

KMLW11



## KETTILSTOUN MAINS, LINLITHGOW

*Metal detector survey & archaeological evaluation*

*for West Lothian Council*

*March 2012*



**HEADLAND**  
ARCHAEOLOGY (UK) Ltd





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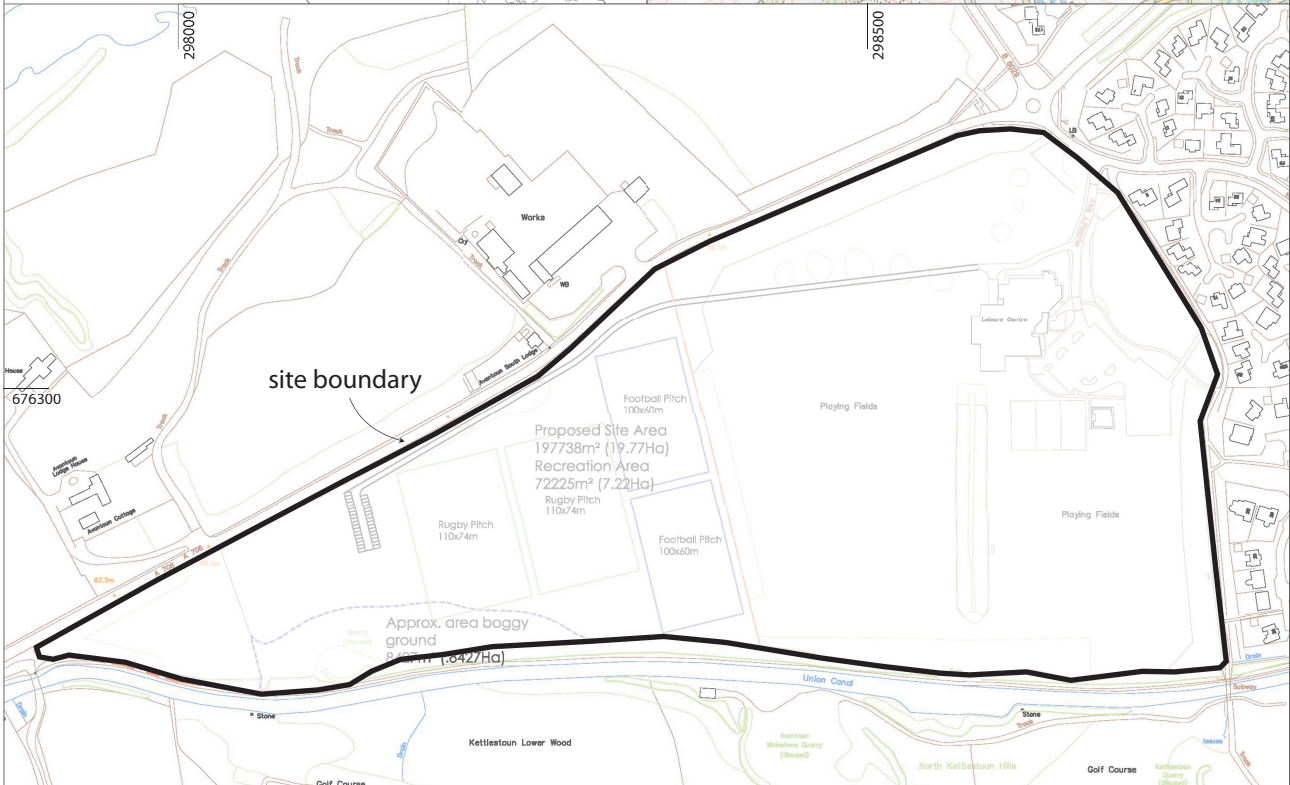
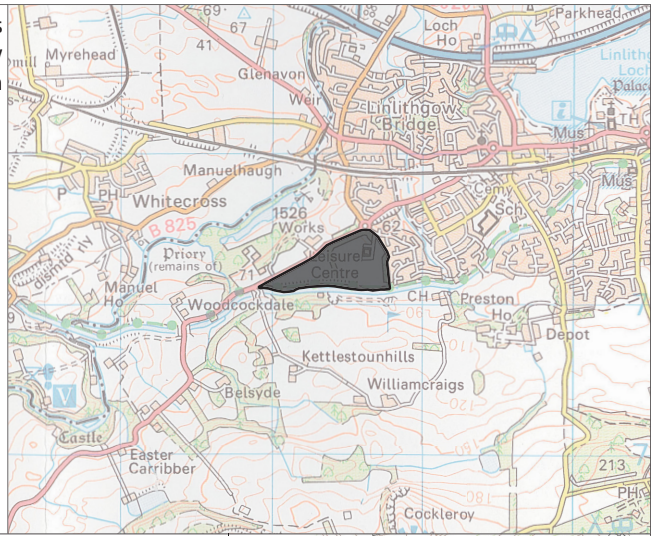
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**Kettilstoun Mains  
Linlithgow  
West Lothian**

0 100km



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Scale 1:5,500 @ A4



0 200m

Illus 1  
Site location



# KETTILSTOUN MAINS, LINLITHGOW

## Metal detector survey & archaeological evaluation

*Headland Archaeology (UK) Ltd undertook an evaluation and metal-detecting survey at Kettilstoun Mains, Linlithgow on behalf of West Lothian Council in advance of a planning application. The site lies within the boundary of the site of the Battle of Linlithgow Bridge (1526). Aerial photographs of the site taken in 1981 show a circular cropmark located on the northern edge of the development area. The metal detecting survey produced a relatively small number of modern metal finds and no finds relating to the Battle of Linlithgow Bridge were located.*

*The evaluation comprised 104 trial trenches, covering 8% of the development area. A small pit containing a cremation burial was found in Trench 74. Additional trenches were excavated to the north and the south and a second cremation pit was found 6m to the south. This pit contained a sherd of a Collared Urn laid above the cremated bones, with the pyre debris above. The pit had then been backfilled with re-deposited natural gravel.*

*A number of pits and post-holes were found in Trench 35 towards the west end of the site. Neolithic pottery was recovered from a post-hole and a pit in this group of features. Trench 32 also contained a shallow pit and a small post-hole. Additional trenches placed between these two trenches revealed a single shallow pit in Trench 104 but no other archaeological features.*

*Six trenches were excavated across the circular cropmark and two trenches were excavated inside it. No trace of a ditch or any associated features were encountered. Given the shallow nature of the topsoil in some of the trenches it is possible that the feature has been ploughed out during the 30 years since the photograph was taken.*

1

## 1. INTRODUCTION

This report presents the results of a metal detector survey and trial trenching at Kettilstoun Mains, Linlithgow, West Lothian. West Lothian Council plans to develop the area for the construction of a proposed new sports pavilion and associated sports pitches. The archaeological evaluation was commissioned by Ove Arup and Partners on behalf of West Lothian Council as part of the pre-application planning process. The evaluation was undertaken according to a Project Design by Headland Archaeology, which was submitted and agreed by West of Scotland Archaeology Service (WoSAS), archaeological advisers to West Lothian Council as Local Planning Authority.

The proposed development area is situated to the west of Linlithgow, bounded to the south by the Union Canal, to the north by the A706 and to the east by modern housing (NGR: NS 98251 73212, Illus 1). The eastern half of the site is within the grounds of the Linlithgow Leisure Centre and the western half of the site lies within an open

field of rough grassland. The site lies at around 68m OD and the underlying geology comprises sands and gravels.

The metal detecting survey was undertaken with the assistance of the Scottish Artefact Recovery Group (SARG) on 11th December 2011; the trial trench evaluation was undertaken between 12th – 20th December 2011.

## 2. ARCHAEOLOGICAL BACKGROUND

The site lies within the area defined in the Inventory of Historic Battlefields as the location of the main events of the Battle of Linlithgow Bridge, fought in 1526 between the Earl of Lennox and the Earl of Arran. There is therefore the potential for remains relating to the battle to be present on the site.

During the construction of the railway in 1840 several cist burials were discovered at Pace Hill, approximately 500m to the north of the site.



A circular enclosure approximately 70m in diameter was identified in aerial photographs taken in 1981 (WoSASPIN 17817). The enclosure is located on the northern edge of the development area to the west of the fence line separating the two halves of the development area (Illus 2). A possible second enclosure, not clearly defined, appears to be attached to the SW quadrant of the first. Crossing the enclosure is a linear feature thought to be of recent origin, possibly a pipeline.

### 3. AIMS AND OBJECTIVES

The aim of the evaluation was to provide sufficient evidence for confident prediction of the archaeological significance and potential of the proposed development site. The specific objectives of the evaluation were to:

- Establish the location, extent, nature and date of archaeological features or deposits that may be present within the areas targeted for trenching.
- Establish the integrity and state of preservation of archaeological features or deposits that may be present within the accessible areas of the site.
- The results of the evaluation will be used to inform a strategy for archaeological mitigation, if appropriate.

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### 4. METHOD

#### 4.1 Metal detector survey

A GPS located metal detector survey was undertaken in advance of the trial trenching in the field to the west of the Leisure Centre. The metal detector survey was undertaken with a team of 6 detectorists approximately 10m apart surveying 2m wide transverses across the field. All artefacts not of modern origin were logged and bagged, with the position of the artefact recorded using a hand held GPS location device. Any artefacts identified as relating to or that were suspected to relate to the Battle of Linlithgow Bridge were recorded using a differential GPS.

During the trial trenching metal detecting was undertaken of the spoil heaps and artefacts were logged and bagged by trench.

#### 4.2 Trial trenching

Trenches were excavated using a 13-ton 360° mechanical excavator fitted with a 2m wide flat bladed ditching bucket, under direct archaeological supervision. Machine excavation ceased at the first significant archaeological horizon or the natural geology, whichever was

encountered first. The stratigraphic sequence in each trench was recorded in full. Discrete features were 50% excavated and a 1m wide slot was excavated through any linear features. Cremation deposits were 100% excavated.

All recording followed IfA Standards and Guidance for undertaking archaeological evaluations (IfA 2008). All contexts, small finds and environmental samples were given unique numbers and recording was undertaken on pro forma record sheets. Photographs were taken using colour slide and colour print film and a graduated scale was visible in all images of archaeological features; digital images were also taken. An overall site plan was recorded using a differential GPS. Sections were drawn at 1:20 and 1:10 as appropriate.

All finds were recorded by context and recorded 3-dimensionally where appropriate. Bulk samples, measuring up to 30 litres, were recovered from selected deposits for wet sieving and flotation. Where large deposits were encountered more than one bulk sample was taken; cremation deposits were 100% sampled. Samples were processed in laboratory conditions using a standard flotation method (*cf.* Kenward *et al* 1980). All plant macrofossil samples were analysed using a stereo-microscope at magnifications of x10 and up to x100 where necessary to aid identification. Identifications were confirmed using modern reference material and seed atlases including Cappers *et al* (2006).

