 23	23010	L	y	y	y	y	fill of posthole

Sample No.	Area	Context No.	Size s, m, l	Reason for Sampling				Application/Comments Numbered sequence continues from evaluation
				Pot	Bone	Lithics	Botanics	
5	Tr 23	23012	L	y	y	y	y	fill of posthole
6	Tr 23	23013	L	y	y	y	y	fill of posthole
7	Tr 105	10504	L	y	y	y	y	CV charcoal rich deposit
8	Tr 78	78003	L	y	y	y	y	from plough mark
9	Tr 78	78004	L	y	y	y	y	from plough mark
10	Tr 78	78005	L	y	y	y	y	from plough mark
11	Tr 86	86004A	L	y	y	y	y	from plough mark
12	Tr 86	86004B	L	y	y	y	y	from plough mark
13	Tr 85	85003	L	y	y	y	y	from plough mark
14	Cairn	105002	1 L	y			y	charcoal present
15	Cairn	105013	1L	y			y	charcoal present
16	Posthole	23001	1L				y	50% previously half-sectioned
17	Posthole	23002	2 L				y	50% previously half-sectioned
18	Posthole	23003	2L				y	100%
19	Posthole	23004	1L				y	100%
20	Posthole	23005	1L				y	50% previously half-sectioned
21	Posthole	23006	1L				y	100%
22	Posthole	23007	1L				y	100%
23	Posthole	23008	1L				y	100%
24	Posthole	23009	1L				y	100%
25	Posthole	23010	1L				y	50% previously half-sectioned
26	Posthole	23011	1L				y	100%
27	Posthole	23012	1L				y	50% previously half-sectioned
28	Posthole	23013	1L				y	50% previously half-sectioned
29	Posthole	23014	1L				y	100%
30	rig	86005	1L				y	cord rig
31	rig	68006	1L				y	cord rig
32	Cairn	105009	1L				y	modern pit
33	Cairn	105009	1 L				y	modern pit with tar/bitumen
34	Cairn	105017	1L				y	Fe nails, modern pit?
35	Cairn	105009	1L				y	duplicate, taken from baulk
36	Cairn	105018	1L				y	burntspead part of 105006
37	Cairn	105020	1L				y	post-med pit?
38	Cairn	105022	1L				y	stone setting/pit at NW edge of cairn
39	Cairn	105003	1L				y	charcoal present, S half of cairn
40	Cairn	105003	1L				y	charcoal present NW quadrant
41	Cairn	105003	1L				y	charcoal present NE quadrant
42	Cairn	105024	4L		y		y	CREMATION 100%
43	rig	110003	1L				y	cord rig
44	rig	110004	1L				y	cord rig
45	rig	111003	1L				y	cord rig
46	rig	111004	1L				y	cord rig
47	rig	111005	1L				y	cord rig
48	rig	111006	1L				y	end rig

Appendix F: List of Drawings

Drawing No.	Area	Sheet No.	Subject. No continue from evaluation	Scale
1	Tr 88	1	SW facing section through trackway (3048)	1:20
2	Tr 87	1	SW facing section through trackway (3048)	1:20
3	Tr 23	2	pre-ex plan of posthole structure	1:20
4	Tr 23	2	SE facing section through posthole	1:10
5	Tr 23	2	S facing section through posthole	1:10
6	Tr 23	2	S facing section through posthole	1:10
7	Tr 23	2	SW facing section through posthole	1:10

Drawing No.	Area	Sheet No.	Subject. No continue from evaluation	Scale
8	Tr 23	2	W facing section through posthole	1:10
9	Tr 23	2	S facing section through posthole	1:10
10	Tr 105	3	pre-ex plan of cairn 1 of 2	1:20
11	Tr 105	4	pre-ex plan of cairn 2 of 2	1:20
12	Tr 105	5	N facing section of slot trench	1:20
13	Tr 105	6	post-ex plan of slot trench	1:20
14	Tr 78	7	post-ex plan of plough marks	1:50
15	Tr 85/86	8	post-ex plan of plough marks (added to during excavation phase)	1:50
16	Cairn	6	plan of SE quadrant after OS trig point removed	1:20
17	Cairn	6	plan of NW quadrant full extent of carin material - joins plan 10	1:20
18	tr23	9	SE facing section through posthole 23004	1:10
19	tr23	9	W facing section through posthole 23007	1:10
20	tr23	9	S facing section through posthole 23008	1:10
21	tr23	9	W facing section through posthole 23009	1:10
22	tr23	9	SW facing section through posthole 23006	1:10
23	tr23	9	NW facing section through posthole 23011	1:10
24	tr23	9	N facing section through posthole 23014	1:10
25	tr23	9	E facing section through posthole 23003	1:10
26	Cairn	10	E facing section of baulk across cairn	1:10
27	Cairn	11	plan of cairn and associated feature, N half	1:20
28	Cairn	12	plan of cairn and associated feature, S half	1:20
29	Cairn	13	overlay plan of central pit - foundations for beacon	1:20
30	Cairn	14	final plan of central pit	1:20
31	rig	15	plan of trenches 109, 110 & 111	1:50
32	cord rig	15	E facing section of rig 110003	1:10
33	cord rig	15	E facing section of rig 110004	1:10
34	rig	8	E facing section across rig 86005 & 86006	1:10

Appendix G: List of Photographs

Digital

Frame	Area	Context No.	Subject	Taken from
1	Cairn		Initial cleaning after removal of remaining turf	SW
2	Cairn		Initial cleaning after removal of remaining turf	SW
3			ID shot	
4	Cairn		General - visit from site manager	NW
5	Cairn		General - visit from site manager	NW
6	Cairn		general - trig point removed	E
7	Cairn		general - trig point removed	E
8	Cairn		After cleaning	NE
9	Cairn		After cleaning	NW
10	Cairn		After cleaning	W
11	Cairn		After cleaning	S
12	Cairn		After cleaning	SE
13	Cairn		After cleaning	E
14	Cairn		After cleaning	NW
15	Cairn		After cleaning	W
16	Cairn		SW quad after cleaning	SW
17	Cairn		SW quad after cleaning-detail	SW
18	Cairn		SW quad after cleaning-detail	S
19	Cairn		SE quad after cleaning- detail	S
20	Cairn		SE quad after cleaning- detail	SE
21	Cairn		E after cleaning	E
22	Cairn		General - Blair	NE

