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Aberdeen Western Peripheral Route/Balmedie-Tipperty Lot 1 – Balmedie to Tipperty Invasive Archaeological Investigations

> Mitigation Excavation AWPR/B-T/BT/002

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## Aberdeen Western Peripheral Route/Balmedie-Tipperty Lot 1 – Balmedie to Tipperty Invasive Archaeological Investigations

## Mitigation Excavation AWPR/B-T/BT/002

# Report No. 3221









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#### NON-TECHNICAL SUMMARY

A programme of strip and map and mitigation excavation was carried out along the Balmedie to Tipperty section of the proposed Aberdeen Western Peripheral Route/Balmedie-Tipperty (AWPR/B-T).

The subject of this report is the topsoil stripping and hand-excavation of the features in Trench AWPR/B-T/BT/002, located within Plot 401 at Dambrae, Hill of Menie.

The majority of the features identified related to post-improvement agriculture. These consisted of improvement features such as field drains and numerous irregular-shaped pits, most probably holes left over from stone and boulder extraction. Evidence of earlier agricultural practices was apparent by the presence of cultivation furrows.

#### 1. INTRODUCTION

#### 1.1 General

This report presents the results of an archaeological excavation undertaken by CFA Archaeology Ltd (CFA) in April 2014. The work was undertaken in advance of the construction of the Balmedie to Tipperty section of the Aberdeen Western Peripheral Route (AWPR/B-T). The area investigated was Trench AWPR/B-T/BT/002 (abbreviated to BT/002 in this report). It lay within Plot 401 at Dambrae, Hill of Menie (NGR NJ 9665 2063) (Fig. 1). The CFA site code was ABBY and the CFA project number was 1723.

The employer for this project was Aberdeen City Council and overall responsibility for its delivery lies with the AWPR/B-T Managing Agent. Kirkdale Archaeology was the Archaeological Consultant on behalf of Grontmij Ltd for the Balmedie to Tipperty section, and CFA was the Contractor for the works; the curator was Historic Scotland.

#### 1.2 Background

The Aberdeen Western Peripheral Route/Balmedie-Tipperty is being developed by Transport Scotland in partnership with The Employer, Aberdeen City Council. These two projects were individually identified as proposed transport interventions within the Modern Transport System and developed separately through the statutory process. In November 2010 the Scottish Government confirmed its intention to procure both projects under a single Non-profit Distributing contract. These two major improvements to the trunk-road network are close to each other and together will provide significant benefits to the north-east of Scotland by reducing journey times and cutting congestion within Aberdeen City.

The AWPR/B-T project comprises the construction and operation of two major improvements to the trunk road system and is of both national and regional importance. It is designed to support national, regional and local transport and economic development policy objectives and will comprise 34.6km of wholly new dual carriageway around the outskirts of Aberdeen along with an 11.5km Fastlink running from the A90 at Stonehaven and joining the peripheral route near to Maryculter. These major improvements comprise four sections consisting of the Northern Leg from North Kingswells to Blackdog, the Southern Leg from Charleston to North Kingswells, the Fastlink from Stonehaven to Cleanhill Junction, and the Balmedie to Tipperty improvements. Nine km of new dual carriageway will also be constructed during the Balmedie to Tipperty part of the project along with 3km of online improvements.

#### **1.3** Archaeological Background

A cultural heritage assessment was prepared by Kirkdale Archaeology and formed Chapter 12 of an Environmental Statement (Grontmij & Natural Capital 2007). The assessment of the Balmedie-Tipperty section studied a 1km wide corridor either side of the proposed development to assess the effects construction would have on statutorily protected sites such as Listed Buildings and Scheduled Monuments. It also studied a 300m wide corridor either side of the proposed development for sites recorded in the National Monuments Record for Scotland (NMRS) and the local council Sites and Monuments Record. The assessment identified a total of 90 sites of cultural heritage significance along or close to the proposed route of the development, junctions and link roads, the majority of which have non-statutory protection. Eight Listed Buildings were present and one Scheduled Monument.

A review of the background of the area demonstrated that it had undergone substantial prehistoric and historic development. The ES suggested that this indicated the possibility for further unidentified archaeology in the area. A brief summary of the history of the proposed development area is given below.

There was evidence of activity from some prehistoric periods within the study corridor and wider area. A Bronze Age burial at Keir and a Bronze Age barrow at Bairnie Hillock, as well as cropmarks of possible prehistoric date and isolated findspots of prehistoric artefacts, such as a dolerite axe and flint artefacts, were all within the study area. In the wider environs was the Monykebbuck Standing Stone, Hill of Fiddes Stone Circle, South Ythsie Stone Circle, Hill of Logie Settlement, and Pitlurg Long Barrow as well as Mesolithic flint working sites along the coast and a notable findspot of gold torcs. The New Statistical Account of 1834-45 stated that there had been a number of stone circles and prehistoric burial mounds upstanding in the parish of Belhelvie.

Orrock, later recorded as 'Overblairton' in the early 14<sup>th</sup> century, was part of the Thanage of Belhelvie. These lands were cited in a charter of 1388 when they were granted to John Fraser of Forglen. In 1616, the rights of John Wood of 'Fettercairn's' to 'Over Blairton' were confirmed by James VI. A charter of 1770 refers to a 'Manour Place'. The assessment concluded that many of the more substantial farms were likely to have their origins in this period, even if the present buildings were of a later date. An example of 17<sup>th</sup> century settlement is suggested by the documentary evidence of Edward Adamson and his sons Edward and William who were recorded in Kirkhill of Foveran in the mid-to late 17<sup>th</sup> century. It was considered that some of the major land boundaries that were still extant were likely to reflect these early land holdings.

The Roy map of 1747-55 showed the area largely comprising rig fields, indicating open field cultivation. In the later 18<sup>th</sup> century there was a period of agricultural improvement in the area and it is likely that the present pattern of field boundaries was formed then, possibly incorporating earlier property divisions.

In 2012 a magnetometer survey was conducted over all accessible and suitable ground within the proposed corridor of the scheme (Bartlett et al 2012). A number of anomalies interpreted as possible archaeological features, including putative enclosures, were recorded along the proposed route. The anomalies were closely associated with what were interpreted as relict cultivation features. Other responses, possibly related to earlier cultivation, were also noted as well as some linear anomalies. The survey was limited by boggy ground, narrow strips that were unsuitable for survey, verges and adjacent trunk road land parcels, heavy vegetation and woodland. These un-surveyed areas totalled 20% of the total coverage. Anomalies that were identified within the route corridor as being of archaeological potential were targeted for evaluation in sixty-two of the trial trenches.

A topographic survey of four sites (previously identified in the Cultural Heritage Chapter of the ES (Sites 42, 51, 57, 72)) was conducted in 2012 (Wessel 2012).

Previous archaeological work was undertaken by CFA in 2013 and consisted of a programme of trial trenching within Lot 1 of the Aberdeen Western Peripheral Route (Moore 2013).