### 5. RESULTS

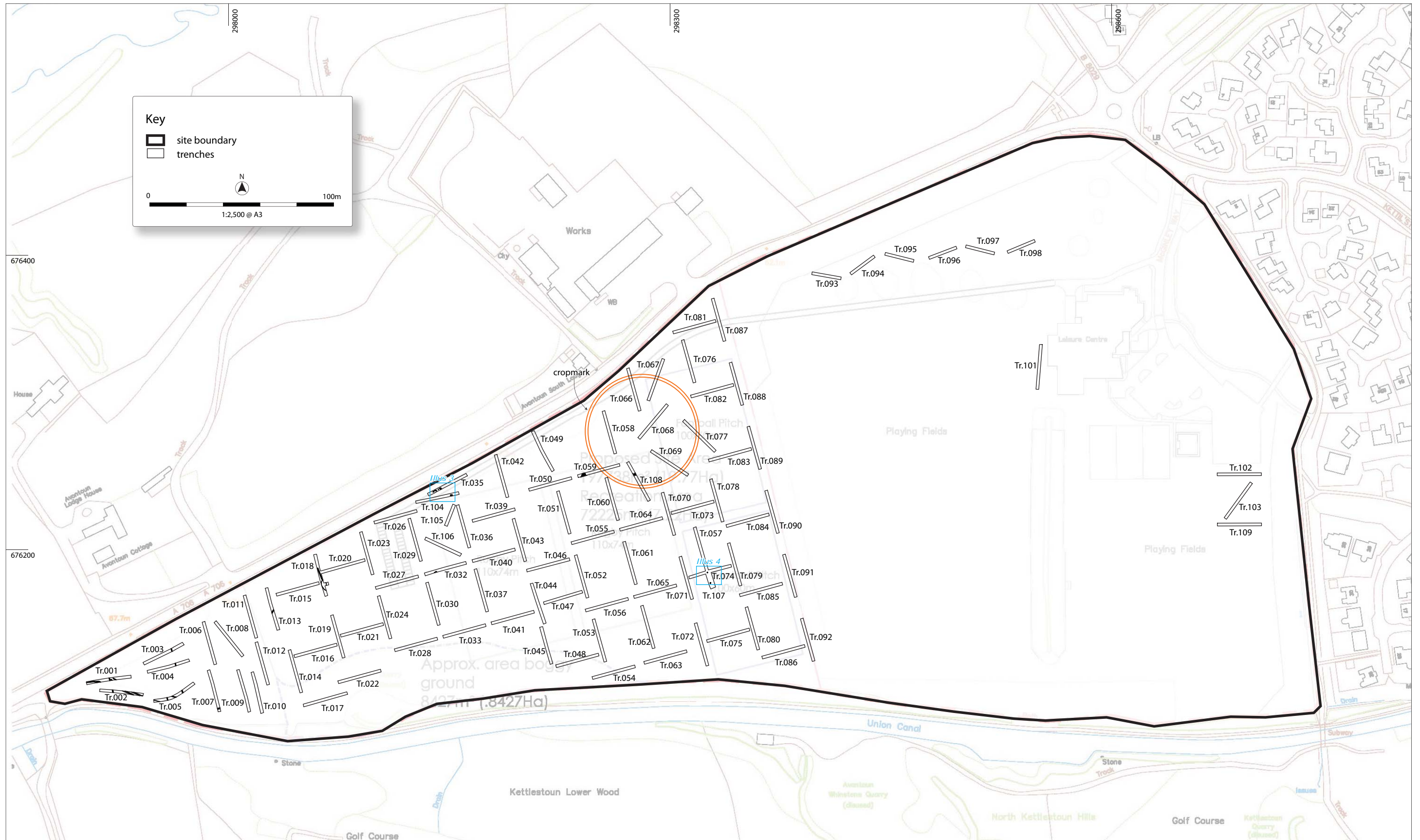
#### 5.1 Metal detector survey

The metal detecting survey was undertaken in two stages. Initially a metal detector survey of the site area was undertaken prior to the evaluation. Subsequently the spoil heaps of the trial trenches were metal-detected during the evaluation. The survey produced a relatively small number of modern metal finds; no finds relating to the Battle of Linlithgow Bridge were located.

#### 5.2 Trial trenching

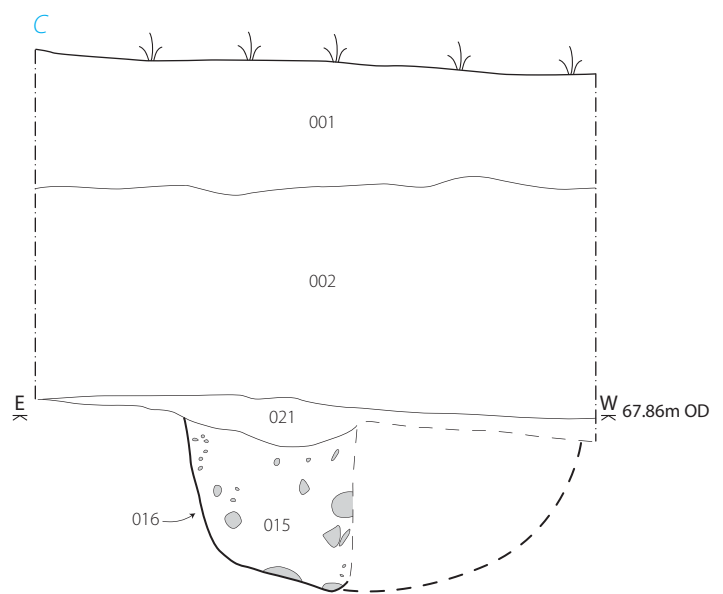
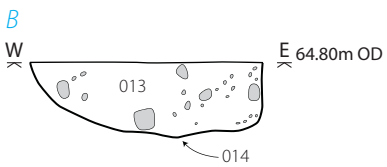
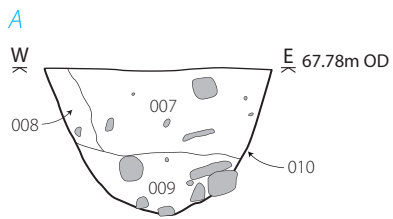
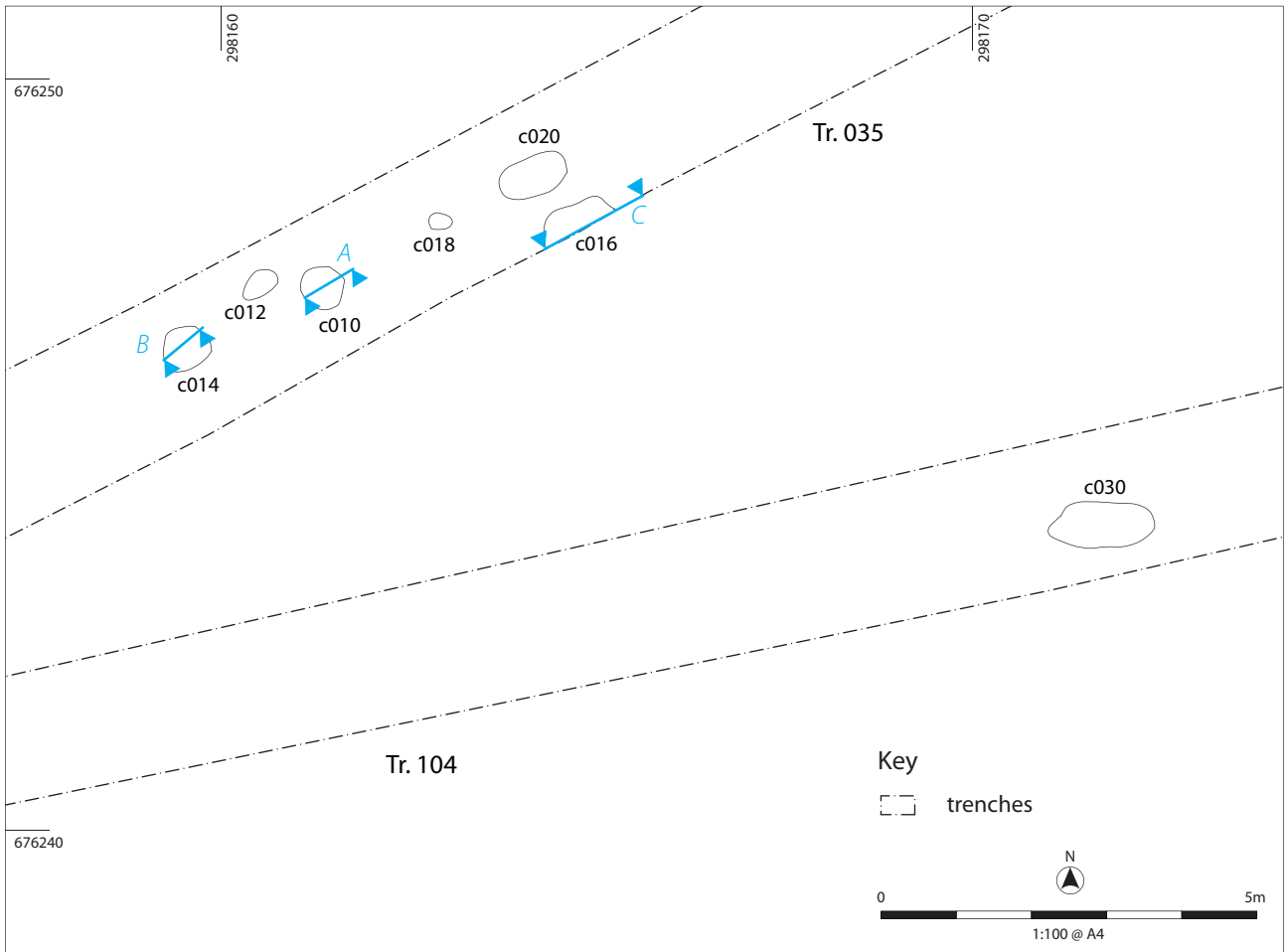
A total of 104 trenches were excavated (Illus 2). Six trenches that were part of the original layout had to be abandoned as a result of flooding or due to their proximity to existing buildings. These were replaced by extra trenches in the vicinity of exposed features.

The underlying geological deposit comprised mainly orange-brown gravels with areas of sand and clay. Fractured bedrock was exposed in trenches near the middle of the site. The overburden was generally 0.3m to 0.6m deep and comprised of brown sandy silts.



Illus 2  
Site plan





5

Illus 3  
Features in Trenches 35 & 104



A number of drains were exposed in the trenches representing several generations of drainage in the form of rubble and tile drains. Other modern features include a large cut exposed in Trench 18 that measured approximately 3.5m by 7m and was over 1.5m deep. The feature was filled with loose stony soil and is likely to be a sump.

Six trenches (T59, T66, T67, T69, T77 and T108) targeted the crop-mark situated towards the north edge of the site (Illus 2). Although being a well-defined crop-mark there was no evidence of any circular feature in the trenches.

Trench 35 was located on the west side of a small rise near the north edge of the site. Over 1m deep deposits of colluvium had accumulated at the base of the slope in the west part of the trench. A number of features protected by the colluvium were found in the west half of this trench (Illus 3&7). This included two large post-holes ([010], [014]), two smaller post-holes ([012], [018]) and two pits ([016], [020]). Prehistoric pottery was recovered from the two large post-holes and pit [016]. Trench 104 was excavated to the south of Trench 35 to see if the features extended in this direction. A shallow oval pit [030] was exposed in the north half of the trench but it did not contain any artefacts.

6 A small cremation pit [028] was located near the middle of Trench 74 (Illus 4&5). The pit was 0.52m in diameter and 0.21m deep. The fill (026) contained charcoal, burnt human bone and fragments of prehistoric pot. Additional trenches were excavated to the north and the south and a second cremation pit [034] was found some 7m to the south in Trench 107 (Illus 4&6). This pit contained a sherd of collared urn laid above the cremated bones (033), with the pyre debris (032) above. The pit had been backfilled with re-deposited natural gravel (031).

A deposit of cobbles [005] in a matrix of fine silt was uncovered towards the west end of Trench 59. The deposit was 2m to 3m wide, 0.5m deep and extended across the width of the trench. No dating material was retrieved from the context but it was located at the base of the trench beneath 0.7m of overburden indicating that it was not a recent deposit.

A shallow pit [023] and a possible post-hole [025] were found in the west half of Trench 32. The date of these features is unknown as they contained no datable material.

### 5.3 Finds Assessment

*Julie Franklin & Julie Lochrie*

#### *Introduction*

Finds were recovered from the metal-detector survey and from trial-trenching. The metal-detector survey

was undertaken to search for any evidence linking the area to the Battle of Linlithgow Bridge of 1526. The finds recovered amounted to 62 objects of iron, lead, copper alloy and other metals. All were of modern date and none could be definitively linked to the battle. The finds recovered during trial trenching included 71 sherds of pottery and 8 finds of chipped stone. All were of prehistoric date, with both the middle Neolithic and early Bronze Age periods represented. A further 13 metal finds were recovered by metal-detecting the spoil during trial trenching. Again, all were of modern date and none could be linked to either the battle or the prehistoric remains. A catalogue of the finds recovered during the works is provided in Appendix 4.

