CLAY LAKE

SPALDING, LINCOLNSHIRE

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INTERIM REPORT

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NON-TECHNICAL SUMMARY

An archaeological trial trench evaluation was undertaken by Network Archaeology Ltd as part of a pre-determination planning application outline for a new business park and associated infrastructure at Clay Lake, Spalding, Lincolnshire.

Archaeologically significant features and deposits dated to the later Iron Age were revealed, along with several undated features which may be of a similar or later date. The features revealed within the trenches consisted mainly of ditches, a number of which are likely to represent water management associated with late Iron Age salt making. Several ditches are considered to be related to Iron Age settlement, possibly field systems or enclosure ditches, while the rest are believed to be drainage ditches of a later date.

Archaeological deposits were encountered directly below the topsoil at depths of as little as 0.3m below the present ground surface across the site.

1 INTRODUCTION

1.1 Purpose of the report

This interim report presents the preliminary results of an archaeological trial trench evaluation undertaken within a proposed development area on land at Clay Lake, Spalding, Lincolnshire (Figure 01). This report assesses the potential impact of development on the buried archaeological resource within the proposed development area.

1.2 Commissioning bodies

Ashley King Developments Ltd commissioned Savills to act as site agent. Network Archaeology Ltd tendered for the work to Savills and was awarded it by Ashley King Developments Ltd in April 2011.

1.3 Proposed development area

Location

The proposed development area lies 1.5km southeast of the modern centre of Spalding on the site of the former turkey farm and adjacent field, between Spalding Drove and the A16 (NGR 525680 321090)(Figure 02).

Development proposal

The proposal is for a new business park and associated infrastructure.

The proposed development area currently consists of a disused turkey farm in the western half and an arable field in the eastern half.

Geology, topography, soils and land use

Local soils are the deep, stoneless clayey soils of the Wallsea 2 Association developed over extensive deposits of superficial marine alluvium (SSEW 1983). These silts and clays overlie a solid geology of Oxford Clay.

The proposed development site is situated on roughly level ground at a height of approximately 2.5m OD.

1.4 Legislation, regulations and guidance

An outline application has been made for the redevelopment of a new business park (Class B1, B2 and B8) and associated infrastructure (H16-0347-11). Evaluation of the site was requested by Lincolnshire County Council with a view to ensuring a mitigation strategy is in place. The scope for this 'pre-determination' archaeological evaluation has been recommended by the Historic Environment Team (Jennings 2010).

A written scheme of investigation was produced by Network Archaeology Ltd (Wood 2011) detailing the procedures to be followed during archaeological trial trenching.

1.5 Archaeological and historical background

The deep deposits of superficial marine alluvium found throughout the Fens are the result of successive marine incursions from the Neolithic through to the mid to late Iron Age, and then again in the post-roman period. This limited the potential for settlement and land use until the later Iron Age when the sea-levels dropped to the point where limited occupation was possible (Hayes and Lane 1992).

Salt-making was the predominant industrial land-use in the area, with several Iron Age saltern sites known in the Fenland, most notably from Cowbit, 3km south of the site (Hayes and Lane 1992). Cropmarks of numerous ring ditches have been recorded in Weston Hills,

1.5km south-east of the site, and may suggest there may have been a prehistoric settlement in the area (HER25709). Later settlement has also recorded, particularly at Wygate Park, which showed evidence for occupation from the 1st century BC through to the early-mid 4th century AD (Wood 2006). Record has also been made of burnt human remains and an urn, provisionally dated to the Roman period, found immediately to the north of the site (HER 22371).

Rising sea-levels in the later Roman period may have made further occupation in the area untenable from the 4th century AD until the Saxon period, as is seen in salt making sites and possible farms identified in nearby Gosberton and Pinchbeck (Crowson *et al* 2005).

Spalding and the surrounding area saw a growth in wealth during the medieval period. The establishment of a priory in the town and numerous other ecclesiastical buildings in the area stand testament to this.

The 17th century was the period of major fen drainage, with several dyke systems created allowing the fertile soils to be exploited more extensively.

Previous archaeological work

An archaeological watching brief was conducted on the turkey farm immediately to the north-west of the proposed development site (Lewis 1998). Several ditches were revealed, and as there was very little dating evidence it was concluded that they probably represent field systems (HER 20558).

1.6 Aims

The aims and objectives of the archaeological evaluation, as set out in the scheme of archaeological works, were to:

- establish the presence or absence, quality and extent of archaeological remains and their location within the development area;
- gather sufficient information to enable an assessment of the potential significance of any archaeological remains to be made and the impact which development will have upon them;
- enable an informed decision to be made regarding the future treatment of any archaeological remains and consider any appropriate mitigatory measures either in advance of and/or during development;
- produce recommendations for future work as part of the region's ongoing research agenda;
- produce a project archive for deposition with The Collection;
- provide information for accession to the County Historic Environment Record (HER).

2 FIELDWORK PROCEDURES

2.1 Quality standards

All archaeological work was undertaken in accordance with the Institute for Archaeologists' standard and guidance documents (I*f*A 2008a, 2008b, 2008c, 2010) and those set out in the Lincolnshire Archaeology Handbook (Lincolnshire County Council 2010).

Network Archaeology is a Registered Organisation with the I*f*A and adhered to the standards represented by that status throughout.

2.2 Evaluation

Eighteen evaluation trial trenches (each measuring 50m x 2m) were proposed in the Written Scheme of Investigation following consultation with the Historic Environment Team. This equated to a largely random distribution, sampling 3% of the overall proposed development area, 1800sqm in total. Six trenches were to be placed in the eastern half of site, where the proposed attenuation ponds and access track are intended, with the remaining ten trenches located around the turkey farm area.

The presence of four overhead electricity pylons and extensive areas of concrete padding over large drains hindered the placement of the trenches within the turkey farm. Following further consultation with the Historic Environment Team, it was agreed that the total number of trenches could be reduced to sixteen.

Survey

All trenches were located and recorded, where appropriate, using a Leica GPS900, achieving accuracy levels of ±2cm.

Mechanical-excavation

The evaluation trenches were excavated down to the top of the first archaeological horizon by a 360° mechanical excavator fitted with a 2m wide toothless ditching bucket. A toothed bucket was used to break up the uppermost overburden of trenches located in areas of hard standing. All mechanical excavation was undertaken under the supervision and direction of the lead archaeologist.

Hand excavation, recording and sampling

A full written record was maintained on site, including standardised context descriptions on pro forma record sheets. Scale plans of individual trenches containing archaeological features were made and sections drawn showing archaeological deposits and representative soil. Both colour and monochrome photographs were taken.

2.3 Project codes and number allocations

The evaluation has been given the internal Network Archaeology project code SCL14. In addition, a museum project code (SPCL11) has been issued for the deposition of the site archive. All documents relating to the site archive for this project have been referenced, where appropriate, with these codes.

Each evaluation trench was allocated a unique number along with a block of context numbers. For example, the first context number from Trench 3 would be 300, and that for Trench 4 would be 400, etc. Palaeoenvironmental samples were numbered in sequence.

2.4 Assessment of archives, finds and soil samples

Following completion of the evaluation, the stratigraphic information gathered was assessed as to its potential and significance.

The finds were quantified and sent to appropriate specialists for assessment; these specialists are listed in the table below.

Table 2.1 Material types and specialists

Material type	Assessment by
Flint	Hugo Anderson–Whymark
Iron Age and Roman pottery	Ian Rowlandson
Post-Roman pottery	Jane Young
Briquetage	Elaine Morris
Animal bone and shell	Jennifer Wood
Burnt stone and fuel ash slag	Mike Wood
Environmental samples	PRS

Not all finds were assessed at the time of writing, but once the briquetage and environmental sample reports have been received they will be incorporated into the final version of the report.

3 RESULTS

Sixteen evaluation trial trenches were excavated in total. Trenches 1 and 2 were not excavated because of large areas of concrete padding and overhead electricity pylons covering the site.

All archaeological features excavated were cut into the underlying alluvium.

3.1 Trench 3 (Figure 04)

Natural deposits in Trench 3 comprised yellowish brown sandy silt alluvium 304 and 305, and were present at heights of 2.23m OD and 2.1m OD respectively.

A northeast-to-southwest oriented feature **302** was observed at the southern end of the trench. It measured 5.5m wide and was initially interpreted as a large ditch or watercourse, although following a controlled excavation of the feature with a mechanical excavator it seems more likely this represents a natural undulation in the underlying alluvium.

A 0.21m thick layer of hard standing limestone and brick rubble 300 extended across the entire length of the trench at a height of 2.43m OD, and truncated what appeared to be a remnant topsoil layer 301 of modern provenance.

3.2 Trench 4 (Figure 04, Plate 3)

Natural deposits in Trench 4 comprised orange-brown silt alluvium 402, and were revealed at a height of 2.1m OD.

Ditch **403** was located at the western end of the trench, oriented north-to-south with its southern end appearing to curve to the southeast. This ditch measured 0.77m wide by 0.17m deep, had steep sides and a rounded base, and the majority of a late Iron Age handmade jar was retrieved from its basal fill 404. Burnt stone, animal bone and a small quantity of briquetage were also collected from the orange-brown silty clay ditch fill.

Immediately to the east, north-to-south aligned ditch **406** transected the trench and cut into the alluvium. This ditch measured 1.1m wide by 0.33m deep and shared a similar profile to that of its neighbour. No secure dating evidence was retrieved from its fills, but small fragments of animal bone, burnt stone and briquetage were present.

In the centre of the trench another ditch **410** was recorded in both the north and south trench baulk sections. Its projected orientation is north-northwest-to-south-southeast and it had a shallow profile with undulating base, measuring 1.7m wide by 0.26m deep. It contained a single fill 411 from which fragments of animal bone, briquetage and a late Iron Age jar were recovered.

The similarities observed between these ditches indicates that a roughly contemporary late Iron Age date is likely.

Ditch **412** at the eastern end of the trench was also aligned in a north-south direction, however this one did not share the same properties as those to the west. It had a steep-sided, u-shape profile, measured 1.7m wide by 0.7m deep, and contained no finds.

A 0.36m thick layer of topsoil 400, extended across the entire length of the trench.

3.3 Trench 5 (Figure 05, Plates 4 and 5)

Natural deposits in Trench 5 comprised orange brown silt alluvium 502, and were present at a height of 2.13m OD.

Three large linear ditches were observed following the initial removal of overburden in Trench 5 and it was agreed with the Historic Environment Team that a controlled excavation using a mechanical excavator was appropriate.

A large feature **503** was excavated at the north-eastern end of the trench. It measured 4m wide by 1.1m deep, was oriented northwest-to-southeast and was truncated on its eastern edge by a number of modern services. The base was flat with the exception of its western extent where it looked like a small pit or posthole may have been cut. The eastern edge had a gradual slope that appeared stepped while on the western edge the gradient was much steeper. The feature contained five layered fills, all of which have been interpreted as different natural silting events. The basal deposit was grey silty clay 504 from which several fragments of animal bone and briquetage were retrieved.

A smaller ditch **509**, measuring 1.1m wide by 0.32m deep, was cut into its upper fills. It too was oriented northwest-to-southeast, although its cut was a flat bowl-shape containing two fills, neither of which produced any finds.

To the southwest, in the centre of the trench, were two large parallel linear features oriented west-northwest-to-east-southeast. It was decided that the most meaningful approach to excavating them was to insert individual sondages across them to enable a true profile to be recorded.

Ditch **522** was the most northerly of the two and measured 2.2m wide by 0.6m deep. It was filled by a sequence of four clay silt deposits, the first of which was greyish brown, organic-rich deposit 523. Sherds of medieval pottery were recovered from the tertiary fill 526, indicating the ditch may have been out of use by this period.

This ditch cut an earlier linear feature **516** that was oriented north-to-south. Its full width was not seen in the sondage excavated within the trial trench, but measured at least 2.2m wide by 0.6m deep. The fills were all clay silts with the exception of dark grey, organic-rich deposit 520 located towards the top of the ditch cut. No finds were retrieved from any of the contexts.

In turn this north-south ditch was revealed to have been a re-cut of an earlier ditch **512**. This ditch had steep sides and a flat base, the remnants of which measured 0.9m wide by 0.7m deep. This was filled by silty clay deposits and its basal fill 513 produced three small fragments of Iron Age pottery.

Ditch **527**, parallel to ditch **522,** was located 5m to the southwest of these intercutting features. It had a concave profile and measured 3.2m wide by 1.25m deep. The initial deposits within this ditch were well-laminated grey silts 528 and 529, but from then on the sequence was notably similar to that found in ditch **522**; a 0.28m thick deposit of dark brown, organic-rich fill 530, followed by clayey silts. No finds were retrieved from any of the fills.

It seems likely that these two large parallel ditches were open at the same time based on the depositional sequences found in both. The lack of finds and silty nature of their fills suggests they served as drainage ditches.

A 0.35m thick layer of topsoil 500 extended across the entire length of the trench.

3.4 Trench 6 (Figure 06)

Natural deposits in Trench 6 comprised orange-brown sandy silt alluvium 601, and were encountered at a height of 1.93m OD. This was covered the length of the trench by a 0.35m thick layer of topsoil 600.

No archaeological features were observed in Trench 6.

3.5 Trench 7 (Figure 06)

Natural deposits in Trench 7 comprised orange silt alluvium 701, and were encountered at a height of 1.9m OD.

Ditch **702** was the only feature recorded and was present through the northern half the length of the trench. The basal deposit was firm grey silty clay 703 that may represent a clay lining

to the ditch. The only finds observed from this ditch were present in the tertiary fill 706 and were identified on-site as modern sherds of pottery and were discarded.

A 0.4m thick layer of topsoil 700 extended across the entire length of the trench.

3.6 Trench 8 (Figure 06)

Natural deposits in Trench 8 comprised brown sandy silt alluvium 801 and 802, and were encountered at heights of 2.07m OD and 1.75m OD respectively.

A ditch **803** was cut into alluvium 801 in the eastern half of the trench. It measured 1.2m wide by 0.26m deep and was oriented northwest-to-southeast and contained a single fill 804 which did not produce any finds.

A 0.3m thick layer of topsoil 800 extended across the entire length of the trench.

3.7 Trench 9 (Figure 07)

Natural deposits in Trench 9 comprised orange-brown sandy silt alluvium 902 and 903, and were encountered at a height of 1.96m OD and 1.8m OD respectively. This was covered, along the length of the trench, by a 0.3m thick layer of hard standing limestone rubble 900 that truncated a former layer of topsoil 901.

No archaeological features were observed in Trench 9.

3.8 Trench 10 (Figure 07)

Natural deposits in Trench 10 comprised dark greyish brown clayey silt 1002 and silty clay 1003 alluvium, and were encountered at a height of 2.65m OD and 2.8m OD respectively. These layers were covered by a 0.5m thick layer of topsoil 1000 and 1001.

No archaeological features were observed in Trench 10.

