

# GUARD ARCHAEOLOGY



**Newcraighall North, Edinburgh  
Metal Detecting Survey, Trial Trench Evaluation  
and Watching Brief Data Structure Report  
Project 3314**

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Metal Detecting Survey, Trial Trench Evaluation  
and Watching Brief Data Structure Report**

**On behalf of:** EDI Group Ltd

**NGR:** 31933 72068

**Project Number:** 3314

**Project Manager:** Ronan Toolis

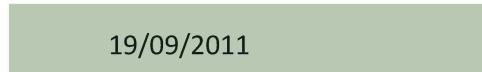
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## Contents

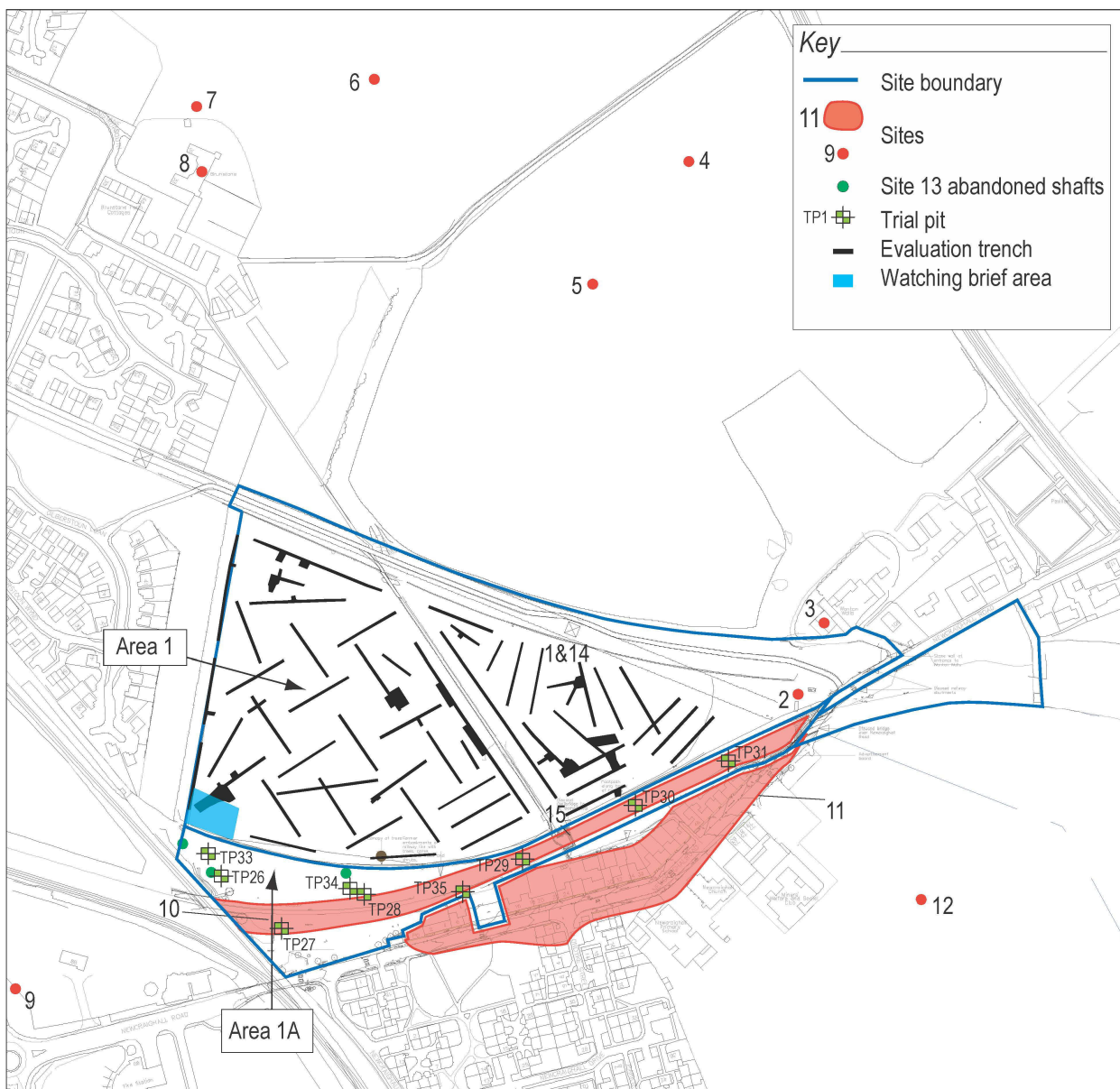
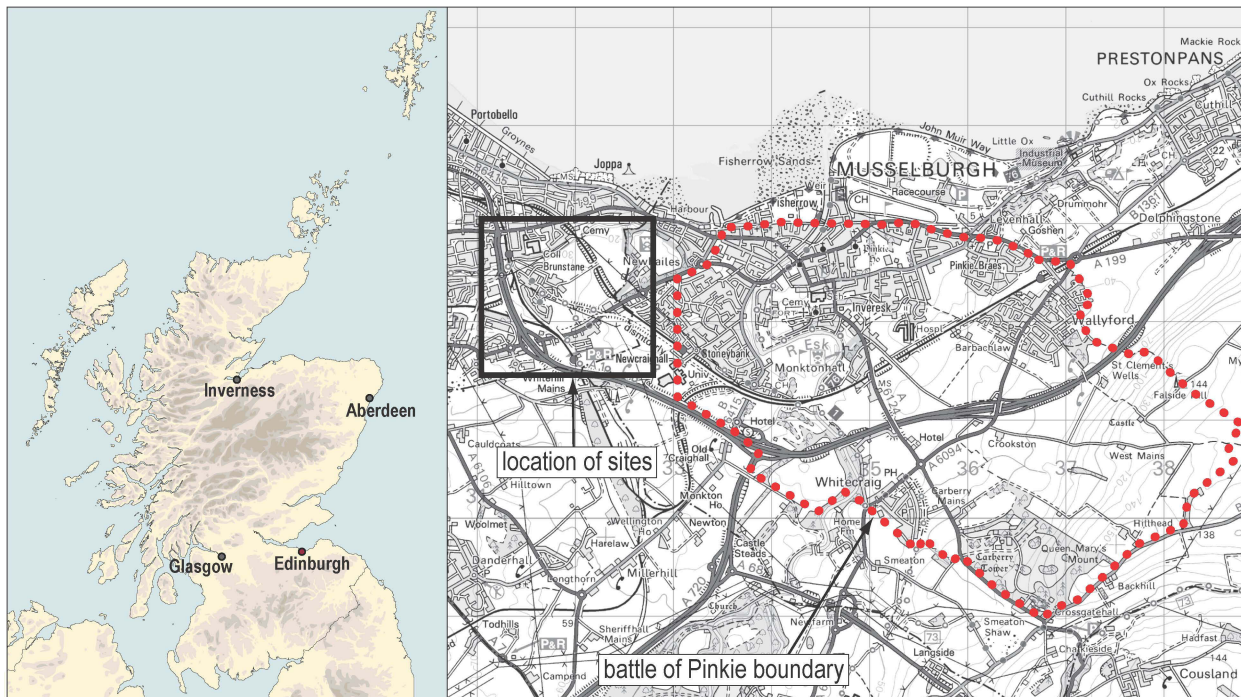
Executive Summary	5
Introduction	5
Site Location	5
Archaeological and Historical Background	6
Aims and Objectives	7
Fieldwork Methodology	8
Results	10
Metal Detecting Survey	10
Evaluation	10
Watching Brief	13
Discussion	14
Conclusions	15
Acknowledgements	15
Appendices	17
Appendix A: References	17
Appendix B: Trench Summaries	17
Appendix C: List of Contexts	30
Appendix D: List of Photographs	36
Appendix E: List of Finds	43
Appendix F: Artefact Report- Metal Detecting Survey	58
Appendix G: Discovery And Excavation Scotland Entry	62
Appendix H: Written Scheme Of Investigation	63

## List of Figures

Figure 1: Site Location	4
Figure 2: Metal Detecting Survey Finds Distribution	9
Figure 3: Plan of trenches, watching brief area and archaeological features	11

## List of Plates

Plate 1: Slabs capping stone culvert, Trench 7	10
Plate 2: Stone culvert, Trench 6	10
Plate 3: Mineshaft 1500, Trenches 15, 16 & 52	13
Plate 4: Trackway, Trench 24	13





## Executive Summary

- 1.1 A metal detecting survey, archaeological evaluation and archaeological watching brief was carried out by GUARD Archaeology Ltd on behalf of IKM Consultanting Ltd, agents for The EDI Group Ltd, on a proposed development area on arable land and a disused railway embankment situated immediately north of Newcraighall.
- 1.2 Instead of the expected later prehistoric and late medieval archaeology, the metal-detecting survey, evaluation and watching brief all suggest a predominance of 19th to 20th century activity across the development areas, not only in quantity of artefacts and features, but in terms of the spatial distribution. The previously recorded ring-ditch crop mark was found instead to be a mine related feature, perhaps an abortive mineshaft. While many of the features were of unknown date, it is likely that these predominantly relate to modern activity too. Despite the recovery of a small assemblage of early prehistoric artefacts, none of the features appeared structural and the artefacts are likely residual rather than indicative of specific prehistoric settlement within the development area.
- 1.3 Neither was there any evidence to demonstrate that the rout from the Battle of Pinkie passed through the development area. The only possible finds that could derive from this event were an iron buckle and a lead musket ball. The simple D-shaped iron buckle is a form of buckle that could potentially date anywhere from AD 1250 – 1750. However, owing to the poor metal condition a later date for this buckle is more likely. The small musket or carbine ball had been heavily distorted due to impact with a hard surface. However, as this was an isolated find it is not possible to associate this artefact to any conflict activity such as the Battle of Pinkie, as it could as equally relate to later farming or hunting activity. The rest of the finds recovered during metal detecting ranged in date between the 17th and 20th century, with the vast majority consisting of iron fixtures, pegs and other debris dating to the 19th and 20th centuries.
- 1.4 The mine features encountered during the evaluation and watching brief, together with the spatial distribution of features containing coal and ash waste deriving from mining activity and the wide distribution of nondescript iron debris found across the development area clearly indicates that the development area has been extensively disturbed in modern times. While the precise purpose of most of these features could not be identified, the nature of the material they contained indicates that they very likely relate to mining activity, the construction of the adjacent railways and the practice of agriculture during the post-medieval and modern periods.
- 1.5 As the proposed development of the area will involve the excavation of foundations, associated services and road building, it is inevitable that those archaeological features encountered in Development Area 1 will be impacted upon. However, none of these features would appear to be sufficiently significant to merit preservation in situ, and the archaeological value of fully excavating all of them is questionable given that they are unlikely to yield evidence for their purpose.
- 1.6 The archaeological watching brief of trial pits within Development Area 1A established that no significant archaeological remains survive within the depth of ground to be impacted by the proposed development.

## Introduction

- 2.1 This data structure report sets out the results for the metal detecting survey, archaeological evaluation and watching brief of the proposed Newcraighall North development area, which was carried out to a specification outlined in a Written Scheme of Investigation (Appendix J) agreed in advance by John Lawson, City of Edinburgh Council Archaeology Service (CECAS).

## Site Location

- 3.1 The development area is located to the north of Newcraighall, Edinburgh (centred around NGR: NT 31933 72068). Area 1 comprises one large 8 ha field, currently under barley, crossed by a track, while Area 1A is a disused railway line, now much overgrown with scrub, 1.7 ha in size, located to the immediate south of Area 1 (Figure 1).

## Archaeological and Historical Background

4.1 An archaeological desk-based assessment was previously undertaken by GUARD of the Newcraighall North development area. The assessment, which included a walkover survey, identified the following sites in and around the development area (Figure 1):

- Site 1- Newcraighall Ring-ditch NMRS NT37SW 59;
- Site 2- Wanton Walls Bridge, Fisherrow Branch of Edinburgh and Dalkeith Railway NMRS NT37SW 606;
- Site 3- Wanton Walls Farm, Edinburgh NMRS NT37SW 827; c(s) Listed 46550;
- Site 4- Brunstane (possible) enclosure, rig and furrow, shaft and coal pits NMRS NT37SW 573;
- Site 5- Brunstane enclosure NMRS NT37SW 60; Scheduled Ancient Monument 4112;
- Site 6- Brunstane Colliery, cropmark, field boundary, rig and furrow, mineshaft NMRS NT37SW 61;
- Site 7- Brunstane rectilinear enclosure NMRS NT37SW 238; Scheduled Ancient Monument 10580;
- Site 8- Brunstane House, Garden, Sundial and Steadings NMRS NT37SW 80; A Listed 28034 & B Listed 28035;
- Site 9- Newcraighall Colliery NMRS NT37SW 234;
- Site 10- Former Fisherrow Branch of the Edinburgh and Dalkeith Railway Line;
- Site 11- Whitehill Street, Newcraighall Village NMRS NT37SW 209; c(s) Listed 29912-29916;
- Site 12- New Craighall Colliery NMRS NT37SW 181;
- Site 13- Mine shafts;
- Site 14- Mine Shafts;
- Site 15- Foot Bridge over former railway line.

4.2 A ring-ditch cropmark (Site 1), which may represent a prehistoric roundhouse and settlement lies to the north-east of Development Area 1. To the north, outwith the proposed development areas, lie more cropmarks of potential prehistoric date, including Brunstane enclosure (Site 5), which is a scheduled ancient monument, and another possible enclosure (Site 4). These potential prehistoric sites are somewhat typical of the Lothians. Aerial photographs and previous archaeological investigations of similar cropmark sites have demonstrated that the Lothians were occupied relatively intensively, particularly during later prehistory.

4.3 To the north, outwith the proposed development area, are two known Medieval sites. The first is Brunstane moated enclosure (Site 7), a rectilinear enclosure visible as a cropmark on aerial photographs. Nearby is Brunstane House (Site 8), which first appeared in historical records as a tower built by the Crichtons, demolished in 1547 but rebuilt in a new L-shape plan by c 1565.

4.4 The proposed development area is also close to the Battlefield of Pinkie (Figure 1), fought between the Scots and English on 10th September 1547. This was fought as part of the 'Rough Wooing', the attempt of the English to link the English and Scottish Kingdoms, through the marriage of the young queen Mary of Scotland and Edward VI of England. The battle of Pinkie followed a major land campaign to secure Scottish territory led by the Duke of Somerset. In response the Earl of Arran had mustered northern Scottish forces at Edinburgh and the troops



from the south at Falla, about 15 miles to the south east of the capital, in order to counter either a cross country or coastal advance by the English army. Once aware of the English route, Arran marched north to block their approach at the crossing of the Esk near the coast at Musselburgh. An attack from English cavalry was driven off by the Scottish pike formations. At the same time the ordnance of both armies began an artillery exchange. As the Scottish battle array advanced to within bowshot, they were met by artillery fire from pieces deployed within the main English battle and by small arms fire from professional hagbutters, who had been deployed forward of the three English battles. Under this fire, and before the two sides came to hand-to-hand fighting, most of the Scottish formations appear to have disintegrated. Though some troops may have retained their battle array and made a fighting retreat, the majority fled back towards Dalkeith, to the south west, with the English in pursuit. The rout lasted around six hours, with the Scottish army fleeing towards Edinburgh as well as Dalkeith; some took the route towards Newhailes while others headed towards the area of study. Given that in a rout much material was discarded by the fleeing army, it is possible that small archaeological finds deriving from the rout may survive within the topsoil of Area 1.

- 4.5 While the bulk of archaeological sites within the study area date to the post-medieval and modern periods, none of the maps of the 17th and 18th centuries consulted during the desk-based assessment depict any settlement within the proposed development area and only a rather light distribution of rural settlement in the wider study area. To the immediate south of the proposed development areas lies Newcraighall, which began as housing for workers in the surrounding nursery gardens which had grown up in the late 18th and 19th centuries to cater for the needs of the expanding population of Edinburgh. By the later 19th century, however, and particularly after the opening of the Klondyke pit in 1897, it had become predominantly a mining village. The pit was closed in 1968, and today little sign of Newcraighall's mining past remains within the village. Some of the miners' cottages, however, have been restored and are C(s) listed buildings (Site 11). Some of these cottages seem to be depicted by Andrew and Mostyn Armstrong map of 1773 where three rectangular buildings are visible at the north-east of the Newcraighall road.
- 4.6 It is documented that across both proposed development areas there are potentially five abandoned mineshafts (Sites 13 & 14) deriving from the coal mining formerly undertaken around Newcraighall. Three abandoned shafts (Site 13) are shown on the western half of Development Area 1A while two more are indicated within Development Area 1 (Figure 1). All of these are probably associated with the Newcraighall Colliery (Site 9), nicknamed the 'Klondyke', which operated between 1897 and 1968, and was located to the south-west of the proposed development areas. Another colliery within the wider study area was New Craighall Colliery (Site 12), situated to the south-east of the proposed development area, while further north-west are recorded other mineshafts (Sites 4 & 6).
- 4.7 Development Area 1A follows the former course of the former Fisherrow Branch of the Edinburgh and Dalkeith Railway Line (Site 15). Depicted on all maps between the Ordnance Survey First Edition 6 inch map of 1854 and Bartholomew's map of 1934, visible remains of this that survive include a modern foot bridge (Site 15) that crossed over the former course of the railway line (Site 10), and Wanton Walls Bridge (Site 2). The former bridge (Site 15), though now disused, is on the course of a path, still in use, linking Brunstane to Newcraighall village.
- 4.8 While no previous archaeological investigations have been recorded within the development areas, the desk-based assessment indicated a significant potential for buried archaeological artefacts and prehistoric remains to survive within Development Area 1.

## **Aims and Objectives**

- 5.1 The aim of the archaeological works were to identify:
- the extent and nature of known archaeological features comprising the ring-ditch cropmark and the two mineshafts within Development Area 1;
  - as yet unknown archaeological features and deposits within Development Area 1;

- to ensure that any surviving archaeological remains, encountered during the site investigation works within Development Area 1A, are recorded to an appropriate level.

#### 5.2 The objectives were therefore to:

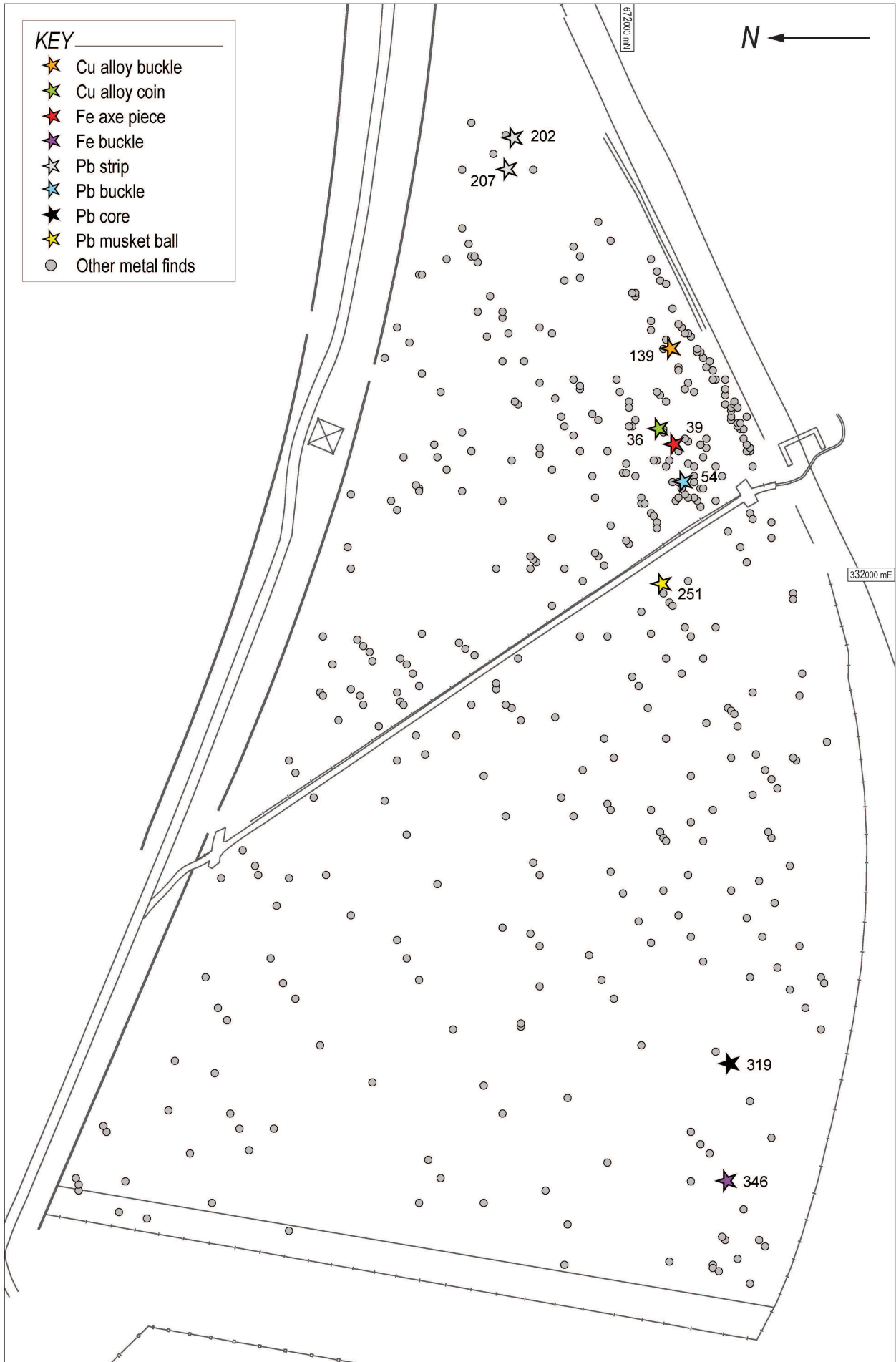
- conduct an archaeological evaluation within Development Area 1 to establish the presence or absence of any archaeological remains, and their character, date and extent if surviving;
- conduct an archaeological watching brief during the Site Investigation works within Area 1A;
- assess the depth of modern made ground within Development Area 1A above which no significant archaeology survives;
- submit a report to data structure level for approval to the City of Edinburgh Council, on completion of the archaeological fieldwork, which includes an outline of the scope of any further excavation works should any significant archaeology be encountered.

