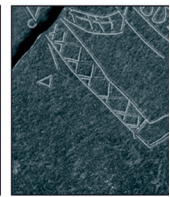
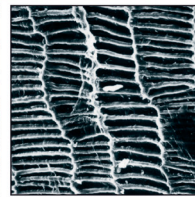
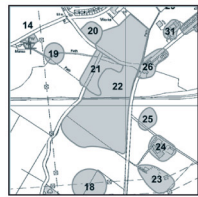


SSHC11



SETON SANDS HOLIDAY CENTRE

Archaeological Evaluation

for Bourne Leisure Ltd

06/00754/OUT

December 2011



HEADLAND
ARCHAEOLOGY (UK) Ltd



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Council: Simon Stronach

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Project Manager

Simon Stronach

Author

Alistair Robertson

Fieldwork

Magnar Dalland, Samira Hill
Liz Jones & Alistair Robertson

Graphics

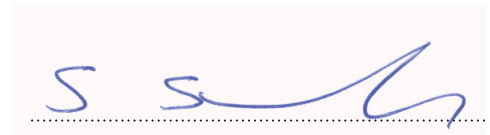
Julia Bastek

Specialists

Abby Mynett, Environmental
Julie Franklin, Finds

Approved by

Simon Stronach, Project Manager



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13 Jane Street, Edinburgh EH6 5HE
T 0131 467 7705 • F 0131 467 7706 • E office@headlandarchaeology.com
www.headlandarchaeology.com

CONTENTS

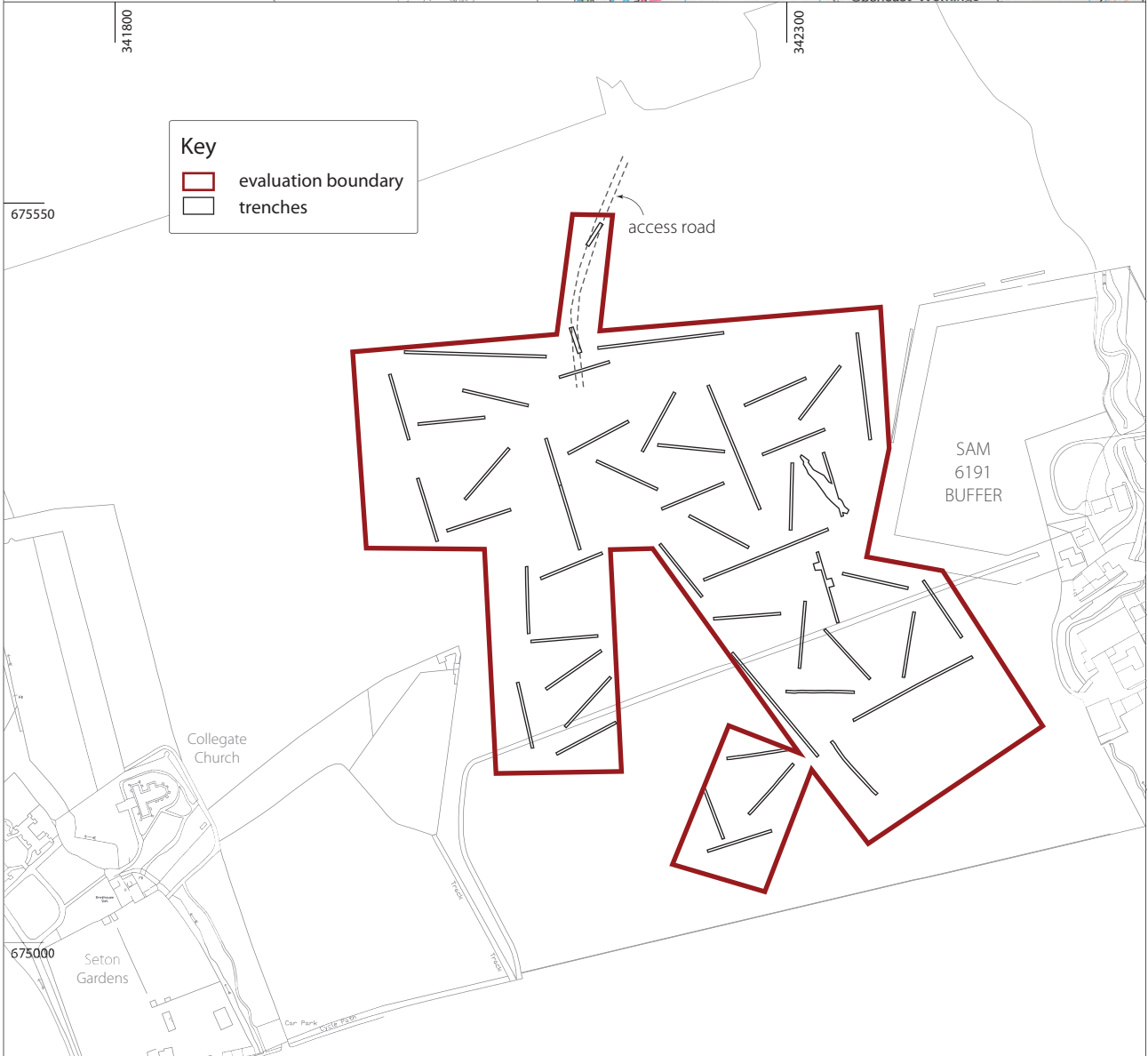
1.	INTRODUCTION	1
2.	SITE LOCATION & DESCRIPTION	1
3.	ARCHAEOLOGICAL BACKGROUND	1
4.	OBJECTIVES	3
5.	METHODOLOGY	3
6.	RESULTS OF FIELDWORK	3
6.1	Eastern features	3
	<i>Trench 26</i>	3
	<i>Trench 32</i>	5
	<i>Trench 34</i>	5
	<i>Trench 41</i>	5
6.2	Western features	6
	<i>Trench 27</i>	6
	<i>Trench 29</i>	6
	<i>Trench 21</i>	6
6.3	Palaeoenvironmental summary	6
7.	DISCUSSION	7
8.	CONCLUSIONS	9
9.	BIBLIOGRAPHY	9
9.1	References	9
9.2	Cartographic resources	9
	APPENDICES	10
	Appendix 1 – Site registers	10
	<i>Context register</i>	10
	<i>Sample register</i>	11
	<i>Photo register</i>	11
	<i>Drawing register</i>	12
	Appendix 2 – Trench register	13
	Appendix 3 – Finds assessment	20
	<i>Finds catalogue</i>	20
	Appendix 4 – Palaeoenvironmental sample assessment	21
	<i>Introduction</i>	21
	<i>Method</i>	21
	<i>Results</i>	21
	<i>Discussion</i>	21
	<i>Conclusions</i>	22
	Appendix 5 – Discovery and Excavation in Scotland Entry	25

LIST OF ILLUSTRATIONS

<i>Illus 1</i>		viii
	<i>Location plan</i>	
<i>Illus 2</i>		2
	<i>Plan of evaluation area</i>	
<i>Illus 3</i>		4
	<i>Archaeological features in Eastern Area</i>	
<i>Illus 4</i>		5
	<i>Archaeological features in Western Area</i>	
<i>Illus 5</i>		6
	<i>N facing shot of ditch [009] in Trench 26</i>	
<i>Illus 6</i>		6
	<i>NE facing shot of pit [005] in Trench 34</i>	
<i>Illus 7</i>		7
	<i>NW facing shot of ditch [022] in Trench 27</i>	
<i>Illus 8</i>		7
	<i>SE facing section of ditch [022] in Trench 27</i>	
<i>Illus 9</i>		8
	<i>NE facing shot of ditch [036] in Trench 29</i>	
<i>Illus 10</i>		8
	<i>SW facing section of Ditch [036] in Trench 29</i>	
<i>Illus 11</i>		9
	<i>Moll`'s 1732 map showing approximate site location</i>	

LIST OF TABLES

<i>Table A4.1</i>		23
	<i>Retent finds</i>	
<i>Table A4.2</i>		24
	<i>Floatation finds</i>	



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Illus 1
 Location plan

SETON SANDS HOLIDAY CENTRE

Archaeological Evaluation

An archaeological programme of trial trenching was carried out in order to satisfy a condition of planning consent for an expansion of Seton Sands Holiday Village, East Lothian. The evaluated area covered identified areas of ground disturbance within a proposed 9-hole golf course and access road. The trial trenching revealed in-filled furrows and field drains dispersed across the site, sealed beneath topsoil on average 0.5m deep.

A number of archaeological features were identified during the work, comprising a cluster of pits and two ditches. On the basis of recovered artefacts and botanical evidence, the features appear to range in date from the prehistoric through to post medieval periods. A length of ditch revealed adjacent to a scheduled prehistoric enclosure at the east of the site is likely to be contemporary with it, while segments of ditch exposed to the west appear to be of 16th/17th century origin. They may be associated with Seton Collegiate church, founded in the 13th century, or the 16th century Seton Palace. The cluster of pits appears to vary in age from prehistoric to medieval, despite their proximity, and include a probable medieval charcoal production pit.

The small number of features recorded can be attributed in part to the fact that glacial deposits appear to have undergone significant erosion; with topsoils migrating down slope. A previous evaluation to the north encountered thick colluvium (Bailey 2008). The long history of agriculture in the area has presumably truncated away a significant portion of the archaeological record through ploughing.

1

1. INTRODUCTION

Headland Archaeology (UK) Ltd was commissioned to carry out a programme of archaeological evaluation at the proposed site of a 9-hole golf course and clubhouse which forms part of an expansion of Seton Sands Holiday Village, East Lothian. The work was carried out in order to satisfy a condition (no. 4) of planning consent (ref.: 06/00754/OUT) and adhered to a Written Scheme of Investigation prepared by Headland Archaeology and agreed with East Lothian Council Archaeology Service (ELCAS).