3.9 Trench 11 (Figure 07)

Natural deposits in Trench 11 comprised grey clayey silt 1101 and dark brownish grey silty clay 1102 alluvium, and were encountered at a height of 2.06m OD and 1.98m OD respectively.

The initial stripping of the trench revealed four definite linear features. Subsequent investigation of these features revealed them to be modern drains and services.

A 0.33m thick layer of topsoil 1100 extended across the entire length of the trench.

3.10 Trench 12 (Figure 08)

Natural deposits were not present in Trench 12. It was established that the trench had been located over the top of a large modern ditch. The trench was excavated to a height of 1.08m OD, at which depth no deposits other than the modern ditch fill 1201 were observed. It is believed that this large ditch may be contemporary with the large bund immediately adjacent to it that encloses the turkey farm on its eastern boundary. The full 50m length of the trench was not excavated for this reason.

A 0.8m thick layer of hard standing limestone rubble 1200 extended across the entire length of the trench at a height of 2.30m OD.

3.11 Trench 13 (Figure 08, Plates 6, 7 and 8)

Natural deposits in Trench 13 comprised brownish orange sandy silt 1301 and greyish blue silty clay 1302 alluvium, and were revealed at a height of 2.28m OD and 1.39m OD respectively. All excavated features were cut into alluvium 1301.

One northeast-to-southwest oriented ditch **1303**, measuring 1.1m wide by 0.32m deep with moderately steep sides and a flat base was seen following the initial excavation of the 50m

trial trench. Some slumping 1305 was evident in its base, while in its secondary fills several fragments of animal bone and briquetage were retrieved.

At the western end of the trench the end of an archaeological feature had been observed in the south-facing baulk section that was producing briquetage from its fill. Upon consultation with the Historic Environment Team it was recommended that the trench be extended to establish the nature and extent of this deposit. A 20m extension was stripped to the south from the western end of Trench 13.

The feature first seen in the original trench section was northwest-to-southeast aligned shallow ditch **1338**. It had been heavily disturbed by animal burrowing, leaving only the base of the feature surviving. It was 1m wide by 0.27m deep and was filled by mid brownish orange silty loam 1337 which produced seventy-nine fragments of briquetage and a small quantity of burnt stone. To its south ran a parallel ditch **1336** that had been severely truncated through ploughing, measuring 1m wide by 0.1m deep. A similar quantity of briquetage and burnt stone was also retrieved from the greyish brown silty clay fill 1335 along with several fragments of animal bone.

Ditch **1314** was also oriented northwest-to-southeast and was located centrally within the southern extension. It measured 2.2m wide by 0.72m deep and contained a sequence of well-stratified datable fills. Basal deposit 1315 was laminated light grey silt and clay and produced five sherds of pottery from a late Iron Age globular jar and two fragments of fuel ash slag. Late Iron Age/early first century pottery was also recovered from secondary fill 1333 and later dump deposits 1317 and 1319. A total of 169 fragments of briquetage (weighing nearly 1kg) was hand collected from the ditch, the majority coming from mid brownish orange silty loam dump deposit 1318.

At the southern end of the extension was curvilinear ditch **1323**, which was oriented northwest-to-south and measured 0.8m wide by 0.43m deep and was visible for 7m of its length. The ditch had steep sides and a flat base and contained numerous laminations of grey silt and clay in its base. A small quantity of briquetage, animal bone and burnt stone was retrieved from the upper fills 1330 and 1332.

This was cut on its western side by a posthole **1320** that was circular in plan and measured 0.7m diameter by 0.6m deep. The fills were brown silty loam deposits 1321 and 1322, of which the basal fill 1321 produced some animal bone and briquetage.

A 0.35m thick layer of topsoil 1300 extended across the entire length of the trench.

All features excavated in Trench 13 appear likely to have been roughly contemporary with each other, and to have been in use during the late Iron Age and/or the early Roman period. The briquetage assemblage retrieved would indicate that there had been salt making in the immediate area and that the ditches and posthole excavated were possibly related to such activities.

3.12 Trench 14 (Figure 09)

Natural deposits in Trench 14 comprised orange-grey silty clay 1401 and purple grey silty clay 1402 alluvium, and were present at heights of 2.08m OD and 2.01m OD respectively.

Ditch **1403** was located in the middle of Trench 14, was cut into alluvium 1402, and sealed by alluvium 1401. It measured 0.9m wide by 0.6m deep and was oriented north-northwest-to-south-southeast. The ditch was filled by seven well-laminated clay and clayey silt deposits, none of which produced any finds.

A 0.4m thick layer of topsoil 1400 extended across the entire length of the trench.

3.13 Trench 15 (Figure 09, Plate 9)

Natural deposits in Trench 15 comprised orange-grey silt 1501 and blue-grey silty clay 1502 alluvium, and were encountered at heights of 1.8m OD and 1.66m OD respectively.

A large ditch **1503** transected the eastern end of Trench 15 and was excavated using a controlled machine excavation. The ditch measured 2.28m wide by 1m deep and was oriented north-northeast-to-south-southwest and sealed by alluvial deposit 1501. The fills were mainly grey silty clays although a darker organic-rich deposit 1508 was recorded overlying the basal fill 1509. This is likely to represent a period of vegetal growth soon after its excavation. Ditch **1503** is the same as ditch **1602** in Trench 16, **1722** in Trench 17 and **1809** in Trench 18. This is confirmed by the identification of a cropmark visible during trial trenching (Figure 03).

A 0.35m thick layer of topsoil 1500 extended across the entire length of the trench. A single piece of flint was retrieved from the topsoil.

3.14 Trench 16 (Figure 09)

Natural deposits in Trench 16 comprised orange yellow silt 1603, orange-grey clayey silt 1604 and light blue-grey silty clay 1605 alluvium, and were encountered at heights of 1.59m OD, 1.3m OD and 1.06m OD respectively.

Ditch **1602** was observed in the centre of the trench, was 2.5m wide and cut through all alluvial layers. Ditch **1602** is the same as ditch **1503** in Trench 15, **1722** in Trench 17 and **1809** in Trench 18. This is confirmed by the identification of a cropmark visible during trial trenching (Figure 03). This ditch was not excavated in Trench 16 as it had been sufficiently recorded in Trenches 15 and 18.

A 0.3m thick layer of topsoil 1600 extended across the entire length of the trench.

3.15 Trench 17 (Figure 10)

Natural deposits in Trench 17 comprised yellowish brown silty sand 1701 and light brown sandy silt 1702 alluvium, and were encountered at heights of 2m OD and 1.86m OD respectively.

Three intercutting ditches were excavated at the southern end of the trench. The northernmost ditch **1713** measured 1.84m wide by 0.88m deep and was oriented northwest-to-southeast. It possessed a concave profile and contained a single fill of light blue-grey silty clay 1714, which had been re-cut by ditch **1720**. This was filled by grey silty clays for the most part. Dark grey, organic-rich silty clay 1716 was found below the final fill of the ditch and is believed to represent a period of vegetal growth.

During excavation of this ditch it became apparent that ditch **1720** cut into an earlier ditch not previously seen because of the similarity between its fills and the underlying alluvium. Earlier ditch **1707** was also oriented northwest-to-southeast, had steep sides and a large flat base and measured 2.8m wide by 0.4m. Small quantities of animal bone and shell were retrieved from greyish brown clayey silt 1710.

Ditch **1707** feature was also truncated on its southern edge by east-to-west oriented ditch **1703**. It had gradual sloping sides and an undulating base, measuring 1.65m wide by 0.5m deep and containing single orange-grey clayey silt fill 1704. A modern ceramic land drain was cut down its length, suggesting that the ditch itself could be fairly recent.

No datable finds were recovered from any of the ditches excavated, most likely because they primarily functioned as drains away from settlement.

Ditch **1722** was observed at the northern end of the trench and was 2.5m wide. Ditch **1722** is the same as ditch **1503** in Trench 15, **1602** in Trench 16 and **1809** in Trench 18. This is confirmed by the identification of a cropmark visible during trial trenching (Figure 03). It remained unexcavated in Trench 17 as it had been recorded and characterised in Trenches 15 and 18.

All features excavated were cut into alluvium 1702 and sealed by alluvium 1701 with the notable exception of ditch **1722** at the northern end of the trench.

A 0.35m thick layer of topsoil 1700 extended across the entire length of the trench.

3.16 Trench 18 (Figures 10)

Natural deposits in Trench 18 comprised greyish brown clayey silt 1801, orange brown silt 1802 and dark greyish blue silty clay 1820 alluvium, and were encountered at heights of 1.51m OD, 1.19m OD and 0.57m OD respectively.

Ditch **1803** was located at the south-western end of the trench, was oriented east-to-west and measured 3m wide. The upper fills were orange-brown silty sands 1806, 1807 and 1808, and overlay grey silty clay deposits 1804 and 1805. A modern ceramic land drain had been cut into the upper fills and was observed to extend along the ditches length.

The base of the ditch was not reached because the excavation was beginning to compromise the integrity of the trench walls making work unsafe. The ditch was cleaned and recorded at 0.80m deep.

In the middle of the trench another ditch **1809** was excavated, measuring 2.45m wide by 1m deep and oriented north-northeast-to-south-southwest. It had moderately steep sides and had an uneven base. The fills were mainly grey silty clays and appeared to be very similar to the sequence seen in ditch **1503** in Trench 15.

Ditch **1809** is the same as ditch **1503** in Trench 15, **1602** in Trench 16 and **1722** in Trench 17. This is confirmed by the identification of a cropmark visible during trial trenching (Figure 03).

Two alluvial deposits 1818 and 1819 were recorded at the north-eastern end of the trench and extended for 18m. They represent separate flooding events confined to the north-eastern corner of the proposed development area.

A 0.3m thick layer of topsoil 1800 extended across the entire length of the trench. No finds were retrieved from Trench 18.

4 DISCUSSION

Three themes have arisen during this evaluation: late Iron Age settlement, late Iron Age salt making, and multi-period water management.

With the exception of a few sherds in Trench 13, the majority of the total Iron Age pottery assemblage was retrieved from Trench 4. The depositional sequence observed within the trenches was also different. The ditches investigated in Trenches 5 and 13 contained successive deposits of well-laminated alluvium, whereas those in Trench 4 were darker, clayey soils.

It is also worth noting that the archaeological features from which the artefacts were collected were elevated almost a metre above any of their contemporaries from the other trenches. The western side of the site appears to have lain on higher, better drained ground that would have been suitable for settlement.

Briquetage was found in all features interpreted as late Iron Age. However, the concentration of larger diagnostic fragments was in Trench 13, with only small quantities recovered from the pottery-rich ditch fills of Trench 4. The alluvium filling the bases of the ditches was well-laminated and appears to represent successive flood episodes. The majority of the briquetage was found in the dump deposits sealing the ditches, suggesting that salt making occurred in the very near vicinity.

It would be difficult to postulate the precise function of these features or the location of the salt making activity; however these ditches are likely to represent some form of water management involved in the process.

Water management has always been of upmost importance to those occupying the fenland environment. The current landscape is dominated by fertile low-lying land drained by dykes that serve as field boundaries. It comes as no surprise that during trial trenching, in a landscape such as this, drainage ditches would be encountered. It has, however, been more problematic to date them. What appears to be common among some of the larger ditches is their orientation. The ditches recorded in Trenches 15 to 18 were cut through later alluvial deposits and respect the lines of current boundaries. Furthermore, at least one of the parallel ditches in Trench 5 is recorded on the Ordnance Survey Map of *c.*1880, indicating a post-medieval date.

5 CONCLUSION

The trial trench evaluation has identified archaeological remains dated to the Iron Age and Roman periods. A number of undated ditches could also date to these periods, though equally some could represent later activity at the site.

The late Iron Age features excavated suggest that there was both settlement and industry in the vicinity of the site. It seems reasonable to assume that the southern area of the proposed development site lies on the periphery of a late Iron Age salt making site, with settlement evidence coming from the northwest.

Water management is evident from the late Iron Age through to the present. Much of this remains undated although it can be postulated that many of the features containing finds date to the late Iron Age, while the larger later ditches, predominantly those in the centre and east of the site, are believed to be of a late medieval or post-medieval date.

6 ARCHIVE

The documentary archive will comprise:

- A copy of the written scheme of investigation for the evaluation
- A copy of the final evaluation trial trench report
- Finds catalogues
- Site records, as detailed in the table below:

Table 6.1: Quantification of the site archive

Item	Count
Trench sheets	16
Context registers	16
Context sheets	192
Drawing registers	2
Drawing sheets	12
Sample register	1
Sample sheets	8
Photographic registers	14
Black and white photographs	180
Colour slide photographs	180
Digital colour photographs	270

On completion of the reporting stages of the project, the archive will be prepared for long-term storage in a format agreed in advance with the relevant local depository. This will be in accordance with guidelines prepared by the UK Institute of Conservation (Walker 1990) and the Museums and Galleries Commission (MGC 1992). The project archive will be managed in accordance with current guidelines.

The recipient museum is The Collection, Danes Terrace, Lincoln, Lincolnshire LN2 1LP; tel: 01522 550990, who have assigned this project the accession code LCNCC: 2011.76.

The recipient museum will receive the document archive, and with the permission of the landowners, any finds generated from the archaeological works.

Prior to the deposition of the archive, the necessary arrangements will be made with the site owners regarding the transfer of ownership of any archaeological finds to the recipient museums. In the event that deposition of the archive cannot be concluded, Network Archaeology will store the archive to a suitable standard until deposition can be arranged. In this event, Network Archaeology will retain ownership of the document archive until the document archive and its ownership is passed to the recipient museums.

7 ACKNOWLEDGEMENTS

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8 REFERENCES

BGS, 1992, 1:50 000 Series Geological Map, *Sheet 144.* British Geological Survey, Keyworth, Nottinghamshire.

Crowson, A., Lane, T., Penn, K. And Trimble, D., 2005, *Anglo-Saxon Settlement on the Siltland of Eastern England.* Lincolnshire Archaeology and Heritage Reports Series, No. 7.

Hayes, P. and Lane T., 1992, *The Fenland Project No. 5: Lincolnshire Survey, The South-West Fens.* East Anglian Archaeology 55.

IfA, 2008a, *Code of approved practice for the regulation of contractual arrangements in field archaeology*. Institute for Archaeologists.

IfA, 2008b, *Standard and guidance for the collection, documentation, conservation and research of archaeological materials*. Institute for Archaeologists.

IfA, 2008c, *Standard and guidance for an archaeological field evaluation*. Institute for Archaeologists.

IfA, 2010, *Code of conduct*. Institute for Archaeologists.

Jennings, L., 2010, *Lincolnshire County Council Historic Environment Team Archaeological Brief for trial excavation Clay Lake, Spalding, South Holland*. Unpublished brief.

Lewis, E., 1998, *Archaeological Watching Brief of development at Turner's Turkeys, Clay Lake, Spalding, Lincolnshire*. A.P.S. Report No. 57/97.

Lincolnshire County Council, 2010, *Archaeology Handbook*. Lincolnshire County Council.

