

**ARCHAEOLOGICAL EVALUATION REPORT;
LAND OFF SOUTH PARK, LINCOLN**

NGR: SK 9750 6987
SITE CODE: LSPL03
LCNCC ACC. NO: 2003.62
Planning ref. L/0563/02
PCA Job No. 120

Report prepared for Bovis Lend Lease Ltd.

by

Chris Clay

April 2003



Pre-Construct Archaeology (Lincoln)
Unit G
William Street Business Park
Saxilby, Lincoln
LN1 2LP
Tel. & Fax. 01522 703800

EVENT ELI 6514

SOURCE SLI 10475
SLI 10476

PRN 70477 Undated
70478 Medieval
70479 Post Medieval

CONTENTS

	Summary	1
1.0	Introduction	3
2.0	Site location and description	3
3.0	Planning background	3
4.0	Archaeological and historical background	4
5.0	Methodology	5
6.0	Results	6
6.1	Trench 1	6
6.2	Trench 2	7
6.3	Trench 3	7
6.4	Trench 4	8
6.5	Trench 5	9
6.6	Trench 6	9
6.7	Trench 7	10
6.8	Trench 8	10
6.9	Trench 9	11
6.10	Trench 10	11
6.11	Trench 11	12
6.12	Trench 12	12
7.0	Discussion and conclusion	13
8.0	Effectiveness of methodology	14
9.0	Acknowledgements	15
10.0	References	16
11.0	Site Archive	16
Appendix 1	Colour plates	17
Appendix 2	Pottery and tile report	20
Appendix 3	Animal bone report	23
Appendix 4	Environmental archaeology assessment	26
Appendix 5	List of archaeological contexts	28

List of Figures

- Fig. 1:** General site location (scale 1:25,000)
- Fig. 2:** Trench location plan, showing the results of the geophysical survey (scale 1:1000)
- Fig. 3:** Trench 1 plan and sections (scales 1:50 and 1:20)
- Fig. 4:** Trench 2 plan and sections (scale 1:50)
- Fig. 5:** Trench 3 plans and sections (scales 1:50 and 1:20)
- Fig. 6:** Trench 4 plan and section (scale 1:50)
- Fig. 7:** Trench 5 plan and section (scale 1:50)
- Fig. 8:** Trench 6 plan and sections (scales 1:50 and 1:20)
- Fig. 9:** Trench 7 plan and section (scale 1:50)
- Fig. 10:** Trench 8 plan and section (scale 1:50)
- Fig. 11:** Trench 9 plan and sections (scale 1:50)
- Fig. 12:** Trench 10 plan and sections (scales 1:50 and 1:20)
- Fig. 13:** Trench 11 plan and sections (scales 1:50 and 1:20)
- Fig. 14:** Trench 12 sample section (scale 1:20)

List of plates

- Pl. 1:** General view of the site, looking south-east. South Common is visible in the background
- Pl. 2:** Trench 1, post-excavation shot, looking east-north-east
- Pl. 3:** Pits [104], [105], [106], Trench 1, looking south-south-west. Note the similarity of the alluvial deposits in the base of [104] and [106]
- Pl. 4:** Pit [103], Trench 1, looking east. Again, the alluvial primary fill is clearly visible.
- Pl. 5:** Trench 3, pre-excavation, looking north-west
- Pl. 6:** Extension to the west end of Trench 3, showing gully [305], cutting through subsoil (302). Looking north-east
- Pl. 7:** Ditches [503], [504], looking south-south-east. The remainder of the trench was flooded
- Pl. 8:** Possible graves [707], [709], [713], and curvilinear gully [711], Trench 7, looking north
- Pl. 9:** Possible graves [719], [721], [723], [725], and ditch [727], Trench 7, looking south-south-west
- Pl. 10:** Trench 8, pre-excavation, looking north-west
- Pl. 11:** Features [803], [804], [805], [806], Trench 8, looking south
- Pl. 12:** Ditch [1005], Trench 10, looking south. Note the concentration of animal bone in the section, and the possible stone lined drain in the top of the ditch

Summary

- As a condition of planning, a programme of archaeological trial excavation took place on land off South Park Road in Lincoln.
- The site lies within an area of known archaeological activity, close to the suspected location of an early Roman fort, and is on the southern periphery of the later town. To its immediate west is the Sincil Drain; believed to be of possible Roman origin.
- Twelve trenches were investigated to evaluate a proposed development unit. These trenches identified evidence for possible sand extraction in the medieval period, sealed beneath alluvial deposits that are indicative of seasonal flooding of the area. A series of possible pre-Christian graves were exposed towards the east side of the site, close to South Park Road. Human remains were not recovered from these features, and any such interpretation is tenuous.

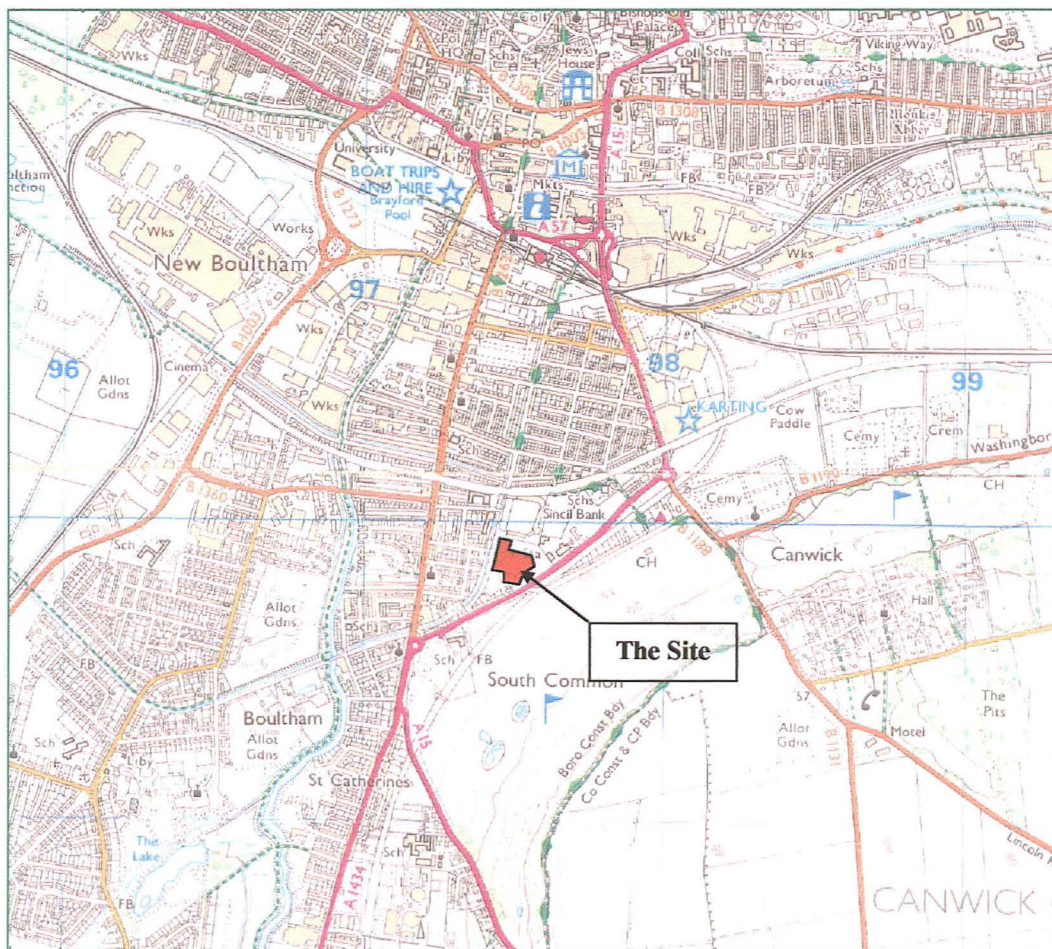


Fig.1: General site location (scale 1:25,000)
(O.S. Copyright License No. A1 515 21 A0001)

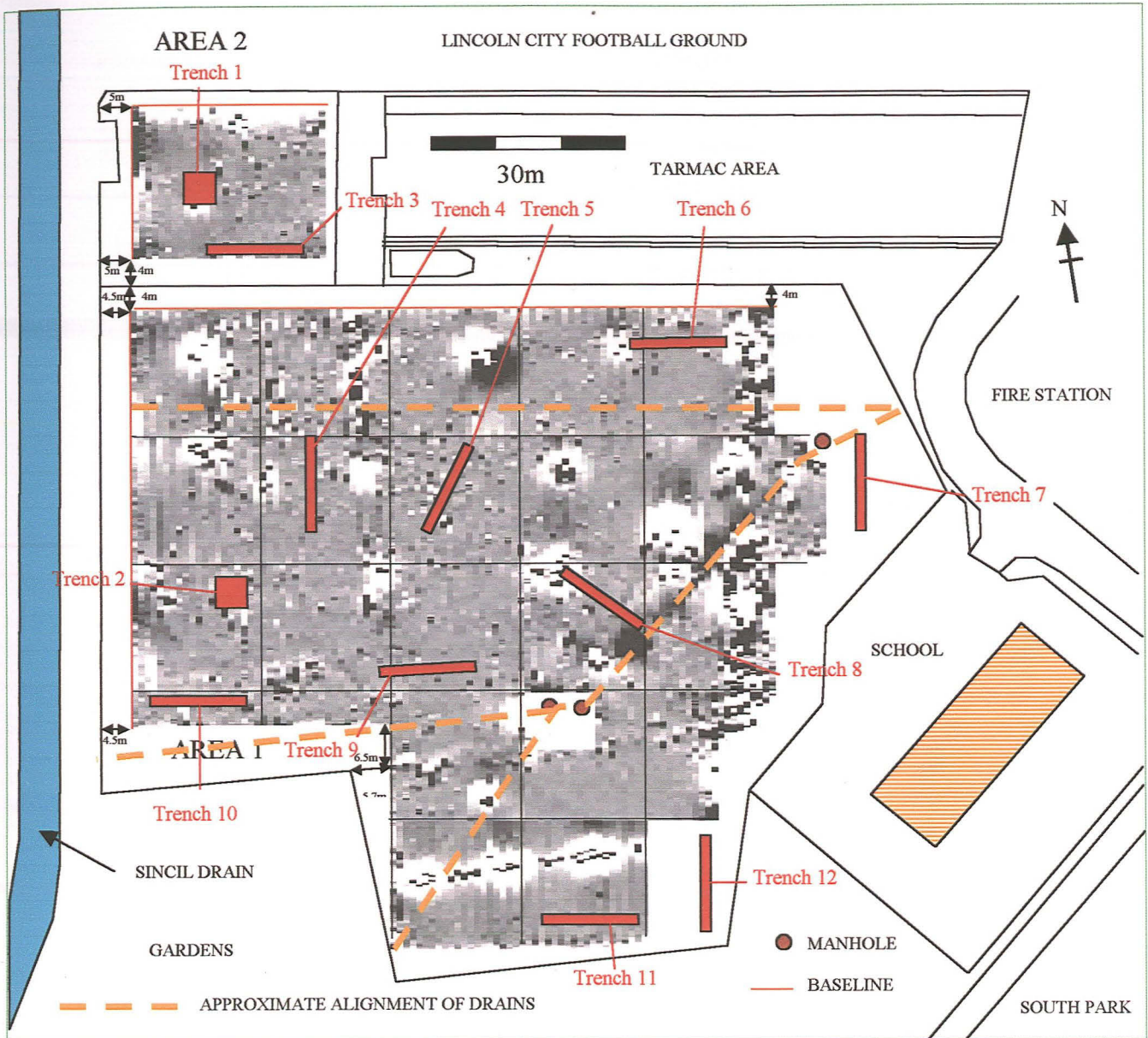


Fig. 2: Trench location plan, showing the results of the geophysical survey (scale 1:1000)

1.0 Introduction

Pre-Construct Archaeology (Lincoln) was commissioned by Bovis Lend Lease Ltd. to undertake an archaeological evaluation on land situated off South Park Road in Lincoln. These works were undertaken to fulfil the objectives of a formal project brief issued by Senior Built Environment Officer of Lincolnshire County Council, and a project specification prepared by Pre-Construct Archaeology (Lincoln).

This approach that is adopted in this report is consistent with, or complies with, the recommendations of *Archaeology & Planning: Planning Policy Guidance Note 16* (Department of the Environment, 1990), *Management of Archaeological Projects* (English Heritage, 1991), *Standards and guidance for archaeological excavation* (IFA, 1994), and the Lincolnshire County Council document *Lincolnshire Archaeological Handbook: a manual of archaeological practice* (LCC, 1998).

Copies of this report have been deposited with the commissioning body and the County Sites and Monuments Record for Lincolnshire. Reports will also be deposited at the City and County Museum, Lincoln, along with an ordered project archive for long-term storage and curation.

2.0 Site location and description

The site is to the south of the city centre, on the north side of South Park Road. It lies at an elevation of approximately 5m OD at the base of the Lincoln Edge. Immediately to its west is Sincil Drain, with the Lincoln City football ground to the north. The site comprises two areas of land: Area 1 measures approximately 1.1 hectares and Area 2 is approximately 105m². Area 1 is covered with moderately low grass and weeds c.0.3 – 0.5m high. It is predominantly flat, although there is a high area at the south side of the unit, c.0.3m higher than the rest of the site. A steel fence defines the perimeter of Area 1, with a gate in the north-east corner. Area 2 is immediately to the north of 1, and is flat, with a cover of low, closely cropped, grass.

Local drift deposits comprise river terrace sand and gravel (British Geological Survey, 1973).

3.0 Planning background

A planning application has been submitted to Lincolnshire County Council for the construction of an EBD school (planning ref. L/0563/02). The purpose of this report is specifically to inform the planning process in connection with this application, and to assist the formulation of a mitigation strategy for the area, if required.

4.0 Archaeological and historical background

Excluding occasional prehistoric artefactual remains, there is little clear evidence of any sustained settlement activity within the environs of Lincoln until the later Iron Age. In earlier prehistory, the area that became the lower city was subject to frequent tidal inundations, causing an extensive area of seasonally flooded marshland in the low-lying regions, including the current site. Only with the falling sea levels of the later first millennium BC were new areas to become available for potential settlement (Jones, 2002). One site, lying approximately 100m to the east of the Brayford Pool, has in recent years revealed substantial quantities of Late Pre-Roman Iron Age pottery, and associated structural features, suggesting that a major settlement may have existed in the Brayford East area, occupying a raised bank of sand and gravel. Further evidence of late Iron Age activity has been identified at The Lawn, to the immediate west of the site that became the Roman legionary fortress (*ibid.*).