#### *Prehistoric pottery*

The bulk of the pottery was recovered from Trench 35. The 65 sherds from this trench represent the earliest finds in the assemblage. Three vessels (C007, C009 and C013) could be identified as belonging to the 'modified carinated bowl' tradition of the middle Neolithic, dating to around 3600 bc. They take the form of round based bowls with short everted rims and uneven surfaces, one with a fairly sharp carinations, though little of them now remain. They are similar both in form and fabric to vessels from Balfarg, Fife (Cowie 1993b), Barbush Quarry, Perthshire (Cowie 1993a) and Powmyre Quarry, Angus (Sheridan forthcoming), all of which are middle Neolithic in date.

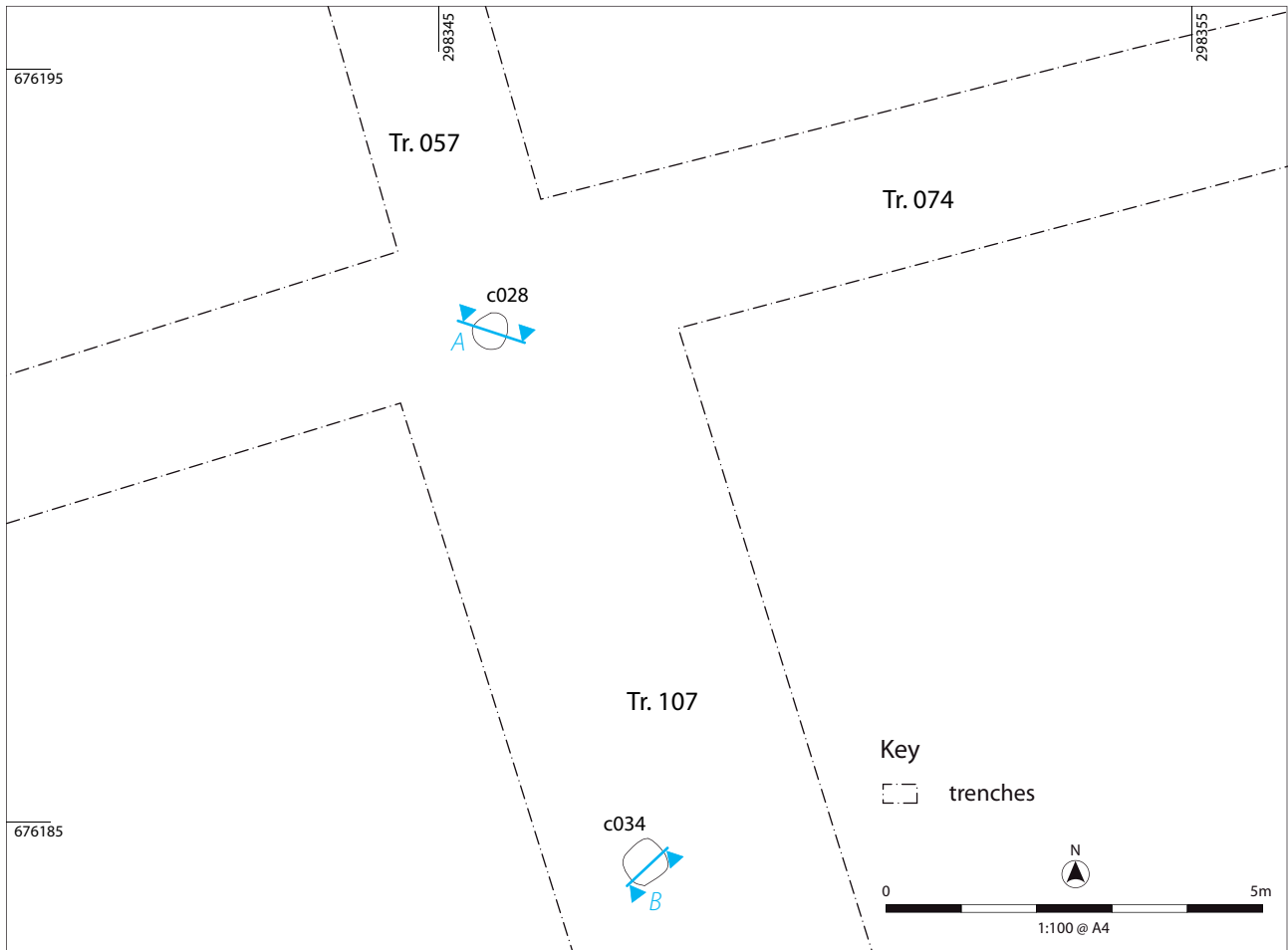
The remaining six sherds represent two vessels that date to the early Bronze Age. They were found in Trenches 74 and 107 sitting within or upon cremated bone. The two decorated sherds from Trench 107 (context 32) are from a Collared Urn dating between c 2000 bc - 1600/1550 bc (Sheridan 2003; Sheridan 2007). Collared Urns' are a pot type commonly used as containers for human cremation deposits. This example is decorated with twisted cord to the collar, body and rim bevel. The sherds from Trench 74 are more fragmentary but are likely to be from a similar type of vessel. The sherd decoration is consistent with this dating and they too were found in association with cremated bone.

#### *Lithics*

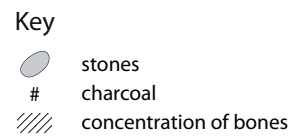
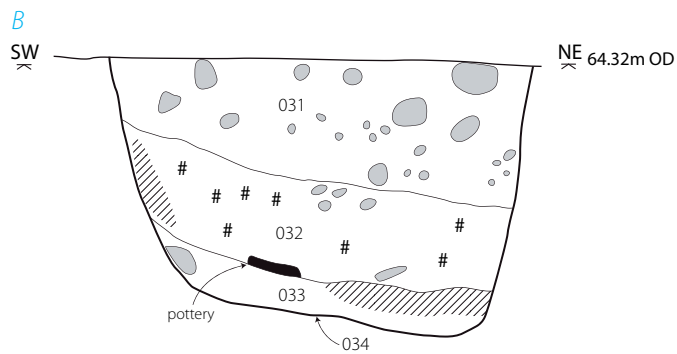
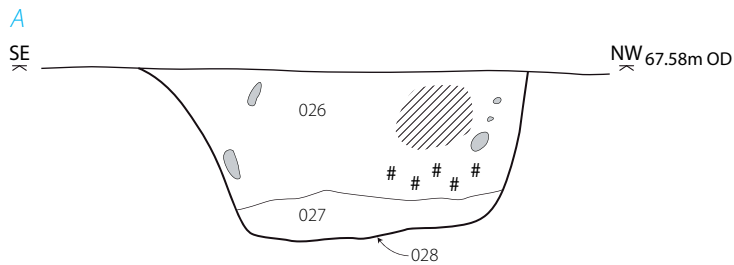
The lithics number three pieces of flint, four pieces of milky quartz and one piece of rock crystal. All are small flakes or chips which cannot be dated to a specific period based upon their characteristics. The quartz, rock crystal and single piece of flint are most likely middle Neolithic based upon their association with the pottery from Trench 35. For the same reasons the two chips from Trench 74 are likely to be early Bronze Age.

#### *Metalwork*

The metalwork assemblage was all recovered by metal-detector, both during the metal-detector survey itself and by the detecting of spoil during the trial trenching. Finds included two coins, three buckles, a badge or medal, a folding knife, a fragment of horseshoe, nails and other



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Illus 4

Cremation pits in Trenches 74 & 107



Illus 5

*Pit [028], north-east facing section*

from urns included within the cremated material. It seems unlikely that an urn could have been used and subsequently destroyed as this would have resulted in a great many more sherds being found and a much greater disturbance of the cremation deposit itself. There was in fact no disturbance apparent in the cremation and thus it seems likely that the sherds recovered were the only pieces originally interred with it.

It is possible that the cremations are part of a larger 'cremation cemetery'. A number of contemporary cemetery sites are known in the general area, including urned cremations, unurned cremations, and cist burials (e.g. Mill Road, Linlithgow, Cook 2000; Pace Hill, NS 983 769; Kinneil Mill, Stirlingshire, Marriot 1967-8).

8

structural fittings and a number of machine parts. Few could be accurately dated, but they all point to the 19th and 20th centuries. The only find which might conceivably point towards the battle is the horseshoe fragment (SF3216), but it lacks any diagnostic detail which would point to that period and is thus far more likely to derive from more recent use of the field. No concentrations of finds were visible when the finds spots were plotted out, though they were perhaps a little more densely clustered towards the east end and middle of the field.

A selective retention policy was adopted for the metalwork archive. Undiagnostic iron finds were catalogued and then discarded. Only identifiable iron finds were retained. All non-ferrous finds were retained.

### *Discussion*

The site includes multi-phase prehistoric activity with evidence for middle Neolithic domestic occupation and early Bronze Age burial practices.

The middle Neolithic pottery was retrieved from Trench 35 at the north of the evaluation area and most likely represents domestic occupation in the vicinity. Several of the bowls had organic residue on the interiors, indicating their use for cooking.

The early Bronze Age finds were all in Trenches 74 and 107 at the south-east of the evaluation area within 20m of each other. These all appear to relate to the use of the area for ritual cremation deposition. Cremations were a common method for disposing of the dead during the early Bronze Age. They often occur in groups and can either be found interred within an urn or loose in a pit. It is interesting that the cremations at Kettilstoun are not contained within urns but seem to have 'token' sherds

Despite the evidence for prehistoric activity in the area, none of the metalwork can be dated back to the Bronze Age. No evidence for the Battle of Linlithgow Bridge was recovered. All the metalwork appears to relate to recent use of the land for agricultural purposes.

### *Recommendations*

It is understood that there may be further fieldwork undertaken in this area. Based on the initial results, this is to be strongly recommended to put the prehistoric finds in context. Recommendations for further finds work should await the results of this work.

As it stands the assemblage is small but contains an interesting distinction in that the cremations have been interred with sherds of pottery rather than within whole vessels. It is worth searching for comparanda for this practice and hypothesising on the types of ritual practices which might result in this type of deposit. The site adds to the existing sum of knowledge about the use and dating of cemetery sites of this period, retrieved through the National Museum 'Dating Cremated Bones Project'. A C14 date for the activity at Kettilstoun is recommended and will further our knowledge even more on the cinerary practices of the Early Bronze Age.

Should the two cremations prove to be part of a larger cremation cemetery, then the resulting pottery and other ritually deposited finds could make for a larger assemblage with more interpretive value.

Likewise should more evidence be recovered of Neolithic settlement in the area, the Neolithic pottery would be given a context and would take on greater significance.



## 5.4 Palaeoenvironmental sample assessment

Scott Timpany

### Introduction

Eleven environmental samples were taken during trial trenching mitigation works at Kettilstoun Mains, Linlithgow. All samples were processed in order to retrieve any palaeoenvironmental material that could inform on the potential cremation deposits observed on site, together with any additional palaeoenvironmental data and whether any material is present that would be suitable for use as radiocarbon dating material.



Illus 6

Pit [034], south-east facing section

### Methodology

Samples up to 30L were taken on site from archaeologically significant features and deposits. Samples were processed in laboratory conditions using a standard flotation method (*cf.* Kenward *et al.*, 1980). Any material remaining in the flotation tank (retent) was wet-sieved through a 1mm mesh and air-dried. This was then sorted by eye and any material of archaeological significance removed. The floating debris (flot) was collected in a 250 µm sieve and, once dry, scanned using a binocular microscope at magnifications of x10 and x 100 where necessary to aid identification. Identifications were confirmed using seed atlases (*e.g.* Cappers *et al.*, 2006) and modern reference material when required.

### Results

The assessment results of the samples are provided in Tables 1 (composition of retents) and 2 (composition of flots) (Appendix 2). All material was preserved through charring.