MGC, 1992, *Standards in the Museum Care of Archaeological Collections*. Museums and Galleries Commission, London

SSEW, 1983, *Soils of England and Wales: Sheet 4: Eastern England.*

Walker, K., 1990, *Guidelines for the preparation of excavation archives for long-term storage*. UK Institute for Conservation, London.

Wood, M., 2006, *Archaeological Assessment Report on Land at Wygate Park, Spalding, Lincolnshire (SWP05).* A.P.S. Report No. 69/06.

Wood, M., 2011, *Clay Lake, Spalding: Written Scheme of Investigation to be carried out during an archaeological evaluation*. Network Archaeology Ltd unpublished document.

Appendix A
Context Summary

Trench	Context	Type	Fill of	Dimensions	Description	Interpretation
3	300	Layer		0.21m thick	Compact limestone and brick rubble	Hard standing
3	301	Layer		0.20m thick	Friable light grey fine silt	Truncated topsoil
3	302	Cut		5.50m wide, 0.20m deep min.	Gradual sloping sides, base left unexcavated, NE-SW oriented linear	Undulation in alluvium
3	303	Fill	302	0.20m thick min.	Laminated grey silt and silty clay layers	Fill
3	304	Layer		0.10m thick	Firm yellowish brown sandy silt	Hard-weathered alluvium
3	305	Layer		0.60m thick min.	Soft striated bands of yellowish brown sandy silt	Alluvium
4	400	Layer		0.36m thick	Friable dark greyish brown silty clay	Topsoil
4	401	VOID				
4	402	Layer		0.50m thick min.	Soft laminated mid orange brown silt	Alluvium
4	403	Cut		0.77m wide, 0.17m deep	Steep sides, concave sides to a flat base, N-S oriented linear (possibly S end curving SE?)	Ditch
4	404	Fill	403	0.77m wide, 0.06m thick	Firm mid orange brown silty clay with dark greyish black laminations	Basal fill
4	405	Fill	403	0.67m wide, 0.11m thick	Firm light orange brown silty sand	Upper fill
4	406	Cut		1.1m wide, 0.33m deep	Steep concave sides with undulating base, N-S oriented linear	Ditch
4	407	Fill	406	1.1m wide, 0.08m thick	Soft light grey silt	Fill
4	408	Fill	406	1.1m wide, 0.13m thick	Firm mid grey silty clay	Secondary fill
4	409	Fill	406	0.90m wide, 0.18m thick	Firm light orange silt	Fill
4	410	Cut		1.70m wide, 0.26m deep	Wide u-shape, N-S oriented linear	Ditch
4	411	Fill	410	1.70m wide, 0.26m deep	Firm dark greyish brown silty clay	Fill
4	412	Cut		1.10m wide, 0.70m deep	Steep sided, deep u-shaped, N-S oriented linear	Ditch
4	413	Fill	412	1.10m wide, 0.70m thick	Firm mid brown silty clay with orange mottling	Fill
4	414	Fill	412	1.00m wide, 0.52m thick	Firm mid grey silty clay with orange mottling	Fill
4	415	Fill	412	0.80m wide, 0.42m thick	Firm very dark grey organic-rich silty clay	Fill
5	500	Layer		0.35m thick	Friable mid brown silty loam	Topsoil
5	501	VOID				
5	502	Layer		1.40m thick min.	Soft well-laminated orange brown silt	Alluvium

Trench	Context	Type	Fill of	Dimensions	Description	Interpretation
5	503	Cut		4.00m wide, 1.10m deep	Steep SW sloping side and shallow, somewhat stepped NE side, undulating base, NW-SE oriented linear	Ditch
5	504	Fill	503	2.60m wide, 0.24m thick	Soft light-to-mid grey clayey silt with occasional orange mottling and occasional charcoal fragments	Basal fill
5	505	Fill	503	4.00m wide, 0.20m thick	Soft light grey silt with frequent brown mottling	Fill
5	506	Fill	503	3.00m wide, 0.14m thick	Soft mid grey silty clay with occasional light grey silt banding	Fill
5	507	Fill	503	3.00m wide, 0.30m thick	Soft light greyish orange silt	Fill
5	508	Fill	503	2.60m wide, 0.22m thick	Friable orange brown clayey silt	Tertiary fill
5	509	Cut		1.10m wide, 0.32m deep	Concave, bowl-shaped, NW-SE oriented linear	Ditch
5	510	Fill	509	1.10m wide, 0.10m thick	Friable band of dark greyish black, organic-rich clayey silt with occasional flecks of fired clay	Primary fill
5	511	Fill	509	0.8m wide, 0.20m thick	Friable orange brown clayey silt with occasional flecks of fired clay	Upper fill
5	512	Cut		0.90m wide, 0.70m deep	Steep sides, flat base, N-S oriented linear	Ditch
5	513	Fill	512	0.66m wide, 0.25m thick	Friable grey silty clay with occasional flecks of charcoal	Basal fill
5	514	Fill	512	0.50m wide, 0.10m thick	Soft greyish orange sandy silt	Slumping
5	515	Fill	512	0.30m wide, 0.10m thick	Soft light grey silty loam with frequent brown laminations	Alluvial deposit
5	516	Cut		2.10m wide min., 0.70m deep	Gradual sloping sides at top of cut, 45° towards base, flat base, N-S oriented linear	Ditch
5	517	Fill	516	1.40m wide, 0.25m thick	Firm grey clay	Basal fill
5	518	Fill	516	1.00m wide, 0.50m thick	Firm blue grey clay	Fill
5	519	Fill	516	2.10m wide min., 0.30m deep	Soft light grey sandy silt	Fill
5	520	Fill	516	1.60m wide, 0.25m thick	Soft dark grey organic-rick clayey silt	Vegetal growth
5	521	Fill	516	1.40m wide, 0.20m thick	Friable orange brown clayey silt	Tertiary fill
5	522	Cut		2.20m wide, 0.60m deep	Concave, 60° steep sides at the top, 45° steep sides towards the base, flat base, WNW-ESE oriented linear	Ditch
5	523	Fill	522	2.00m wide, 0.16m thick	Soft greyish brown organic-rich clayey silt	Primary fill
5	524	Fill	522	1.78m wide, 0.15m thick	Friable brownish grey clayey silt	Fill
5	525	Fill	522	2.00m wide, 0.14m thick	Soft light greyish brown silt	Alluvial deposit
5	526	Fill	522	2.00m wide, 0.28m thick	Friable greyish orange clayey silt	Upper fill
5	527	Cut		3.20m wide, 1.25m deep	Concave, bowl-shaped, WNW-ESE oriented linear	Ditch
5	528	Fill	527	1.80m wide, 0.13m thick	Soft well-laminated light greyish brown silt	Fill
5	529	Fill	527	2.80m wide, 0.40m thick	Soft well-laminated grey silt	Fill

Trench	Context	Type	Fill of	Dimensions	Description	Interpretation
5	530	Fill	527	2.10m wide, 0.28m thick	Soft dark brown organic-rich, clayey silt	Vegetal growth
5	531	Fill	527	1.80m wide, 0.20m thick	Friable dark grey clayey silt with light brown patches	Fill
5	532	Fill	527	2.40m wide, 0.55m thick	Friable light greyish brown clayey silt with occasional flecks of charcoal	Upper fill
6	600	Layer		0.30m thick	Friable light greyish brown silty loam	Topsoil
6	601	Layer		0.70m thick min.	Soft bands of orange brown sandy silt	Alluvium
7	700	Layer		0.40m thick	Firm mid greyish brown silty clay	Topsoil
7	701	Layer		0.70m thick min.	Firm mid orange silt with grey mottling	Alluvium
7	702	Cut		1.36m wide, 0.37m deep	Steep sides, concave sides with a rounded base, N-S oriented linear	Ditch
7	703	Fill	702	1.26m wide, 0.09m thick	Light grey firm silty clay	Basal deposit
7	704	Fill	702	1.02m wide, 0.06m thick	Firm dark greyish black silty clay	Vegetal growth
7	705	Fill	702	0.76m wide, 0.06m thick	Firm mid grey silty clay with light orange brown silt mottling	Upper fill
7	706	Fill	702	0.40m wide, 0.08m thick	Firm mid orange brown silty clay	Tertiary fill
8	800	Layer		0.30m thick	Friable light greyish brown silty loam	Topsoil
8	801	Layer		0.26m thick	Friable brown sandy silt	Hard-weathered alluvium
8	802	Layer		0.50m thick min.	Compact brownish grey sandy silt	Alluvium
8	803	Cut		1.20m wide, 0.26m deep	45° steep sides, flat base, NW-SE oriented linear	Ditch
8	804	Fill	803	1.20m wide, 0.26m thick	Firm mid brown silty clay	Fill
9	900	Layer		0.30m thick	Compact limestone rubble	Hard standing
9	901	Layer		0.22m thick	Friable brownish grey clayey silt	Truncated topsoil
9	902	Layer		0.18m thick	Compact orange brown sandy silt	Hard-weathered alluvium
9	903	Layer		0.50m thick min.	Firm orange grey sandy silt	Alluvium
10	1000	Layer		0.30m thick	Friable dark brown silty loam with occasional CBM inclusions	Topsoil
10	1001	Layer		0.20m thick	Friable light grey clayey silt	Weathered topsoil
10	1002	Layer		0.22m thick	Firm greyish brown clayey silt layer	Alluvium
10	1003	Layer		0.50m thick min.	Firm dark grey silty clay	Alluvium
11	1100	Layer		0.33m thick	Friable light greyish brown silty loam	Topsoil
11	1101	Layer		0.10m thick	Compact grey clayey silt	Hard-weathered alluvium

Trench	Context	Type	Fill of	Dimensions	Description	Interpretation
11	1102	Layer		0.50m thick min.	Firm dark greyish brown silty clay	Alluvium
12	1200	Layer		0.80m thick	Compact limestone rubble	Hard standing
12	1201	Fill		1.00m thick min.	Friable dark brown organic-rich clayey silt	Modern ditch fill
13	1300	Layer		0.35m thick	Friable light greyish brown silty loam	Topsoil
13	1301	Layer		0.80m thick	Soft brownish orange sandy silt	Alluvium
13	1302	Layer		0.10m thick min.	Firm greyish blue silty clay	Alluvium
13	1303	Cut		1.10m wide, 0.32m deep	45° steep sides, flat base, NE-SW oriented linear	Ditch
13	1304	Fill	1303	0.70m wide, 0.13m thick	Soft brown sandy silt	Basal deposit
13	1305	Fill	1303	1.10m wide, 0.30m thick	Friable greyish brown silty clay	Slumping
13	1306	Fill	1303	0.60m wide, 0.10m thick	Soft light grey silty clay	Secondary fill
13	1307	Fill	1303	1.10m wide, 0.20m thick	Soft light brownish orange silty loam	Upper fill
13	1308	Cut		2.70m wide, 0.20m deep	Gradual sloping side, undulating base	Ditch
13	1309	Fill	1308	2.70m wide, 0.20m thick	Friable dark brown silty loam	Fill
13	1310	Cut		1.85m wide, 0.10m deep	Gradual sloping side, undulating base	Ditch
13	1311	Fill	1310	1.85m wide, 0.10m thick	Friable greyish brown silty loam	Fill
13	1312	Layer		0.12m thick	Soft very light grey sandy silt	Alluvium
13	1313	Layer		0.10m thick	Soft very light grey sandy silt	Alluvium
13	1314	Cut		2.20m wide, 0.72m deep	45° steep sides, concave base, NW-SE oriented linear	Ditch
13	1315	Fill	1314	1.27m wide, 0.17m thick	Firm laminated light grey silty clay	Basal fill
13	1316	Fill	1314	1.10m wide, 0.04m thick	Firm dark greyish black silty clay	Secondary fill
13	1317	Fill	1314	1.70m wide, 0.11m thick	Firm mid grey silty clay with occasional flecks of charcoal	Dump deposit
13	1318	Fill	1314	1.20m wide, 0.18m thick	Soft mid brownish orange silty loam	Dump deposit
13	1319	Fill	1314	0.85m wide, 0.15m thick	Firm mid greyish brown silty clay	Dump deposit
13	1320	Cut		0.70m wide, 0.60m deep	Steep sides, flat base, circular in plan	Posthole
13	1321	Fill	1320	0.70m wide, 0.40m thick	Friable dark brown silty loam	Fill
13	1322	Fill	1320	0.70m wide, 0.30m thick	Soft brown silty clay	Fill
13	1323	Cut		0.80m wide, 0.43m deep	Steep sides, flat base, NW-S curving linear	Ditch
13	1324	Fill	1323	0.80m wide, 0.01m thick	Soft dark greyish black organic-rich silty clay	Primary fill
13	1325	Fill	1323	0.80m wide, 0.05m thick	Soft light grey silt	Fill

Trench	Context	Type	Fill of	Dimensions	Description	Interpretation
13	1326	Fill	1323	0.80m wide, 0.10m thick	Soft dark grey silty clay	Fill
13	1327	Fill	1323	0.80m wide, 0.20m thick	Soft light orange silt	Fill
13	1328	Fill	1323	0.80m wide, 0.08m thick	Friable dark grey silty clay	Fill
13	1329	Fill	1323	0.80m wide, 0.30m thick	Friable greyish brown silty clay	Fill
13	1330	Fill	1323	0.60m wide, 0.20m thick	Soft dark brown silty clay	Tertiary fill
13	1331	Layer			Soft very light grey sandy silt	Alluvium
13	1332	Fill	1323	0.60m wide, 0.04m thick	Friable greyish brown clayey silt	Tertiary fill
13	1333	Fill	1314	2.20m wide, 0.22m thick	Firm laminated light grey silty clay	Fill
13	1334	Fill	1314	1.60m wide, 0.09m thick	Firm mid greyish brown silty clay	Dump deposit
13	1335	Fill	1336	1.00m wide, 0.10m thick	Friable mid greyish brown silty clay	Fill
13	1336	Cut		1.00m wide, 0.10m thick	Gradual sloping side, rounded base, NW-SE oriented linear	Ditch
13	1337	Fill	1338	1.00m wide, 0.27m thick	Soft mid brownish orange silty loam with occasional charcoal inclusions	Fill
13	1338	Cut		1.00m wide, 0.27m thick	Gradual sloping side, rounded base, NW-SE oriented linear	Ditch
14	1400	Layer		0.40m thick	Soft mid greyish brown sandy silt	Topsoil
14	1401	Layer		0.10m thick	Soft orange grey silty clay	Alluvium
14	1402	Layer		0.50m thick min.	Firm purplish grey silty clay	Alluvium
14	1403	Cut		0.90m wide, 0.60m deep	V-shaped ditch, slightly rounded base, NNW-SSE oriented linear	Ditch
14	1404	Fill	1403	0.30m wide, 0.06m thick	Firm dark reddish purple clay	Basal fill
14	1405	Fill	1403	0.80m wide, 0.17m thick	Soft orange grey clayey silt	Secondary fill
14	1406	Fill	1403	0.48m wide, 0.10m thick	Firm light grey clay with orange mottling	Fill
14	1407	Fill	1403	0.60m wide, 0.03m thick	Firm dark grey clay	Fill
14	1408	Fill	1403	0.90m wide, 0.07m thick	Firm mid grey clay	Fill
14	1409	Fill	1403	0.65m wide, 0.02m thick	Soft dark grey organic-rich clayey silt	Fill
14	1410	Fill	1403	0.65m wide, 0.20m thick	Firm light grey clay	Fill
15	1500	Layer		0.35m thick	Friable light grey clayey silt	Topsoil
15	1501	Layer		0.30m thick	Soft orange grey silt	Alluvium
15	1502	Layer		0.60m thick min.	Firm blue grey silty clay	Alluvium
15	1503	Cut		2.28m wide, 1.00m deep	45° steep sides, concave base, NNE-SSW oriented linear	Ditch
15	1504	Fill	1503	2.28m wide, 0.08m thick	Firm mid greyish brown silty clay	Tertiary fill