The Roman geographer Ptolemy suggests that, in the Iron Age, much of Lincolnshire and the East Midlands belonged to a people called the *Corieltavi*, who had two major centres: at *Rhage* and *Lindon*, these places being equated with the Roman towns of *Ratae* (Leicester) and *Lindum Colonia* (Lincoln) (Todd, 1991). The name also derives from pre-Roman times, the stem *lindo-* meaning a lake or pool, no doubt relating to what must have been a much larger Brayford Pool.

Following the initial invasion of Britain in AD43, what became Lincoln was soon to be under the control of the Roman army. By AD47, a frontier had been established from the Humber to the River Exe in south-west Britain, with Legio IX *Hispana* subduing the northern reaches of this area (Whitwell, 1992). They soon established a presence at Lincoln, controlling the Witham and the gap in the limestone edge through which it passed, and consolidating the tribal territory of the *Corieltavi* (Jones, 2002). A fortress accommodating the entire legion was established sometime in the reign of Nero (AD54-68) on the hillside to the north of the Witham, although it has been suggested that an earlier fort was established closer to the current site. The discovery of early military tombstones in the lower part of the city may indicate that a fort was established on South Common, overlooking the Witham Valley from the south (Todd, 1991).

In the late 1st century, Lincoln became a *colonia*; a major administrative centre, established to provide retired legionaries with land and property (Jones, 2002). This made extensive use of the walls and internal layout of the abandoned fortress, and, by the 2nd century AD, it also extended downhill towards the river.

South of the lower walled city (south of the Stonebow), an extensive ribbon development extended along Ermine Street, broadly along the line of the modern High Street. The current site is a little under 300m to the east of High Street, in a low-lying area, which may have been subject to seasonal flooding in the Roman period. This required the construction of a causeway to carry Ermine Street; over the low-lying ground and the river (Jones, 2002).

It is possible that Sincil Dyke, which runs along the west side of the site, was constructed as a catch-water drain in the Roman period. This would have limited flooding of the area, and protected Ermine Street and developments along its eastern

edge (Hill, 1965). The current site, however, is to the east of the drain, and therefore not necessarily within the zone that was protected by it.

In the post-Roman era, an influx of Danish settlers in the 9th/10th centuries gave the city an impetus for growth, bringing a new population and trade contacts, and founding workshops and kilns in the lower Roman town, and its southern suburbs, which were close to the current site. The city also served as a mint from the later 9th century, one of the largest in England by the early 11th century (Jones 1993, Sawyer 1998).

By the Norman Conquest, Lincoln was a thriving, densely occupied community of around 12,000 people (Sawyer, 1998). The wealth of the early medieval town was based largely on the production and export of cloth, and wool from the vast flocks of sheep that were grazed on the expansive heaths outside of the city. In 1367, however, the Wool Staple was transferred to Boston, which, combined with the expansion of the Flemish cloth trade in the 14th century and the advent of the Black Death in 1347, caused Lincoln to enter a period of decline (Jones, 1993). This problem was compounded by excessive taxation during the Hundred Years War (Hill, 1965).

During this period, the South Common was used for common grazing, but earthwork evidence also indicates that extensive quarrying of the hillside for limestone took place. The current site was on the fringe of the common land and, although prone to flooding and unsuitable for habitation, it may have been used seasonally for additional grazing.

Gradual revival and repopulation of the city did not begin until the late 17th century, a process rapidly accelerated by the arrival of the railway in 1846, which allowed the growth of a large heavy engineering industry throughout the 19th and 20th centuries, (Kemp, 1993). It was only in this recent period that the low lying land south of the river (in the vicinity of the current site) was permanently reclaimed, with the Witham Act of 1812 extending the Sincil Dyke to Bardney, lowering the water level in the river, and allowing the drainage of this area (Hill, 1965).

In 2002, a fluxgate gradiometer survey of the current site was undertaken by Pre-Construct Geophysics (Bunn & Palmer-Brown, 2002). This identified a number of diffuse linear anomalies, modern services, and a field boundary across the east side of the site. It also identified several discrete areas of high magnetic susceptibility. These areas were believed to represent relatively recent burning and dumping, associated with the former use of the site as allotment gardens.

5.0 Methodology

The evaluation methodology required the excavation of 12 trenches. Trenches 1 and 2 measured 5m x 5m, and Trenches 3 - 12 were 15m long, 1.8m wide. Trenches 1 and 3 were positioned within Area 2, and the remainder were within Area 1. Most were positioned with a view to intercepting magnetic anomalies of potential archaeological significance; identified by geophysical survey. The others were positioned within magnetically quiet areas.

Initial excavation was carried out using a tracked excavator fitted with a 1.8m wide toothless ditching blade. Topsoil and subsoil layers were removed in spits not exceeding 0.2m, until the first archaeological or natural horizon was encountered. Where archaeological deposits were encountered, all further excavation was by hand.

Archaeological features were sample excavated to establish depths and profiles and, where possible, date and function. Features were recorded in plan and in section at appropriate scales (1:50 and 1:20), and written accounts were prepared on pro forma context record sheets. A colour photographic record was maintained throughout the project, and selected prints have been reproduced in this report.

6.0 Results

6.1 Trench 1 (fig 3)

The uppermost deposit was a brown-grey topsoil, (100), approximately 0.25m deep. Immediately beneath this was a large east-west linear feature, [101], approximately 2.30m wide. This feature had steep sides, and was filled with a mixed deposit of dirty yellow sand, brown silt and limestone chunks, (113), and this incorporated modern detritus such as plastic barrier tape and terram. A slot was excavated through the feature, but the base was not reached due to a high water table. However, immediately to the west of the feature, it was possible to observe an outflow into the adjacent Sincil Drain, suggesting that [101] was excavated to accommodate this culvert or drain.

Feature [101] had cut through a series of deposits evidencing considerable modern disturbance. Beneath the topsoil (100) was a layer of limestone chunks, representing part of a hardstanding for a compound. This sealed a dark grey-brown buried topsoil, (123), over a deposit of orange/brown silty sand, (111). Beneath this was another topsoil-like deposit, (112).

A shallow sided feature, [110] was observed in the north and east facing sections of the trench, extending 1.1m to the east and 2.0m to the north, before being truncated by ditch [101]. The fill of this feature was a brown-yellow coarse sand, (110), that was undated.

To the south of [101], a series of sub-circular pits were exposed, [102], [103], [104], [105], [106]. They varied in size from c.0.9m wide and 0.24m deep, to 2.0m wide and 0.54m deep. Feature [107], to the immediate north of the pit group, was initially interpreted as a gully. However, on excavation it also was interpreted as a pit, or pits, largely truncated by [101]. Each of these features contained a very similar sequence of fills, suggesting that they were broadly contemporary. The primary fills, (115 – 120), were all blue-grey, slightly silty, sand deposits, containing moderate amounts of iron panning. In each pit, primary fills were beneath two deposits of alluvial origin. The lower deposit, (121), was a light grey silty sand; overlain by (114), a light grey clayey silt. Both deposits slumped into features [102] – [107], and extended beyond the limits of the cuts. Deposit (121) contained two fragments of an adult human humerus, and a sheep metatarsal. Deposit (114) produced a single sherd from a medieval Lincoln Glazed Sandy Ware jug, and two fragments of 12th/13th century tile.

Soil samples were taken from (114) and (121). These produced very limited amounts of environmental evidence. Sample <1>, from (114), produced limited evidence of nearby ironworking, in the form of nine hammerscale fragments, and also contained a single charred seed, and few snail species typical of a grassland environment. Sample <2>, from (121), contained two fragments of hammerscale, eighteen charred chaff fragments, and grassland species of snail.

6.2 Trench 2 (fig 4)

A series of deposits were exposed in this trench, exhibiting considerable disturbance in recent years. The topsoil (200) comprised dark grey sandy loam. An earlier topsoil, (202) was observed, separated from (200) by a 0.2m deep levelling deposit of pale yellow sand with patches of pinkish brown clay, (201). (202) consisted of greyish brown sandy loam and was up to 0.4m deep. It sealed a lighter brown loamy sand subsoil, (203).

A number of irregular-shaped features were cut into the natural sand, (204). Features [205], [208], and [214] were very shallow and irregular, and were interpreted as probable natural features. On the east side of the trench, [211] had a more regular, sub-oval shape, and was approximately 2.2m long. It had gently sloping sides and a concave base, and survived to a depth of 0.2m. The feature contained an undated deposit of light yellow/grey silt, (213), that may have been alluvial in origin.

6.3 Trench 3 (fig 5)

Machine excavation commenced at the west end of the trench, exposing a modern gas pipe along its south edge and a plastic service pipe running diagonally across the trench. For safety reasons the trench was dog-legged northwards on the east side of the service pipe.

The uppermost deposit was a topsoil, (300), of greyish brown sandy loam, up to 0.5m deep. A second topsoil deposit, (301) was beneath (300), and this had been truncated prior to the deposition of a layer of limestone hardcore, (303) (only visible in the south facing section). Beneath (301) and (303) was (302), a grey/brown clayey sand, possibly indicative of localised flooding. The bones of a hare were recovered from this context, as was a tibia shaft from a sheep. This bone exhibited evidence of butchery using a saw; a practice not used widely until the 19th century. A sherd of mid 18th century stoneware, two sherds of 18th century black glazed earthenware and two sherds of medieval tile were recovered from this deposit.

At the west end of the trench, a narrow gully, [305] was exposed, cutting through (302). A section through this feature exposed steep, almost vertical sides, shelving out to a shallow lip on the west side of the feature. Its fill, (306), was a mid brown sand that produced no dating evidence. The feature was interpreted as a possible beamslot. At the request of the Senior Built Environment Officer for Lincolnshire County Council, the trench was extended to follow the alignment of this feature, which was shown to curve to the west.

A further six features were identified within this trench. Towards the west end, one quadrant of a large sub-circular pit was exposed, [307]. This had gently sloping sides and a concave base, and contained two fills. The primary fill, (319) was light grey clayey sand, sealed by grey/brown sand, (308). Immediately to the east of this was [309], a sub-oval feature, extending 0.73m from the north facing section of the trench. This also contained two fills; a light grey sand, (320), and an orange/grey clayey sand, (310).

Part of another large sub-circular feature was exposed, [311], extended from the north side of the trench. The area exposed measured 1.22m by 1.75m and was 0.45m deep. The feature had gently sloping sides, breaking to a much steeper slope towards the base of the cut. Again, two fills were identified, suggesting similar formation processes to those represented by the deposits in [307] and [309]. The basal fill, (323) was a 0.12m deep deposit of light grey sand, sealed by a secondary fill of orange/grey clayey sand, (312).

Approximately 1m east of [311] was a small sub-circular feature, [313], measuring 0.5m by 0.3m and 0.3m deep. It contained a single fill, (314), of brownish grey sand. This fill appeared to spread beyond the limits of the cut, suggesting it represented some form of localised flood event.

Further east, and extending 0.65m from the south side of the trench, was [315], another sub-circular feature containing two fills. The primary fill, (324), was a light grey sand, with a maximum 0.06m depth, sealed by an orange/grey clayey sand, (316).

The final feature in Trench 3 was [317], an irregular, sub-circular feature, measuring 0.87m by 1.05m by 0.3m deep. The two fills in this feature comprised a 0.08m deep light grey sand, (325), and an orange/grey clayey sand, (318).

All of the above features were sealed by the alluvial deposit (302), which was deeper over exposed pits, suggesting that they had not fully filled when (302) was deposited. They were all cut into a natural deposit of orange and pale yellow sand.

6.4 Trench 4 (fig 6)

A dark grey sandy loam topsoil, (400), sealed an intermittent deposit of pale yellow/grey sand, no more than 0.1m deep. This was interpreted as redeposited natural sand. A dark grey sandy loam, (402) was beneath this, representing a buried topsoil, truncated during levelling of the site for use as a playing field.

Two linear features were excavated in this trench. At the north end, [404], ran broadly east to west, and was 2.8m wide and 0.25m deep, with gently sloping sides and a concave base. Its fill, (407), was a mixed deposit of brown and brownish grey silty sand, which produced no dating evidence.

Approximately 1.3m east of [404], was [405], another east – west linear feature, 0.65m wide and 0.22m deep. This terminated 0.5m from the west side of the trench,

and contained a fill of brownish grey silty sand, (408). Overlying (408) was a 0.2m thick band of light brown clayey sand, (406), with a total width of 4.75m. This deposit slumped into the top of [405], and partially overlay (407). It is uncertain whether this represents a truncated subsoil, or a localised flood event.

The natural geology in this trench was represented by context (403), a mottled orange, pale yellow and light grey sand. A slot was excavated through this material to confirm its natural origin, revealing an identical stratigraphy a further 0.3m deeper.

6.5 Trench 5 (fig 7)

Extensive flooding had obscured 9.5m of the trench, from its south-west end. The trench was sealed by a 0.45m deep dark grey sandy loam topsoil, (500), over a subsoil of yellowish brown clayey sand, (501). The natural geology was a mixed orange and yellow sand, (502). Two features were exposed beneath this deposit.

At the north-east end of the trench was a north-west to south-east linear feature, [503]. This was 1.1m wide, but extended beyond the limit of excavation. A single fill was recorded within the feature, (505). This was mid-grey, slightly silty sand, which was undated. This was cut by a more substantial linear ditch, [504], that curved gently across the trench. It had a width of c.2.9m and depth of 0.45m. The south-west side of the ditch was truncated by a large, very modern, feature that was cut from existing ground level. The ditch contained two fills; a pale grey silty sand, (506), and a yellow brown sandy clay, (507).

6.6 Trench 6 (fig 8)

A manhole was uncovered at the west end of the trench, within the topsoil, (600). During machine excavation, there appeared to be a linear feature running along the south side of the trench, with natural sand to the north. However, it soon became apparent that the supposed natural sand, (606), was the backfill of the pipe trench associated with the manhole. This cut, [605], also contained a band of redeposited topsoil along the south edge of the feature. The deposit to the south, (608), initially interpreted as ditch fill, was a dirty yellow/brown sand that represented a subsoil layer. This gradually merged with the natural orange and yellow sand, (610), towards the east end of the trench. A slot was excavated through the fills of pipe trench [605], and (608), exposing natural sand (610) at a depth of c.0.2m. The fills of [605] were not fully excavated, as the feature contained a sewer pipe, 3.45m below the manhole cover.