This report presents the results of the evaluation, which incorporated 5660m² of trial trenching (ac. 5% sample). The fieldwork was undertaken between 31st October and 4th November 2011.

2. SITE LOCATION & DESCRIPTION

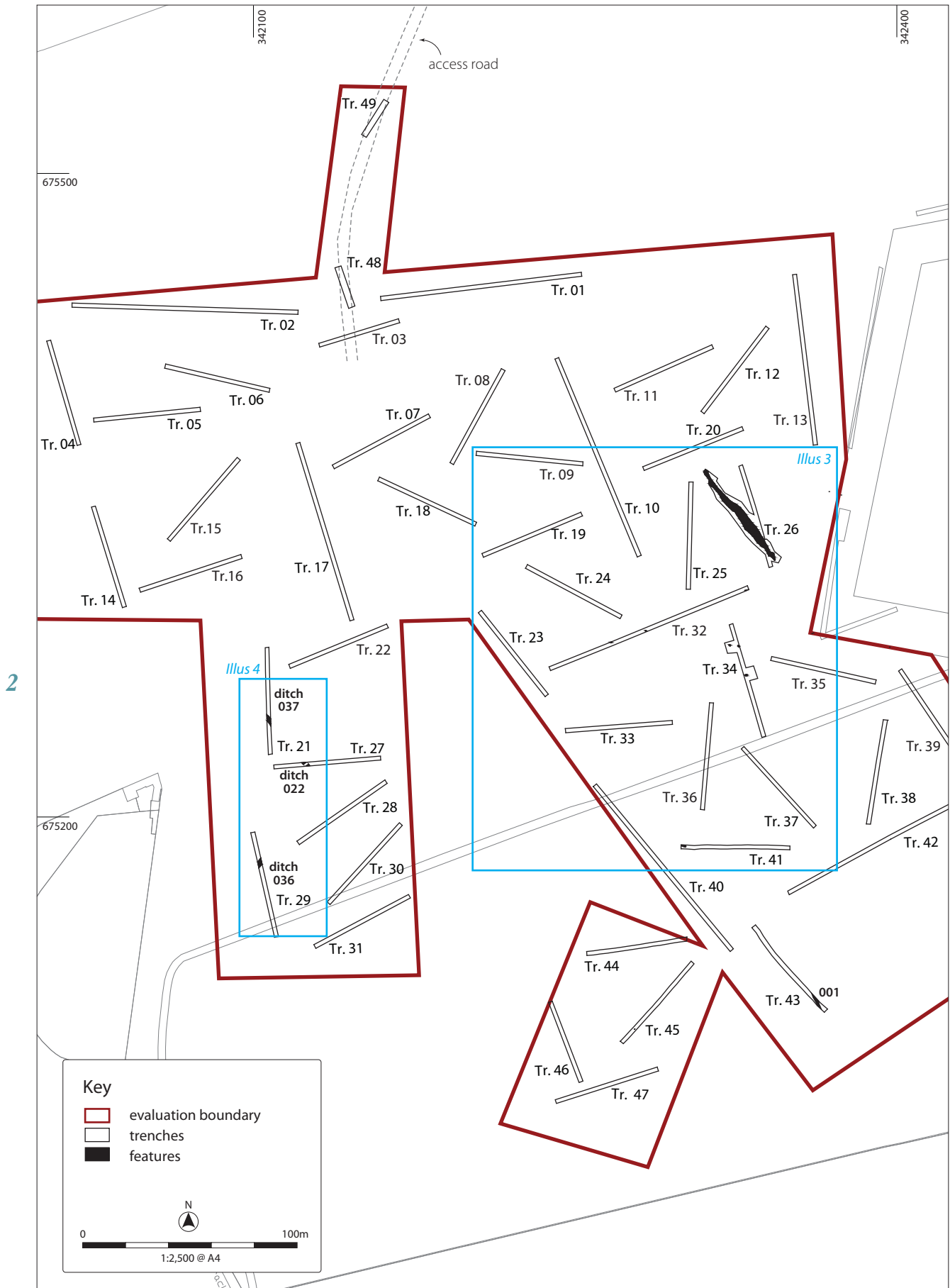
The site is located on open ground to the south of Seton Sands Caravan Park, which lies 0.5km east of Port Seton, East Lothian (Illus 1). It is currently occupied by open

grassland that slopes from a ridge approximately 30m OD in the south, next to the A198, gently down toward the shore of the Forth in the north.

The British Geological Survey describes the superficial geology underlying the site as till (Devensian – Diamicton). Earlier evaluations recorded sandy clays, sands and gravels beneath ploughsoil. Diffuse spreads of carbon were encountered in most of the earlier evaluation trenches. These were noted to be a natural component of the subsoil and comprised highly fragmented particles of coal and carbonaceous shale.

3. ARCHAEOLOGICAL BACKGROUND

A Scheduled Ancient Monument (SAM 6191) borders the application area to the east. The monument comprises a substantial ditched enclosure of likely prehistoric date, identified by crop marks visible on aerial photographs. To the west lies Seton Collegiate Church, both scheduled (SAM 90275) and ‘A’ Listed (HB 19077). The church is medieval in date; originally dedicated in 1242. Adjacent



Illus 2
Plan of evaluation area

to Seton Collegiate Church is Seton House and associated gardens; also Category 'A' listed (HB 19080). The present building was constructed in 1790 by Robert Adam but occupies the site of the late 16th century Seton Palace.

Historic maps, dating back to the 17th century, do not show any settlement located within the evaluation area. In the first detailed depiction (Roy's plan of 1747–55), it appears that the site was divided into arable fields.

Targeted trial trenching carried out by Headland in support of a planning application in 2006 partially revealed a substantial pit/ditch terminus on the west side of the scheduled enclosure, while a cluster of undated pits were identified to the north of Seton Collegiate Church (Dutton 2006). Further trenching in 2008 to the north of the scheduled enclosure revealed no archaeological features and substantial levels of colluvium (Bailey 2008).

4. OBJECTIVES

The overall objectives of the trial trench evaluation were to determine the character, extent, condition, date and significance of any buried archaeological remains within the area to allow the planning authority to make an informed decision regarding any further mitigation requirements relating to archaeological remains.

5. METHODOLOGY

The total area evaluated by trial trenching was 2830 linear meter, representing ac. 5% sample of the areas defined as likely to be subject to ground disturbance during the development (Illus 2). An indicative trench plan was agreed with ELCAS and the client. An additional 30 linear m was set aside to evaluate the route of a drainage pipe for the development; however its location had not been finalised at the time of fieldwork. Trenches were positioned in proximity to known archaeological sites (the SAM) and any topographic features thought likely to have an elevated potential (ridges and flatter areas); they provided good spatial coverage across the site. All trenches were individually numbered and a pole-mounted Trimble G6 differential GPS, programmed with the relevant coordinates, was utilised to identify and mark out their locations.

The trenches were excavated using two 360° tracked mechanical excavators; each fitted with 2m wide flat-bladed ditching buckets and operated under continuous archaeological supervision. Topsoil was removed and excavations continued until either clean geological sediments or significant archaeological deposits were encountered. The resulting surfaces were hand-cleaned where necessary and investigated for archaeological features. Any such features were hand excavated and

recorded using standard archaeological methods and pro-forma record sheets. In agreement with ELCAS, two trenches (26 and 34) were expanded to fully characterize the archaeology that had been identified in them.

The excavated trenches and archaeological features were recorded using differential GPS and also hand drawing where appropriate. Photographs were taken using colour transparencies and prints, as well as digital. Bulk soil samples were collected from secure archaeological contexts for processing and assessment. Where possible a minimum 40-litre sample was collected from each archaeological deposit and given a unique number. All finds were recorded by individual context and their cleaning, storage and conservation undertaken in accordance with the Institute for Archaeologists Standard and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Materials.

6. RESULTS OF FIELDWORK

A total of 49 trenches were excavated (Illus 2), comprising 5660m². The stratigraphy of the majority of trenches was similar, with geological subsoil comprising sandy clays, sands and gravels sealed by ploughsoil with an average depth of 0.5m. Weathered sandstone bedrock was also exposed in a number of the trenches. Occasional infilled furrows as well as ceramic and rubble field drains were cut into the geological subsoil across the site; on a straight alignment following the slope. A full trench register is provided in Appendix 1.

Only a small number of trenches contained features of archaeological significance. They were concentrated on a ridge that ran east to west through the central part of the site and fell into two clusters; east and west. They are described more fully below.