Trench	Context	Type	Fill of	Dimensions	Description	Interpretation
15	1505	Fill	1503	2.28m wide, 0.20m thick	Firm mid orange grey silty clay	Fill
15	1506	Fill	1503	2.20m wide, 0.30m thick	Friable mid grey silty clay	Fill
15	1507	Fill	1503	1.20m wide, 0.28m thick	Firm mid grey silty clay with orange mottling	Fill
15	1508	Fill	1503	1.50m wide, 0.03m thick	Soft dark greyish black organic-rich silty clay	Vegetal growth
15	1509	Fill	1503	1.50m wide, 0.24m thick	Soft light blue grey silty clay	Basal fill
16	1600	Layer		0.30m thick	Soft mid brown silty loam	Topsoil
16	1601	Fill	1602	2.5m wide	Number assigned to fills of ditch	Fills
16	1602	Cut		2.5m wide	NNE-SSW linear	Ditch
16	1603	Layer		0.20m thick	Soft orange yellow silt	Alluvium
16	1604	Layer		0.24m thick	Compact orange grey clayey silt	Alluvium
16	1605	Layer		0.15m thick min.	Firm light blue grey silty clay	Alluvium
17	1700	Layer		0.35m thick	Friable light greyish brown clayey silt	Topsoil
17	1701	Layer		0.15m thick	Soft yellowish brown silty sand	Alluvium
17	1702	Layer		0.28m thick min.	Soft light brown sandy silt	Alluvium
17	1703	Cut		1.65m wide, 0.50m deep	Gradual sloping sides, undulating base, E-W oriented linear	Ditch
17	1704	Fill	1703	1.65m wide, 0.50m thick	Friable orange grey clayey silt	Fill
17	1705	Cut		0.12m wide, 0.44m deep	Modern ceramic drain	Modern ceramic drain
17	1706	Fill	1705	0.12m wide, 0.44m thick	Modern ceramic drain	Modern ceramic drain
17	1707	Cut		2.80m wide, 0.40m deep	Steep side, flat base, NW-SE oriented linear	Ditch
17	1708	Fill	1707	1.30m wide, 0.12m thick	Firm light greyish orange silty sand	Tertiary fill
17	1709	Fill	1707	1.30m wide, 0.08m thick	Firm brown clay	Fill
17	1710	Fill	1707	2.40m wide, 0.30m thick	Friable greyish brown clayey silt	Fill
17	1711	Fill	1707	2.40m wide, 0.12m thick	Firm greyish brown silty clay	Fill
17	1712	Fill	1707	0.40m wide, 0.40m thick	Soft orange clayey silt	Slumping
17	1713	Cut		1.84m wide, 0.88m deep	Steep sided, concave, NW-SE oriented linear	Ditch
17	1714	Fill	1720	0.58m wide, 0.82m thick	Friable light blue grey silty clay	Fill
17	1715	Fill	1713	0.75m wide, 0.26m thick	Firm mid grey silty clay with occasional orange patches	Fill
17	1716	Fill	1713	1.60m wide, 0.06m thick	Firm dark greyish black organic-rich silty clay	Vegetal growth
17	1717	Fill	1713	1.68m wide, 0.18m thick	Firm mid grey silty clay with occasional orange mottling	Fill

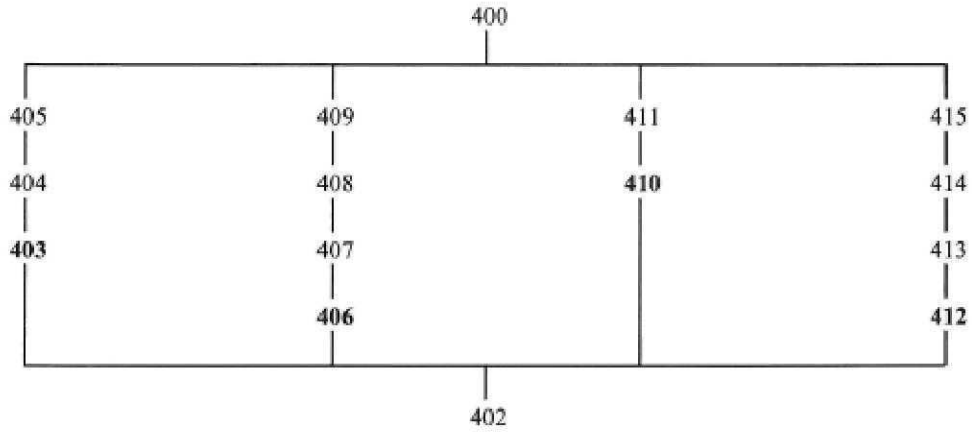
Trench	Context	Type	Fill of	Dimensions	Description	Interpretation
17	1718	Fill	1713	1.80m wide, 0.08m thick	Soft light blue grey silty clay	Fill
17	1719	Fill	1713	1.84m wide, 0.38m thick	Firm mid grey silty clay with orange mottling	Fill
17	1720	Cut		1.84m wide, 0.88m deep	Steep sides, rounded to a flat base, NW-SE oriented linear	Ditch
17	1721	Fill	1722	2.5m wide	Number assigned to fills of ditch	Fills
17	1722	Cut		2.5m wide	NNE-SSW linear	Ditch
18	1800	Layer		0.30m thick	Friable light greyish brown clayey silt	Topsoil
18	1801	Layer		0.10m thick	Friable mid greyish brown silty clay	Alluvium
18	1802	Layer		0.52m thick min.	Friable brownish grey sandy silt	Alluvium
18	1803	Cut		3.00m wide, 0.80m deep	45° steep irregular sides, E-W oriented linear	Ditch
18	1804	Fill	1804	1.90m wide, 0.26m thick min.	Firm light grey silty clay with orange mottling	Fill
18	1805	Fill	1804	1.90m wide, 0.06m thick min.	Soft dark grey silty clay	Fill
18	1806	Fill	1804	3.00m wide, 0.50m thick	Firm light greyish brown silty sand with orange mottling	Fill
18	1807	Fill	1804	2.02m wide, 0.34m thick	Firm orange brown silty sand	Fill
18	1808	Fill	1804	1.70m wide, 0.10m deep	Friable dark orange brown silty sand	Fill
18	1809	Cut		2.45m wide, 1.00m deep	Moderately steep sides, uneven base, NNE-SSW oriented linear	Ditch
18	1810	Cut		0.30m wide, 0.28m deep	Vertical sides, flat base, NNE-SSW oriented linear	Field drain
18	1811	Fill	1810	0.30m wide, 0.28m thick	Firm dark orange clayey silt	Fill
18	1812	Fill	1810	0.80m wide, 0.20m thick	Firm dark grey silty clay	Fill
18	1813	Fill	1810	0.85m wide, 0.10m thick	Friable dark grey organic rich silty clay	Fill
18	1814	Fill	1810	2.30m wide, 0.35m thick	Soft brown clayey silt	Fill
18	1815	Fill	1810	2.30m wide, 0.20m thick	Friable orange grey clayey silt	Fill
18	1816	Fill	1810	1.00m wide, 0.30m thick	Friable dark grey clayey silt	Fill
18	1817	Fill	1810	1.60m wide, 0.30m thick	Soft light grey silt	Fill
18	1818	Layer		18.00m wide, 0.16m thick	Firm light grey silt with yellow patches	Alluvium
18	1819	Layer		0.12m thick	Firm dark greyish brown silty clay	Alluvium
18	1820	Layer		0.12m thick min.	Soft dark greyish blue silty clay	Alluvium

Appendix B
Matrices

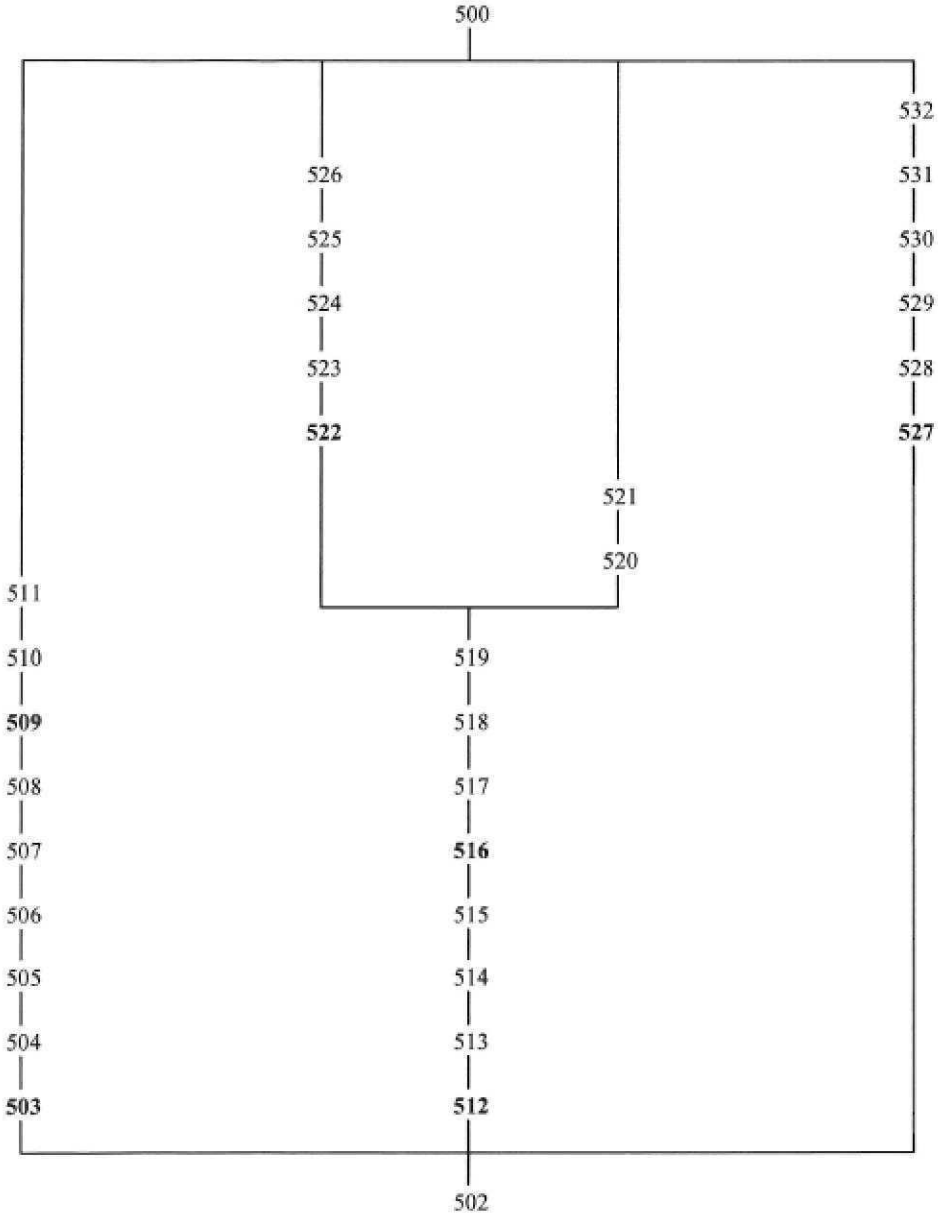
Trench 3



Trench 4



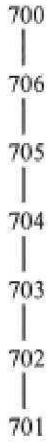
Trench 5


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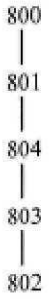
Trench 6



