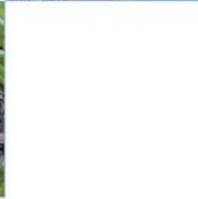


Inner Forth Landscape Initiative: Evaluation Excavations in Zetland Park, Grangemouth Data Structure Report

AOC 60079

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ARCHAEOLOGY

HERITAGE

CONSERVATION

Inner Forth Landscape Initiative: Archaeological Investigations in Zetland Park, Grangemouth Data Structure Report

On Behalf of: Inner Forth Landscape Initiative

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Prepared by: Geoff Bailey, Graeme Cavers,
Gemma Hudson, Jamie Humble

Illustration by: Jamie Humble, Gemma Hudson,
Graeme Cavers

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Author: Jamie Humble

Date:

Approved by: Ross Murray

Date:

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Date: 01/08/16

Enquiries to: AOC Archaeology Group
Edgefield Industrial Estate
Edgefield Road
Loanhead
EH20 9SY

Tel. 0131 440 3593
Fax. 0131 440 3422
e-mail. edinburgh@aocarchaeology.com



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SUMMARY

This report presents the results of an archaeological trial excavation, geophysical and topographic survey undertaken by the Inner Forth Landscape Initiative, with local volunteers, and AOC Archaeology Group in Zetland Park, Grangemouth. The excavations and geophysical survey focussed on the 17th century Orchard of the park and the site of a medieval Grange, of which an enclosing bank and ditch survive as a slight earthwork. More recent structures within Zetland Park, the war memorial and fountain, were also recorded by laser scanning and photogrammetric recording.

The topographic, geophysical surveys and the excavations investigated the putative medieval monastic grange. Trench 1 demonstrated the existence of an earthen bank and ditch enclosing the site. Trench 2 was excavated across the a dog-leg in the upstanding earthworks and, while not conclusive, the excavation supported this being the entrance into the enclosed grange. Three small trenches were excavated within the enclosed grange, these demonstrated deep deposits of relict cultivation soils that possibly derived, in part, from the sites' later use as an orchard. The ceramic assemblage collected during the excavations included several late medieval to post-medieval sherds which may relate to the later history of the grange.

The geophysical survey indicated the presence of features likely to be related to modern use of the earthwork, most notably the location of the bandstand and post-abandonment agriculture. These results are consistent with the results of the excavations, and yielded only one feature which could be related to the medieval use of the site, namely the area of low resistance in the north.

1 INTRODUCTION

A community archaeology project, comprising the excavation of five trenches, was carried out within Zetland Park, Grangemouth (Figure 1) by the Inner Forth Landscape Initiative, with local volunteers, Falkirk Community Trust and AOC Archaeology Group.

This report presents the results of excavation, topographic and geophysical survey within the 17th century 'orchard' of Zetland Park.

2 SITE DESCRIPTION AND HISTORICAL BACKGROUND

The small area surrounded by trees within Zetland Park is known locally as 'The Orchard'. This area is now level with the rest of the park, but until after the First World War it stood at least 4' higher than the adjoining ground, which has been leveled with dumped rubbish. Before the improvements, the Grange Burn touched the enclosures west side and it was flanked to the south and south-east by a wide ditch that held water when the burn ran high.

The 1st edition of the Ordnance Survey (1864) depicting the location of Zetland Park shows a ditched enclosure (or moat) with a drawbridge within the area that is now known as the 'orchard'. The interior of this area is said to have been higher until the level of the park was raised using rubbish (Bailey, 2015). This moated enclosure is thought to be the location of the medieval grange of Holyrood Abbey.

No previous archaeological investigations are known to have taken place within Zetland Park.

The bedrock geology within the site comprises Passage Formation - Sedimentary Rock Cycles of the Clackmannan Group Type including coarse sandstones and seatearths, overlain by Raised Tidal Flat Deposits of Flandrian Age – Silt and Clay (BGS 2016).



Plate 1: Ordnance Survey map of 1864.

Nimmo (1817) states that Adam de Morham granted a tract of land called the Grange of Bereford, on the south side of the Carron, to Newbattle Abbey and that these were transferred to Holyrood Abbey

in 1237. In 1314 the Abbot of Holyrood pleaded for a reduction in the land-duties from their holding on the carse due to its reduced state following the wars between England and Scotland (Liber Sancto Crucis, App I.12, Bannatyne Club 1840). In 1363 Holyrood is said to have 'possessed the lordship lands of the said lands of the Carss with manor, grange and pertinents within the grange with a meadow which is called Dubet' (Regesta Regum Scottorum, vi, 298).

The grange is next encountered in literary sources in 1543 when Thomas Levingstoun appears as a kindly tenant. On the 24th August 1565 there is a feu confirmation *'to Alexander Chalmer of the lands called Abbotis-grange [occupied by Thomas Levingstoun, David Kincaid and others], with the mansion thereof, meadow, yards, gardens, houses, buildings, with garbal teinds included, in their barony of Carse and the sherrifdom of Stirling; Rendering £46 13s 4d as old ferme and 20s as augmentation, with customary services; together with services in the three head courts at the burgh of Canongate, and in the courts of judisticiary and chamberlain of the said monastery when they should happen; with doubling of ferme at entry to heirs; Moreover the commander an convent incorporate all the said lands into one tenandry, so that one sasine at Abotis-grange should stand for all.* (Hall 2006)

By the 9th May 1586 the property is described as the 'lands of Abbottis-grange of Kers. On 31 July 1646 ther is a confirmation to Robert, Earl of Roxburgh, Lord Ker of Cessford and Caverton, [all his estates including] the lands of grange called Abbottisgrange and others with towers and manor places in the sheriffdoms of Linlithgow and Stirling (Hall 2006, 90-91).

3 AIMS AND OBJECTIVES

The aims of the project were to investigate the early history of Zetland Park and to establish if the site of the 'orchard' represents the upstanding remains of the monastic grange associated with Holyrood Abbey.

4 METHODOLOGY

The archaeological excavation works comprised the hand excavation of five trenches (Figure 2). Two trenches were excavated across the upstanding remains of the enclosing bank and ditch of the monument to investigate the nature of these features. Three trenches were excavated within the interior of the enclosure to assess the potential for survival of deposits and structures in this area.

All features and structures revealed during the excavation were cleaned by hand before being recorded by digital photography, drawn to an appropriate scale and a written record produced using AOC *pro forma* context sheets.

5 RESULTS

The archaeological works were conducted between the 20th and the 23rd May 2015. Weather conditions were generally dry and sunny through the course of the work with the archaeological visibility remaining good.

The following presents a summary of the excavation results, full details of the deposits and structures can be found in the appendices. The topographic and geophysical surveys of the monument were undertaken concurrent with the excavations.



Plate 2: Trenches 1 and 2 during excavation and topographic survey underway.