Frame	Area	Context No.	Subject	Taken from
24	Cairn		location of pottery sf 14 SE quad	E
25	Cairn		detail of pottery sf 14	S
26	Cairn		pottery out of focus	
27	Cairn		pottery out of focus	
28	Cairn		detail of pottery sf 14	S
29	Cairn		detail of pottery sf 14	SE
30	Cairn		pottery post-excavation	
31	Cairn		pottery post-excavation	
32	Cairn		pottery post-excavation	
33	Cairn		general working shot Blair and Daniel	SE
34	Cairn		general working shot Blair and Daniel	SW
35	Cairn		general working shot SW quad, Blair and Daniel	W
36	Cairn		general working shot NE	NE
37	Cairn		general working shot N	N
38	Cairn		general working shot, NS baulk	E
39	Tr 23		general cleaning of area centred on posthole circle	S
40	Tr 23		general cleaning of area centred on posthole circle	NE
41	Tr 23		general cleaning of area centred on posthole circle E side	N
42	Tr 23		general cleaning of area centred on posthole circle	NW
43	Tr 23		general cleaning of area centred on posthole circle	NW
44	Cairn		NE quad stone of cairn removed	E
45	Cairn		NW quad cairn removed to re-deposited subsoil & stonesW	
46	Cairn		NW quad- detail of re-deposited subsoil & stones	S
47	Tr 23		Whole area cleaned	N
48	Tr 23		Whole area cleaned	NW
49	Tr 23		Whole area cleaned -W side	N
50	Tr 23		whole area cleaned - S side	W
51	Tr 23		whole area cleaned - S side	W
52	Tr 23		whole area cleaned SW corner	W
53	Tr 23		whole area cleaned - S	S
54	Tr 23		whole area cleaned - E side	S
55	Tr 23		whole area cleaned	SE
56	Tr 23		general -frost with teram removed	N
57	Cairn		SW quad stones removed	S
58	Cairn		SW quad stones removed	S
59	Cairn		SE quad stones removed	SE
60	Cairn		SE quad stones removed	SE
61	Cairn	105016	detail of stone setting in central pit	SE
62	Cairn	105016	detail of stone setting in central pit	SE
63	Cairn	105016	detail of stone setting in central pit	NE
64	Cairn	105 015	possible stone setting	N
65	Tr 23		posthole circle cleaned	W
66	Tr 23		posthole circle cleaned	SW
67	Tr 23		posthole circle cleaned	SW
68	Tr 23		posthole circle cleaned	E
69	Tr 23		posthole circle cleaned - detail	W
70	Tr 23		posthole circle cleaned - detail	S
71	Tr 23		posthole circle cleaned - detail	SE
72	Tr 23		posthole circle cleaned - detail	SE
73	Tr 23		posthole circle cleaned - detail	E
74	Tr 23		posthole circle cleaned - detail	N
75	Tr 23		posthole circle cleaned - detail	NW
76	Tr 23	23014/27	posthole pre-ex	N
77	Tr 23	23014/27	posthole half-section	N
78	Tr 23	23007/8/9	small postholes pre-ex	SW

Frame	Area	Context No.	Subject	Taken from
79	Tr 23	23007/23	small posthole half section	SW
80	Tr 23	23008/24	small posthole half section	SE
81	Tr 23	23010/17	posthole previously half-sectioned	W
82	Tr 23	23012/19	posthole half-section	S
83	Tr 23	23013/23020	posthole half-sectioned	N
84	Tr 23	23012/19	posthole previously half-sectioned	N
85	Tr 23	23014/	posthole half-sectioned	N
86	Tr 23	23005/16	posthole previously half-sectioned	S
87	Tr 23	23003/28	posthole pre-ex	E
88	Tr 23	23004/21	posthole half-section	E
89	Tr 23	23009/25	small posthole half section	W
90	Tr 23	23011/26	posthole pre-ex	S
91	Tr 23	20304/21	posthole pre-ex	N
92	Tr 23		working shot -Daniel	NW
93	Tr 23	2306/22	posthole pre-ex	SW
94	Tr 23		working shot -Daniel	
95	Tr 23		working shot of whole circle with Daniel	S
96	Tr 23	23011/26	posthole half-section	SW
97	Tr 23	23011/26	posthole half-section	SW
98	Tr 23	23011/26	posthole half-section, plan view	SW
99	Tr 23	23004/21	posthole half-section	S
100	Tr 23	23004/21	posthole half-section	S
101	Tr 23	23004/21	posthole half section, plan view	S
102	Tr 23	23006/22	posthole half section	SW
103	Tr 23	23006/22	posthole half-section plan view	SW
104	Cairn	105016	SE quad, pit 105016	E
105	Cairn	105016	N/S baulk - detail of section	E
106	Cairn	105002	N/S baulk -detail of section, N half	E
107	Cairn	105002	N/S baulk -detail of section, N half	E
108	Tr 23	23001/15	post-excavation	NE
109	Tr 23	23002/18	post-excavation	NE
110	Tr 23	23003/28	post-excavation	E
111	Tr 23	23004/21	post-excavation	SE
112	Tr 23	23005/16	post-excavation	S
113	Tr 23	23006/22	post-excavation	W
114	Tr 23	23007/23	post-excavation	S
115	Tr 23	23008/24	post-excavation	S
116	Tr 23	23009/25	post-excavation	W
117	Tr 23	23010/17	post-excavation	W
118	Tr 23	23011/26	post-excavation	W
119	Tr 23	23012/19	post-excavation	W
120	Tr 23	23013/20	post-excavation	N
121	Tr 23	23014/27	post-excavation	N
122	Tr 23		fully excavated posthole circle	N
123	Tr 23		fully excavated posthole circle	S
124	Cairn		N/S baulk, W facing section S	W
125	Cairn		N/S baulk W facing section S -detail	W
126	Cairn		SW quad, S facing section	S
127	Cairn		SW quad stones removed with baulks	SW
128	Cairn		NW quad stones removed with baulks	N
129	Cairn		NW quad, W facing section	W
130	Cairn		SE quad E facing section	E
131	Cairn	105016	SE quad	NE
132	Cairn		SE quad, S facing section	S
133	Cairn		SE quad, E facing section	E