#### *Charred plant remains (excluding charcoal)*

Charred cereal grain was present in five of the samples (01, 02, 04, 05 and 09) recovered from the site. Grain was present in small numbers (rare to occasional abundances) within the samples (see Appendix 2). Grains of oat (*Avena* sp.), naked barley (*Hordeum vulgare* var *nudum*), emmer wheat (*Triticum dicoccum*), and club/bread wheat (*Triticum aestivo-compactum*) were present in the assemblage together with barley sp. (*Hordeum* sp.) and wheat sp. (*Triticum* sp.) grain, which were too poorly preserved to be able to identify to species level. Further poorly preserved grain was also recovered, which was too degraded to be able to identify even to family level and has been recorded as indeterminate cereal (*Cerealia* indet.).

Together with the charred grain, wild taxa of hazel (*Corylus avellana*) nutshell fragments were also recovered from five samples (01, 02, 04, 05 and 06). Small quantities of nutshell were present in four of the samples, with only Sample 06 containing a significant amount (common abundance) of nutshell (see Table 1, Appendix 2).

#### *Wood charcoal*

Wood charcoal fragments were present in all of the samples, with abundance ranging from rare to abundant (see Appendix 2). Maximum charcoal sizes varied from 0.5cm to 3.0cm within the site assemblage; Sample 03 containing the smallest fragments. Thus there is charcoal of a suitable size for AMS (Accelerated Mass Spectrometry) radiocarbon dating and wood identification in all samples with the exception of Sample 03. The morphology of charcoal fragments was observed during assessment and six samples (01, 02, 06, 07, 08 and 09) were found to contain roundwood charcoal fragments, suggesting they may represent possible coppiced timbers (see Appendix 2). Observation by eye of the charcoal fragments indicated the presence of both oak (*Quercus* sp.) and non-oak species present within the sample assemblages.

#### *Other finds*

Prehistoric pottery sherds were recovered from all but two samples (03 and 09) in rare to common abundances (see Table 1, Appendix 2 and Find assessment above). Lithics were also retrieved from four samples (01, 04, 05 and 06). A small quantity of possibly modern glass sherds were found within one sample (06), suggesting potential contamination by intrusive materials; cinders and coal were also present in small amounts within this sample (06). Burnt bone fragments were recovered from all but two of the samples (03 and 05) in rare to abundant



quantities. Of particular interest are samples 06 and 07-09, which are thought to represent two human cremation burials (see Cremated Bone assessment below).

### Discussion

The below discussion focuses on the palaeoenvironmental information by the charred plant remains and charcoal recovered from the site.

Charred cereal grains were recovered from features in Trenches [35] and [107] (see Appendix 2). The largest quantity of cereal was present in the upper fill [07] of posthole [10], with grain also retrieved from the basal fill [09]; from within Trench [35]. Within the same trench charred grain was also recovered from pits [14] and [16]. A small quantity of grain was also present within the basal fill [33] of probable cremation pit [34].

The assemblage of charred plant remains from Kettilstoun Mains is mainly indicative of a prehistoric assemblage. The dominance of naked barley and emmer wheat together with a small quantity of club/bread wheat would suggest a date from the Neolithic through to the Middle Bronze Age (Boyd, 1988). Similar charred grain assemblages have been found at such dated sites throughout Scotland (*e.g.* Ashmore, 2005; Timpany *et al.*, 2008; Murray *et al.*, 2009). The presence of oat sp. in the assemblage (from Sample 04) may indicate the presence of intrusive material with oat usually associated with a later date in Scotland (Iron Age onwards) (Boyd, 1988). However, oat grain has been dated to the Neolithic period at Balbridie (Fairweather and Ralston, 1993). A prehistoric date for the activity at Kettilstoun Mains is also indicated by the pottery assemblage (see Finds report above).

Together with the presence of cultivated food remains at Kettilstoun was wild taxa of hazel nutshell fragments (see Table 1). Nutshell was recovered from features in Trenches [35] and [74]. All features sampled with the exception of pit [12] from within Trench [35] contained nutshell together with pit [28] from Trench [74]. Hazel nuts were a valued wild food resource during the prehistoric period (and later periods) and are a ubiquitous find across such sites (*e.g.* Timpany *et al.*, 2008).

Charcoal fragments were present in all samples and thus were recovered from features sampled in all Trenches (see Appendix 2). The largest-sized charcoal fragments retrieved from the samples were associated with the two possible cremation pits [28] and [34], which also contained abundant burnt bone fragments. The charcoal fragments within these features were of a large size (up to 3.0cm) indicating deliberate deposition of the fragments. The assemblage from pit [34] within Trench [107] was dominated by non-oak timbers, with many of the fragments observed to be roundwoods. The presence of roundwood timbers would suggest the use of coppiced wood to fuel the pyre and thus implying some form of

woodland management (Stuijts, 2005). The assemblage for cremation pit [28] was observed to contain both oak and non-oak fragments, with the non-oak timbers again being predominantly roundwoods. The presence of charred cereal grain within the assemblage from pit [34] is of interest with similar finds of grain in cremations from Ireland being suggested to represent token deposits of food stuffs being placed in the cremation pyre (*e.g.* Johnston, 2007) or the use of cereal chaff as tinder material.

### Recommendations

The charred cereal grain present within the samples could be quantified in order to make comparisons of the grain assemblage from Kettilstoun Mains to other Scottish prehistoric sites. Ideally this would also include the dating of some of the naked barley or emmer wheat; grain indicative of the prehistoric. The assessment did not try and identify all charred plant remains within the samples and thus further analysis would allow for this to take place.

Charcoal fragments are abundant within the samples and there is therefore high potential to garner information on species used as fuel wood, former woodland and potential woodland management for the prehistoric period. The fragments from the cremation pits in particular showed morphology of roundwood timbers, indicating coppicing and further analysis of these timbers could look in more detail for evidence of woodland management. The presence of non-oak in all of the samples also suggests a variety of tree types were used for fuel and this could provide useful information on prehistoric woodland composition and what woodland types were utilised as timber resources.

## 5.5 Assessment of cremated human bone

Tegan Daly

### Introduction

Cremated bone was retrieved by whole-earth recovery from two pits in evaluation trenches 74 and 107. The deposits (026 and 031/032/033) are all of probable Bronze Age date. An assessment of the deposits will determine the type of deposit and their potential for further analysis.

### Methodology

The bone from each deposit was weighed, and an assessment of preservation, bone fragmentation and cremation efficiency was undertaken (McKinley, 2004). The number of individuals per deposit and the age of those individuals was also assessed (McKinley, 1994).

### Provenance

Feature [028] contained a single deposit with human remains (026) and feature [034] contained three deposits

containing human bone (031, 032, and 033). The spatial distribution of bone within the pits possibly indicates differing processes of interment after the cremation process.

Despite the fact that the burials had not been interred in urns, which would aid in the protection of bone, the skeletal remains were in good condition. Few fragments exhibited evidence of erosion and both compact and spongy bone were recovered, suggesting little bone is likely to have been lost as a result of adverse burial conditions.

### Quantification

No duplication of elements occurred within pit [028] or [034] and therefore the minimum number of individuals in each feature is one. The quantities of bone recovered are relatively large: deposit (026) had a total weight of 1395g and (031/032/033) of 1070.3g. Both weights are within the range produced in modern crematoria of 1001.5g to 2422.5g with an average of 1625.9g (McKinley, 1993). This may be in contrast to the fact that in the Bronze Age the entire cremation remains are rarely, if ever, interred in the burial (McKinley, 1997). This may illustrate considerable effort expended on the collection of the human remains of both these individuals after the cremation process.

The bones all represent adult remains; the lack of diagnostic skull and pelvic elements meant that a more specific age and a determination of sex could not be ascertained for either cremation burial. Osteoarthritic changes, consisting of moderate porosity and mild osteophytes (bony formations) were observed on the proximal articular surface of one foot phalange in deposit (026).

Deposits (007), (009) and (013) were found within prehistoric pits in a separate area of the site. Often, particularly if the bone fragments are very small, it is not possible to identify whether bone is categorically human or animal. Only a few fragments of bone were recovered from deposits (007), (009) and (013) and were all <2mm in size and completely oxidised (white) and it cannot be determined whether they represent human or animal bone.

### Fragmentation

The cremation process had caused little warping, but much bone cracking with profuse concentric fissuring of the long bone shafts, and much breakage had occurred along these lines. In deposit (026) the majority of bone fragments were relatively small measuring 5 mm to <10mm in size. In context (031) fragments were c.2mm, in (032) the majority of bone was within the 5 to <10mm range and in context (033) the majority of fragments were >10mm in size. The maximum fragment size within (026) was 64.4 mm and in (031/032/033) was 73.8mm all represented by long bone fragments.



Illus 7

Trench 35 looking west showing features

### Pyre efficiency

Colour variation was observed within the deposit – indicative of varying levels of oxidation (Holden *et al*, 1995) which reflects the efficiency of the cremation process. The human bone in deposit (026) exhibited a range of colours including an off-white colour (fully oxidised) indicating that the pyre reached temperatures of over 600°C, but also a substantial amount of grey (incompletely oxidised bone, up to c. 600°C) and brown (unburnt) bone. This was similar to the colouring of bone present in deposit (033). Of note is the differing colour of the bone in deposit (032) which contained dark grey and buff white bone only, this, along with the smaller fragment size, may indicate that larger more bone-like fragments were collected first followed by the smaller more oxidised fragments. Deposit (031), the uppermost deposit, consisted of only a few very small buff white fragments which were included within the cremation debris sealing the pit.

### Pyre goods

Cremated bone deposits have been found on frequent occasions to contain both human and animal bone remains. A small amount of animal bone was identified in deposits (026) (21.9g) and (033) (34.5g); similar in colouring and fissuring as the human bone it was deposited with. The fragments represent long bone fragments and such deposits are interpreted as ritual animal offerings, status symbols or remnants of funeral feasts (McKinley 1994).



### Potential for further work

Further analysis is unlikely to expand on demographic or pathological detail. Full analysis could determine the presence of any patterning of colour change to indicate the position of the body on the pyre and discuss intrinsic and extrinsic factors which may have affected the efficiency of cremation. Furthermore it would expand on the skeletal elements represented within the deposits and the possible significance of their distribution e.g. preferential selection of specific bones for interment. Although no obvious bias in skeletal areas was noted in assessment; fragments of cranium, axial skeleton, upper limb and lower limbs were all observed with deposits (026), (032) and (033).

The cremated remains offer the potential to contribute to our understanding of the funerary process as a whole for the Bronze Age period in the region. They illustrate the ritual and ceremonial use of this landscape and indicate that cremation burials within this area are likely to be well preserved and therefore of value.

## 6. DISCUSSION

One of the objectives of this fieldwork was to establish if the site contained any remains relating to the Battle of Linlithgow Bridge, fought in 1526. An extensive metal detector survey carried out before and during the trenching failed to recover any metal objects from this period, possibly indicating that the battle was fought in an area outwith the site.

The trench layout was designed to investigate the nature of a circular cropmark approximately 70m in diameter that had been identified in aerial photographs taken in 1981. Six trenches were excavated across the circular cropmark and two trenches were excavated inside it. No trace of a ditch or any associated features were encountered. Given the shallow nature of the topsoil in some of the trenches it is possible that the feature has been ploughed out during the 30 years since the photograph was taken.

The evaluation identified two areas of prehistoric activity within the site. A group of six pits and post-holes were found within a six meter segment of Trench 35. Fragments of middle Neolithic pottery were recovered from three of these features (see Finds Assessment above). The features were grouped together and the group appeared to extend north and south beyond the trench limit of excavation. However, the cluster did not extend into Trench 104 located some 2 to 4m to the south (Illus 3). It is difficult identify any structures without seeing more of the site but the finds and environmental evidence indicate that the features are part of a small Neolithic settlement.

The second prehistoric site was located some 190m to the south-east. It comprised two cremation pits less than 7m apart, both contained pot fragments dating to the early Bronze Age (Appendix 2). The two pits sat on a

low mound and are likely to be part of a small cremation cemetery. The lack of features in the surrounding trenches indicates that the cemetery is not very extensive but having found two cremations within 7m, it is likely that there are further cremation burials in the immediate vicinity.