5.1 Trench 1

Trench 1 was excavated across the upstanding bank in the area where this feature was best preserved and which the OS 1st edition has marked as the site of a 'draw-bridge'. Trench 1 was excavated to assess the nature of the enclosure and to investigate the possibility of the entrance being located in this area. Trench 1 measured 15.5m by 1.5m, up to 0.18m of dark brown compact silty clay turf and topsoil (001) was removed across the trench..

Extending across the centre of Trench 1 was an earthen bank (004), 1.65m wide and surviving up to 0.28m high. This was composed of mid brown compact silty clay with occasional charcoal and coal. Lying below the bank, and preserved by it, was a buried ground surface (006) of mid brown silty clay with occasional coal and charcoal, 1.42m wide and 0.07m thick.

To the eastern exterior of the bank was a ditch [010], 7.20m wide and excavated to a depth of 1.05m where the water table was reached, halting the excavations. Ditch (010) was filled with deposits of mid brown compact silty clay with occasional coal and charcoal (005) and mid brown compact silty clay (007) on the interior and exterior edges of Ditch (010) respectively. These deposits derived from the collapse and slumping of bank (004). Overlying the slumped deposits (005/007) was a mixed deposit of ash, cinder and coal in a loose sandy clay matrix with occasional tree roots and stone. This contained large amounts of modern white glazed ceramics and bottle glass, which was not retained.



Plate 3: Bank (004) and Ditch [010] excavated to top of collapse and slumping deposits (005/007).

To the interior of the enclosure bank (004) there was a soil profile comprising a dark brown firm silty clay (003) with abundant ash, cinder and coal and occasional tree roots and stone. This was up to 0.33m thick and was found to be overlying the natural glacial till. Cut into the glacial till was a small sub-circular post-hole (009) filled with material (008) very similar in character to the overlying cultivation soil (003).

5.2 Trench 2

Trench 2 was excavated across a dog-leg in the enclosure bank of the potential grange (Figure 2), and was positioned to investigate if this feature was the location of an entrance. Trench 2 measured 5.5m northeast to southwest, was 2m wide. Up to 0.25m of turf and topsoil (201) was removed from across Trench 2 and further excavation was limited to a 1.5m wide sondage.

Extending across the width of the trench was the earth and stone enclosure bank of the potential grange. This was composed of dark brownish grey compact silty clay with occasional coal, charcoal and cinder (204). At the crest of the earthen bank was a loose arrangement of small sub-angular stones (205) possibly forming a structural component of the bank. Overlying the bank was a possible trampled deposit of dark brownish grey compact silty clay with occasional coal, charcoal and cinder (203). Overlying this was a deposit of dark brown silty clay with frequent charcoal, coal and cinder and occasional stone (202) and lenses of orange clay derived from the slumping and collapse of the bank (204/205).



Plate 4: Trench 2 post excavation showing bank (204).

5.3 Trench 3

Trench 3 was an L-shaped trench located within the interior of the enclosure. Trench 3 was initially excavated as a test pit to investigate the nature of the deposits within the enclosure, it was subsequently expanded to the southeast after a stony patch was revealed in the southern corner. Further excavation was limited due to the presence of an electric cable. Up to 0.17m of dark brown humic silty clay topsoil (301) were removed across the trench.



Plate 5: Trench 3 post-excitation showing rubble deposit.

Extending throughout the eastern half of the trench was a spread of stone of in no formal arrangement (305). This was set in a matrix of dark brown firm gravelly silty clay with abundant coal, cinder and charcoal (304). While this stone was not structural there is a strong implication that it is derived from a stone built structure in the vicinity as no naturally occurring stone was observed in any of the other excavations.

5.4 Trench 4

Trench 4 measured 1.5m by 1.0m and was located to assess the soil profile and nature of deposits within the centre of the enclosure . The topsoil in Trench 4 consisted of dark brown humic silty clay (401) up to 0.18m deep. The topsoil sealed a relict cultivation soil of dark brownish grey silty clay (402) which lay over the natural glacial till, a grey orange silty clay. Cut into the glacial till was a shallow sub-oval pit (404) that extended outwith the trench. Pit (404) was filled with dark brownish grey silty clay (403) very similar to the relict cultivation soil (402) above.

5.5 Trench 5

Like Trench 4, Trench 5 was excavated in the centre of the enclosure and aimed to characterise the deposits and soil profile within the enclosure. Trench 5 measured 2.5m by 1.5m, across Trench 5 up to 0.18m of dark brown humic silty clay topsoil (501) was removed. Underlying the topsoil was a relict cultivation soil (502) of dark brown silty clay with abundant coal, cinder and charcoal up to 0.39m thick. Under this deposit was an older relict cultivation soil (503) of dark grey compact clayey silt with abundant charcoal, coal and cinder up to 0.15m thick that lay on the glacial till deposits.



Plate 6: Trench 5 post-excavation showing layers of relict cultivation soil (502 & 503).

5.6 Geophysical Survey

A geophysical survey was carried out within the interior of the earthwork, using resistivity. A Geoscan RM-15 resistivity meter was used, surveying on a 30m grid at 1m x 1m sample intervals. The data was downloaded and processed using Geoplot; minimal data clean-up routines were applied, including despiking, clipping and edge matching.

The results (Figures 3 &4) show that the interior of the enclosure was ploughed after abandonment: linear furrows of cultivation digging, or perhaps more likely, war-time allotment agriculture are clearly visible running north-east to south-west across the dataset (A). The location of the bandstand is clearly visible as a circular area of disturbance c. 19m in diameter in the centre of the enclosure (B); linear features running to the centre of the enclosure from the south-east and north-west could represent paths or tracks (C), probably of a similarly late date. An area of disturbance is visible in the data in the south-west corner of the enclosure, equating to the rubble containing modern debris encountered in Trench 3 (D). An area of low resistance located in the north of the enclosure is of uncertain character (E); it is possible that this feature indicates the presence of archaeological features relating to the use of the enclosure, disturbed by later agriculture.

5.7 CERAMIC ASSEMBLAGE (George Haggerty)

Although small the ceramic assemblage includes a number of late medieval and post medieval sherds which suggests a lot more than just background activity. The levels of abrasion however, make it doubtful if any of these sherds are from a primary deposit which makes it impossible to deduce anything meaningful from them, beyond occupation of the area in the late medieval to post medieval period. There is one extremely unusual body shard from context 304 which is in a fabric which the author has never encountered before and this makes it a candidate for the national fabric reference collection.

5.8 Laser Scanning and Photogrammetry

The measured survey of the war memorial was undertaken using a Faro Focus 3D laser scanner. The Focus 3D scanner is a phase comparison system, capable of full dome scanning at ranges of c.0.5m to 50m, at resolutions of up to 92 lines per degree. Scanning was undertaken at the war memorial using resolutions yielding a typical point-cloud resolution of between 6.136mm at 10m from the instrument (See Appendix 5 for specific metadata). Overlapping stations mean that some of the site was scanned at a greater resolution. The survey was controlled using spherical targets, located using a Trimble S6 total station with site control provided by a Trimble R6 GPS using the “vrs now” service. The laser scan data was registered in Trimble Realworks v.10.0. Orthoimages of the pointcloud (Figures 12-14) were produced using Pointools View 1.8 Pro.