At the east end of the trench was [602], a north-south linear feature, 1.50m wide and 0.51m deep. Two fills were recognised within the ditch. The primary fill, (603), was a light grey sand, 0.25m deep, of possible alluvial origin. This was sealed by a fill of orange/brown clayey sand, (604). Neither fill produced any artefacts.

Both (603) and (604) were cut by [609], a meandering, irregular feature with poorly defined edges, that was up to 2.05m wide. The fill was a mid brown sand, (601).

6.7 Trench 7 (fig 9)

This trench was characterised by considerable amounts of modern disturbance. Beneath a topsoil of dark grey sandy loam, (700), was a large modern pipe trench, [705], which obscured 4.6m of the north end of the trench. A 0.65m wide gravel filled trench containing a modern waste pipe, running approximately north to south, was also exposed. Both features ran to a manhole situated 2m from the north-west corner of the trench, the waste pipe connecting the nearby school to the sewerage system. Pipe trench [705] was detected by the geophysical survey (fig. 2).

Further recent disturbance was evidenced by a layer of pale yellow redeposited sand, (701), overlying a buried topsoil, (702), and an associated mid-brown sandy subsoil (703). A series of features were exposed beneath these deposits.

A number of these, features [713], [719], [721], [723], and [725], were interpreted as possible graves (see section 7.0, below). The most complete was [713], which was 1.85m long and 0.55m wide, and aligned broadly north to south. The features were fairly shallow, being no more than 0.25m deep. No artefactual material was recovered from any of them.

Towards the north end of the trench, were two further shallow pits, [707] and [709], largely truncated by the modern pipe trench. A third, sub-circular pit, [717], and a possible animal burrow, [715], extended from the west side of the trench. To the north of [713] was a curvilinear feature, [711], 0.35m wide and 0.15m deep.

The fills of all these features exhibited a remarkable degree of uniformity. All were light grey to brownish grey sand deposits with no inclusions. This strongly suggests that the features were each subjected to similar formation processes.

The final feature exposed in the trench was a linear at its south end. This ditch, [727] was aligned north-west to south-east, and measured in excess of 1.2m wide, although the full width was beyond the limit of excavation. The fill was a light orange/grey sand, (728), that produced two fragments of medieval tile. The similarity of the fills made it difficult to ascertain the relationship of the ditch with the possible graves [723] and [725], although the ditch appeared to be the later feature.

6.8 Trench 8 (fig 10)

The most recent layer, (800), was a brownish grey sandy loam, sealing a subsoil deposit of brown loamy sand, (801). At the south-east end of the trench, a linear feature, aligned broadly east to west, had cut through (800) and (801). Only one side of this feature, [808], was exposed. A slot was excavated through the ditch, but was not bottomed, as it was realised that this was a modern pipe trench. The location correlated well with the position of a service identified by geophysical survey (fig. 2), and it had an identical fill to the pipe trench [705] in Trench 7, consisting of a brown sand with lenses of topsoil and pink and grey clay.

A number of features were exposed beneath subsoil (801), cut into the natural orange

and yellow sand, (802). At the north-west end of the trench was a sub-rectangular pit, [803], measuring 1.5m by 1.1m by 0.25m deep. It contained an undated mid grey sandy fill, (810). Adjacent to this was [804], a very irregular and possibly natural feature, and [805], a sub-circular pit. This was largely beyond the limit of excavation. It contained a fill of light grey sand, (812), indicative of alluviation.

Immediately to the south-east of [805] was another large irregular feature. Only one side of this was clearly defined, aligned south-west to north-east. The other excavated edge of the feature ran on a north-south alignment. However, it was uncertain whether the feature terminated within the trench or continued beyond it.

Approximately central to the trench was a sub-circular pit, [809], measuring 1m by 0.95m, and 0.15m deep. Its fill was a mid-brown sand, (816), that was devoid of finds.

Between [808] and [809], was [807], another irregular feature that was 0.35m wide at the south-east side of the trench, widening rapidly to 2.75m. It contained a dark brown sand, (814), and was interpreted as a probable natural feature.

6.9 Trench 9 (fig 11)

A 0.4m deep topsoil, (900), sealed all features in this trench. Immediately beneath (900) was an intermittent greyish brown silty sand deposit, (913), representing a possible subsoil, which contained two fragments of medieval tile. Beneath (913), the section exposed two layers indicative of possible intermittent localised flooding, (914) and (928), overlying natural sand, (929).

The trench contained a number of irregular, probably natural features, [903], [904], [905], [906], [907], [908], [909], [912]. It is possible, however, that [904], [908] and [912] were small pits of unknown origin and function. Another pit, [910], was exposed on the north side of the trench, largely beyond the limit of excavation. None of the features produced any finds.

Towards the west end of the trench was a small sub-circular feature, [901], cut from beneath the topsoil, (900). Excavation of this revealed the complete articulated skeleton of a dog. The occurrence of a fragment of a leather lead suggests a relatively recent date for this burial.

6.10 Trench 10 (fig 12)

The uppermost deposit was a dark grey-brown sandy loam, (1000). This sealed three modern postholes that contained a topsoil-like fill and asphalt chippings. Immediately beneath (1000) was another topsoil, (1001), which appeared to have been truncated during the levelling of the site to create a playing field. The underlying deposit, (1007), was a brown, silty sand, with patches of pink clay. This may be a ground raising deposit, dumped prior to the formation of (1001). Beneath (1001) and (1007), were two further possible ground raising deposits; a 5m wide, 0.15m deep yellow/brown sand with occasional limestone chunks, (1002), and (1018), a band of mid brown sand 4.1m wide and 0.12m deep. There is a possibility that deposit (1018),

beneath (1002), reflects some form of alluvial deposition.

A third topsoil-like deposit, (1003) was sealed beneath the above layers, surviving to a depth of 0.2m. This contained a single fragment of sheep bone. An underlying brown sand deposit, (1008), may represent an associated subsoil. Towards the east end of the trench, (1003) merged with a mixed deposit of grey, pale yellow and brown sand, (1019). The nature of this context is uncertain.

At the west end of the trench was a north – south linear feature, [1005], approximately 1.6m wide and 0.35m deep. Its fill was a mid-grey, probably alluvial sand, (1006), that contained a large, discrete deposit of animal bone. This comprised part of the hind legs of a small adult horse, part of the hind leg and foreleg of a larger adult horse, and part of the backbone and rib cage of one of these two animals. The fill also contained several fragments of medieval tile. These included three fragments of a roof finial, and a nib tile of 13th century date, broken during firing. There was an intermittent layer of stone visible in the upper portion of the fill (1006). This may represent a stone lined drain, inserted into the top of the ditch, after it had silted up.

Approximately 2.6m to the east of [1005] was another linear feature, [1009]. This was also aligned approximately north to south and was 2.25m wide and 0.4m deep. It contained two fills; a 0.1m deep grey silty sand, (1010), overlain by a fill of brownish grey silty sand, (1011). The ditch was cut by two pits, [1012] and [1016]. [1012] was sub-circular and was filled with an undated dark grey sand, (1013). [1016] was a broadly sub-rectangular feature, 1.2m wide and 0.3m deep, with a fill of dark grey sand, (1017).

Another linear feature, [1014], ran north – south, approximately 3.4m east of [1009]. A natural feature, possibly evidence of root disturbance, largely truncated the west side of this feature.

6.11 Trench 11 (fig 13)

The stratigraphy in this trench consisted of a dark grey sandy loam topsoil deposit, (1100), over a 0.5m deep reddish brown subsoil, (1101), and a natural pale yellow, orange and grey sand, (1102). A possible linear feature was observed towards the west end of the trench, although a slot excavated through this feature suggested that it was merely variation in the natural sand.

An irregular, probably natural feature, [1103], was exposed at the east end of the trench. This had a fill of dark grey sand, (1104), becoming paler to the base and edges of the feature.

6.12 Trench 12 (fig 14)

No archaeological features were exposed in this trench. The stratigraphy consisted of a dark grey sandy loam topsoil, (1200), a mid-brown subsoil deposit, (1201), a thin band of light grey, possibly alluvial sand, overlying an orange and yellow natural sand, (1202).

7.0 Discussion and conclusion

The evaluation exposed features of potential archaeological significance in ten of the twelve trenches. Trench 11 contained a single natural feature, and Trench 12 was devoid of archaeological remains.

Unfortunately, very little artefactual material was recovered from the excavated features, and dating and interpretation is problematic. It appears that several of the features exposed are of natural origin, formed by geological processes, animal burrows or root action. This was particularly evident in Trenches 2, 8, 9 and 10.

Before discussing the features specific to individual trenches, a number of general points can be made about this site. Firstly, there was considerable evidence of recent disturbance. Modern services ran across the site; these being exposed in Trenches 3, 6, 7 and 8. Multiple layers of topsoil, and intervening ground raising and levelling deposits evidenced other recent disturbance. This was apparent in Trenches 1, 2, 4, 7 and 10, and was interpreted as evidence of an underlying topsoil related to the former use of the site as allotment gardens for much of the 20th century, which was subsequently truncated during the levelling of the area for use as a playing field. Modern features were also exposed in Trenches 2, 3, 5 and 9.

There was considerable evidence of alluvial deposition across the site, particularly in Trenches 1 and 3, where alluvial material sealed and slumped into features. This pattern of alluviation fits well into the wider landscape context. The site is low-lying, straddling the 5m contour, in an area that was prone to seasonal flooding from the prehistoric period until the early 19th century. Sincil Drain was an attempt, of suspected Romano-British date, to control this flooding and protect the suburbs of the Roman city fronting onto Ermine Street. However, the current site lies immediately to the east of this, and the construction of the drain may have exacerbated the flooding of this area. The presence of numerous earth-cut features on the site suggests that it was available for use at some times of the year, but was generally unsuited to permanent occupation, a fact evidenced by the dearth of definite structural evidence or quantities of domestic waste. The snail species recovered from the Trench 1 environmental samples suggest that a grassland environment existed in the medieval period, an indication that the site may have been in use intermittently as grazing land.

Trenches 1 and 3 revealed a series of sub-circular pits of broadly similar morphology, and contained remarkably similar fills. These features were devoid of artefacts, mitigating against them being used as waste pits or storage pits. It is possible that they represent a series of sand quarries, possibly for use in the pottery industry. A tentative date is suggested for these features by the presence of a sherd of medieval pottery, a sherd of medieval tile, and a sherd of 12th/13th century tile from (114), the lower of two alluvial deposits sealing the features in Trench 1.

In the context of these features, it is of note that a tile industry had existed in the nearby St. Botolph's parish from the 12th to 17th centuries. Several of the tile fragments from Trenches 1 and 3, and the remainder of the site, exhibited indicators that they may be waste from this industry. For example, there was a semi-vitrified (over-fired) tile fragment from Trench 7, suggesting re-use in a kiln or oven, and another fragment from (114) which had been subject to heat after breakage. It may be

that the sand extracted from Trenches 1 and 3 was used by this tile industry, possibly as a temper.

The environmental samples from Trench 1 suggest the nearby processing of crops and iron smithing, although the amount of hammerscale recovered is small, and this activity may have been taking place at some distance from the site.

A curvilinear feature was exposed at the west end of Trench 3, initially interpreted as a beamslot relating to a former structure. However, the feature was relatively recent, as it was cut through the subsoil, (302), a deposit that contained 18th century pottery. The exact function of this feature is uncertain.

Several undated linear features were exposed, in Trenches 4, 5, 6, 7 and 10. Again, the lack of finds from these features makes dating or interpretation troublesome. The most likely suggestion is that the features represent former land divisions, possibly also serving as drainage features. The ditch in Trench 6 may be related to a field boundary visible on the first edition Ordnance Survey.

A series of features exposed in Trench 7 were interpreted as possible graves, on the basis of their morphology. If this were the case, the features would be pre-Christian, as they were not on an east-west alignment. Christianity arrived in Britain in the early fourth century AD, suggesting that the features, if they are graves, would pre-date this period, i.e. Romano-British or prehistoric. Early Roman military tombstones have been found to the north of the site, and related to a postulated antecedent to the later first century legionary fortress north of the Witham. In this context, it is possible that the features may represent graves excavated during this period of early Roman occupation. No human bone was recovered to confirm the assumption that the features were for inhumations. It is possible however, that the bone has been completely eroded. The sandy soil typical to the site is acidic and therefore conducive to the erosion of bone, and this is coupled with an area that is low-lying and was seasonally flooded until recent centuries, with free-draining soils, allowing the leaching of organic material from any buried remains. Another possibility is that the features represent graves that were excavated but never used. All of the features in Trench 7 contained an identical grey alluvial sand, indicative of a single sustained episode of flooding. It is possible, but perhaps an unlikely coincidence, that the area was flooded after the graves were excavated but before they were occupied. If the features are not graves, it is uncertain what their function was. Sand extraction remains a possibility, but it is highly unlikely that a pit for sand extraction would be dug with such a clearly defined sub-rectangular form.

8.0 Effectiveness of methodology

The methodology chosen was appropriate to the development. The excavated trenches allowed an assessment of the disposition of the archaeological features across the site. The most significant problem encountered was the lack of artefactual material, which hindered the interpretation of the features exposed. However, this is not a result of the methodology employed, but is peculiar to the site and is a function of the ephemerality of the archaeological activities represented by the excavated features, taking place within an environment of seasonal flooding.

It is significant that, in this case, most of the features exposed by the evaluation were not detected by geophysical survey. The possible explanations for this are twofold. Firstly, the fills of the majority of the features were sandy deposits, with some silt and clay included. These deposits were similar in composition to the natural sands, with the result that their magnetic signature differed very little, and was not therefore detected by gradiometry. Secondly, there was considerable disturbance by modern activity on the site, and the use of much of the area as allotment gardens has resulted in quantities of magnetically anomalous material being incorporated into the topsoil; possibly masking underlying archaeological deposits.

9.0 Acknowledgements

Pre-Construct Archaeology (Lincoln) would like to thank Bovis Lend Lease Ltd. for this commission. Thanks also go to the site assistants, Aaron Chapman and Wayne Livesey.