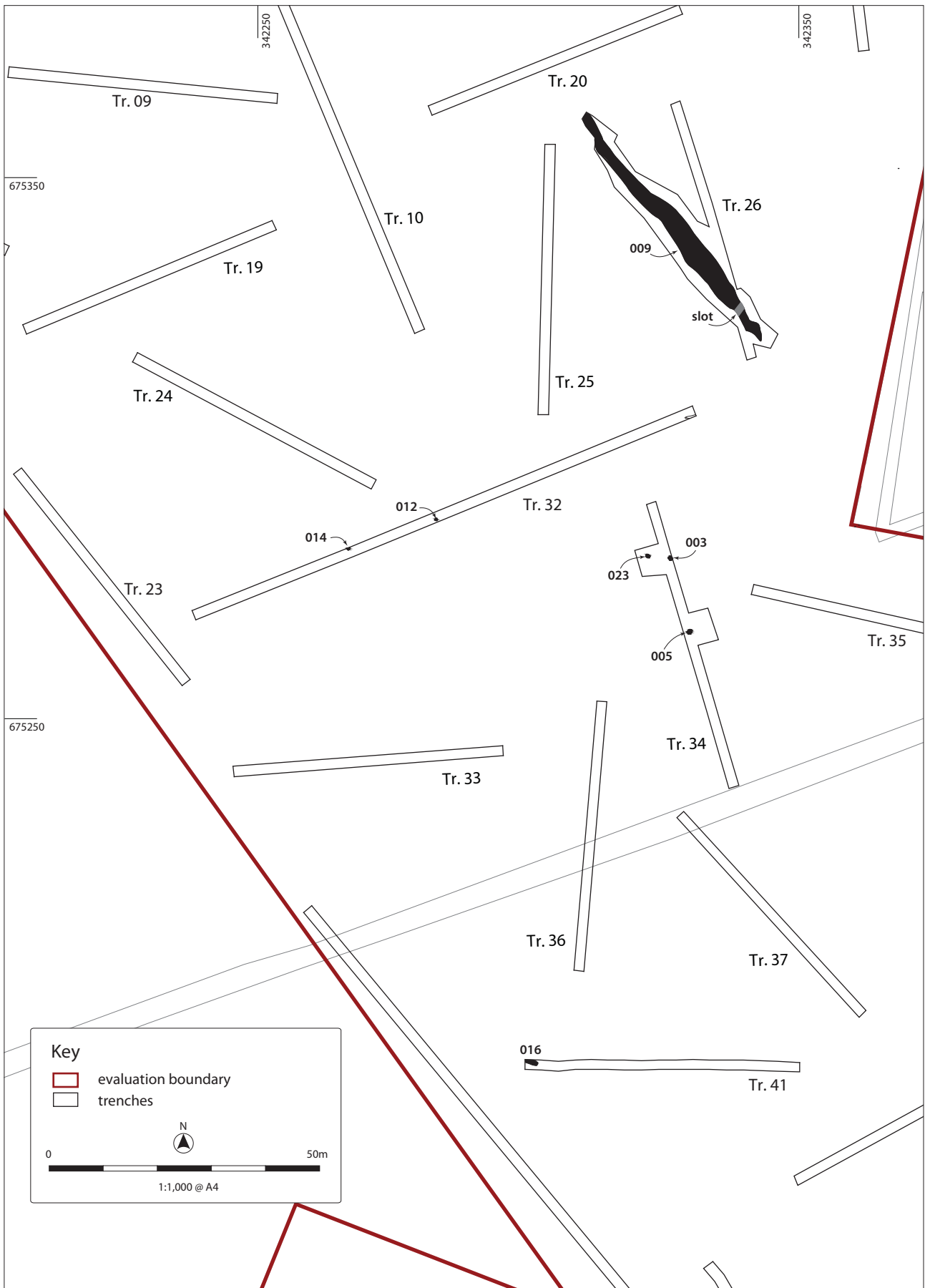
6.1 Eastern features

Trench 26

A linear feature [009] was partially exposed during excavation of this trench. Upon extension of the trench, the feature was found to be aligned NW/SE and at least 53m in length and up to 4.5m wide (Illus 3 and 5). A slot was hand-excavated across it and it was established to be 0.5m deep with a primary fill of brown sand and gravel 0.2m deep [008], sealed by a secondary deposit of dark brown loam 0.3m deep [007]. The feature was cut into geological deposits and overlain by topsoil 0.6m in depth. Fill [007] was bulk sampled and wet sieving of this did not produce any dating evidence. The proximity of the feature to the scheduled enclosure and the lack of finds can be taken as suggestive of a prehistoric date for the feature, which is interpreted as an infilled ditch.



4



Illus 3

Archaeological features in Eastern Area

Trench 32

A shallow oval feature [012] was recorded cut into geological deposits and sealed beneath topsoil mid-way along the trench. The feature was half-sectioned and found to be 0.54m in length, 0.4m wide and 0.15m deep. Dark brown loam [013] filled the feature; interpreted as a probable pit. Sub circular feature [014] was partially revealed to the west of pit [012] and sample excavated. Feature [014] was exposed to 0.6m length and 0.5m width, with a depth of 0.27m. It was filled by grey brown loam [015], which was bulk sampled and found to contain modern glass and pottery fragments (see Appendix 2).

Trench 34

Initial excavation of the trench revealed two features, [003] and [005], cut into sand and gravel geological deposits. A further feature [023] cutting the geological deposits was exposed after the trench was expanded.

Feature [003] was sub circular in plan and found to be 0.65m wide and 0.21m deep once half-sectioned. It contained charcoal-rich grey brown loam [004].

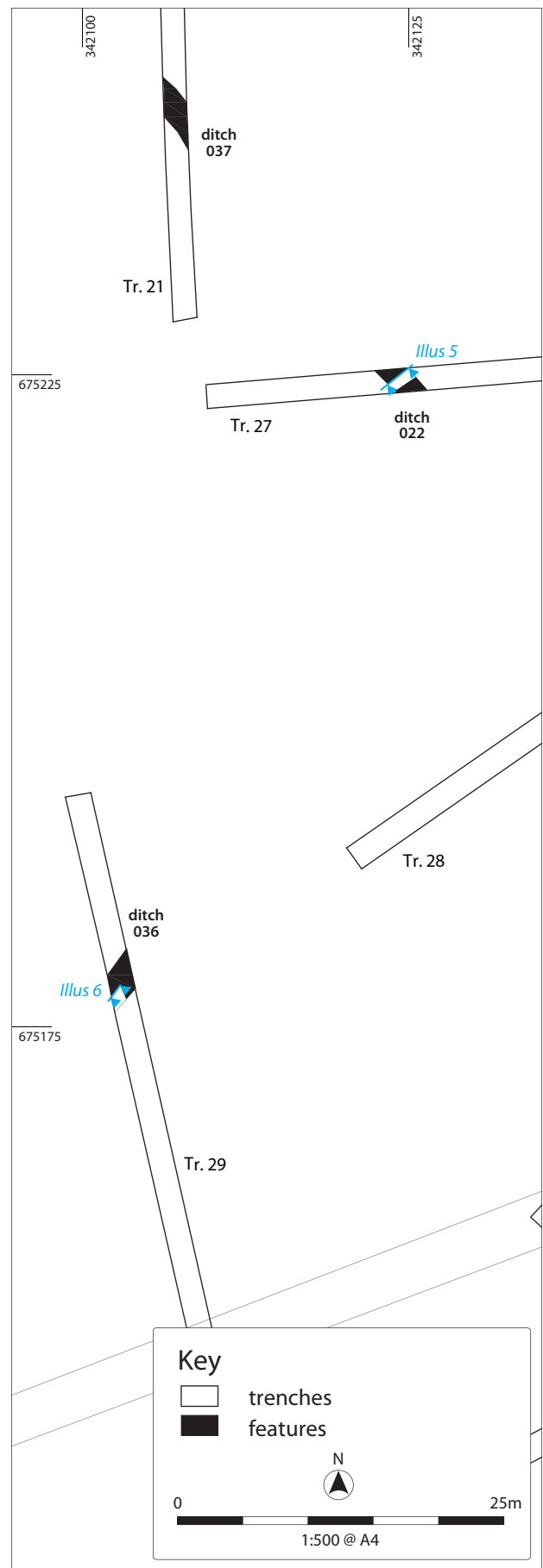
Feature [005] was sub oval in plan with length of 1.2m, width of 0.85m and depth of 0.22m (Illus 6). Excavation revealed the feature to be lined with flat sandstones which were sealed by grey loam [006]. No finds were retrieved from the feature, but wet sieving and floatation found the fill to contain hazel nut shell and non-oak charcoal; indicating it may be of prehistoric date (see Appendix 3).

Feature [023] was sub round in plan with a width of 0.8m and depth of 0.15m. It was half sectioned and found to be filled by charcoal rich clayey sand [024]. Subsequent analysis found the charcoal to be mainly oak, which suggests charcoal production of probable medieval date (see Appendix 3). The above features were sealed by loam topsoil 0.6m deep and likely to represent truncated pits.

Trench 41

At the western extent of the trench, an oval feature [016] was partially exposed cut into geological deposits and sample excavated. It was visible to a length of 2.6m, with width of 1m and depth of 0.22m. The primary fill [017] consisted of yellow grey clayey sand, 0.14m deep. This was sealed by grey brown loam [018], 0.08m deep. Overlying this was loam topsoil 0.5m deep.

The feature was not visible in the adjacent Trench 40 and it was therefore interpreted as a discrete pit.



Illus 4

Archaeological features in Western Area



6

Illus 5

N facing shot of ditch [009] in Trench 26



Illus 6

NE facing shot of pit [005] in Trench 34

6.2 Western features

Trench 27

Linear feature [022] was exposed in Trench 27, on a NW/SE alignment (Illus 4). After excavation of a slot, it was found to be V-shaped in profile, 1.9m wide and 0.92m deep (Illus 7 and 8). The feature is therefore likely to represent the remains of a ditch. The primary fill comprised brown silty clay [021] 0.3m deep, from which no finds were retrieved during fieldwork but processing of a bulk sample identified a sherd of 16th/17th century green glaze pottery and iron working waste in the form of slag fragments (see Appendix 2).

Fill [021] was partially sealed by brown clay [026]. This deposit was interpreted as an accumulation derived from the surrounding geological deposits; likely from weathering of the sides while the ditch was open. Brown clay silt [020] overlay the lower fills and was 0.27m deep. Wet sieving of samples found this deposit to contain rare quantities of glass and remnants of industrial waste in the form of slag and magnetic residue material. Over this was a layer of redeposited subsoil consisting of mottled brown and yellow silty clay [019], 0.48m deep. This deposit formed the upper fill of feature [022]. Sealing this was loam topsoil 0.4m deep.

Trench 29

A further linear feature, [036], was identified in Trench 29 (Illus 4). It was aligned NE/SW and was 2.6m wide. After excavation of a slot, it was found to be 1m deep, with the sides sloping sharply to a flattish base (Illus 9 and 10). The feature was also interpreted as the remains of a ditch. The primary fill [035] was grey sandy silt 0.34m deep, which contained iron slag and mortar fragments identified after after processing of a bulk sample (see Appendix 2). Sealing this and filling the remainder of ditch [036] was redeposited subsoil of mottled pink and grey clayey silt, 0.7m deep. The overlying loam topsoil was 0.4m deep.