Three sites of potential archaeological interest were revealed by the trial trenching. It was decided, in agreement with Kirkdale Archaeology and Jacobs, and with the approval of Historic Scotland, that the mitigation measures relating to the sites identified during and following trial trenching should take the form of a strip and record, with hand excavation of any features revealed subject to further agreement.

This report covers the programme of mitigation excavation for Trench BT/002, as agreed with the Consultant. The other sites are reported on under separate cover (Suddaby 2014a & Suddaby 2014b).

#### 2. METHODOLOGY

#### 2.1 General

CFA Archaeology is a registered organisation (RO) with the Institute for Archaeologists (IfA). All work was undertaken in accordance with the Specification within Tender Document OJEU Reference Number 2012/S 235-387161 (2013) and with reference to, but not limited to, best practice as detailed in Schedule 1 of the same document, the preamble of the Specification: principally following published Historic Scotland standards and those set by the Institute for Archaeologists in their 'Standard and Guidance for Archaeological Field Evaluation' (IfA 1994, revised 2008).

CFA Archaeology Ltd follows the Institute for Archaeologists' Code of Conduct, Standards and Guidance for Archaeological Fieldwork.

A terrestrial photographic condition survey was undertaken prior to and immediately after the investigation. All equipment and footwear was cleaned and disinfected prior to entry on to any areas of land. An Ecological Clerk of Works conducted walkover surveys prior to any work commencing and was consulted regularly to ensure that any ecological matters were dealt with promptly and correctly.

#### 2.2 Surveying

The co-ordinates for the trench location were provided by the Consultant, as shown on Figs. 1 and 2. The location was accurately surveyed as excavated and tied in with the Ordnance Survey National Grid and Ordnance Datum using a GPS with a survey grade accuracy of  $\pm 10$ mm. Any alteration to the pre-agreed trench layout was carried out with the prior agreement of the Consultant.

Precision topographic mapping was achieved through the use of GNSS/GPS systems. The survey achieved real-time GNSS/GPS positioning accurate to 0.01m horizontal and 0.03m vertical, through the use of a Trimble R6 GNSS system with a TSC3 controller running Trimble Access surveying software. This equipment provides centimetre-accurate RTK corrections using the Trimble VRS Now RTK GNSS service.

Data collection and survey control were integrated with the overall plans for the invasive investigations.

Survey data was exported from Trimble Access on the TSC3 controller to dxf format, retaining individual point feature codes and associated attributes, and processed in AutoCAD 2013. Model space in CAD was in metres at 1:1 and standard CFA layers and feature codes were used.

#### 2.3 Mechanical Excavation

All topsoil/subsoil was stripped from the agreed area by a tracked mechanical excavator equipped with a toothless ditching bucket. All groundbreaking operations were undertaken under the direct and continuous supervision and control of the

Contractor. Mechanical excavation ceased either at the first archaeological horizon or at the level of the natural geological deposits where it could be demonstrated that no archaeological horizon existed.

Immediately after the removal of the topsoil and any other overburden, the whole area stripped was inspected for archaeological features. All areas containing significant concentrations of features, particularly small non-linear features, or where the presence of such groups of features was suspected, were manually cleaned. The cleaning extended for 10m beyond any archaeological feature.

An overall plan of all visible features was prepared by instrument survey and, where appropriate, hand planning. The plan also showed any areas of visible damage or destruction of the archaeology caused by recent activity e.g. service trenches, quarry pits etc. The survey data and any hand-drawn plans were accurately tied in to the Ordnance Survey National Grid and Ordnance Datum.

Following the completion of the topsoil stripping, a composite drawing showing information from the instrument survey and the hand planning was prepared and submitted to the Consultant. Features shown on the drawing were annotated with a preliminary archaeological interpretation. The drawing was submitted to the Consultant along with detailed costings and programme for undertaking excavation of features present, and for undertaking a post-excavation assessment and preparation of a post-excavation assessment report. Following agreement with the Consultant, the mitigation excavations were then undertaken as described in Section 2.4.

Topsoil and subsoil were segregated into separate spoil heaps on either side of the trench. Spoil from the excavation of any archaeological features was stored on the subsoil side. All backfilling was undertaken following inspection by, and with the prior agreement of, the Consultant. The material was backfilled in reverse order of removal in a series of layers no more than 250mm thick, each layer compacted as appropriate by the mechanical excavator prior to placement of the next layer.

#### 2.4 Hand Excavation and Recording

The excavation of features was agreed in advance with the Consultant. In this instance 25% of the isolated negative pit-like features that were present were excavated by half section, then fully excavated, to identify if they had a significant archaeological origin. Further excavation of these features was to be agreed if they proved to be of archaeological significance. It was also agreed that one section would be excavated across one of the agricultural furrows.

All excavated contexts were fully recorded by detailed written context records giving details of location, composition, shape, dimensions, relationships, finds, samples, cross-references to other elements of the record and other relevant contexts. At least one plan and at least one section were drawn at an appropriate scale. Photographic records in digital form were taken of all trenches and archaeological features using a camera with a minimum resolution of ten megapixels. Feature locations were surveyed using a GPS with a survey survey-grade accuracy of  $\pm 10m$  (horizontal)/ $\pm 30mm$  (vertical). All artefacts were recovered from site for specialist

examination and analysis. All soil from the excavation of archaeological features was metal detected.

#### 2.5 On-site Palaeoenvironmental Sampling Strategy

Samples comprising at least 40 litres per context or 100% of smaller contexts were taken for the recovery of small plant remains, small bones and finds. The soil samples were processed during fieldwork to allow a continuous reassessment and refinement of sampling strategies.

#### 2.6 Archiving

The project archive, comprising all CFA record sheets, plans and reports, will be deposited at the RCAHMS and will conform to current guidelines in MoRPHE (English Heritage 2006). The deposition of paper and digital archives with RCAHMS will comply with their current requirements (RCAHMS 1996a, 1996b) and with the Archaeological Archives Forum (Brown 2007) and ADS guidelines for digital archives (Richards and Robinson 2001).

All artefactual material is allocated through the Treasure Trove process. *Treasure Trove in Scotland: A Code of Practice* (Scottish Government 2008) will be followed for the notification of finds to the Treasure Trove Unit. The finds/ecofacts will be archived according to the Scottish Museums Council guidelines (Scottish Museums Council 2000). Copies of specialists' reports, finds, illustrations, and x-rays will be included with the deposition where appropriate. Packing lists (paper and digital), and site information recorded on Museum Transfer Forms will be included with each deposition. Signed receipts for deposition will be retained. A discard policy is not appropriate for material collected in Scotland.

A summary statement of the results of this survey will be submitted for publication in *Discovery and Excavation in Scotland* once all archaeological works are completed (Appendix 5). An *OASIS Scotland* entry will be completed.

#### **3. ARCHAEOLOGICAL RESULTS**

#### 3.1 General

Trench BT/002 measured 50m east-west by 40m north-south (Fig. 2). It was located at the eastern end of a low east-west aligned ridge with the ground sloping generally to the south-east. The field contained uncut pasture at the time of the excavation.