10.0 References

- British Geological Survey, 1973. *Lincoln. England and Wales Sheet 115. Solid and Drift Geology. 1:50000 Series*. Keyworth, Nottingham: British Geological Survey
- Bunn D. & Palmer-Brown C., 2002, *Fluxgate gradiometer survey: Land at South Park, Lincoln*, Pre-Construct Geophysics, unpublished report
- Hill J.W.F., 1965, *Medieval Lincoln*, Cambridge University Press, Cambridge
- Jones M.J., 1993, 'Anglo-Saxon Lincoln', in Bennett S. & Bennett B., *An Historical Atlas of Lincoln*, pp.24-5, The University of Hull Press, Hull
- Jones M.J., 2002, *Roman Lincoln. Cinquest, Colony & Capital*, Tempus Publishing Ltd., Stroud
- Kemp S.J., 1993, 'Evolving Lincoln', in Bennett S. & Bennett B., *An Historical Atlas of Lincoln*, pp.132-3, The University of Hull Press, Hull
- Todd M., 1991, *The Coritani*, Duckworth, London
- Sawyer P., 1998, *Anglo-Saxon Lincolnshire*, History of Lincolnshire III, History of Lincolnshire Committee, Lincoln
- Whitwell J.B., 1992, *Roman Lincolnshire*, History of Lincolnshire Committee, Lincoln

11.0 Site archive

The documentary and physical archive is currently in the possession of Pre-Construct Archaeology (Lincoln). This will be deposited at Lincoln City and County Museum within six months. Access to the archive may be gained by quoting the global accession number 2003.62.

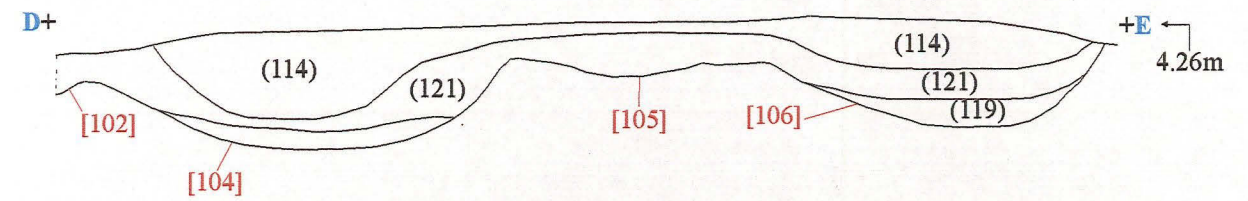
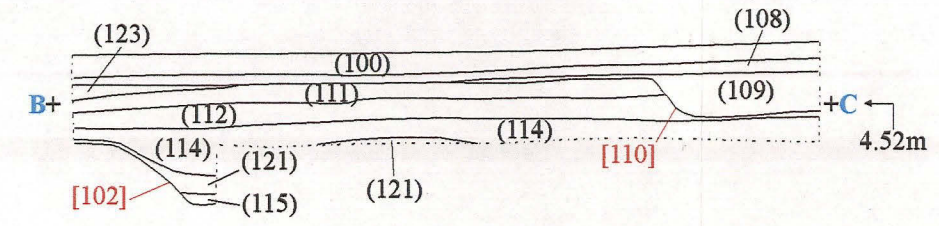
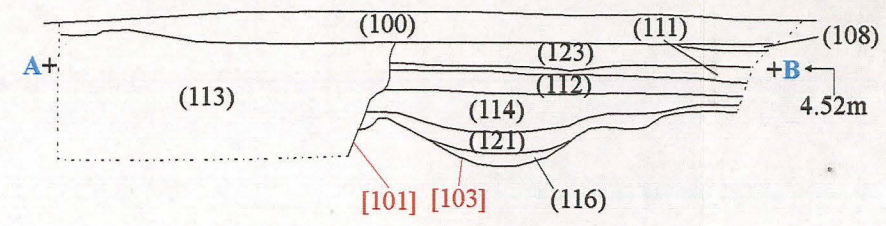
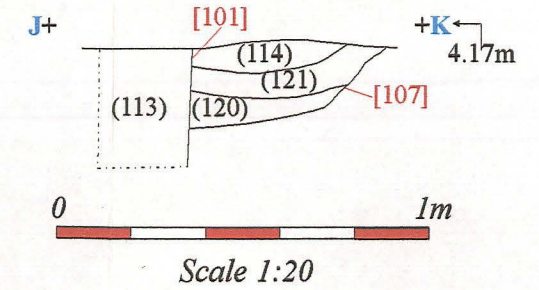
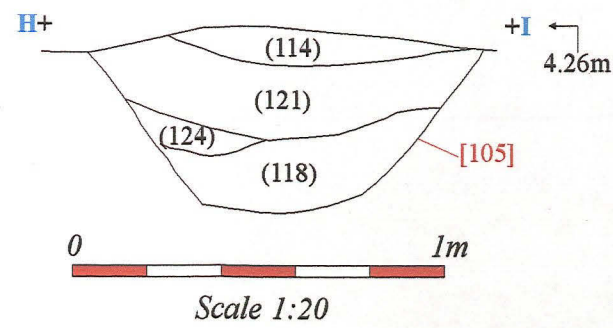
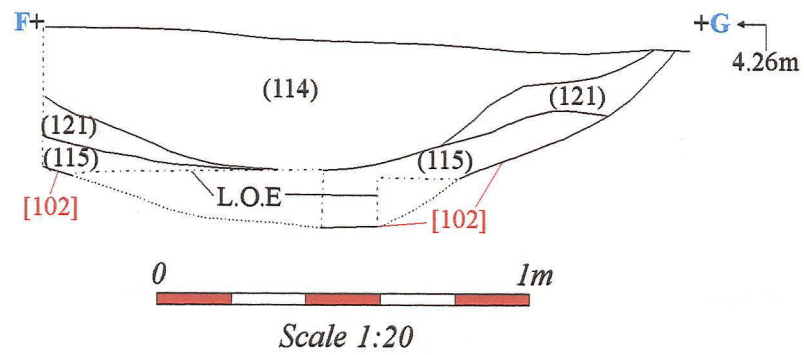
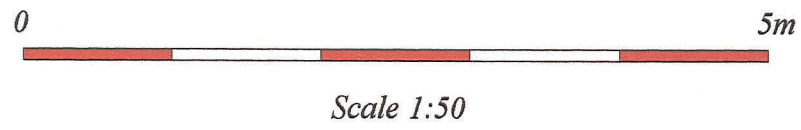
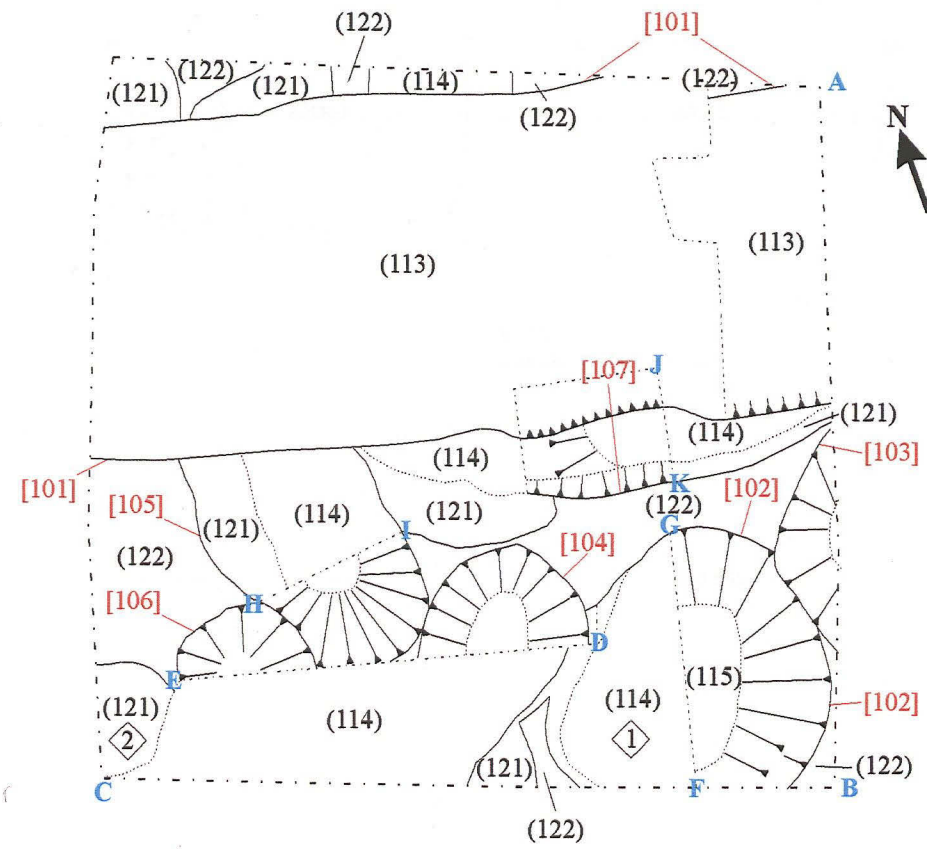


Fig. 3: Trench 1 plan and sections (scales 1:50 and 1:20)

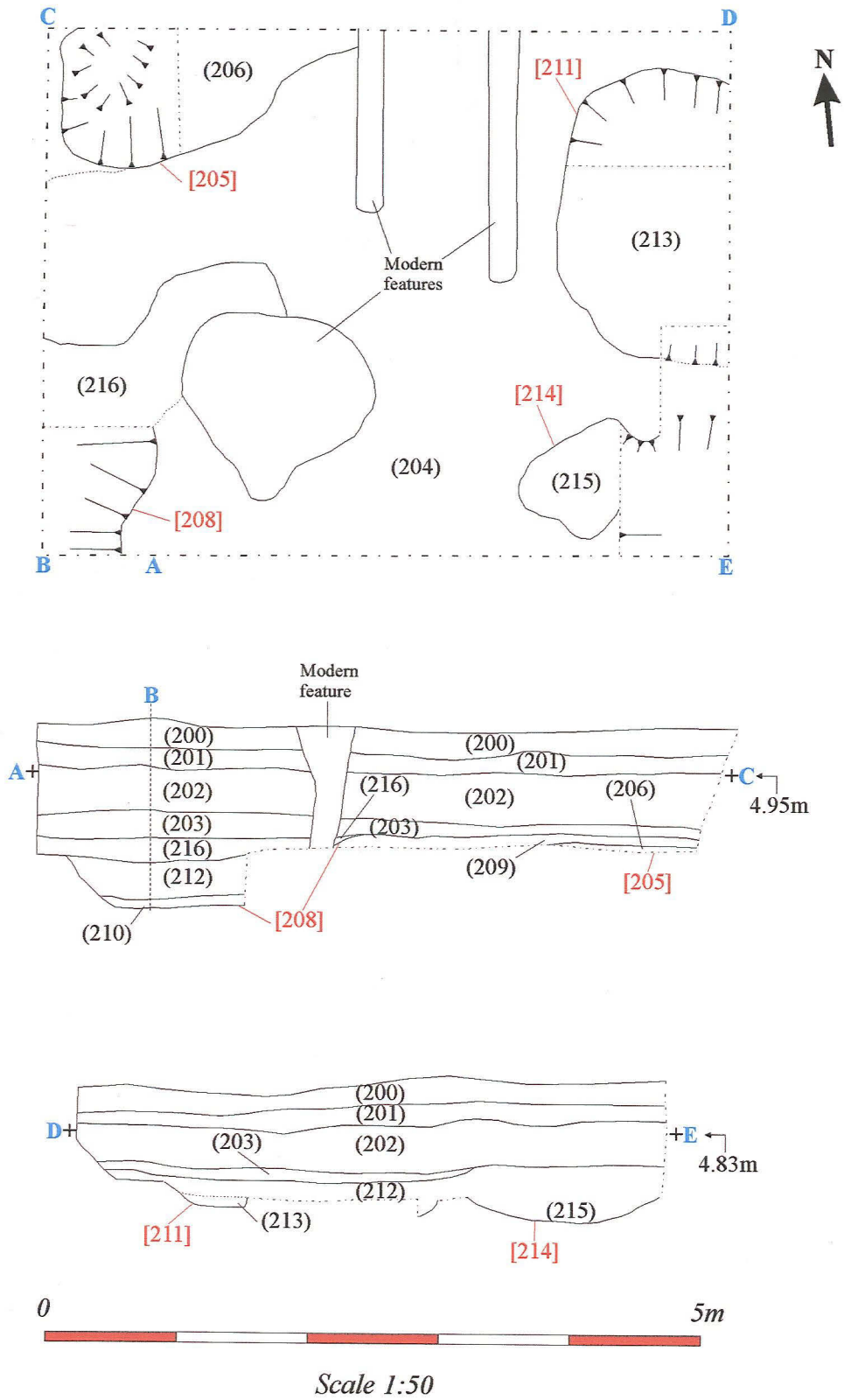


Fig. 4: Trench 2 plan and sections (scale 1:50)