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## APPENDICES

### Appendix 1 – Site registers

#### Trench register

Trench no.	Alignment	Dimensions	Stratigraphy	Stratigraphy	Natural	Details
001	E-W	2m x 30m	Turf and topsoil: 0 – 0.25m	Subsoil: 0.25 – 0.3–0.4m	Mottled orange-grey clay and orange to greybrown gravel	Five drains were exposed at the base of the trench
002	E-W	2m x 30m	Turf and topsoil: 0 – 0.25m	Subsoil: 0.25 – 0.3m	Orange gravel and clay	Four drains crossed the trench
003	N-S	2m x 30m	Turf and topsoil: 0 – 0.2m	Subsoil: 0.2 – 0.4–0.7m	Mottled orange-grey clay and orange to greybrown gravel and coarse sand	One rubble drain crossed the trench
004	E-W	2m x 30m	Turf and topsoil: 0 – 0.2m	Subsoil: 0.2 – 0.3–0.4m	Mottled orange-grey clay and orange to greybrown gravel	One rubble drain crossed the trench
005	NE-SW	2m x 31m	Turf and topsoil: 0 – 0.2m	Subsoil: 0.2 – 0.3–0.4m	Orange and grey gravel and clay	Three drains crossed the trench
006	N-S	2m x 30m	Turf and topsoil: 0 – 0.2m	Subsoil: 0.2 – 0.4–0.5m	Grey and orange-brown gravel	A plastic water pipe crossed the trench
007	N-S	2m x 30m	Turf and topsoil: 0 – 0.2m	Subsoil: 0.2 – 0.5–0.6m	Orange brown sand and gravel	Three drains crossed the trench
008	NW-SE	2m x 30m	Turf and topsoil: 0 – 0.2m	Subsoil: 0.2 – 0.3–0.4m	Mottled orange-brown gravel	No features
009	N-S	2m x 30m	Turf and topsoil: 0 – 0.2m	Subsoil: 0.2 – 0.3–0.4m	Orange-brown gravel and clay	No features
010	N-S	2m x 29m	Turf and topsoil: 0 – 0.2m	Subsoil: 0.2 – 0.3–0.4m	Orange-brown gravel	No features
011	N-S	2m x 30m	Turf and topsoil: 0 – 0.2m	Subsoil: 0.2 – 0.3–0.4m	Orange-brown gravel	No features
012	N-S	2m x 30m	Turf and topsoil: 0 – 0.2m	Subsoil: 0.2 – 0.4–0.6m	Orange-brown to grey gravel	One tile drain crossed the trench
013	N-S	2m x 30m	Turf and topsoil: 0 – 0.2m	Subsoil: 0.2 – 0.3–0.4m	Orange-brown gravel and clay	One drain crossed the trench
014	N-S	2m x 30m	Turf and topsoil: 0 – 0.2m	Subsoil: 0.2 – 0.3–0.4m	Orange-brown to grey gravel	One drain crossed the trench
015	E-W	2m x 30m	Turf and topsoil: 0 – 0.2m	Subsoil: 0.2 – 0.5–0.7m	Orange-brown gravel	One drain crossed the trench
016	E-W	2m x 30m	Turf and topsoil: 0 – 0.2m	Subsoil: 0.2 – 0.3–0.5m	Orange-brown gravel	Iron pan at east end of trench
017	E-W	2m x 31m	Turf and topsoil: 0 – 0.25m	Subsoil: 0.25 – 0.3–0.4m	Orange-brown gravel and grey-blue clay	Three tile drains crossed the trench
018	N-S	2m x 30m	Turf and topsoil: 0 – 0.25m	Subsoil: 0.25 – 0.4–0.7m	Orange-brown gravel	A large modern feature over 1.5 m deep was exposed at the South end of the trench
019	N-S	2m x 30m	Turf and topsoil: 0 – 0.2m	Subsoil: 0.2 – 0.3–0.4m	Orange- to grey-brown gravel	No features
020	E-W	2m x 31m	Turf and topsoil: 0 – 0.2m	Subsoil: 0.2 – 0.4–0.5m	Orange-brown gravel	No features
021	E-W	2m x 30m	Turf and topsoil: 0 – 0.2m	Subsoil: 0.2 – 0.3–0.4m	Orange- to grey-brown gravel	No features

Trench no.	Alignment	Dimensions	Stratigraphy	Stratigraphy	Natural	Details
022	E-W	2m x 30m	Turf and topsoil: 0 – 0.2m	Subsoil: 0.2 – 0.3m	Orange-brown gravel and grey clay	One tile drain crossed the trench
023	N-S	2m x 30m	Turf and topsoil: 0 – 0.2m	Subsoil: 0.2 – 0.5 – 0.6m	Orange-brown gravel	One drain crossed the trench
024	N-S	2m x 30m	Turf and topsoil: 0 – 0.2m	Subsoil: 0.2 – 0.3m	Orange-brown gravel	No features
025	NS					Abandoned - waterlogged
026	E-W	2m x 30m	Turf and topsoil: 0 – 0.2m	Subsoil: 0.2 – 0.5m	Orange-brown gravel	No features
027	E-W	2m x 30m	Turf and topsoil: 0 – 0.3m	Subsoil: 0.3 – 0.4m	Orange-brown gravel	No features
028	E-W	2m x 30m	Turf and topsoil: 0 – 0.2m	Subsoil: 0.2 – 0.3m	Orange-brown gravel, grey clayey gravel and grey to yellow silty clay	No features
029	N-S	2m x 30m	Turf and topsoil: 0 – 0.3m	Subsoil: 0.3 – 0.7m	Orange-brown gravel	No features
030	N-S	2m x 30m	Turf and topsoil: 0 – 0.3m	Subsoil: 0.3 – 0.4m	Orange-brown gravel	No features
031	N-S					Abandoned - waterlogged
032	E-W	2m x 29m	Turf and topsoil: 0 – 0.3m	Subsoil: 0.3 – 0.5m	Orange-brown and yellow sandy gravel	Pit [023] and posthole [025] were exposed in the west half of the trench
033	E-W	2m x 30m	Turf and topsoil: 0 – 0.2m	Subsoil: 0.2 – 0.3m	Grey gravels	No features
034	E-W					Abandoned - waterlogged
035	NE-SW	2m x 30m	Turf and topsoil: 0 – 0.3m	Subsoil: 0.3 – 0.5 – 1.1m	Orange-brown gravel	Six pits and postholes were exposed in the west half of the trench: [010], [012], [014], [016], [018] and [020]
036	N-S	2m x 30m	Turf and topsoil: 0 – 0.4m	Subsoil: 0.4 – 0.5 – 0.7m	Orange-brown gravel	No features
037	N-S	2m x 30m	Turf and topsoil: 0 – 0.3m	Subsoil: 0.3 – 0.4m	Orange- to grey-brown gravel	No features
038	N-S					Abandoned - waterlogged
039	E-W	2m x 30m	Turf and topsoil: 0 – 0.3m	Subsoil: 0.3 – 0.6m	Orange-brown gravel and yellow-brown sand	No features
040	E-W	2m x 30m	Turf and topsoil: 0 – 0.3m	Subsoil: 0.3 – 0.5 – 0.7m	Orange-brown gravel	No features
041	E-W	2m x 30m	Turf and topsoil: 0 – 0.3m	Subsoil: 0.3 – 0.4m	Yellow- grey clay and gravel	No features
042	N-S	2m x 30m	Turf and topsoil: 0 – 0.3m	Subsoil: 0.3 – 0.4m	Orange-brown gravel	No features
043	N-S	2m x 30m	Turf and topsoil: 0 – 0.25m	Subsoil: 0.25 – 0.3m	Orange-brown gravel	No features
044	N-S	2m x 29m	Turf and topsoil: 0 – 0.2m	Subsoil: 0.2 – 0.4m	Orange- to grey-brown gravel	No features
045	N-S	2m x 26m	Turf and topsoil: 0 – 0.25m	Subsoil: 0.25 – 0.4m	Orange-brown clayey gravel	No features
046	E-W	2m x 30m	Turf and topsoil: 0 – 0.15m	Subsoil: 0.15 – 0.3m	Orange-brown gravel	No features
047	E-W	2m x 28m	Turf and topsoil: 0 – 0.2m	Subsoil: 0.2 – 0.4m	Orange- to grey-brown gravel	No features



Trench no.	Alignment	Dimensions	Stratigraphy	Stratigraphy	Natural	Details
048	E-W	2m x 30m	Turf and topsoil: 0 – 0.2m	Subsoil: 0.2 – 0.4m	Orange to yellow clay with gravel	One rubble drain crossed the trench
049	NW-SE	2m x 30m	Turf and topsoil: 0 – 0.2m	Subsoil: 0.2 – 0.4m	Orange-brown gravel	No features
050	E-W	2m x 30m	Turf and topsoil: 0 – 0.2m	Subsoil: 0.2 – 0.4–0.8m	Orange-brown gravel	No features
051	N-S	2m x 30m	Turf and topsoil: 0 – 0.2m	Subsoil: 0.2 – 0.5m	Orange-brown gravel	No features
052	N-S	2m x 30m	Turf and topsoil: 0 – 0.3m	Subsoil: 0.3 – 0.5m	Orange-brown gravel	No features
053	N-S	2m x 30m	Turf and topsoil: 0 – 0.3m	Subsoil: 0.3 – 0.4m	Orange-brown gravel - grey clayey gravel - yellowish clay and gravel at south end	Three rubble drains crossed the trench
054	E-W	2m x 30m	Turf and topsoil: 0 – 0.3m	Subsoil: 0.3 – 0.4m	Yellow-brown silty clay and gravel	Three rubble drains crossed the trench
055	E-W	2m x 30m	Turf and topsoil: 0 – 0.3m	Subsoil: 0.3 – 0.4–0.6m	Orange-brown gravel	No features
056	E-W	2m x 30m	Turf and topsoil: 0 – 0.25m	Subsoil: 0.25 – 0.3m	Orange-brown gravel	No features
057	N-S	2m x 30m	Turf and topsoil: 0 – 0.3m	Subsoil: 0.3 – 0.5m	Orange-brown gravel	No features
058	N-S	2m x 30m	Turf and topsoil: 0 – 0.3m	Subsoil: 0.3 – 0.4–0.6m	Orange-brown gravel	No features
059	E-W	2m x 30m	Turf and topsoil: 0 – 0.2–0.45m	Subsoil: 0.2–0.45m – 0.6–1.1m	Yellow-brown sand and gravel	Area of cobbles [005] extending across the trench towards the west end
060	N-S	2m x 30m	Turf and topsoil: 0 – 0.3m	Subsoil: 0.3 – 0.5–0.6m	Yellow-brown sandy gravel	No features
061	N-S	2m x 30m	Turf and topsoil: 0 – 0.25m	Subsoil: 0.25 – 0.3m	Orange-brown gravel	No features
062	N-S	2m x 30m	Turf and topsoil: 0 – 0.25m	Subsoil: 0.25 – 0.3m	Orange-brown gravel	No features
063	E-W	2m x 30m	Turf and topsoil: 0 – 0.3–0.4m	Subsoil: 0.3–0.4m – 0.5–0.6m	Grey clayey gravel - grey to yellow clay and gravel at west end	No features
064	E-W	2m x 30m	Turf and topsoil: 0 – 0.3m	Subsoil: 0.3 – 0.4–0.5m	Orange-brown sand and gravel	No features
065	E-W	2m x 30m	Turf and topsoil: 0 – 0.4m	Subsoil: 0.4 – 0.6–0.8m	Orange-brown gravel	No features
066	N-S	2m x 30m	Turf and topsoil: 0 – 0.3m	Subsoil: 0.3 – 0.8m	Yellow-brown sand with areas of fractured bedrock to sandy gravel	No features
067	NE-SW	2m x 30m	Turf and topsoil: 0 – 0.2m	Subsoil: 0.2 – 0.3m	Orange-brown gravel	No features
068	NE-SW	2m x 30m	Turf and topsoil: 0 – 0.3m	Subsoil: 0.3 – 0.4m	Orange-brown gravel with bands of sand	No features
069	NW-SE	2m x 30m	Turf and topsoil: 0 – 0.3–0.4m	Subsoil: 0.3–0.4m – 0.5–0.6m	Orange-brown gravel	No features
070	N-S	2m x 30m	Turf and topsoil: 0 – 0.25m	Subsoil: 0.25 – 0.3m	Orange-brown gravel	No features
071	N-S	2m x 30m	Turf and topsoil: 0 – 0.25m	Subsoil: 0.25 – 0.3m	Orange-brown gravel	No features