#### 5.3 The scope of the archaeological works will establish:

- that if the archaeological evaluation encounters no significant archaeological remains within Development Area 1, no further archaeological fieldwork will be required within Development Area 1;
- that if the archaeological watching brief of trial pits and mineshaft excavations within Development Area 1A establishes that no significant archaeological remains survive within the depth of ground to be impacted by the proposed development, no further archaeological fieldwork will be required within Development Area 1A.

## Fieldwork Methodology

- 6.1 An initial metal detecting survey of Development Area 1 was undertaken in order to determine the presence or absence of artefacts relating to the nearby battlefield site of Pinkie (NGR: NG 357 712) surviving within the topsoil. It was thought that this site may have been on the route of the Scottish retreat from the battle. The survey was carried out over parallel 10 m transects in Development Area 1 (Figure 2). All positive metal readings were initially marked by pin flags, these were investigated by hand excavation and, where the find could not be unequivocally identified as modern in origin, a find number was allocated. All of these finds were numbered and the find-spots located using a Magellan sub-metre GPS instrument.
- 6.2 The proposed development area was photographed and a brief written description made prior to the commencement of ground-breaking works.
- 6.3 The evaluation comprised 52 trenches with the additional areas opened around features which warranted further investigation beyond the limits of the trench (Figure 3). The machine excavation of trial trenches amounted to 5,480 m<sup>2</sup> with an additional 1,081 m<sup>2</sup> used in opening up additional investigation areas. The total percentage of the 8 ha development area investigated during the evaluation amounted to 8.2%.
- 6.4 The watching brief trenches covered 550 m<sup>2</sup> with the test pits covering an additional 33 m<sup>2</sup>. This amounts to an additional 0.6% of the total combined area of the development of 9.7 ha (Development Areas 1 and 1A).
- 6.5 All trenches were excavated using a back-acting machine equipped with a c. 2m wide flat-bladed (toothless) ditching bucket. All trenches were excavated under the supervision of the GUARD Project Archaeologist.
- 6.6 The topsoil at each trench location was removed in spits to the first archaeological horizon or, where none was found, to the natural subsoil. All archaeological features encountered were hand cleaned to determine their character and extent.





- 6.7 All significant archaeological features encountered were recorded. Negative-cut features were sample excavated in order to determine their significance, date and function. A full record of excavated features was made using pro forma sheets, drawings and photographs. All archaeological features were photographed and drawn at an appropriate scale and the trenches accurately located with the National Grid.

## Results

- 7.1 The summary of the results is outlined below. The full details of the results can be found in Appendices B-G and are illustrated in Figures 1-3.

### Metal Detecting Survey

- 7.2 The metal detecting survey resulted in the recovery of 417 metal finds distributed widely across Development Area 1 (Figure 2). The specific number and description of each find is listed in Appendix E. Of the 417 items, nine were identified by specialist assessment (see Appendix F) as of archaeological interest with the remaining items noted as heavily corroded nondescript iron fragments representing a range of activities including agriculture and residual material, such as iron bolts relating to later mining activity, modern dumping and the nearby railway. The significant finds consisted of a small musket ball (F# 251), three belt fragments (F# 054, 346 & 139), three rectangular lead objects (F# 202, 207 & 319), an iron fragment of a possible axe (F# 039) and a late 17th/early 18th century coin (F# 036).

### Evaluation

- 7.3 A total of 52 evaluation trenches were machine excavated, with additional areas opened up where features warranted further investigation (Figure 3). The evaluation investigated 6,561m<sup>2</sup> of the 8 ha development area, amounting to 8.2% of the total area. 42 features were encountered across the development area while 24 trenches uncovered either plough furrows, modern agricultural drains or were completely sterile of subsoil cut features. Details of each trench can be found in Appendix B.
- 7.4 A number of features that did not include mining waste material were encountered and comprised two linear features, two ditches, seven pits, six layers/deposits and one stone-built culvert. These features were mainly concentrated to the west of the pedestrian pathway that bisects development area 1, with only three of the features located east of the path.
- 7.5 One of the largest features east of the path was a stone built linear feature (600), most likely a culvert (Plate 1). This measured 30.92 m in length and the cut measured up to 2.09 m wide with unknown depth. The construction was of two parallel sandstone walls with mortar bonding which lay up to 1.2 m apart with overlying lintels along its length. An example of one of the lintels measured 1.8m long by 0.7 wide by 0.25m thick. This possible culvert was truncated to the south and in-filled with brick fragments and rubble, where the sandstone lintels were replaced by metal railway tracks (Plate 2).



Plate 1: Slabs capping stone culvert, Trench 7



Plate 2: Stone culvert, Trench 6



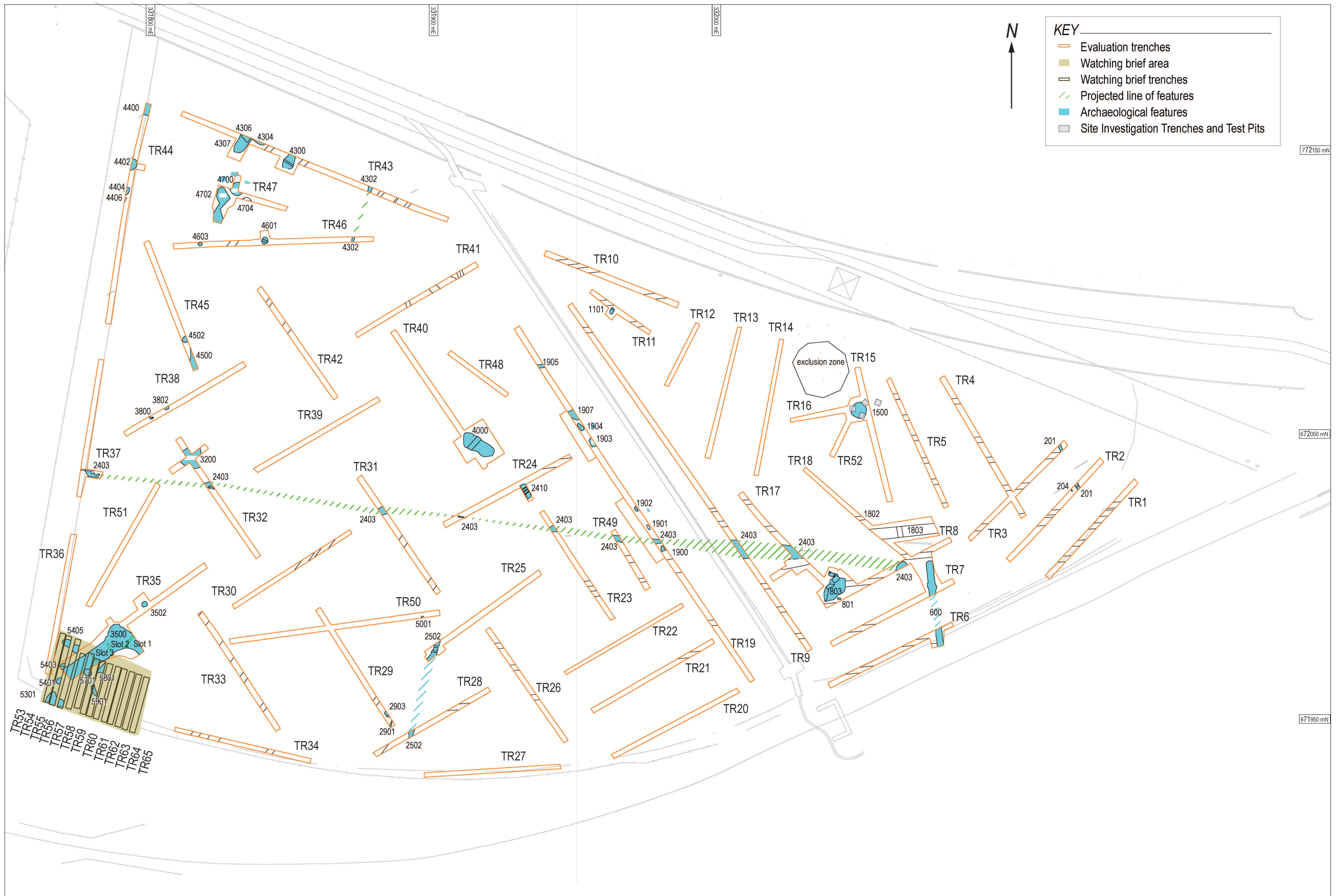


Figure 3: Plan of trenches, watching brief area and archaeological features.

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- 7.6 Trench 2 uncovered two features, a pit [204] and a possible ditch feature [201]. The pit [204] measured 0.36 by 0.88m in plan and remained unexcavated. The possible ditch [201] was uncovered across two trenches (Tr. 2 & 3) to the north-east corner of the area. This ditch measured between 1 and 1.18m wide, 0.6m deep and extended for a distance of 17 m between the two trenches. The basal fill consisted of greyish brown clay (203) with occasional waterlogged wood fragments, small stones and charcoal flecks. The upper fill consisted of dark brown silty clay (202) with occasional small stones, pebbles and charcoal flecks.
- 7.7 A series of linear furrows, aligned roughly east/west, was observed across evaluation trenches 1-11 and 17- 18. The tip of a flint arrowhead (F# 6) was recovered from the 0.07 m deep fill [1801] of one of these furrows [1802], which measured 0.9 m wide.
- 7.8 To the west of the pathway several more features were found across ten trenches. The first of these was Trench 19 which uncovered six stone spreads consisting of rounded and angular stones. Although it is possible that these spreads are of natural origin the fact that the stone material is not well sorted, as one would expect in a natural stone deposits, suggests that the material may have been placed here. At the north-west end of Trench 19 there was also a linear gully feature [1905] which was filled by mid-orangey brown sand (1906) with moderate various sized stone inclusions of rounded and angular form. This gully was orientated east to west and extended beyond the trench edge in both directions but was not found in neighbouring trenches.
- 7.9 In the southern area of Area 1, a possible ditch [2502] was uncovered across two trenches (Tr. 25 & 28). This ditch was shown to extend for at least 36.45 m north-east to south-west and measured approximately 1.3m wide and 0.55m deep. The fill consisted of mid-brown silty sand (2501) with frequent angular pebbles and gravel with some shell fragments. To the west of this in Trench 29 there was a less substantial linear feature [2901]. This feature was orientated north to south and measured 0.98 m wide, and up to 0.15 m deep. It was considered that this was part of a rig and furrow system although the continuation of this feature was not found in neighbouring trenches.
- 7.10 Towards the western perimeter of Area 1 feature [3200] was uncovered in Trench 32. This oval pit measured 7.28 by 9.11 m in plan. This was located just north of the line of track (2403) which is thought to relate to mining activity. To the north of this in Trench 38 there were two more undated pits, [3800] and [3802]. Pit [3800] measured 0.7 by 1.42m and was filled with blue grey clay (3801) with tiny coal fragments. Both pits in Trench 38 extended north-west beyond the trench edge.
- 7.11 To the north in Trench 45 were two more pits [4500] and [4502]. The most southerly of these [4500] measured 2 by 5.3 m within the limits of the trench, extending south-west, south-east and north-east for an unknown distance. The other pit [4502] lay just over 2m to the north-west and measured 1.88 by 2m within the limits of the trench and continuing to the north-east for an unknown distance, this fill was not investigated. Further to the north, Trench 46 revealed one undated pit [4603]. The pit [4603] measured 1.28 m by 1.6 m in plan and the fill was not investigated.
- 7.12 A mine feature [1500] was identified to the north-east of Area 1 at the exact spot where a ring-ditch cropmark had previously been recorded (Figure 1; Plate 3) and to the south-east of where a mineshaft was documented. A subsequent borehole investigation undertaken by IKM Consulting Ltd revealed a small 3 m depression in the rockhead at this spot but no voids were present to show a working adit or shaft. Another mining feature deposit [3500] was encountered near the south-west corner of Area 1 (Figure 3), comprising an L-shaped trench, over 27 m long, 13 m wide and varying depth down more than 1.8 metres as it extended east, filled by coal waste deposits (3501) and (3504).





Plate 3: Mineshaft 1500, Trenches 15, 16 & 52



Plate 4: Trackway, Trench 24

- 7.13 A track [2403] was traced across Area 1 for a distance of approximately 300 m. It was built of various sized stones with clay and coal dross infill (Plate 4) and its maximum width was recorded as 4.7 m in Trench 9. This track and 20 pits and a ditch [4302] were filled with deposits predominantly composed of coal dross, and larger fragments of coal. Also present in some of the features were layers of ash-like fill and modern ceramic and glass fragments. For fuller details see Appendices C and D.

### Watching Brief

- 7.14 The watching brief involved the monitoring of thirteen test pits and thirteen trenches across Areas 1 and 1A (Figures 1 & 3; Appendix B).
- 7.15 Nine test pits were located in Area 1A along the former railway embankment. The test pits varied between 2.5 m and 3.7 m deep and revealed that the topsoil varied between 0.2 and 0.9 m deep. Layers of sand, clay and gravel were encountered in the test pits and natural subsoil was found at depths of 2.5-3.3 m. The test pits did not encounter any significant archaeological features.
- 7.16 A further four test pits were excavated over the mining feature [1500], in order to test the stability of the ground here (Figure 3). The four test pits showed the feature to be a pit measuring 5.35 by 5.46m in plan and was excavated to a depth of 1.65 m deep to reveal two fills. The lower fill consisted of black and orange lenses of charcoal and redeposited subsoil (1503), while the upper fill consisted of grey silty sand (1502) with occasional angular sandstone fragments. A subsequent borehole investigation undertaken by IKM Consulting Ltd revealed a small 3 m depression in the rockhead at this spot but no voids were present to show this was a working shaft or adit.
- 7.17 The thirteen trenches monitored under the watching brief were located in the south-western corner of the Area 1 just north of a documented mine shaft adjacent to the railway line in Area 1A. These trenches revealed six pits predominantly filled with coal dross and ash and therefore potentially relating to mining activity.
- 7.18 Also revealed within the south-eastern most of these trenches, at the southern boundary of Area 1, was an oval mineshaft [5301], 5-6 m long, 2.5 m wide and 12 m deep, a little to the north of where it had been documented. It had steep near vertical sides and was filled with black coal dross and large sharp stone fragments, occasional sandstone fragments, mortar and red-brick fragments (5302). Near to this mineshaft, and pointing roughly at it, was the long trench [3500], which had been encountered and investigated during the evaluation, which showed

that it got deeper towards the east. Further drilling through this long feature by IKM Consulting Ltd showed a void at approximately 2 m deep within a thick layer of black, ashy coal spoil from 0.8-4.1 m deep. Natural clay was encountered from 4.1 m deep. In addition, rotary drilling was carried out by IKM Consulting Ltd to make sure that there was no bell pit underneath. This drilling hit solid bedrock at an approximate depth of 5-6 m.

- 7.19 Subsequent to the evaluation trenching and watching brief, IKM Consulting Ltd undertook further trial pits of some of the features filled by materials containing mining waste. Pit [1101] in Trench 11 was found to contain occasional pieces of coal to a depth of 1.1 m, where natural sand was encountered. Pit [4307] in Trench 43 was also found to contain very occasional pieces of coal to a depth of 0.7 m, where natural clay was encountered. Pit [4304], also in Trench 43, was filled with ashy material to a depth of between 1.5 m and 2.5 m, where natural clay was encountered. Pit [4601] in Trench 46 was also found to contain very occasional pieces of coal to a depth of 0.6 m - 0.8 m, where natural clay was encountered. The large pit [4000] within Trench 40 was filled with ashy material to a depth between 1.1 m and 2.4 m. Natural clay/sand was encountered from 2.4 m depth. Pit [2903] in Trench 29 was found to contain occasional pieces of coal, as was Pit [803] in Trench 8, where underlying natural clay was found at a depth of 0.4 m. Pit [2410] contained ash and coal material to a depth of 0.5 m where underlying natural clay was encountered. Pit [5001] contained ash and very occasional pieces of coal to a depth of 0.9 m where underlying natural clay was encountered.
- 7.20 The other two previously documented mineshafts (Site 13 on Figure 1) further to the east in Area 1A were not exposed and remain unexamined due to the potential instability any excavation might cause to the adjacent working railway embankment. Network Rail and the Coal Authority have confirmed that one of the documented shafts has been treated. Treatment details are currently unknown.

## Discussion

- 8.1 The metal-detecting survey revealed no finds that could be definitively attributed to the Battle of Pinkie of 1547 (see Appendix F for specialist report). The only possible finds that could derive from this event were an iron buckle and a lead musket ball. The simple D-shaped iron buckle (Find 054) is a form of buckle that could potentially date anywhere from AD 1250 – 1750. However, owing to the poor metal condition across the site a later date for this buckle is more likely (Whitehead 2003, 18). The small musket or carbine ball (Find 251) had been heavily distorted due to impact with a hard surface. As this is an isolated find it is not possible, however, to associate this artefact to any conflict activity such as the Battle of Pinkie, as it could as equally relate to later farming or hunting activity.
- 8.2 The other finds recovered from the metal detecting survey ranged in date from the 17th to 20th century, with the vast majority consisting of iron fixtures, pegs and other debris dating to the 19th and 20th centuries. Another interesting buckle was recovered, comprising a square copper alloy belt buckle of semi-ornate design (Find 139), datable to the mid 17th century. A small quantity of other copper alloy and lead artefacts were also recovered, including a number of more diagnostic metal finds such as buttons and coins, as well as some less identifiable objects. The metallic condition, particularly of the copper alloy objects such as the possible late 17th - early 18th coin (Find 036) and early 18th century to mid 19th century button (Find 064) was very poor and does not allow for accurate identification.
- 8.3 The evaluation uncovered 42 features across 52 trenches, of which at least 24 contained coal and ash likely to derive from mining activity during the 19th and 20th centuries. While four pieces of flint in total were recovered during the archaeological evaluation, comprising two possible cores, a flake and the tip of a bifacial arrowhead (F# 6) that might date to the Neolithic or early Bronze Age (Torben Ballin pers comm), these would appear to be residual in nature and derived either from very shallow features or features which also contained modern material. Nevertheless, flint does not occur naturally in this location with the closest source being located on the Forth Estuary to the north (Wickham-Jones 1986). The location of several circular enclosures noted in the vicinity clearly indicates that the surrounding landscape was occupied



during the prehistoric period, but the cropmark previously thought to be a ring-ditch was found during the evaluation to be a mining feature, perhaps an abortive mineshaft, and none of the other features encountered appeared to be prehistoric either.

- 8.4 Other features encountered during the evaluation include stone spreads of unknown date found in Trench 19, which all lay parallel to the present day public footpath, and may therefore be a by-product of the path's construction. Similarly the large stone culvert [600] perpendicular to the south-east railway embankment likely relates to the construction and maintenance of the former railway line. East/west aligned furrows encountered in the eastern field of Area 1 and the south-eastern part of the western field of Area 1, as well as north-east/south-west aligned furrows to the west and north of the western field relate to post-medieval agriculture.
- 8.5 The mining features encountered during the evaluation and watching brief, together with the wide spatial distribution of features containing coal and ash waste deriving from mining activity and the wide distribution of nondescript iron debris found across the development area clearly indicates that the development area has been extensively disturbed in modern times. While the precise purpose of these features could not be identified, the nature of the material they contained indicates that they very likely relate to mining activity, the construction of the adjacent railways and the practice of agriculture during the post-medieval and modern periods.

## Conclusions

- 9.1 Instead of the expected later prehistoric and late medieval archaeology, the metal-detecting survey, evaluation and watching brief all suggest a predominance of 19th to 20th century activity across the development area, not only in terms of the quantity of artefacts and features, but in terms of the spatial distribution of these artefact and features. The previously recorded ring-ditch crop mark was found to be a mine feature, perhaps an abortive shaft. While many of the features were of unknown date, it is likely that these predominantly relate to modern activity too, particularly mining given the predominance of coal dross and ash in the deposits filling these features. Despite the recovery of a small assemblage of early prehistoric artefacts, none of the features appeared structural and the artefacts are likely residual rather than indicative of specific prehistoric settlement within the development area. Neither was there any evidence to demonstrate that the rout from the Battle of Pinkie passed through the development area.
- 9.2 As the proposed development of Area 1 will involve the excavation of foundations, associated services and road building, it is inevitable that those archaeological features encountered during these investigations will be impacted upon. However, none of these features would appear to be sufficiently significant to merit preservation in situ, and the archaeological value of fully excavating all of them is questionable given that they are unlikely to yield significant evidence for their purpose.
- 9.3 As the archaeological watching brief of the trial pits and mineshaft excavations within Development Area 1A established that no significant archaeological remains survive within the depth of ground to be impacted by the proposed development, no further archaeological fieldwork should be required within Development Area 1A, in accordance with the scope of this work as set out and agreed in the Written Scheme of Investigation.
- 9.4 Final decisions on the nature and extent of any future archaeological work, however, rest with the planning authority, as advised by the City of Edinburgh Council Archaeology Service.

## Acknowledgements

- 10.1 GUARD Archaeology Ltd would like to thank Richard Calder of IKM Consulting Ltd and John Lawson of CECAS for their assistance. Plant and drivers were supplied by Brown Plant Hire. Technical support was from Aileen Maule. The project was directed by Alan Hunter Blair with assistance from Battlefield Archaeologist Natasha Ferguson, and archaeologists Beth Spence, Christine Rennie, Daniel Sahlen, Fiona Jackson, Iraia Arabaoloaza and Warren Bailie. The project was managed for GUARD by Ronan Toolis.