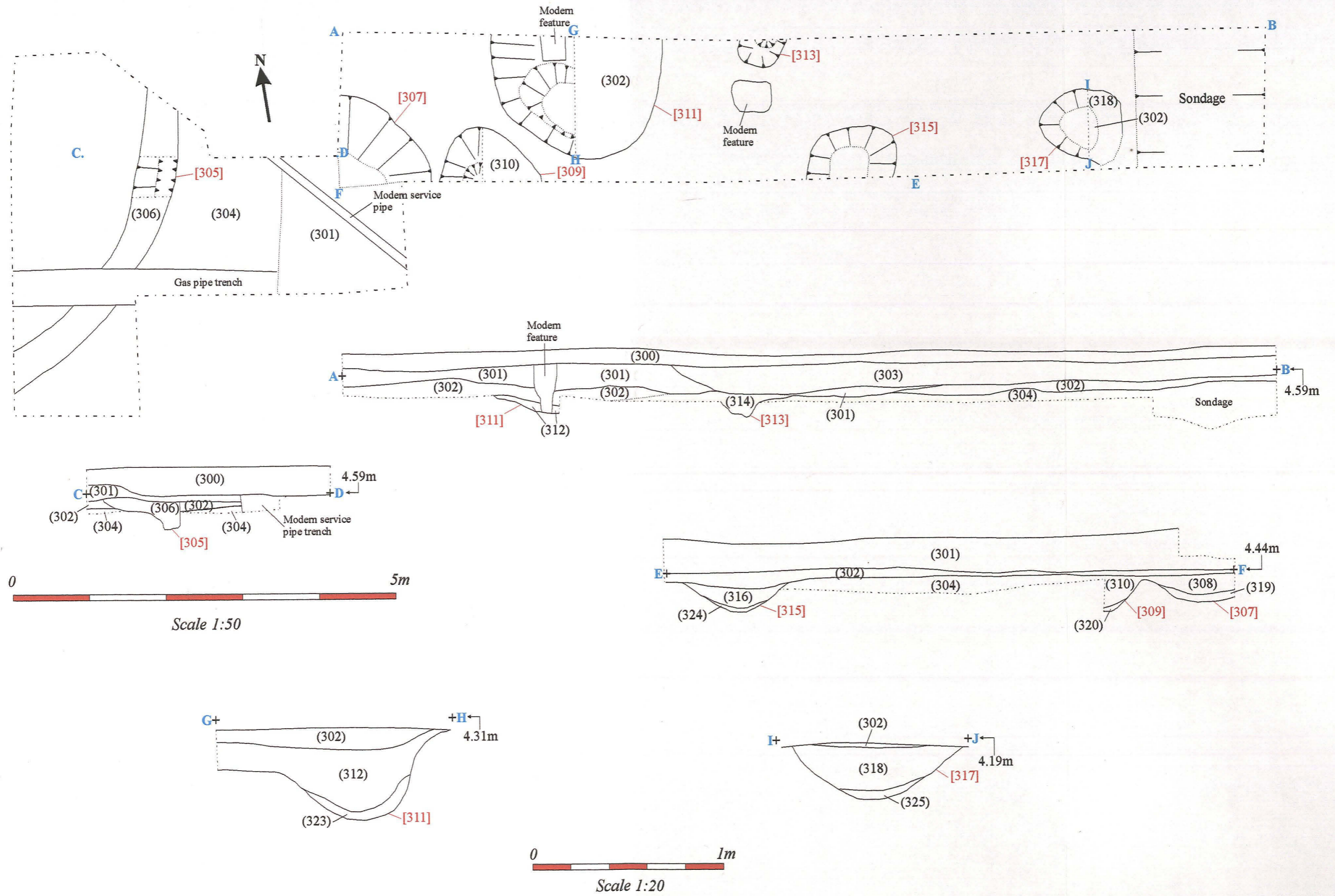


Fig. 5: Trench 3 plans and sections (scales 1:50 and 1:20)

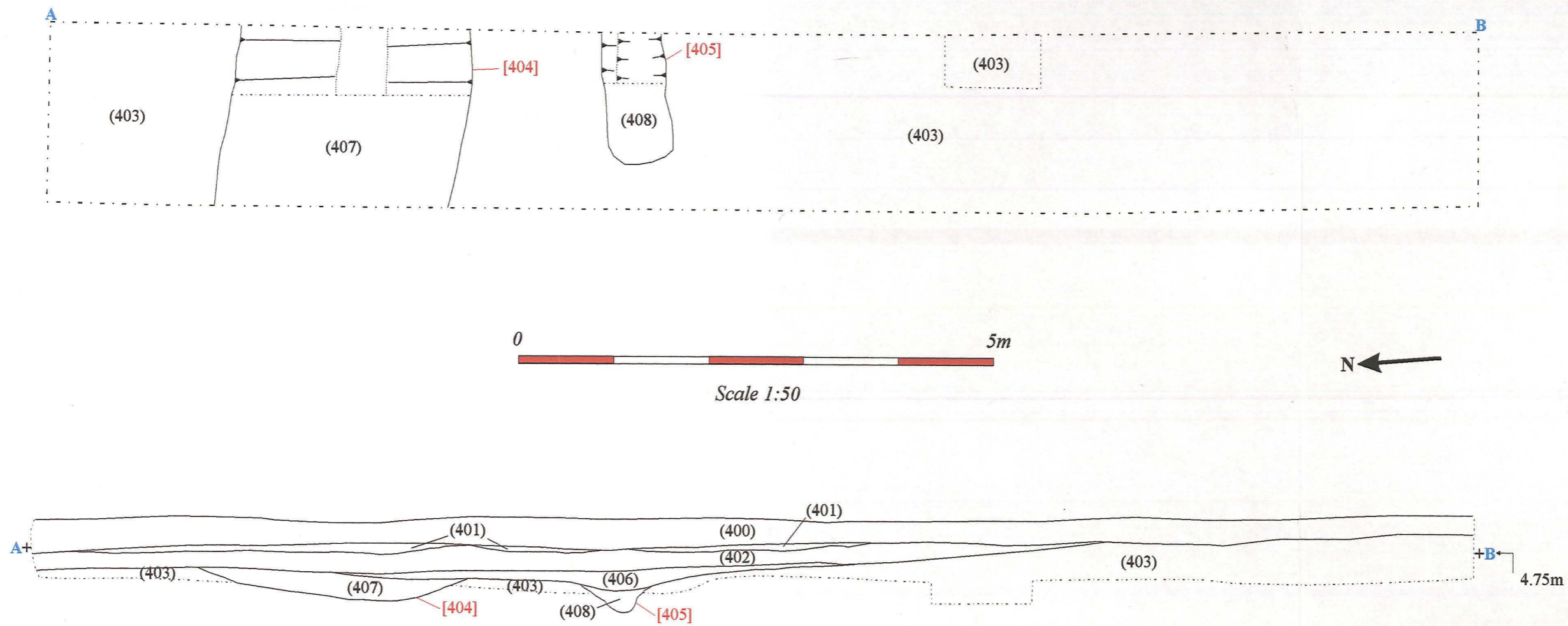


Fig. 6: Trench 4 plan and section (scale 1:50)

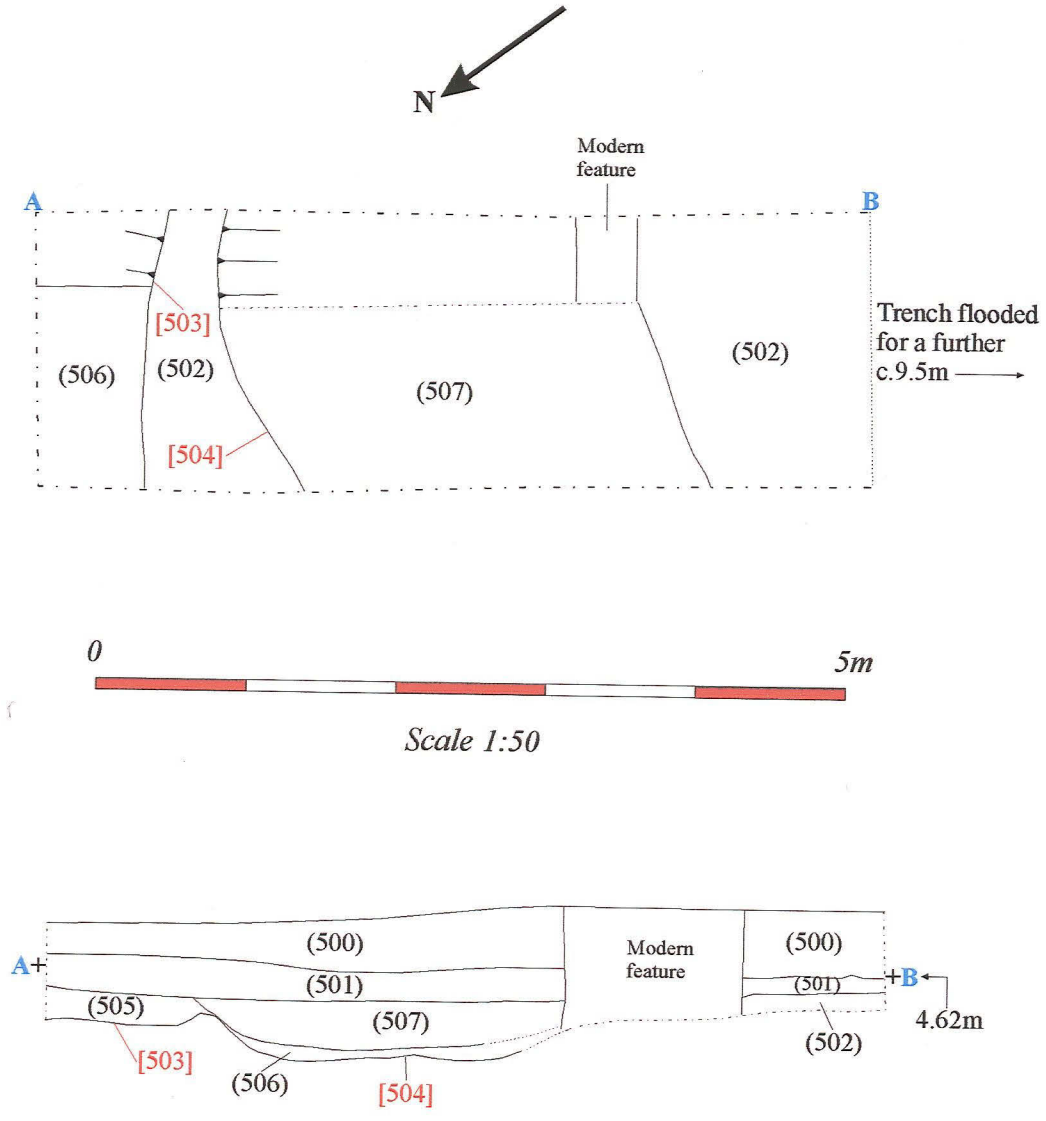


Fig. 7: Trench 5 plan and section (scale 1:50)

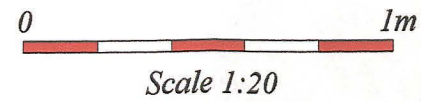
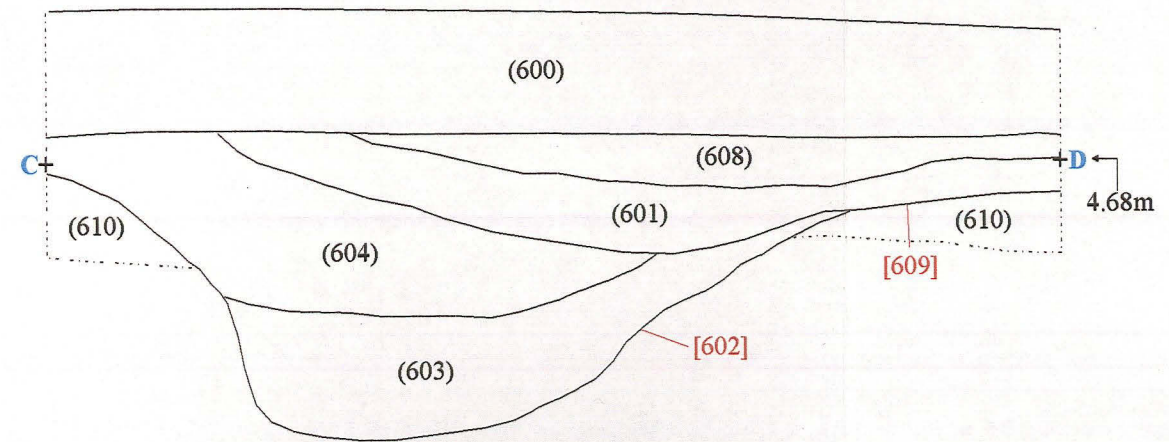
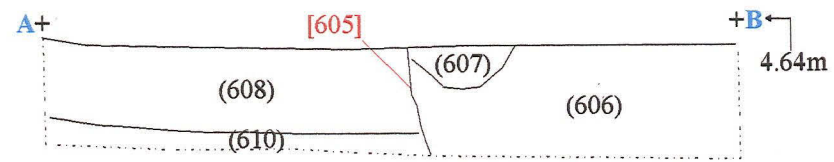
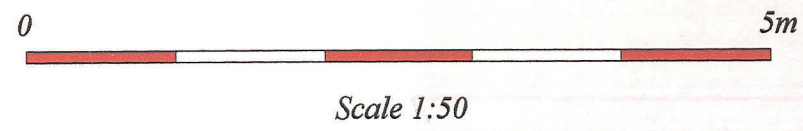
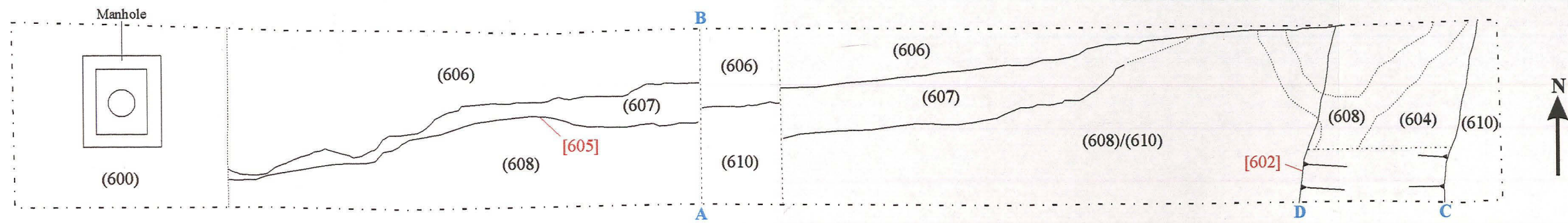


Fig. 8: Trench 6 plan and sections (scales 1:50 and 1:20)