The fountain was surveyed by volunteers using photography. Over 300 photographs were aligned, transformed into a pointcloud and then meshed using Agisoft PhotoScan v.1.2.4. Renders of the resulting model (Figure 15) were created using Blender v.2.70.

6 DISCUSSION

The surveys and excavations at Zetland Park have added to a compelling body of evidence that suggest the ‘orchard’ of Zetland Park is the location of a monastic grange of the 13th to 16th centuries associated with Holyrood Abbey. The excavations in Trench 1 have shown that the site was enclosed by an earthen bank and, what in all probability was, a water filled ditch. A possible entrance to the site was identified in the location of the dog-leg in the upstanding earthworks investigated in Trench 2.

The interior of the enclosure has been heavily affected by recent activity with the park, with the geophysics results showing what appears to be the remains of wartime allotments within much of the interior of the 'orchard'. The 1920's bandstand is the clearest feature on the geophysical survey within the enclosed area.

The excavations within the enclosure concord with the geophysical survey demonstrating that there are deep deposits of relict cultivation soils. The geophysical survey hints at the presence of two structures within the enclosure, these may well relate to the medieval monastic use of the site though the long history of cultivation may have adversely affected these features.

7 ACKNOWLEDGEMENTS

AOC would like to thank all of the volunteers whose hard work on site made the project a success: Jenny McLaughlin; Don Matthews; Mark Holmes; Alexis Webster; Steven Mathew; Colin Russel; Charlene Forbes; James Miller; Lynn Wilson; Nicola Turner; Jessie Young; Anne Danielson; Tatjana Sandon; Ian McAddams; M. Bulloch; Philip Marshall; Katie Marshall; Andrew Marshall; Davis Marshall; Wilma Marshall; Stephen Marshall; Hannah Parsons; Ian Kirkman; Ian Lubrook; Ian Hawkins; O. Knowles; J. Pinkett; J. Pinkett; Kristina Jankovic; Stephen MacLean; Ellie Lawson; Susan Paterson; Trevor Griffin; David Gibson; Morag Gibson; Donald McLeish; Joan Patterson.

AOC are very grateful to the ground staff at Zetland Park were very helpful and patient while we dug holes in their well beautiful park.

The project was undertaken with the kind permission of the landowner, Falkirk Council, to whom thanks are due. The archaeological works were part of the Inner Forth Landscape Initiative.

8 REFERENCES

Bailey, G. 2015, *Zetland Park*, Available at: <http://www.falkirklocalhistorysociety.co.uk/home/index.php?id=165>, accessed 27/7/16