Frame	Area	Context No.	Subject	Taken from
134	Cairn		SE quad E facing section -detail	E
135	Tr 111		Cultivation marks after cleaning	N
136	Tr 111		cultivation marks after cleaning -detail	N
137	Tr 110		general during cleaning - Owen	NE
138	Tr 111		cultivation marks after cleaning	S
139	Tr 111		cultivation marks after cleaning	SW
140	Tr 110		general during cleaning - Owen	S
141	Tr 23		posthole circle post-excavation	W
142	Tr 23		posthole circle post-excavation - out of focus	E
143	Tr 108		post-excavation	S
144	Tr 109		post-excavation -after cleaning	S
145	Tr 109		post-excavation -detail of cultivation marks	S
146	Tr 110		post-excavation - after cleaning	S
147	Cairn		out of focus	
148	Cairn		out of focus	
149	Cairn		out of focus	
150	Tr 86		out of focus	
151	Tr 86		cultivation furrows in E facing section	E
152	Tr 86		cultivation furrows in E facing section	SE
153	Cairn		pit 105016 baulk removed	SW
154	Cairn		pit 105016 baulk removed	E
155			Sheepfold -location in reeds	S
156			Sheepfold -detail	S
157			sheepfold & trial trench 51	S
158			sheepfold	W
159			sheepfold	N
160			sheepfold	NE
161	Tr 85		post-excavation - enlarged & sheepfold behind	S
162			sheepfold with turf cutting scar	N
163			sheepfold & trial trench 51	SW
164			sheepfold & trial trench 51	W
165	Tr 85		post-excavation -detail of cultivation marks	SE
166	Tr 85		post-excavation & detail of cultivation marks	SE
167	Tr 85		post-excavation & detail of cultivation marks	S
168	Tr 86		E facing section detail of cultivation marks	E
169	Tr 86		E facing section detail of cultivation marks with samples	E
170	Cairn		9am snow & high winds	NE
171	Cairn		landrover & snow	N
172			general snow along quarry haul road	W
173	Tr 23		drifting snow	N
174	Cairn		site covered in snow	SW
175	Cairn	105016	stone setting & snow	W
176	Cairn	105016	stone setting & snow	E
177	Cairn		landrover & snow	W
178	Cairn		general with snow	SW
179	Tr 23		snow	N
180	Tr 23		looking south in snow	N
181			blank	
182	Cairn	105016	stone setting cleaned but still frozen	W
183	Cairn	105016	stone setting cleaned but still frozen	E
184	Cairn		site cleaned but still snowy	SW
185	Cairn		general cleaning back	S
186	Cairn		central area cleaned	SW
187			mistake	
188	Cairn		central area cleaned	SW

Frame	Area	Context No.	Subject	Taken from
189	Cairn		western half cleaned	SW
190	Cairn		southern half cleaned	W
191	Cairn	105016	stone setting - no snow or ice	W
192	Cairn	105016	general - stone setting in pit	NW
193	Cairn	105016	general - stone setting in pit	N
194	Cairn	105022	NW quad - possible stone setting	W
195	Cairn	105022	NW quad - possible stone setting	W
196	Cairn	105019	posthole for modern wooden post	S
197	Cairn	105018	metal post in situ	W
198	Cairn	105017	detail of wooden post part of 105 014	W
199	Cairn	105017	detail of wooden post part of 105 014	W
200	Cairn	105020	central foundation pad within structure 105014	NW
201	Cairn	105020	detail of stone with iron setting?	
202	Cairn	105020	detail of stone with iron setting?	
203	Cairn	105020	detail of stone with iron setting - not in focus	
204	Cairn	105016/21	stone setting in pit with posthole	S
205	Cairn	105021	detail of posthole	S
206	Cairn	105019	wooden post in E/W baulk	W
207	Cairn	105019	detail of post - out of focus	S
208	Cairn	105019	wooden post in E/W baulk	W
209	Cairn		general working shot in rain - blurred	E
210	Cairn	105024	location of cremation pit	E
211	Cairn	105022	possible stone setting post-excavation	S
212	Cairn	105024	cremation during excavation -half-section	N
213	Cairn	105024	cremation during excavation -half-section- blurred	N
214	Cairn	105024	cremation - post-excavation	N
215	Cairn	105024	cremation post-excavation detail - blurred N	N
216	Cairn	105024	cremation post-excavation	N
217	Cairn	105024	cremation post-excavation	W
218	Cairn	105024	SE quad - location of cremation	E
219	Cairn	105024	SE quad - location of cremation	NE
220	Cairn	105024	cremation post-excavation - dry	N
221	Cairn	105024	cremation post-excavation location - dry	E
222	Cairn		end of excavation	SW
223	Cairn		end of excavation	SW
224	Cairn		end of excavation	W
225	Cairn		end of excavation	N
226	Tr 112		sheepfold post-machine excavation	W
227	Tr 112		sheepfold post-machine excavation	SE
228	Tr 112		sheepfold- detail @ S bank	S
229	Tr 112		sheepfold - detail @ S Bank	S
230	Tr 111		flooded	N
231	Tr 110		flooded	N
232	Tr 109		flooded	N
233	Tr 110		cord rig cleaned	E
234	Tr 110		cord rigg - sampled	E
1			sheepfold	S
2	Tr 112		blizzard	N
3	Tr 112		full of snow	N
4	Tr 108		blizzard	N
5	Tr 86		drifting snow	NW
6	Tr 86		snow	S
7	Tr 85		drifting snow	S
8	Tr 86		drifting snow	W
9	Tr 86		drifting snow	SW

Frame	Area	Context No.	Subject	Taken from
10	Tr 86		drifting snow	NW
11	Tr 85		drifting snow	S
12			general - snow	NW
13			Jack in the snow	
14			Jack in the snow	
15	Tr 23		Jack in the snow	S
16	Tr 23		postholes full of snow	NW
17	Tr 23		postholes full of snow	W
18	cairn		working in the snow	
19	cairn		working in the snow	
20	cairn		working in the snow	
21	cairn		working in the snow	
22	cairn		working -cleared the snow	SW
23	cairn		main site clear of snow	SW
24	Tr 111		flooded	N
25	Tr 110		flooded	N
26	Tr 109		flooded	N
27	cairn		excavating cremation	E
28	cairn		excavating cremation	E
29	cairn		excavating cremation	W