**Newcraighall North, Edinburgh.**

**Section 2: Appendices**



**[www.guard-archaeology.co.uk](http://www.guard-archaeology.co.uk)**

## Appendices

### Appendix A: References

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### Appendix B: Trench Summaries

Trench 1						
Dimensions	Length (m)	50	Width (m)	2	Depth (m)	Up to 0.65
Total Area (m <sup>2</sup> )	100					
Orientation	NE-SW					
Overburden	Topsoil 001				Depth (m)	0.35
Subsoil	Orange/brown sandy clay 002				Depth (m)	Up to 0.3
Natural	Boulder clay					
Significant features	Rig and furrow 003					
Finds	N/A					

Trench 2						
Dimensions	Length (m)	50	Width (m)	2	Depth (m)	0.4
Total Area (m <sup>2</sup> )	100					
Orientation	NE-SW					
Overburden	Topsoil 001				Depth (m)	0.30
Subsoil	Orange/brown sandy clay 002				Depth (m)	0.10
Natural	Boulder clay					
Significant features	Linear cut 201 rig and furrow 003					
Finds	N/A					

Trench 3						
Dimensions	Length (m)	50	Width (m)	2	Depth (m)	0.5
Total Area (m <sup>2</sup> )	100					
Orientation	NW-SE					
Overburden	Topsoil 001				Depth (m)	0.3
Subsoil	Orange/brown sandy clay 002				Depth (m)	0.2
Natural	Boulder clay					
Significant features	Linear cut 201 rig and furrow 003					
Finds	N/A					

Trench 4						
Dimensions	Length (m)	50	Width (m)	2	Depth (m)	0.3-0.5
Total Area (m <sup>2</sup> )	100					
Orientation	NW-SE					
Overburden	Topsoil 001				Depth (m)	0.3
Subsoil	Orange/brown sandy clay 002				Depth (m)	Up to 0.2
Natural	Boulder clay					
Significant features	Rig and furrow 003					
Finds	N/A					

Trench 5						
Dimensions	Length (m)	50	Width (m)	2	Depth (m)	0.3-0.6
Total Area (m <sup>2</sup> )	100					
Orientation	NW-SE					
Overburden	Topsoil 001				Depth (m)	0.32

Subsoil	Orange/brown sandy clay 002				Depth (m)	Up to 0.28
Natural	Boulder clay					
Significant features	Rig and furrow 003					
Finds	N/A					
<b>Trench 6</b>						
Dimensions	Length (m)	50	Width (m)	2	Depth (m)	0.42
Total Area (m <sup>2</sup> )	100					
Orientation	NE-SW					
Overburden	Topsoil 001				Depth (m)	0.32
Subsoil	Orange/brown sandy clay 002				Depth (m)	0.1
Natural	Boulder clay					
Significant features	Rig and furrow 003, stone structure 600					
Finds	N/A					
<b>Trench 7</b>						
Dimensions	Length (m)	50	Width (m)	2	Depth (m)	0.32-0.42
Total Area (m <sup>2</sup> )	100					
Orientation	NE-SW					
Overburden	Topsoil 001				Depth (m)	0.32
Subsoil	Orange/brown sandy clay 002				Depth (m)	0.10
Natural	Boulder clay					
Significant features	Rig and furrow 003, stone structure 600					
Finds	N/A					
<b>Trench 8</b>						
Dimensions	Length (m)	50	Width (m)	2	Depth (m)	0.3-0.4
Total Area (m <sup>2</sup> )	100					
Orientation	NE-SW					
Overburden	Topsoil 001				Depth (m)	0.3-0.4
Subsoil	Orange/brown sandy clay 002				Depth (m)	0.1
Natural	Boulder clay					
Significant features	Rig and furrow 003, track 2403, pit 801					
Finds	N/A					
<b>Trench 9</b>						
Dimensions	Length (m)	150	Width (m)	2	Depth (m)	0.43
Total Area (m <sup>2</sup> )	300					
Orientation	NW-SE					
Overburden	Topsoil 001				Depth (m)	0.32
Subsoil	Orange/brown sandy clay 002				Depth (m)	0.11
Natural	Boulder clay					
Significant features	Rig and furrow 003					
Finds	N/A					
<b>Trench 10</b>						
Dimensions	Length (m)	50	Width (m)	2	Depth (m)	0.45
Total Area (m <sup>2</sup> )	100					
Orientation	NW-SE					
Overburden	Topsoil 001				Depth (m)	0.33
Subsoil	Orange/brown sandy clay 002				Depth (m)	0.12
Natural	Boulder clay					
Significant features	Rig and furrow 003					
Finds	N/A					
<b>Trench 11</b>						
Dimensions	Length (m)	25	Width (m)	2	Depth (m)	0.32
Total Area (m <sup>2</sup> )	50					
Orientation	NE-SW					



Overburden	Topsoil 001				Depth (m)	0.32
Subsoil	N/A				Depth (m)	
Natural	Boulder clay					
Significant features	Rig and furrow 003, pit 1101					
Finds	Leather and pottery					
Trench 12						
Dimensions	Length (m)	25	Width (m)	2	Depth (m)	0.32
Total Area (m <sup>2</sup> )	50					
Orientation	NE-SW					
Overburden	Topsoil 001				Depth (m)	0.32
Subsoil	N/A				Depth (m)	
Natural	Boulder clay					
Significant features	N/A					
Finds	N/A					
Trench 13						
Dimensions	Length (m)	50	Width (m)	2	Depth (m)	0.38
Total Area (m <sup>2</sup> )	100					
Orientation	NE-SW					
Overburden	Topsoil 001				Depth (m)	0.3
Subsoil	Orange/brown sandy clay 002				Depth (m)	0.08
Natural	Boulder clay					
Significant features	N/A					
Finds	Metal blade evaluation SF001					
Trench 14						
Dimensions	Length (m)	50	Width (m)	2	Depth (m)	0.35
Total Area (m <sup>2</sup> )	100					
Orientation	NE-SW					
Overburden	Topsoil 001				Depth (m)	0.3
Subsoil	Orange/brown sandy clay 002				Depth (m)	0.05
Natural	Boulder clay					
Significant features	N/A					
Finds	N/A					
Trench 15						
Dimensions	Length (m)	50	Width (m)	2	Depth (m)	0.3
Total Area (m <sup>2</sup> )	100					
Orientation	NE-SW					
Overburden	Topsoil 001				Depth (m)	0.3
Subsoil	N/A				Depth (m)	
Natural	Boulder clay					
Significant features	Pit 1500					
Finds	N/A					
Trench 16						
Dimensions	Length (m)	25	Width (m)	2	Depth (m)	0.32
Total Area (m <sup>2</sup> )	50					
Orientation	NE-SW					
Overburden	Topsoil 001				Depth (m)	0.32
Subsoil	N/A				Depth (m)	
Natural	Boulder clay					
Significant features	N/A					
Finds	N/A					
Trench 17						
Dimensions	Length (m)	50	Width (m)	2	Depth (m)	0.38-0.48
Total Area (m <sup>2</sup> )	100					

Orientation	NW-SE					
Overburden	Topsoil 001				Depth (m)	0.32
Subsoil	Orange/brown sandy clay 002				Depth (m)	0.06-0.16
Natural	Boulder clay					
Significant features	Track 2403 Rig and furrow 003					
Finds	N/A					
Trench 18						
Dimensions	Length (m)	50	Width (m)	2	Depth (m)	0.58-0.7
Total Area (m <sup>2</sup> )	100					
Orientation	NW-SE					
Overburden	Topsoil 001				Depth (m)	0.32
Subsoil	Orange/brown sandy clay 002				Depth (m)	0.26-0.38
Natural	Boulder clay					
Significant features	Rig and furrow 1801, linear 1803					
Finds	N/A					
Trench 19						
Dimensions	Length (m)	150	Width (m)	2	Depth (m)	0.5
Total Area (m <sup>2</sup> )	300					
Orientation	NW-SE					
Overburden	Topsoil 001				Depth (m)	0.34
Subsoil	Orange/brown sandy clay 002				Depth (m)	0.16
Natural	Boulder clay					
Significant features	Stone layers 1900-1904 and 1907 Linear cut 1905 and rig and furrow 003					
Finds	1 unworked flint fragment					
Trench 20						
Dimensions	Length (m)	50	Width (m)	2	Depth (m)	0.38
Total Area (m <sup>2</sup> )	100					
Orientation	NW-SE					
Overburden	Topsoil 001				Depth (m)	0.35
Subsoil	Orange/brown sandy clay 002				Depth (m)	0.03
Natural	Boulder clay					
Significant features	N/A					
Finds	N/A					
Trench 21						
Dimensions	Length (m)	50	Width (m)	2	Depth (m)	0.4
Total Area (m <sup>2</sup> )	100					
Orientation	NE-SW					
Overburden	Topsoil 001				Depth (m)	0.38
Subsoil	Orange/brown sandy clay 002				Depth (m)	0.02
Natural	Boulder clay					
Significant features	Rig and furrow 003					
Finds	N/A					
Trench 22						
Dimensions	Length (m)	50	Width (m)	2	Depth (m)	0.42
Total Area (m <sup>2</sup> )	100					
Orientation	NE-SW					
Overburden	Topsoil 001				Depth (m)	0.32
Subsoil	Orange/brown sandy clay 002				Depth (m)	0.1
Natural	Boulder clay					
Significant features	N/A					
Finds	N/A					

Trench 23						
Dimensions	Length (m)	50	Width (m)	2	Depth (m)	0.48
Total Area (m <sup>2</sup> )	100					
Orientation	NW-SE					
Overburden	Topsoil 001				Depth (m)	0.32
Subsoil	Orange/brown sandy clay 002				Depth (m)	0-16
Natural	Boulder clay					
Significant features	Rig and furrow 003, track 2403					
Finds	N/A					
Trench 24						
Dimensions	Length (m)	50	Width (m)	2	Depth (m)	0.42
Total Area (m <sup>2</sup> )	100					
Orientation	NE-SW					
Overburden	Topsoil 001				Depth (m)	0.32
Subsoil	Orange/brown sandy clay 002				Depth (m)	0.1
Natural	Boulder clay					
Significant features	Rig and furrow, coal and slag rich deposit 2410, track 2403					
Finds	N/A					
Trench 25						
Dimensions	Length (m)	50	Width (m)	2	Depth (m)	0.34
Total Area (m <sup>2</sup> )	100					
Orientation	NE-SW					
Overburden	Topsoil 001				Depth (m)	0.34
Subsoil	N/A				Depth (m)	
Natural	Boulder clay					
Significant features	Ditch 2502					
Finds	N/A					
Trench 26						
Dimensions	Length (m)	50	Width (m)	2	Depth (m)	0.38
Total Area (m <sup>2</sup> )	100					
Orientation	NW-SE					
Overburden	Topsoil 001				Depth (m)	0.32
Subsoil	Red/brown loam 003				Depth (m)	0.06
Natural	Orange/brown sandy clay 002					
Significant features	Rig and furrow 003					
Finds	N/A					
Trench 27						
Dimensions	Length (m)	50	Width (m)	2	Depth (m)	0.4
Total Area (m <sup>2</sup> )	100					
Orientation	E-W					
Overburden	Topsoil 001				Depth (m)	0.36
Subsoil	Orange/brown sandy clay 002				Depth (m)	0.04
Natural	Boulder clay					
Significant features	N/A					
Finds	N/A					
Trench 28						
Dimensions	Length (m)	50	Width (m)	2	Depth (m)	0.45
Total Area (m <sup>2</sup> )	100					
Orientation	NE-SW					
Overburden	Topsoil 001				Depth (m)	0.32
Subsoil	Orange/brown sandy clay 002				Depth (m)	0.13
Natural	Boulder clay					
Significant features	Rig and furrow 003, ditch 2502					
Finds	N/A					



Trench 29						
Dimensions	Length (m)	50	Width (m)	2	Depth (m)	0.4
Total Area (m <sup>2</sup> )	100					
Orientation	NW-SE					
Overburden	Topsoil 001				Depth (m)	0.3
Subsoil	Orange/brown sandy clay 002				Depth (m)	0.1
Natural	Boulder clay					
Significant features	Rig and furrow 003, linear cut 2901, pit 2903					
Finds	N/A					

Trench 30						
Dimensions	Length (m)	50	Width (m)	2	Depth (m)	0.3
Total Area (m <sup>2</sup> )	100					
Orientation	NE-SW					
Overburden	Topsoil 001				Depth (m)	0.3
Subsoil	N/A				Depth (m)	
Natural	Boulder clay					
Significant features	Rig and furrow 003					
Finds	N/A					

Trench 31						
Dimensions	Length (m)	50	Width (m)	2	Depth (m)	0.4-0.5
Total Area (m <sup>2</sup> )	100					
Orientation	NW-SE					
Overburden	Topsoil 001				Depth (m)	0.32
Subsoil	Orange/brown sandy clay 002				Depth (m)	0.08-0.12
Natural	Boulder clay					
Significant features	Track 2403, rig and furrow					
Finds	N/A					

Trench 32						
Dimensions	Length (m)	50	Width (m)	2	Depth (m)	0.65
Total Area (m <sup>2</sup> )	100					
Orientation	NW-SE					
Overburden	Topsoil 001				Depth (m)	0.35
Subsoil	Orange/brown sandy clay 002				Depth (m)	0.25
Natural	Boulder clay					
Significant features	Track 2403, pit 3200					
Finds	N/A					

Trench 33						
Dimensions	Length (m)	50	Width (m)	2	Depth (m)	0.35
Total Area (m <sup>2</sup> )	100					
Orientation	NW-SE					
Overburden	Topsoil 001				Depth (m)	0.3
Subsoil	Orange/brown sandy clay 002				Depth (m)	0.05
Natural	Boulder clay					
Significant features	Rig and furrow 003					
Finds	N/A					

Trench 34						
Dimensions	Length (m)	50	Width (m)	2	Depth (m)	0.4
Total Area (m <sup>2</sup> )	100					
Orientation	NW-SE					
Overburden	Topsoil 001				Depth (m)	0.32
Subsoil	Orange/brown sandy clay 002				Depth (m)	0.08
Natural	Boulder clay					
Significant features	Rig and furrow 003					
Finds	N/A					

Trench 35						
Dimensions	Length (m)	50	Width (m)	2	Depth (m)	0.42
Total Area (m <sup>2</sup> )	100					
Orientation	NE-SW					
Overburden	Topsoil 001				Depth (m)	0.3
Subsoil	Orange/brown sandy clay 002				Depth (m)	0.12
Natural	Boulder clay					
Significant features	Pit 3500 and pit 3502					
Finds	Pottery and glass					
Trench 36						
Dimensions	Length (m)	50	Width (m)	2	Depth (m)	0.33
Total Area (m <sup>2</sup> )	100					
Orientation	N-S					
Overburden	Topsoil 001				Depth (m)	0.33
Subsoil	N/A				Depth (m)	
Natural	Boulder clay					
Significant features	N/A					
Finds	N/A					
Trench 37						
Dimensions	Length (m)	50	Width (m)	2	Depth (m)	0.34-0.8
Total Area (m <sup>2</sup> )	100					
Orientation	N-S					
Overburden	Topsoil 001				Depth (m)	0.34-0.4
Subsoil	Orange/brown sandy clay 002				Depth (m)	Up to 0.4
Natural	Boulder clay					
Significant features	Track 2403					
Finds	N/A					
Trench 38						
Dimensions	Length (m)	50	Width (m)	2	Depth (m)	0.3
Total Area (m <sup>2</sup> )	100					
Orientation	NE-SW					
Overburden	Topsoil 001				Depth (m)	0.34-0.4
Subsoil	N/A				Depth (m)	
Natural	Boulder clay					
Significant features	Pit 3800 and pit 3802					
Finds	N/A					
Trench 39						
Dimensions	Length (m)	50	Width (m)	2	Depth (m)	0.32
Total Area (m <sup>2</sup> )	100					
Orientation	NE-SW					
Overburden	Topsoil 001				Depth (m)	0.32
Subsoil	N/A				Depth (m)	
Natural	Boulder clay					
Significant features	N/A					
Finds	N/A					
Trench 40						
Dimensions	Length (m)	58	Width (m)	2	Depth (m)	0.34
Total Area (m <sup>2</sup> )	116					
Orientation	NW-SE					
Overburden	Topsoil 001				Depth (m)	0.34
Subsoil	N/A				Depth (m)	
Natural	Boulder clay					
Significant features	Pit 4000					
Finds	N/A					

Trench 41						
Dimensions	Length (m)	50	Width (m)	2	Depth (m)	0.45
Total Area (m <sup>2</sup> )	100					
Orientation	NE-SW					
Overburden	Topsoil 001				Depth (m)	0.32
Subsoil	Orange/brown sandy clay 002				Depth (m)	0.13
Natural	Boulder clay					
Significant features	Rig and furrow 003					
Finds	N/A					
Trench 42						
Dimensions	Length (m)	50	Width (m)	2	Depth (m)	0.45
Total Area (m <sup>2</sup> )	100					
Orientation	NW-SE					
Overburden	Topsoil 001				Depth (m)	0.32
Subsoil	Orange/brown sandy clay 002				Depth (m)	0.13
Natural	Boulder clay					
Significant features	Rig and furrow					
Finds	N/A					
Trench 43						
Dimensions	Length (m)	100	Width (m)	2	Depth (m)	0.54
Total Area (m <sup>2</sup> )	200					
Orientation	NW-SE					
Overburden	Topsoil 001				Depth (m)	0.34
Subsoil	Orange/brown sandy clay 002				Depth (m)	0.2
Natural	Boulder clay					
Significant features	Pit 4300, Linear cut 4302, ash filled pit 4304, cobbles 4306 and pit 4307					
Finds	Pottery and glass					
Trench 44						
Dimensions	Length (m)	80	Width (m)	2	Depth (m)	0.38
Total Area (m <sup>2</sup> )	160					
Orientation	N-S					
Overburden	Topsoil 001				Depth (m)	0.3
Subsoil	Orange/brown sandy clay 002				Depth (m)	0.08
Natural	Boulder clay					
Significant features	Possible pit 4400, rig and furrow 003, pit 4402, pit 4404 and pit 4406					
Finds	N/A					
Trench 45						
Dimensions	Length (m)	50	Width (m)	2	Depth (m)	0.5
Total Area (m <sup>2</sup> )	100					
Orientation	NW-SE					
Overburden	Topsoil 001				Depth (m)	0.32
Subsoil	Orange/brown sandy clay 002				Depth (m)	0.18
Natural	Boulder clay					
Significant features	Pit 4500, pit 4502					
Finds	N/A					
Trench 46						
Dimensions	Length (m)	70	Width (m)	2	Depth (m)	0.4
Total Area (m <sup>2</sup> )	140					
Orientation	E-W					
Overburden	Topsoil 001				Depth (m)	0.32
Subsoil	Orange/brown sandy clay 002				Depth (m)	0.08
Natural	Boulder clay					
Significant features	Pit 4601, pit 4603					
Finds	N/A					



Trench 47						
Dimensions	Length (m)	25	Width (m)	2	Depth (m)	0.4
Total Area (m <sup>2</sup> )	50					
Orientation	N-S					
Overburden	Topsoil 001				Depth (m)	0.3
Subsoil	Orange/brown sandy clay 002				Depth (m)	0.1
Natural	Boulder clay					
Significant features	Pit 4700, pit 4702, pit 4704					
Finds	N/A					
Trench 48						
Dimensions	Length (m)	25	Width (m)	2	Depth (m)	0.38
Total Area (m <sup>2</sup> )	50					
Orientation	NW-SE					
Overburden	Topsoil 001				Depth (m)	0.32
Subsoil	Orange/brown sandy clay 002				Depth (m)	0.06
Natural	Boulder clay					
Significant features	N/A					
Finds	N/A					
Trench 49						
Dimensions	Length (m)	25	Width (m)	2	Depth (m)	0.35
Total Area (m <sup>2</sup> )	50					
Orientation	N-S					
Overburden	Topsoil 001				Depth (m)	0.35
Subsoil	N/A				Depth (m)	
Natural	Boulder clay					
Significant features	Track 2403 rig and furrow 003					
Finds	N/A					
Trench 50						
Dimensions	Length (m)	75	Width (m)	2	Depth (m)	0.5
Total Area (m <sup>2</sup> )	150					
Orientation	N-S					
Overburden	Topsoil 001				Depth (m)	0.35
Subsoil	Orange/brown sandy clay 002				Depth (m)	0.15
Natural	Boulder clay					
Significant features	Pit 5000					
Finds	N/A					
Trench 51						
Dimensions	Length (m)	50	Width (m)	2	Depth (m)	0.6
Total Area (m <sup>2</sup> )	100					
Orientation	NE-SW					
Overburden	Topsoil 001				Depth (m)	0.4
Subsoil	Orange/brown sandy clay 002				Depth (m)	0.2
Natural	Boulder clay					
Significant features	N/A					
Finds	N/A					
Trench 52						
Dimensions	Length (m)	14	Width (m)	2	Depth (m)	0.4
Total Area (m <sup>2</sup> )	28					
Orientation	ENE-WSW					
Overburden	Topsoil 001				Depth (m)	0.32
Subsoil	Orange/brown sandy clay 002				Depth (m)	0.08
Natural	Boulder clay					
Significant features	N/A					
Finds	N/A					

## Watching brief trenches and test pits

Trench 53						
Dimensions	Length (m)	25	Width (m)	2	Depth (m)	0.3- 0.4
Total Area (m <sup>2</sup> )	50					
Orientation	N-S					
Topsoil (001)	Firm, very dark greyish brown silty clay, occ. grit, occ. small rounded stones				Depth (m)	0.3-0.4
Subsoil (002)	v. firm light brownish orange silty sand, occ. sandstone frags, occ. gravel					
Significant features	Mining feature [5301]					
Finds	Tile fragment from feature [5301]- watch brief f#2					
Trench 54						
Dimensions	Length (m)	25	Width (m)	2	Depth (m)	0.32-2.7
Total Area (m <sup>2</sup> )	50					
Orientation	N-S					
Topsoil (001)	Dark greyish brown silty clay , occ. gravel, occ. sandstone frags				Depth (m)	0.3-0.42
Subsoil (002)	v. firm light brownish orange silty sand, occ. sandstone frags, occ. gravel					
Significant features	Mining features [5401], [5403], [5405] and continuation of [5301]- mining features					
Finds	w					
Trench 55						
Dimensions	Length (m)	25	Width (m)	2	Depth (m)	0.34-1.5
Total Area (m <sup>2</sup> )	50					
Orientation	N-S					
Topsoil (001)	v. dark greyish brown silty clay with occasional gravel				Depth (m)	0.34
Subsoil (002)	v. firm light brownish orange silty sand, occ. sandstone frags, occ. gravel					
Significant features	Continuation of [5405]- mining feature					
Finds	none					
Trench 56						
Dimensions	Length (m)	20	Width (m)	2	Depth (m)	0.32-0.56
Total Area (m <sup>2</sup> )	40					
Orientation	N-S					
Topsoil (001)	v. dark brown silty clay, lighter brown towards transition with subsoil				Depth (m)	0.32-0.4
Subsoil (002)	v. firm light brownish orange silty sand, occ. sandstone frags, occ. gravel					
Significant features	N/A					
Finds	none					
Trench 57						
Dimensions	Length (m)	20	Width (m)	2	Depth (m)	0.35-0.48
Total Area (m <sup>2</sup> )	40					
Orientation	N-S					
Topsoil (001)	v. dark greyish brown silty clay , occ. sandstone frags				Depth (m)	0.35-0.48
Subsoil (002)	v. firm light brownish orange silty sand, occ. sandstone frags, occ. gravel					
Significant features	[5701]- mining feature					
Finds	Cream stoneware sherd, watch brief f#3					
Trench 58						
Dimensions	Length (m)	20	Width (m)	2	Depth (m)	0.38-0.7
Total Area (m <sup>2</sup> )	40					
Orientation	N-S					
Topsoil (001)	v. dark greyish brown silty clay, occ. coal, sandstone, ash and mortar				Depth (m)	0.28-0.48
Subsoil (002)	v. firm light brownish orange silty sand, occ. sandstone frags, occ. gravel					
Significant features	[5801]- mining feature					
Finds	none					