The topsoil (001) within the trench was generally 0.3m deep. An agricultural subsoil (002) was present along its southern and south-eastern edge. Over much of the central part of the trench boulders frequently protruded from the natural substrate (Fig. 3) and in some cases right through the topsoil. The natural (003) was in general firm orange or pale yellow sandy clay with a varied stone content.

Fifty-eight individual pit-like features (019, 025, 027, 029, 031, 033, 035, 037, 039, 041, 043, 045, 047, 049, 051, 053, 055, 057, 059, 061, 063, 065, 067, 069, 071, 073, 075, 079, 081, 083, 085, 087, 089, 091, 093, 095, 097, 099, 101, 103, 105, 107, 109, 111, 113, 115, 117, 119, 121, 123, 125, 128, 130, 132, 134, 136, 138 & 148) were identified following the completion of the strip and map as well as the pit-like feature identified during the evaluation (numbered here as 077) (Moore 2013). Nine curving agricultural furrows or parts of furrows (004, 007/150, 009, 011, 013, 015, 017, 156 & 158) were present in the trench. Clay-piped and stone-filled field drains (140 & 142) cut the furrows. Feature 127 was an irregular deposit of stones overlying furrows 156 and 158. Two modern test-pits (144 & 146) were also identified.

Following the strip and map phase it was agreed with the Consultant that the features that had been uncovered all appeared to be relatively recent and that the pit-like features all appeared to be stone-holes. It was agreed that, as a first stage, 25% of these features would be excavated to confirm their nature and origin and that only if they proved to be of archaeological significance would further work be undertaken. Fourteen of the pit-like features (029, 035, 043, 059, 063, 067, 087, 093, 107, 123, 128, 130, 136 & 148) were excavated, the stone spread (127) was sectioned and one section was excavated across a furrow (011).

All of the features identified and investigated in Trench BT/002 related to postimprovement agriculture. These largely consisted of stone-holes, where stones or boulders had been torn out by machine during agricultural work. Several field drains (ceramic and rubble) were recorded. Evidence of earlier agriculture was apparent in the form of curvilinear cultivation furrows.

It was agreed with the Consultant that no further excavation of the remaining pit-like features was justified, as the random patterning of these features along with their similar fills and their irregular shapes in plan indicated that these were most likely to be stone-holes as well.

During the course of the excavation none of the features were identified as being of archaeological significance so with the consent of the Consultant no soil samples were collected.

#### 3.2. Features

Agricultural Furrows (Fig. 2)

Nine curving furrows were recorded. These followed a generally south-west to northeasterly alignment. Furrows **009**, **156** and **158** terminated when they reached the area where the greatest quantities of boulders were located. Furrow **004** contained a quantity of field clearance stones within the fill and  $15^{\text{th}}-19^{\text{th}}$  century pottery was recovered from this fill. Furrows **156** and **158** were overlain by an irregular deposit of cobbles (**127**). The furrows were cut by stone-filled (**140**) and clay-piped (**142**) field drains (Fig. 7).

A single section across furrow **011** was excavated (Fig. 4). It was 2.6m wide by 0.3m deep and had gently-sloping sides and a concave base.

Forty-three sherds of green-glazed pottery were recovered from furrow fills (005, 010, 012 & 014).

Stone-holes (Fig. 2)

Once the trench was cleaned by hand, fifty-nine stone-holes, comprising the greatest concentration of negative features (for an example see Fig. 8), were present in the densest area of outcropping natural stones. Fourteen of these features (029, 035, 043, 059, 063, 067, 087, 093, 107, 123, 128, 130, 136 & 148) were excavated to confirm their nature and origin. All proved to be stone-holes so no further excavation was required.

Feature **029** measured 0.6m in length, 0.55m in width and 0.2m in depth. It contained a single sterile fill **(030)**.

Feature **035** (Fig. 10) measured 1.15m in length, 0.95m in width and 0.35m in depth. A shattered boulder formed half of the base and broken chunks of rock were in the fill (**036**).

Feature **043** (Fig. 9) measured 0.45m in length, 0.35m in width and 0.15m in depth. It contained a single sterile fill (**044**).

Feature **059** (Fig. 11) measured 0.9m in length, 0.65m in width and 0.15m in depth. It contained a single sterile fill (**060**).

Feature **063** measured 0.35m in length, 0.3m in width and 0.15m in depth. It contained a single sterile fill (**064**).

Feature **067** measured 1.05m in length, 0.9m in width and 0.2m in depth. It contained a single fill (**068**).

Feature **087** measured 0.55m in length, 0.45m in width and 0.1m in depth. A shattered boulder formed part of the base and broken chunks of rock were in the fill (**088**).

Feature **093** measured 0.6m in length, 0.5m in width and 0.1m in depth. It contained a single sterile fill (**094**).

Feature **107** measured 0.8m in length, 0.6m in width and 0.15m in depth. It contained a single sterile fill (**108**).

Feature **123** measured 0.9m in length, 0.75m in width and 0.2m in depth. It contained a single sterile fill (**124**).

Feature **128** measured 1.2m in length, 0.7m in width and 0.25m in depth. This contained a single sterile fill (**129**) around the stone.

Feature **130** measured 0.9m in length, 0.9m in width and 0.2m in depth. It contained a single sterile fill (**131**).

Feature **136** measured 1.8m in length, 0.9m in width and 0.2m in depth. It contained a single fill (**137**).

Feature **148** measured 0.9m in length, 0.6m in width and 0.15m in depth. It contained a single sterile fill (**149**).

The only finds to come from these features was a single sherd of post-medieval pottery from (137) and two shards of modern glass from (036, 068).

Other Features (Fig. 2)

Feature **127** was an irregular deposit of stones overlying furrows **156** and **158** (Fig. 5). The spread had maximum dimensions of 2.3m by 1.6m. The excavated section (Fig. 6) showed that it consisted of a single layer of medium and small cobbles. This was possibly the remains of field clearance, such as a ploughed-out clearance cairn.

#### 4. THE FINDS

Table 1 summarises the finds quantities by find type that were collected during the fieldwork and bulk sample processing. The individual finds are quantified by context number in Appendix 4.

Find type	No.	Weight (g)
CBM	2	115
Coin	1	5
Glass	50	1502
Iron	1	8
Lithic	3	5
Pottery	81	1166

Table 1- Summary of finds

#### 4.1 Finds by Christina Hills

A halfpenny dated to 1941 and a broken fragment of a modern iron nail were recovered from the subsoil (002).

Two pieces of ceramic building material were recovered from the subsoil (002). These were both tile and post-medieval in date.

Glass was found in contexts **002**, **036** and **068**; this was all of a similar modern green bottle type.

#### 4.2 Ceramics by Sue Anderson

Eighty-one sherds of pottery were recovered from eight contexts (**002**, **005**, **010**, **012**, **014**, **060**, **137** and **152**). Most were fragments of Scottish post-medieval oxidised/reduced ware (SPMO/SPMR), also known as Throsk-type ware after the only known production site (Caldwell and Dean 1992). This green-glazed redware or greyware pottery type was ubiquitous across Scotland and the north of England during the early post-medieval period. Most vessels were jugs, and the diagnostic sherds in this assemblage comprise pieces of jug rim and handle. The fabric is a typical fine micaceous clay with few inclusions, and the glaze is a relatively pale green on most of these sherds. The pottery type has a broad date range of 15<sup>th</sup>-18<sup>th</sup> century, possibly extending into the 19<sup>th</sup>-century (G. Haggarty, pers comm).