Hall, D. 2006, *Scottish Monastic Landscapes*, The History Press

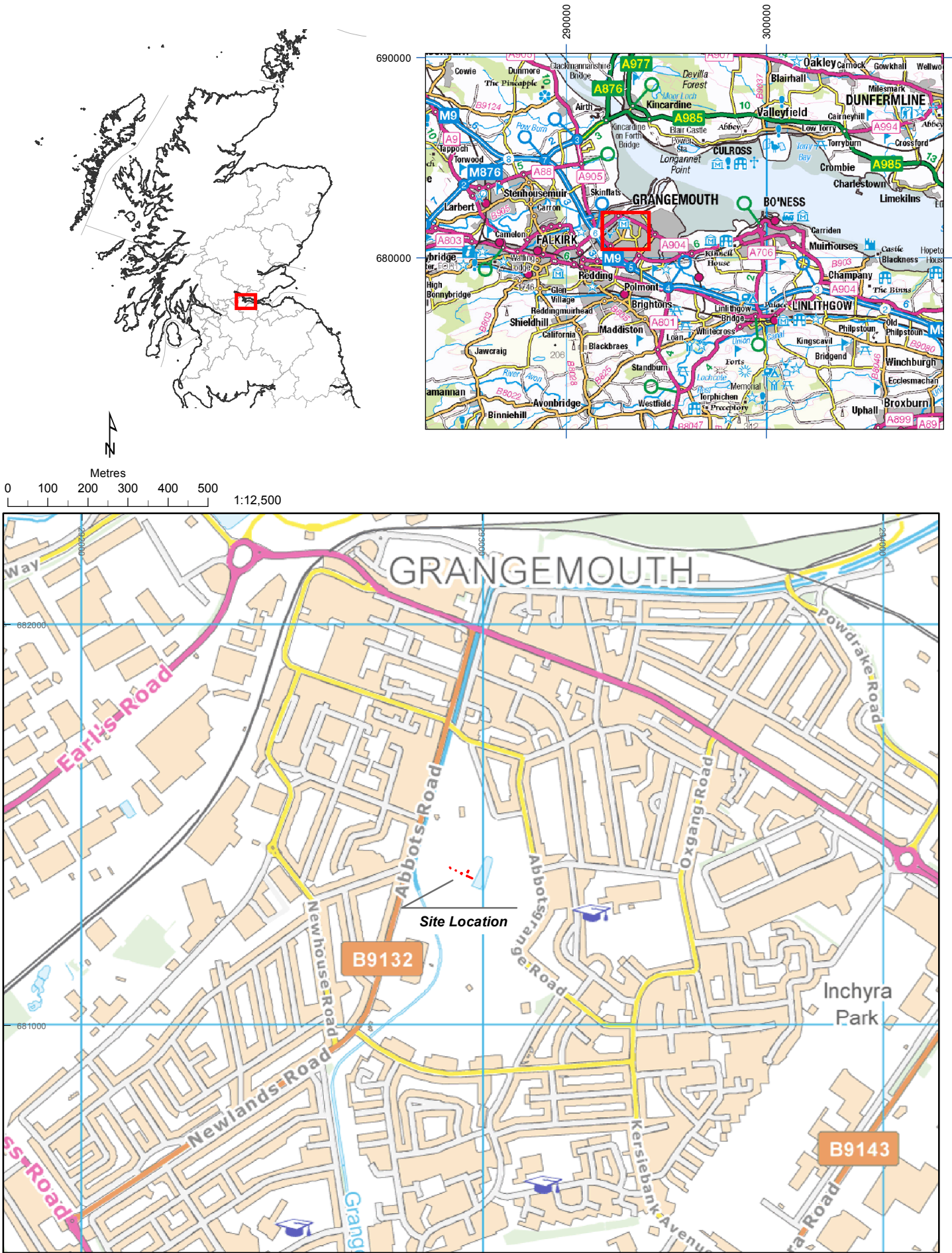


Figure 1: Site location

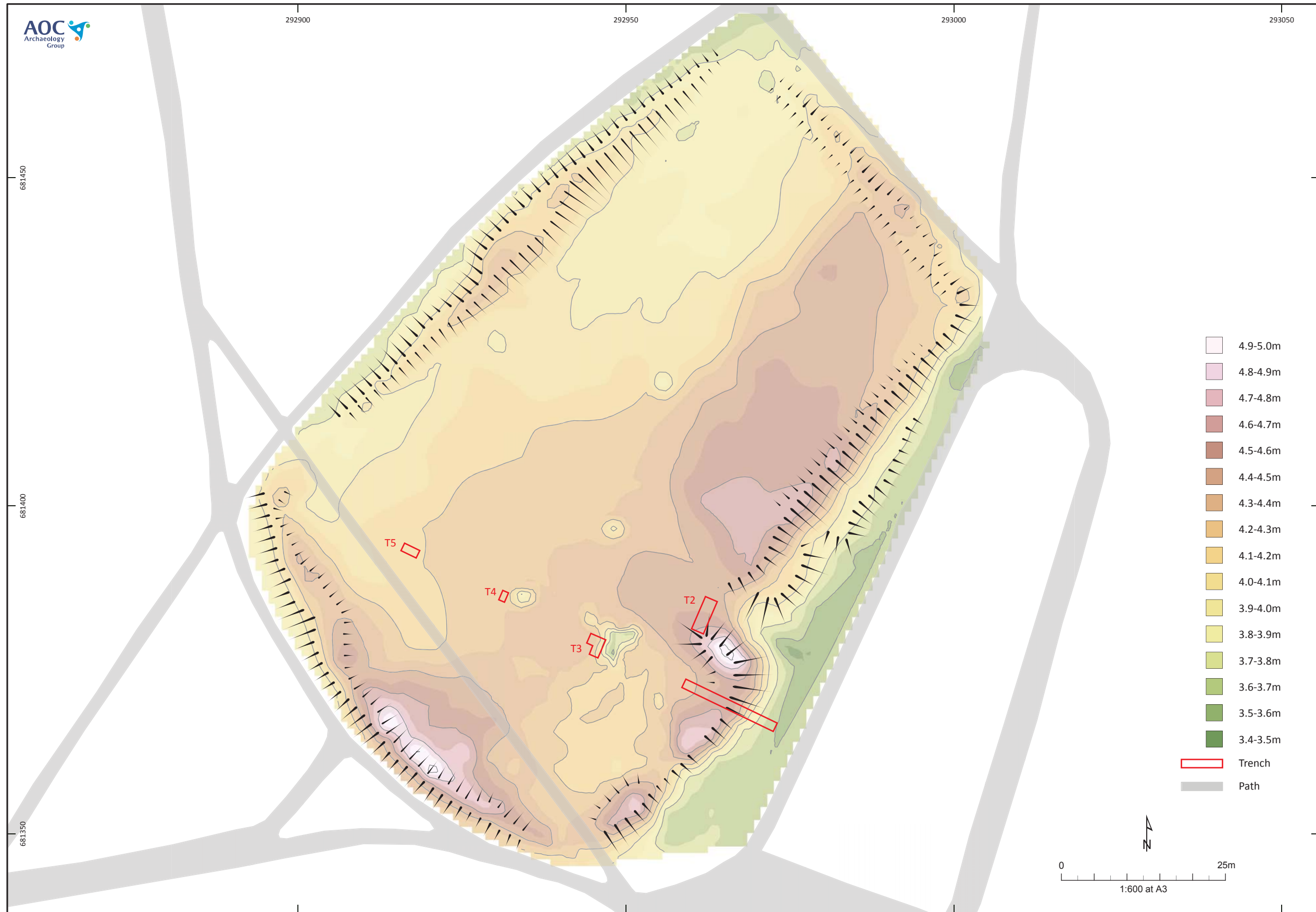


Figure 2: Zetland Park topographic survey

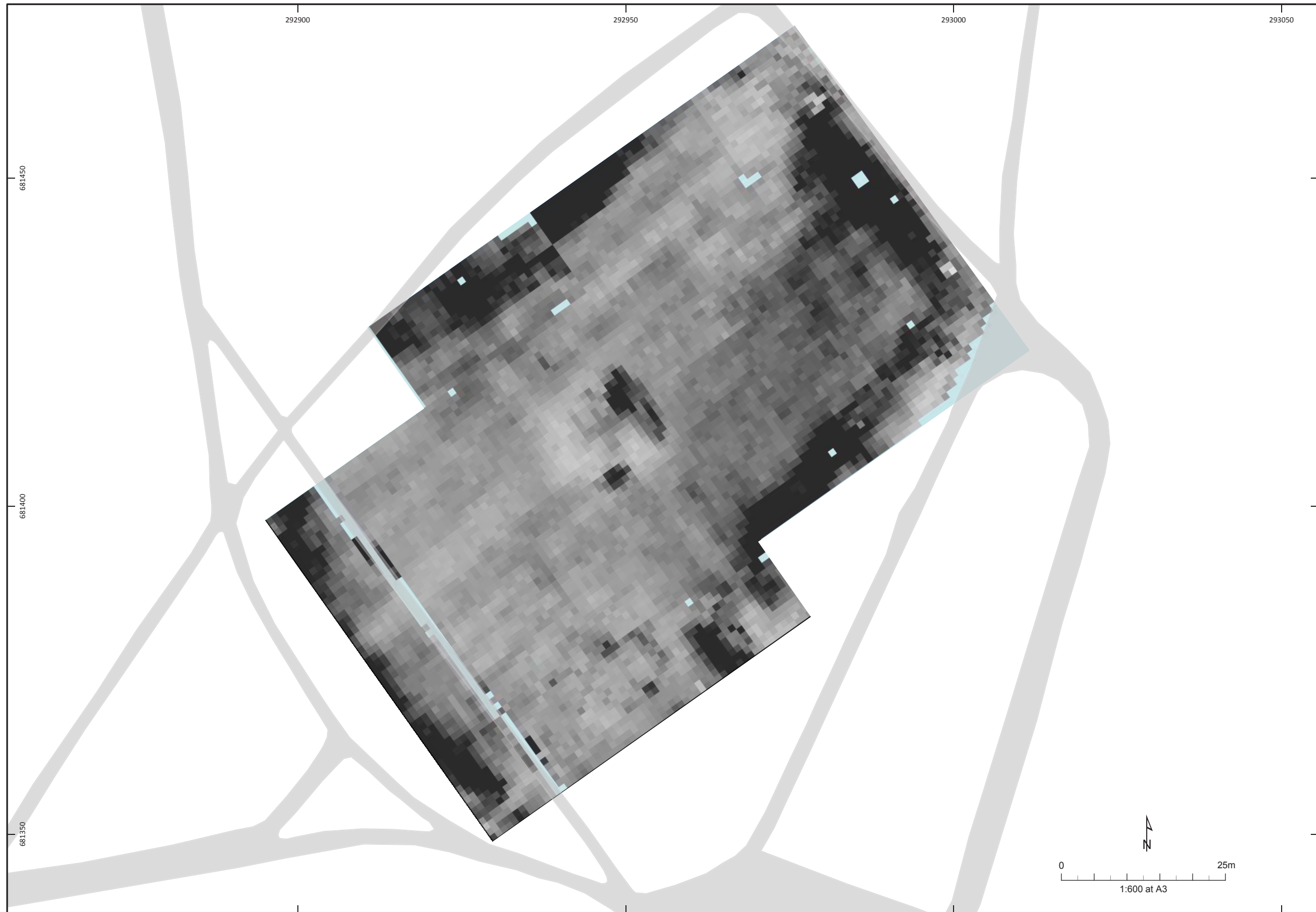


Figure 2: Zetland Park resistivity greyscale plot

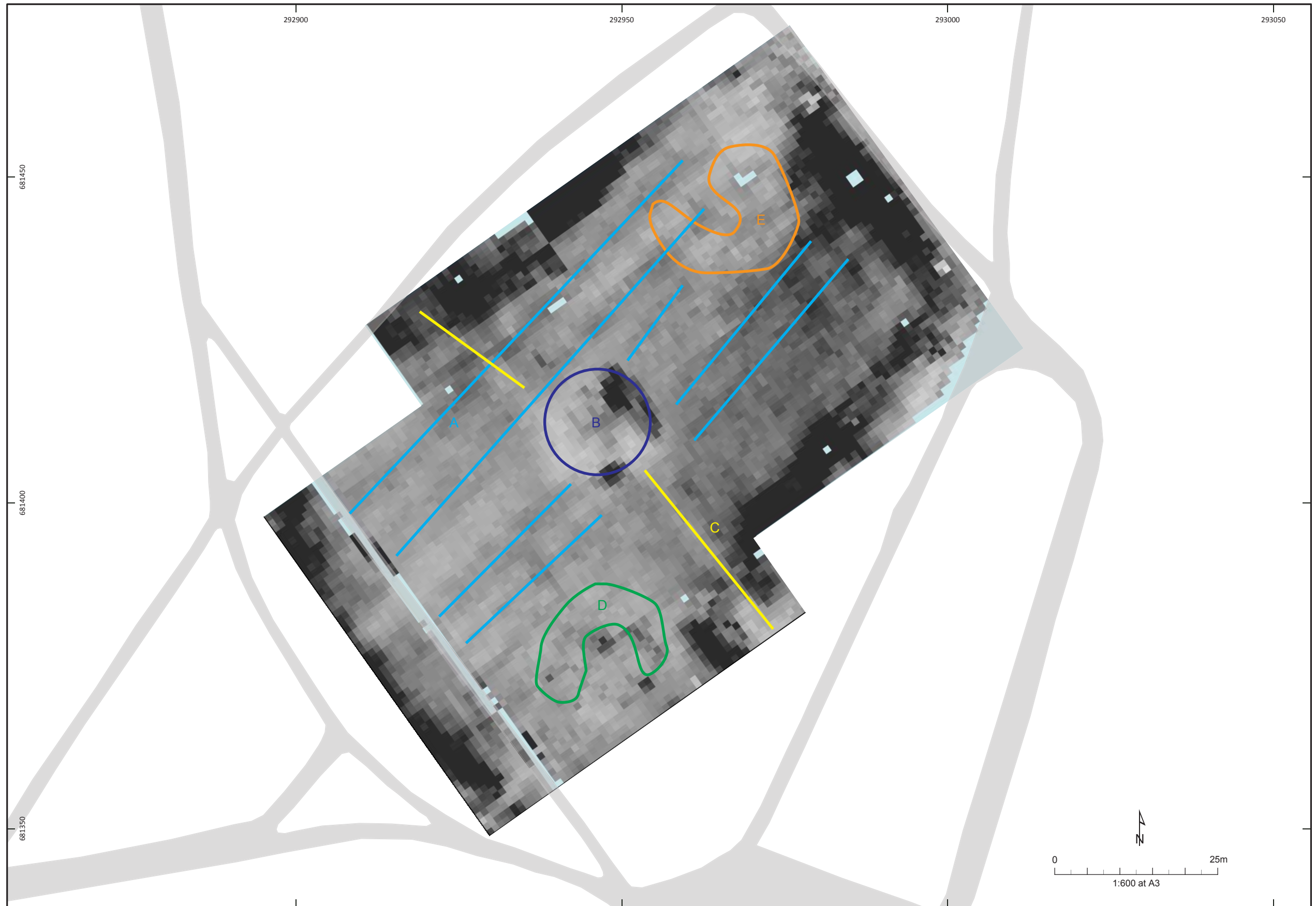


Figure 4: Zetland Park resistivity interpretation

Figure 5: Trench 1 post-excitation plan

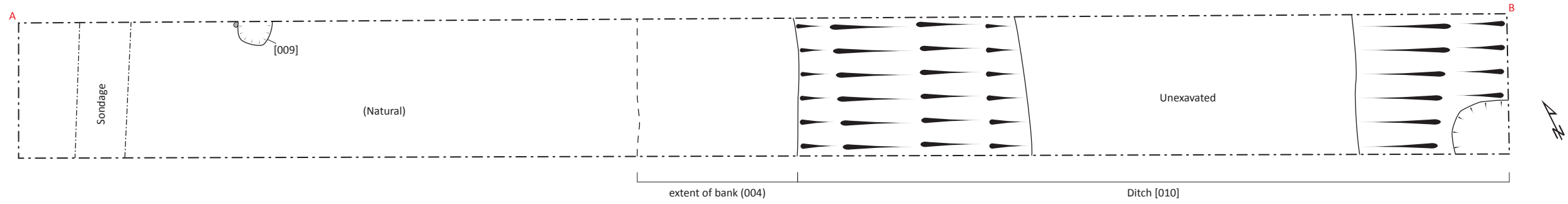


Figure 6: Trench 1 southwest facing section

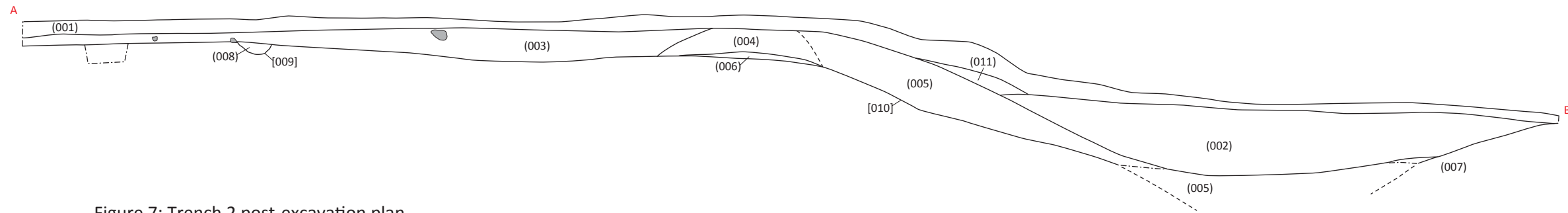


Figure 7: Trench 2 post-excitation plan

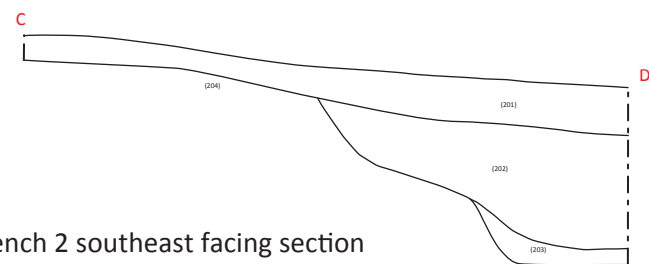
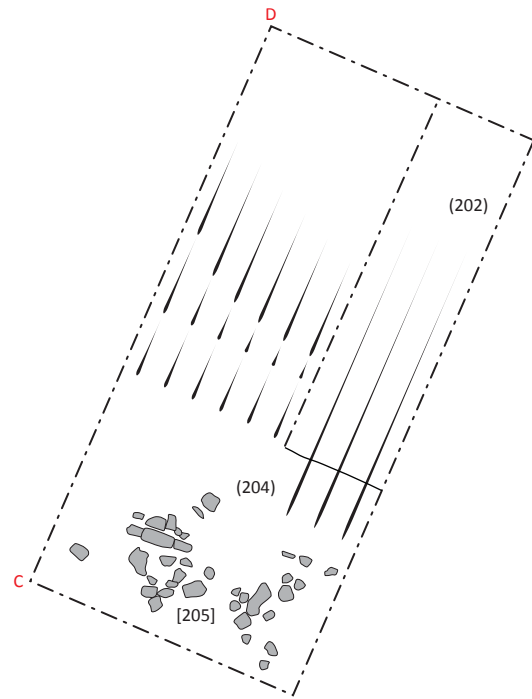


Figure 8: Trench 2 southeast facing section

Figure 9: Trench 3 post-excitation plan

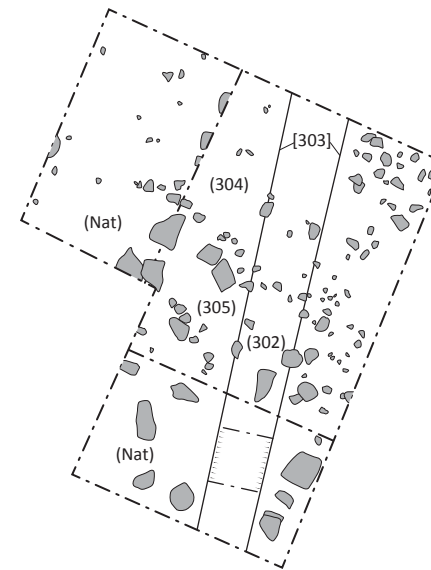


Figure 10: Trench 4 post-excitation plan

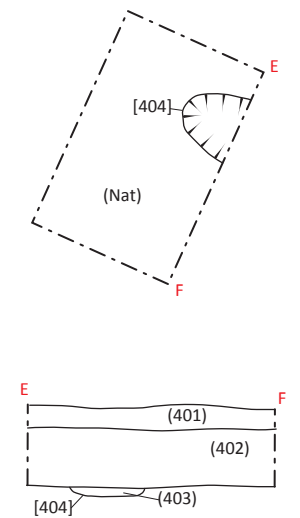


Figure 11: Trench 4 northwest facing section

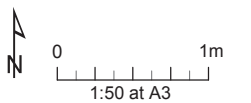
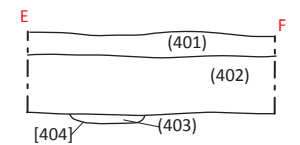




Figure 12: War memorial east and west elevation ortho-images of the laser scan data

0 1m
1:50 at A4

01/60079/REP/12/01



0 1:50 at A4 1m

01/60079/REP/13/01

Figure 13: War memorial north and south elevation ortho-images of the laser scan data



Figure 14: War memorial perspective north-east and south-west views, ortho-images of the laser scan data

01/60079/REP/14/01



Figure 15: Fountain, photogrammetric mesh various views