Trench 7



Trench 8



Trench 9



Trench 10



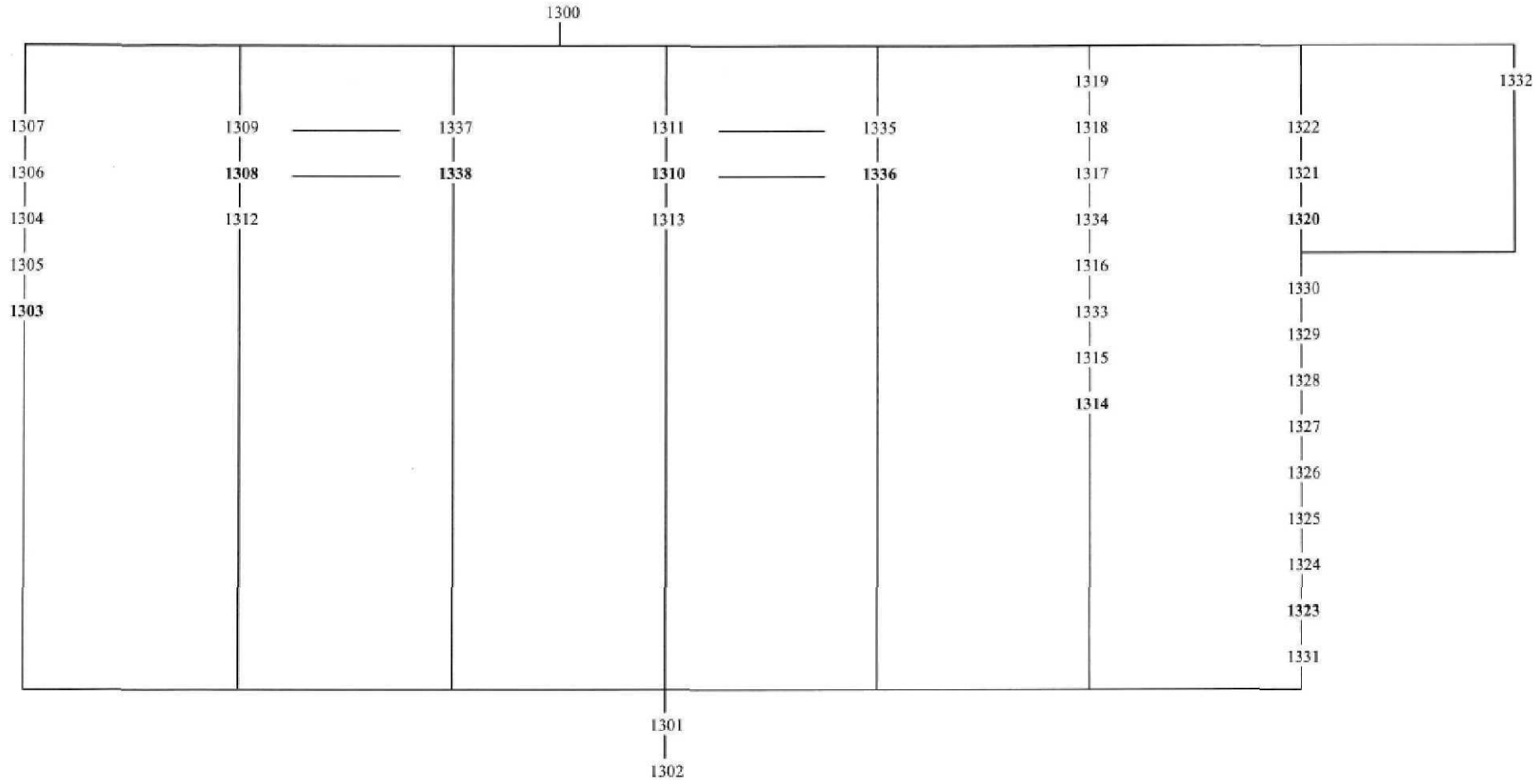
Trench 11



Trench 12



Trench 13


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Trench 14



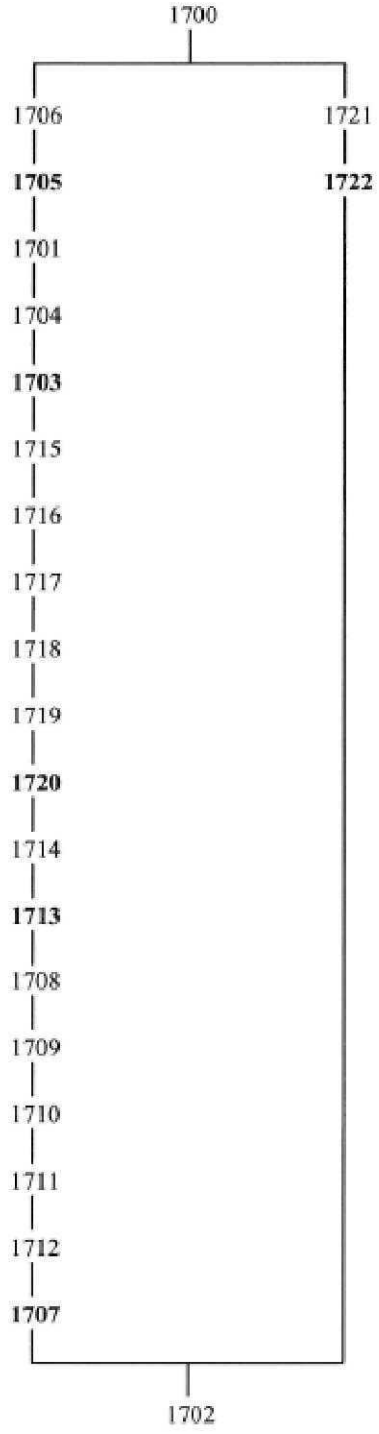
Trench 15



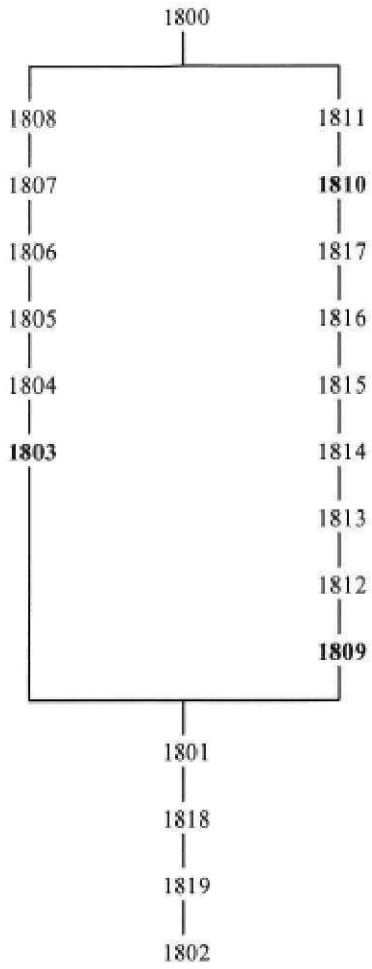
Trench 16



Trench 17



Trench 18



Appendix C
Iron Age and Roman Pottery Report

Ian Rowlandson

Introduction

The pottery has been archived using count and weight as measures according to the guidelines laid down for the minimum archive by The Study Group for Roman Pottery (Darling 2004) using the codes developed by the City of Lincoln Archaeological Unit - CLAU (see Darling and Precious forthcoming). Rim equivalents (RE) have been recorded for the stratified groups and an attempt at a 'maximum' vessel estimate has been made following Orton (1975, 31). The pottery has been bagged by fabric according to the Lincolnshire Handbook Guidelines. Vessels suitable for illustration have also been extracted and bagged separately. The report was produced on the basis of site information provided by Chris Casswell and Mike Wood of Network Archaeology. Fabrics follow standard CLAU fabric codes. The archive record (Table 4) is an integral part of this report and will be curated in an Access database, available from the author in a digital format.

Condition

The ceramics presented for assessment totalled 133 manually retrieved sherds probably from no more than sixteen vessels, weighing 2.009 kg, RE 1.46, from eight contexts from a scheme of archaeological trial trenching. The majority of the pottery is fresh, the average sherd weight is 15.11 g/sh. Four of the vessels have evidence of carbonised deposits and the butt beaker from context 1317 has been burnt. A large proportion of a handmade jar was retrieved from context 404. All of the sherds, with the exception of a single Roman sherd from topsoil 1100, date to the pre-Conquest late Iron Age period.

Dating

The stratified pottery is summarised in the dating table below. It should be noted that the majority of groups present contain a small number of vessels. The archive (Table 1, below) contains the full quantified details.

Dating summary								
F No	F Type	Context	Spot date	Comments	Sherd	Weight (g)	Total RE %	Ave sherd/g
403	Ditch	0404	LIA	A large group including a large proportion of a shell gritted jar with a slack shoulder and a flattened lip pinched out externally and an ellipsoidal jar with an internally bevelled rim	85	1685	83	19.82
410	Ditch	0411	LIA	Includes fragments from a single shell gritted jar with a rounded lip	3	84	15	28.00
0512	Ditch	0513	IA	Three tiny fragments of shell gritted pottery	3	1	0	0.33
1100	Layer	1100	M2-M3	A single sherd of Nene Valley greyware	1	12	0	12.00
1314	Ditch	1315	LIA	Sherds from a single globular jar with an externally rounded rim	5	142	10	28.40
1314	Ditch	1317	LIA/1C	A small group including fragments of a Cam. 113 type butt beaker and local shell gritted Iron Age sherds	16	59	25	3.69

Dating summary								
F No	F Type	Context	Spot date	Comments	Sherd	Weight (g)	Total RE %	Ave sherd/g
1314	Ditch	1319	LIA/1C	A small group including a basal fragment of a butt beaker and fragments of an handmade ?jar with an inturned rim	4	10	5	2.50
1314	Ditch	1333	LIA	Sherds from a fine walled jar	16	16	8	1.00

Table 1 Dating summary

Fabrics and Trade

Fabric summary							
Fabric code	Fabric group	Fabric details	Sherd	Sherd %	Weight (g)	Weight %	Total RE %
GBWW?	Fine	Gallo-Belgic white wares	14	10.53%	47	2.34%	21
NVGW	Reduced	Nene Valley grey ware	1	0.75%	12	0.60%	0
GROGF	Reduced	Fine Grog tempered ware	1	0.75%	4	0.20%	0
GROG	Reduced	Grog-tempered wares	2	1.50%	4	0.20%	5
SHMM	Calcareous	Shell- moderate medium shell	5	3.76%	13	0.65%	0
SHCM	Calcareous	Shell- common medium	18	13.53%	23	1.14%	12
SHCC	Calcareous	Shell- common coarse	92	69.17%	1906	94.87%	108

Table 2 Fabric summary

Form summary							
Form	Form Type	Form Description	Sherd	Sherd %	Weight (g)	Weight	Total RE %
BKBB	Beaker	Butt beaker	15	11.28%	51	2.54%	21
CLSD	Closed	Form	2	1.50%	12	0.60%	0
J	Jar	Unclassified form	102	76.69%	1525	75.91%	86
JEV	Jar	Everted rim	1	0.75%	6	0.30%	4
JGLOB	Jar	Globular	5	3.76%	142	7.07%	10
JIR	Jar	Inturned rim	3	2.26%	259	12.89%	25
-	Unknown	Form uncertain	5	3.76%	14	0.70%	0

Table 3 Form summary

The main vessels of note are fragments of a Cam 113 butt beaker (Hawkes and Hull 1947), probably imported from Northern Gaul and another small sherd from a 'native' butt beaker copy in an oxidised fine grog and sand gritted fabric from context 1317. A number of typical later Iron Age jar types are present mostly with slack or globular body shapes including a large proportion of a single vessel from context 404 (see D1-4 comperanda are listed in Table 4). This group containing fragments of sand tempered drinking vessels and fragments from a single shell gritted vessel in the fine burnished 'Dragonby/Sleaford' Late Iron Age style (context 1317) suggests that the occupants of the site had access to a range of table ware and utilitarian cooking and storage vessels.

The shell gritted pottery that makes up the majority of the assemblage is probably from a relatively local source and is similar to examples seen by this author from the Woolram Wygate site. A number of the sherds have the distinctive Punctate Brachiopod shell evident under x20 magnification typical of local products. Soil conditions have resulted in the leaching out the fossil shell from some sherds which has prevented the identification of these diagnostic fossils in the other vessels.

A single sherd of Nene Valley greyware, from topsoil context 1100, is the only Roman sherd present.

Discussion

There have been small quantities of late Iron Age pottery from Spalding found during previous excavations (see Malone 2010 and Darling in Trimble and Wood in prep., M. Wood pers. com.) but thus far the main focus of Iron Age activity has not yet been located. This group, containing fragments of butt beakers and Iron Age cooking pots, suggests that there is a focus of Iron Age activity in the immediate vicinity.

The Roman pottery present is limited to a single sherd although it is possible that more substantial groups may be found by further investigation of the site.

Conclusions

On the evidence of this group it is possible that larger, more important, groups of Iron Age pottery may be encountered during further ground works. This group adds to the growing evidence for Iron Age occupation in the Spalding area.

Recommendations

The pottery should be retained and deposited in the relevant museum to enable future scrutiny. This assemblage should be integrated into any discussion of further work on the site. The vessels noted as suitable for illustration (highlighted in the archive with a 'D' number) should be considered for illustration as part of an overall report following any further work.

References

Darling, M. J., 2004, Guidelines for the archiving of Roman Pottery. *Journal of Roman Pottery Studies* 11, 67-74.

Darling, M. J. and Precious, B. J., forthcoming, *Corpus of Roman Pottery from Lincoln*. Lincoln Archaeological Studies No. 6. Oxbow Books, Oxford.

Elsdon, S. M., 1996, *Iron Age Pottery in the East Midlands: A Handbook*. Dept. of Classics and Archaeology, University of Nottingham.

Hawkes, C. F. C. and Hull, M. R., 1947, *Camulodunum*. Report of the Research Committee of the Society of Antiquaries 14, London.

Malone, S., 2010, 'Rumours of Roman Finds': Updating Roman Lincolnshire, in Malone, S. and Williams, M. (ed.), *Rumours of Roman Finds*, Heritage Trust For Lincolnshire, Heckington, 1-14

Orton, C. R., 1975, Quantitative pottery studies, some progress, problems and prospects. *Science and Archaeology* 17, 30-5.

Rollo, L. with Wild, F., 2001, The Iron Age and Roman Pottery, in Mackreth, D. F., *Monument 97, Orton Longueville, Cambridgeshire: a Late Pre-Roman Iron Age and Early Roman Farmstead*, East Anglian Archaeology 97, 46-79. Manchester.

Tomber, R. and Dore, J., 1998, *The National Roman Fabric Reference Collection: A Handbook*. MoLAS Monograph 2. Museum Of London.

Trimble, D. and Wood, M., in prep, *Excavations at Wygate Park, Spalding, Lincs*.

SPCL11 IRON AGE & ROMAN POTTERY ARCHIVE											
Context	**Fabric**	**Form**	**Decoration**	**Vessels**	**Alt**	**Drawing**	**Comments**	**Sherd**	**Weight**	**Rim diam**	**Rim eve**
0404	SHCC	JIR		1	SOOT EXT	D3	RIM; IRF; PUNCTATE B SHELL; KNIFE TRIMMED INTERNAL BEVELED RIM ON A 'BARREL SHAPED' ELLIPSOIDAL JAR SEE BROADLY SIMILAR FORMS FROM LATE IA SITES IN EAST MIDLANDS ELSDON 1996A D17.1	1	255	18	20
0404	SHCC	J		1	SOOT INT		BASE- PLAIN; IRF; LIGHT/PALE OXID SURFACES; PUNCTATE B SHELL; SIMILAR TO D2 BUT NO GROG	3	209	0	0
0404	SHCC	J		1		D2	RIM BS BASE- PLAIN; IRF; PALE OXID SURFACES; RARE GROG SF NO.1; LARGE JAR FLATTENED LIP PINCHED OUT EXTERNALY SLACK SHOULDER; SEE BROADLY SIMILAR FORMS FROM CAMBRIDGESHIRE MONUMENT 97 FIG32.6; FIG 33.19 & 20	81	1221	22	63
0411	SHCC	J		1	SOOT EXT	D4	RIM; IRF; PUNCTATE B SHELL; ROUNDED 'BEAD' TYPE LIP; SLIGHT INTERNAL CHANNEL PROB. DUE TO MANUFACTURE METHOD; NB- FABRIC BROADLY SIMILAR TO SOUTHERN MAXEY	2	79	15	15
0411	SHMM	CLSD	HM	1	VAB		BS	1	5	0	0
0513	SHMM	-		1			BS	3	1	0	0
1100	NVGW	-		1			BS	1	12	0	0
1315	SHCC	JGLOB	HM	1	SOOT INT	D1	RIM BASE FRAGMENTS; IRF; PUNCTATE B SHELL; GLOBULAR JAR EXTERNALLY ROUNDED RIM	5	142	18	10
1317	GBWW?	BKBB		1	BURNT		RIM BS SOME BURNT OXID OR GREY- FABRIC AS TOMBER AND DORE NOG WH3 WITH ADITION OF MODERATE FINE SILVER MICA; LOWER BODY HAS GROVES NOT TYPICAL OF CAM. 113 BUT RIM TYPE IS A GOOD MATCH	13	45	14	21
1317	SHCM	JEV	HM?	1	SALT? STAINED		RIM;OXID/?LIGHT FIRING? EVERTED	1	6	18	4

SPCL11 IRON AGE & ROMAN POTTERY ARCHIVE											
Context	**Fabric**	**Form**	**Decoration**	**Vessels**	**Alt**	**Drawing**	**Comments**	**Sherd**	**Weight**	**Rim diam**	**Rim eve**
							EXTERNAL BEVEL				
1317	SHCM	-	HM	1			BS; THIN SHERD; R	1	1	0	0
1317	SHMM	CLSD	HM	1			BS; ?SHOULDER;THIN SHERD; R; PUNCTATE B SHELL	1	7	0	0
1319	GBWW?	BKBB		1	ABR		BASE; ?SAME VESSEL AS 1317	1	2	0	0
1319	GROG	JIR	HM	1			RIM POORLY MIXED FABRIC	2	4	16	5
1319	GROGF	BKBB	CORD	1			BS; OX/R/OX; CORDON- FRAGMENT OF 'NATIVE' COPY OF IMPORTED BEAKER- SMALL FRAGMENT; FINE GROG AND SAND FABRIC	1	4	0	0
1333	SHCM	J	WF?	1			RIM BS; R; FINE VESSEL MOSTLY TINY FRAGMENTS	16	16	15	8

Table 4 Iron Age and Roman pottery archive

Appendix D
Post-Roman Pottery Report

Jane Young

The pottery has been fully archived to the standards for acceptance to the Collection in Lincoln in accordance with Lincolnshire County Council's Archaeological Handbook (sections 13.4 and 13.5) and with the guidelines laid out in Slowikowski *et al*. (2001). Visual fabric identification of the sherds was checked by a x20 binocular microscope. The assemblage was quantified by three measures: number of sherds, weight and vessel count within each context. The resulting pottery data was entered on an Access database using fabric codenames (Table 1) developed for the Lincoln Ceramic Type Series (Young, Vince and Nailor 2005).