Black & White

Frame	Area	Context No.	Subject	Taken from
1			Film 1 ID shot	
2	Cairn		general - trig point removed	E
3	Cairn		After cleaning	NE
4	Cairn		After cleaning	NW
5	Cairn		After cleaning	W
6	Cairn		After cleaning	S
7	Cairn		After cleaning	SE
8	Cairn		After cleaning	E
9	Cairn		After cleaning	NW
10	Cairn		After cleaning	W
11	Cairn		SW quad after cleaning	SW
12	Cairn		SW quad after cleaning-detail	SW
13	Cairn		SW quad after cleaning-detail	S
14	Cairn		SE quad after cleaning- detail	S
15	Cairn		SE quad after cleaning- detail	SE
16	Cairn		E after cleaning	E
17	Cairn		location of pottery sf 14 SE quad	E
18	Cairn		detail of pottery sf 14	S
19	Cairn		pottery post-excavation	
20	Tr 23		general cleaning of area centred on posthole circle	NW
21	Cairn		NE quad stone of cairn removed	E
22	Cairn		NW quad cairn removed to re-deposited subsoil & stonesW	
23	Cairn		NW quad- detail of re-deposited subsoil & stones	S
24	Tr 23		Whole area cleaned	N
25	Tr 23		Whole area cleaned	NW
26	Tr 23		Whole area cleaned -W side	N
27	Tr 23		whole area cleaned - S side	W
28	Tr 23		whole area cleaned - S side	W
29	Tr 23		whole area cleaned SW corner	W
30	Tr 23		whole area cleaned - S	S
31	Tr 23		whole area cleaned - E side	S

Frame	Area	Context No.	Subject	Taken from
32	Tr 23		whole area cleaned	SE
33	Cairn		SW quad stones removed	S
34	Cairn		SW quad stones removed	S
35	Cairn		SE quad stones removed	SE
36	Cairn		SE quad stones removed	SE
1			Film 2 ID shot	
2	Cairn	105016	detail of stone setting in central pit	SE
3	Cairn	105016	detail of stone setting in central pit	SE
4	Cairn	105016	detail of stone setting in central pit	NE
5	Cairn	105 015	possible stone setting	N
6	Tr 23		posthole circle cleaned	W
7	Tr 23		posthole circle cleaned	SW
8	Tr 23		posthole circle cleaned	SW
9	Tr 23		posthole circle cleaned	E
10	Tr 23		posthole circle cleaned - detail	W
11	Tr 23		posthole circle cleaned - detail	S
12	Tr 23		posthole circle cleaned - detail	SE
13	Tr 23		posthole circle cleaned - detail	SE
14	Tr 23		posthole circle cleaned - detail	E
15	Tr 23		posthole circle cleaned - detail	N
16	Tr 23		posthole circle cleaned - detail	NW
17	Tr 23	23014/27	posthole pre-ex	N
18	Tr 23	23014/27	posthole half-section	N
19	Tr 23	2307/8/9	small postholes pre-ex	SW
20	Tr 23	2307/23	small posthole half section	SW
21	Tr 23	2308/24	small posthole half section	SE
22	Tr 23	23010/17	posthole previously half-sectioned	W
23	Tr 23	23012/19	posthole previously half-sectioned	
24	Tr 23	23005/16	posthole previously half-sectioned	S
25	Tr 23	23003/28	posthole pre-ex	E
26	Tr 23	23004/21	posthole half-section	E
27	Tr 23	23009/25	small posthole half section	W
28	Tr 23	23011/26	posthole pre-ex	S
29	Tr 23	2304/21	posthole pre-ex	N
30	Tr 23	2306/22	posthole pre-ex	SW
31	Tr 23	23011/26	posthole half-section	SW
32	Tr 23	23011/26	posthole half-section	SW
33	Tr 23	23011/26	posthole half-section, plan view	SW
34	Tr 23	23004/21	posthole half-section	S
35	Tr 23	23004/21	posthole half-section	S
1			Film 3 ID shot	
2	Tr 23	23004/21	posthole half section, plan view	S
3	Tr 23	23006/22	posthole half section	SW
4	Tr 23	23006/22	posthole half-section plan view	SW
5	Cairn	105016	SE quad, pit 105016	E
6	Cairn	105016	N/S baulk - detail of section	E
7	Cairn	105002	N/S baulk -detail of section, N half	E
8	Cairn	105002	N/S baulk -detail of section, N half	E
9	Tr 23	23001/15	post-excavation	NE
10	Tr 23	23002/18	post-excavation	NE
11	Tr 23	23003/28	post-excavation	E
12	Tr 23	23004/21	post-excavation	SE

Frame	Area	Context No.	Subject	Taken from
13	Tr 23	23005/16	post-excavation	S
14	Tr 23	23006/22	post-excavation	W
15	Tr 23	23007/23	post-excavation	S
16	Tr 23	23008/24	post-excavation	S
17	Tr 23	23009/25	post-excavation	W
18	Tr 23	23010/17	post-excavation	W
19	Tr 23	23011/26	post-excavation	W
20	Tr 23	23012/19	post-excavation	W
21	Tr 23	23013/20	post-excavation	N
22	Tr 23	23014/27	post-excavation	N
23	Tr 23		fully excavated posthole circle	N
24	Tr 23		fully excavated posthole circle	S
25	Cairn		N/S baulk, W facing section S	W
26	Cairn		N/S baulk W facing section S -detail	W
27	Cairn		SW quad, S facing section	S
28	Cairn		SW quad stones removed with baulks	SW
29	Cairn		NW quad stones removed with baulks	N
30	Cairn		NW quad, W facing section	W
31	Cairn		SE quad E facing section	E
32	Cairn	105016	SE quad	NE
33	Cairn		SE quad, S facing section	S
34	Cairn		SE quad, E facing section	E
35	Cairn		SE quad E facing section -detail	E
36	Tr 111		Cultivation marks after cleaning	N
1			Film 4 ID shot	
2	Tr 111		cultivation marks after cleaning -detail	N
3	Tr 111		cultivation marks after cleaning	S
4	Tr 111		cultivation marks after cleaning	SW
5	Tr 23		posthole circle post-excavation	W
6	Tr 108		post-excavation	S
7	Tr 109		post-excavation -after cleaning	S
8	Tr 109		post-excavation -detail of cultivation marks	S
9	Tr 110		post-excavation - after cleaning	S
10	Tr 86		cultivation furrows in E facing section	E
11	Tr 86		cultivation furrows in E facing section	SE
12	Cairn		pit 105016 baulk removed	SW
13	Cairn		pit 105016 baulk removed	E
14			Sheepfold -location in reeds	S
15			Sheepfold -detail	S
16			sheepfold & trial trench 51	S
17			sheepfold	W
18			sheepfold	N
19			sheepfold	NE
20			sheepfold with turf cutting scar	N
21			sheepfold & trial trench 51	SW
22			sheepfold & trial trench 51	W
23	Tr 85		post-excavation -detail of cultivation marks	SE
24	Tr 85		post-excavation & detail of cultivation marks	SE
25	Tr 85		post-excavation & detail of cultivation marks	S
26	Tr 86		E facing section detail of cultivation marks	E
27	Tr 86		E facing section detail of cultivation marks with samples	E
28	Cairn	105016	stone setting & snow	W
29	Cairn	105016	stone setting & snow	E
30	Cairn	105016	stone setting cleaned but still frozen	W