not to scale
01/60079/REP/15/01

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Archaeological Investigations in Zetland Park,
Grangemouth
Data Structure Report**

Section 2: Appendices

APPENDIX 1: CONTEXT REGISTER

Trench	Context	Context Type	Description
1	001	Deposit	Dark brown compact silty clay with abundant tree roots and vegetation. Up to 0.18m thick Turf and topsoil across trench.
1	002	Deposit	Loose black deposits of ash, cinder and coal in a loose sandy clay matrix with occasional tree roots and stone. Contained white glazed ceramics and bottle glass (not retained). Imported made ground or levelling deposit.
1	003	Deposit	Dark brown firm silty clay with abundant ash, cinder and coal and occasional tree roots and stone. Contained white glazed ceramic and bottle glass (not retained). Modern cultivation soil mixed with imported midden material.
1	004	Deposit	Mid brown compact silty clay with occasional charcoal and coal. 1.65m wide and 0.28m high. Earth bank extending across trench 1.
1	005	Deposit	Mid brown compact silty clay with occasional coal and charcoal. Post-abandonment slumping and collapse of earthen bank.
1	006	Deposit	Mid brown silty clay with occasional coal and charcoal. Survives below bank (004). 1.42m wide and 0.07m thick Buried ground surface preserved below bank (004)
1	007	Deposit	Mid brown compact silty clay, within ditch [010]. Fill of ditch [010] derived from collapse and slumping of bank (004).