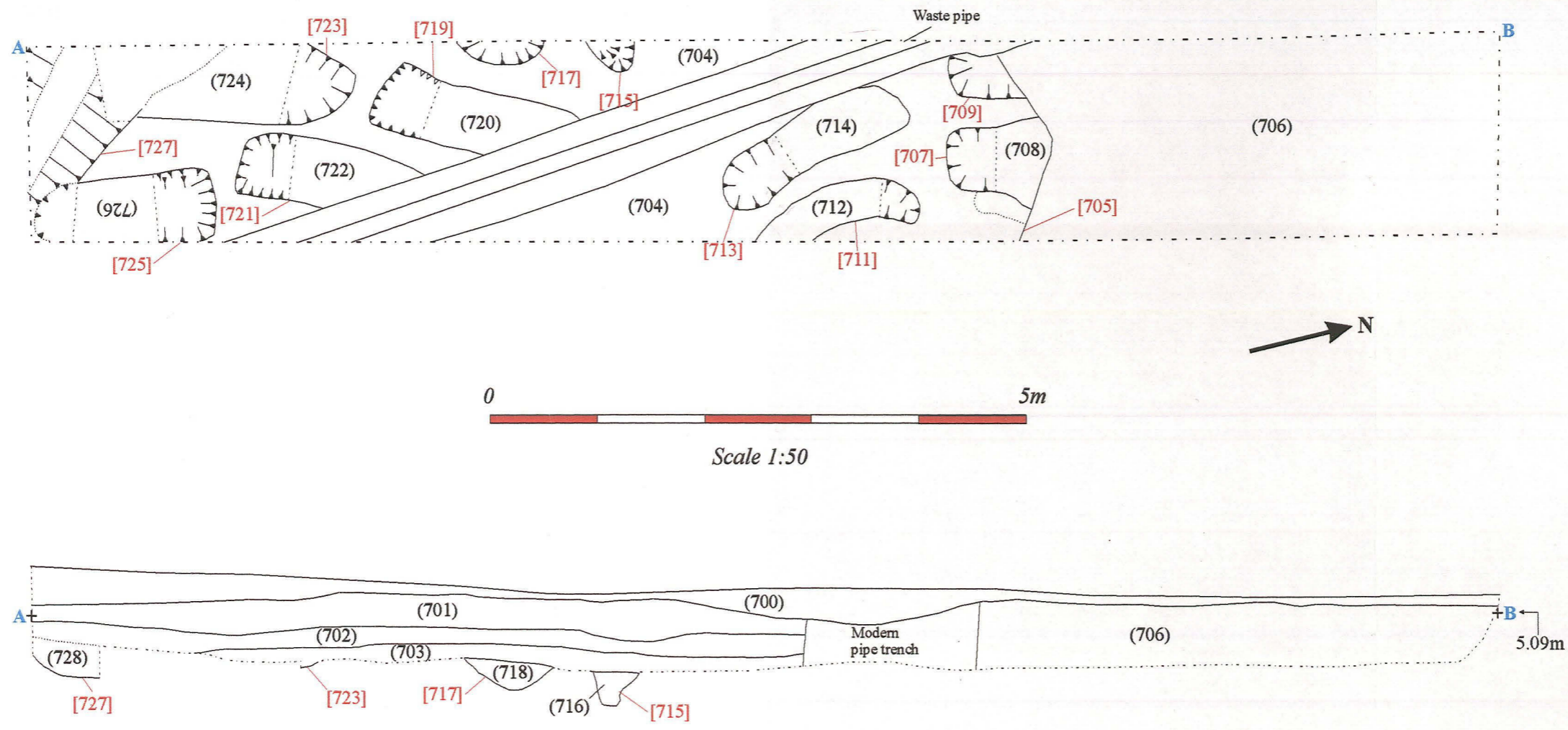


Fig. 9: Trench 7 plan and section (scale 1:50)

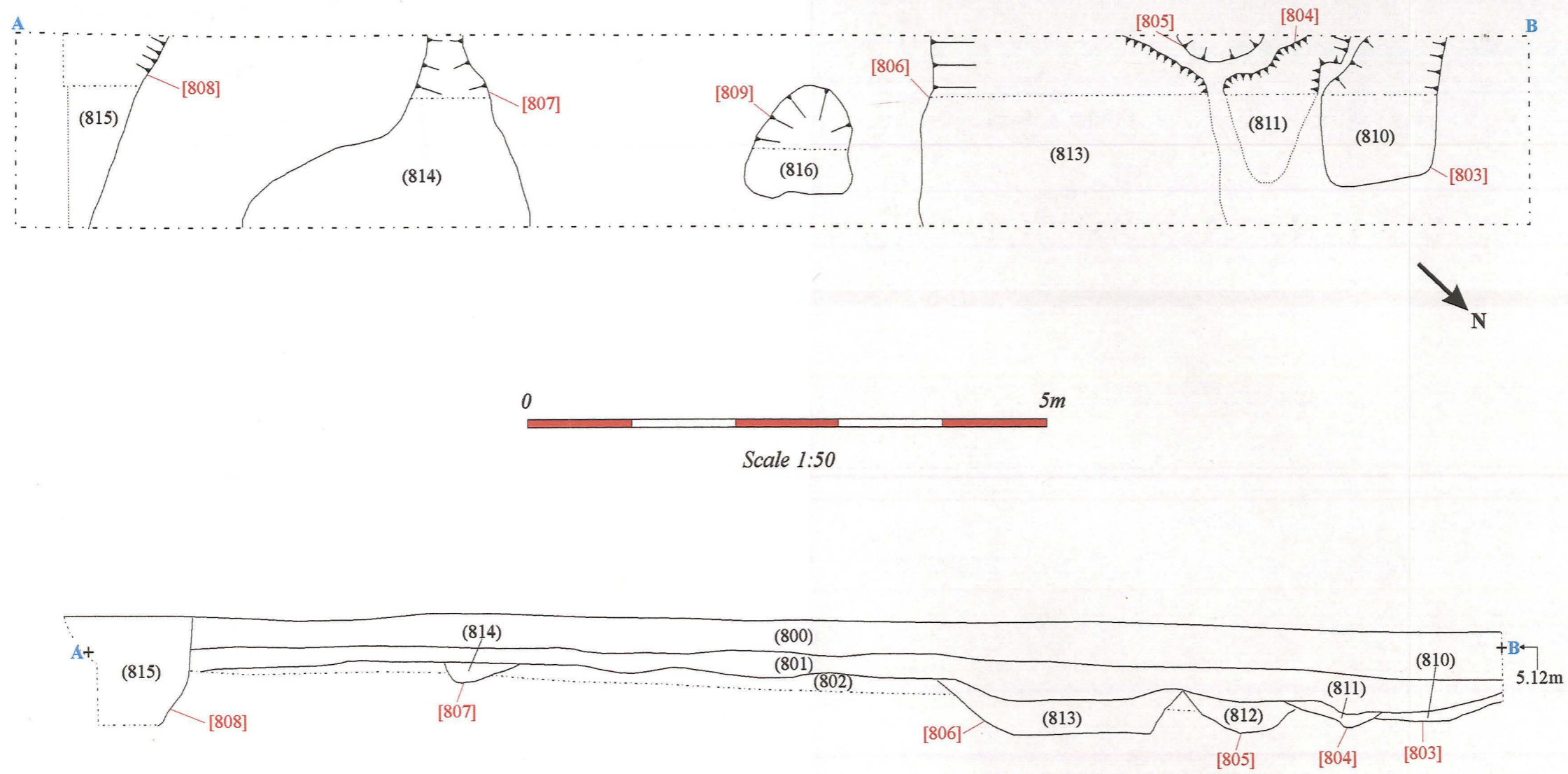


Fig. 10: Trench 8 plan and section (scale 1:50)

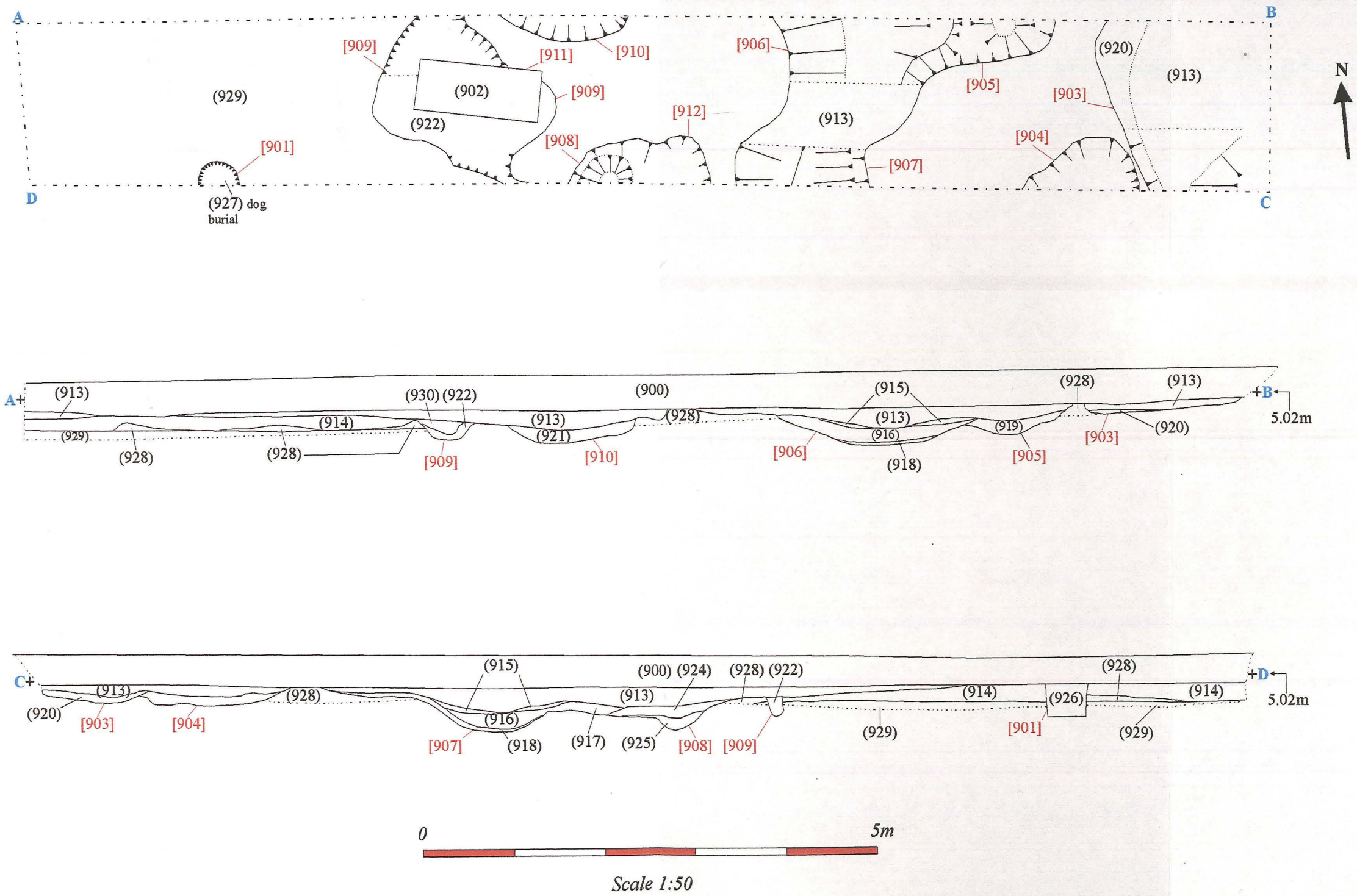


Fig. 11: Trench 9 plan and sections (scale 1:50)

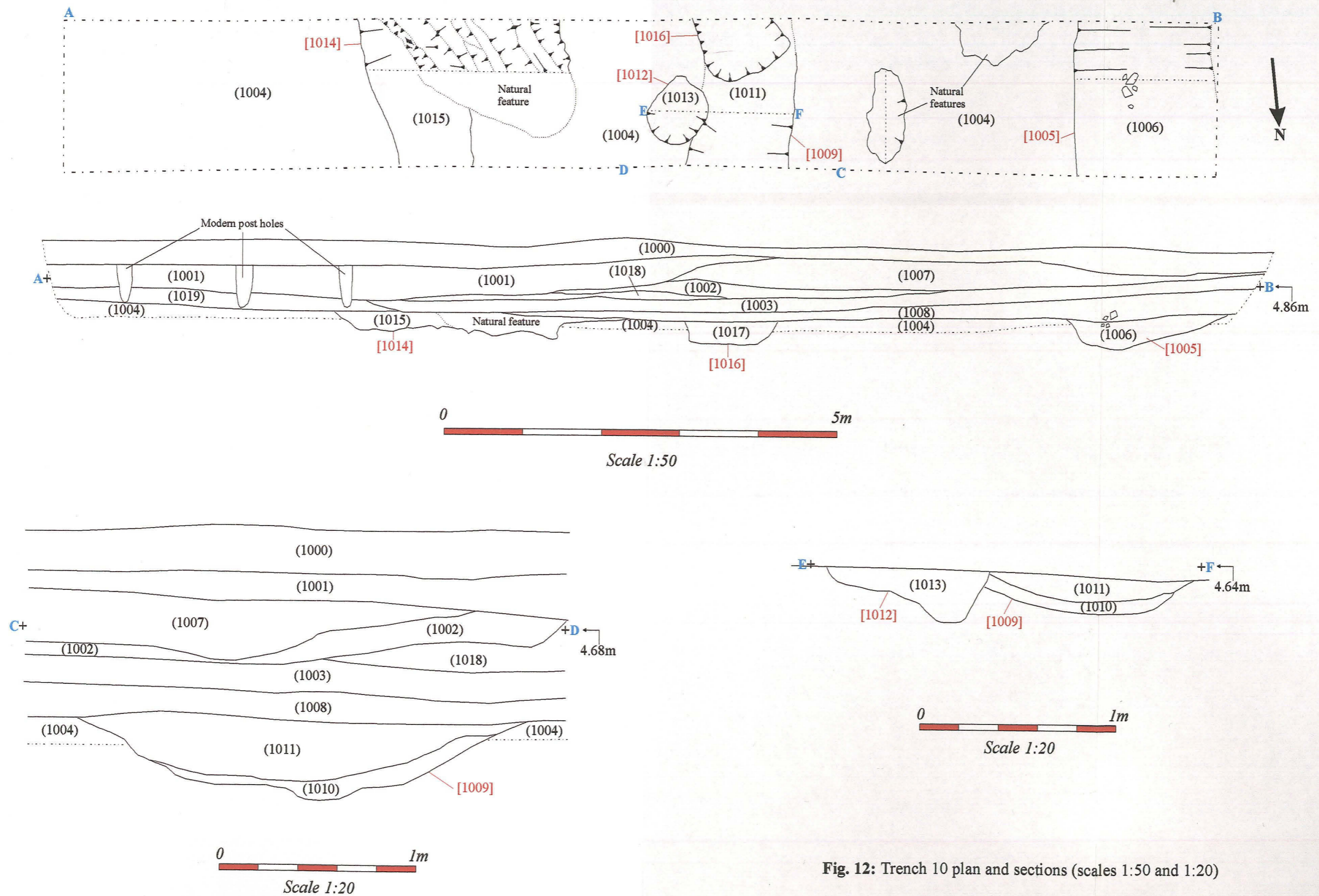


Fig. 12: Trench 10 plan and sections (scales 1:50 and 1:20)