Frame	Area	Context No.	Subject	Taken from
31	Cairn	105016	stone setting cleaned but still frozen	E
32	Cairn		site cleaned but still snowy	SW
33	Cairn		central area cleaned	SW
34	Cairn		central area cleaned	SW
35	Cairn		western half cleaned	SW
1			Film 5 ID shot	
2	Cairn		southern half cleaned	W
3	Cairn	105016	stone setting - no snow or ice	W
4	Cairn	105016	general - stone setting in pit	NW
5	Cairn	105016	general - stone setting in pit	N
6	Cairn	105022	NW quad - possible stone setting	W
7	Cairn	105022	NW quad - possible stone setting	W
8	Cairn	105019	posthole for modern wooden post	S
9	Cairn	105018	metal post in situ	W
10	Cairn	105017	detail of wooden post part of 105 014	W
11	Cairn	105017	detail of wooden post part of 105 014	W
12	Cairn	105020	central foundation pad within structure 105014	NW
13	Cairn	105020	detail of stone with iron setting?	
14	Cairn	105020	detail of stone with iron setting?	
15	Cairn	105016/21	stone setting in pit with posthole	S
16	Cairn	105021	detail of posthole	S
17	Cairn	105019	wooden post in E/W baulk	W
18	Cairn	105019	wooden post in E/W baulk	S
19	Cairn	105024	location of cremation pit	E
20	Cairn	105022	possible stone setting post-excavation	S
21	Cairn	105024	cremation during excavation -half-section	N
22	Cairn	105024	cremation - post-excavation	N
23	Cairn	105024	cremation post-excavation	N
24	Cairn	105024	cremation post-excavation	N
25	Cairn	105024	SE quad - location of cremation	E
26	Cairn	105024	SE quad - location of cremation	NE
27	Cairn	105024	cremation post-excavation - dry	N
28	Cairn	105024	cremation post-excavation location - dry	E
29	Tr 112		sheepfold post-machine excavation	W
30	Tr 112		sheepfold post-machine excavation	SE
31	Tr 112		sheepfold- detail @ S bank	S
32	Tr 112		sheepfold - detail @ S Bank	S
33	Tr 110		cord rig cleaned	E
34	Tr 110		cord rig - sampled	E