Assemblage

In total, two post-Roman sherds, representing a single vessel were recovered from the site (Table 1). The sherds are both in a slightly abraded condition and could represent primary deposition.

Context	Codename	Full name	Sherds	Vessels	Weight (g)
526	BOUA	Bourne-type Fabrics A, B and C	2	1	7

Table 1 Post-roman pottery archive

Two medieval sherds were recovered from context 526. The two sherds are from a single Medieval Bourne ware jar of 13th to 14th century date. The vessel is in the finer Fabric A and has an internal glaze.

Statement of Potential

The pottery recovered from this site is unremarkable but should be included in any survey of ware types in the county.

Storage and Curation

The sherds are in a stable condition.

References

Lincolnshire County Council, 2010, *Archaeology Handbook*. Lincolnshire County Council.

Slowikowski, A., Nenk, B. and Pearce, J., 2001, *Minimum Standards for the Processing, Recording, Analysis and Publication of Post-Roman Ceramics*. Medieval Pottery Research Group, Occasional Paper 2.

Young, J., Vince A. G. and Nailor V., 2005, *A Corpus of Anglo-Saxon and Medieval Pottery from Lincoln*. Lincoln Archaeology Studies 7. Oxbow, Oxford.

Appendix E
Flint Report

Dr Hugo Anderson-Whymark

A single flint flake weighing 10g was recovered from the topsoil in Trench 15 (1500). The flake is of broad proportions and exhibits a prominent bulb and a hinged distal end; the edges exhibits post-depositional damage. The flake is a primary cortical removal and as such it cannot be attributed to any period with confidence.

Appendix F
Stone and Production Residue Report

Mike Wood BA (hons) MLitt MIfA

Introduction

A small collection of stone and fuel ash slag was recovered from evaluation trenches on land off Clay Lake, Spalding, Lincolnshire. Thirteen fragments of stone, weighing a total of 680 grams, as well as two fragment of fuel ash slag weighing 12g and was recovered. The material was all derived from ditch fills.

Methodology

The material was counted and weighed in grams, then examined visually to identify any diagnostic pieces and the overall condition of the assemblage. A summary of the material is recorded in Tables 1 to 2.

Assemblage

Trench	Context	Deposit	Date	Count	Weight (g)	Comments
4	404	Ditch fill of **403**	LIA	1	248	Fractured and burnt sandstone
4	408	Ditch fill of **406**	Und	1	235	Fractured and burnt sandstone
13	1326	Ditch fill of **1323**	Und	3	3	Natural ironstone
13	1330	Ditch fill of **1323**	Und	1	33	Fractured and burnt sandstone
13	1332	Ditch fill of **1323**	Und	2	12	Burnt sandstone fragments
13	1335	Ditch fill of **1336**	Und	1	27	Natural sandstone
13	1337	Ditch fill of **1338**	Und	2	68	Burnt sandstone
17	1721	Ditch fill of **1720**	Und	2	54	Fractured and burnt sandstone

Table 1 Stone

Trench	Context	Deposit	Date	Count	Weight (g)	Comments
13	1315	Ditch fill of **1314**	LIA	2	12	Fuel ash slag

Table 2 Production residue

Discussion

A small group of stone, burnt stone and fuel ash slag was recovered during trial trenching on land at Clay Lake, Spalding. Material was derived from ditch fills, including late Iron Age ditches **1314** and **403**. The remaining deposits are undated. Much of the material comes from features also containing briquetage (in Trench 13), which may imply the heated stone was related to a nearby salt-making process. However, this may simply represent casual disposal of unwanted material in convenient open ditches and the burnt stone and briquetage are unrelated.

The presence of burnt stone often suggests a practical use such as in domestic cooking as either pot boilers or for slow-roasting meat in pits. Some pieces of unworked or unburnt stone have been recovered and were likely naturally deposited.

Fuel ash slag is a light weight and usually light coloured vesicular slag-like material formed from the reaction between wood ash and minerals such as sand or silt. This material is not necessarily formed during industrial processes and has been noted from domestic hearth residues and the possible remains of burnt wooden structures such as round houses (Biek and Bayley 1979). The presence of fuel ash slag in the same contexts as dumped briquetage may however imply this is related to the waste product from firing a salt-making hearth.

Recommendations for further work

All the artefacts are in a stable condition and require no further conservation. The burnt stone and unworked and unburnt stone of little intrinsic value and could be discarded. While the fuel ash slag is a very small assemblage, it should be retained as part of the archive and included in a fuller report by an archaeometalurgist in any future, larger assemblages derived from this area.

Reference

Biek, L. and Bayley, J., 1979, Glass and other vitreous materials. *World Archaeology* xi, 1-25.

Appendix G
Animal Bone Report

Jennifer Wood

Introduction

A total of 104 (1456g) refitted fragments of animal bone were recovered during a scheme of archaeological trial trenches undertaken by Network Archaeology at Clay Lake, Spalding, Lincolnshire.

Trenches 4, 5, 13 and 17, produced animal bone, with the main concentration of bone being recovered from Trenches 4, 5 and 13. The majority of the remains were recovered from ditches, with a small assemblage from a post-hole. All of the remains were recovered from undated and late Iron Age-1st Century contexts.

Methodology

The entire assemblage has been fully recorded into a database archive. Identification of the bone was undertaken with access to a reference collection and published guides. All animal remains were counted and weighed, and where possible identified to species, element, side and zone (Serjeantson 1996). Ribs and vertebrae were only recorded to species when they were substantially complete and could accurately be identified. Undiagnostic bones were recorded as micro (rodent size), small (rabbit size), medium (sheep size) or large (cattle size). The separation of sheep and goat bones was done using the criteria of Boessneck (1969) and Prummel and Frisch (1986) in addition to the use of the reference material. Where distinctions could not be made the bone was recorded as sheep/goat (S/G).

The quantification of species was carried out using the total fragment count, in which the total number of fragments of bone and teeth was calculated for each taxon. Where fresh breaks were noted, fragments were refitted and counted as one. The data produced the basic NISP (Number of Identified Specimen).

The condition of the bone was graded using the criteria stipulated by Lyman (1996). Grade 0 being the best preserved bone and grade 5 indicating that the bone had suffered such structural and attritional damage as to make it unrecognisable. Also fusion data, butchery marks (Binford 1981), gnawing, burning and pathological changes were noted when present.

Tooth eruption and wear stages were measured using a combination of Halstead (1985), Grant (1982), Levine (1982) and Payne (1973), and fusion data was analysed according to Silver (1969). Measurements of adult, that is, fully fused bones were taken according to the methods of von den Driesch (1976), with asterisked (*) measurements indicating bones that were reconstructed or had slight abrasion of the surface.

Results

Condition
The condition of the bone is moderate, averaging at grade 3 of the Lyman criteria (1996), allowing for measurements and the scoring of butchery, pathology and gnawing where applicable.

Pathology
No evidence of pathological conditions was noted within the assemblage.

Gnawing
A total of 7 fragments of bone displayed evidence of gnawing. Animal remains recovered from ditches **403**, **503**, **1314**, **1336** and posthole **1320** all displayed evidence of carnivore gnawing. Gnawing on the remains suggests that some refuse was left open to scavengers after or as part of the disposal process. Although as only a small number of fragments of the assemblage were gnawed it would suggest that most of the remains were rapidly buried after disposal.

Burning
A total of 13 fragments of bone recovered from ditches **403**, **406**, **512**, **1314** and **1336** displayed evidence of burning, probably representing hearth sweepings and incidental burning events.

Species Representation

	Trench No												
	4			**5**		**13**						**17**	**Total**
	Late Iron Age		Unphased	Iron Age	Unphased	Late Iron Age/ 1st Century	Unphased					U	
Taxon	Ditch **403**	Ditch **410**	Ditch **406**	Ditch **512**	Ditch **503**	Ditch **1314**	Ditch **1303**	Ditch **1308**	Post Hole **1320**	Ditch **1323**	Ditch **1336**	Ditch **1707**	
Cattle	6		1	1	2	3		3		1	2	1	20
Sheep/Goat	2		6	2		2			1				13
Pig					4								4
Cockle (*Cerastoderma edule*)												1	1
Large Mammal	1		3		8	5	1	4	1		1		24
Medium Mammal	4	1	2		7	6					3		23
Unidentified			2	1	10	2			2		2		19
N=	13	1	14	4	31	18	1	7	4	1	8	2	104

Table 1 Hand Collected Assemblage Identified to Taxa, by Trench

Cattle were the most predominant species identified within the assemblage, closely followed by sheep/goat. Pig was the next abundant species, with as single cockle (Cerastoderma edule) shell also represented within the assemblage.

Discussion
The animal bone assemblage is small but moderately preserved, allowing for the identification of taphonomic changes such as butchery, gnawing etc. Three trenched (4, 5 and 13) produced the majority of the animal bone assemblages, which possibly indicates a focus of activities. The taxa and skeletal element representation appears to be relatively typical of domestic waste of the period, mostly food waste with some butchery waste included. Young animals were noted as present within the assemblage, which may suggest that animals were being bred and utilised on site.

Due to the small size of the assemblage, little information on the underlying animal husbandry and utilisation practices can be gained. However, due to the good preservation of the remains any further work would be liable to produce more bone of a similar nature with a good potential for providing further information on the underlying animal husbandry practices and diet economy of the site.

References

Binford, L., 1981, *Ancient Men and Modern Myths*. New York: Academic Press.

Boessneck, J., 1969, Osteological Differences in Sheep (*Ovis aries Linné*) and Goat (*Capra hircus Linné*), in D Brothwell and E Higgs (eds) *Science in Archaeology.* Thames and Hudson, 331-358.

von den Driesch, A., 1976, *A Guide to the Measurement of Animal Bones from Archaeological Sites*, Peabody Museum.

Grant, A., 1982 'The Use of Tooth Wear as a Guide to the Age of Domestic Ungulates', in B Wilson et al. *Ageing and Sexing Animal Bones from Archaeological Sites.* BAR British Series 109, 91-108, Oxford.

Halstead, P., 1985, A Study of Mandibular Teeth from Romano-British Contexts at Maxey, in F Pryor, *Archaeology and Environment in the Lower Welland Valley*, East Anglian Archaeology Report 27: 219-224.

Levine, M. A., 1982 The Use of Crown Height Measurements and Eruption-Wear Sequences to Age Horse Teeth. In Wilson, B. et al. Ageing and Sexing Animal Bones from Archaeological Sites. BAR British Series 109. 223 - 250

Lyman, R. L., 1996 *Vertebrate Taphonomy.* Cambridge Manuals in Archaeology, Cambridge University Press, Cambridge.

Prummel, W. and Frisch, H.-J., 1986, A Guide for the distinction of species, sex and body size in bones of sheep and goat, *Journal of Archaeological Science* XIII., 567–77.

Serjeantson, D., 1996, The Animal Bones, in *Refuse and Disposal at Area 16, East Runnymede: Runnymede Bridge Research Excavations*, Vol. 2, (eds.) E. S. Needham and T. Spence. British Museum Press, London.

Silver, I. A., 1969, The Ageing of Domestic Animals, in D. Brothwell and E. S. Higgs, *Science in Archaeology*. Thames and Hudson.