1	008	Deposit	Dark brown to black compact silty clay with frequent coal and charcoal. Contained within cut [009]. Fill of small posthole [009].
1	009	Cut	Sub circular cut with gentle breaks of slope and steep sides. Extending partially outwith trench. Cut measures 0.35m in diameter and is 0.11m deep. Cut of small posthole within interior of enclosure bank of grange.
1	010	Cut	Linear cut oriented N-S across trench 1, 7.20m wide and excavated to a depth of 1.05m where the water table was encountered. Cut of ditch defining enclosure of grange.
1	011	Deposit	Mid brown compact silty clay with occasional coal and charcoal. Post-abandonment slumping and collapse of earthen bank.
2	201	Deposit	Dark brown firm silty clay with frequent roots and occasional stone. Turf and topsoil across trench.
2	202	Deposit	Dark brown silty clay with frequent charcoal, coal and cinder and occasional stone and lenses of orange clay. Contained white glazed ceramic and bottle glass (not retained). Modern levelling or made ground deposit.
2	203	Deposit	Dark brownish grey compact silty clay with occasional coal, charcoal and cinder. Possible trampled collapse and slumping of bank (204)
2	204	Deposit	Mid greyish brown compact silty clay with abundant charcoal, coal and cinder. Not excavated. Earthen structure of enclosure bank defining grange.
2	205	Deposit	Loose arrangement of small sub-angular stone at top of earthen bank (204). Not excavated.