Trench 59						
Dimensions	Length (m)	20	Width (m)	2	Depth (m)	0.28-0.4
Total Area (m <sup>2</sup> )	40					
Orientation	N-S					
Topsoil (001)	v. dark greyish brown silty clay, occ. sandstone frags				Depth (m)	0.28-0.4
Subsoil (002)	v. firm light brownish orange silty sand, occ. sandstone frags, occ. gravel					
Significant features	[5901]- mining feature					
Finds	none					
Trench 60						
Dimensions	Length (m)	20	Width (m)	2	Depth (m)	0.4-0.7
Total Area (m <sup>2</sup> )	40					
Orientation	N-S					
Topsoil (001)	v. dark greyish brown silty clay, occ. sandstone frags				Depth (m)	0.4-0.52
Subsoil (002)	v. firm light brownish orange silty sand, freq. sandstone frags, occ. grit, occas. Med. Rounded strones					
Significant features	N/A					
Finds	none					
Trench 61						
Dimensions	Length (m)	20	Width (m)	2	Depth (m)	0.4-0.58
Total Area (m <sup>2</sup> )	40					
Orientation	N-S					
Topsoil (001)	v. dark greyish brown silty clay, occ. sandstone frags, occ. coal and ash				Depth (m)	0.4-0.58
Subsoil (002)	v. firm light brownish orange silty sand, occ. sandstone frags, occ. gravel					
Significant features	N/A					
Finds	none					
Trench 62						
Dimensions	Length (m)	20	Width (m)	2	Depth (m)	0.39-0.48
Total Area (m <sup>2</sup> )	40					
Orientation	N-S					
Topsoil (001)	v. dark greyish brown silty clay, occ. sandstone frags				Depth (m)	0.39-0.48
Subsoil (002)	v. firm light brownish orange silty sand, freq. sandstone frags					
Significant features	N/A					
Finds	none					
Trench 63						
Dimensions	Length (m)	20	Width (m)	2	Depth (m)	0.24-0.45
Total Area (m <sup>2</sup> )	40					
Orientation	N-S					
Topsoil (001)	v. dark greysih brown silty clay, occ. sandstone frags				Depth (m)	0.24-0.45
Subsoil (002)	v. firm light brownish orange silty sand, freq. sandstone frags					
Significant features	N/A					
Finds	none					
Trench 64						
Dimensions	Length (m)	20	Width (m)	2	Depth (m)	0.3-0.4
Total Area (m <sup>2</sup> )	40					
Orientation	N-S					
Topsoil (001)	v. dark greyish brown silty clay, occ. sandstone frags				Depth (m)	0.3-0.4
Subsoil (002)	v. firm light brownish orange silty sand, freq. sandstone frags					
Significant features	N/A					
Finds	none					
Trench 65						
Dimensions	Length (m)	20	Width (m)	2	Depth (m)	0.38-0.41
Total Area (m <sup>2</sup> )	40					



Orientation	N-S					
Topsoil (001)	v. dark greyish brown silty clay, occ. sandstone frags and gravel pockets				Depth (m)	0.38-0.41
Subsoil (002)	v. firm light brownish orange silty sand, freq. sandstone frags					
Significant features	N/A					
Test pit 26						
Dimensions	Length (m)	2.2	Width (m)	0.7	Depth (m)	3.35
Total Area (m <sup>2</sup> )	1.54					
Orientation	N-S					
Topsoil (001)					Depth (m)	0.5
Natural clay	At 0.5m below					
Significant features	N/A					
Finds	none					
Test pit 27						
Dimensions	Length (m)	2.2	Width (m)	0.7	Depth (m)	2.7
Total Area (m <sup>2</sup> )	1.54					
Orientation	NE-SW					
Topsoil (001)	Black earth				Depth (m)	0.9
Layer	Orange sandy clay 0.6m thick					
Layer	Natural clay at 1.5m					
Layer	v. stony clay at 2.5m					
Significant features	N/A					
Finds	none					
Test pit 28						
Dimensions	Length (m)	1.8	Width (m)	0.7	Depth (m)	3
Total Area (m <sup>2</sup> )	1.26					
Orientation	E-W					
Topsoil (001)	Black earth and gravel				Depth (m)	0.4
Redeposited natural	Sandy silty clay 0.6m thick					
Layer	Natural clay at 1.5m					
Layer	v. stony clay at 2.7m					
Significant features	N/A					
Finds	none					
Test pit 29						
Disused railway line						
Dimensions	Length (m)	1.8	Width (m)	0.7	Depth (m)	3.7
Total Area (m <sup>2</sup> )	1.26					
Orientation	N/A					
Upper layer	Gravel/ ballast				Depth (m)	0.3
Layer	Sandy gravel 0.2m thick					
Layer	Brown stony clay 1.4m thick					
Layer	Coarse orange sandy clay, 1 oyster shell fragment					
Layer	Natural clay at 2.9m					
Significant features	N/A					
Finds	none					
Test pit 30						
On disused railway line						
Dimensions	Length (m)	1.7	Width (m)	0.8	Depth (m)	3.3
Total Area (m <sup>2</sup> )	1.38					
Orientation	E-W					
Upper layer	gravel				Depth (m)	0.3
Layer	Dark brown sand 0.4m thick					
Layer	Pale yellow brown sand with v. occas. Brick and burnt stone fragments					
Layer	Natural clay at 2.6m					
Significant features	N/A					
Finds	none					

Test pit 31	Disused railway line					
Dimensions	Length (m)	1.8	Width (m)	0.8	Depth (m)	3.6
Total Area (m <sup>2</sup> )	1.44					
Orientation	N/A					
Upper layer	Gravel			Depth (m)		0.3
Layer	Dark brown sand 0.4m thick					
Layer	Pale yellow brown sand at 2.9m (natural clay not encountered)					
Significant features	N/A					
Finds	none					
Test pit 33						
Dimensions	Length (m)	2	Width (m)	1	Depth (m)	3.5
Total Area (m <sup>2</sup> )	2					
Orientation	N/A					
Topsoil (001)					Depth (m)	0.3
Subsoil (002)	Redeposited natural clay with freq. Sandstone frags and occ. tile frags					
Layer	Weathered boulder clay at 3.3m					
Significant features	N/A					
Finds	none					
Test pit 34	Embankment of mineshaft 2 near railway					
Dimensions	Length (m)	2	Width (m)	1	Depth (m)	2.5
Total Area (m <sup>2</sup> )	2					
Orientation	N/A					
Topsoil (001)					Depth (m)	0.2
Layer	Redeposited natural clay with mudstone and small coal fragments, 2.3m thick in trench but natural clay not encountered at 2.5m					
Significant features	N/A					
Finds	none					
Test pit 35						
Dimensions	Length (m)	2	Width (m)	1	Depth (m)	3.5
Total Area (m <sup>2</sup> )	2					
Orientation	N/A					
Topsoil (001)					Depth (m)	0.3
Layer	Redeposited natural clay with mudstone and occasional coal frags, 1.9m thick					
Layer	Natural boulder clay encountered at 3.3m below surface					
Significant features	N/A					
Finds	None					
Test pit 36	North edge of suspected mineshaft [1500]					
Dimensions	Length (m)	2	Width (m)	2	Depth (m)	2
Total Area (m <sup>2</sup> )	4					
Orientation	N/A					
Topsoil (001)	V. dark greyish brown silty clay				Depth (m)	0.3
Subsoil (002)	Light brownish orange silty sand 1m thick					
Significant features	North edge of mining refuse pit [1500]					
Finds	N/A					
Test pit 37	West edge of suspected mineshaft [1500]					
Dimensions	Length (m)	2	Width (m)	2	Depth (m)	1.9
Total Area (m <sup>2</sup> )	4					
Orientation	N/A					
Topsoil (001)	V. dark greyish brown silty clay				Depth (m)	0.3
Subsoil (002)	Light brownish orange silty sand 1m thick					
Significant features	West edge of mining refuse pit [1500]					
Finds	N/A					

Test pit 38	South edge of suspected mineshaft [1500]					
Dimensions	Length (m)	2	Width (m)	2	Depth (m)	2
Total Area (m <sup>2</sup> )	4					
Orientation	N/A					
Topsoil (001)	V. dark greyish brown silty clay				Depth (m)	0.3
Subsoil (002)	Light brownish orange silty sand 1m thick					
Significant features	South edge of mining refuse pit [1500]					
Finds	N/A					
Test pit 39	East edge of suspected mineshaft [1500]					
Dimensions	Length (m)	3	Width (m)	2	Depth (m)	4
Total Area (m <sup>2</sup> )	6					
Orientation	N-S					
Topsoil (001)	V. dark greyish brown silty clay				Depth (m)	0.3
Subsoil (002)	Light brownish orange silty sand 1m thick					
Significant features	East edge of mining refuse pit [1500]					
Finds	N/A					

### Appendix C: List of Contexts

Context	Area	Description	Dimensions			Contextual relationships	
			Length (m)	Width (m)	Depth (m)	Above	Below
001	Site	Deposit: A dry, friable, dark/brown sandy clay loam with moderate inclusions of small sub-angular and sub-rounded stones 120 mm< occasional small coal fragments. Interpreted as: Topsoil			Up to 0.4	002	
002	Site	Deposit: A dry, firm orange brown sandy clay with moderate inclusions of small sub-angular and sub-rounded stones Interpreted as: Subsoil			Up to 0.4	Boulder clay	001
003	Site	Cut: Linear in plan, aligned east-west and north south. Broad shallow cuts visible in some of the trenches. Interpreted as: Rig and furrow cultivation marks		Up to 2.4	Up to 0.15		004
004	Site	Fill: A moist, firm, mid brown sandy clay with moderate inclusions of small, medium and large angular and rounded stones 180 mm<, moderate inclusions of small coal fragments Interpreted as: Fill of furrow 003			Up to 0.15	003	002
201	Trench 2	Cut: Linear in plan, aligned NNW-SSE. Sharp break of slope at top to steep slightly concave sides which break abruptly to form a broad slightly rounded base, this feature was visible in trench 3 to the north but not trench 1 to the south. Interpreted as: Ditch	17 visible	1.1	0.54		202
202	Trench 2	Deposit: A dry, loose, dark brown silty clay with occasional small rounded and angular stones and charcoal flecks. Interpreted as: Upper fill of ditch 201			0.44	203	002
203	Trench 2	Deposit: A moist, sticky, mid grey/ brown silty clay with occasional inclusions of small rounded stones and occasional charcoal flecks. Waterlogged wood fragments were recovered from this deposit. Interpreted as: Basal fill of ditch 201			0.1	201	202
204	Trench 2	Cut: Sub-rectangular in plan continued below trench edge to the north. Unexcavated. Interpreted as: Probable pit cut	0.36 by 0.88m	0.38	Unexcavated		002



Context	Area	Description	Dimensions			Contextual relationships	
			Length (m)	Width (m)	Depth (m)	Above	Below
801	Trench 8	Cut: Oval in plan with rounded corners Sharp break of slope at top to steeply sloping sides which break fairly abruptly to form a broad flattish base. Interpreted as: Pit cut	1.38	0.78	0.27		802
802	Trench 8	Fill: A moist, firm, mid grey silty clay with moderate inclusions of small to medium angular stones, small coal fragments and clinker with a concentration of tightly packed stones at the base of this layer Interpreted as: Fill of pit 801			0.27	801	001
803	Trench 8	Cut: Sub-oval in plan. Large possible pit with a variety of probable reworked material forming its fill and making it difficult to determine the margins of the feature. Interpreted as: Probable quarry pit	9.9	6.14	unexcavated		001
1101	Trench 11	Cut: Sub oval in plan aligned N-S. Sharp break of slope at top to steep near vertical and slightly undercut side to west, not excavated to base. Interpreted as: Possible bell pit	2.35	1.6	0.54 +		1102
1102	Trench 11	Deposit: A mid-grey/brown sandy clay with frequent inclusions of medium sized sub-angular and sub-rounded stones occasional small coal fragments. Interpreted as: Fill of pit 1101			0.54+	1101	002
1500	Trench 15	Pit: Sub-circular in plan filled by a dark brown sandy clay with frequent inclusions of small coal fragments. Interpreted as: Capped mineshaft		5.6 diameter	unexcavated		002
1801	Trench 18	Fill: A dry, firm orange/brown silty sand with frequent inclusions of small rounded and angular stones and occasional small coal fragments. Interpreted as: Fill of rig and furrow cut 1802			0.07	1802	002
1802	Trench 18	Cut: Linear in plan aligned east to west, broad shallow cut. Recorded across the rest of site as cut 003. Interpreted as: Rig and furrow cultivation mark	2 continued below trench edges to east and west	0.9	0.07		1801
1803	Trench 18	Cut: Linear in plan, aligned east to west. Broad shallow cut Interpreted as: Function uncertain possible furrow remnant	21.52 continued below trench edges to east and west	3.6	0.14		1804
1804	Trench 18	Deposit: A dry firm mid brown sandy loam with moderate inclusions of small angular and rounded stones and small coal fragments. 1 small fragment of slag was visible in this deposit and a broken Neolithic arrowhead was recovered from the top of this material			0.14	1803	002
1900	Trench 19	Structure: Spread of sub-rounded and sub-angular stones 180 mm< a single course in height partially embedded in subsoil layer 002 Interpreted as: Possibly natural	1.87 May continue below trench edge to east	1.3	0.12	002	001

Context	Area	Description	Dimensions			Contextual relationships	
			Length (m)	Width (m)	Depth (m)	Above	Below
1902	Trench 19	Structure: Spread of sub-rounded and sub-angular stones 170 mm < a single course in height partially embedded in subsoil layer 002 Interpreted as: Possibly natural	1.98 May continue below trench edge to east	0.82	0.16	002	001
1903	Trench 19	Structure: Spread of sub-rounded and sub-angular stones 180 mm < a single course in height partially embedded in subsoil layer 002 Interpreted as: Possibly natural	3.5 May continue below trench edge to east	1.7	0.12	002	001
1904	Trench 19	Structure: Spread of sub-rounded and sub-angular stones 200 mm < a single course in height partially embedded in subsoil layer 002 Interpreted as: Possibly natural	3 May continue below trench edge to east	1.5	0.14	002	001
1905	Trench 19	Cut: Linear in plan aligned east to west. Sharp break of slope at top to moderately sloping sides. North slightly convex, south slightly concave. Sides break gradually to form a broad slightly rounded base. Interpreted as: Natural gully	2 Continued below trench edges to east and west	1.26	0.38		1906
1906	Trench 19	Fill: A moist, firm, mid orange/ brown sand with moderate inclusions of small, medium and large angular and rounded stones 280 mm x 170 mm x 120 mm < Interpreted as: Fill of gully 1905			0.38	1905	002
1907	Trench 19	Structure: Spread of sub-rounded and sub-angular stones 200 mm < a single course in height partially embedded in subsoil layer 002 part of this deposit appeared to be graded with smaller angular stones. Interpreted as: Possibly natural	4 May continue below trench edge to east	2	0.14	002	001
2403	Trench 24	Structure: A stone track built with sub-angular and sub-rounded random field cobbles a single course in height. This was graded with grey blue clay with frequent coal dross deposit 2404. This feature was recorded over a distance of 4.5 m in trench 24 but was also visible in trenches 8,9,19,23,31,32,37 and 49. In trench 9 at its widest point the track measured 7.7 m across. Clay pipe a copper alloy possible buckle and shell fragments were recovered during excavation of this feature. Interpreted as: Track	301.5 Continued to west	2.2-7.7	0.2	Natural boulder clay	2404
2404	Trench 24	Deposit: a dry, firm, dark grey/black clay with frequent inclusions of small coal fragments Interpreted as: Grading over cobbled track			0.12	2403	001
2501	Trench 25	Fill: A dry, firm, mid brown silty sand with moderate inclusions of small angular and rounded stones. A small fragment of oyster shell was recovered from this layer during excavation. Interpreted as: Fill of linear cut 2502			0.55	2502	002

Context	Area	Description	Dimensions			Contextual relationships	
			Length (m)	Width (m)	Depth (m)	Above	Below
2901	Trench 29	Cut: Linear in plan, aligned north to south. Shallow cut with gently sloping sides. Interpreted as: Probably the edge of a rig and furrow remnant	0.93 Continued below trench edges to north and south	0.98	0.15		2902
2902	Trench 29	Fill: A dry, firm, mid-brown silt with moderate inclusions of pebbles. Interpreted as: Fill of cut 2901			0.15	2901	002
2903	Trench 29	Cut: Sub-circular in plan, continues below trench edge to east. Sharp break of slope at top to steep undercut sides not fully excavated. Interpreted as: Possible bell pit	2.65	1.01	0.61		2904
2904	Trench 29	Deposit: A dry, firm mid-brown silty clay with frequent inclusions of small coal fragments and occasional cobbles and pebbles, discontinuous lenses of grey ashy silt also visible within this layer. Interpreted as: Fill of pit 2903			0.61	2903	002
3200	Trench 32	Cut: Sub-circular in plan, unexcavated. Interpreted as: Pit cut	8 diameter				3201
3201	Trench 32	Deposit: Unexcavated fill of [3200]					
3500	Trench 35	Very large pit, extends east and south beyond trench edges, filled by (3501) and (3504). Assoc. with mining activity	27.2	13.94	1.8		
3501	Trench 35	Mid-brown clay with stones and ceramic frags., assoc. with mining activity. Fill of [3500]			0.2-0.8	3504	001
3502	Trench 35	Subcircular pit, assoc. with mining activity	2.12	2.3	?		
3503	Trench 35	Mid-grey silty sandy clay, freq. Small coal frags, mod. Small angular and rounded stones, pottery and glass frags. Fill of [3502]	2.12	2.3	?		
3504	Trench 35	Blue grey clay with freq. Coal dust, dross and mudstone fragments			1.2-1.8		
3800	Trench 38	Cut for oval pit filled by (3801)	0.7	1.42	?		
3801	Trench 38	Blue-grey clay with freq. Tiny coal frags. Fill of [3800]	0.7	1.42	?		001
3802	Trench 38	Oval pit unexcavated	0.84	1.6	?		
3803	Trench 38	No description taken	0.84	1.6	?		001
4000	Trench 40	Sub-rectangular mining refuse pit, orientated NW-SE, filled by (4001) and (4002)	5.25	12.34	2m (before trench collapsed)		
4001	Trench 40	Dark brown sandy clay, freq. Small coal fragments, freq. Small-medium angular and sub-angular stones, modern ceramic fragments also present, upper fill of [4000]	5.25	12.34	?	4002	001
4002	Trench 40	Grey brownish orange clay, mod. Inclusions of coal fragments and large angular stones, lower fill of [4000], base not confirmed due to trench collapse.	5.25	12.34	?		4001
4300	Trench 43	Cut for mining refuse pit filled by (4301)	3.4	5	1.5		



Context	Area	Description	Dimensions			Contextual relationships	
			Length (m)	Width (m)	Depth (m)	Above	Below
4302	Trench 43	Linear feature filled by mining related material (4303)	>20.38 (TR43-TR46)	1.6	?		
4303	Trench 43	Dark brown sandy clay, mod. Coal and small angular stones	20.38	1.6	?		001
4304	Trench 43	Cut for pit associated with mining activity, filled by (4305)	4.85	1.03	?		
4305	Trench 43	Fill of mining feature [4304], ash and cinders.	4.85	1.03 (extends north-east)	?		
4306	Trench 43	Cobble layer at surface of mining feature [4307]	3.23	2.04	?		
4307	Trench 43	Cut for feature associated with mining, uppermost fill (4307)	7.5	3.9	?		
4400	Trench 44	Sub-circular pit assoc. with mining activity, filled by (4401)	4.84	4.3	?		
4401	Trench 44	Mid-brown sandy clay with small coal fragments	4.84	4.3	?		
4402	Trench 44	Cut for mining feature	4.33	2	?		
4403	Trench 44	Fill of pit [4402], some cobbles present at surface	4.33	2	?		
4404	Trench 44	Cut for mining feature	2.87	0.93	?		
4405	Trench 44	Fill of pit [4404]	2.87	0.93	?		
4406	Trench 44	Cut for mining feature	2	0.7	?		
4407	Trench 44	Fill of pit [4406]	2	0.7	?		
4500	Trench 45	Cut for large pit, tested to 2m depth but not bottomed.	5.3	2 (in trench)	?		
4501	Trench 45	Fill of pit [4500]	5.3	2 (in trench)	?		
4502	Trench 45	Cut for pit	1.88	2 (in trench)	?		
4503	Trench 45	Fill of pit [4502]	1.88	2 (in trench)	?		
4601	Trench 46	Oval in plan, large pit filled by (4601)	3	2.3	0.56		
4602	Trench 46	Mid-brown silt, freq. Rounded cobbles, small pieces of coal, clinker	3	2.3	0.56		
4603	Trench 46	Cut for pit of unknown date	1.6	1.28	?		
4604	Trench 46	Fill of pit of unknown date	1.6	1.28	?		
4700	Trench 47	Pit associated with mining activity	4.84	4.3	?		
4701	Trench 47	Fill of pit [4700]	4.84	4.3	?		
4702	Trench 47	Cut for large pit associated with mining activity	12.37	1.35-4.95	?		
4703	Trench 47	Fill of pit [4702]	12.37	1.35-4.95	?		
4704	Trench 47	Cut for pit associated with mining activity	3.4	1	?		
4705	Trench 47	Fill of pit [4704]	3.4	1	?		