Ctxt No	Sample No	Taxon	Element	Side	Z1	Z2	Z3	Z4	Z5	Z6	Z7	Z8	Prox	Dist	Path	Butch	Worked	Burnt	Gnaw	Fresh Break	Assoc'd	Measured	Tooth Wear	Surface	Condition	No	(g)	Notes
404	0	Large Mammal	Lumbar	R	N	N	N	N	N	N	N	N	U	U	N	N	N	N	N	N	N	N	N	X	3	1	11	
404	0	Cattle	Metatarsal	R	Y	Y	Y	Y	Y	Y	Y	Y	F	F	N	N	N	N	N	N	N	Y	N	X	3	1	140	
404	0	Medium Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	N	X	3	2	3	
404	0	Cattle	Tooth	R	N	N	N	N	N	N	N	N	X	X	N	N	N	Y	N	N	N	N	N	X	3	1	1	Lower Dpm3 Burnt black
404	0	Cattle	Tooth	X	N	N	N	N	N	N	N	N	X	X	N	N	N	Y	N	N	N	N	N	X	3	1	2	Broken lower dpm4 Burnt black
404	0	Medium Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	Y	N	N	N	N	N	X	3	1	1	Burnt black
404	0	Cattle	Phalanx (I)	R	N	N	Y	Y	Y	Y	Y	Y	U	F	N	N	N	N	N	N	N	N	N	X	3	1	2	Juv
404	0	Cattle	Innominate	L	N	N	N	N	N	N	Y	N	X	X	N	N	N	N	N	N	N	N	N	X	3	1	4	Juv
404	0	Medium Mammal	Rib	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	N	X	3	1	1	
404	0	Sheep/Goat	Femur	L	N	N	Y	Y	Y	Y	N	N	X	X	N	N	N	N	N	N	N	N	N	X	3	1	1	
404	0	Cattle	Femur	R	N	N	Y	Y	Y	Y	N	N	X	X	N	N	N	N	Y	N	N	N	N	X	3	1	150	Carnivore gnawing on the proximal end
405	0	Sheep/Goat	Tibia	L	N	N	N	N	Y	Y	N	N	X	X	N	N	N	N	N	N	N	N	N	X	3	1	8	Juv
408	0	Large Mammal	Rib	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	Y	N	N	N	X	3	1	6	
408	0	Sheep/Goat	Metacarpal	L	Y	Y	Y	Y	N	N	N	N	F	X	N	N	N	N	N	N	N	Y	N	X	3	1	4	
408	0	Large Mammal	Lumbar	B	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	Y	N	N	N	X	3	1	23	
408	0	Cattle	Metacarpal	R	N	N	N	N	N	Y	N	N	X	X	N	N	N	Y	N	N	N	N	N	X	3	1	3	Burnt grey/white
408	0	Unidentified	Unidentified	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	N	X	3	2	1	

408	0	Sheep/Goat	Tibia	R	N	N	Y	Y	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	4	1	3	
408	0	Sheep/Goat	Tibia	R	N	N	N	N	Y	Y	N	N	X	U	N	N	N	N	N	N	N	N	X	4	1	2	
408	0	Sheep/Goat	Humerus	R	N	N	N	N	Y	Y	Y	Y	X	F	N	N	N	N	N	Y	N	N	N	A	4	1	5	
408	0	Medium Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	N	X	3	2	5	
408	0	Sheep/Goat	Nav-Cuboid	R	Y	Y	Y	Y	Y	Y	Y	Y	X	X	N	N	N	N	N	N	N	N	N	A	4	1	1	
408	0	Sheep/Goat	Tibia	L	N	N	Y	Y	Y	Y	N	N	X	X	N	N	N	N	N	Y	N	N	N	X	4	1	6	
408	0	Large Mammal	Femur	L	N	N	Y	Y	N	N	N	N	U	X	N	N	N	N	N	N	N	N	N	X	3	1	18	
411	0	Medium Mammal	Atlas	L	N	N	N	Y	N	N	N	N	X	X	N	N	N	N	N	N	N	N	N	X	4	1	5	
504	0	Cattle	Metatarsal	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	N	X	3	1	33	Shaft fragment
504	0	Medium Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	N	X	3	1	3	
504	0	Cattle	Mandible	L	N	N	N	N	N	N	Y	Y	X	X	N	N	N	N	N	Y	N	N	N	X	3	1	46	
504	0	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	N	X	3	3	75	
504	0	Pig	Mandible	R	Y	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	N	X	3	1	12	
504	0	Large Mammal	Rib	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	Y	N	N	N	X	2	5	26	
504	0	Medium Mammal	Skull	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	N	X	3	6	19	
504	0	Unidentified	Unidentified	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	N	X	3	10	2	
504	0	Pig	Mandible	R	N	N	N	N	N	N	N	N	X	X	N	N	N	N	Y	N	N	N	Y	X	3	3	76	
513	0	Sheep/Goat	Scapula	R	N	N	N	N	Y	N	N	N	X	X	N	N	N	N	N	N	N	N	N	X	3	1	2	
513	0	Sheep/Goat	Radius	L	N	N	Y	Y	Y	Y	N	N	X	X	N	N	N	N	N	N	N	N	N	X	3	1	8	
513	0	Cattle	Metatarsal	R	N	Y	N	N	N	N	N	N	F	X	N	N	N	N	N	N	N	N	N	X	2	1	12	
513	0	Unidentified	Unidentified	X	N	N	N	N	N	N	N	N	X	X	N	N	N	Y	N	N	N	N	N	X	3	1	1	Burnt grey/white
1304	0	Large Mammal	Rib	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	Y	N	N	N	X	3	1	2	
1309	0	Cattle	Tibia	L	N	N	N	N	Y	Y	N	N	X	X	N	N	N	N	N	N	N	N	N	X	3	1	33	
1309	0	Cattle	Ulna	L	N	N	Y	Y	N	N	N	N	X	X	N	N	N	N	N	Y	N	N	N	X	4	1	33	
1309	0	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	N	X	4	4	18	

1309	0	Cattle	Radius	L	N	Y	Y	Y	N	N	N	N	F	X	N	N	N	N	N	N	N	N	N	X	4	1	95	
1315	0	Cattle	Mandible	R	N	N	Y	Y	N	Y	N	N	X	X	N	N	N	N	N	Y	N	N	Y	X	3	1	203	
1315	0	Unidentified	Unidentified	X	N	N	N	N	N	N	N	N	X	X	N	N	N	Y	N	N	N	N	N	X	3	1	2	Burnt grey/white
1315	0	Medium Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	Y	N	N	N	N	X	3	1	3	Possible carnivore gnawing on one end of the shaft
1317	0	Medium Mammal	Tibia	R	N	N	N	Y	N	N	N	N	X	X	N	N	N	Y	N	N	N	N	N	X	3	1	2	Burnt grey/black
1317	0	Cattle	Phalanx (II)	L	N	N	N	N	N	N	Y	Y	X	F	N	N	N	Y	N	N	N	N	N	X	3	1	4	Burnt grey
1317	0	Unidentified	Unidentified	X	N	N	N	N	N	N	N	N	X	X	N	N	N	Y	N	N	N	N	N	X	4	1	2	Burnt black
1317	0	Cattle	Skull-zygomatic	L	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	N	X	3	1	15	
1317	0	Sheep/Goat	Humerus	L	N	N	Y	Y	Y	Y	Y	Y	X	F	N	N	N	N	N	N	N	Y	N	X	3	1	15	
1317	0	Large Mammal	Skull	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	N	X	3	2	7	
1317	0	Medium Mammal	Cervical	B	N	N	N	N	N	N	N	N	U	X	N	N	N	N	N	N	N	N	N	X	3	1	2	
1317	0	Medium Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	N	X	4	2	3	
1317	0	Large Mammal	Cervical	R	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	N	A	4	1	10	
1317	0	Medium Mammal	Ulna	L	N	N	N	N	Y	N	N	N	X	X	N	N	N	N	N	N	N	N	N	X	4	1	5	
1317	0	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	N	X	3	1	10	
1319	0	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	N	X	4	1	7	
1319	0	Sheep/Goat	Mandible	R	N	N	N	N	Y	N	N	N	X	X	N	N	N	N	N	N	N	N	N	X	4	1	5	
1321	0	Unidentified	Unidentified	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	N	X	3	1	2	

1321	0	Sheep/Goat	Humerus	L	N	N	Y	Y	Y	Y	N	N	X	X	N	N	N	N	Y	N	N	N	N	X	3	1	5	Possible carnivore gnawing on the distal end
1321	0	Large Mammal	Thoracic	B	N	N	N	N	N	N	N	N	U	U	N	N	N	N	N	N	N	N	N	X	2	1	27	
1321	0	Unidentified	Unidentified	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	N	X	2	1	8	
1326	0	Cattle	Humerus	L	N	N	Y	Y	Y	Y	N	N	X	X	N	N	N	N	N	N	N	N	N	X	3	1	17	
1335	0	Cattle	Mandible	R	N	N	Y	Y	N	N	N	N	X	X	N	N	N	N	N	N	N	N	Y	X	4	1	51	
1335	0	Cattle	Humerus	R	N	N	N	N	Y	Y	N	N	X	X	N	N	N	N	Y	Y	N	N	N	X	3	1	68	Possible carnivore gnawing on the distal end
1335	0	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	Y	N	N	N	N	N	X	3	1	7	Burnt black
1335	0	Medium Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	Y	N	N	N	N	N	X	3	2	2	Burnt white
1335	0	Unidentified	Unidentified	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	N	X	4	2	6	
1335	0	Medium Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	Y	N	N	N	N	N	X	3	1	2	Burnt black
1710	0	Cockle	Shell	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	Y	N	N	N	X	3	1	3	
1710	0	Cattle	Mandible	L	N	N	N	N	N	N	Y	Y	X	X	N	N	N	N	N	Y	N	N	N	X	4	1	61	

Appendix H
Briquetage and Environmental Sample Catalogue

Context	Trench	Sample No.	Sample Size (l)	No.of Bags	No.of Frags.	Weight (g)	Material
404	4			1	4	7	Briquetage
404	4	7	30				Bulk sample
408	4			1	6	13	Briquetage
411	4			1	1	3	Briquetage
411	4	8	20				Bulk sample
504	5			1	8	81	Briquetage
513	5			1	1	1	Briquetage
1306	13			1	25	67	Briquetage
1309	13			1	40	386	Briquetage
1311	13			1	23	142	Briquetage
1315	13			2	7	53	Briquetage
1315	13	2	20				Bulk sample
1317	13			1	12	74	Briquetage
1318	13			2	111	657	Briquetage
1318	13	4	20				Bulk sample
1319	13			1	40	210	Briquetage
1319	13			1	1	4	Briquetage
1321	13			1	22	65	Briquetage
1321	13	5	20				Bulk sample
1326	13			1	2	15	Briquetage
1330	13			2	8	30	Briquetage
1330	13	6	20				Bulk sample
1332	13			1	58	163	Briquetage
1333	13	3	20				Bulk sample
1335	13			2	81	468	Briquetage
1337	13			2	79	494	Briquetage
1337	13	1		1	1		Charcoal

Appendix I
Photographic Register

Film	Shot	Description	Trench
1-2	1	General shot of trench.	17
1-2	2	Rep-sec of trench 18 looking NW.	18
1-2	3	Rep-sec of trench 18 looking NW.	18
1-2	4	Post-Ex shot of trench 18 looking NE.	18
1-2	5	Post-Ex shot of trench 18 looking NE.	18
1-2	6	Post-Ex shot of trench 18 looking SE.	18
1-2	7	Post-Ex shot of trench 18 looking SE.	18
1-2	8	Oblique shot of features 1308 + 1310.	13
1-2	9	Oblique shot of features 1308 + 1310.	13
1-2	10	N facing sec of 1310.	13
1-2	11	N facing sec of 1310.	13
1-2	12	N facing sec of 1308.	13
1-2	13	N facing sec of 1308.	13
1-2	14	Post-Ex shot of trench13 looking West.	13
1-2	15	Post-Ex shot of trench13 looking West.	13
1-2	16	Rep sec 14.3	14
1-2	17	Rep sec 14.3	14
1-2	18	Rep sec 14.2	14
1-2	19	Rep sec 14.2	14
1-2	20	Rep sec 14.1	14
1-2	21	Rep sec 14.1	14
1-2	22	Post-Ex shot of trench14 looking East.	14
1-2	23	Post-Ex shot of trench14 looking East.	14
1-2	24	NE facing sec of ditch1303.	13
1-2	25	NE facing sec of ditch1303.	13
1-2	26	NW facing sec of ditch 1403.	14
1-2	27	NW facing sec of ditch 1403.	14
1-2	28	SE facing sec of ditch 1403.	14
1-2	29	SE facing sec of ditch 1403.	14
1-2	30	ESE Facing sec of ditch 1803.	18
1-2	31	ESE Facing sec of ditch 1803.	18
1-2	32	SE Facing sec of dyke 1809.	18
1-2	33	SE Facing sec of dyke 1809.	18
1-2	34	ESE Facing sec of ditch 1803.	18
1-2	35	ESE Facing sec of ditch 1803.	18
1-2	36	ID shot.	
3-4	1	Working shot.	
3-4	2	Post -Ex shot of ditches 1336 + 1338 looking SE.	13
3-4	3	Post -Ex shot of ditches 1336 + 1338 looking SE.	13
3-4	4	Post -Ex shot of ditches 1336 + 1338 looking south.	13
3-4	5	Post -Ex shot of ditches 1336 + 1338 looking south.	13
3-4	6	W facing sec of ditch 1314.	13
3-4	7	W facing sec of ditch 1314.	13
3-4	8	SE facing sec of ditch 1314.	13
3-4	9	SE facing sec of ditch 1314.	13
3-4	10	Pre-Ex shot of Southern Ext of trench 13 looking south.	13
3-4	11	Pre-Ex shot of Southern Ext of trench 13 looking	13

Film	Shot	Description	Trench
		south.	
3-4	12	Pre-Ex shot of Southern Ext of trench 13 looking north.	13
3-4	13	Pre-Ex shot of Southern Ext of trench 13 looking north.	13
3-4	14	Rep-sec of trench 15.	15
3-4	15	Rep-sec of trench 15.	15
3-4	16	Oblique shot of ditch 1503.	15
3-4	17	Oblique shot of ditch 1503.	15
3-4	18	Post-Ex shot of trench 15 looking east.	15
3-4	19	Post-Ex shot of trench 15 looking east.	15
3-4	20	Oblique shot of ditch 1602.	16
3-4	21	Oblique shot of ditch 1602.	16
3-4	22	NE facing rep-sec of trench 16.	16
3-4	23	NE facing rep-sec of trench 16.	16
3-4	24	Post-Ex shot of trench 16 looking SE.	16
3-4	25	Post-Ex shot of trench 16 looking SE.	16
3-4	26	NW facing sec of ditch 1713 looking SE.	17
3-4	27	NW facing sec of ditch 1713 looking SE.	17
3-4	28	Trench 17Post-Ex shot looking north.	17
3-4	29	Trench 17Post-Ex shot looking north.	17
3-4	30	Trench 17Post-Ex shot looking south.	17
3-4	31	Trench 17Post-Ex shot looking south.	17
3-4	32	SE facing sec of ditch cut 1707.	17
3-4	33	SE facing sec of ditch cut 1707.	17
3-4	34	E facing sec of ditch cut 1703.	17
3-4	35	E facing sec of ditch cut 1703.	17
3-4	36	ID shot.	
5-6	1	Trench 4 rep-sec looking south.	4
5-6	2	Trench 4 rep-sec looking south.	4
5-6	3	Trench 4 rep-sec looking south.	4
5-6	4	Post-Ex shot of trench 4 looking east.	4
5-6	5	Post-Ex shot of trench 4 looking east.	4
5-6	6	Post-Ex shot of trench 4 looking west.	4
5-6	7	Post-Ex shot of trench 4 looking west.	4
5-6	8	North facing sec of ditch 412.	4
5-6	9	North facing sec of ditch 412.	4
5-6	10	North facing sec of ditch 410 looking south.	4
5-6	11	North facing sec of ditch 410 looking south.	4
5-6	12	Post-Ex shot of trench 12 looking north.	12
5-6	13	Post-Ex shot of trench 12 looking north.	12
5-6	14	Post-Ex shot of trench 12 looking south.	12
5-6	15	Post-Ex shot of trench 12 looking south.	12
5-6	16	North facing sec of linear 406 looking south.	4
5-6	17	North facing sec of linear 406 looking south.	4
5-6	18	NW facing sec of linear 403 looking SE.	4
5-6	19	NW facing sec of linear 403 looking SE.	4
5-6	20	North facing rep-sec of trench11.	11
5-6	21	North facing rep-sec of trench11.	11
5-6	22	Post-Ex shot of trench 11 looking west.	11
5-6	23	Post-Ex shot of trench 11 looking west.	11
5-6	24	Post-Ex shot of trench 11 looking east.	11