Modern pottery was found in contexts **002**, **005** and **060**. A rim sherd from a blackglazed jar of 18<sup>th</sup>-19<sup>th</sup>-century date was recovered from **005**, and twenty-two sherds of ceramic were recovered from contexts **002** and **060**.

#### 4.3 Lithics by Ann Clarke

Three lithics were recovered from the excavation. An inner chunk of mottled brown flint came from the topsoil (001). This has abrupt retouch or use wear on a concave edge, perhaps from use as a scraper or spokeshave. Also from context 001 was a tiny inner microblade of yellow flint. From context 005 was a fine inner flake of honey-coloured flint with a small amount of edge retouch.

#### **Catalogue**

#### *BT/002; Context 005*

Fragment of an inner flake of translucent honey-coloured flint. Possible crushed platform. Small amount of abrupt retouch on left side at proximal end. Broken L 32mm; MW 16mm; MTh 3mm

#### BT/002, Context 001; 1

Inner chunk of mottled brown flint. Looks quite fresh. Abrupt retouch or use wear on concave edge perhaps from use as a scraper or spokeshave? ML 34mm; MW 14mm; MTh 14mm

*BT/002, Context 001; 2* Tiny inner microblade of yellow flint. ML 7mm; MW 3mm; MTh 1mm

#### 4.4 Storage and Curation Policy

All processing, recording, storage and samples has been carried out in accordance with the Institute for Archaeologist's *Standard and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Materials* (2001, revised 2008).

Stable finds have been washed and dried and metal finds have been air-dried. All artefacts have been packaged as appropriate for long-term storage in accordance with the requirements of the recipient museum and the contract. Finds will be stored at CFA's secure storage facility until such time as the archive is ready to be deposited.

No finds have been identified as requiring conservation or special storage conditions.

The project archive, comprising all CFA identification sheets will be appended in the main archive and deposited with RCAHMS upon instruction from the Consultant following completion of fieldwork and any relevant post-excavation analyses. Finds will be subject to the Scots law of Treasure Trove and Bona Vacantia, and will be reported to the Crown Agent for disposal.

#### 5. ASSESMENT OF ARCHAEOLOGICAL FINDINGS

A single pit (recorded herein as 077) was recorded in Trench BT249 during the evaluation phase (recorded then as 401/02; Moore 2013). This was interpreted as being of probable anthropogenic origin. The evaluation trench was encompassed by the trench for the mitigation excavations. The subsequent excavation of Trench BT/002 showed that feature 077 was in fact formed as a result of a stone or boulder being removed and that a very large number of similar features were present in the vicinity.

Nine cultivation furrows were identified. Their wavelength is suggestive of Broad Rig which can date as late as the 17<sup>th</sup> to 18<sup>th</sup> century. This date would be supported by the ceramics that were found in the fills of the furrows and would have most likely entered the furrows via manuring.

The numerous pit-like features that were identified were stone-holes created either from the purposeful removal of stones from the natural as part of agricultural land improvement or from ploughing that has effectively torn them out of the ground. The date of this activity is not known but probably post-dates the rig-and-furrow cultivation as the furrows seemed to avoid the most stony area.

Further evidence of stone clearance post-dating the furrows may be provided by stone deposit **127**, which may be the ploughed-out remains of a cairn of cleared stone.

The overall results of this excavation and the other associated excavations along the route (Suddaby 2014a & b) indicate that the landscape through which the Balmedie to Tipperty portion of the AWPR route will pass was intensively improved and farmed from the post-medieval period onwards. Improvement features include extensive drainage works and stone clearance features. Pre-recent farming traces such as furrows from rig-and-furrow cultivation are widespread across the route.

Prehistoric activity in the general area is also attested to by the presence of residual flints in this trench, however, no prehistoric archaeological features were identified.

The soils in this area are classed by the Macaulay Institute for soil research as Brown Forest Soils with Gleying. This is indicative of the area having been poorly drained and potentially quite boggy until the recent period of agricultural improvement (hence the fairly intensive agricultural drainage present across the route). This would have rendered the area fairly unsuitable for earlier domestic occupation so a relative lack of archaeologically significant remains pre-dating this improvement period should not be seen as unusual or surprising.

#### 6. CONCLUSION

A programme of archaeological works was carried out in advance of the construction of the Balmedie-Tipperty section (Lot 1) of the Aberdeen Western Peripheral Route/Balmedie-Tipperty. The programme of works consisted of the strip and map and feature excavation of Trench AWPR/B-T/BT/002 at Dambrae, Hill of Menie, following on from a trial trenching evaluation (Moore 2013).

The mitigation excavation identified fifty-nine pit-like features of varying size (including the example identified during the evaluation). These were identified as stone extraction holes created during agricultural land improvement and ploughing. There were also nine cultivation furrows present from earlier phases of agriculture in the area. Other features included drainage that post-dated the furrows, possible evidence of stone clearance post dating the furrows, and modern test-pits.

No further work in terms of post-excavation assessment or publication reporting is required.

The project archive, comprising all CFA record sheets, maps and reports, will be deposited with the National Monuments Record of Scotland (NMRS) and copies of reports will be lodged with the Aberdeenshire Council Sites and Monuments Record.

A summary statement will be submitted for publication in *Discovery and Excavation in Scotland* (See Appendix 5) and the project will be reported through *OASIS Scotland*.

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Context	Fill of	Description
001		Topsoil
002		Agricultural subsoil
003		Natural subsoil
004		Cut for cultivation furrow
005	004	Fill of 004 – not excavated
006	004	Deposit of stone cobbles within furrow
007		Cut for furrow
008	007	Fill of 007 – not excavated
009		Cut for furrow
010	009	Fill of 009 – not excavated
011		Cut for furrow
012	011	Fill of 011 – Greyish brown silty-clay
013	011	Cut for furrow
013	013	Fill of 013 – not excavated
015	015	Cut for furrow
016	015	Fill of furrow 015 – not excavated
017	015	Cut for furrow
018	017	Fill of furrow 017 – not excavated
010	017	Stone-hole
019	019	Fill of 019 – not excavated
020	017	Not used
021		Not used
022		Not used
023		Not used
024		Stone-hole
025	025	Fill of 025 – not excavated
020	025	Stone-hole
027	027	Fill of 027 – not excavated
028	027	Stone-hole
029	029	Fill of 029 Greyish brown silty-clay
030	029	Stone-hole
031	031	Fill of 031 – not excavated
032	031	Stone-hole
033	033	Fill of 033 – not excavated
034	033	Stone-hole
035	035	Fill of 035 Greyish brown silty-clay
030	035	Stone-hole
037	037	Fill of 037 – not excavated
038	037	Stone-hole
039	039	Fill of 039 – not excavated
040	039	Stone-hole
041 042	041	Fill of 041 – not excavated
042	110	Stone-hole
043	043	Fill of 043 Greyish brown silty-clay
044	045	Stone-hole – not excavated
043	045	Fill of 045
048	043	Stone-hole
047	047	Fill of 047 – not excavated
048	04/	Stone-hole
049	049	
050	049	Fill of 049- not excavated
	051	Stone-hole
052	051	Fill of 051– not excavated
053	052	Stone-hole
054	053	Fill of 053 – not excavated