Trench 21

Linear feature [037] was recorded in plan in Trench 21 (Illus 4). It was aligned NW/SE and was 2m in width. The feature appears to be an extension of ditch [022] in Trench 27 as it was on the same alignment and of similar width.

6.3 Palaeoenvironmental summary

The full results of the sample processing are provided in Appendix 3. Suitable material for AMS dating is also



Illus 7

NW facing shot of ditch [022] in Trench 27

identified within each table. All plant remains were preserved through charring.

Charred Plant remains

Charred plant remains were identified in five of the eight samples assessed ([003], [004], [012], [015] and [017]) ranging from rare to occasional instances. The cereals identified included hulled barley (*Hordeum vulgare*), emmer wheat (*Triticum dicoccum*) and indeterminate grain (*Cerealia* indet.) that were too poorly abraded and fragmentary to identify to species level. Hazel nutshell fragments (*Corylus avellana*) were identified in rare amounts in sample [003] from the fill of pit [005].

Together with the charred grain a small amount of wild taxa were found in rare to occasional abundances in the

form of fat hen (*Chenopodium album*) and ivy-leaved speedwell (*Veronica hederifolia*).

Wood charcoal

Wood charcoal fragments were present in two of the samples assessed [003] and [013] in rare to abundant instances with sizes ranging from <0.5 to 2.5cm maximum. The charcoal was identified by eye to be mostly oak (*Quercus* sp.) species in Sample 13 from the fill of pit [023] and mostly non-oak charcoal in sample [003] from pit [005].

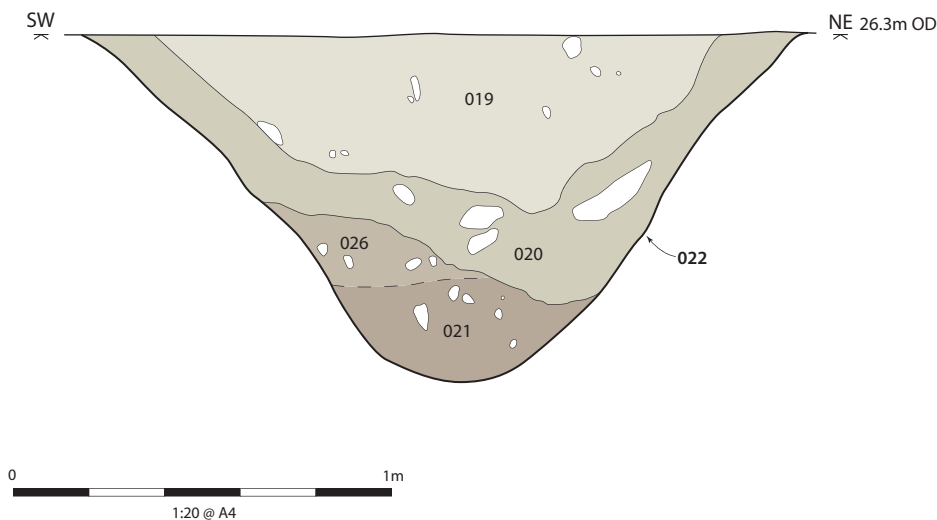
Other remains

Together with the charred plant remains recovered from samples, post medieval pottery was found in sample [015] from ditch [022] along with mortar (sample [017]; ditch [036]) and glass [sample 008; pit 014 and sample 012; ditch 022]. Ferrous industrial waste was identified in five [004, 008, 012, 015 and 017] of the eight samples in rare amounts and magnetic residue material was found in Sample 12 in common frequencies. Unburnt bone of probable small mammals [e.g. rodents] was identified in rare quantities from sample 004 in ditch [009] and sample 017 in ditch [036]. Marine shell was present in one sample [012] and terrestrial shell also in one sample [017]. Coal and/or cinder remains were found in all but two of the samples [003] and [013] in rare to occasional amounts (see Table A4.1).

7

7. DISCUSSION

The trial trenching as a whole revealed relatively few archaeological features. The overall pattern was of remains (occasional furrows along with rubble and ceramic field



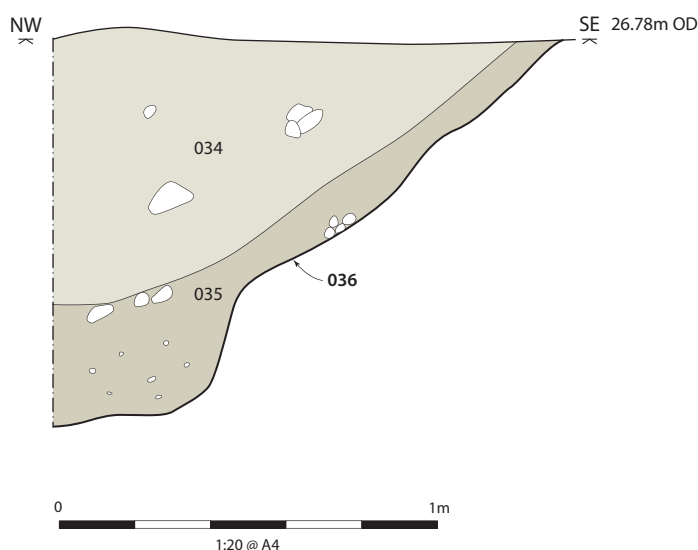
Illus 8

SE facing section of ditch [022] in Trench 27



Illus 9

NE facing shot of ditch [036] in Trench 29



Illus 10

SW facing section of Ditch [036] in Trench 29

8

drains) related to long-lived agricultural use of the area as attested by map evidence, which shows the area as enclosed fields from the 19th century.

The archaeological features recorded were limited to locations around the natural crest of a slope; a suitable place for settlement as confirmed by the presence of the neighbouring scheduled monuments at this topographic location. Although seemingly clustered, the features in the eastern part of the site may reflect activity spanning the prehistoric to medieval periods. The substantial ditch remains [009] identified in Trench 26 are likely to be part of the scheduled ditched enclosure to its immediate

east; which is presumed to be prehistoric. Unfortunately no dating evidence was recovered to confirm this date.

Environmental analysis of stone-lined pit [005] in Trench 34 found it to contain hazelnut shell and charcoal, observed to be mainly non-oak (see Appendix 3). This assemblage indicates the pit may also be of prehistoric date; with hazelnut shell a common find on sites of this period. Located adjacent to pit [005] was pit [023], which may have been associated with charcoal production due to the exclusive presence of charcoal in its fill. Despite the proximity, the identification of the charcoal in pit [023] as oak suggests a medieval date for the feature (see Appendix 3).

The ditch sections identified in the western part of the site may form part of the corner of a single, substantial boundary ditch due to their similar form, dimensions and the absence of any other ditches across the site. The presence of emmer wheat recovered from wet sieving of the fills of one ditch section [022] tentatively suggests a prehistoric date, with emmer having been recovered from a number of prehistoric sites in Scotland (Boyd 1988). However, the small quantity and poor condition of the grain indicate it could also represent intrusive or re-worked material.

It is more likely ditch [022] can be attributed a post medieval date, as a sherd of 16th/17th century green glaze pottery was retrieved from its basal fill (see Appendix 2). The presence of glass fragments and remnants of industrial waste in the ditch further support a later date (see Appendix 3). The ditch may have been constructed to enclose land associated with the 13th century Seton Collegiate Church or 16th century Seton Palace to the west. Moll's map of 1732 depicts a substantial square boundary around buildings marked 'Seaton' (Illus 11), however the map cannot be used to accurately locate any features.

The soil profile recorded throughout the evaluated area was relatively shallow: generally 0.4–0.6m. It is notable that a thicker plough soil has not accumulated despite the long history of agriculture. The shallow soil profile implies that erosion has caused topsoil to migrate downslope to the north where it accumulated as colluvium – as evidenced by a previous evaluation to the north (Bailey 2008). Extensive ploughing through the shallow soil profile could have eroded away many archaeological features, as there was no accumulation to protect them.



Illus 11

Moll's 1732 map showing approximate site location
Reproduced by permission of the Trustees of the National Library of Scotland

8. CONCLUSIONS

The results have shown that the overall objectives of the archaeological evaluation have been met. These were to determine the character, extent, condition, date and significance of any buried archaeological remains. It has been established that a cluster of truncated pits and ditch remains survive cut into geological deposits, limited to two areas of sensitivity. The date range of the features is diverse; extending from the prehistoric to post medieval periods. The features are of local to regional significance and therefore further mitigation is recommended.

9. BIBLIOGRAPHY

9.1 References

- Bailey, E, 2008, *Seton Sands Caravan Park, East Lothian: Results of an Archaeological Evaluation*, Headland Archaeology Ltd, Unpublished client report.
- Dutton, A, 2006, *Seton Sand, East Lothian: Results of an Archaeological Desk-based Study and Evaluation*, Headland Archaeology Ltd, Unpublished client report.