Appendix H: DES

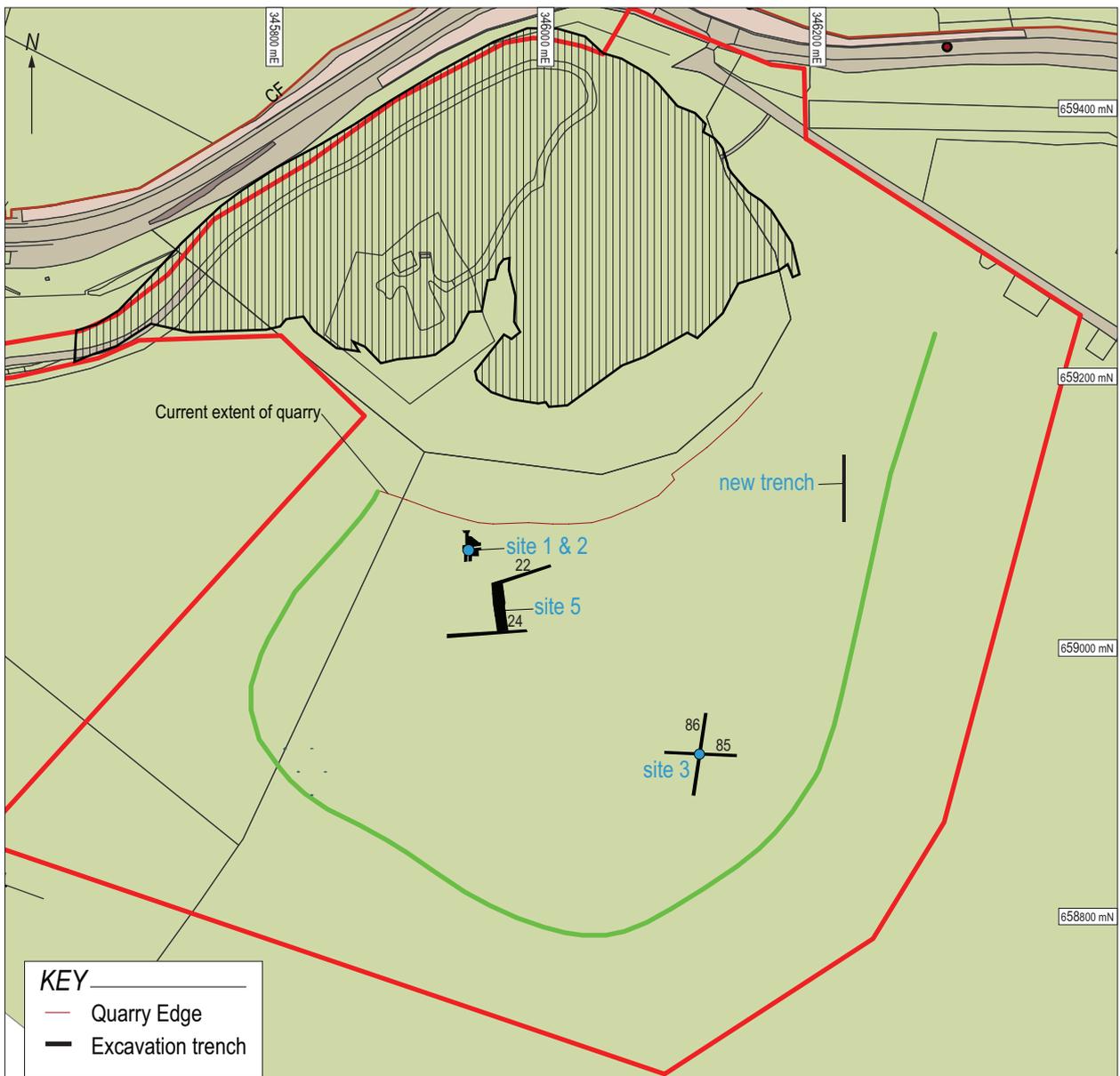
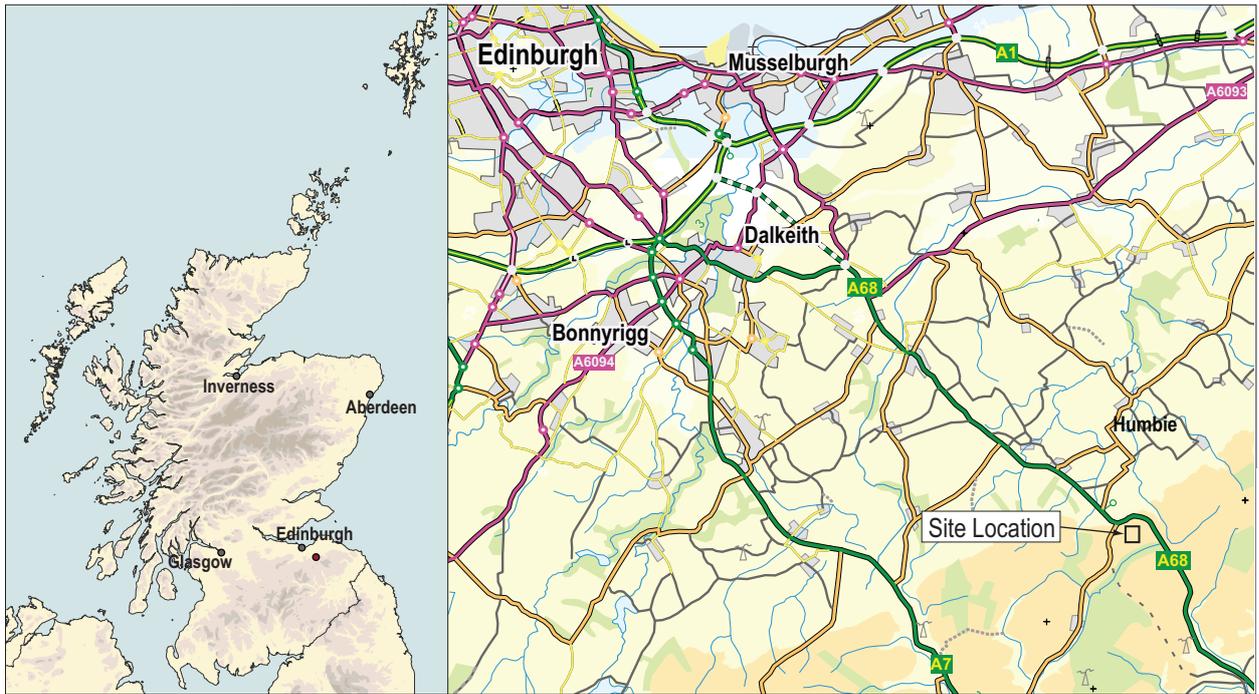
LOCAL AUTHORITY:	Scottish Borders Council
PROJECT TITLE/SITE NAME:	Soutra Quarry Extension
PROJECT CODE:	3048 & 3262
PARISH:	Fala and Soutra
NAME OF CONTRIBUTOR(S):	R Will
NAME OF ORGANISATION:	GUARD Archaeology Ltd
TYPE(S) OF PROJECT:	Evaluation and Excavation
NMRS NO(S):	NT45NE 9 & NT45NE 11
SITE/MONUMENT TYPE(S):	Prehistoric cairn, undated post-hole circle, medieval beacon stance, early modern cultivation and sheepfold remains
SIGNIFICANT FINDS:	Late Neolithic/Early Bronze Age flints and pottery
NGR (2 letters, 6 figures)	NT 4594 5907
START DATE (this season)	1 November 2010
END DATE (this season)	4 February 2011
PREVIOUS WORK (incl. DES ref.)	None
MAIN (NARRATIVE) DESCRIPTION: (May include information from other fields)	<p>Due to the presence of several previously recorded prehistoric, medieval and post-medieval archaeological features, an archaeological evaluation was initially carried out by GUARD prior to the extension of Soutra Quarry. The trial trench evaluation and subsequent excavation amounted to 15,337 m², representing over 12% of the proposed quarry extension area. Several archaeological features were encountered during the evaluation, comprising a Late Neolithic/Early Bronze Age Cairn, an undated post-hole circle, and an early modern sheepfold and ploughmarks and a modern causeway track. Flints and prehistoric pottery were recovered from a hand excavated trench across the stone matrix of the cairn.</p> <p>Further excavation of the cairn, post-hole circle, sheepfold and a select area of plough marks was subsequently undertaken. The complete excavation of the cairn recovered a large fragment of late Neolithic/early Bronze Age beaker pottery and a cremation burial. All 14 post-holes forming the post-hole circle were fully investigated but no artefacts or additional archaeological features were encountered. Further investigation of the cultivation marks uncovered a possibly field boundary while excavation within the sheepfold encountered no artefacts or dating evidence.</p>
PROPOSED FUTURE WORK:	Post-excavation analyses and publication
SPONSOR OR FUNDING BODY:	Skene Group Ltd
CAPTION(S) FOR ILLUSTRS:	--
ADDRESS OF MAIN CONTRIBUTOR:	52 Elderpark Workspace, 100 Elderpark Street, Glasgow, G51 3TR
EMAIL ADDRESS:	bob.will@guard-archaeology.co.uk
ARCHIVE LOCATION (intended/deposited)	Archive to be deposited in NMRS.

Appendix I: Project Design/WSI

SOUTRA QUARRY EXTENSION, SCOTTISH BORDERS

WRITTEN SCHEME OF INVESTIGATION PROJECT 3262

by Ronan Toolis



KEY

- Quarry Edge
- Excavation trench

0 250 m

Figure 1: Site location.

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1.0 Executive Summary

This written scheme of investigation was commissioned by Ironside Farrar, acting on behalf of Skene Group Ltd, to meet planning consent conditions 16 and 17, related in this instance to the undertaking of an archaeological excavation of a prehistoric cairn, post-hole circle, sheepfold and plough furrows encountered in an earlier evaluation of the Soutra Quarry Extension development area.

2.0 Introduction

This written scheme of investigation sets out the methodology for the archaeological excavation of the prehistoric cairn and post-hole circle within the Soutra Quarry Extension Development Area. This written scheme of investigation is submitted in accordance with planning conditions 16 and 17 (Ref 09/00897/MIN).