Context	Fill of	Description
055		Stone-hole
056	055	Fill of 055 – not excavated
057		Stone-hole
058	057	Fill of 057 – not excavated
059		Stone-hole
060		Fill 059 Greyish brown silty-clay
061		Stone-hole
062	061	Fill 061 – not excavated
063		Stone-hole
064	063	Fill 063 Greyish brown silty-clay
065		Stone-hole
066	065	Fill of 065 – not excavated
067		Stone-hole
068	067	Fill of 067 Greyish brown silty-clay
069		Stone-hole
070	069	Fill of 069 – not excavated
071		Stone-hole
072	071	Fill of 071 – not excavated
073	071	Stone-hole
074	073	Fill of 073 – not excavated
075	075	Stone-hole
075	075	Fill of 075 – not excavated
070	075	Stone-hole
078	077	Fill of 077 – not excavated
070	077	Stone-hole
080	079	Fill of 079 – not excavated
080	075	Stone-hole
081	081	Fill of 081 – not excavated
082	001	Stone-hole
083	083	Fill of 083 – not excavated
085	005	Stone-hole
085	085	Fill of 085 – not excavated
080	005	Stone-hole
088	087	Fill of 087 Greyish brown silty-clay
089	007	Stone-hole
090	089	Fill of 089 – not excavated
090	089	Stone-hole
091	092	Fill of 091 – not excavated
092	092	Stone-hole
093	093	Fill of 093 Greyish brown silty-clay
095	075	Stone-hole
095	095	Fill of 095 – not excavated
090	075	Stone-hole
097	097	Fill of 097 – not excavated
098	027	Stone-hole
100	099	Fill of 099 – not excavated
100	077	Stone-hole
101	101	
	101	Fill of 101 – not excavated
103	102	Stone-hole
104	103	Fill of 103 – not excavated
105	105	Stone-hole
106	105	Fill of 105 – not excavated
107	107	Stone-hole
108	107	Fill of 107 Greyish brown silty-clay
109	100	Stone-hole
110	109	Fill of 109 – not excavated
111		Stone-hole

Context	Fill of	Description
112	111	Fill of 111 – not excavated
113		Stone-hole
114	113	Fill of 113 – not excavated
115		Stone-hole
116	115	Fill of 115 – not excavated
117	110	Stone-hole
118	117	Fill of 117 – not excavated
110	117	Stone-hole
120	119	Fill of 119 – not excavated
120	117	Stone-hole
121	121	Fill of 121 – not excavated
122	121	Stone-hole Greyish brown silty-clay
123	123	Fill of 123
124	123	Stone-hole
125	125	Fill of 125 – not excavated
120	123	Stone deposit
127		Stone-hole
128	128	
129	128	Fill of 128 Greyish brown silty-clay Stone-hole
	120	
131	130	Fill of 130 Greyish brown silty-clay
132	122	Stone-hole
133	132	Fill of 132 – not excavated
134	124	Stone-hole
135	134	Fill of 134 – not excavated
136	126	Stone-hole
137	136	Fill of 136 Greyish brown silty-clay
138	120	Stone-hole
139	138	Fill of 138 – not excavated
140	1.40	Land drain cut
141	140	Stone and soil fill of drain 140 – not excavated
142	1.42	Land drain cut
143	142	Fill of 142 including clay pipe – not excavated
144		Modern test pit cut
145	144	Fill of pit 144 – not excavated
146		Modern test pit cut
147	146	Fill of pit 146 – not excavated
148		Stone-hole
149	148	Fill of 148 Greyish brown silty-clay
150		Cut of furrow
151	150	Fill of furrow 150 – not excavated
152		Pottery deposit, furrow 009
153		Stone-hole
154	153	Fill of 153 – not excavated
155		Soil around stone spread 127 Greyish brown silty-clay
156		Cut of furrow
157		Fill of furrow 156 – not excavated
158		Cut of furrow
159	158	Fill of furrow 158 – not excavated

Shot	Description	From	Conditions
1-4	BT/002 marked out and fenced pre-excavation	SW	Sunny
5-8	BT/002 marked out and fenced pre-excavation	S	Sunny
9-11	BT/002, Furrow 004 at north-west corner	NE	Sunny
12-13	BT/002, Furrow 004 at north-west corner close-up	NE	Sunny
14-18	BT/002, general view	Ν	Sunny
19-22	BT/002, general view	SW	Sunny
23-33	BT/002, general view	S	Sunny
34-36	BT/002, Furrow 004	Е	Sunny
37-39	BT/002, Furrow 007	Е	Sunny
40-42	BT/002, Furrow 009	Е	Sunny
43-45	BT/002, Furrow 011	NE	Bright
46-48	BT/002, Furrow 013	NE	Bright
49-51	BT/002, Furrow/drain 015	NE	Bright
52-54	BT/002, Furrow 017	SE	Bright
55-57	BT/002, Stone-hole 019	SE	Bright
58-60	BT/002, Stone-hole 136	SE	Bright
61-63	BT/002, Photo of natural feature	S	Bright
64-66	BT/002, Stone-hole 025	S	Bright
67-69	BT/002, Stone-hole 027	S	Bright
70-72	BT/002, Stone-hole 029	S	Bright
73-75	BT/002, Stone-hole 031	E	Bright
76	BT/002, Stone-hole 033	Е	Bright
77	BT/002, Stone-hole 035	E	Bright
78	BT/002, Stone-hole 037	E	Bright
79	BT/002, Stone-hole 039 on left, Stone-hole 041 on	E	Bright
	right		
80	BT/002, Stone-hole 043	Е	Bright
81	BT/002, Stone-hole 045	Е	Bright
82	BT/002, Stone-hole 047	Е	Bright
83	BT/002, Stone-hole 049	Е	Bright
84	BT/002, Stone-hole 051	Е	Bright
85	BT/002, Stone-hole 053	Е	Bright
86	BT/002, Stone-holes 055, 057	Е	Bright
87	BT/002, Stone-hole 059	Е	Bright
88	BT/002, Stone-hole 061	Е	Bright
89	BT/002, Stone-hole 063	Е	Bright
90	BT/002, Stone-hole 065	Е	Bright
91	BT/002, Stone-hole 067	Е	Bright
92-93	BT/002, Stone-hole 069	Е	Bright
94	BT/002, Stone-hole 071	Е	Bright
95	BT/002, Stone-hole 073	Е	Bright
96	BT/002, Stone-hole 075 and Stone-hole 077	W	Bright
97	BT/002, Stone-hole 079	Е	Bright
98	BT/002, Stone-hole 081, Stone-hole 083 and Stone-hole 085	W	Bright
99	BT/002, Stone-hole 087 and Stone-hole 089	SE	Bright
99 100			Bright
	BT/002, Stone-hole 091	SE	Bright
101	BT/002, Stone-hole 093	S	Bright
102	BT/002, Stone-hole 095	S	Bright
103	BT/002, Stone-hole 097	SE	Bright
104	BT/002, Stone-hole 099	SE	Bright
105	BT/002, Stone-hole 101	E	Bright
106	BT/002, Stone-hole 103	S	Bright
107-108	BT/002, Stone-hole 105	E	Bright