9.2 Cartographic resources

Moll, H, 1732, *Lothian : contains The Shire of Linlithgow or West Lothian. The Shire of Edinburgh or Midlothian. and Haddington or East Lothian.*



APPENDICES

Appendix 1 – Site registers

Context register

Context no.	Area	Description
001	TR43	Probable base of furrow or very shallow ditch. Sub linear cut running N-S across east end of TR43, filled with dark clayey silt. L: 10m visible; W:1.1m; D:0.09m
002	TR43	Fill of 001 - Dark greyish brown clayey silt. Inclusions: frequent small stones and very frequent charcoal
003	TR34	Semi circular cut of pit. L: 0.7m; W: 0.65m; D: 0.21m
004	TR34	Fill of 003 - soft, medium grey silty sand deposit
005	TR34	Cut of sub circular feature, ground water visible at bottom - seeping through sand. L: 1.2m; W: 0.85m; D: 0.22m
006	TR34	Fill of 005 - Dark grey silty sand. Inclusions: very frequent medium sized stones (0.1 x 0.1 x 0.05) and occasional large stones
007	TR26	Upper fill of ditch 009 - Medium dark brown silty sand. Uniform, well sorted stones in fill - suggests natural filling. D: 0.32m
008	TR26	Primary fill of ditch 009 - Mid greyish brown, gravelly sand. Naturally deposited. D: 0.2m
009	TR26	Ditch - possibly field boundary. May be part of ditch revealed in earlier evaluation. Linear cut, runs NW-SE across TR26. Steep sides - 60 degrees to E, almost vertical at W. Sharp break of slope. W: 1.7m; D: 0.53m
010	TR32	Cut of possible ditch, sub linear. Shallow and narrow feature running NE-SW at E end of TR32. W end of feature is very shallow. L: 2m; W: 0.2m; D:0.03m - 0.078m
011	TR32	Fill of 010 - soft, dark greyish brown silty sand
012	TR32	Cut of circular pit. L: 0.54m; W: 0.4m; D: 0.15m
013	TR32	Soft, dark brownish grey silty sand deposit, Fill of 012.
014	TR32	Cut of pit - sub circular feature running into north edge of TR32. L: 0.6m; W: 0.5m; D:0.23m
015	TR32	Soft, dark brownish grey silty sand fill of 014. Deposit homogenous, ground water seeping through at bottom.
016	TR41	Bottom end of NW-SE running ditch. Cut of linear feature running E-W across TR41 at west end. Feature ends half way through trench at east end with a slightly rounded shape. Amount of silting deposit 017 indicates it was probably left open for a long time before being backfilled. L: 2.6m visible; W: 1.05m; D: 0.22m
017	TR41	Primary fill of 016. Firm light yellowish grey clayey sand. Silting up of ditch 010
018	TR41	Upper fill of ditch 016 - soft dark greyish brown sandy silt with occasional gravel. L: 2.6m visible; W: 1.05m; D: 0.08m
019	TR27	Upper fill of ditch 022 (backfill), compact deposit of re-deposited natural which becomes more silty towards base of deposit. Firm, mottles brown/yellow brown silty clay. Containing moderate medium angular sandstone fragments and occasional charcoal. W: 1.45; D: 0.48m
020	TR27	Fill of ditch 022 - firm, dark brown clayey silt with occasional medium subrounded stones, occasional charcoal and shell fragments. Probably natural silting. W: 1.2m; D: 0.27m
021	TR27	Primary fill of ditch 022 - soft mid brown silty clay with moderate small to medium angular sub rounded stones and occasional shell and charcoal. Probably natural silting and stones from upper part of ditch. W: 0.6m; D: 0.27m
022	TR27	Cut of large ditch, poss prehistoric boundary ditch/ Steep, V shaped with rounded base cut through natural clay. Truncated west side by field drain. W: 1.9m; D: 0.92m
023	TR34	Cut of pit - sub circular pit cut into yellow sandy natural soil. L: 0.9m; W: 0.75m; D: 0.15m
024	TR34	Primary fill of 023 - soft dark grey and black clayey sand. Possible presence of waterlogged deposit before pit was backfilled? L: 0.9m, W: 0.75m; D: 0.11m
025	TR34	Upper fill of pit 023. Soft medium grey clay silt. L: 0.9m; W: 0.75m; D: 0.04m
026	TR27	Fill of ditch - redeposited natural possible partial collapse of sides? Visible in west side of ditch, appears to be redeposited natural. Contains small sandstone frags.
027	TR18	Poss small pit or root, dark brown silt. W: 0.47; D: 0.2m - fill

Context no.	Area	Description
028	TR18	Cut of small feature - irregular and uneven
029	TR02	Stone culvert - angular andstone blocks, not bonded, laid in 2 courses on nat clat forming 0.2m wide drain, capped with large sandstone slabs, runs NW-SE. Rubble drain added later. W: 0.53; D: 0.19
030	TR02	Fill of 029 - gritty loose grey gravelly silt with occ small stones
031	TR02	Stone culvert - side stones and uppper slabs of stone culvert, constructed as 029 to E, only upper part opf culvert exposed. W: 0.6m
032	TR02	Fill of 033 - friable mid brown sandy silt. W: 0.7m
033	TR02	Cut for culvert 031 - linear, running N -SE
034	TR29	Upper fill for ditch 036 - compact mixed light pink and brownish grey clayey silt. With frequent medium stones and degraded mudstone. L: 2m visible; w: 2.6, d: 0.7m
035	TR29	Upper fill of ditch 036 - firm dark grey sandy silt. L:2m visible, W: 2.6; D: 0.34
036	TR29	Cut of ditch - sloping steeply - enclosure ditch pos related with similar feature in TR27 L: 2m visible; W: 2.6; D: 1.04m
037	TR21	Unexcavated ditch segment 2m wide. Probably same as Ditch 22 in TR27

Sample register

Sample no.	Context no.	Description
001	002	TR43 - Silty fill of linear feature 001 (40l)
002	004	TR34 - Sandy fill of 003 (30l)
003	006	TR34 - Sandy fill of 005 (40l)
004	007	Dark brown silty sand, upper fill of ditch 009 (40l)
005	008	Dark greyish brown gravelly sand, fill of ditch 009 (40l)
006	011	Dark greyish brown silty sand fill of 010 (10l)
007	013	Dark brown gravelly sandy fill of 012 (10l)
008	015	Dark grey sandy fill of pit 014 (20l)
009	017	Primary clayey sandy fill of ditch 010 (30l)
010	018	Upper sandy silt fill of ditch 010 (40l)
011	019	TR27 - Upper fill of ditch 022 (40l)
012	020	TR27 - Fill of ditch 022 (40l)
013	024	Primary fill of pit 023 (10l)
014	025	Upper fill of pit 023 (10l)
015	021	TR27 - Primary fill of ditch 022 (40l)
016	034	Upper fill of ditch 036 (30l)
017	035	Primary fill of ditch 036 (40l)

Photo register

Photo no.	Direction	Description
001	S	TR43 - North facing section of linear feature 001
002	NW	TR43 - General shot of TR43
003	S	TR34 - North facing section of pit 003
004	S	TR34 - General shot of pit 003
005	W	TR34 - East facing section of pit 005
006	SE	TR26 - Ditch 009 NW facing section
007	W	General view of trenches
008	NW	General view of trenches
009	SE	TR32 - General shot of ditch 010
010	NW	TR32 - SE facing section of pit 012
011	E	TR32 - W facing section of pit 014
012	W	TR41 - E facing section of ditch 016
013	N	TR41 - E facing section of ditch 016
014	N	TR26 - Ditch 009
015	NW	TR26 - Extension to TR26 under excavation
016	SE	TR34 - NW facing section of pit 023
017	SE	TR27 - Ditch 022 in section
018	NW	TR27 - Ditch 022 in section
019	E	TR27 - General view of east half of TR27 showing ditch 022
020	N	TR21 - Ditch 022
021	NW	TR27 - Ditch 022 in better light



Photo no.	Direction	Description
022	E	TR27 - General shot of TR27 in better light
023	NW	TR02 - Stone culvert 029
024	NW	TR02 - Stone culvert 031
025	W	TR02 - General shot of TR02
026	SE	TR29 - Working shot, ditch
027	NE	TR29 - General shot of ditch 036
028	NE	TR29 - SW facing section of ditch 036
029	NE	General shot of trench from from SW corner of field
030	SW	General shot of trench from SW corner of scheduled monument
031	NE	General shot of trench from SW corner of scheduled monument
032	SW	General shot of trenches from middle of TR32
033	W	General shot of trenches from middle of TR32
034	NE	General shot of trenches from middle of TR32
035	SE	General shot of trenches from middle of TR32
036	S	General shot of trenches from middle of TR32
037	NE	TR34 - General shot of pit 005 showing stones lining edges and base of pit
038	SW	TR34 - General shot of pit 005 showing stones lining edges and base of pit
039	SW	TR34 - Post excavation shot of pit 005
040	NE	TR34 - Post excavation shot of pit 005
041	N	Shot in plan of ditch segment beside S.A.M.
042	N	Shot in plan of ditch segment beside S.A.M.

Drawing register

Drawing no.	Section	Description
001	*	NW facing section of ditch 009 (EJ)
002	*	SW facing section of ditch 016 (SBM)
003	*	SE facing section of ditch 016 (SBM)
004	*	NW facing section of pit 023 (SBM)
005	*	SW facing section of ditch 022 (EJ)
006	*	NE facing half section of ditch 010 (SBM)
007	*	W facing half section of ditch 010 (SBM)
008	*	N facing section of pit 003 (SBM)
009	*	E facing section of pit 005 (SBM)
010	*	SE facing section of pit 012 (SBM)
011	*	W facing section of pit 014 (SBM)
012	*	SW facing section of ditch 036 (SBM)

Appendix 2 – Trench register

TRENCH 1 Orientation: E-W

Length (m): 100

Width (m): 2

Max. depth (m): 0.4

Avg depth (m): 0.3

Context no.	Description	Depth (m)
-	Loam topsoil	0.4
-	furrow aligned N-S, 1.5m wide	0.05m
-	Mottled clay & sand subsoil	-

TRENCH 2 Orientation: E-W

Length (m): 100

Width (m): 2

Max. depth (m): 0.5

Avg depth (m): 0.3

Context no.	Description	Depth (m)
-	Loam topsoil	0.4
-	Furrow, aligned N-S	0.05m
029	Sandstone culvert. 0.53m wide	0.19m
031	Sandstone culvert. 0.6m wide	-
-	Rubble field drain, aligned N-S	-
-	Ceramic field drains, aligned N-S	-
-	Yellow/brown clay and gravel subsoil	-