3.0 Site Location

The quarry extension area lies to the south of the existing quarry and is centred around NGR NT 4610 5907 (Figure 1).

4.0 Archaeological Background

The evaluation undertaken by GUARD in November 2010 examined over 7 % of the Soutra Quarry Extension Area. Four sites of potential archaeological significance identified in a previous environmental impact assessment, comprising Soutra Hill Cairn (Site 1); Soutra Edge Beacon Stance (Site 2); Soutra Hill Old Sheepfold (Site 3) and Soutra Hill Trackway (Site 4 (see Evaluation WSI Figure 1)) were evaluated. Numerous ploughmarks were also revealed during the evaluation across the quarry extension area. The Soutra Hill Cairn (Site 1) and a previously unknown post-hole circle (Site 5) were concluded to be of sufficient archaeological significance to merit further excavation (Figure 1). The Scottish Borders Council Archaeologist also considered the old sheepfold (Site 3) and a selection of plough furrows to merit further excavation as the form and alternating directions of the plough furrows may be consistent with other known instances of prehistoric cord rig.

The evaluation discovered that the centre of the cairn (Site 1), already understood as much denuded had been thoroughly disturbed by the excavation of a pit, from which the stones and any other features had been removed. Furthermore, two wooden posts had been inserted into the fill of this pit. This may relate to perhaps the modern use of the cairn as a bonfire site as burnt material including burnt and melted bitumen or plastic was also recovered from the pit. The insertion of the gravel and concrete foundations for the Ordnance Survey trig point had also caused some disturbance to the surface of the cairn. No remains of the medieval beacon stance (Site 2) were recovered. However, despite this modern disturbance, the evaluation did confirm the prehistoric origins of the cairn. The flint tools and pottery sherd recovered from the cairn appear to date to the late Neolithic or Early Bronze Age (approximately 3000 – 2000 BC) and while the precise location of these finds within the cairn derive from likely secondary deposition, due to the later disturbance of the site, they nevertheless indicate the likely date of the cairn itself. A layer of charcoal evident beneath the cairn, however, may hold the most reliable evidence for the date of the cairn, in the potential for a radiocarbon date that could provide a terminus post quem for the cairn, ie a date on or after which the cairn was constructed.

The evaluation also discovered a potentially related timber circle (Site 5) a short distance to the south-east of the cairn. While a Bronze Age date would be expected for such a structure of timber uprights, no artefacts were recovered from any of the sample post-holes examined to demonstrate a date, though charcoal recovered from one of the post-holes indicates the potential for acquiring a radiocarbon date. There was no evidence for any other features in the immediate vicinity of this structure.

5.0 Aims and Objectives

The aim of the excavation is to:

- fully investigate the prehistoric cairn (Site 1);
- fully investigate the post-hole circle (Site 5);
- selectively investigate the sheepfold (Site 3);

- selectively investigate the plough furrows.

The objectives are therefore to:

- Conduct an archaeological excavation to recover evidence to determine the character, date and extent of the prehistoric cairn and post-hole circle
- Conduct an archaeological excavation to determine the character and date of the sheepfold and its stratigraphic relationship to the plough furrows;
- Conduct an archaeological excavation of selected plough furrows in order to further investigate the interphase, morphology of rig ends, the possibility of headlands and the potential for evidence for field boundaries, specifically in an area where there is a clear change in direction of the cord rig apparent on Aerial Photographs;
- Submit a report to data structure level for agreement to Scottish Borders Council, on completion of the excavation;
- Submit, if post-excavation works are required, an accompanying post-excavation research design and costing alongside the data structure report, which will outline arrangements for post-excavation works.

6.0 Fieldwork Methodology

1. The excavation areas will be photographed and a brief written description made prior to the commencement of ground-breaking works.
2. A machine excavator fitted with a c. 2 m wide flat-bladed (toothless) ditching bucket and operating under supervision by GUARD Archaeologists, will:
 - excavate topsoil from unexcavated peripheral areas of the cairn (Site 1) to allow hand-excavation of the underlying archaeological features;
 - re-excavate those parts of trenches 85 and 86 that cross the old sheepfold and machine excavate a section through the centre of the sheepfold as deep as the underlying natural subsoil (Site 3);
 - excavate a new north/south aligned 50 m long trench centred on NT 46218 59108, and subject to where the interphase of plough furrows occurs, expanded a box trench around this to highlight relationships and allow for hand excavation of the end of the furrows in order to ascertain their profile;
 - excavate an expanded area around the post-hole circle (Site 5), extending as far as evaluation trench 22 to the north and trench 24 to the south and 10m width from the edge of the post-hole circle to allow hand-cleaning and excavation of any archaeological features encountered. Further expansion of excavation areas may be necessary if features are discovered.
3. The terram placed over the cairn and the post-hole circle will be removed and the surface below cleaned and excavated by hand by the on-site archaeologists to recover evidence in order to determine the character and extent of these features. All archaeological features encountered within and around the cairn and the post-hole circle will be fully excavated by the on-site archaeologists.
4. The sections of the machine cut trenches through the sheepfold will be hand-cleaned by the on-site archaeologists, sample extracted and recorded. Special attention will be given to any features or artefacts encountered either within or immediately below the sheepfold that may provide a date for the sheepfold. Any plough furrows observed to cut across or be cut by the sheepfold will be hand-excavated and recorded.
5. Hand-excavation of plough furrows within the selected new trench will be undertaken in order to ascertain their profile, date, extent and interrelationships.
6. A full record of excavated features will be made using a single context planning system using pro forma sheets, drawings and photographs. All archaeological features will be photographed and recorded at an appropriate scale. Sections will be drawn at 1:10, and plans at 1:20. All levels will be tied into Ordnance

Datum and the trenches accurately located with the National Grid.

7. All archaeological finds will be dealt with by the on-site archaeologists. Finds and animal bone will be collected as bulk samples by context. Significant small finds will be three dimensionally located prior to collection. All finds will be processed to MAP2 type standards and subject to specialist assessment. Palaeo-environmental samples will also be taken where appropriate. If necessary, conservation of finds will be appraised to allow for specialist study.
8. All excavated feature fills and horizons will be sampled, using bulk soil samples, for palaeoenvironmental evidence. This may also include micromorphological sampling in order to address key issues on soil development at the site.
9. Should human remains be revealed by the excavation, the local police and the Scottish Borders Council Archaeology Officer will be informed immediately. Any human remains will be left in situ, until permission to excavate has been given by the local police.
10. On completion of the excavation, the backfilling of the excavation areas will be undertaken by machine. No specialist backfilling is proposed, nor will the backfilling of trenches be supervised by GUARD archaeologists.