Shot	Description	From	Conditions
109	BT/002, Stone-hole 107	E	Bright
110	BT/002, Stone-hole 109	SW	Bright
111	BT/002, Stone-hole 111 and Stone-hole 113	SE	Bright
112	BT/002, Stone-hole 115 and Stone-hole 117	SE	Bright
113	BT/002, Stone-hole 119	Е	Bright
114	BT/002, Stone-holes 121, 123	NE	Bright
115	BT/002, Stone-hole 125	Е	Bright
116	BT/002, stone spread 127	S	Bright
117	BT/002, Stone-hole	Е	Bright
118	BT/002, Stone-hole 130	Е	Bright
119	BT/002, Stone-hole 132	N	Bright
120	BT/002, Stone-hole 134	N	Bright
121	BT/002, Stone-hole 136	Е	Bright
122	BT/002, Stone-hole 138	Е	Bright
123	BT/002, Drain 140	E & W	Bright
124	BT/002, Drain 142	SW	Bright
125	BT/002, modern test-pit 144	W	Bright
126	BT/002, modern test-pit 146	Е	Bright
127	BT/002, Stone-hole 148	Е	Bright
128	BT/002, Furrow 150	W	Bright
129-130	BT/002, Furrow 011, north-east-facing section	NE	Bright
131-132	BT/002, Furrow 011, south-west-facing section	SW	Bright
133-134	BT/002, Furrow 011, view from north-west	NW	Bright
135	BT/002, Stone-hole 136 pre-excavation	Ν	Bright
136-137	BT/002, stone spread 127 pre-ex	S & W	Bright
138-140	BT/002, Stone-hole 136 section	N & W	Bright
141-142	BT/002, Furrow 009, pottery 152 in situ	Е	Bright
143-144	BT/002, Stone-hole 029 pre-excavation	Е	Bright
145	BT/002, pottery from Furrow 009 removed	-	Bright
146-7	BT/002, Stone-hole 029 section	N	Bright
148	BT/002, Stone-hole 130 pre-excavation	Е	Bright
149	BT/002, Stone-hole 127 section	Е	Bright
150	BT/002, Stone-hole 123 pre-excavation	Е	Bright
151-152	BT/002, Stone-hole 123 section	SE	Bright
153	BT/002, Stone-hole 130 section	SE	Bright
154	BT/002, Stone-hole 035 pre-excavation	Ν	Bright
155	BT/002, Stone-hole 148 pre-excavation	S	Bright
156-157	BT/002, Stone-hole 043 pre-excavation	Ŵ	Bright
158	BT/002, Stone-hole 148 section	W	Bright
159	BT/002, Stone-hole 043 section	E	Bright
160-162	BT/002, Stone-hole 035 section	W	Bright
163-164	BT/002, Stone-hole 059 pre-excavation	S	Bright
165	BT/002, Stone-hole 093 pre-excavation	S	Bright
166-168	BT/002, Stone-hole 059 section	N & E	Bright
169	BT/002, Stone-hole 093 section	N	Bright
170-171	BT/002, Stone-hole 128 pre-excavation	N	Bright
172	BT/002, Stone-hole 107 pre-excavation	W	Bright
173	BT/002, Stone-hole 107 section	W	Bright
174-178	BT/002, Stone-hole 128 section	Various	Sunny

Drawing	Sheet	Description/contexts	Section/Plan	Scale
No.	No.			
1	1	Pre-ex plan of stone spread 127	Plan	1:20
2	2	N-facing section of Stone-hole 063	Section	1:10
3	2	Post-ex plan of Stone-hole 063	Plan	1:20
4	2	E-facing section of Stone-holes 087 and 153	Section	1:10
5	2	Post ex plan of Stone-holes 087 and 153	Plan	1:20
6	2	N-facing section of Stone-hole 136	Section	1:10
7	2	Post-ex plan of Stone-hole 136	Plan	1:20
8	2	North-facing section of Stone-hole 029	Section	1:20
9	2	Post-ex plan of Stone-hole 029	Plan	1:20
10	1	Post-ex plan of Stone-hole 067	Plan	1:20
11		Post-ex plan of furrow 011	Plan	1:20
12	1	North-east-facing section of Stone-hole 067	Section	1:10
13		E-facing section of stone spread 127	Section	1:10
14		Post-ex plan of stone spread 127	Plan	1:20
15		E-facing section of furrow 011	Section	1:10
16	3	E-facing section of Stone-hole 043	Section	1:10
17	3	Plan of Stone-hole 043	Plan	1:20
18	4	Post-ex plan of Stone-hole 148	Plan	1:20
19	4	Section of Stone-hole 148	Section	1:10
20	3	Post-ex plan of Stone-hole 130	Plan	1:20
21	3	North-east-facing section of Stone-hole 130	Section	1:20
22	3	E-facing section of Stone-hole 123	Section	1:20
23	3	Post-ex plan of Stone-hole 123	Plan	1:20
24	3	Post-ex plan of Stone-hole 038	Plan	1:20
25	3	W-facing section of Stone-hole 035	Section	1:10
26	4	Post-ex plan of Stone-hole 093	Plan	1:20
27	4	S-facing section of Stone-hole 093	Section	1:20
28	3	N-facing section of Stone-hole 059	Section	1:10
29	3	Post-ex plan of Stone-hole 059	Plan	1:10
30	4	Post-ex plan of Stone-hole 107	Plan	1:20
31	4	W-facing section of Stone-hole 107	Section	1:20
32	5	S-facing section of Stone-hole 128	Section	1:10
33	5	Post-ex plan of Stone-hole 128	Plan	1:20