TRENCH 3 Orientation: SWW-NEE

Length (m): 40

Width (m): 2

Max. depth (m): 0.3

Avg depth (m): 0.3

Context no.	Description	Depth (m)
-	Loam topsoil	0.3
-	No archaeological features	-
-	Sand, gravel and grey clay subsoil	-

TRENCH 4 Orientation: N-S

Length (m): 50

Width (m): 2

Max. depth (m): 0.45

Avg depth (m): 0.4

Context no.	Description	Depth (m)
-	Loam topsoil	0.4

-	No archaeological features	-
-	Sand and gravel subsoil with sandstone	-

TRENCH 5 Orientation: E-W

Length (m): 50

Width (m): 2

Max. depth: 0.5

Avg depth: 0.4

Context no.	Description	Depth (m)
-	Loam topsoil	0.4
-	Ceramic field drains	-
-	Sand and gravel subsoil	-

TRENCH 6 Orientation: E-W

Length (m): 50

Width (m): 2

Max. depth (m): 0.45

Avg depth (m): 0.4

Context no.	Description	Depth (m)
-	Loam topsoil	0.4
-	Rubble field drain, aligned N-S	-
-	Gravel, sand and yellow/brown clay subsoil	-

TRENCH 7 Orientation: SW-NE

Length (m): 50

Width (m): 2

Max. depth (m): 0.55

Avg depth (m): 0.5

Context no.	Description	Depth (m)
-	Loam topsoil	0.4
-	No archaeological features	-
-	Sand and gravel subsoil	-

TRENCH 8 Orientation: SSW-NNE

Length (m): 50

Width (m): 2

Max. depth (m): 0.7

Avg depth (m): 0.6

Context no.	Description	Depth (m)
-	Loam topsoil	0.6
-	No archaeological features	-
-	Sand and gravel subsoil	-

**TRENCH 9** Orientation: E-W

Length (m): 50
Width (m): 2
Max. depth (m): 0.65
Avg depth (m): 0.6

Context no.	Description	Depth (m)
–	Loam topsoil	0.6
–	No archaeological features	–
–	Sand and gravel subsoil	–

TRENCH 10 Orientation: W-E

Length (m): 100
Width (m): 2
Max. depth (m): 0.55
Avg depth (m): 0.5

Context no.	Description	Depth (m)
–	Loam topsoil	0.5
–	Field drain, aligned NW-SE	–
–	Sand subsoil with frequent sandstone	–

TRENCH 11 Orientation: NE-SW

Length (m): 50
Width (m): 2
Max. depth (m): 0.5
Avg depth (m): 0.4

Context no.	Description	Depth (m)
–	Loam topsoil	0.4
–	Ceramic field drain, aligned NW-SE	–
–	Sand and gravel subsoil	–

TRENCH 12 Orientation: NE-SW

Length (m): 50
Width (m): 2
Max. depth (m): 0.7
Avg depth (m): 0.6

Context no.	Description	Depth (m)
–	Loam topsoil	0.6
–	No archaeological features	–
–	Sand subsoil and sandstone bedrock	–

TRENCH 13 Orientation: N-S

Length (m): 80
Width (m): 2

Max. depth (m): 0.7**Avg depth (m):** 0.5

Context no.	Description	Depth (m)
–	Loam topsoil	0.6
–	No archaeological features	–
–	Sand and gravel subsoil	–

TRENCH 14 Orientation: N-S

Length (m): 50
Width (m): 2
Max. depth (m): 0.6
Avg depth (m): 0.55

Context no.	Description	Depth (m)
–	Loam topsoil	0.6
–	Modern rubbish pit	–
–	Sandstone and gravel subsoil	–

TRENCH 15 Orientation: NE-SW

Length (m): 50
Width (m): 2
Max. depth (m): 0.45

Context no.	Description	Depth (m)
–	Loam topsoil	0.4
–	Ceramic field drains, aligned N-S	–
–	Stone and gravel subsoil	–

TRENCH 16 Orientation: W-E

Length (m): 50
Width (m): 2
Max. depth (m): 0.7
Avg depth (m): 0.7

Context no.	Description	Depth (m)
–	Loam topsoil	0.4
–	Furrow/ditch aligned N-S, 1m wide	0.05m
–	Ceramic field drain, aligned N-S	–
–	Stone and gravel subsoil	–

TRENCH 17 Orientation: N-S

Length (m): 50
Width (m): 2
Max. depth: 0.6
Avg depth: 0.5

Context no.	Description	Depth (m)
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- Loam topsoil 0.6
- No archaeological features -
- Sand and gravel subsoil -

TRENCH 18 Orientation: NW-SE

Length (m): 50
Width (m): 2
Max. depth (m): 0.55
Avg depth (m): 0.5

Context no.	Description	Depth (m)
-	Loam topsoil	0.5
-	No archaeological features	-
-	Sand and gravel subsoil	-

TRENCH 19 Orientation: N-S

Length (m): 50
Width (m): 2
Max. depth (m): 0.7
Avg depth (m): 0.5

Context no.	Description	Depth (m)
-	Loam topsoil	0.5
-	Plough scores	-
-	Sand and gravel subsoil	-

TRENCH 20 Orientation: NE-SW

Length (m): 50
Width (m): 2
Max. depth (m): 0.7
Avg depth (m): 0.5

Context no.	Description	Depth (m)
-	Loam topsoil	0.6
-	No archaeological features	-
-	Stone and gravel subsoil. Weathered sandstone.	-

TRENCH 21 Orientation: NW-SE

Length (m): 50
Width (m): 2
Max. depth (m): 0.6
Avg depth (m): 0.5

Context no.	Description	Depth (m)
-	Loam topsoil	0.5
022	Unexcavated ditch segment,	-
-	Aligned NW-SE; 2m wide	-
-	Sand, gravel and clay subsoil	-

TRENCH 22 Orientation: NE-SW

Length (m): 50
Width (m): 2
Max. depth (m): 0.7
Avg depth (m): 0.6

Context no.	Description	Depth (m)
-	Loam topsoil	0.6
-	No archaeological features	-
-	Sand and gravel subsoil	-

TRENCH 23 Orientation: NW-SE

Length (m): 50
Width (m): 2
Max. depth (m): 0.4
Avg depth (m): 0.3

Context no.	Description	Depth (m)
-	Loam topsoil	0.6
-	Ceramic field drain, aligned E-W	-
-	Sand and gravel subsoil	-

TRENCH 24 Orientation: NW-SE

Length (m): 50
Width (m): 2
Max. depth (m): 0.4
Avg depth (m): 0.35

Context no.	Description	Depth (m)
-	Loam topsoil	0.35
-	No archaeological features	-
-	Sand and gravel subsoil	-

TRENCH 25 Orientation: N-S

Length (m): 50
Width (m): 2
Max. depth (m): 0.7
Avg depth (m): 0.55

Context no.	Description	Depth (m)
-	Loam topsoil	0.55
-	No archaeological features	-
-	Sandstone and sand subsoil	-

TRENCH 26 Orientation: N-S

Length (m): 50 (+100 after trench expanded)
Width (m): 2
Max. depth (m): 0.6



Avg depth (m): 0.6

Context no.	Description	Depth (m)
–	Loam topsoil	0.6
007	Upper fill of Ditch 09;	0.3
–	Dark brown loam	–
008	Primary fill of Ditch 09;	0.2
–	Brown sand and gravel	–
009	NW-SE aligned ditch.	–
010	Over 53m long, 4.5m wide.	0.5
–	Sand and gravel subsoil	–

TRENCH 27 Orientation: E-W

Length (m): 50

Width (m): 2

Max. depth (m): 0.5

Avg depth (m): 0.4

Context no.	Description	Depth (m)
–	Loam topsoil	0.4
019	Upper fill of Ditch 022;	0.48
–	Brown/yellow silty clay.	–
020	Fill of Ditch 022;	0.27
–	Brown clay silt.	–
026	Fill of Ditch 022; brown clay	0.2
021	Primary fill of Ditch 022;	0.3
–	brown silty clay.	–
021	V-shaped ditch, 1.9m wide;	0.92
–	Aligned NW-SE.	–
–	Furrows, aligned N-S	0.05
–	Sand and gravel subsoil	–

TRENCH 28 Orientation: NE-SW

Length (m): 50

Width (m): 2

Max. depth (m): 0.45

Avg depth (m): 0.4

Context no.	Description	Depth (m)
–	Loam topsoil	0.4
–	Furrows, aligned N-S. 6-8m apart	0.1
–	Ceramic field drains, aligned N-S	–
–	Sand and gravel subsoil	–

TRENCH 29 Orientation: N-S

Length (m): 50

Width (m): 2

Max. depth (m): 0.8

Avg depth (m): 0.6

Context no.	Description	Depth (m)
–	Loam topsoil	0.6
034	Upper fill of Ditch 36;	0.7
–	pink and grey clay silt.	–
035	Lower fill of Ditch 36;	0.34
–	grey sandy silt.	–
036	Ditch cut aligned NE-SW;	1.0
–	2.6m wide	–
–	Sand and gravel subsoil	–

TRENCH 30 Orientation: NE-SW

Length (m): 50

Width (m): 2

Max. depth (m): 0.7

Avg depth (m): 0.6

Context no.	Description	Depth (m)
–	Loam topsoil	0.6
–	Furrows, aligned N-S	0.05
–	Sand and gravel subsoil	–

TRENCH 31 Orientation: NE-SW

Length (m): 50

Width (m): 2

Max. depth (m): 0.7

Avg depth (m): 0.5

Context no.	Description	Depth (m)
–	Loam topsoil	0.5
–	Rubble drain, aligned E-W	–
–	Sand and gravel subsoil. Weathered sandstone	–