Context	Area	Description	Dimensions			Contextual relationships	
			Length (m)	Width (m)	Depth (m)	Above	Below
5002	Trench 50	Deposit: A dry, firm, mid grey/brown silt with moderate inclusions of pebbles and large angular stones. Interpreted as: Upper fill of pit 5001			0.35 Excavated	5003	001
5003	Trench 50	Various sized angular and sub-angular stones (max. 0.27m diameter) lower fill of [5001]					
5301	Trench 53,54 & 55	Oval mineshaft, steep sides filled by (5302)	5-6m	2.5	0.8		
5302	See above	Black, coal dross and large sharp stone frags, occ. sandstone frags, mortar and red-brick frags in upper part of fill	5-6	2.5	0.8		
5401	Trench 54	Sub-circular mining refuse pit, filled by (5402)	1.5	1.2	1		
5402	Trench 54	Fill of pit [5401], black fine-grained coal and gravel, occ. small sandstone frags	1.5	1.2	1		
5403	Trench 54	Rounded, probably sub-circular, extends beyond trench edge, filled by (5404). assoc. with mining activity	1.6	0.8	1		
5404	Trench 54	Fill of pit [5403], black fine coal and gravel mix, occas sandstone frags	1.6	0.8	1		
5405	Trench 54 & 55	Sub-circular pit assoc. with mining activity, near vertical sides, five fills: (5406, 5407, 5408, 5409 & 5410)	Approx. 3	1.6-2	2.38		
5406	Trench 54 & 55	Orange and light grey ash-like material, occ. angular sandstone frags, upper fill of [5401]			0.34 max	5407	001
5407	Trench 54 & 55	Very dark brown silty clay, occ. gravel, fill of [5401]			0.56 max	5408	5406
5408	Trench 54 & 55	Grey ash with red sandstone lenses, occ. gravel and sandstone frags, fill of [5401]			0.16 max	5409	5407
5409	Trench 54 & 55	Mid-orangey brown sandy silt, mod. Gravel inclusions, fill of [5401]			0.76 max	5410	5408
5410	Trench 54 & 55	Dark grey clay, occ. large boulders, fill of [5401]			0.76 max		5409
5701	Trench 57	Rounded, possibly sub-circular, assoc. with mining activity	2	1.5	0.62		
5702	Trench 57	Very dark brown silty clay, freq coal frags and dross	2	1.5	0.62		
5801	Trench 58	Rounded, pit assoc. with mining activity	2	1.2	0.6		
5802	Trench 58	Black, dross and sandstone, occ. sandstone frags.	2	1.2	0.6		
5901	Cut	Rounded, mining refuse pit with steep sides and wide 'U' shape base, filled by (59002) and (59003)	2.5	0.8	1.2		
5902	Fill	Dark brown sandy clay freq. Orange and red sandstone frags			0.5m max,		5903
5903	Fill	Firm black coal dross and occ large frags of coal and degraded sandstone frags			0.7m max	5902	001

**Appendix D: List of Photographs**

Film	Image no.	Area	Context	Details	Taken from
1	01			Site record shot	
1	02			Working shot	
1	03			Working shot	
1	04			Working shot	
1	05			Working shot	
1	06			Working shot	
1	07			Overview of west field	
1	08			Overview of west field	
2	01			Registration	
2	02	Tr 1	003	Rig and furrow	NE
2	03	Tr 1	003	Rig and furrow	SW
2	04	Tr 1		general view	SW
2	05	Tr 1		general view	SW
2	06	Tr 2		general view	SW
2	07	Tr 2		general view	SW
2	08	Tr 3		general view	NE
2	09	Tr 3		general view	NW
2	10	Tr 4		general view	NW
2	11	Tr 4		general view	NW
2	12	Tr 5		general view	SE
2	13	Tr 5		general view	SE
2	14	Tr 6		general view	NE
2	15	Tr 6		general view	NE
2	16	Tr 6		general view	
2	17	Tr 6		general view	
2	18			General views of site	SW
2	19			General views of site	SW
2	20			General views of site	SW
2	21	Tr 7		general view	SW
2	22	Tr 7		general view	SW
2	23	Tr 8		Oval pit	W
2	24	Tr 8		general view	NE
2	25	Tr 8		general view	NE
2	26	Tr 7		Stone structure in expansion of Area Tr 8	SW
2	27	Tr 7		Stone structure in expansion of Area Tr 8	SW
2	28	Tr 9		general view	NW
2	29	Tr 9		general view	NW
2	30			General views of trenches on east side of path	
2	31			General views of trenches on east side of path	
2	32			General views of trenches on east side of path	
2	33			General views of trenches on east side of path	
2	34			General views of trenches on east side of path	



Film	Image no.	Area	Context	Details	Taken from
2	35			General views of trenches on east side of path	
2	36			General view of backfilled trenches	E
2	37	Tr 18		Rig and furrow	E
2	38	Tr 18		Rig and furrow	E
2	39	Tr 10		general view	NW
2	40	Tr 10		general view	NW
2	41	Tr 11		general view	SE
2	42	Tr 11		general view	SE
2	43	Tr 11		Pit in trench 11 pre-excavation	NW
2	44	Tr 11		Pit in trench 11 pre-excavation	NW
2	45	Tr 12		general view	SW
2	46	Tr 12		general view	SW
2	47	Tr 13		Plough marks aligned E-W	E
2	48	Tr 13		Plough marks aligned E-W	E
2	49	Tr 13		general view	SW
2	50	Tr 13		general view	SW
2	51	Tr 14		general view	SW
2	52	Tr 14		general view	NE
2	53	Tr 15		general view	NE
2	54	Tr 15		general view	NE
2	55	Tr 15/16		Pit pre-excavation	N
2	56	Tr 15/16		Pit pre-excavation	N
2	57	Tr 16		general view	SW
2	58	Tr 16		general view	SW
2	59	Tr 17		general view	SE
2	60	Tr 17		general view	SE
2	61	Tr 18		general view	NW
2	62	Tr 18		general view	NW
2	63	Tr 19		general view	NW
2	64	Tr 19		general view	NW
2	65	Tr 7		General view of culvert	NW
2	66	Tr 7		General view of culvert	NW
2	67	Tr 7		General view of culvert	NW
2	68	Tr 7		General view of stone culvert	NW
2	69	Tr 7		General view of stone culvert	NW
3	01			Registration	
3	02	Tr 7		Stone Culvert	N
3	03	Tr 7		Stone Culvert	N
3	04	Tr 7		Stone Culvert	N
3	05	Tr 20		general view	SW
3	06	Tr 20		general view	SW
3	07	Tr 21		general view	NE
3	08	Tr 21		general view	NE
3	09	Tr 22		general view	SW

Film	Image no.	Area	Context	Details	Taken from
3	10	Tr 22		general view	SW
3	11	Tr 23		general view	NW
3	12	Tr 23		general view	NW
3	13	Tr 24		Linear feature SW and Tr 24	SW
3	14	Tr 24		Linear feature SW and Tr 24	SW
3	15	Tr 25		general view	SW
3	16	Tr 25		general view	SW
3	17	Tr 26		Rig and furrow remnant	NW
3	18	Tr 26		Rig and furrow remnant	NW
3	19	Tr 26		general view	SE
3	20	Tr 26		general view	SE
3	21	Tr 27		general view	W
3	22	Tr 27		general view	W
3	23	Tr 28		Ditch as in Tr 25	SW
3	24	Tr 28		Ditch as in Tr 25	SW
3	25	Tr 28		general view	SW
3	26	Tr 28		general view	SW
3	27	Tr 29		Line at SE end of trench	SE
3	28	Tr 29		Line at SE end of trench	SE
3	29	Tr 29		Pit at SE end of trench	SE
3	30	Tr 29		Pit at SE end of trench	SE
3	31	Tr 29		general view	NW
3	32	Tr 29		general view	NW
3	33	Tr 30		general view	NE
3	34	Tr 30		general view	NE
3	35	Tr 31		general view	NW
3	36	Tr 31		general view	NW
3	37	Tr 32		Bedrock	SE
3	38	Tr 32		Bedrock	SE
3	39	Tr 32		general view	NW
3	40	Tr 32		general view	NW
3	41	Tr 34		general view	SE
3	42	Tr 34		general view	SE
3	43	Tr 35		general view	W
3	44	Tr 35		general view	W
3	45	Tr 35		general view	N
3	46	Tr 35		general view	N
3	47	Tr 36		general view	NE
3	48	Tr 36		general view	NE
3	49	Tr 36		general view	N
3	50	Tr 36		general view	N
3	51	Tr 37		general view	N
3	52	Tr 37		N facing section showing depth of soils	N
3	53	Tr 37		general view	N

Film	Image no.	Area	Context	Details	Taken from
3	54	Tr 37		general view	N
3	55	Tr 38		general view	SW
3	56	Tr 38		general view	SW
3	57	Tr 39		general view	NE
3	58	Tr 39		general view	NE
3	59	Tr 40		general view	SE
3	60	Tr 40		general view	SE
3	61	Tr 41		general view	NE
3	62	Tr 41		general view	NE
3	63	Tr 2	201	Plan of ditch	E
3	64	Tr 2	201	South facing section of ditch	S
3	65	Tr 2	201	Detail of water logged wood	E
4	01			Registration	
4	02	Tr 42		general view	SE
4	03	Tr 42		general view	SE
4	04	Tr 43		general view	NW
4	05	Tr 43		general view	NW
4	06	Tr 44		general view	S
4	07	Tr 44		general view	S
4	08	Tr 45		Excavated slot through quarry pit (?)	NE
4	09	Tr 45		general view	NE
4	10	Tr 45		general view	NW
4	11	Tr 45		general view	NW
4	12	Tr 46		general view	E
4	13	Tr 46		general view	E
4	14	Tr 47		general view	E
4	15	Tr 47		general view	E
4	16	Tr 48		general view	SE
4	17	Tr 48		general view	SE
4	18	Tr 49		general view	SE
4	19	Tr 49		general view	SE
4	20	Tr 50		general view	W
4	21	Tr 50		general view	W
4	22	Tr 51		general view	N
4	23	Tr 51		general view	N
4	24			General view of trenches west of path	NW
4	25			General view of trenches west of path	NW
4	26	Tr 6		General view of stone chamber	SE
4	27	Tr 6		General view of stone chamber	SE
4	28	Tr 6		General view of stone chamber	SE
4	29	Tr 6		General view of stone chamber	SE
4	30	Tr 6		Infilled void of stone chamber	SE
4	31	Tr 6		Infilled void of stone chamber	SE
4	32	Tr 18		Band linear feature (?) 1800E	E



Film	Image no.	Area	Context	Details	Taken from
4	33	Tr 18		Band linear feature (?) 1800E	E
4	34	Tr 18		Band linear feature E facing section	E
4	35	Tr 18		Band linear feature E facing section	E
4	36	Tr 19		General view of stony area	S
4	37	Tr 19		General view of stony area	S
4	38	Tr 19	1901	Stony deposit 1901	S
4	39	Tr 19	1901	Stony deposit 1901	S
4	40	Tr 19	1901	Stony deposit 1901	N
4	41	Tr 19	1901	Stony deposit 1901	N
4	42	Tr 19	1901	Stony deposit 1901	W
4	43	Tr 19	1901	Stony deposit 1901	W
4	44	Tr 19	1901	Stony deposit 1901	W
4	45	Tr 19	1901	Stony deposit 1901	W
4	46	Tr 43	4300	Pit 4300 pre-excavation	S
4	47	Tr 43	4300	Pit 4300 pre-excavation	S
4	48	Tr 43	4304	Ash pit 4304 and (?) 4306	E
4	49	Tr 43	4304	Ash pit 4304 and (?) 4306	E
4	50	Tr 43		Possible quarry pit	S
4	51	Tr 43		Possible quarry pit	S
4	52	Tr 52		general view	WSW
4	53	Tr 52		general view	WSW
4	54	Tr 24		Slag and coal dross deposit	N
4	55	Tr 24		Slag and coal dross deposit	N
4	56	Tr 40	4000	Pit 4000 NW facing section showing upper fill	NE
4	57	Tr 40	4000	Pit 4000 NW facing section showing upper fill	NE
4	58	Tr 43	4300	Pit 4300 after machine excavated slot	E
4	59	Tr 43	4300	Pit 4300 after machine excavated slot	E
4	60	Tr 43	4300	Pit 4300 after machine excavated slot	E
4	61	Tr 35	3503	Pit 3503 pre-excavation	S
4	62	Tr 35	3503	Pit 3503 pre-excavation	S
4	63	Tr 35	3500	Slot 1	SW
4	64	Tr 35	3500	Slot 1	SW
4	65	Tr 35	3500	Slot 1	SW
4	66	Tr 35	3500	Slot 1	SW
4	67	Tr 35	3501	Slot 2	SW
4	68	Tr 35	3501	Slot 2	SW
4	69	Tr 35	3501	Slot 2	SW
4	70	Tr 35	3500	Slot 3	SW
4	71	Tr 35	3500	Slot 3	SW
5	01	Tr 24	2403	Linear stone feature with fill	
5	02	Tr 24	2403	Linear stone feature	
5	03	Tr 24	2403	Both stone features	
5	04	Tr 24		Tr 24 overview	
5	05	Tr 24		Tr 24 overview	

Film	Image no.	Area	Context	Details	Taken from
5	06	Tr 24		Overview of stone features	
5	07	Tr 24		Registration shot – film 5	
5	08	Tr 11	1101	Pit 1101	S
5	09	Tr 11	1101	Pit 1101	S
5	10	Tr 11	1101	Pit 1101 general view	S
5	11	Tr 11	1101	Pit 1101 general view	S
5	12	Tr 8	0801/02	Pre-excavation shot of pit	SW
5	13	Tr 18	1801/02	E facing section	E
5	14	Tr 18	1801/02	Post excavation	E
5	15	Tr 8	0801-02	SW facing section of pit	SW
5	16	Tr 8	0801-02	Mid-ex shot of pit	SE
5	17	Tr 46	4601-02	Pre-ex view of pit	W
5	18	Tr 25	2501- 2502	SSE facing section	SSE
5	19	Tr 25	2501- 2502	Post-ex of ditch	SSE
5	20	Tr 46	4601-02	Post ex of slot through pit	SE
5	21	Tr 46	4601-02	SW facing section of slot through pit	WSW
5	22	Tr 29	2901-02	Pre-excavation view of oval pit	S
5	23	Tr 29	2901-02	S Facing section of shallow cut	S
5	24	Tr 29	2903-04	Pre-excavation view of oval pit	S
5	25	Tr 29	2903-04	South facing section of pit	S
5	26	Tr 29	2903-04	Post-excavation shot of slot through pit	W
5	27	Tr 50		North facing section of stone filled pit [5001]	N
5	28	Tr 50		West facing section of stone filled pit	
5	29	Tr 50		Post-excavation shot of slot through stone filled pit	E
6	1			ID shot	
6	2-3	Tr11	1101	Pit 1101 N facing section	N
6	4-5	Tr 19	1905	E facing section through linear	E
6	6-7	Tr32	3200	Pit cut	E
6	8-9	Tr 43	4302	Linear cut, pre-ex	S
6	10-11	Tr47	4700	Pit cut	SE
6	12-13	Tr44	4402	Pit cut	N
6	14-15	Tr44	4404	Pit cut	N
6	16-17	Tr44	4406	Pit cut	N
6	18-19	Mine shaft		possible mineshaft	NE
6	20-21	Mine shaft		general view	SW
6	22-23	A+B		pits excavated in mine area	N
6	24-25		2500	Ditch 2500 in trench E of capped mineshaft	N
6	26-27	TP 30		general view	S
6	28-29	Minecap 2		general view showing average depth of overcut trenches	E
6	30-31	TP29		general view	N
6	32-33	TP28		general view	W
6	34-35	TP27		general view	SW

Film	Image no.	Area	Context	Details	Taken from
6	36-37			general view SW of site	W
6	38-39			general view along disused railway line	W
6	40-41	TP26		Test pit 26	W
6	42-43	Mine cap 2		general view clearing hedge south of capped mine shaft 2	NE
6	44-45	Mine shaft 2		general view of mine shaft	W
6	46-47	Test pit 34		N facing section of test pit 34	N
6	48-49	test pit 33		cutting embankment, n facing section of test pit 35	N
6	50-51	test pit 35		N facing section of test pit 35	N
6	52-53	test pit 35		E facing section showing tip lines	E
7	1			ID shot	
7	2	SW		Tr53 looking north	S
7	3	SW	5301/2	[53001] looking SE	NW
7	4	SW		Tr 53	N
7	5	SW	5301/2	[5301] from west	W
7	6	SW	5301/2	[5301] from west	W
7	7	SW	5301/2	[5301] from west, Tr 54 opened to east	W
7	8	SW	5301/2	[5301] from west, Tr 54 opened to east	W
7	9	SW	5401/2	[5401] (5402) from east	E
7	10	SW	5401/2	[5401] (5402) from east	E
7	11	SW	5403/4	board should read: [5403] (5404)	E
7	12	SW	5403/4	board should read: [5403] (5404)	E
7	13	SW	5405/6	[5405] (5406)	W
7	14	SW	5405/6	[5405] (5406)	W
7	15	SW		boulder from (5406), approx 1m across	S
7	16	SW	5405 etc.	2.7m deep, multiple layers, see Tr54 sheet	W
7	17	SW	Tr 54	[5401], [5403], [5405] being backfilled	S
7	18	SW	[5405]	being backfilled	W
7	19	SW	[5405]	being backfilled	SW
7	20	SW	[5301]	testing approx. 1.1m deep, brick rubble, coal and mortar	W
7	21	SW	[5405]	east edge of [5405] in Trench 55	SE
7	22	SW	[5405]	east edge of [5405] in Trench 55	E
7	23	SW	[5405]	east edge of [5405] in Trench 55	NE
7	24	SW	[5405]	testing for depth-2.7m deep	SE
7	25	SW	[5405]	testing for depth-2.7m deep	SE
7	26	SW		Tr 55 backfill	S
7	27	SW	[5301]	east end of feature, extends west and south	E
7	28	SW	[5301]	east end of feature, note west extent in background	E
7	29		1500 (shaft 1)	possible shaft from west, pre-investigation	W
7	30		1500 (shaft 1)	testing of possible shaft	W
7	31		1500 (shaft 1)	S Facing section of shallow cut	SSW
7	32		1500 (shaft 1)	S Facing section of shallow cut	SSW
7	33		1500	S Facing section of shallow cut	SSW

Film	Image no.	Area	Context	Details	Taken from
7	34		1500	1500 western test pit	N
7	35		1500	1500 west test pit	NW
7	36		1500	west test pit	NW
7	37		1500	north test pit	N
7	38		1500	east test pit	NW
7	39		1500	east test pit	W
7	40	SW	Tr 56	general	S
7	41	SW	Tr 57	[5701] tested by machine	N
7	42	SW	Tr 57	[5701] tested by machine	N
7	43	SW	Tr 58	general shot of trench	S
7	44	SW	Tr 58	general shot of trench	S
7	45	SW	[5801]	west facing section	SW
7	46	SW	[5801]	west facing section	SW
7	47	SW	[5901]	testing	SE
7	48	SW	[5901]	testing	SE
7	49	SW	[5901]	east facing section	SE
7	50	SW	[5901]	east facing section	SE
7	51	SW	Tr 59	general view of trench	S
7	52	SW	Tr 60	general view of trench, no features	S
7	53	SW	Tr 61	general view of trench, no features	N
7	54	SW	Tr 62	general view	S
7	55	SW		General shot of SW watching brief area	NE
7	56	SW		General shot of SW watching brief area	NNW
7	57	SW	Tr63	general view	N
7	58	SW	Tr 64	general view	S
7	59	SW	Tr 65	general view	N

## Appendix E: List of Finds

### Metal-detecting Survey finds

Find No.	Context No.	No. of Pieces	Material	Description	Notes	Weight (g)	Dimensions (mm)	Photos (scans)	Packing		
									Large	Diagnostic	Box No.
001	001	1	Fe	Object		26	105x12				1
002	001	1	Fe	Object		704	122x52x32				1
003	001	1	Fe	Object		38	44 (max)				1
004	001	1	Fe	Object		334	128x77x9				1
005	001	1	Fe	Object		186	75 (max)				1
006	001	1	Fe	Strap		22	103x24x4				1
007	001	1	Fe	Metal Pin		306	181x19				1
008	001	1	Fe	Object		92	58x23				1
009	001	1	Fe	Object		24	67x3				1
010	001	1	Fe	Metal Pin		268	142x35x20				1
011	001	1	Fe	Metal bolt		728	197 (max)				1
012	001	1	Lead	Object	Lead sheet fragment	8	57 (max)				4



Find No.	Context No.	No. of Pieces	Material	Description	Notes	Weight (g)	Dimensions (mm)	Photos (scans)	Packing		
									Large	Diagnostic	Box No.
014	001	1	Fe	Object		28	51 (max)				1
015	001	1	Fe	Object		104	71x12				1
016	001	1	Slag	Piece		4	25.8 (max)				4
017	001	1	Fe	Bolt		160	69x34				1
018	001	1	Fe	Metal Pin		88	112x21x15				1
019	001	1	Fe	Object		68	46 (max)				1
020	001	1	Fe	Object		12	37 (max)				1
021	001	1	Fe	Bracket		150	167x30				1
022	001	1	Fe	Object		12	24 (max)				1
023	001	1	Fe	Object		72	55 (max)				1
024	001	1	Fe	Object		170	113x74x12				1
025	001	1	Fe	Nail		8	78x10				1
026	001	1	Fe	Object		56	44x20				1
027	001	1	Lead	Sheet lead fragment		8	59.3 (max)				4
028	001	1	Fe	Machine Part		282	52x48				1
029	001	1	Steel	Modern toy part		18	40 (max)				4
030	001	1	Copper alloy	Button	Late 19th/20th century – 4 holes, possible maker's mark	2	15.9x3.3				4
031	001	1	Lead	Lead tube	Also 1x ceramic in bag	14	33.9x11.7				4
032	001	1	Brass	Threaded cap		48	18.3x34.7x5.9				4
033	001	1	Fe	Metal Pin		314	125x26				1
034	001	1	Fe	Object		364	105x11				1
035	001	1	Fe	Object		88	63x57x10				1
036	001	1	Copper alloy	Coin (love token)	Badly corroded, similar size to coins dating to William III.	<1	21.1x0.6	036 front; 036 back		x	5
037	001	1	Fe	Nail		32	104x13				1
038	001	1	Fe	Iron nail		6	44 (max)				1
039	001	1	Fe	Possible socket	Folded- could be implement or axe head	302	95.6x54.8	039		x	5
040	001	1	Fe	Object		480	155x52				1
041	001	1	Fe	Object		138	59x37				1
042	001	1	Fe	Iron disc (washer)		64	61x9				1
043	001	1	Fe	Nail		34	83 (max)				1