# **APPENDIX 3: Drawing Register**

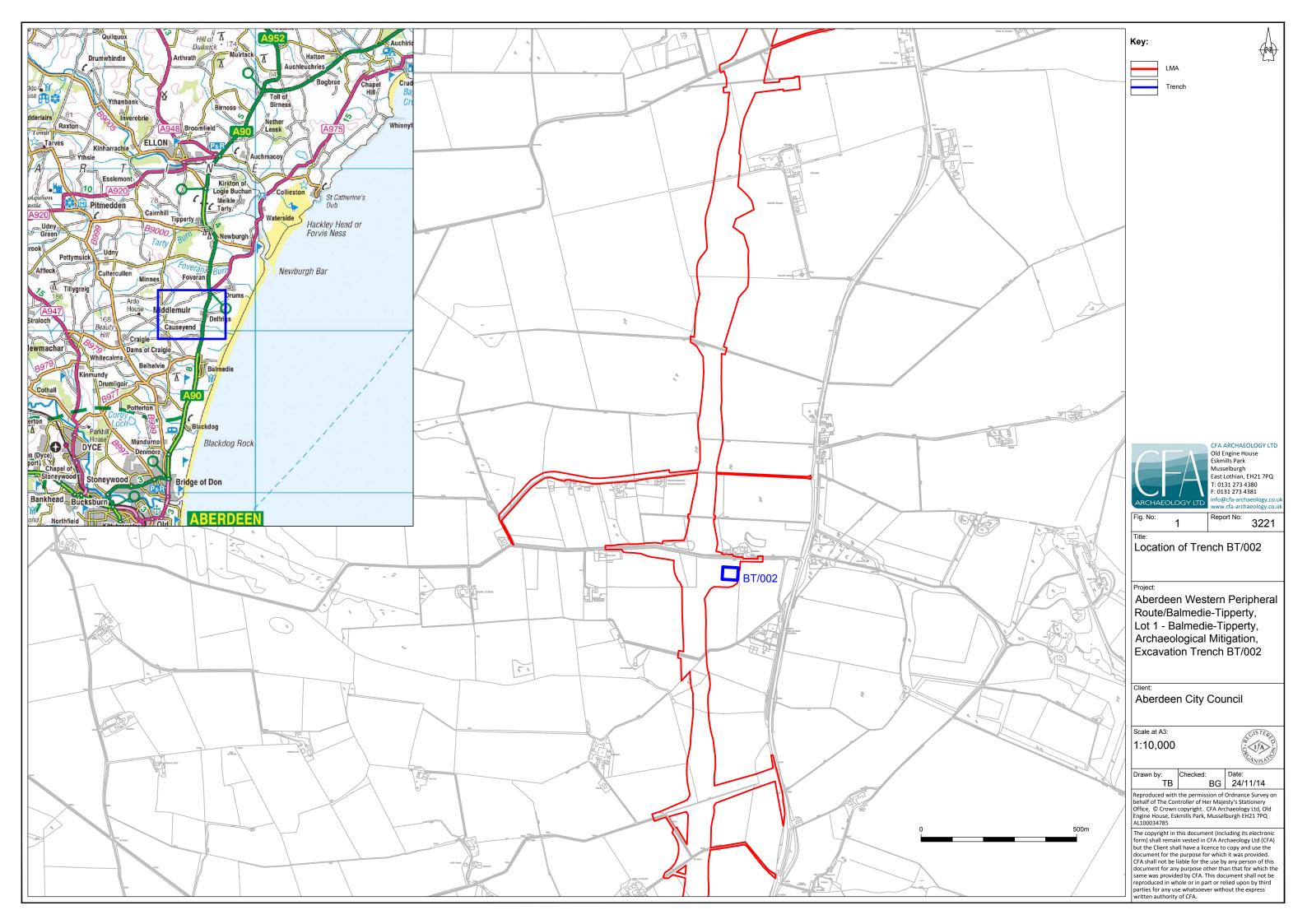
# **APPENDIX 4: Finds Quantification**

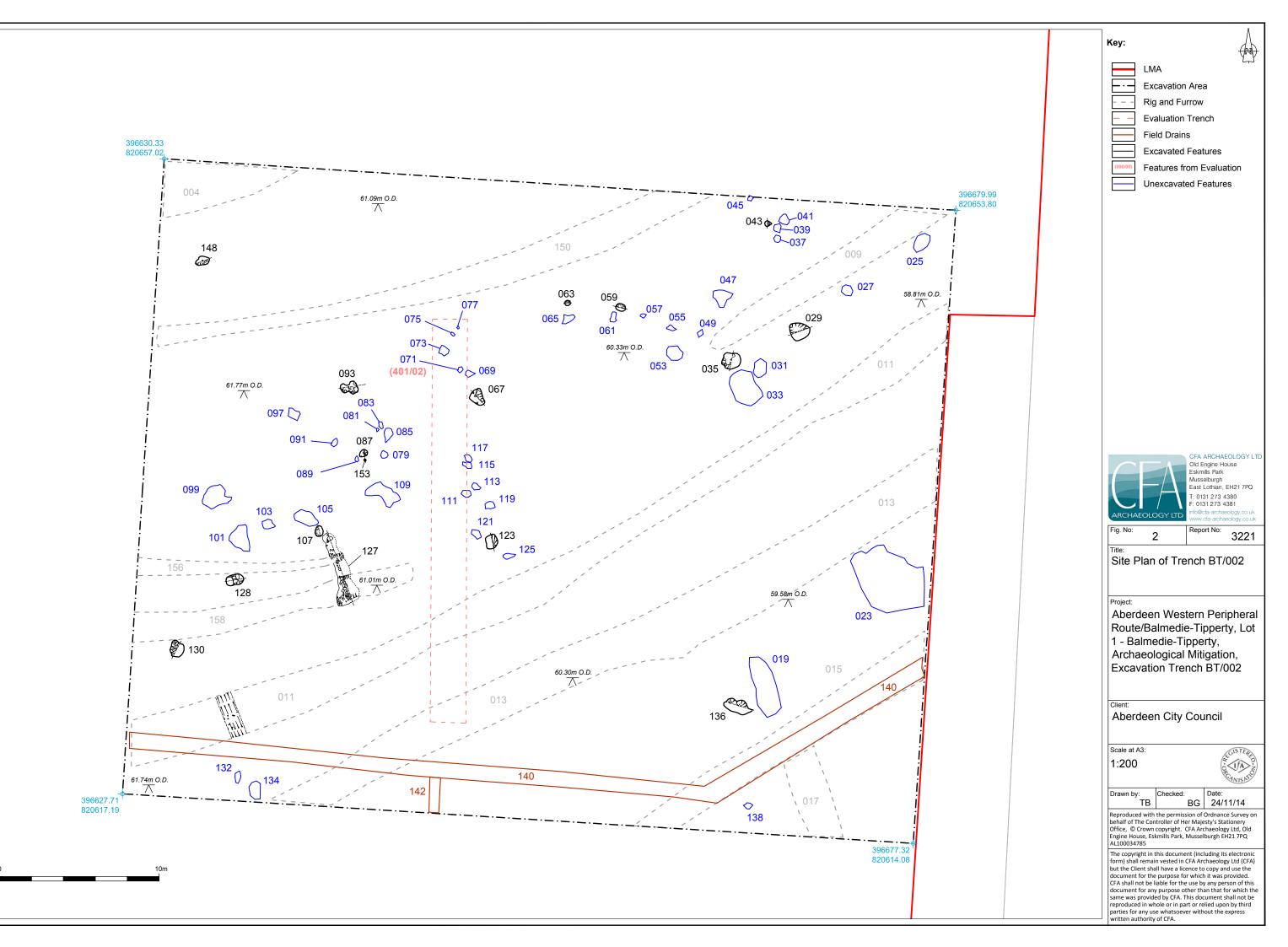
Context	Find type	Pot Type	No.	Wt (g)	Notes	Spot date		
002	CBM		2	115	Tile	Post- med/Moder n		
002	Coin		1	5	Half Penny	1941		
002	Glass		48	1500	Green bottle	Modern		
036	Glass		1	1	Green bottle	Modern		
068	Glass		1	1	Green bottle	Modern		
002	Iron		1	8	One nail broken. Shaft circular in section	Modern		
001	Lithic		2	4		Prehistoric		
005	Lithic		1	1		Prehistoric		
002	Pottery	Ceramic	21	201		Modern		
002	Pottery	SPMR	12	250	Rims, handle and body sherds with green glaze inside	15th-18th c.		
005	Pottery	SPMO	2	17	body sherds, fine micaceous oxidised, pale green glaze internally	15th/16th c.?		
005	Pottery	SPMR	1	142	base angle, green glaze on both surfaces	15th-18th c.		
005	Pottery	LBW	1	17	everted beaded ?jar rim, dark brown glaze	18th/19th c.		
010	Pottery	SPMR	12	71	green glazed inside and out, poss 1-2 vessels	15th-18th c.		
012	Pottery	SPMR	1	29	Rim sherd, fine micaceous oxidised, pale green glaze internally	15th-18th c.		
014	Pottery	SPMR	3	34	Rim and body sherds, fine micaceous oxidised, pale green glaze internally	15th-18th c.		
060	Pottery	Ceramic	1	1		Modern		
137	Pottery	SPMR	1	57	base angle, dark glaze on both surfaces	Post-med		
152	Pottery	SPMR	26	347	Rims, handle and body sherds 15th-18 from at least three vessels with green glaze inside and out			