TRENCH 32 Orientation: NEE-SWW

Length (m): 80

Width (m): 2

Max. depth (m): 0.7

Avg depth (m): 0.5

Context no.	Description	Depth (m)
–	Loam topsoil	0.6
013	Fill of Pit (012).	0.15
012	Oval pit. 0.54m long, 0.4m wide.	0.15
015	Fill of pit/linear 014.	0.27

014	Partially exposed pit/linear;	0.27
–	0.6m visible length, 0.5m wide.	–
011	Fill of pit/linear (010)	0.05
010	Partially exposed shallow pit/linear;	0.05
	2m long, 0.2m wide.	
	Clayey sand subsoil	

TRENCH 33 Orientation: E-W

Length (m): 50
Width (m): 2
Max. depth (m): 0.45
Avg depth (m): 0.4

Context no.	Description	Depth (m)
	Loam topsoil	0.4
	Ceramic field drains, aligned N-S	
	Sand and gravel subsoil	

TRENCH 34 Orientation: N-S

Length (m): 50 (+24 after trench expanded)
Width (m): 2
Max. depth (m): 0.5
Avg depth (m): 0.4

Context no.	Description	Depth (m)
–	Loam topsoil	0.4
004	charcoal-rich fill of Pit (03)	0.21
003	sub round pit, 0.65m wide	0.21
006	Fill of Pit (05)	0.22
005	Sub oval stone-lined pit;	0.22
–	1.2m long, 0.85m wide.	–
024	Fill of Pit (23)	0.15
023	Sub round pit, 0.8m wide	0.22
–	Sand and gravel subsoil	–

TRENCH:35 Orientation: NWW-SEE

Length (m): 50
Width (m): 2
Max. depth (m): 0.8
Avg depth (m): 0.6

Context no.	Description	Depth (m)
–	Loam topsoil	0.6
–	No archaeological features	–
–	Sand and gravel subsoil	–

TRENCH 36 Orientation: N-S

Length (m): 80
Width (m): 2
Max. depth (m): 0.35
Avg depth (m): 0.3

Context no.	Description	Depth (m)
	Loam topsoil	0.3
	Rubble and ceramic field drains; aligned N-S	
	Sand and gravel subsoil	

TRENCH 37 Orientation: NW-SE

Length (m): 50
Width (m): 2
Max. depth (m): 0.6
Avg depth (m): 0.5

Context no.	Description	Depth (m)
–	Loam topsoil	0.6
–	Rubble drain, aligned E-W	–
–	Sand and gravel subsoil	–

TRENCH 38 Orientation: N-S

Length (m): 80
Width (m): 2
Max. depth (m): 0.6
Avg depth (m): 0.6

Context no.	Description	Depth (m)
	Loam topsoil	0.6
	Ceramic drains, NW-SE	
	Sand, gravel and clay subsoil	

TRENCH 39 Orientation: NW-SE

Length (m): 50
Width (m): 2
Max. depth (m): 0.6
Avg depth (m): 0.5

Context no.	Description	Depth of deposit (m)
–	Loam topsoil	0.5
–	Rubble drains, aligned E-W	
–	Modern trackway make-up;	
–	Tarmac and stone	
–	Sand and gravel subsoil	



TRENCH 40 Orientation: NW-SE

Length (m): 100

Width (m): 2

Max. depth (m): 0.7

Avg depth (m): 0.5

Context no.	Description	Depth (m)
–	Loam topsoil	0.5
–	Ceramic and rubble field drains;	–
–	Aligned E-W	–
–	Clayey sand subsoil with degraded sandstone	–

TRENCH 41 Orientation: E-W

Length (m): 50

Width (m): 2

Max. depth (m): 0.5

Avg depth (m): 0.5

Context no.	Description	Depth (m)
–	Loam topsoil.	0.6
018	Upper fill of pit/ditch (016); grey brown loam.	0.08
017	Lower fill of pit/ditch (016); yellow grey clayey sand.	0.14
016	Oval pit/ditch terminal; 2.6m long, 1m wide.	0.22
–	Sand and gravel subsoil	–

TRENCH 42 Orientation: NE-SW

Length (m): 100

Width (m): 2

Max. depth (m): 0.7

Avg depth (m): 0.6

Context no.	Description	Depth (m)
–	Loam topsoil	0.6
–	Furrows aligned N-S	–
–	Rubble drain aligned N-S	–
–	Ceramic drains aligned N-S & E-W	–
–	Clay and sand subsoil	–

TRENCH 43 Orientation: NW-SE

Length (m): 52

Width (m): 2

Max. depth (m): 0.5

Avg depth (m): 0.4

Context no.	Description	Depth (m)
–	Loam topsoil	0.4
002	Fill of furrow (01);	0.1
–	Grey brown clay silt.	–
001	Furrow aligned N-S. 1.1m wide	0.1
–	Clay, sand and gravel subsoil	–

TRENCH 44 Orientation: E-W

Length (m): 50

Width (m): 2

Max. depth (m): 0.6

Avg depth (m): 0.5

Context no.	Description	Depth (m)
–	Loam topsoil	0.5
–	Ceramic field drains, aligned E-W	–
–	Sand and gravel subsoil	–

TRENCH 45 Orientation: NE-SW

Length (m): 50

Width (m): 2

Max. depth (m): 0.6

Avg depth (m): 0.5

Context no.	Description	Depth (m)
–	Loam topsoil	0.5
–	Modern pit 0.25m diameter	>0.4
–	Clay and gravel subsoil	–

TRENCH 46 Orientation: NW-SE

Length (m): 40

Width (m): 2

Max. depth (m): 0.6

Avg depth (m): 0.5

Context no.	Description	Depth (m)
–	Loam topsoil	0.5
–	Ceramic field drain, aligned NW-SE	–
–	Sand and gravel subsoil	–

TRENCH 47 Orientation: NEE-SWW

Length (m): 50

Width (m): 2

Max. depth (m): 0.5

Avg depth (m): 0.4

Context no.	Description	Depth (m)
–	Loam topsoil	0.4

- Ceramic field drains, aligned N-S -
- Silt and gravel subsoil with shale lenses -

TRENCH 48 Orientation: NE-SW

Length (m): 20

Width (m): 2

Max. depth (m): 0.5

Avg depth (m): 0.3

Context no.	Description	Depth (m)
-	Loam topsoil	0.3
-	No archaeological features	-
-	Stone, gravel, mottled clay subsoil	-

TRENCH 49 Orientation: NW-SE

Length (m): 15

Width (m): 2

Max. depth (m): 0.4

Avg depth (m): 0.3

Context no.	Description	Depth (m)
-	Loam topsoil	0.3
-	No archaeological features	-
-	Stone, gravel, mottled clay subsoil	-



Appendix 3 – Finds assessment

The finds assemblage was very small and could all be dated to the post-medieval and modern periods. The finds include three sherds of pottery, six of glass, two iron fragments, with 31g of ironworking waste and 6g of mortar.

The earliest of the pottery sherds is a small body sherd of locally made post-medieval reduced ware. It was found in the lower ditch fill [021] and is likely to be of 16th or 17th century date. The only finds associated with this were some fragments of iron-working waste.

None of the other finds provide secure dating evidence. The pottery and glass fragments ([015], [020]) are of modern date but are so small that their presence in these deposits may be the result of bio-turbation. The iron, slag and mortar fragments cannot be closely dated, but are likely to be contemporary with the post-medieval or modern finds.

Finds catalogue

20

Context no.	Sample no.	Qty	Weight (g)	Material	Object	Description	Spot Date	Period
007	004	1	1	Industrial Waste	Iron Slag	fragment	–	–
015	008	2	–	Pottery (Mod)	Fragments	whiteware, redware	–	Mod
015	008	1	–	Industrial Waste	Iron Slag	fragment	–	–
015	008	5	–	Glass	Bottle	fragments of brown & colourless glass	–	Mod
020	012	1	–	Glass	Fragments	very small	–	–
020	012	–	–	Industrial Waste	Mag Res	–	–	–
020	012	2	6	Industrial Waste	Iron Slag	–	–	–
020	012	2	–	Iron	Fragments	–	–	–
021	015	4	10	Industrial Waste	Iron Slag	–	–	–
021	015	1	–	Pottery (PM)	PMR	grey fabric with oxidised red interior, olive green glazed exterior, slightly sandy fabric	16th/17th	PM
035	017	5	14	Industrial Waste	Iron Slag	small pieces	–	–
035	017	5	6	Mortar	Fragments	–	–	–

Appendix 4 – Palaeoenvironmental sample assessment

Introduction

Seventeen bulk soil samples were taken during the excavation at Seton Sands Holiday Centre, in the outskirts of Edinburgh and eight of these were processed for palaeoenvironmental assessment. The processed samples were taken from potential prehistoric pit and ditch fills that were identified during the excavation; the site is interpreted as being a prehistoric settlement site. The assessment aims to look at the palaeoenvironmental potential of the material and what information these can provide on the function and use of the site.

Method

Samples were processed in laboratory conditions using a standard floatation method (*cf.* Kenward *et al.*, 1980). All plant macrofossil samples were analysed using a stereomicroscope at magnifications of x10 and up to x100 where necessary to aid identification. Identifications were confirmed using modern reference material and seed atlases including Cappers *et al.* (2006). Any charred plant remains were recorded using a simple four-point scale as follows: + = rare, ++ = occasional, +++ = common, ++++ = abundant. Notes were also made on the condition of the charred plant remains.

Results

The results of the sample processing are provided in Tables A4.1 (Retent finds) and A4.2 (Floatation finds). Suitable material for AMS dating is also identified within each table. All plant remains were preserved through charring.

Charred plant remains

Charred plant remains were identified in five of the eight samples assessed [003, 004, 012, 105 and 017] ranging from rare to occasional instances. The cereals identified included hulled barley (*Hordeum vulgare*), emmer wheat (*Triticum dicoccum*) and indeterminate grain (*Cerealia indet.*) that were too poorly abraded and fragmentary to identify to species level. Hazel nutshell fragments (*Corylus avellana*) were identified in rare amounts in sample [003].