Find No.	Context No.	No. of Pieces	Material	Description	Notes	Weight (g)	Dimensions (mm)	Photos (scans)	Packing		
									Large	Diagnostic	Box No.
045	001	1	Fe	Broken spanner		126	102x46x12				1
046	001	1	Fe	Object		52	51x50x14				1
047	001	1	Fe	Object		116	70x36x15				1
048	001	1	Fe	Iron band		44	80x28x7				1
049	001	1	Fe	Iron rod square section		136	111x19				1
050	001	1	Fe	Iron nail		20	70x13				1
051	001	1	Fe	Iron nail		36	82 x15				1
052	001	1	Fe	Object		12	40 (max)				1
053	001	1	Fe	Iron wedge		182	60x56x23				1
054	001	1	Fe	Belt buckle	Pre-dates mid 17th century, single loop buckle, missing tongue.	34	60.6x44.7 x13.7	054		x	5
055	001	1	Fe	Object		250	56 (max)				1
056	001	1	Fe	Object		36	54x8				1
057	001	1	Fe	Iron nail		20	98 (max)				1
058	001	1	Fe	Object	Possibly part of a pen knife	54	106.4x21.6 x13.6	058		x	5
059	001	1	Fe	Iron bolt		326	122x38x29				1
060	001	1	Fe	Bridleware		40	98x17				1
061	001	1	Fe	Object		14	34 (max)				1
062	001	1	Fe	Iron bolt		132	119x33x18				1
063	001	1	Fe	Object		52	42 (max)				1
064	001	1	Copper alloy	Cast button	Late 18th/19th century – badly corroded. Slightly inverted, may have had shank or seam.	4	20.6x3.5	064 front; 064 back		x	5
065	001	1	Fe	Object		18	45x17x11				1
066	001	1	Fe	Object		18	45x19x12				1
067	001	1	Fe	Object		20	52x20x11				1
068	001	1	Fe	Degraded Iron Sheet		54	75 (max)				1
069	001	1	Fe	Possible nail		44	132 (max)				1
070	001	1	Fe	Nail		4	35 (max)				1
071	001	1	Fe	Object		48	46 (max)				1
072	001	1	Fe	Bolt		36	48x20				1
073	001	1	Fe	Object		36	38 (max)				1

Find No.	Context No.	No. of Pieces	Material	Description	Notes	Weight (g)	Dimensions (mm)	Photos (scans)	Packing		
									Large	Diagnostic	Box No.
075	001	1	Fe	Object		34	39 (max)				1
076	001	1	Fe	Nail		36	92x19x13				1
077	001	1	Fe	Object		42	54x17				1
078	001	1	Fe	Iron peg		816	322x43x25		x		loose
079	001	1	Fe	Object		44	44x21x16				1
080	001	1	Fe	Object		72	103x29x16				1
081	001	1	Fe	Nail		22	123x14x				1
082	001	1	Lead	Sheet fragment		4	41.6 (max)				4
083	001	1	Fe	Object		18	38x7				1
084	001	1	Copper alloy	Fitting (powder flask)		64	Length: 67.8, Head: 41.5,				4
085	001	1	Fe	Object	Carpentry tool	102	98x30x16				1
086	001	1	Fe	Object		50	41x29x19				1
087	001	1	Fe	Object		54	54x26x22				1
088	001	1	Tin	Fragment pressed tin		18	82.9 (max)				4
089	001	1	Fe	Bolt		120	83x 29x17				1
090	001	1	Fe	Large object	Rounded object, with three protruding stumps	848	118x82x50				1
091	001	1	Fe	Iron rod		62	116x20x				1
092	001	1	Tin	Tin or lead plate	Fragment, folded	8	41.9 (max)				4
093	001	1	Fe	Horse shoe piece	Small – from a mule or pack horse	36	71.2x19.1 x12.0	093		x	5
094	001	1	Fe	Lump		28	34x26x16				1
095	001	1	Fe	Large iron brick (triangular shape)	Possible mortar fragment	294	Length 78.6; Depth 24.2	095		x	5
096	001	1	Lead	Stump of lead		20	23.4x10.4				4
097	001	1	Graphite	Graphite pencil piece		2	37.6x5.6				4
098	001	1	Fe	Part of iron peg (ringed top)		38	64x24x11				1
099	001	1	Fe	Iron rod		34	81 (max)				1
100	001	1	Fe	Lump		64	47 (max)				1
101	001	1	Fe	Big iron brick		842	149x110				1
102	001	1	Fe	Lump		70	38x22				1
103	001	1	Stone?	Lump		8	31 (max)				4
104	001	1	Copper-alloy	Button		4	17.1x7.6				4
105	001	1	Fe	Iron rod		6	28x11				1

Find No.	Context No.	No. of Pieces	Material	Description	Notes	Weight (g)	Dimensions (mm)	Photos (scans)	Packing		
									Large	Diagnostic	Box No.
107	001	1	Tin	Melted tin wire		346	290.3 (max)				4
108	001	1	Fe	Iron peg		70	114x15				1
109	001	1	Fe	Iron bolt		28	34x17				1
110	001	1	Tin	Tin plate	Possible bottle cap - crushed	2	35.9 (max)				4
111	001	1	Aluminium	Aluminium plate		56	143 (max)				4
112	001	1	Fe	Belt buckle		74	61x43x20				1
113	001	1	Fe	Iron tube part		72	59.0x8.3	113		x	5
114	001	1	Fe	Lump		30	37 (max)				1
115	001	1	Fe	Screw		18	73x13				1
116	001	1	Fe	Curved iron object	Fragment of tackety boot heel piece	26	61.7x13.2 x9.3	116		x	5
117	001	1	Fe	Part of iron tube		8	28x6				1
118	001	1	Fe	Lump		90	58 (max)				1
119	001	1	Steel	Part of coat hanger		4	95x6				4
120	001	1	Fe	Iron tube		14	65 (max)				1
121	001	1	Copper alloy	Object	Bell shaped - possibly some kind of cap fitting	42	27.3x29.8 x3.3				4
122	001	1	Fe	Fitting		232	47x46x33				2
123	001	1	Steel	Head of fork	Early dining fork	24	96.6x23.3 x3.1				4
124	001	1	Fe	Peg		30	70x19x13				2
125	001	1	Fe	Rod		34	74x21x11				2
126	001	1	Fe	Bullet	20th century	10	26.8x9.9	126		x	5
127	001	1	Fe	Pin		70	185x19				2
128	001	1	Fe	Horse shoe		164	136x27x17				2
129	001	1	Fe	Peg		386	138x39x27				2
130	001	1	Steel	Peg/wire		46	202x6				4
131	001	1	Copper alloy	Ring		12	33.7x4.1				4
132	001	1	Fe	Lump		74	40x24				2
133	001	1	Fe	Plate	Quite light	102	79.6x76.4x9.2	133		x	5
134	001	1	Copper alloy	Sink plug		84	51.6x10.8				4
135	001	1	Slag	Piece		10	30.5 (max)				4
136	001	1	Fe	Peg		36	46x26x16				2
137	001	1	Fe	Lump		190	60x53x22				2



Find No.	Context No.	No. of Pieces	Material	Description	Notes	Weight (g)	Dimensions (mm)	Photos (scans)	Packing		
									Large	Diagnostic	Box No.
139	001	1	Copper alloy	Half of belt buckle	Later 17th/18th century – brass – missing tongue piece	8	38.4x8.7	139		x	5
140	001	1	Fe	Ball		32	26 (max)				2
141	001	1	Fe	Plate/object		140	120x51x11				2
142	001	1	Fe	Lump		26	29 (max)				2
143	001	1	Fe	Part of modern iron rod		78	75x28x22				2
144	001	1	Fe	Lump		26	48x35x13				2
145	001	1	Fe	Nail		20	69x14				2
146	001	1	Fe	Lump		40	43 (max)				2
147	001	1	Fe	Brick		456	140x78x20				2
148	001	1	Fe	Part of modern iron tool		58	95x29x8				2
149	001	1	Fe	Part of iron tube/pole	Handlebar from a super-market trolley	490	476x27		x		loose
150	001	1	Fe	Peg head		68	60x27x18				2
151	001	1	Fe	Screw		6	33 (max)				2
152	001	1	Fe	Peg head		82	36x38				2
153	001	1	Copper alloy	Coin	Half penny piece	6	25.6x1.6				4
154	001	1	Fe	Large iron peg		468	171x40x26				2
155	001	1	Fe	Curved iron rod		54	75x23x9				2
156	001	1	Stone	Part of whet stone		98	71.1x31.4x25.8	156		x	5
157	001	1	Slag	Piece		28	39.8 (max)				4
158	001	1	Alumi-nium	Top or fitting	Modern toy piece?	4	39x6				4
159	001	1	Fe	Lump		12	37x33				4
160	001	1	Fe	Long iron rod			634x20		x		loose
161	001	1	Fe	object/ decoration		12	43 (max)				2
162	001	1	Fe	Peg head		26	48 (max)				2
163	001	1	Alumi-nium	Cap		2	26x9				4
164	001	1	Fe	Part of iron rod		8	34x14				2
165	001	1	Fe	Peg head		14	24x20				2
166	001	1	Fe	Fitting		46	38x37x13				2
167	001	1	Fe	Peg head		28	50 (max)				2
168	001	1	Fe	Belt buckle or fitting		66	82x45x7				2

Find No.	Context No.	No. of Pieces	Material	Description	Notes	Weight (g)	Dimensions (mm)	Photos (scans)	Packing		
									Large	Diagnostic	Box No.
170	001	1	Fe	Part of iron tube/pipe		214	100x97x8				2
171	001	1	Fe	Peg head		28	31 (max)				2
172	001	1	Fe	Fitting		132	170x30x8				2
173	001	1	Fe	Fitting	Bracket	276	90x24x17				2
174	001	1	Fe	Plate		236	133x92x9				2
175	001	1	Fe	Peg head		34	33 (max)				2
176	001	1	Fe	Nail		18	57x14				2
177	001	1	Fe	Blade	Carpentry rasp or tool	78	133.9x26.9x8.3	177		x	5
178	001	1	Fe	Rod		8	42x12				2
179	001	1	Fe	Lump		90	51x47x22				2
180	001	1	Fe	Curved iron rod		112	80x30x14				2
181	001	1	Fe	Plate		102	94x55x6				2
182	001	1	Fe	Iron ball	Nut or bolt	644	71.2x43.3				2
183	001	1	Fe	Peg head		18	29x24				2
184	001	1	Alumi-nium	Can or plate, crushed fragment		12	68 (max)				4
185	001	1	Fe	Peg		50	109x19x12				2
186	001	1	Steel	Steel rail	Possibly from a windscreen wiper	168	256 (max)				4
187	001	1	Fe	Curved iron rod		50	75x24x15				2
188	001	1	Fe	Part of iron ring		122	75x25x11				2
189	001	1	Fe	Tube		210	86x40				2
190	001	1	Fe	Rod		44	56x24x17				2
191	001	1	Fe	Thin iron sheet		50	73x44x4				2
192	001	1	Fe	Fitting		160	54x47x27				2
193	001	1	Fe	Chisel		258	92x82x31				2
194	001	1	Fe	Lump		70	59 (max)				2
195	001	1	Fe	Peg		44	85x25				2
196	001	1	Fe	Brick		388	68x66x20				2
197	001	1	Fe	Lump		36	58x30x15				2
198	001	1	Fe	Nail		4	52x9				2
199	001	1	Fe	Screw		10	100x10				2
200	001	1	Fe	Lump		74	60x34x17				2
201	001	1	Fe	Peg head		44	44x23				2
202	001	1	Lead	Strip	Could be raw material for metalwork	74	41.7x46.2	202		x	5
203	001	1	Fe	Lump		432	93x66x28				2

Find No.	Context No.	No. of Pieces	Material	Description	Notes	Weight (g)	Dimensions (mm)	Photos (scans)	Packing		
									Large	Diagnostic	Box No.
205	001	1	Copper alloy	Coin	Penny, 1881	8	30.5x1.6				4
206	001	1	Fe	Lump		58	45x32x22				2
207	001	1	Lead	Strip	Could be raw material for metalwork	28	43.8x27.9x2.6	207		x	5
208	001	1	Tin	Sheet	Fragment, crushed	2	40.4 (max)				4
209	001	1	Fe	Peg		38	92x14				2
210	001	1	Fe	Possible plough part		402	148x103x9				2
211	001	1	Fe	Lump		50	55x40x14				2
212	001	1	Fe	Peg		54	115x16				2
213	001	1	Fe	Part of peg		74	64x29x22				2
214	001	1	Fe	Possible machine fitting		222	97x72				2
215	001	1	Fe	Lump		54	45x28x20				2
216	001	1	Fe	Lump		52	52 (max)				2
217	001	1	Fe	Lump		330	87 (max)				2
218	001	1	Fe	Possible plough part		634	146x85x15				2
219	001	1	Fe	Nail		14	52x13				2
220	001	1	Fe	Peg		48	92x24x14				2
221	001	1	Fe	Curved iron plate	2 x pieces (frag-mented when cleaning)	64	85x52x7				2
222	001	1	Fe	Peg head		32	29 (max)				2
223	001	1	Fe	Ring		152	80x19				2
224	001	1	Fe?	Lump?		20	35 (max)				2
225	001	1	Fe	Bolt		164	119 (max)				2
226	001	1	Fe	Rod		46	87x16				2
227	001	1	Copper alloy	Coin	Britannia visible	6	25.8x1.6				4
228	001	1	Slag	Iron or slag		50	44.7 (max)				4
229	001	1	Lead	Lump		30	25.3 (max)				4
230	001	1	Fe	Small iron pin/wire, possibly from fuse		2	35x12x3				2
231	001	1	Fe	Possible part of iron tool		328	217x23		x		loose
232	001	1	Fe	Wire coil		14	72x3				3
233	001	1	Fe	Small iron pin/wire, possibly from fuse		2	35x11x3				3
234	001	1	Fe	Iron peg		64	123x19				3
235	001	1	Fe	Part of belt buckle		32	39x41x12				3

Find No.	Context No.	No. of Pieces	Material	Description	Notes	Weight (g)	Dimensions (mm)	Photos (scans)	Packing		
									Large	Diagnostic	Box No.
237	001	1	Fe	Blade/plate		118	102x4x7				3
238	001	1	Fe	Rail/bar		162	310x25x10		x		loose
239	001	1	Fe	Pierced iron disc		64	65x56x8				3
240	001	1	Fe	Fitting		136	81 (max)				3
241	001	1	Fe	Pin/wire		2	24x13x2				3
242	001	1	Fe	Rod		278	161x23				3
243	001	1	Fe	Iron or lead ball		26	28.2 (max)				3
244	001	1	Fe	Rod		30	65x22x14				3
245	001	1	Tin	Blade or shank		12	48.1x17.4x5.4				4
246	001	1	Fe	Lump		32	49x38x7				3
247	001	1	Fe	Blade or plate		72	88x35x7				3
248	001	1	Aluminium	Coloured plate		144	145 (max)				4
249	001	1	Fe	Lump		72	59x48x8				3
250	001	1	Fe	Lump		454	90x85x20				3
251	001	1	Lead	Musket ball	Slightly oval in shape, curved edges from impact	22	30.7x22.8x7.9	251 front; 251 back	x		5
252	001	1	Fe	Curved plate		114	84x49x8				3
253	001	1	Fe	Peg head		34	38 (max)				3
254	001	1	Fe	Cylinder		18	33x14				3
255	001	1	Fe	Lump		326	107x53x32				3
256	001	1	Fe	Horse shoe part	Fragment of horse shoe, c. 18th	114	114.4x30.1x12.0	256	x		5
257	001	1	Fe	Nail or peg		44	58x24				3
258	001	1	Fe	Object		54	44x31x14				3
259	001	1	Fe	Rod		6	32x6				3
260	001	1	Fe	Object		14	30x19x14				3
261	001	1	Fe	Object		14	52x15x9				3
262	001	1	Fe	Peg head		22	46x16				3
263	001	1	Slag	Piece		4	33.3 (max)				4
264	001	1	Fe	Peg or nail		26	92 (max)				3
265	001	1	Copper alloy	Nail (bent)	Square headed – possibly from a horseshoe. Hand made.	2	Pin: 40.7x3.1. Head: 5.3x5				4
266	001	1	Fe	Rod		50	88x12				3
267	001	1	Fe	Part of iron ring		74	69x20				3
268	001	1	Fe	Peg		72	94x18				3
269	001	1	Fe	Lump		38	32 (max)				3



Find No.	Context No.	No. of Pieces	Material	Description	Notes	Weight (g)	Dimensions (mm)	Photos (scans)	Packing		
									Large	Diagnostic	Box No.
271	001	1	Fe	Part of belt buckle		18	52x15				3
272	001	1	Lead	Bag seal	Shows a merchant's or tax mark, '...ALTNEY' discernible. Possibly 18th/19th century.	10	22.6x19.4x5.0	272 front; 272 back		x	5
273	001	1	Fe	Nail		18	97x10				3
274	001	1	Fe	Possibly a big iron belt		272	51x33				3
275	001	1	Fe	Nail		28	67x17				3
276	001	1	Fe	Peg		94	158x18				3
277	001	1	Fe	Rod		276	139x26				3
278	001	1	Fe	Plate		40	67x61x5				3
279	001	1	Fe	Peg		124	185x21x16				3
280	001	1	Leather/Fe	Composite object	Possibly from the edge of a shoe, four small protruding metal pins.	<1	25.6x8.6	280 front; 280 back		x	5
281	001	1	Fe	Object		132	85x50x11				3
282	001	1	Fe	But or bolt		38	30x18				3
283	001	1	Fe	Rod		96	79 (max)				3
284	001	1	Fe	Plough		2050	294x114		x		loose
285	001	1	Fe	Rod		36	61x22x13				3
286	001	3	Fe	Lumps (from same object)		12					3
287	001	1	Fe	Bolt		286	75x41				3
288	001	1	Fe	Peg		54	42x25				3
289	001	1	Fe	Peg or rod		144	149x20x16				3
290	001	1	Fe	Peg		66	75 (max)				3
291	001	1	Lead	Lead plate	Tractor part, fragment	18	40.4x24.7				4
292	001	1	Fe	Fitting, grid-like form		478	120x85x25				3
293	001	1	Fe	Fitting		570	165x58				3
294	001	1	Fe	Pin head		26	32 (max)				3
295	001	1	Fe	Nail		36	84x14				3
296	001	1	Fe	Object		52	40x33x18				3
297	001	1	Clay	Clay pipe fragment	Stem fragment	2	38.7 (max)				4
298	001	1	Fe	Bolt		18	22x13				3
299	001	1	Fe	Object (flat)		408	107x55x30				3
300	001	1	Fe	Machine Part		758	268x98x9		x		loose

Find No.	Context No.	No. of Pieces	Material	Description	Notes	Weight (g)	Dimensions (mm)	Photos (scans)	Packing		
									Large	Diagnostic	Box No.
302	001	1	Fe	Object		74	56x35x25				3
303	001	1	Fe	Machine Part		420	136x57x23				3
304	001	1	Fe	Object		124	60x30				3
305	001	1	Fe	Object		20	60x20x9				3
306	001	1	Slag	Slag		18	28.6 (max)				4
307	001	1	Fe	Rod		32	78x14x				3
308	001	1	Fe	Object		24	46 (max)				3
309	001	1	Fe	Nail		14	48x15				3
310	001	1	Fe	Nail or punch		178	164x28x18				3
311	001	1	Fe	Object		102	88x25x17				3
312	001	1	Fe	Lump		34	38x29x19				3
313	001	1	Fe	Tube		44	101x18				3
314	001	1	Fe	Peg head		54	56 (max)				3
315	001	1	Fe	Rod		98	104x28x15				3
316	001	1	Fe	Rod		32	88x15x12				3
317	001	1	Fe	Plough fitting		744	264x95x8		x		loose
318	001	1	Fe	Object (plough part?)		376	110x59x28				3
319	001	1	Lead	Object	Rough rectangular object with pointed protruding part, possibly internal weight from e.g. a sword pommel	66	50.1x20.9	319 front; 319 back		x	5
320	001	1	Fe	Object		78	67x51x14				3
321	001	1	Fe	Machine Part, curved		638	84x59x21				3
322	001	1	Fe	Rod	Ring headed	616	274x34		x		loose
323	001	1	Fe	Rod		64	110x23x8				3
324	001	1	Fe	Object		44	52x38x12				3
325	001	1	Fe	Object		94	40x35x25				3
326	001	1	Fe	Object (blade?)		74	72x30x16				3
327	001	1	Fe	Object		228	62x34x23				3
328	001	1	Fe	Plough part		642	108x88x34				3
329	001	1	Fe	Object		116	61x33x25				3
330	001	1	Slag	Piece		24	47.7 (max)				4
331	001	1	Fe	Rod		84	81x28x13				3
332	001	1	Fe	Rod		66	88x21x12				3
333	001	1	Fe	Plate		126	82x68x11				3
334	001	1	Fe	Object		88	43x39x18				3