Trench no.	Alignment	Dimensions	Stratigraphy	Stratigraphy	Natural	Details
072	N-S	2m x 30m	Turf and topsoil: 0 – 0.25m	Subsoil: 0.25 – 0.3m	Orange-brown and grey gravel	No features
073	E-W	2m x 30m	Turf and topsoil: 0 – 0.3m	Subsoil: 0.3 – 0.4–0.7m	Orange-brown sand and gravel	No features
074	E-W	2m x 30m	Turf and topsoil: 0 – 0.25m	Subsoil: 0.25 – 0.3m	Orange-brown gravel	Cremation pit [028] was uncovered near the middle of the trench
075	E-W	2m x 30m	Turf and topsoil: 0 – 0.3m	Subsoil: 0.3 – 0.4–0.6m	Orange-brown sand and gravel	No features
076	N-S	2m x 30m	Turf and topsoil: 0 – 0.25m	Subsoil: 0.25 – 0.3m	Orange-brown gravel	No features
077	NW-SE	2m x 30m	Turf and topsoil: 0 – 0.3m	Subsoil: 0.3 – 0.4–0.5m	Yellow-brown sand and gravel with occasional large boulders	No features
078	N-S	2m x 30m	Turf and topsoil: 0 – 0.3m	Subsoil: 0.3 – 0.4m	Orange-brown sandy gravel	No features
079	N-S	2m x 30m	Turf and topsoil: 0 – 0.25m	Subsoil: 0.25 – 0.3m	Orange-brown gravel	No features
080	N-S	2m x 30m	Turf and topsoil: 0 – 0.3m	Subsoil: 0.3 – 0.4–0.5m	Greyish-brown clayey gravels and Orange-brown sand and gravel	No features
081	E-W	2m x 30m	Turf and topsoil: 0 – 0.25m	Subsoil: 0.25 – 0.3m	Orange-brown sand and gravel	No features
082	E-W	2m x 30m	Turf and topsoil: 0 – 0.25m	Subsoil: 0.25 – 0.3m	Orange-brown gravel and sand with occasional large boulders	No features
083	E-W	2m x 30m	Turf and topsoil: 0 – 0.3m	Subsoil: 0.3 – 0.4–0.6m	Yellow-brown sand and gravel	No features
084	E-W	2m x 30m	Turf and topsoil: 0 – 0.25m	Subsoil: 0.25 – 0.3m	Orange-brown gravel	No features
085	E-W	2m x 30m	Turf and topsoil: 0 – 0.25m	Subsoil: 0.25 – 0.3m	Orange-brown gravel with ares of sandstone bedrock	No features
086	E-W	2m x 30m	Turf and topsoil: 0 – 0.25m	Subsoil: 0.25 – 0.3m	Orange-brown clayey sand with large boulders, areas of bedrock and grey clay	One rubble drain crossed the trench
087	N-S	2m x 30m	Turf and topsoil: 0 – 0.2–0.4m	Subsoil: 0.2–0.4m – 0.5–0.8m	Orange-brown gravel and sand	No features
088	N-S	2m x 30m	Turf and topsoil: 0 – 0.3m	Subsoil: 0.3 – 0.4–0.6m	Orange-brown gravel with ares of sandstone bedrock	No features
089	N-S	2m x 30m	Turf and topsoil: 0 – 0.3m	Subsoil: 0.3 – 0.4–0.5m	Orange-brown sand and gravel with occasional patches of shale	No features
090	N-S	2m x 30m	Turf and topsoil: 0 – 0.25m	Subsoil: 0.25 – 0.3m	Orange-brown gravel	No features
091	N-S	2m x 30m	Turf and topsoil: 0 – 0.25m	Subsoil: 0.25 – 0.3m	Orange-brown gravel with occasional large boulders	No features
092	N-S	2m x 30m	Turf and topsoil: 0 – 0.25m	Subsoil: 0.25 – 0.3m	Yellow-brown sand and gravel with degraded stones, occasional large boulders	No features
093	E-W	2m x 20m	Turf and topsoil: 0 – 0.3m	Subsoil: 0.3 – 0.4m	Orange-brown gravel and sand	No features
094	NE-SW	2m x 20m	Turf and topsoil: 0 – 0.3m	Subsoil: 0.3 – 0.4m	Orange-brown gravel with ares of fractured sandstone bedrock	Two plough furrows cutting NW to SE across the trench
095	E-W	2m x 20m	Turf and topsoil: 0 – 0.3m	Subsoil: 0.3 – 0.4m	Orange-brown gravel and sand	No features



Trench no.	Alignment	Dimensions	Stratigraphy	Stratigraphy	Natural	Details
096	NE-SW	2m x 20m	Turf and topsoil: 0 – 0.3m	Subsoil: 0.3 – 0.7m	Orange-brown gravel and sand	Two plough furrows cutting NW to SE across the trench
097	E-W	2m x 20m	Turf and topsoil: 0 – 0.3m	Subsoil: 0.3 – 0.7m	Orange-brown gravel	No features
098	NE-SW	2m x 20m	Turf and topsoil: 0 – 0.3– 0.4m	Subsoil: 0.3– 0.4m – 0.6– 0.8m	Orange-brown gravel and sand	Modern drain crossed the trench
099	E-W					Abandoned - too close to building and fire escape
100	N-S					Abandoned - too close to pitch
101	N-S	2m x 30m	Turf and topsoil: 0 – 0.2m	Subsoil: none	Pinkish brown to grey gravel and compact sandstone	Shallow topsoil indicates that the area has been truncated
102	E-W	2m x 30m	Turf and topsoil: 0 – 0.35m	Subsoil: 0.35m – 0.6– 0.8m	Orange-brown gravel and sand	Two plastic pipes and a manhole was located within the trench
103	NE-SW	2m x 30m	Turf and topsoil: 0 – 0.3m	Subsoil: 0.3 – 0.4m	Orange-brown gravel	Two modern linear features cut across the trench
104	E-W	2m x 30m	Turf and topsoil: 0 – 0.2m	Subsoil: 0.2 – 0.4– 1.1m	Orange-brown gravel and sand	An oval pit [030] was exposed in the east half of the trench
105	NE-SW	2m x 15m	Turf and topsoil: 0 – 0.2m	Subsoil: 0.2 – 0.6– 1.2m	Orange-brown gravel	No features
106	NW-SE	2m x 27m	Turf and topsoil: 0 – 0.3m	Subsoil: 0.3 – 0. – 0.7m	Orange-brown gravel	No features
107	N-S	4m x 11m	Turf and topsoil: 0 – 0.15m	Subsoil: 0.15 – 0.3m	Orange-brown gravel	Cremation pit [034] was uncovered in the south half of the trench
108	NW-SE	2m x 30m	Turf and topsoil: 0 – 0.2m	Subsoil: 0.2 – 0.4– 0.6m	Orange-brown gravel	A amorphous feature (036) in the north half of the trench turned out to be animal burrows
109	E-W	2m x 30m	Turf and topsoil: 0 – 0.25m	Subsoil: 0.25 – 0.3m	Orange-brown gravel	Two modern linear features cut across the trench

## Context register

Context no.	Trench	Description	Dimensions (m)
001	all	Dark grey brown sandy silt loam. Topsoil.	D: 0.2 - 0.4
002	all	Mid reddish brown sandy silt. Subsoil/B horizon.	D: 0.1 - 0.7
003	all	Orange brown gravel/yellow sand/grey - yellow gravelly clay. Natural geology.	
004	59	Mid reddish brown sandy silt with occasional-moderate gravel and small stones. Same as [002].	D: 0.4 - 0.7
005	59	Medium - large sub-rounded and occasional angular stones within fine silt matrix [006] forming slight mound in section. Possible clearance cairn.	D:0.5
006	59	Light reddish brown fine silt containing stones [005] and extending above natural deposits in Trench 59. Possible buried soil.	D: 0.1
007	35	Dark brown sandy silt with moderate small - medium sized pebbles. Upper fill of posthole [010].	D: 0.16
008	35	Pale yellow brown sandy silt with occasional small gravels. Deposit on W side of posthole [010].	D: 0.2
009	35	Blackish brown sandy silt with frequent small - medium sized rounded stones against side of posthole. Primary fill of posthole [010].	D: 0.20
010	35	Rounded cut with steep sides and rounded base. Posthole.	Ø: 0.67, D: 0.36
011	35	Light brown sandy silt with frequent roots and occasional small stones. Fill of posthole [012].	D: 0.15
012	35	Rounded cut with steep sides and rounded base. Posthole.	Ø: 0.35, D: 0.15

Context no.	Trench	Description	Dimensions (m)
013	35	Dark greyish brown sandy silt with frequent medium sized rounded stones and occasional roots. Fill of pit [014].	D: 0.20
014	35	Sub rounded cut with vertical sides to E and S, slightly shallower to W, flat base. Pit.	Ø: 0.65, D: 0.20
015	35	Light reddish brown sandy silt with frequent medium rounded pebbles and occasional sub-angular stones. Fill of pit [016].	D: 0.50
016	35	Semi-circular/sub-rounded cut with near vertical sides and flat base. Pit.	W: 0.90, D: 0.50
017	35	Mid brown sandy silt with frequent roots and occasional small stones. Fill of posthole [018].	D: 0.20
018	35	Rounded cut with steep sides and rounded base. Posthole, associated with [012].	L: 0.30, W: 0.25, D: 0.20
019	35	Mid brown sandy silt with several large rounded stones and single angular stone set on edge within upper part of fill forming packing stones for posthole [020]. Associated with [010].	
020	35	Oval in plan. Not excavated.	L: 0.80, W: 0.57
021	35	Light reddish brown fine silt with very occasional gravel. Possible buried soil, similar to [006].	D: 0.13
022	32	Reddish brown sandy silt with occasional small rounded pebbles. Fill of pit [023].	D: 0.15
023	32	Semi-circular/sub-oval cut with shallow sides and flat base. Shallow pit.	W: 0.85, D: 0.15
024	32	Light brown sandy silt with occasional gravel. Fill of posthole [025].	D: 0.08
025	32	Rounded cut with near vertical sides to S and W, more gentle to N and rounded base. Small posthole.	Ø: 0.2, D: 0.08
026	74	Dark brown sandy silt with occasional small - medium sub-angular stones and frequent burnt bone. Fill of pit [028].	D: 0.16
027	74	Light yellow brown sandy silt with occasional small stones. Primary fill of pit [028].	D: 0.05
028	74	Sub-rounded cut with steep sides and concave base. Cremation pit.	Ø: 0.52, D: 0.21
029	104	Mottled greyish brown and black sandy silt with frequent medium sized rounded stones and occasional gravel. Fill of pit [030].	D: 0.12
030	104	Oval cut with gently sloping sides and irregular base. Pit/double posthole.	L: 0.93, W: 0.60, D: 0.12
031	107	Light reddish brown sandy silt with frequent small-medium rounded stones and rare burnt bone. Upper fill of pit [034].	D: 0.16
032	107	Black charcoal rich silt with moderate small rounded and sub-rounded stones with fragments of burnt bone throughout. Sherd of beaker pottery found at base of deposit overlying concentration of bones within [033]. Middle fill of pit [034].	D: 0.12
033	107	Light brown silty sand with occasional gravel and medium rounded stones. Concentration of burnt bone at centre of deposit. Primary fill of pit [034].	D: 0.07
034	107	Rounded cut with near vertical to vertical sides and flat base. Cremation pit, 6m to S of [028].	Ø: 0.62, D: 0.4
035	108	Light brown sandy silt with moderate small - medium rounded stones. Fill of [036].	D: 0.1 - 0.2
036	108	Irregular shaped feature with shallow sides and uneven base. Burrow.	W: varies, D: 0.1 - 0.2