Together with the charred grain a small amount of wild taxa were found in rare to occasional abundances in the form of fat hen (*Chenopodium album*) and ivy-leaved speedwell (*Veronica hederifolia*).

Wood charcoal

Wood charcoal fragments were present in two of the samples assessed ([003] and [013]) in rare to abundant instances with sizes ranging from <0.5 to 2.5cm maximum. The charcoal was identified by eye to be mostly oak (*Quercus sp.*) species in sample [013] and mostly non-oak charcoal in sample [003].

Other remains

Together with the charred plant remains recovered from samples, post medieval pottery was found in rare frequencies in sample [015] along with mortar (sample [017]) and glass (samples [008] and [102]). Ferrous industrial waste was identified in five ([004], [008], [012], [015] and [017]) of the eight samples in rare amounts and magnetic residue material was found in Sample 12 in common frequencies. Unburnt bone of probable small mammals (e.g. rodents) was identified in rare quantities from two samples ([004] and [017]). Marine shell was present in one sample [012] and terrestrial shell also in one sample [017]. Coal and/or cinder remains were found in all but two of the samples [003 and 013] in rare to occasional amounts (see Table A4.1).

Discussion

The eight samples assessed from site SSHC11 contained a small quantity of palaeoenvironmental material. These are discussed below by feature type. 21

Ditch features

Three samples ([011], [012] and [015]) were taken from ditch feature [022] this contained sparse numbers of charred cereal grain with barley, emmer wheat and indeterminate grain present in single figure quantities. Small numbers of wild taxa were also recovered with fat hen and ivy-leaved speedwell present; both of these may relate to ruderals. The presence of emmer wheat tentatively suggests a prehistoric date for the feature, with emmer having been recovered from a number of prehistoric sites in Scotland (Boyd 1988). However, the small quantity and poor condition of the grain indicates it could also represent intrusive or re-worked material.

One sample [017] was taken from the fill of ditch [036] and this also contained a small quantity of indeterminate grain (see Table A4.2).

A range of other materials were also recovered from the fills of ditch [022] including post medieval pottery in the basal fill, glass sherds and iron slag. These materials would indicate a later date for the ditch, especially given their presence in the basal fill. The presence of oyster shell in ditches [022] and [036] may also be indicative of food debris accumulating in the ditches.



Pit features

Two samples ([008] and [013]) were taken from the fills of pits [014] and [023], respectively. Neither feature contained any (non-charcoal) charred plant remains. pit [023] contained abundant charcoal fragments, which were observed to be mainly oak charcoal (see Table A4.1). The presence of only (oak) charcoal in the pit suggests it may relate to charcoal production, which would suggest a medieval date. The absence of coal may also indicate this pit was in use during an earlier period than ditches ([022] and [036]).

Sub-circular feature (005)

One sample [003] was taken from sub-circular feature [005], which was found to contain hazel nutshell and charcoal, observed to be mainly non-oak (see Tables A4.1 and A4.2). The assemblage indicates this feature may be of prehistoric date, with hazel nut shell a common find on

sites of this period. This is also indicated by the absence of any medieval materials as recovered in previous samples (see above). Charred seeds of fat hen and ivy-leaved speedwell were also recovered; however, these may relate to intrusive material from later activity at the site.

Conclusions

- A small quantity of charred cereal grain was recovered from the site, with the presence of emmer in particular suggesting prehistoric activity, although this is likely to have been reworked.
- The overall assemblage indicates 2 to 3 phases of activity at the site with the earliest (prehistoric) activity likely to relate to sub-circular feature [005], followed later by pit [023] and then the other features on site.

Context no.	Sample no.	Sample Vol (l)	Ceramic	Building Materials	Glass	Industrial Waste	Unburnt bone	Shell	Marine	Terrestrial	Charred plant	Charcoal	Material available for AMS Dating	Cinders	Coal	Comments	
																	Pottery
Ditch fill deposits																	
	004	40	-	-	-	+	-	-	-	-	-	-	-	++	++	++	Coal and cinder not retained.
	011	10	-	-	-	-	-	-	-	-	-	-	-	+	+	+	Coal and cinder not retained.
	012	40	-	-	+	+++	-	+	-	-	-	-	-	-	+	+	Oyster shell present. Coal not retained.
	015	40	+	-	-	+	-	-	-	-	-	-	-	+	+	+	Cinder not retained.
	017	40	-	+	-	+	+	-	-	+	-	-	-	+	+	+	Snail shell present. Coal and cinder not retained.
Pit fill deposits																	
	008	20	+	-	+	+	-	-	-	-	-	-	-	+	+	+	Coal and cinder not retained.
	013	10	-	-	-	-	-	-	-	-	-	++++	2.5	-	-	-	Mostly Oak charcoal.
Sib-circular feature deposits																	
	003	40	-	-	-	-	-	-	-	-	+	+++	1.5	-	-	-	Mostly non-oak Charcoal ++, Charred nutshell +

Key + = rare, ++ = occasional, +++ = common and ++++ = abundant

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

Table A4.1

Retent finds



Context no.	Sample no.	Total float Vol (ml)	Cereal grain:			Triticum dicoccum	Cerealia indet.	Other plant remains	Charcoal		Comments
			Hordeum vulgare						Qty	Max size (cm)	
Ditch fill deposits											
007	004	100	-	+	-	++	Veronica hederifolia ++	-	-	Charred grain +	-
019	011	5	-	-	-	-	-	-	-	-	Archaeologically Sterile
020	012	25	-	+	+	+	-	-	-	Charred grain +	-
021	015	10	-	+	-	-	Chenopodium album +	-	-	-	Shell +
035	017	20	-	-	-	+	-	-	-	-	Shell ++
Pit fill deposits											
015	008	75	-	-	-	-	-	-	-	-	Archaeologically Sterile
024	013	10	-	-	-	-	-	-	-	-	Archaeologically Sterile
Sub-circular feature deposits											
006	003	75	-	-	-	-	Veronica hederifolia ++, Chenopodium album +	+	<0.5	-	-

Key + = rare, ++ = occasional, +++ = common and ++++ = abundant
 NB charcoal over 1cm is suitable for identification and AMS dating

Table A4.2
 Flotation finds

Appendix 5 – Discovery and Excavation in Scotland Entry

LOCAL AUTHORITY:	East Lothian
PROJECT TITLE/SITE NAME:	Seton Sands Holiday Village
PROJECT CODE:	SSHC11
PARISH:	Tranent
NAME OF CONTRIBUTOR(S):	Alistair Robertson
NAME OF ORGANISATION:	Headland Archaeology Ltd
TYPE(S) OF PROJECT:	Evaluation
NMRS NO(S):	NT47NW 19, 58 & 63
SITE/MONUMENT TYPE(S):	Prehistoric enclosure; medieval church
SIGNIFICANT FINDS:	–
NGR (2 letters, 8 or 10 Figures)	NT 421 753
START DATE (this season)	31st October 2011
END DATE (this season)	4th November 2011
PREVIOUS WORK (incl. DES ref.)	Dutton A 2006 (DES 2006, 62); Bailey, E 2008 (DES 2008, 65)
MAIN (NARRATIVE) DESCRIPTION: (May include information from other fields)	<p>An archaeological programme of trial trenching was carried out in order to satisfy a condition of planning consent for an expansion of Seton Sands Holiday Village, East Lothian. The evaluated area covered identified areas of ground disturbance within a proposed 9-hole golf course and access road. The trial trenching predominantly revealed in-filled furrows and field drains dispersed across the site, sealed beneath topsoil on average 0.5m deep.</p> <p>A number of archaeological features were identified during the work, comprising a cluster of pits and ditch remains. On the basis of recovered artefacts and botanical evidence, the features appear to range in date from the prehistoric through to post medieval periods. A length of ditch revealed adjacent to the scheduled prehistoric enclosure at the east of the site is likely to be contemporary with it, while segments of ditch exposed to the west appear to be of 16th/17th century origin. They may be associated with Seton Collegiate church, founded in the 13th century, or the 16th century Seton Palace. The cluster of pits appears to vary in age from prehistoric to medieval, despite their proximity, and include a probable medieval charcoal production pit.</p> <p>The small number of features recorded can be attributed in part to the fact that the soils appear to have undergone significant erosion; migrating down slope. This is evident from a previous evaluation to the north where thick colluvium had accumulated beneath the topsoil (Bailey 2008). The long history of agriculture in the area has presumably truncated away a significant portion of the archaeological record through ploughing of the shallow soil.</p>
PROPOSED FUTURE WORK:	unknown
ARCHIVE LOCATION (intended/ deposited)	Report to be lodged with East Lothian SMR and NMRS.
SPONSOR OR FUNDING BODY:	NHS Lothian
CAPTION(S) FOR ILLUS:	–
ADDRESS OF MAIN CONTRIBUTOR:	Headland Archaeology Ltd, 13 Jane St, Edinburgh, EH6 5HE
EMAIL ADDRESS:	alistair.robertson@headlandarchaeology.com



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North East (HQ)

13 Jane Street, Edinburgh EH6 5HE

T 0131 467 7705 • F 0131 467 7706 • E office@headlandarchaeology.com

North West

10 Payne Street, Glasgow G4 0LF

T 0141 354 8100 • F 0141 332 9388 • E glasgowoffice@headlandarchaeology.com

Midlands & West

Unit 1, Premier Business Park, Faraday Road, Hereford HR4 9NZ

T 0143 236 4901 • F 0143 236 4900 • E hereford@headlandarchaeology.com

South & East

Technology Centre, Stanbridge Road, Leighton Buzzard, Bedfordshire LU7 4QH

T 01525 850 878 • E leighton.buzzard@headlandarchaeology.com

www.headlandarchaeology.com