Find No.	Context No.	No. of Pieces	Material	Description	Notes	Weight (g)	Dimensions (mm)	Photos (scans)	Packing		
									Large	Diagnostic	Box No.
336	001	1	Fe	Peg		244	139x41x21				3
337	001	1	Fe	Lump		28	48 (max)				3
338	001	1	Fe	Rod (flat with projecting piece)		106	133x28x9				3
339	001	1	Fe	Plate		30	71x34x9				3
340	001	1	Fe	Rod		102	94x24				3
341	001	1	Fe	Object		58	32x32x20				3
342	001	1	Fe	Object		46	38x30x24				3
343	001	1	Fe	Plough part		364	81x74x30				3
344	001	1	Fe	Curved object		428	77x73x20				3
345	001	1	Fe	Rod		144	146x19				3
346	001	1	Fe	Buckle	L-shaped fragment, possibly from a rectangular buckle	6	44.4x7.5	346		x	5
347	001	1	Fe	Lump		36	34 (max)				3
348	001	1	Fe	Rod (flat)		60	72x29x11				3
349	001	1	Fe	Lump		80	36x31x27				3
350	001	1	Fe	Object		58	50x39x14				3
351	001	1	Fe	Object		260	73x60x36				3
352	001	1	Fe	Tractor part		422	110x39				3
353	001	1	Fe	Rod		94	65x21				3
354	001	1	Fe	Plough part		850	153x119		x		loose
355	001	1	Fe	Object (pointed?)		30	64x28x9				3
356	001	1	Fe	Lump		24	37x27x16				3
357	001	1	Fe	Object		110	51x42x20				3
358	001	1	Fe	Object		32	44x39x9				3
359	001	1	Fe	Lump		86	53 (max)				3
360	001	1	Fe	Sheeting		174	80x81				3
361	001	1	Fe	Peg head		36	55x21x17				3
362	001	1	Fe	Plough part		860	142x98		x		loose
363	001	1	Fe	Object		288	86x53x26				3
364	001	1	Fe	Ringed Disc		20	49x3				3
365	001	1	Fe	Peg		144	113x23x20				3
366	001	1	Fe	Lump		24	33 (max)				3
367	001	1	Fe	Object (blade?)		58	75x31x21				3
368	001	1	Fe	Horse shoe	Fragment	518	182x35x20				4
369	001	1	Fe	Object		20	66x14				4
370	001	1	Fe	Rod		48	56x21x16				4

Find No.	Context No.	No. of Pieces	Material	Description	Notes	Weight (g)	Dimensions (mm)	Photos (scans)	Packing		
									Large	Diagnostic	Box No.
372	001	1	Fe	Peg		130	117x38x15				4
373	001	1	Fe	Hook		88	97.6x10.3	373 front; 373 back		x	5
374	001	1	Fe	Lump		16	28 (max)				4
375	001	1	Slag	Piece		2	21.4 (max)				4
376	001	1	Fe	Object		74	73x38x15				4
377	001	1	Fe	Peg		36	79x17				4
378	001	1	Fe	Sheet		48	70x20				4
379	001	1	Slag	Piece		22	31.2 (max)				4
380	001	1	Fe	Rod		50	70x20				4
381	001	1	Fe	Flat rod		130	75x38x15				4
382	001	1	Fe	Plough share		808	118x134x24				4
383	001	1	Fe	Peg (ringed top?)		226	128x38x22				4
384	001	1	Fe	Object		56	44x28x				4
385	001	1	Fe	Nail		20	72x12				4
386	001	1	Fe	Plough part		1032	151x133x63				4
387	001	1	Fe	Object		664	97x98x30				4
388	001	1	Stainless Steel	Knife handle and part of blade	Modern	70	114x20x14				4
389	001	1	Fe	Peg		74	93x31x12				4
390	001	1	Fe	Peg (blade?)		36	59x32x10				4
391	001	1	Fe	Nail		60	99x26x13				4
392	001	1	Fe	Point		12	44x17x10				4
393	001	1	Fe	Plough part		716	89x17				4
394	001	1	Fe	Object	Originally numbered 395 on bag (duplicate)	42	79x46x9				4
395	001	1	Fe	Plough part		662	177x67x37				4
396	001	1	Fe	Rod		88	317x11		x		loose
397	001	1	Fe	Object		118	74x46x14				4
398	001	1	Fe	Object		128	68x39x20				4
399	001	1	Fe	Plough part		1560	276x81x19		x		loose
400	001	1	Fe	Lump		74	40 (max)				4
401	001	1	Fe	Object		30	65x30x14				4
402	001	1	Fe	Horse harness part	Decorated. Possibly part of a horse harness, bent.	6	45.5x24.3x2.1	402 front; 402 back		x	5
403	001	1	Fe	Nail		26	69x16				4
404	001	1	Fe	Machine Part		1022	134x121				4



Find No.	Context No.	No. of Pieces	Material	Description	Notes	Weight (g)	Dimensions (mm)	Photos (scans)	Packing		
									Large	Diagnostic	Box No.
406	001	1	Fe	Peg head		20	33 (max)				4
407	001	1	Fe	Object		20	48x16				4
408	001	1	Fe	Peg (square headed)		350	195x30				4
409	001	1	Slag	Iron slag		10	27.4 (max)				4
410	001	1	Fe	Pin		24	62x15				4
411	001	1	Fe	Object		132	85 (max)				4
412	001	1	Fe	Pressed plate (folded)		32	80 (max)				4
413	001	1	Fe	Wire? (two pieces)		8	73 (max)				4
414	001	1	Fe	Nail		10	95x5				4
415	001	1	Fe	Nail		2	39x5				4
416	001	1	Fe	Peg or bolt head	Originally no 187 on bag (duplicate)	334	73x43				4
417	001	1	Fe	Lump	Originally no 395 on bag (duplicate)	108	46x31				4

### Evaluation finds

Find No.	Area	Context No.	No. of Pieces	Material	Description	Notes	Weight	Dimensions
1	Tr 13	001	1	Fe	Blade		98	188x18x9
2	Tr 24	2403	1	Copper alloy	Possible square belt buckle		6	45x9x2
3	Tr 24	2403	3	Clay	Fragments of clay pipe, including part of bowl		8	
4	Tr 24	2403	6	Shell	Shell fragments		<1	
5	Tr 19	1901	1	Flint	Flint fragment		2	22 (max)
6	Tr 18	1801	1	Flint	Broken arrowhead		2	19 (max)
7	Tr 19	1901	1	Fe?	Possibly organic - light weight		<1	20 (max)
8	Tr 11	1102	3	Glass	Pieces of modern glass		8	
9	Tr11	1102	1	Ceramic	Piece of modern pottery		<1g	15 (max)
10	Tr 2	202	2	Bone	Animal tooth (frags)		8	
11	Tr 2	203	4	Wood	Waterlogged wood frags		27	
12	Tr 8	802	2	Ceramic	1x orange fabric body sherd, 1 x white fabric, hand painted		28	
13	Tr 8	802	1	Bone	Unidentified		16	67x30x19
14	Tr 24	2410	4	Slag	Metal slag fragments		64	
15	Tr 35	3503	1	Glass	Clear base of bottle		14	17 (depth)
16	Tr 35	3503	4	Ceramic	White china fragments		8	
17	Tr 40	4001	1	Glass	Green fragment		48	72 (max)
18	Tr 11	001	1	Lithic	Flint (core?)		18	45 (max)
19	Tr 35	3501	8	Ceramic	2x pipe stem, 6 x pot		46	

Find No.	Area	Context No.	No. of Pieces	Material	Description	Notes	Weight	Dimensions
20	Tr 32	3201	5	Ceramic	Mixed		130	
21	Tr 11	1102	1	Leather	Strap		10	26 (width)x3
22	Tr 47	1102	1	Lithic	Flint lump		14	29 (max)
23	Tr 25	2501	1	Shell	White shell		<1	22 (max)
24	Tr 40	4001	7	Ceramic	Various; 7x body sherds		108	
25	Tr 43	4301	24	Ceramic	Various; inc 6 rims, broken flower pot	In two bags	2450	
26	Tr 43	4301	2	Glass	1x clear bottle with writing (broken), 1x blue bottle		1194	
27		001	1	Glass	Clear bottle stopper		12	34x24
28		001	1	Stone	Part of a stone object		488	67x68x33
29		001	3	Glass	1x black fragment, 2 x clear balls		58	
30		001	1	Graphite	rod fragment (possibly from battery or pencil)		<1	14x6
31		001	2	Clay	1 x pipe stem frag, 1 x ball		6	
32		001	1	Ceramic	Wedgewood black basalt (handle sherd)		4	30x11x5
33		001	7	Ceramic	Modern industrial stone ware; 2 base, 1 neck, 4 body		198	
34		001	22	Ceramic	Modern industrial red ware; 2 base, 20 body		296	
35		001	30	Ceramic	Modern industrial white ware; 4 base, 7 rims, 1 handle sherd, 18 body		130	
36		001	2	Ceramic	Medieval ceramic; 2 body sherds		16	

#### Watching Brief finds

Find No.	Trench	Context No.	No. Pieces	Material	Description
1	54	[5403] (5404)	1	Ceramic	Small white jar, missing screw top
2	53	[5301] (5302)	1	Tile	Transfer printed, corner of floor tile
3	57	001	1	Stoneware	Sherd of cream stoneware vessel

## Appendix F: Artefact Report- Metal Detecting Survey

Natasha Ferguson (Centre for Battlefield Archaeology, University of Glasgow)

### Description of Finds

#### Lead Projectiles

Finds No: 251  
 Context: 001  
 Material: Lead  
 Dimensions: 21.19 x 6.25 (mm)  
 Weight: 22 (g) 0.8 (oz)  
 Condition: Calcified patina. Rough and pitted surface.  
 Period: Mid 16<sup>th</sup> - early 19<sup>th</sup> century  
 Description: Flattened and slightly oval in shape, almost fanned out. Curled upwards at edges. Flattened side has some indication radial striations originating from a central point like fan. Also multiple grooves and scuffs. Scuff on opposite side and a small pit possible remnants of a sprue.  
 Interpretation: Small musket ball which has been heavily distorted due to impact with hard surface. Surface has been corroded and is in a relatively poor condition. As the projectile has been heavily impacted it is not possible to determine its calibre or bore. The weight, however, suggests it was fired from either a small musket or carbine. As this is an isolated find it is not possible to interpret this projectile as being part of a wider battle related assemblage.

#### Buckles

Finds No: 054  
 Context: 001  
 Material: Iron  
 Dimensions: 59.7 x 42.74 x 6.9 (mm)  
 Weight: 34 (g)  
 Condition: Heavily corroded with some loss of surface area and mass.  
 Period: 1500 – 1750  
 Description: Iron D-shaped buckle. Rounded in section. One edge straight with the main body long and curved. Corrosion has degraded the main body.  
 Interpretation: Single looped buckle with tongue missing. Corrosion has concealed any remnants of tongue groove on opposite side. Potentially a wide ranging date as this simple form and style was adopted extensively from the 13<sup>th</sup> century. Due to iron condition across the site, however, it is unlikely this buckle dates earlier than the 16<sup>th</sup> century.

Finds No: 346  
 Context: 001  
 Material: Iron  
 Dimensions: 43.79 (mm)

Weight: 6 (g)  
 Condition: Heavily corroded and fragmentary.  
 Description: L-shaped fragment with a rounded section.  
 Interpretation: Possibly a fragment of a rectangular buckle; this fragment potentially representing a corner.

Finds No: 139  
 Context: 001  
 Material: Cu alloy  
 Dimensions: 37.84 (mm)  
 Weight: 8 (g)  
 Condition: Slight corrosion of surface. Object has been damaged and is cut in half.  
 Period: mid 17<sup>th</sup> - 18<sup>th</sup> century  
 Description: Square centre with shaped rounded outer edges. Central bar extending outwards possibly to accommodate leather belt. One half missing and appears to have broken or snapped off rather than cut. Possible traces of gilding.  
 Interpretation: Small square buckle with shaped decoration, possibly for small belt. Tongue is missing from central bar. Style similar to buckles recovered from mid 17<sup>th</sup> century sites of conflict.

### Misc.

Finds No: 319  
 Context: 001  
 Material: Lead  
 Dimensions: 20.82 x 48.17 (mm)  
 Weight: 66 (g)  
 Condition: Oxidised patina formed on surface. Surface rough and pitted.  
 Period: Unknown  
 Description: Rough rectangular lead object with one part, which is flattened and pointed, protruding from one end. It is not clear whether this protrusion is integral to the piece or has been fused or soldered on. Likely it is integral as one piece. The protrusion appears to be broken, which has created the point.  
 Interpretation: The squarish shape and rough nature of object suggests it may be the core of another object, with the lead providing weight and balance.

Finds No: 039  
 Context: 001  
 Material: Iron  
 Dimensions: 92.87 (mm)  
 Weight: 304 (g)  
 Condition: Heavily corroded and surface fragmentary. Main body of object stable.  
 Description: Triangular object with flattened sides which taper to a rounded point at one end. Other



end widens out into two parts and appears to be a fragmented socket or hole.

**Interpretation:** Object is broken but still retains some degree of shape. May represent the rear piece of an axe head, with the main body of the axe head missing as the socket has broken.

### Coins

**Finds No:** 036

**Context:** 001

**Material:** Cu alloy

**Dimensions:** 20.6 (mm)

**Weight:** 2 (g)

**Condition:** Corroded with surface deposits. Slightly distorted in shape.

**Description:** Small thin copper alloy disc with trace of gilt.

**Interpretation:** Small coin. Very thin and distorted. Possibly a late 17<sup>th</sup>/early 18<sup>th</sup> century coin. Based on size it is similar to coins dating to the reign of William III.

### Lead

**Finds No:** 202

**Context:** 001

**Material:** Lead

**Dimensions:** 41.9 x 7.68 (mm)

**Weight:** 74 (g)

**Condition:** Oxidised with white surface patina. Surface rough and pitted.

**Description:** Lead strip folded in half. Rough and angular edges

**Interpretation:** Strip of lead possibly removed or cut from building or lining. On 17<sup>th</sup> century sites of conflict folded strips of lead are interpreted as rations of lead material for the manufacture of lead projectiles. However, in this context it is more likely to represent isolated scraps.

**Finds No:** 207

**Context:** 001

**Material:** Lead

**Dimensions:** 41.2 (mm)

**Weight:** 28 (g)

**Condition:** Oxidised in patches with white surface patina. Areas have not oxidised and remain dark in colour and smooth.

**Description:** Rectangular strip with clean cut edges, slightly folded at one end.

**Interpretation:** Fragment of lead strip possibly removed or cut from building or lining. On 17<sup>th</sup> century sites of conflict folded strips of lead are interpreted as rations of lead material for the manufacture of lead projectiles. However, in this context it is more likely to represent isolated scraps.

## Artefact Analysis of Metal Detecting Assemblage

The assemblage as a whole is composed primarily of heavily corroded non-descript iron fragments representing a range of activities including agriculture and residual material, such as large iron bolts relating to later mining activity, modern dumping and the nearby railway. Despite deep corrosion, a small number of iron objects are identifiable, for example a fragment of a horseshoe (256), a buckle (054) and a hook possibly originating from a domestic environment. The horseshoe fragment, which has a broad flat plate, represents an early example dating from the mid 17<sup>th</sup> to mid 18<sup>th</sup> century (Hume 1969, 237).

A small quantity of copper alloy and lead artefacts are included within the assemblage. This includes a number of more diagnostic metal finds such as buckles, buttons, coins and a lead projectile, as well as some less identifiable objects, e.g. (319). Metallic condition, particularly of the copper alloy objects such as the possible late 17<sup>th</sup> – early 18<sup>th</sup> coin (036), and earlier button is very poor and does not allow for accurate identification.

Much of this material dates between the early 18<sup>th</sup> – 20<sup>th</sup> century. The earliest button (064) identified in the assemblage, is cast from copper alloy. The surface of the button is heavily corroded and the shank is missing, however, the style of the casting, with shallow basin and outer rim, suggests a possible date of mid 18<sup>th</sup> century to mid 19<sup>th</sup> century (Bailey 2004, 70)

Two interesting buckles have been recovered, although as most buckle forms have remained unchanged across many centuries it can often be difficult to date them accurately. The first (139) is a square copper alloy belt buckle of semi-ornate design. As similar buckle styles have been identified on mid – 17<sup>th</sup> century sites of conflict it is likely this buckle may also date to this period. A simple D-shaped iron buckle (054) appears to be an early type, although this simple form can potentially date anywhere from 1250 – 1750. However, owing to the poor metal condition across the site a later date for this buckle is more likely (Whitehead 2003, 18).

The artefacts composed of lead are perhaps the best surviving artefacts within the assemblage. Two lead artefacts are of interest. (319) may represent a weighted core of another object to provide balance. (251) is a small musket or carbine ball which has been heavily distorted due to impact with a hard surface. As this is an isolated find it is not possible however to associate this artefact to any conflict activity such as the Battle of Pinkie, as it could as equally relate to later farming or hunting activity.

**Appendix G: Discovery And Excavation Scotland Entry**

LOCAL AUTHORITY:	City of Edinburgh
PROJECT TITLE/SITE NAME:	Newcraighall North
PROJECT CODE:	3314
PARISH:	Edinburgh
NAME OF CONTRIBUTOR(S):	Alan Hunter Blair, Warren Bailie & Natasha Ferguson
NAME OF ORGANISATION:	GUARD Archaeology Ltd
TYPE(S) OF PROJECT:	Metal-detecting, Evaluation and Watching Brief
NMRS NO(S):	NT37SW 59
SITE/MONUMENT TYPE(S):	Ring-ditch, mineshafts, coal mining features, stone culvert, rig and furrow
SIGNIFICANT FINDS:	one flint arrow-head tip, two flint cores, one flint flake, one lead musket ball, one iron belt buckle fragment, one copper alloy buckle fragment, one 18 <sup>th</sup> century coin
NGR (2 letters, 6 figures)	NT 32048 72060
START DATE (this season)	13 <sup>th</sup> May 2011
END DATE (this season)	7th July 2011
PREVIOUS WORK (incl. DES ref.)	N/A
MAIN (NARRATIVE) DESCRIPTION: (May include information from other fields)	<p>Due to the presence of a ring-ditch cropmark and the battlefield of Pinkie, a metal-detecting survey, archaeological evaluation and watching brief was carried out by GUARD Archaeology Ltd across an area proposed for development to the immediate north of Newcraighall.</p> <p>However, instead of the expected later prehistoric and late medieval archaeology, the archaeological investigations suggest a predominance of 19<sup>th</sup> to 20<sup>th</sup> century activity across the development area, not only in quantity of artefacts and features, but in terms of the spatial distribution. The previously recorded ring-ditch crop mark was found to be an abortive mineshaft. Despite the recovery of a small and widely dispersed assemblage of early prehistoric flint artefacts, including the tip of a flint bifacial arrowhead of Neolithic or Bronze Age date, none of the features appeared structural and the artefacts are likely residual rather than indicative of specific prehistoric settlement within the development area.</p> <p>Neither was there any evidence to demonstrate that the rout from the Battle of Pinkie passed through the development area. The only possible finds that could derive from this event were an iron buckle and a lead musket ball. The simple D-shaped iron buckle is a form of buckle that could potentially date anywhere from AD 1250 – 1750. However, owing to the poor metal condition across the site a later date for this buckle is more likely. The small musket or carbine ball had been heavily distorted due to impact with a hard surface. However, as this was an isolated find it is not possible to associate this artefact to any conflict activity such as the Battle of Pinkie, as it could as equally relate to later farming or hunting activity. The rest of the finds recovered during metal detecting ranged in date between the 17<sup>th</sup> and 20<sup>th</sup> century, with the vast majority consisting of iron fixtures, pegs and other debris dating to the 19<sup>th</sup> and 20<sup>th</sup> centuries.</p> <p>The mineshafts and adit encountered during the evaluation and watching brief, together with the spatial distribution of features containing coal and ash waste deriving from mining activity and the wide distribution of nondescript iron debris found across the site clearly indicates that it had been extensively disturbed in modern times. While the precise purpose of most of these features could not be identified, the nature of the material they contained indicates that they very likely relate to mining activity, the construction of the adjacent railways and the practice of agriculture during the post-medieval and modern periods.</p>
PROPOSED FUTURE WORK:	---
SPONSOR OR FUNDING BODY:	The EDI Group Limited
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 H: Written Scheme Of Investigation****NEWCRAIGHALL NORTH, EDINBURGH**

ARCHAEOLOGICAL WRITTEN SCHEME OF INVESTIGATION

PROJECT 3314



## Contents

1.0	Executive Summary	1
2.0	Introduction	1
3.0	Site Location	1
4.0	Archaeological Background	1
5.0	Aims, Objectives and Scope	3
6.0	Fieldwork Methodology	3
	Metal Detecting Survey	3
	Archaeological Evaluation	4
	Archaeological Watching Brief	5
7.0	Report Preparation and Contents	5
8.0	Copyright	6
9.0	Publication	6
10.0	Archive	6
11.0	Finds Disposal	7
12.0	Personnel and Liaison	7
13.0	Monitoring	7
14.0	Health & Safety and Insurance	7