## Drawing register

Drawing no.	Plan	Section scale	Description
001		01:20	North facing section of Trench 59 showing stones [005]
002		01:10	South facing section through pit [014]
003		01:10	South facing section through posthole [010]
004		01:10	West facing section through posthole [012]



Drawing no.	Plan	Section scale	Description
005		01:10	South-west facing section through posthole [018]
006		01:10	North facing section of Trench 35 showing pit [016]
007		01:10	East facing section through pit [023]
008		01:10	West facing section through posthole [025]
009		01:10	North-east facing section through cremation pit [028]
010		01:10	South facing section through pit [030]
011		01:10	South-east facing section through cremation pit [034]

## Photographic register

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Photo no.	Colour slide	Digital file	Facing	Description
01	-	KMLW11-001-01.jpg	NE	Metal detector survey
02	-	KMLW11-001-02.jpg	NE	Metal detector survey
03	-	KMLW11-001-03.jpg	E	Metal detector survey
04	1	KMLW11-001-04.jpg	SW	Trench 59, cobbles [005] in N facing section
05	1	KMLW11-001-05.jpg	S	Trench 59, cobbles [005] in N facing section
06	1	KMLW11-001-06.jpg	NW	Trench 59, cobbles [005] in S facing section
07	1	KMLW11-001-07.jpg	NW	Trench 59, cobbles [005] in S facing section
08	1	KMLW11-001-08.jpg	NE	Trench 74, pre-ex pit [028]
09	1	KMLW11-001-09.jpg	W	Trench 35, general view of features [010], [012], [014], [016], [018], [020]
10	1	KMLW11-001-10.jpg	N	Trench 35, pit [014] half sectioned
11	1	KMLW11-001-11.jpg	N	Trench 35, posthole [010] half sectioned
12	1	KMLW11-001-12.jpg	E	Trench 35, posthole [012] half sectioned
13	1	KMLW11-001-13.jpg	NE	Trench 35, posthole [018] half sectioned
14	1	KMLW11-001-14.jpg	S	Trench 35, pit [016] in section and pre-ex pit [020]
15	1	KMLW11-001-15.jpg	S	Trench 35, section and pit [016]
16	1	KMLW11-001-16.jpg	S	Trench 32, pit [023] and posthole [025]
17	1	KMLW11-001-17.jpg	SW	Trench 74, pit [028] half sectioned
18	1	KMLW11-001-18.jpg	SW	Trench 74, north-east facing section through pit [028]
19	1	KMLW11-001-19.jpg	NW	Trench 18, large machine dug pit in section showing depth - 1.5m
20	1	KMLW11-001-20.jpg	NE	Trench 18, Large machine dug pit in section showing depth - 1.5m
21	1	KMLW11-001-21.jpg	W	Trench 18, Large machine dug pit in section showing depth - 1.5m
22	1	KMLW11-001-22.jpg	SW	Trench 104, pit [030] half sectioned
23	1	KMLW11-001-23.jpg	SW	Trench 35, pre-ex pit [020] - not excavated
24	1	KMLW11-001-24.jpg	N	Trench 107, pre-ex pit [034]
25	1	KMLW11-001-25.jpg	NW	Trench 107, half-section through pit [034]
26	1	KMLW11-001-26.jpg	NW	Trench 107, south-east facing section through pit [034]
27	1	KMLW11-001-27.jpg	NNE	Trench 67

Photo no.	Colour slide	Digital file	Facing	Description
28	1	KMLW11-001-28.jpg	N	Trench 66
29	1	KMLW11-001-29.jpg	N	Trench 58
30	1	KMLW11-001-30.jpg	S	Trench 108
31	1	KMLW11-001-31.jpg	SE	Trench 69
32	1	KMLW11-001-32.jpg	NE	Trench 68
33	1	KMLW11-001-33.jpg	SE	Trench 77
34	1	KMLW11-001-34.jpg	NW	Trench 107, post-ex view of pit [034]
35	1	KMLW11-001-35.jpg	W	Trench 74, pit [028] fully excavated
36	1	KMLW11-001-36.jpg	SW	Trench 74, pit [028] fully excavated
37	1	KMLW11-001-37.jpg	N	General view of trenches, east end of field
38	1	KMLW11-001-38.jpg	W	General view towards west end of field
39	1	KMLW11-001-39.jpg	E	Trench 108, feature [036] rabbit burrow, W facing section
40	1	KMLW11-001-40.jpg	W	Trench 108, feature [036] rabbit burrow, E facing section
41	1	KMLW11-001-41.jpg	N	Trench 108, feature [036] rabbit burrow, in plan
42	1	KMLW11-001-42.jpg	E	General view of trenches to S of Leisure centre
43	1	KMLW11-001-43.jpg	NW	Trench 109
44	1	KMLW11-001-44.jpg	SW	General view N end of area to S of Leisure centre
45	1	KMLW11-001-45.jpg	E	Trench 102
46	1	KMLW11-001-46.jpg	NW	Trench 103
47	1	KMLW11-001-47.jpg	NW	Trench 109
48	1	KMLW11-001-48.jpg	SE	Trench 101 and area to rear of Leisure Centre
49	1	KMLW11-001-49.jpg	NW	Trench 98
50	1	KMLW11-001-50.jpg	W	Looking towards trench 97
51	1	KMLW11-001-51.jpg	W	General view of trenches at N of Leisure centre
52	1	KMLW11-001-52.jpg	W	General view of trenches at N of Leisure centre
53	1	KMLW11-001-53.jpg	E	View of trenches at N of Leisure Centre from Trench 93
54	1	KMLW11-001-54.jpg	W	View of trenches at N of Leisure Centre from west
55	1	KMLW11-001-55.jpg	SE	Trench 101 at rear of Leisure Centre backfilled
56	1	KMLW11-001-56.jpg	N	Trench 101 at rear of Leisure Centre backfilled
57	1	KMLW11-001-57.jpg	N	Looking N across mound towards Trench 98
58	1	KMLW11-001-58.jpg	W	Trench 98 backfilled
59	1	KMLW11-001-59.jpg	W	Trench 109 backfilled
60	-	KMLW11-001-60.jpg	SE	Machine tracks S of trenches 102, 103, 109
61	-	KMLW11-001-61.jpg	SW	Machine tracks SE corner of field
62	-	KMLW11-001-62.jpg	W	Machine tracks heading W from SE corner
63	-	KMLW11-001-63.jpg	W	Machine tracks heading W from SE corner
64	-	KMLW11-001-64.jpg	W	Machine tracks heading W from SE corner
65	-	KMLW11-001-65.jpg	NW	Machine tracks SW corner of field
66	-	KMLW11-001-66.jpg	N	Machine tracks heading N at W side of field



Photo no.	Colour slide	Digital file	Facing	Description
67	-	KMLW11-001-67.jpg	N	Machine tracks heading N at W side of field
68	-	KMLW11-001-68.jpg	E	Backfilled trenches 96, 97, 98
69	-	KMLW11-001-69.jpg	NW	Backfilled trenches 93, 94, 95
70	-	KMLW11-001-70.jpg	W	Backfilled trenches 93, 94
71	-	KMLW11-001-71.jpg	SW	Backfilled trench 93
72	-	KMLW11-001-72.jpg	W	Machine tracks at NW corner
73	-	KMLW11-001-73.jpg	E	Backfilled trench 109
74	-	KMLW11-001-74.jpg	NE	Backfilled trench 103
75	1	KMLW11-001-75.jpg	W	Backfilled trench 102

## Sample register

Sample no.	Context no.	Description
001	7	Upper fill of posthole [010]
002	9	Primary fill of posthole [010]
003	11	Fill of posthole [012]
004	13	Fill of pit [014]
005	15	Fill of pit [016]
006	26	Fill of cremation pit [028]
007	31	Upper fill of pcremation pit [034]
008	32	Middle fill of cremation pit [034]
009	33	Primary fill of cremation pit [034]
010	26	Fill of cremation pit [028]
011	32	Middle fill of cremation pit [034]

## Appendix 2 – Environmental tables

## Retent sample results

Context no.	Sample no.	Sample Vol (l)	Ceramic	Stone	Glass	Cinders	Coal	Burnt bone	Charred Corylus avellana nutshell	Charcoal	Material available for AMS Dating	Comments	Qty	
													Max Size (cm)	Max Size (cm)
<b>Trench 35 Features</b>														
7	1	30	+++	++				+	+	+++	Charcoal +++	Charcoal is a mix of oak and non-oak fragments, including roundwood.		
9	2	10	++				++	+	++++	1.2	Charcoal ++++	Charcoal is a mix of oak and non-oak fragments, including roundwood.		
11	3	10								-		Archaeologically sterile		
13	4	30	++	+			++	+	++++	1	Charcoal ++++	Charcoal is a mix of oak and non-oak fragments		
15	5	30	++	+			++	+	+++	1	Charcoal +++	Charcoal is a mix of oak and non-oak fragments		
<b>Trench 74 Features</b>														
26	6	30	+	+	+	+	++++	+++	+++	1.5	Charcoal +++, Nutshell ++, Burnt Bone ++++	Charcoal is mainly non-oak fragments, including roundwoods. Burnt bone may contain human bone.		
26	10	20					++++	+++	+++	1.5	Charcoal +++, Nutshell ++, Burnt Bone ++++	Charcoal is mainly non-oak fragments, including roundwoods. Burnt bone may contain human bone.		
<b>Trench 107 Features</b>														
31	7	30	+				+++	+++	+++	2	Charcoal ++++	Charcoal is mainly non-oak fragments, including roundwoods. Burnt bone may contain human bone.		
32	8	30	+				++++	+++	+++	3	Burnt Bone ++++, Charcoal ++++	Charcoal is mainly non-oak fragments, including roundwoods. Burnt bone may contain human bone.		
32	11	20					++++	++++	++++	3	Burnt Bone ++++, Charcoal ++++	Charcoal is mainly non-oak fragments, including roundwoods. Burnt bone may contain human bone.		
33	9	30					++++	++	++	1.2	Burnt bone ++++, Charcoal ++	Charcoal is mainly non-oak fragments, including roundwoods. Burnt bone may contain human bone.		

## Flotation sample result

Context no.	Sample no. Total float (ml) grain:	Cereal	Avena sp.	Hordeum sp.	Hordeum vulgare var nudum	Triticum sp.	Triticum dicoccum	Triticum compactum	Cerealia indet.	Other material	Charcoal qty	Charcoal size (cm) for AMS dating	Material available	Comments
<b>Trench 35 features</b>														
7	1	20		++	+	++	+		+		++++	1.1	Charcoal +++, charred grain ++	Charcoal is mainly non-oak fragments.
9	2	50			+				+		++++	1.2	Charcoal ++	Charcoal is a mix of oak and non-oak fragments
11	3	10									+	0.5	-	Charcoal is mainly non-oak fragments.
13	4	50	+	+	+						++++	1.5	Charcoal ++, charred grain +	Charcoal is a mix of oak and non-oak fragments
15	5	40		+							+++	1.0	Charcoal +	Charcoal is a mix of oak and non-oak fragments
<b>Trench 74 features</b>														
26	6	100								Burnt bone +, Cinder ++	++++	1.6	Charcoal +	Charcoal is mainly non-oak fragments, including roundwoods.
26	6	100								cinder +	++++	1.5	Charcoal +	Charcoal is mainly non-oak fragments, including roundwoods.
<b>Trench 107 features</b>														
31	7	100									++++	3.0	Charcoal +	Charcoal is mainly non-oak fragments, including roundwoods.
32	8	200								Burnt bone ++	++++	2.0	Charcoal +	Charcoal is mainly non-oak fragments, including roundwoods.
32	8	200								Burnt bone ++	++++	2.0	Charcoal +	Charcoal is mainly non-oak fragments, including roundwoods.
33	9	50		+						Burnt bone +	++++	1.2	Charcoal +	Charcoal is mainly non-oak fragments.