Key to Pot Type SPMR - Scottish Post-Medieval Reduced Ware SPMO - Scottish Post-Medieval Oxidised Ware LBW- Late Black Ware

# **APPENDIX 5: Discovery & Excavation in Scotland Entry**

LOCAL AUTHORITY:	Aberdeenshire					
PROJECT TITLE/SITE NAME:	Aberdeen Western Peripheral Route/Balmedie-Tipperty. Lot 1 – Balmedie to Tipperty. Invasive Archaeological Investigations					
PROJECT CODE:	ABBY					
PARISH:	Belhelvie, Foveran					
NAME OF CONTRIBUTOR:	Ian Suddaby					
NAME OF ORGANISATION:	CFA Archaeology Ltd					
TYPE(S) OF PROJECT:	Strip and map, and mitigation excavation					
NMRS NO(S):	N/A					
SITE/MONUMENT TYPE(S):	N/A					
SIGNIFICANT FINDS:	N/A s					
NGR (2 letters, 10 figures)	NJ 96650 20630					
START DATE (this season)	April 2014					
END DATE (this season)	April 2014					
PREVIOUS WORK (incl. DES ref.)						
MAIN (NARRATIVE) DESCRIPTION: (May include information from other fields)	Following the evaluation the area was identified for further work. A programme of strip and map followed by limited mitigation excavation was undertaken. The mitigation excavation identified fifty-nine pit-like features varying					
	size. These were identified as stone extraction holes created during agricultural land improvement and ploughing. There were also nine cultivation furrows present from earlier phases of agriculture in the area. Other features included drainage that post dated the furrows, possible evidence of stone clearance post dating the furrows, a possible tree bole and modern test-pits.					
PROPOSED FUTURE WORK:	N/A					
CAPTION(S) FOR ILLUSTRS:	N/A					
SPONSOR OR FUNDING BODY:	Aberdeen City Council					
ADDRESS OF MAIN CONTRIBUTOR:	The Old Engine House, Eskmills Park, Musselburgh, EH21 7PQ					
EMAIL ADDRESS:	cfa@cfa-archaeology.co.uk					
ARCHIVE LOCATION (intended/deposited)	Royal Commission on the Ancient and Historical Monuments of Scotland					
	Aberdeenshire Council Sites & Monuments Record					





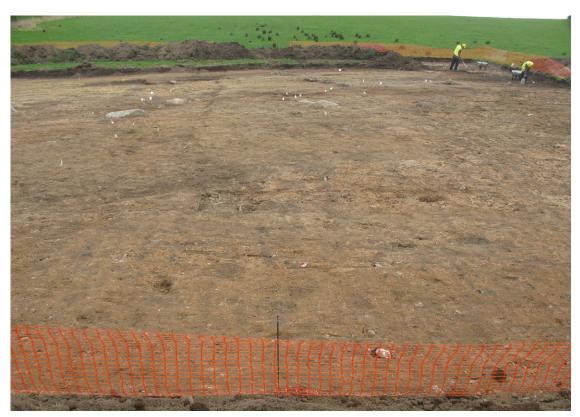


Fig. 3 - General view of the central part of Trench BT/002 from the north



Fig. 4 - General view of the curving furrows from the west, section through 011 in foreground

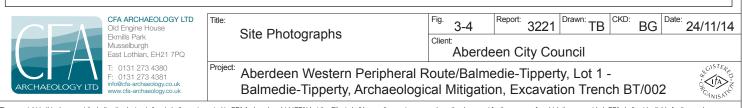




Fig. 5 - Stone deposit 127 pre-excavation from the south



Fig. 6 - Stone deposit 127 section from the east, overlying the fill of Furrows 156, 158

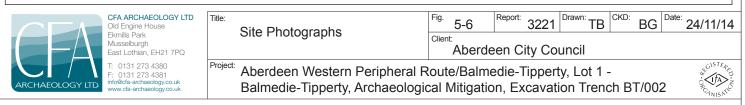




Fig. 7 - Stone-filled field drain 140 cutting Furrows 015, 017



Fig. 8 - Example of stone-holes pre-excavation

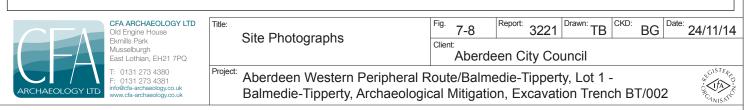




Fig. 9 - Section through stone-hole 043 from the east



Fig. 10 - Section through stone-hole 035 showing remnants of boulder in situ from the west

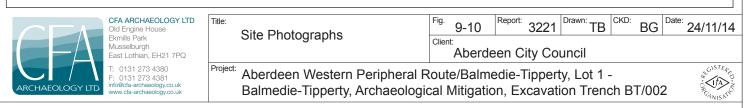




Fig. 11 - Section through stone-hole  ${\bf 059}$  from the north

	CFA ARCHAEOLOGY LTD Old Engine House Ekmills Park Musselburgh East Lothian, EH21 7PQ	Title:	Site Photograph	Fig.	11	Report:	3221	Drawn: TB	CKD:	BG	Date:	24/11/14
			one i notograph		Aberdeen City Council							
ARCHAEOLOGY LTD	T: 0131 273 4380 F: 0131 273 4381 info@cfa-archaeology.co.uk www.cfa-archaeology.co.uk	Project:	Aberdeen Western Peripheral Route/Balmedie-Tipperty, Lot 1 - Balmedie-Tipperty, Archaeological Mitigation, Excavation Trench BT/002								PCANISNIN	
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