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Trench	Context	Context Type	Description
			Stonework within earth and stone bank defining grange.
2	206	Deposit	
3	301	Deposit	Dark brown humic silty clay. Extends across trench 0.17m thick. Turf and topsoil across trench.
3	302	Deposit	Dark brown silty clay with occasional sub-angular stone. Within cut [303]
3	303	Cut	Linear cut extending across trench with steep sides and flat base. Service cut for cable.
3	304	Deposit	Dark brown firm gravelly silty clay with abundant coal, cinder and charcoal. Across trench 0.16m deep. Cultivation soil with imported midden material.
3	305	Deposit	Spread of stone of mixed lithologies in no formal arrangement. Not excavated. Spread of demolition rubble derived from a nearby structure.
4	401	Deposit	Dark brown humic silty clay. Across trench 0.18m thick. Turf and topsoil.
4	402	Deposit	Dark brownish grey silty clay. Across trench 0.38m thick. Relict cultivation soil.
4	403	Deposit	Dark brownish grey silty clay, very similar in character to (402). Within [404]. Fill of shallow pit [404]
4	404	Cut	Shallow pit cut into natural clay partially exposed in trench. Sub-oval on plan with gradual breaks of slope and gently sloping sides. 0.4m by 0.4m exposed in trench 0.06m deep. Cut of shallow pit.
5	501	Deposit	Dark brown humic silty clay. Throughout trench 0.18m thick. Turf and topsoil.
5	502	Deposit	Dark brown silty clay with abundant coal, cinder and charcoal and occasional gravel. Throughout trench 0.39m thick. Relict cultivation soil.
5	503	Deposit	Dark grey compact clayey silt with abundant charcoal, coal and cinder. Throughout trench 0.15m thick. Earlier relict cultivation soil containing midden material.

APPENDIX 2: PHOTOGRAPHIC REGISTER

Digital Photographs

Frame	Trench	Description	From
3412	1	Trench 1 with bank (004) exposed and upper fill (002) of ditch [010] removed	E
3413	1	Trench 1 with bank (004) exposed and upper fill (002) of ditch [010] removed	SE
3414	1	Trench 1 with bank (004) exposed and upper fill (002) of ditch [010] removed	SE
3415	1	Trench 1 showing bank (004)	S
3416	1	Trench 1 showing bank (004)	S
3417	1	Trench 1 showing bank (004) and posthole [009], after removal of (003)	SW
3418	1	Trench 1 showing bank (004), after removal of (003)	NW
3419	1	Posthole [009] pre-excavation	S
3420	1	Trench 1 post-excavation showing ditch [010].	E
3421	1	Trench 1 post-excavation showing ditch [010].	SE
3422	1	Trench 1 post-excavation showing ditch [010].	SW
3423	1	Trench 1 post-excavation	W
3424-3430	1	Trench 1 south facing section	S
3431	1	Trench 1 post-excavation showing ditch [010].	SE
3432	1	Trench 1 post-excavation showing ditch [010].	SE
3433	1	Trench 1 post-excavation showing section through bank (004)	SW
3434	1	Trench 1 post-excavation showing inner face of ditch cut [010]	S
3435	1	Trench 1 post-excavation showing section through relict cultivation soil (003)	
3436	1	Trench 1 post-excavation showing ditch [010].	
3437	1	Trench 1 post-excavation showing ditch [010].	
3438	1	Trench 1 post-excavation showing ditch [010].	
3439	1	Trench 1 post-excavation showing ditch [010].	
3440	4	Trench 4 post excavation showing shallow pit [404]	
3441-3452	5	Trench 5 post-excavation	Various
3453-3465	3	Trench 3 post excavation	
3466-3467	5	Trench 5 backfilled	
3468-3480	2	Trench 2 post –excavation	Various
3481-3488	-	Backfilled trenches	Various
6074-6097	-	Working shots	-

APPENDIX 3: DRAWING REGISTER

Drawing No.	Trench No.	Details	Scale
001	-	Plan of possible entrance through bank and ditch with trenches 1 & 2	1:50
002	1	Trench 1 south facing section	1:20
003	4	Trench 4 post-excavation plan	1:20
004	4	Trench 4 west facing section	1:20
005	3	Trench 3 post-excavation plan	1:20
006	2	Trench 2 post-excavation plan	1:20
007	2	Trench 2 east facing section	1:20

APPENDIX 4: FINDS REGISTER AND POTTERY CATALOGUE

Find No.	Trench No.	Context No.	Description
001	1	001	Ceramics, glass and clay pipe
002	1	002	Ceramics, glass and clay pipe
003	1	003	Ceramics, glass and clay pipe
004	1	002	Ceramics, glass and clay pipe
005	1	003	2 ceramic sherds
006	1	001	Coins
007	2	202	Ceramic sherds
008	2	201	Ceramics, glass and clay pipe
009	5	502	8 ceramic sherds
010	3	304	2 ceramic sherds
011	3	304	Stone spindle whorl
012	5	502	Marble, coins clay pipe
013	1	004	Mixed
014	2	201	Mixed
015	2	202	Mixed
016	5	502	Mixed
017	3	304	Mixed
018	3	301	Mixed
019	2	203	Mixed

Context 001; shards 1

1 standard white earthenware basal angle shard from a bowl decorated with a polychrome regimental transfer-print clobbered with red, puce, green and blue enamels; **'KING'S OWN SCOTTISH BORDERS'**

Context 002; shards 2

2 thinly potted green-glazed gritty, reduced body sherds; possibly late 14th century

Context 002; shards 10

1 shard from a late Japanese vase; decorated in Imari colours

2 shards from 2 different late Victorian or early 20th century wall tiles

1 rim shard from a dipped creamware mug decorated with rose late cutting c. 1820

1 late Victorian standard white earthenware cup shard decorated with a debased transfer-print of 'Standard Willow'

1 standard white earthenware rim shard from a plate decorated with grey cut sponging

1 standard white earthenware rim shard from a plate; decorated with a red floral transfer- print

1 standard white earthenware rim shard from a plate; decorated with a red transfer-print; the rear has part of a red retailers backstamp (-ETER PRINGLE / -RGYLE STREET / -LASGOW), along with part of a late Victorian registration diamond.