Key: + = rare (1-5), ++ = occasional (6-15), +++ = common (16-50) ++++ = abundant (>50)

NB charcoal over 1cm is suitable for identification and AMS dating





## Appendix 3 – Cremation table

Feature	Context no.	Context type	Human bone weight	Colour	MNI	Age	Sex	Pathology
028	026	Cremation burial	1394g	Off-white, grey and brown	1	AD	?	OA, 1x foot phalange
034	031	–	4.5g	White and grey	1	AD	?	None
	032		509.2g	White and grey				
	033		556.6g	Off-white, grey and brown				
–	007	–	0.3g (?)	White	–	–	–	–
–	009	–	0.3g (?)	White	–	–	–	–
–	013	–	0.4g (?)	White	–	–	–	–

## Appendix 4 – Finds tables

*Finds catalogue**Finds from metal detector survey*

SF	x	y	Material	Object	Description	Retained?
1001	298355	676271	Copper Alloy	Coin	worn, featureless, possibly halfpenny, first half of 19th, diam 28.2	Y
1002	298359	676260	Iron	Nail		Y
1003	298364	676252	Iron	Shaft	long, thick, bent	N
1004	298361	676219	Iron	Sheet	small fragment	N
1005	298371	676231	Iron	Fitting	heavy n-shaped fitting, with bar between two arms - probably part of car tow bar	Y
1006	298370	676153	Iron	Nail		Y
1007	298348	676157	Copper Alloy	Sheet	distorted	Y
1008	298346	676169	Iron	Nail		Y
1009	298310	676180	Iron	Nail		Y
1010	298298	676224	Iron	Lump	large thick flat lump	N
1011	298514	676377	Copper Alloy	Badge/Medal	cross shaped badge with central figurative design of figure some text around border, a little worn and corroded and detail obscured, remains of knob at top indicates was pendant fitting, probably not military	Y
3200	298366	676334	Iron	Bolt	Shaft with square nut at end	Y
3201	298385	676272	Copper Alloy	Disc	plain small disc with small lobe at side	Y
3202	298384	676258	Iron	Nail		Y
3203	298395	676238	Iron	Shaft	long, thick	N
3204	298394	676232	Copper Alloy	Coin	no visible features, unidentified, diam 24.4	Y
3205	298393	676223	Copper Alloy	Buckle	flat rectangular frame, painted black with possible cross hatched pattern, remains of central bar along long axis	Y
3206	298396	676204	Iron	Lump	flat irregular shaped lump	N
3207	298398	676114	Iron	Tool Blade	shaft with triangular blade at end, possibly from mattock or pick?	Y
3208	298293	676154	Iron	Nail		Y
3209	298276	676130	Copper Alloy	Spoon	teaspoon, distorted, illegible mark on handle	Y



SF	x	y	Material	Object	Description	Retained?
3210	298286	676172	Iron	Nail		Y
3211	298287	676163	Iron	Tube	short length of thick tube, cut both ends	N
3212	298247	676233	Iron	Nail		Y
3213	298251	676221	Copper Alloy	Fitting	curvilinear shaped object, uncertain function	Y
3214	298265	676213	Copper Alloy	Fitting	large quatrfoil fitting with large countersunk screw hole in each lobe	Y
3215	298259	676197	Lead Alloy	Object	length of lead with plano-convex section	Y
3216	298258	676194	Iron	Horseshoe	small piece, no detail visible	Y
3217	298246	676203	Copper Alloy	Gun Cartridge	used but good condition, marked on base 'PMC 270 WIN', diam 11.94mm, length 64mm	Y
3218	298294	676159	Copper Alloy	Golf Tee?	small conical cup with spike at base and small arm at rim	Y
3219	298275	676171	Iron	Unidentifiable		N
3220	298141	676218	Iron	Strip	thick curving strip	N
3221	298113	676165	Iron	Strip	thick strip	N
3222	298120	676155	Copper Alloy	Collar	large diameter ring fitting	Y
3223	298112	676153	Iron	Folding Knife	complete but for one missing handle scale, scales made of black material, possibly bone or plastic, blade badly corroded	Y
3224	298077	676141	Lead Alloy	Collar	flat sectioned ring	Y
5001	298278	676316	Iron	Fitting	large collar with thick loop attached to one end	Y
5002	298339	676360	NO FIND	NO FIND	voided	N
5003	298350	676309	Iron	Strip	unidentifiable, thick rectangular strip	N
5004	298370	676285	Iron	Nut	large hexagonal nut	Y
5005	298375	676253	Iron	Sheet	fragment	N
5006	298374	676252	Iron	Nail		Y
5007	298359	676253	Metal	Object	tube with large strap attached to sides in a loop, possibly part of a gate	Y
5008	298376	676241	Iron	Object	large flat round object, with two round fittings on one side	Y
5009	298378	676216	Lead Alloy	Caulking	irregular shaped lump with hollow interior	Y
5010	298386	676178	Iron	Plate	large rectangular plate with large hole at one end	Y
5011	298384	676138	Iron	Object	large B-shaped object	Y
5012	298379	676124	Iron	Spike	very large round sectioned spike, L615mm	N
5013	298380	676125	Iron	Strip	thick strip	N
5014	298326	676210	Copper Alloy	Strap	thick strap, with three screw holes along length, widening towards one end , probably part of a large strap hinge	Y
5015	298316	676212	Iron	Strip	unidentifiable, short strip	N
5016	298229	676235	NO FIND	NO FIND	Voided	N
5017	298237	676235	Iron	Object	large sub-triangular lump	Y
5018	298232	676220	Iron	Spike	small spike	N
5019	298242	676212	Iron	Nail		Y
5020	298244	676207	Iron	Lump	small triangular lump	N
5021	298237	676203	Lead Alloy	Lump	irregular shape	Y
5022	298254	676160	Iron	Nail		Y
5023	298220	676174	Lead Alloy	Sheet	thick, damaged and distorted	Y

SF	x	y	Material	Object	Description	Retained?
5024	298210	676150	NO FIND	NO FIND	Voided	N
5025	298188	676211	Lead Alloy	Sheet	thick, damaged and distorted	Y
5026	298161	676205	Lead Alloy	Waste	lump with flat side and irregular side	Y
5027	298153	676148	Iron	Strip	unidentifiable	N
5028	298127	676150	Metal	Tube	long narrow tube, S-bent	Y
5029	298156	676145	Copper Alloy	Buckle	D-shaped buckle frame with slightly recessed straight edge, very good condition	Y
5030	298090	676184	NO FIND	NO FIND	voided	N

*Finds from evaluation trenching*

Trench	Context no.	Sample	Qty	Material	Object	Description	Spot date	Period
35	MD Spoil		1	Iron	Fragment	(Discarded)		
35	MD Spoil		1	Iron	Nail	(Retained)		
35	MD Spoil		2	Iron	Plates	large flat objects, irregular edges (Discarded)		Mod
35	MD Spoil		1	Iron	Nail	(Retained)		
35	7	1	4	Lithics	Milky Quartz and Rock Crystal	Flakes		PH
35	7		10	Pottery (PH)	Coarseware	Gently curving small and medium body sherds; Organic residue present		M Neol
35	7	1	16	Pottery (PH)	Modified Carinated Bowl	Short, gently everted rim sherd with smoothing marks on interior. Other sherds include small body sherds, three of which appear to be burnt		M Neol
35	9		2	Pottery (PH)	Modified Carinated Bowl	Rim sherd with short, everted rim and wipemarks. Also a body sherd		PH
35	9	2	3	Pottery (PH)	Coarseware	Body sherds		PH
35	13	4	1	Lithics	Flint	Inner, hard hammer flake		PH
35	13	4	10	Pottery (PH)	Modified Carinated Bowl	Body sherds plus an everted and carinated sherd, very uneven surfaces		M Neol
35	15	5	1	Lithics	Milky Quartz	Flake		PH
35	15		1	Pottery (PH)	Coarseware	Sherd from near the base of a round based pot		M Neol
35	15	5	23	Pottery (PH)	Coarseware	Body Sherds		PH
47	MD Spoil		1	Copper Alloy	Buckle	large buckle with off set central bat, horse harness? (Retained)		Mod
71	MD Spoil		1	Iron	Object	Large cast iron object (Discarded)		Mod
74	26	6	2	Lithics	Flint	Inner chips		PH
74	26	6	4	Pottery (PH)	Coarseware	Body sherds, one of which is decorated with two sub circular impressions		PH
81	MD Spoil		1	Copper Alloy	Sheet	sub rectangular sheet with nail hole towards one side, irregular edges (Retained)		Mod
81	MD Spoil		1	Iron	Fragment	(Discarded)		
87	MD Spoil		2	Iron	Nails	(Retained)		
87	MD Spoil		1	Iron	Lump	small flat lump (Discarded)		Mod



Trench	Context no.	Sample	Qty	Material	Object	Description	Spot date	Period
92	MD Spoil		1	Iron	Lump	(Discarded)		Mod
107	31	7	1	Ceramic	Fragment	Possible brick fragment or fired clay		PH
107	32		1	Pottery (PH)	Collared Urn	Rim sherd from collared urn, decorated with twisted cord in an infilled triangle motif to the collar and as criss crossing lines to the body. The internally bevelled rim is also decorated with twisted cord impressions; conjoins with Collared Urn sherd from [032] S8	2000BC-1550BC	EBA
107	32	8	1	Pottery (PH)	Collared Urn	Body sherd decorated with twisted cord; conjoins with Collared Urn sherd from [032]	2000BC-1550BC	EBA

## Appendix 5 – Discovery and Excavation in Scotland entry

<b>LOCAL AUTHORITY:</b>	West Lothian
<b>PROJECT TITLE/SITE NAME:</b>	Kettilstoun Mains, Linlithgow
<b>PROJECT CODE:</b>	KMLW11
<b>PARISH:</b>	Linlithgow
<b>NAME OF CONTRIBUTOR(S):</b>	Magnar Dalland
<b>NAME OF ORGANISATION:</b>	Headland Archaeology
<b>TYPE(S) OF PROJECT:</b>	Metal Detecting Survey and Evaluation
<b>NMRS NO(S):</b>	NS97NE 56
<b>SITE/MONUMENT TYPE(S):</b>	Cremation pits, prehistoric pits, post-holes
<b>SIGNIFICANT FINDS:</b>	Neolithic pot sherds , Bronze Age collared urn
<b>NGR</b>	NS 984 763
<b>START DATE (this season)</b>	9/12/11
<b>END DATE (this season)</b>	21/12/11
<b>PREVIOUS WORK (incl. DES ref.)</b>	none
<b>MAIN (NARRATIVE) DESCRIPTION: (May include information from other fields)</b>	<p>An evaluation and metal-detecting survey was carried out at Kettilstoun Mains, Linlithgow on behalf of West Lothian Council in advance of a planning application. The site lies within the boundary of the site of the Battle of Linlithgow Bridge (1526). The metal detecting survey produced a relatively small number of modern metal finds. No finds relating to the Battle of Linlithgow Bridge were located.</p> <p>Aerial photographs of the site taken in 1981 show a circular cropmark located on the northern edge of the development area. Six trenches were excavated across the circular cropmark and two trenches were excavated inside it. No trace of a ditch or any associated features were encountered. Given the shallow nature of the topsoil in some of the trenches it is possible that the feature has been ploughed out during the 30 years since the photograph was taken.</p> <p>The evaluation identified two areas of prehistoric activity within the site. A group of six pits and post-holes were discovered near the northern edge of the site. Fragments of middle Neolithic pottery were recovered from three of these features. The second prehistoric site was located some 190m to the south-east. It comprised two cremation pits less than 7m apart, both contained pot fragments dating to the early Bronze Age. The two pits sat on a low mound and are likely to be part of a small cremation cemetery.</p>
<b>PROPOSED FUTURE WORK:</b>	–
<b>ARCHIVE LOCATION (intended/deposited)</b>	Archive to be deposited at RCAHMS. Reports to be deposited at RCAHMS and WoSAS
<b>SPONSOR OR FUNDING BODY:</b>	West Lothian Council
<b>CAPTION(S) FOR ILLUSTRS:</b>	–
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