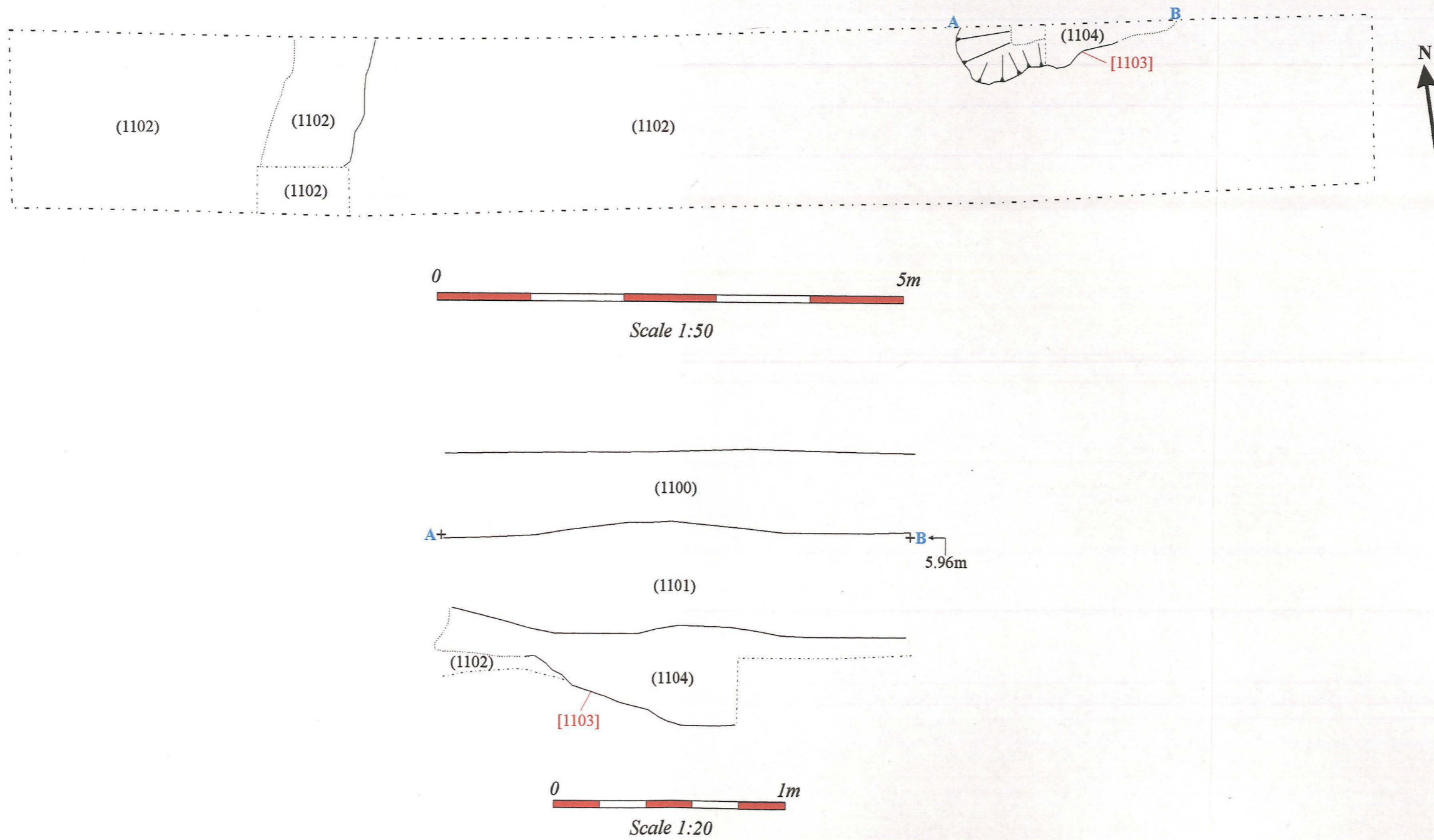


Fig. 13: Trench 11 plan and section (scales 1:50 and 1:20)

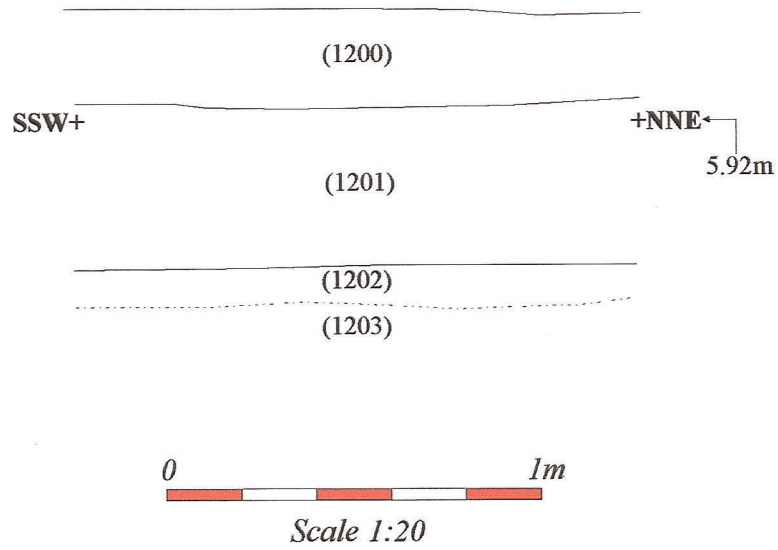


Fig. 14: Trench 12 sample section (scale 1:20)

APPENDIX 1: Colour plates



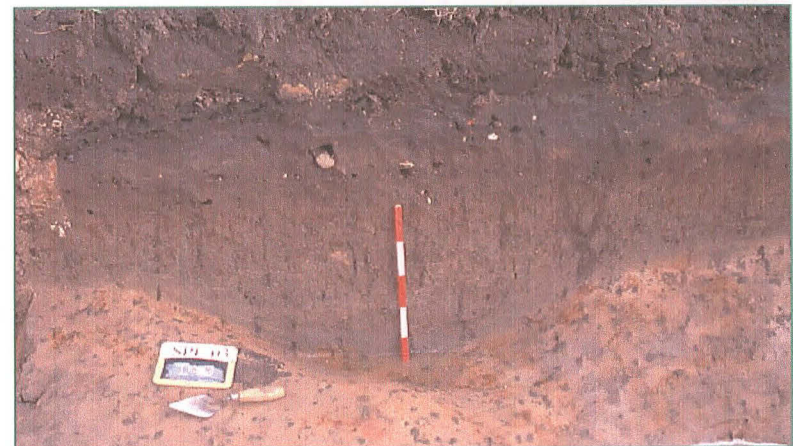
Pl. 1: General view of the site, looking south-east. South Common is visible in the background



Pl. 2: Trench 1, post-excitation shot, looking east-north-east



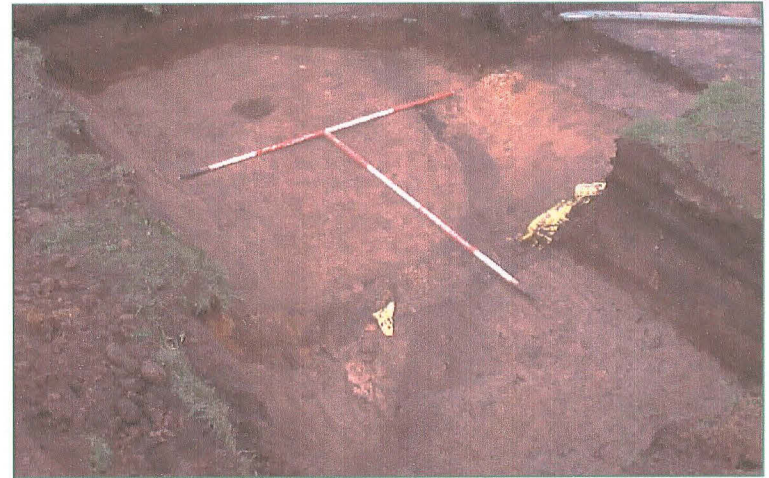
Pl. 3: Pits [104], [105], [106], Trench 1, looking south-south-west. Note the similarity of the alluvial deposits in the base of [104] and [106]



Pl. 4: Pit [103], Trench 1, looking east. Again, the alluvial primary fill is clearly visible.



Pl. 5: Trench 3, pre-excitation, looking north-west



Pl. 6: Extension to the west end of Trench 3, showing gully [305], cutting through subsoil (302). Looking north-east



Pl. 7: Ditches [503], [504], looking south-south-east. The remainder of the trench was flooded



Pl. 8: Possible graves [707], [709], [713], and curvilinear gully [711], Trench 7, looking north



Pl. 9: Possible graves [719], [721], [723], [725], and ditch [727], Trench 7, looking south-south-west



Pl. 10: Trench 8, pre-excavation, looking north-west



Pl. 11: Features [803], [804], [805], [806], Trench 8, looking south



Pl. 12: Ditch [1005], Trench 10, looking south. Note the concentration of animal bone in the section, and the possible stone lined drain in the top of the ditch

APPENDIX 2: Pottery and tile report

Pottery Archive SPL03

Jane Young Lindsey Archaeological Services

context	cname	full name	sub fabric	form type	sherds	weight	part	description	date
114	LSW	Lincoln Glazed Sandy Ware		jug ?	1	9	BS	very abraded; little ext surface left;some glaze just visible	medieval
302	SWSG	Staffordshire White Saltglazed stoneware		?	1	10	base		early/mid to late 18th
302	BL	Black-glazed wares		jar/bowl	1	7	BS		late 17th to 18th
302	BL	Black-glazed wares		large bowl	1	50	BS		late 17th to 18th
913	MISC	Unidentified types	OX/R/OX;med sandy;hard	?	1	3	BS	very abraded; comm subround quartz occ ca	Roman to post-medieval

Tile Archive SPL03

Jane Young Lindsey Archaeological Services

The small group of material recovered from this site contains a high number of types not usually found in the city. Seven of the tiles are in a light firing fabric, rarely found within Lincoln. This fabric contains white clay pellets. Two other tiles are in a fabric that is more commonly used for the medieval pottery (LSW). Four of the tiles have evidence for spalling or cracking during firing or, whilst being reused at a high-firing temperature. One tile has part of a reduced, circular shadow, with glaze spots around. This is a similar effect to that found on tiles used as stands during the firing of pottery in a medieval kiln. The two diagnostic suspension nibs are both moulded, suggesting a date in the 13th century. Three abraded sherds in an oxidised LSW fabric, are likely to come from a large finial of a type not previously found in Lincoln. It is known that a long-lived tile industry (late 12th to late 17th century) existed in St. Botolphs parish and it is possible that this material represents waste products from this industry.

Context	cname	fabric	sub type	frags	weight	description	date
0114	PNR	7		1	74	corner;one broken edge subjected to heat after breakage	12th to 13th
0114	PNR	fully oxidised light firing		1	271	bottom corner;typical Lincoln subround quartz but common white clay pellets & comm fe	medieval
0302	PNR	oxidised		1	13	white clay streaks	medieval
0302	NIB	light firing 4D/E ?		1	80	moulded & cut;left corner;common white clay pellets	medieval
0728	PNR	semi vitrified		1	79	spalled during firing /refiring;reduced shadow of vessel on upper surface with spots of glaze around;? Reused in kiln or oven	medieval
0728	PNR	light OX/R/OX		1	61	sparse white clay pellets comm fe	medieval
0913	PNR	OX/R/OX 1			125	hard fired;fabric incl occ grog & clay pellets	medieval
0913	PNR	R/light R/R		1	50	semi vitrified	medieval
1006	PNR	light firing		1	64	common white clay pellets comm fe;very	medieval
1006	PNR	light firing		1	88	common white clay pellets comm fe	medieval
1006	PNR	light OX/R/OX		1	50	covered in fe rich sandy deposit	medieval
1006	PNR	light OX/R/OX		1	30		medieval
1006	PNR	LSW fully oxidised		1	46	very abraded	medieval
1006	PNR	LSW fully oxidised		1	45	very abraded	medieval

1006	FINIAL	LSW	3	125	? ID or RFURN; large form not seen before; very abraded; bung/finial hole; bright oxidised	medieval
1006	NIB	3A ?	1	117	? Broken during firing or right corner; ? Cloth impressions	13th
1006	PNR	OX/R	1	158	almost vitrified; corner; ? Broken during firing	medieval

Tile Glossary**cname full name**

FINIAL Finial tile

NIB Nibbed tile

PNR Peg, nib or ridge tile

APPENDIX 3: Animal bone report

Richard Moore

Animal bone was recovered from four contexts, and there was also a stray human bone included in the assemblage. Horse, sheep and hare were also positively identified.

The human bone from Context 121 was a 135mm long section of the shaft of the right humerus, including the lower part where it widens out to the elbow joint. There was also a smaller fragment of similar appearance, which probably came from the same bone. The surviving bone is quite hard, and in fairly good condition, although the surface is eroded and it is covered in places with a sandy concretion. It is of average size for an adult individual, and the rugosity of the lateral edge indicates quite well developed musculature. There are no signs of any distinctive pathological conditions.

The animal bone assemblage was dominated by parts of at least two articulating horse skeletons in Context 1006. One animal was represented by a large part of the left hind leg and the upper part of the right hind leg. This material is very well preserved and smaller bones such as the splint metatarsals, tarsal bones and knee-cap have been recovered. However, loss of the organic component of the bone has made it quite light and brittle, and the long bones have tended to sustain damage during excavation. The size of the bones indicates that this animal was small and lightly built.

The bones of the upper part of another right hind leg came from a larger and more robustly built horse. These bones also showed good preservation but with more signs of surface erosion. A shoulder blade and upper part of the right fore-leg also seem to be relatively large, and probably came from this skeleton rather than the smaller animal. A large proportion of a backbone and upper part of a rib-cage are likely to have belonged to one or other of these skeletons rather than a third animal, but it is difficult to judge which. All of the epiphyses of the vertebral centrums are fused, indicating that this backbone came from a mature animal, at least four to five years old (Schmid, 1975, p 75).

Being less commonly butchered than other domestic animals, horse bones are often found as articulated skeletons. A dead horse is difficult to move, and it would be normal to bury it very near to where it died. At a time when horses were widely used, having two die close to one another may have been less of a coincidence than it seems now.