7.0 Report Preparation and Contents

A report detailing the results of the excavation will be submitted to the client within four weeks of completion of fieldwork and, subject to client approval, then submitted to the Scottish Borders Council Archaeology Officer. The report will take the form of a Data Structure Report and will contain an interim analysis of the results of the excavation. The report will include a full descriptive text that will characterise the nature and extent of any archaeological deposits. It will also include plans at an appropriate scale showing the area subjected excavation and archaeological features encountered, and archiving lists of all contexts, finds, samples, field drawings and photographs.

The report will include the following:

- executive summary
- a site location plan to at least 1:10,000 scale with at least an 8 figure central grid reference
- OASIS reference number; unique site code
- Planning application number
- contractor's details including date work carried out
- nature and extent of the proposed development, including developer/client details
- description of the site history, location and geology
- a site plan to a suitable scale and tied into the national grid so that features can be correctly orientated
- discussion of the results of field work
- context & feature descriptions
- features, number and class of artefacts, spot dating & scientific dating of significant finds presented in tabular format
- plans and section drawings of the features drawn at a suitable scale
- initial assessment reports by specialists (if relevant finds/samples are recovered) ☐ recommendations regarding the need for, and scope of, any further archaeological work
- bibliography

At least two copies of the report will be prepared for the client and a further one including a digital PDF copy sent to the SBC HER. If any polygons of the site boundaries and trench plan are produced using ArcGIS, these must be submitted as shapefiles for the SBC HER.

The report will be presented in an ordered state and contained within a protective cover/sleeve or bound in some fashion. The report will contain a title page listing site/development name and region together with the name of the archaeological contractor and the developer or commissioning agent. The report will be page numbered and supplemented with section numbering for ease of reference.

If appropriate, the report will be accompanied by a costed Post-excavation Research Design for the full and final specialist analysis and publication of the results.

8.0 Copyright

Unless otherwise agreed copyright for any report resulting from the archaeological work undertaken as part of the project will be deemed the intellectual property of GUARD Archaeology Ltd.

9.0 Publication

A summary of the project results will be submitted to Discovery and Excavation in Scotland. In the event of minor archaeological remains being encountered during the excavation, it is proposed that a comprehensive report submitted to Discovery and Excavation in Scotland, will form the final publication of the site. A copy of this will be included in the Data Structure Report.

10.0 Archive

The archive for the project, including a copy of the report, will be submitted to the National Monuments Records for Scotland within three months of completion of all relevant work.

Suitable digital images will be submitted to the Scottish Borders Council Archaeology Officer rather than hard copies of photographs but guidance from the ADS will be followed. Also digital images for inclusion on the online SMR website must be included with the report (these may be general site images or images of specific features or finds).

The online OASIS form at <http://ads.ahds.ac.uk/project/oasis/> will be completed within 3 months of completion of the work. Once the Data Structure Report has become a public document by submission to or incorporation into the SMR, the Scottish Borders Council Archaeology Service will validate the OASIS form thus placing the information into the public domain on the OASIS website.

11.0 Finds Disposal

The arrangement for the final disposal of any finds made in connection with the archaeological work, will be deposited in keeping with Scottish legal requirements as set out in the Treasure Trove Code of Practice published by the Scottish Government in December 2008. The laws relating to Treasure Trove and Bona Vacantia in Scotland apply to all finds where the original owner cannot be identified. This includes all material recovered during archaeological fieldwork. Accordingly, all assemblages recovered from archaeological fieldwork are claimed automatically by the Crown and must be reported to the Scottish Archaeological Finds Allocation Panel through its secretariat, the Treasure Trove Unit. In the event of the discovery of small finds, a filled-out copy of the form "Declaration of an Archaeological Assemblage from Fieldwork" and two copies of the pertinent Data Structure Report will be submitted to the Panel at the conclusion of the fieldwork. The Panel will then be responsible for recommending to the Queen's and Lord Treasurer's Remembrancer which museum should be allocated the finds. All artefacts will be temporarily stored by GUARD until a decision has been made by the panel.

12.0 Personnel

The proposed GUARD team will comprise the following qualified and experienced archaeologists:

- Project Manager: Mr Ronan Toolis
- Project Director: Mr Bob Will

- On-site Archaeologist: Mr Alan Hunter Blair
- On-site Archaeologist: Mr Daniel Sahen
- Archaeological Surveyor: Ms Fiona Jackson
- Environmental Specialist: Dr Susan Ramsay
- Prehistoric Pottery and Worked Stone Specialist:: Dr Beverley Ballin-Smith
- Medieval Pottery Specialist: Mr Bob Wills
- Lithics Specialist: Dr Torben Bjarke Ballin
- Botanical and Osteology Specialist: Dr Jennifer Miller
- Faunal Specialist: Mr Edouard Masson-Maclean
- Metalwork Specialist: Mr Adrian Cox
- Finds and Environmental Support and Conservation: Ms Aileen Maule
- Illustrator: Ms Gillian McSwan
- Quality Assurance: Dr John Atkinson

The GUARD Project Manager, Mr Ronan Toolis, will be the main point of contact for the archaeological works. A full CV for individuals concerned can be made available on request.

13.0 Monitoring

The Scottish Borders Council Archaeology Officer has been informed of the start date, Monday 17th January 2011, and the duration of the excavation. The Scottish Borders Council Archaeology Officer and the client will be informed of the on-site mobile phone number so that monitoring visits can be arranged.

14.0 Health & Safety and Insurance

GUARD Archaeology Ltd adheres to the guidelines and standards prescribed for archaeological fieldwork set down in the Institute of Field Archaeologists approved Health and Safety in Field Archaeology document, prepared under the aegis of the Standing Conference of Archaeological Unit Managers (SCAUM). It is standard GUARD policy, prior to any fieldwork project commencing, to conduct a risk assessment and to prepare a project safety plan, the prescriptions of which will be strictly followed for the duration of all archaeological fieldwork. Copies of the resultant project safety plan and of GUARD's Fieldwork Safety Policy Statement may be viewed upon request.

GUARD Archaeology Ltd also possesses all necessary insurance cover, proofs of which may be supplied upon request.

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