1 standard white earthenware body shard from a plate decorated with a brown transfer-print; '**Asiatic Pheasant**'

1 large shard from a moulded late Victorian jug decorated with loose deep blue loose sponging

Context 002; shards 3

1 standard white earthenware rim shard from a plate decorated with grey cut sponging

1 late Victorian standard white earthenware bowl rim shard decorated with a debased transfer-print of 'Standard Willow'

1 standard white earthenware round moulded handle

Context 003; shards 4

2 body shard Scottish post medieval reduced ware; late 16th century

1 body shard Scottish post medieval oxidised ware; late 16th century

1 large green-glazed grooved strap handle shard in a gritty reduced fabric with slightly oxidised surfaces; probably 15th century

Context 004; shards

1 abraded Scottish post medieval reduced ware jug shard; probably 17th century

1 abraded redware shard probably from a pantile

Context 201; shards 3

1 abraded rough redware shards; probably from a large garden urn

1 standard white earthenware rim shard from a plate decorated with grey cut sponging

1 redware body shard glazed on both surfaces; looks fairly modern

Context 202; shards 6

6 shards; 1 basal angle and 5 body from a redware jug or jugs; hard to date but probably late medieval

Context 202; shards 6

5 Scottish post medieval oxidised ware shards; 17th century

1 redware rim shard from a white slipped dairy bowl; hard to date 1780- 1940

Context 203; shards 5

3 badly abraded basal angle shards from at least two late medieval jugs

1 badly abraded 16th century reduced ware body shard

1 tin-glazed earthenware rim shard from a blue dash decorated bowl; lead glazed on its exterior; c. 1620.

Context 304; shards 2

1 Scottish post medieval reduced ware shard from the shoulder of a green-glazed jug; probably late 16th century in date

1 green-glazed basal angle Scottish post medieval oxidised ware shard; probably late 16th century in date

Context 304; shards 1

1 green glazed body shard in a finely gritted fabric with large round water washed inclusions; looks 14th century.

Tr 3 - (301) shards 32

11 abraded Scottish post medieval reduced ware shards; 17th century

2 redware shards; 1 rim and 1 body from a white slipped dairy bowl

3 badly abraded late medieval glazed body shards

1 abraded redware basal angle shard from a flower pot

1 abraded shard from an extruded redware drain pipe

5 abraded shards not identifiable

9 abraded rough redware shards; probably from a large garden urn

Context 502; shards 1

1 green glazed body shard from a jug; the gritty fabric suggests a late medieval date; either late 14th or early 15th century.

1 burnt flint nodule; during the late 18th and 19th centuries flint was imported into the Forth estuary in substantial quantities mostly from Gravesend where it was calcined for use by the pottery industry.

Context 502; shards 9

2 shards of redware fired clay

1 green glazed jug handle shard ; the gritty fabric suggests a late medieval date; possibly late 14th or early 15th century

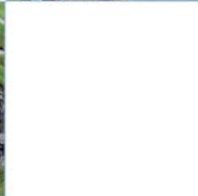
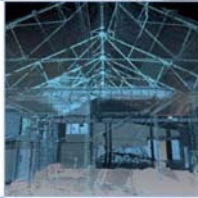
6 small abraded medieval body shards; 2 green glazed and almost certainly from 6 different vessels

APPENDIX 5: LASER SCAN METADATA

Scan Name	Number of points	Resolution	Quality
WM001	19,500,600	1/4	4x
WM002	19,703,494	1/4	4x
WM003	21,864,159	1/4	4x
WM004	20,145,095	1/4	4x
WM005	19,803,513	1/4	4x
WM006	20,935,558	1/4	4x
WM007	18,897,006	1/4	4x
WM008	81,887,913	1/4	4x
WM009	25,002,920	1/4	4x
WM010	24,134,321	1/4	4x
WM011	VOID	VOID	VOID
WM012	23,103,607	1/4	4x
WM013	21,787,397	1/4	4x

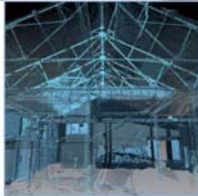
APPENDIX 6: 'DISCOVERY AND EXCAVATION IN SCOTLAND' REPORT

LOCAL AUTHORITY:	Falkirk
PROJECT TITLE/SITE NAME:	Inner Forth Landscape Initiative: Zetland Park
PROJECT CODE:	60079
PARISH:	Grangemouth
NAME OF CONTRIBUTOR:	Jamie Humble, Graeme Cavers, Gemma Hudson
NAME OF ORGANISATION:	AOC Archaeology Group
TYPE(S) OF PROJECT:	Excavation, Geophysical and topographic survey
NMRS NO(S):	NS98SW 1
SITE/MONUMENT TYPE(S):	Grange (possible); enclosure
SIGNIFICANT FINDS:	Medieval and post-medieval ceramics; Spindle Whorl
NGR (2 letters, 6 figures)	NS 9295 8140
START DATE (this season)	20 th May 2016
END DATE (this season)	23 rd May 2016
PREVIOUS WORK (inc DES)	None
MAIN (NARRATIVE) DESCRIPTION: (May include information from other fields)	<p>An archaeological trial excavation, geophysical and topographic survey was undertaken by the Inner Forth Landscape Initiative, with local volunteers, and AOC Archaeology Group in Zetland Park, Grangemouth. The excavations and geophysical survey focussed on the 17th century Orchard of the park, the site of a medieval Grange of which an enclosing bank and ditch survives as a slight earthwork monument. More recent structures of the park were also recorded by the laser scanning and photogrammetric recording of the war memorial and fountain within Zetland Park.</p> <p>The topographic and geophysical surveys and the excavations investigated the putative medieval monastic grange. Trench one demonstrated the existence of an earthen bank and ditch enclosing the site. Trench two was excavated across the a dog leg in the upstanding earthworks, while not conclusive the excavation supported this being the entrance into the enclosed grange. Three small trenches were excavated within the enclosed grange, these demonstrated deep deposits of relict cultivation soils, possibly in part from the sites later use as an orchard. The ceramic assemblage from the excavations includes a number of late medieval to post-medieval sherds that suggests much more than background noise and may relate to the later history of the grange.</p> <p>The geophysical survey has indicated the presence of features likely to be related to modern use of the earthwork, most notably the location of the band stand and post-abandonment agriculture. These results are consistent with the results of the excavations, and have yielded only one feature which could tentatively be related to a medieval use of the site, namely the area of low resistance in the north.</p>
PROPOSED FUTURE WORK:	None planned
CAPTION(S) FOR ILLUSTRATIONS:	N/A
SPONSOR OR FUNDING BODY:	Inner Forth Landscape Initiative
ADDRESS OF MAIN CONTRIBUTOR:	AOC Archaeology Group, Edgefield Road Industrial Estate, Loanhead, Midlothian, EH20 9SY
EMAIL ADDRESS:	admin@aocarchaeology.com
ARCHIVE LOCATION	Archive to be deposited in NMRS



AOC Archaeology Group, Edgefield Industrial Estate, Edgefield Road, Loanhead EH20 9SY
tel: 0131 440 3593 | fax: 0131 440 3422 | e-mail: edinburgh@aocarchaeology.com

www.aocarchaeology.com



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tel: 0131 440 3593 | fax: 0131 440 3422 | e-mail: edinburgh@aocarchaeology.com

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