Context 302 contained the bone of a hare. Species of hare are difficult to distinguish, but it is presumably a brown hare, a relatively common wild animal locally and one widely exploited for food. A tibia shaft in the same context probably came from a large 'improved' breed of sheep. It was sawn at each end. Use of saws in butchery is a relatively modern innovation (MacGregor, 1985, p 55), and it is unlikely that this bone dates back any earlier than the nineteenth century. The bone fragment from Context 1003 has a similar appearance and may also be modern.

By contrast, the sheep bone from Context 121 is from an animal typical of the time before widespread selective breeding resulted in large modern stock. This bone is very eroded and is likely to have been residual.

References

MacGregor A, 1985, *Bone Antler Ivory and Horn*, Croom Helm, London

Schmid E, 1975, *Atlas of Animal Bone*, Elsevier, Amsterdam

Context	Bone	Animal	Side	Comments
121	Humerus	Human	Right	Distal end of shaft.
121	?Humerus	?Human		Shaft fragment, ?same bone as above, but not re-fitting.
Total weight 121 Human bone: 66g				
121	Metatarsal	Sheep	?Right	Distal end badly eroded, with part of shaft.
Total weight 121 Animal bone: 8g				
302	Tibia	?Sheep	Right	Central part of shaft, both ends sawn.
302	Humerus	Hare	Right	Distal end and part of shaft.
Total weight 302: 19g				
1003	?Radius	?Sheep		Shaft fragment.
Total weight 303: 2g				
1006	Metatarsus	Horse	Left	Mt III complete, Mt II & IV complete but for broken splint tips.
1006	Astragalus	Horse	Left	Complete.
1006	Calcaneum	Horse	Left	Complete apart from end of tuberosity, articulates with above.
1006	Tarsus	Horse	Left	Two tarsal bones, complete
1006	Tibia	Horse	Left	Complete but for medial and posterior parts of distal end.
1006	Patella	Horse	Left	Complete apart from eroded proximal surface.
1006	Tibia	Horse	Right	Proximal end and part of shaft.
1006	Femur	Horse	Right	Distal end and lower part of shaft, articulates with above.
All above probably from single animal.				
1006	Femur	Horse	Right	Lateral side of proximal end missing, otherwise complete.
1006	Tibia	Horse	Right	Proximal end, articulates with above.
1006	Scapula	Horse	Right	Some fragments of blade missing but most present.
1006	Humerus	Horse	Right	Proximal end, ?articulates with above.
1006	Vertebrae	Horse		9 thoracic, 5 lumbar, fragments of at least 2 more, ?all one animal.
1006	Ribs	Horse		27 shaft fragments.
1006	?Innominate	?Horse		Fragment, ?same animal as one of above.
1006	Unidentified	?Horse		?Fragment of hyoid.
1006	Humerus	?Sheep	Left	Distl part of shaft.
Total weight 1006: 3057g				

APPENDIX 4: Environmental Archaeology Assessment

Introduction

An evaluation excavation conducted by Pre-Construct Archaeology (Lincoln) at South Park Lincoln, produced few archaeological features. Two samples were collected and submitted to the Environmental Archaeology Consultancy for processing and assessment (Table 1).

Methods

The soil sample was processed in the following manner. Sample volume and weight was measured prior to processing. The sample was washed in a 'Siraf' tank (Williams 1973) using a flotation sieve with a 0.5mm mesh and an internal wet sieve of 1mm mesh for the residue. Both residue and flot were dried and the residue subsequently re-floated to ensure the efficient recovery of charred material. The dry volume of the flot was measured and the volume and weight of the residue recorded.

The residue was sorted by eye, and environmental and archaeological finds picked out, noted on the assessment sheet and bagged independently. A magnet was run through the residue in order to recover magnetised material such as hammerscale and prill. The residue was then discarded. The flot was studied using x10 magnifications and the presence of environmental finds (i.e. snails, charcoal, carbonised seeds, bones etc) was noted and their abundance and species diversity recorded on the assessment sheet. The flot was then bagged and along with the finds from the sorted residue, constitute the material archive of the sample.

The individual components of the sample were then preliminarily identified and the results are summarised below in Table 1.

Results

The samples contained a few modern root fragments, chaff and rare modern seeds. This material represents very low levels of recent contamination and is not considered contemporary with the archaeology. The residues were composed largely of iron concreted sediment with a little coarse sand and limestone.

Archaeological finds in the two samples include a little brick or tile, a few flakes of hammerscale, a few tiny fragments of animal bone and a number of small fragments of coal. The latter might be a contaminant that has moved down through the soil, and this could also be an explanation for the brick/tile and hammerscale although the seven flakes and two spheroids of the latter in context 114 is high for contamination. No positive dating evidence was contained in the samples which are at present undated.

Table 1: SPL03. Finds from the processed samples

samp no.	cont no.	samp vol (l)	samp wt (Kg)	residue vol. (l)	flot vol (ml)	cbm	ham'r scale #	coal	char-coal */<2*	charr'd grain #	charr'd chaff#	charr'd seed #	snails*
1	114	28	26	0.6	1		9	+	1/1			1	1
2	121	17	21	0.2	2	+	2	+	1/1	1	18		1

* = abundance: 1=1-10, 2=11-50, 3=51-150, 4=151-250, 5=250+

>2*/<2* = >2mm abundance/<2mm abundance

number of seeds or items

+ present as small fragments

The flots of both samples are very small and have produced very little charcoal and few other finds. A single fragment of unidentifiable charred cereal grain was recovered from context 121 with eighteen fragments of charred cereal chaff. A single charred seed is recorded from 114 but none were observed in 121. Snail shells are rare with only *Trichia hispida*, *Cecilioides acicula*, *Vallonia* sp. and *Cochlicopa* sp. being identified in context 114 and *Trichia hispida* and *Vallonia* sp. in 121. This very limited assemblage might be expected in grassland.

Discussion and Recommendations

The samples have produced relatively little although the small quantity of charred cereal chaff in context 121 might reflect crop processing activity on the site somewhere in the near vicinity. There is also a probability that iron smithing is being undertaken somewhere on the site although much higher densities of hammerscale might be expected if this was closeby.

The palaeoenvironmental evidence for the site is limited to a few snail shells, perhaps suggesting a grassland habitat, but much larger frequencies would be required for useful interpretation.

Specific identification of the cereal chaff might give some clue as to the age of the deposit but in the absence of dating evidence the environmental data has little value.

If further work is undertaken at the site the charred plant remains are likely to have the highest potential. Sampling and analysis should be concentrated on the palaeoeconomic aspects of the site such as crop types, crop processing activities and industrial activities. Other aspects are likely to prove uninformative although occasional features may contain sufficiently well preserved snail shells to warrant sampling for palaeoenvironmental analysis. However in the absence of good archaeology the results of such a study are unlikely to have much value.

Acknowledgements

I should like to thank Trude Maynard for the sample washing and processing.

Bibliography

Williams, D. 1973 Flotation at Siraf, *Antiquity*, 47, 198-202

© James Rackham

The Environmental Archaeology Consultancy

23rd March 2003

APPENDIX 5: List of archaeological contexts

<i>Context</i>	<i>Type</i>	<i>Description</i>
<i>Trench 1</i>		
100	Layer	Topsoil
101	Cut	Modern culvert/drain
102	Cut	Pit cut
103	Cut	Pit cut
104	Cut	Pit cut
105	Cut	Pit cut
106	Cut	Pit cut
107	Cut	Possible gully, truncated by [101]
108	Layer	Limestone hardcore
109	Fill	Fill of [101]
110	Cut	Modern feature
111	Layer	Subsoil?
112	Layer	Former topsoil
113	Fill	Fill of [101]
114	Layer	Alluvial deposit
115	Fill	Primary fill of [102]
116	Fill	Primary fill of [103]
117	Fill	Primary fill of [104]
118	Fill	Primary fill of [105]
119	Fill	Primary fill of [106]
120	Fill	Primary fill of [107]
121	Layer	Alluvial deposit
122	Layer	Natural sand
123	Layer	Former topsoil
124	Fill	Fill of pit [105]
<i>Trench 2</i>		
200	Layer	Topsoil
201	Layer	Levelling deposit
202	Layer	Buried topsoil
203	Layer	Subsoil
204	Layer	Natural sand
205	Cut	Natural feature
206	Fill	Secondary fill of [205]
207	Fill	Primary fill of [205]
208	Cut	Natural feature?
209	Layer	Alluvial deposit
210	Fill	Primary fill of [208]
211	Cut	Possible shallow pit
212	Fill	Secondary fill of [208]
213	Fill	Fill of [211]
214	Cut	Natural feature?
215	Fill	Fill of [214]
216	Fill	Upper fill of [208]
<i>Trench 3</i>		
300	Layer	Topsoil
301	Layer	Former topsoil
302	Layer	Subsoil
303	Layer	Limestone hardcore
304	Layer	Natural sand
305	Cut	Shallow curvilinear gully
306	Fill	Fill of [305]
307	Cut	Pit cut
308	Fill	Fill of [307]
309	Cut	Pit cut
310	Fill	Upper fill of [309]
311	Cut	Pit cut

312	Fill	Secondary fill of [311]
313	Cut	Pit cut
314	Fill	Fill of [313]
315	Cut	Pit cut
316	Fill	Upper fill of [315]
317	Cut	Pit cut
318	Fill	Fill of [317]
319	Fill	Primary fill of [307]
320	Fill	Primary fill of [309]
321		
322		
323	Fill	Primary fill of [311]
324	Fill	Fill of [315]
325	Fill	Primary fill of [317]
<i>Trench 4</i>		
400	Layer	Topsoil
401	Layer	Redeposited sand
402	Layer	Former topsoil
403	Layer	Natural sand
404	Cut	Ditch cut
405	Cut	Gully cut
406	Layer	Subsoil below (402)
407	Fill	Fill of [404]
408	Fill	Fill of [405]
<i>Trench 5</i>		
500	Layer	Topsoil
501	Layer	Subsoil
502	Layer	Natural sand
503	Cut	Ditch cut
504	Cut	Ditch cut
505	Fill	Fill of [503]
506	Fill	Fill of [504]
507	Fill	Upper fill of [504]
<i>Trench 6</i>		
600	Layer	Topsoil
601	Layer	Subsoil
602	Cut	Ditch cut
603	Fill	Primary fill of [602]
604	Fill	Secondary fill of [602]
605	Cut	Cut for modern drain trench
606	Fill	Backfill of [605]
607	Fill	Redeposited topsoil within [605]
608	Fill	Fill of [609]
609	Cut	Possible natural feature
610	Layer	Natural sand
<i>Trench 7</i>		
700	Layer	Topsoil
701	Layer	Redeposited sand
702	Layer	Buried topsoil
703	Layer	Subsoil
704	Layer	Natural sand
705	Cut	Modern pipe trench
706	Fill	Fill of [705]
707	Cut	Pit, possible grave cut
708	Fill	Fill of [707]
709	Cut	Pit, possible grave cut
710	Fill	Fill of [709]
711	Cut	Curvilinear gully
712	Fill	Fill of [711]
713	Cut	Pit, possible grave cut
714	Fill	Fill of [713]

715	Cut	Pit, possible natural feature
716	Fill	Fill of [715]
717	Cut	Animal burrow
718	Fill	Fill of [717]
719	Cut	Pit, possible grave cut
720	Fill	Fill of [719]
721	Cut	Pit, possible grave cut
722	Fill	Fill of [721]
723	Cut	Pit, possible grave cut
724	Fill	Fill of [723]
725	Cut	Pit, possible grave cut
726	Fill	Fill of [725]
727	Cut	Ditch cut
728	Fill	Fill of [727]
<i>Trench 8</i>		
800	Layer	Topsoil
801	Layer	Subsoil
802	Layer	Natural
803	Cut	Possible pit
804	Cut	Natural feature?
805	Cut	Pit
806	Cut	Subrectangular pit?
807	Cut	Possible natural feature
808	Cut	Modern pipe trench
809	Cut	Sub-oval pit
810	Fill	Fill of [803]
811	Fill	Fill of [804]
812	Fill	Fill of [805]
813	Fill	Fill of [806]
814	Fill	Fill of [807]
815	Fill	Fill of [808]
816	Fill	Fill of [809]
<i>Trench 9</i>		
900	Layer	Topsoil
901	Cut	Dog grave
902	Fill	Backfill of [911]
903	Cut	Possible natural feature
904	Cut	Possible natural feature
905	Cut	Possible natural feature
906	Cut	Possible linear feature
907	Cut	Same as [906]?
908	Cut	Possible natural feature
909	Cut	Sub-rectangular pit
910	Cut	Possible natural feature/pit
911	Cut	Modern rectangular pit
912	Cut	Possible natural feature
913	Layer	Possible subsoil/alluvium
914	Layer	Waterborne deposit?
915	Layer	Waterborne deposit?
916	Fill	Fill of [906]/[907]
917	Fill	Fill of [912]
918	Fill	Fill of [906]/[907]
919	Fill	Fill of [905]
920	Fill	Fill of [903]
921	Fill	Fill of [910]
922	Fill	Fill of [909]
923	Fill	Fill of [904]
924	Fill	Fill of [908]/[912]
925	Fill	Fill of [908]
926	Fill	Fill of [901]
927	Burial	Dog burial in [901]

928	Layer	Natural (alluvial?) sand layer
929	Layer	Natural sand
930	Fill	Fill of [909]
<i>Trench 10</i>		
1000	Layer	Topsoil
1001	Layer	Former topsoil
1002	Layer	Redeposited sand
1003	Layer	Buried topsoil
1004	Layer	Natural sand
1005	Cut	Ditch cut
1006	Fill	Primary fill of [1005]
1007	Layer	Subsoil below (1001)
1008	Layer	Subsoil below (1003)
1009	Cut	Ditch cut
1010	Fill	Primary fill of [1009]
1011	Fill	Secondary fill of [1009]
1012	Cut	Pit cut
1013	Fill	Fill of [1012]
1014	Cut	Ditch cut
1015	Fill	Fill of [1014]
1016	Cut	Pit cut
1017	Fill	Fill of [1016]
1018	Layer	Ground raising deposit overlying (1003)
1019	Layer	Interface between (1001) and (1004)
<i>Trench 11</i>		
1100	Layer	Topsoil
1101	Layer	Subsoil
1102	Layer	Natural sand
1103	Cut	Possible tree bole
1104	Fill	Fill of [1103]
<i>Trench 12</i>		
1200	Layer	Topsoil
1201	Layer	Subsoil
1202	Layer	Alluvial deposit
1203	Layer	Natural sand