# NEWCRAIGHALL NORTH, EDINBURGH

ARCHAEOLOGICAL WRITTEN SCHEME OF INVESTIGATION

PROJECT 3314

by  
Ronan Toolis

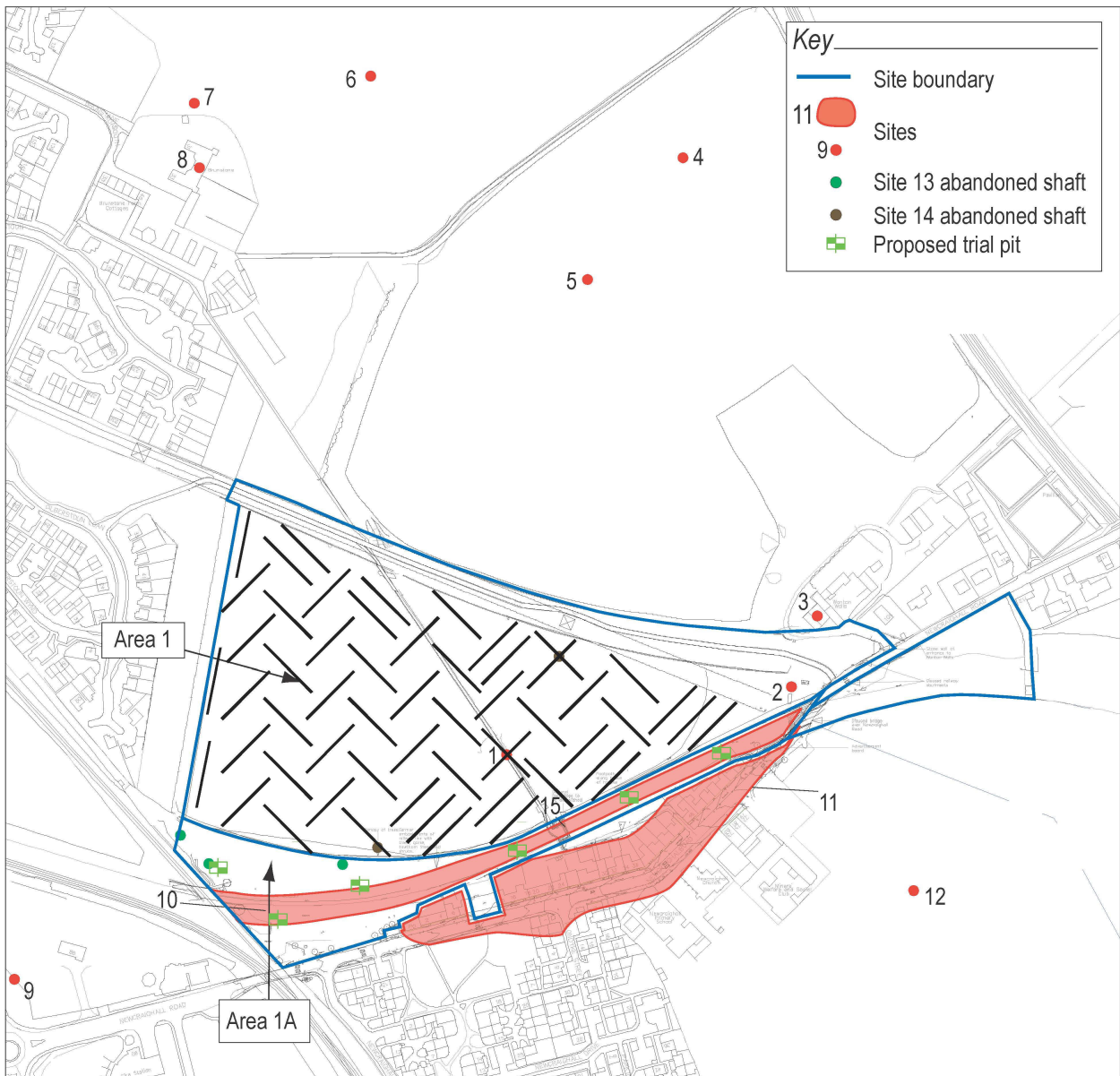
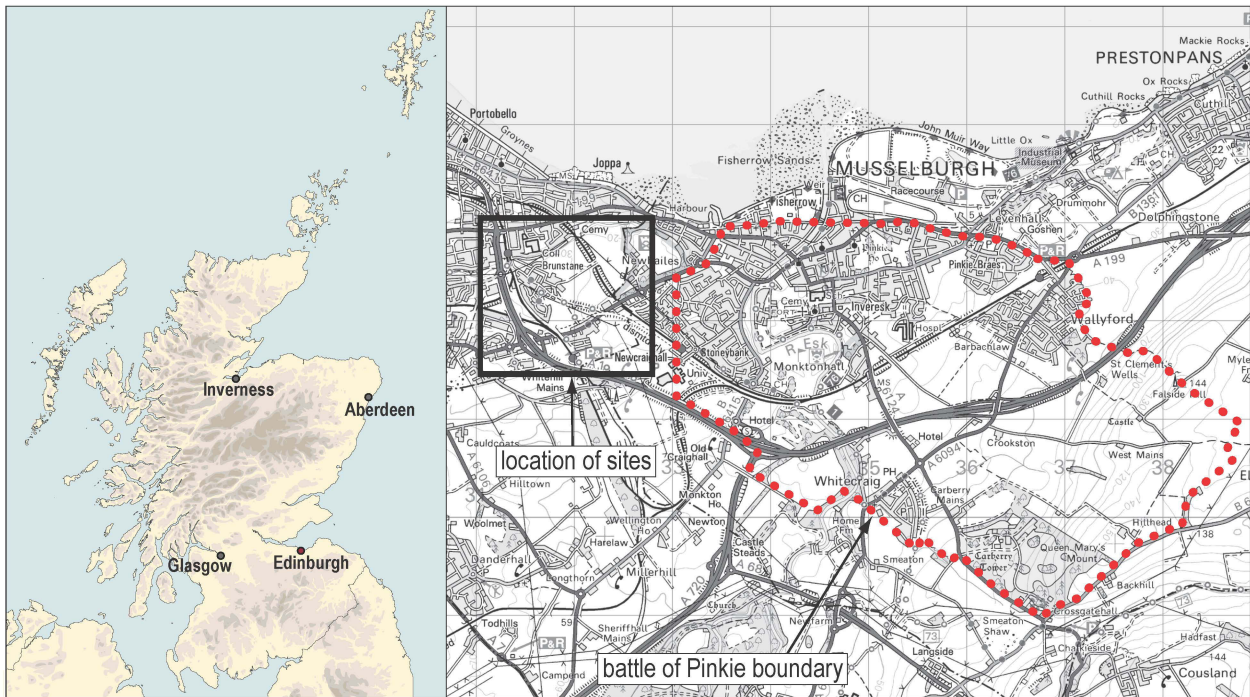


Figure 1:  
Site location.



## Executive Summary

- 1.1 This Written Scheme of Investigation forms the archaeological method statement for the evaluation of Newcraighall North Development Area 1 and Area 1A and will require to be approved by the local authority prior to the commencement of archaeological fieldwork.

## Introduction

- 2.1 This Written Scheme of Investigation (WSI) sets out the methodology for the archaeological mitigation works required for the Newcraighall North Development Area 1 and Area 1A in accordance with the relevant condition of the outline planning consent. In the first instance, a metal detecting survey will be undertaken to establish if any archaeological artefacts relating to the Battle of Pinkie survive within the topsoil of Development Area 1. An archaeological evaluation of Development Area 1 will then be undertaken to establish the presence, extent and nature of any significant archaeological remains. An archaeological watching brief will then be undertaken during the Site Investigation Works within Development Area 1A. Should significant remains be identified and it is not possible to preserve them *in-situ* a further requirement for archaeological works to ensure their preservation through record is likely to be required.
- 2.2 This WSI outlines the programme of archaeological works that may be needed to mitigate the effects of the proposed development. It details the methodology to be employed in implementing the Stage 1 archaeological works. The mitigation methodology to be employed during Stage 2 excavation and Stage 3 post excavation analysis and publication, will be specified in *addenda* to this document. These *addenda*, if required, will be submitted for the approval of the City of Edinburgh Council Archaeology Service (CECAS), prior to the commencement of any archaeological work. All phases of work will be funded by the developer as required by the Planning Authority.

## Site Location

- 3.1 The development areas are located to the north of Newcraighall, Edinburgh (centred around NGR: NT 320 720). Area 1 comprises one large 8 ha field crossed by a track, while Area 1A is a disused railway line, 1.7 ha in size, located to the immediate south of Area 1 (Figure 1).

## Archaeological Background

- 4.1 An archaeological desk-based assessment was previously undertaken by GUARD of the Newcraighall North development area. The assessment, which included a walkover survey, identified the following sites in and around the development area (Figure 1):
  - Newcraighall Ring-ditch (Site 1) NMRS NT37SW 59;
  - Wanton Walls Bridge, Fisherrow Branch of Edinburgh and Dalkeith Railway (Site 2) NMRS NT37SW 606;
  - Wanton Walls Farm, Edinburgh (Site 3) NMRS NT37SW 827; c(s) Listed 46550;
  - Brunstane (possible) enclosure, rig and furrow, shaft and coal pits (Site 4) NMRS NT37SW 573;
  - Brunstane enclosure (Site 5) NMRS NT37SW 60; Scheduled Ancient Monument 4112;
  - Brunstane Colliery, cropmark, field boundary, rig and furrow, mineshaft (Site 6) NMRS NT37SW 61;
  - Brunstane rectilinear enclosure (Site 7) NMRS NT37SW 238; Scheduled Ancient Monument 10580;
  - Brunstane House, Garden, Sundial and Steadings (Site 8) NMRS NT37SW 80; A Listed 28034 & B Listed 28035;
  - Newcraighall Colliery (Site 9) NMRS NT37SW 234;
  - Former Fisherrow Branch of the Edinburgh and Dalkeith Railway Line (Site 10);



- Whitehill Street, Newcraighall Village (Site 11) NMRS NT37SW 209; c(s) Listed 29912-29916;
  - New Craighall Colliery (Site 12) NMRS NT37SW 181;
  - Mine shaft (Site 13);
  - Mine Shafts (Site 14);
  - Foot Bridge over former railway line (Site 15)
- 4.2 A ring-ditch cropmark (Site 1), which may represent a prehistoric roundhouse and settlement lies near the centre of Development Area 1. To the north, outwith the proposed development areas, lie more cropmarks of potential prehistoric date, including Brunstane enclosure (Site 5), which is a scheduled ancient monument, and another possible enclosure (Site 4). These potential prehistoric sites are somewhat typical of the Lothians. Aerial photographs and previous archaeological investigations of similar cropmark sites have demonstrated that the Lothians were occupied relatively intensively, particularly during later prehistory.
- 4.3 To the north, outwith the proposed development areas, are two known Medieval sites. The first is Brunstane moated enclosure (Site 7), a rectilinear enclosure visible as a cropmark on aerial photographs. Nearby is Brunstane House (Site 8), which first appeared in historical records as a tower built by the Crichtons, demolished in 1547 but rebuilt in a new L-shape plan by c 1565.
- 4.4 The proposed development area is also close to the Battlefield of Pinkie (Figure 1), fought between the Scots and English on 10 September 1547. This was fought as part of the 'Rough Wooing', the attempt of the English to link the English and Scottish Kingdoms, through the marriage of the young queen Mary of Scotland and Edward VI of England. The battle of Pinkie followed a major land campaign to secure Scottish territory led by the Duke of Somerset. In response the Earl of Arran had mustered northern Scottish forces at Edinburgh and the troops from the south at Falla, about 15 miles to the south east of the capital, in order to counter either a cross country or coastal advance by the English army. Once aware of the English route, Arran marched north to block their approach at the crossing of the Esk near the coast at Musselburgh. An attack from English cavalry was driven off by the Scottish pike formations. At the same time the ordnance of both armies began an artillery exchange. As the Scottish battle array advanced to within bowshot, they were met by artillery fire from pieces deployed within the main English battle and by small arms fire from professional hagbutters, who had been deployed forward of the three English battles. Under this fire, and before the two sides came to hand-to-hand fighting, most of the Scottish formations appear to have disintegrated. Though some troops may have retained their battle array and made a fighting retreat, the majority fled back towards Dalkeith, to the south west, with the English in pursuit. The rout lasted around six hours, with the Scottish army fleeing towards Edinburgh as well as Dalkeith; some took the route towards Newhailes while others headed towards the area of study. Given that in a rout much material was discarded by the fleeing army, it is possible that small archaeological finds deriving from the rout may survive within the topsoil of Area 1.
- 4.5 While the bulk of archaeological sites within the study area date to the post-medieval and modern periods, none of the maps of the 17<sup>th</sup> and 18<sup>th</sup> centuries consulted during the desk-based assessment depict any settlement within the proposed development area and only a rather light distribution of rural settlement in the wider study area. To the immediate south of the proposed development areas lies Newcraighall, which began as housing for workers in the surrounding nursery gardens which had grown up in the late 18<sup>th</sup> and 19<sup>th</sup> centuries to cater for the needs of the expanding population of Edinburgh. By the later 19th century, however, and particularly after the opening of the Klondyke pit in 1897, it had become predominantly a mining village. The pit was closed in 1968, and today little sign of Newcraighall's mining past remains within the village. Some of the miners' cottages, however, have been restored and are c(s) listed buildings (Site 11). Some of these cottages seem to be depicted by Andrew and Mostyn Armstrong map of 1773 where three rectangular buildings are visible at the north-east of the Newcraighall road.
- 4.6 Distributed across both proposed development areas are five abandoned mineshafts (Sites 13 & 14) deriving from the coal mining formerly undertaken around Newcraighall. Three abandoned shafts (Site 13) are located on the western half of Development Area 1A while two more are within Development Area 1. All of these are probably associated with the Newcraighall Colliery (Site 9), nicknamed the 'Klondyke', which operated between 1897 and 1968, and was located to the south-



west of the proposed development areas. Another colliery within the wider study area was New Craighall Colliery (Site 12), situated to the south-east of the proposed development area, while further north-west are recorded other mineshafts (Sites 4 & 6).

- 4.7 Development Area 1A follows the former course of the former Fisherrow Branch of the Edinburgh and Dalkeith Railway Line (Site 15). Depicted on all maps between the Ordnance Survey First Edition 6 inch map of 1854 and Bartholomew's map of 1934, visible remains of this that survive include a modern foot bridge (Site 15) that crossed over the former course of the railway line (Site 10), and Wanton Walls Bridge (Site 2). The former bridge (Site 15), though now disused, is on the course of a path, still in use, linking Brunstane to Newcraighall village.
- 4.8 While no previous archaeological investigations have been recorded within the development areas, the desk-based assessment indicated a significant potential for buried archaeological artefacts and prehistoric remains to survive within Development Area 1.

## Aims, Objectives and Scope

- 5.1 The aim of the archaeological evaluation is to identify:
- the extent and nature of known archaeological features comprising the ring-ditch cropmark and the two mineshafts within Development Area 1;
  - as yet unknown archaeological features and deposits within Development Area 1;
  - to ensure that any surviving archaeological remains, encountered during the site investigation works within Development Area 1A, are recorded to an appropriate level.
- 5.2 The objectives are therefore to:
- Conduct an archaeological evaluation within Development Area 1 to establish the presence or absence of any archaeological remains, and their character, date and extent if surviving;
  - Conduct an archaeological watching brief during the Site Investigation works within Area 1A;
  - Assess the depth of modern made ground within Development Area 1A above which no significant archaeology survives;
  - Submit a report to data structure level for approval to the City of Edinburgh Council, on completion of the archaeological fieldwork, which includes an outline of the scope of any further excavation works should any significant archaeology be encountered.
- 5.3 The scope of the archaeological works will establish:
- that if the archaeological evaluation encounters no significant archaeological remains within Development Area 1, no further archaeological fieldwork will be required within Development Area 1;
  - that if the archaeological watching brief of trial pits and mineshaft excavations within Development Area 1A establishes that no significant archaeological remains survive within the depth of ground to be impacted by the proposed development, no further archaeological fieldwork will be required within Development Area 1A.

## Fieldwork Methodology

### Metal Detecting Survey

- 6.1 An initial metal detecting survey of Development Area 1 will be undertaken in order to assess if any artefacts related to the nearby battlefield of Pinkie survive within the topsoil. Metal detecting will be undertaken in 10 m transects across Development Area 1. The transects will be surveyed in by sub-metre GPS. Finds that are detected during the metal detecting survey will be plotted using the transect grid and recovered using stratigraphically controlled key-hole excavation for identification and further study if necessary. All finds collected during metal detecting will be assessed for identification by a suitably qualified and experienced battlefield archaeologist.

### Archaeological Evaluation

- 6.2 The metal detecting survey will be followed by an archaeological evaluation of the 8 ha Area 1 development area. The evaluation will comprise the machine excavation of trenches amounting to 7% (ie 5,600 m<sup>2</sup>) of Area 1, in order to evaluate the presence, nature, significance and extent of any archaeological features within the proposed development area.
- 6.3 The evaluation trenches across the development area will comprise 56 trenches (each 50 m long and 2 m wide), amounting to 5,600 m<sup>2</sup> in total (Figure 1). Evaluation trenches will be located to specifically target the ring-ditch cropmark (Site 1) and the former mineshafts (Site 14).
- 6.4 All machine excavation of trenches will be supervised by a GUARD Archaeologist. The machine excavator will be fitted with a c 2 m wide flat-bladed (toothless) ditching bucket.
- 6.5 The topsoil at each trench location will be removed in spits to the first archaeological horizon or, where none was found, to the natural subsoil. Any archaeological features encountered will be cleaned by hand by the on-site Archaeologist to determine their character and extent.
- 6.6 Any significant archaeological features encountered will be dealt with by the on-site Archaeologist. Should negative-cut features be encountered, a representative sample will be 25-50% excavated in order to determine their significance, date and function. A full record of excavated features will be made using a single context recording 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 trenches will be accurately surveyed using a sub-metre GPS and located within the National Grid.
- 6.7 All archaeological finds will be dealt with by the on-site Archaeologist. 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 appropriate specialist assessment. If necessary, conservation of finds will be appraised to allow for specialist study.
- 6.8 All excavated feature fills and horizons will be sampled as appropriate, using bulk soil samples, for palaeo-environmental evidence.
- 6.9 A representative section will be recorded denoting depth of topsoil, any stratigraphy present and the nature of the soil. This information will be logged in the day book together with a sketch drawn to scale and a photographic record of deposits.
- 6.10 Should human remains be revealed by the excavation, the local police, the client and CECAS will be informed immediately. Any human remains will be accurately recorded, but left in situ, pending the agreement of the police, the client and CECAS on an appropriate mitigation strategy.
- 6.11 Should significant archaeological remains be encountered, there is a contingency for examining *up to* a further 3% (ie 2,400 m<sup>2</sup>) of Development Area 1. These evaluation trenches will target any significant archaeology encountered with the aim of defining the full extent of archaeological features.
- 6.12 Should significant archaeological remains be encountered by the evaluation, requiring more than the limited evaluation outlined above, the remains will be largely left in situ pending the agreement of the client and the City of Edinburgh Council Archaeology Officer on a WSI addenda for an appropriate scope of excavation (Stage 2) and Post-excavation design including scope of finds analysis, conservation & publication (Stage 3).
- 6.13 On completion of the recording of the evaluation trenches, the backfilling of trenches will be undertaken by machine. No specialist backfilling is proposed, nor will the backfilling of trenches be supervised by the on-site archaeologist.

### Archaeological Watching Brief

- 6.14 The watching brief will monitor the Site Investigation trial-pits and mine-shaft excavations but will exclude boreholes within Development Area 1A. The Site Investigation works requiring archaeological monitoring within Area 1A will comprise 6 trial-pits and two mine-shaft location excavations (Figure 1).



- 6.15 The watching brief will include the excavation and recording of any feature encountered to ensure that no significant archaeological remains are disturbed, without being recorded.
- 6.16 One GUARD archaeologist will be required per machine during the site investigation operations. The machine excavator will be fitted with a flat-bladed (toothless) ditching bucket.
- 6.17 The topsoil will be removed in spits to the first archaeological horizon or, where none was found, to the required depth of the site investigation works. If archaeological remains are observed, the watching brief archaeologist will instruct the machine plant operator to cease excavation immediately.
- 6.18 Suitable down time will be provided to the on-site GUARD Archaeologist in order to investigate and record any archaeological features encountered on site. Any archaeological features encountered will be cleaned by hand by the on-site Archaeologist to determine their character and extent. Any significant archaeological features encountered will be dealt with by the on-site Archaeologist. Should negative-cut features be encountered, a representative sample will be 25-50% excavated in order to determine their significance, date and function. A full record of excavated features will be made using a single context recording 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 by the Site Investigation Contractor.
- 6.19 If any archaeology encountered is sufficiently significant or complex to require more than one day to excavate and record, an alternative location for the trial pit or trench will be sought with the agreement of the Site Investigation Contractor. If no suitable alternative location can be agreed, the client and CECAS will be contacted to agree appropriate further mitigation measures. Such measures will likely comprise the excavation of any significant archaeological remains by the on-site Archaeologist and an appropriate number of Assistant Archaeologists. Recording will include pro forma sheets, drawings and photographs. The general practice will be to bulk recover all artefacts by context.
- 6.20 Should human remains be revealed by the Site Investigation Works, the local police, the client and CECAS will be informed immediately. Any human remains will be accurately recorded, but left in situ, pending the agreement of the police, the client and CECAS on an appropriate mitigation strategy.
- 6.21 The backfilling of trial pits or mineshaft location trenches will not be supervised by the on-site archaeologists, unless significant archaeology has been encountered at these locations and therefore requiring supervision to ensure preservation in situ.

## Report Preparation and Contents

- 7.1 A report detailing the results of the archaeological fieldwork will be submitted to the client within two weeks of completion of fieldwork and, subject to client approval, then submitted to CECAS. The report will take the form of a Data Structure Report and will contain an analysis of the results of the metal detecting survey, evaluation and watching brief. The report will include a full descriptive text that will characterise the date and extent of any archaeological deposits. It will also include plans at an appropriate scale showing the area subjected to ground-breaking works, evaluation trenches, archaeological features and archiving lists of all finds, samples, field drawings and photographs.
- 7.2 If appropriate, the report will also include an addendum to this WSI for further archaeological fieldwork, should significant archaeology have been encountered.
- 7.3 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 of relevant finds/samples if appropriate;
- recommendations regarding the need for, and scope of, any further archaeological work such as excavation (Stage 2) and Post-excavation finds analysis, conservation & publication (Stage 3);
- bibliography.

7.4 At least two copies of the report will be prepared for the client and a further one including a digital PDF copy sent to CECAS.

7.5 The report will be presented in an ordered state and contained within a protective cover/sleeve or bound in some fashion. The report will be page numbered and supplemented with section numbering for ease of reference.

## Copyright

8.1 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.

## Publication

9.1 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 archaeological fieldwork, 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.

## Archive

10.1 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.

10.2 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, CECAS will validate the OASIS form thus placing the information into the public domain on the OASIS website.

## Finds Disposal

11.1 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.

## Personnel and Liaison

- 12.1 The GUARD team will comprise the following qualified and experienced GUARD archaeologists:
- Project Manager: Mr Ronan Toolis
  - Project Director (on-site Archaeologist): Alan Hunter Blair
  - Battlefield Archaeologist: Natasha Ferguson
  - Archaeologist: Warren Bailie
  - Archaeologist: Daniel Sahlen
  - Finds and Environmental Support and Conservation: Ms Aileen Maule
  - Illustrator: Ms Gillian McSwan
  - Quality Assurance: Dr John Atkinson
- 12.2 The GUARD Project Manager, Mr Ronan Toolis, will be the point of contact for the archaeological works. A full CV for individuals concerned can be made available on request.

## Monitoring

- 13.1 The proposed start date for the archaeological fieldwork will be Monday 16 May 2011. CECAS will be informed of the site mobile phone number prior to the start date so that monitoring visits can be arranged. It is envisaged that the metal detecting survey will take one week to complete. A staggered start for the evaluation will be arranged (ie Wednesday 18 May). It is estimated that the evaluation of 7% of Development Area 1 will take five days to complete, with a further three days for the additional 3% contingency should this be required. The duration of the Watching Brief will be determined by the progress of the Site Investigation, but it is estimated that this will take 3-4 days and will immediately follow the conclusion of the evaluation.

## Health & Safety and Insurance

- 14.1 GUARD Archaeology Ltd adheres to the guidelines and standards prescribed for archaeological fieldwork set down in the Institute for 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.
- 14.2 GUARD Archaeology Ltd also possesses all necessary insurance cover, proofs of which may be supplied upon request.

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