Film	Shot	Description	Trench
5-6	25	Post-Ex shot of trench 11 looking east.	11
5-6	26	Post-Ex shot of trench 13 southern Ext looking south.	13
5-6	27	Post-Ex shot of trench 13 southern Ext looking south.	13
5-6	28	Post-Ex shot of trench 13 southern Ext looking north.	13
5-6	29	Post-Ex shot of trench 13 southern Ext looking north.	13
5-6	30	SSE facing sec of ditch 1323.	13
5-6	31	SSE facing sec of ditch 1323.	13
5-6	32	N facing ditch + pit sec 1323 + 1320.	13
5-6	33	N facing ditch + pit sec 1323 + 1320.	13
5-6	34	NW facing sec of ditches 1316 + 1338.	13
5-6	35	NW facing sec of ditches 1316 + 1338.	13
5-6	36	ID shot.	
7-8	1	Working shot.	
7-8	2	Working shot.	
7-8	3	West facing rep-sec of trench 3.	3
7-8	4	West facing rep-sec of trench 3.	3
7-8	5	North facing sec of 512 + 516.	5
7-8	6	North facing sec of 512 + 516.	5
7-8	7	East facing sec of 522.	5
7-8	8	East facing sec of 522.	5
7-8	9	Trench 5 ditch 522 intersection looking SW.	5
7-8	10	Trench 5 ditch 522 intersection looking SW.	5
7-8	11	Post-Ex shot of trench 5 looking NE.	5
7-8	12	Post-Ex shot of trench 5 looking NE.	5
7-8	13	Post-Ex shot of trench 5 looking SW.	5
7-8	14	Post-Ex shot of trench 5 looking SW.	5
7-8	15	Post-Ex shot of trench 3 looking north.	3
7-8	16	Post-Ex shot of trench 3 looking north.	3
7-8	17	NW facing sec of linears 503 + 509.	5
7-8	18	NW facing sec of linears 503 + 509.	5
7-8	19	West facing rep-sec of trench 9	9
7-8	20	West facing rep-sec of trench 9	9
7-8	21	Post-Ex shot of trench 9 looking north.	9
7-8	22	Post-Ex shot of trench 9 looking north.	9
7-8	23	Post-Ex shot of trench 9 looking south.	9
7-8	24	Post-Ex shot of trench 9 looking south.	9
7-8	25	North facing rep-sec of trench 8.	8
7-8	26	North facing rep-sec of trench 8.	8
7-8	27	NW facing sec of cut 803.	8
7-8	28	NW facing sec of cut 803.	8
7-8	29	Post-Ex shot of trench 8 looking east.	8
7-8	30	Post-Ex shot of trench 8 looking east.	8
7-8	31	Post-Ex shot of trench 8 looking west.	8
7-8	32	Post-Ex shot of trench 8 looking west.	8
7-8	33	SSE facing sec of ditch 1503.	15
7-8	34	SSE facing sec of ditch 1503.	15
7-8	35	SSE facing sec of ditch 1503.	15
7-8	36	ID shot.	
9-10	1	Working shot backfill etc….	
9-10	2	Working shot backfill etc….	

Film	Shot	Description	Trench
9-10	3	Working shot backfill etc....	
9-10	4	Working shot backfill etc....	
9-10	5	Working shot backfill etc....	
9-10	6	Working shot backfill etc....	
9-10	7	Working shot backfill etc....	
9-10	8	Working shot backfill etc....	
9-10	9	Working shot backfill etc....	
9-10	10	Working shot backfill etc....	
9-10	11	Working shot backfill etc....	
9-10	12	Working shot backfill etc....	
9-10	13	Working shot backfill etc....	
9-10	14	Small find #1 pottery vessel fragments 403.	4
9-10	15	Small find #1 pottery vessel fragments 403.	4
9-10	16	Post Ex shot of trench 6 looking SW.	6
9-10	17	Post Ex shot of trench 6 looking SW.	6
9-10	18	NW facing rep-sec of trench 6.	6
9-10	19	NW facing rep-sec of trench 6.	6
9-10	20	Post Ex shot of trench 6 looking NE.	6
9-10	21	Post Ex shot of trench 6 looking NE.	6
9-10	22	Post Ex shot of trench 6 looking SW.	6
9-10	23	Post Ex shot of trench 6 looking SW.	6
9-10	24	East facing rep-sec of trench 7 looking west.	7
9-10	25	East facing rep-sec of trench 7 looking west.	7
9-10	26	NNW facing sec of 702 looking SSE.	7
9-10	27	NNW facing sec of 702 looking SSE.	7
9-10	28	Post-Ex shot of trench 7 looking north.	7
9-10	29	Post-Ex shot of trench 7 looking north.	7
9-10	30	Post-Ex shot of trench 7 looking south.	7
9-10	31	Post-Ex shot of trench 7 looking south.	7
9-10	32	Post-Ex shot of trench 10 looking south.	10
9-10	33	Post-Ex shot of trench 10 looking south.	10
9-10	34	Trench 10 west facing rep-sec.	10
9-10	35	Trench 10 west facing rep-sec.	10
9-10	36	ID shot.	

Appendix J
OASIS Form

OASIS DATA COLLECTION FORM: England

OASIS ID: networka2-102073

Project details

Project name	Spalding, Clay Lake
Short description of the project	An archaeological trial trench evaluation was undertaken by Network Archaeology Ltd as part of a pre-determination planning application outline for a new business park and associated infrastructure at Clay Lake, Spalding, Lincolnshire. Archaeologically significant features and deposits dated to the later Iron Age were revealed along with several undated features which may be of a similar or later date to this period. The features revealed within the trenches consist mainly of ditches, a number of which are likely to represent water management associated with late Iron Age salt making. Several ditches are considered to be related to Iron Age settlement, possibly field systems or enclosure ditches, while the rest are believed to be drainage ditches of a later date.
Project dates	Start: 03-05-2011 End: 20-05-2011
Previous/future work	Not known / Not known
Any associated project reference codes	H16-0347-11 - Planning Application No.
Any associated project reference codes	LCNCC: 2011.76 - Museum accession ID
Type of project	Field evaluation
Site status	None
Current Land use	Cultivated Land 3 - Operations to a depth more than 0.25m
Current Land use	Vacant Land 3 - Despoiled land (contaminated derelict and ?brownfield? sites)
Monument type	OCCUPATION SITE Late Iron Age
Monument type	SALT PRODUCTION SITE Late Iron Age
Significant Finds	BRIQUTAGE Late Iron Age
Significant Finds	POTTERY Late Iron Age
Methods & techniques	'Sample Trenches'
Development type	Extensive green field commercial development (e.g. shopping centre, business park, science park, etc.)
Prompt	Direction from Local Planning Authority - PPS
Position in the planning process	Pre-application

Project location

Country	England
Site location	LINCOLNSHIRE SOUTH HOLLAND SPALDING Clay Lake, Spalding
Postcode	PE112FN
Study area	1800.00 Square metres
Site coordinates	TF 25680 21090 52.7724051109 -0.136777481371 52 46 20 N 000 08 12 W Point
Height OD / Depth	Min: 1.00m Max: 2.80m

Project creators

Name of Organisation	Network Archaeology Ltd
Project brief originator	Local Planning Authority (with/without advice from County/District Archaeologist)
Project design originator	Network Archaeology Ltd
Project director/manager	Michael Wood
Project supervisor	Christopher Casswell
Type of sponsor/funding body	Landowner
Name of sponsor/funding body	Ashley King developments ltd.

Project archives

Physical Archive recipient	The Collection Lincoln
Physical Contents	'Animal Bones','Ceramics','Environmental','other'
Digital Archive recipient	The Collection Lincoln
Digital Contents	'Animal Bones','Ceramics','Environmental','other'
Digital Media available	'GIS','Spreadsheets','Survey','Text'
Paper Archive recipient	The Collection Lincoln
Paper Contents	'Animal Bones','Ceramics','Environmental','other'
Paper Media available	'Context sheet','Drawing','Matrices','Photograph','Plan','Report','Section','Survey'

Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	Clay Lake Spalding, Lincolnshire Archaeological Trial Trench Evaluation
Author(s)/Editor(s)	Casswell,C
Other bibliographic details	578
Date	2011

Issuer or publisher	Network Archaeology Ltd
Place of issue or publication	Network Archaeology Ltd Lincoln
Description	A4 Spiral bound with clear plastic covers.
Entered by	Mike Wood (michaelw@netarch.co.uk)
Entered on	31 May 2011

Plates

Plate 1 General site shot within the turkey farm.
Plate 2 General site shot of eastern half of site.
Plate 3 Broken late Iron Age handmade jar in the base of ditch 403 in Trench 4.
Plate 4 Re-cut of late Iron Age ditch 512 in Trench 5.
Plate 5 Post-excavation shot of Trench 5, looking south-west.
Plate 6 Post-excavation shot of southern extension to Trench 13, looking north.
Plate 7 Southeast facing section of ditch 1314 in Trench 13.
Plate 8 North facing section of posthole 1320 cutting ditch 1323 in Trench 13.
Plate 9 South facing section of ditch 1503 in Trench 15.



Plate 1 General site shot within the turkey farm.



Plate 2 General site shot of eastern half of site.



Plate 3 Broken late Iron Age handmade jar in the base of ditch **403** in Trench 4.



Plate 4 Re-cut of late Iron Age ditch **512** in Trench 5.



Plate 5 Post-excavation shot of Trench 5, looking south-west.



Plate 6 Post-excavation shot of southern extension to Trench 13, looking north.



Plate 7 Southeast facing section of ditch **1314** in Trench 13.



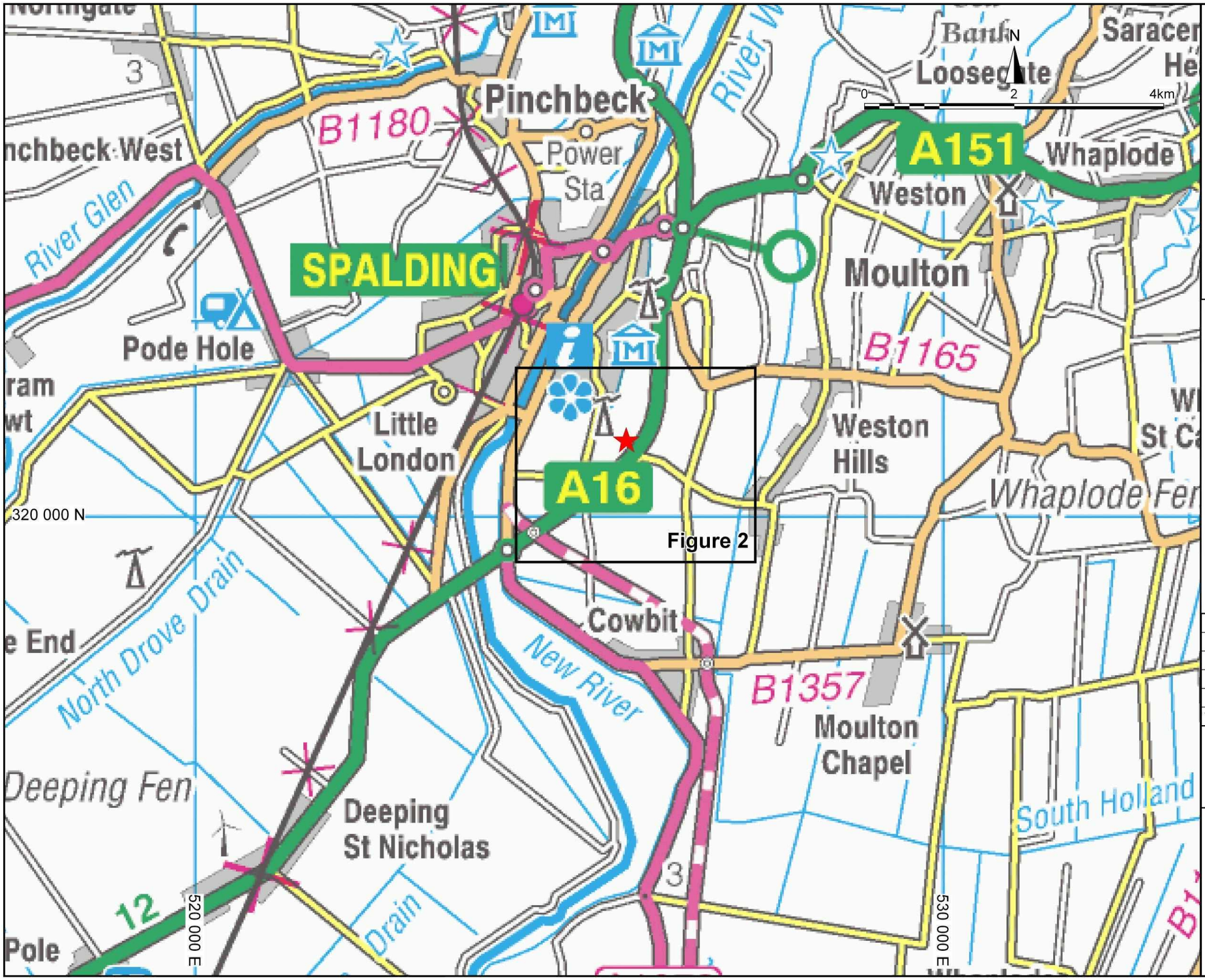
Plate 8 North facing section of posthole **1320** cutting ditch **1323** in Trench 13.



Plate 9 South facing section of ditch **1503** in Trench 15.

Figures

Figure 01 Location of development area
Figure 02 Location of proposed development area in relation to cropmark data
Figure 03 Location of evaluation trenches in relation to cropmark data
Figure 04 Plans and sections of Trenches 3 and 4
Figure 05 Plans and sections of Trench 5
Figure 06 Plans and sections of Trenches 6, 7 and 8
Figure 07 Plans and sections of Trenches 9, 10 and 11
Figure 08 Plans and sections of Trenches 12 and 13
Figure 09 Plans and sections of Trenches 14, 15 and 16
Figure 10 Plans and sections of Trenches 17 and 18



Proposed development area

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Ver	Date	Description	Drn	Chk	App
1.00	20/05/11	First issue	SAF	-	MW

network archaeology

Clay Lake, Spalding

Figure 1
Location of development area

Scale: 1:50000

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Figure 3



Proposed development area

Evaluation trench

Site recorded cropmarks

Known cropmarks

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Ver	Date	Description	Drn	Chk	App
1.00	31/05/11	First issue	SAF	CC	CT

network archaeology

Clay Lake, Spalding

Figure 2
Location of proposed development area in relation to cropmark data

Scale: 1:10000

FILE NAME:SCL114\Illustrations\Figures\GIS\workspaces\ver01.00\figure02.wor

Four Ashes

Factory

Poultry Houses

Trench 1

Trench 2

Trench 3

Trench 4

Trench 5

Trench 6

Trench 7

Trench 8

Trench 9

Trench 10

Trench 11

Trench 12

Trench 13

Trench 14

Trench 15

Trench 16

Trench 17

Trench 18

321 000 N

525 500 E

N

0 250 200m

Proposed development area

Evaluation area

Evaluation trench

Unexcavated trench

Site recorded cropmarks

Known cropmarks

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Ver	Date	Description	Drn	Chk	App
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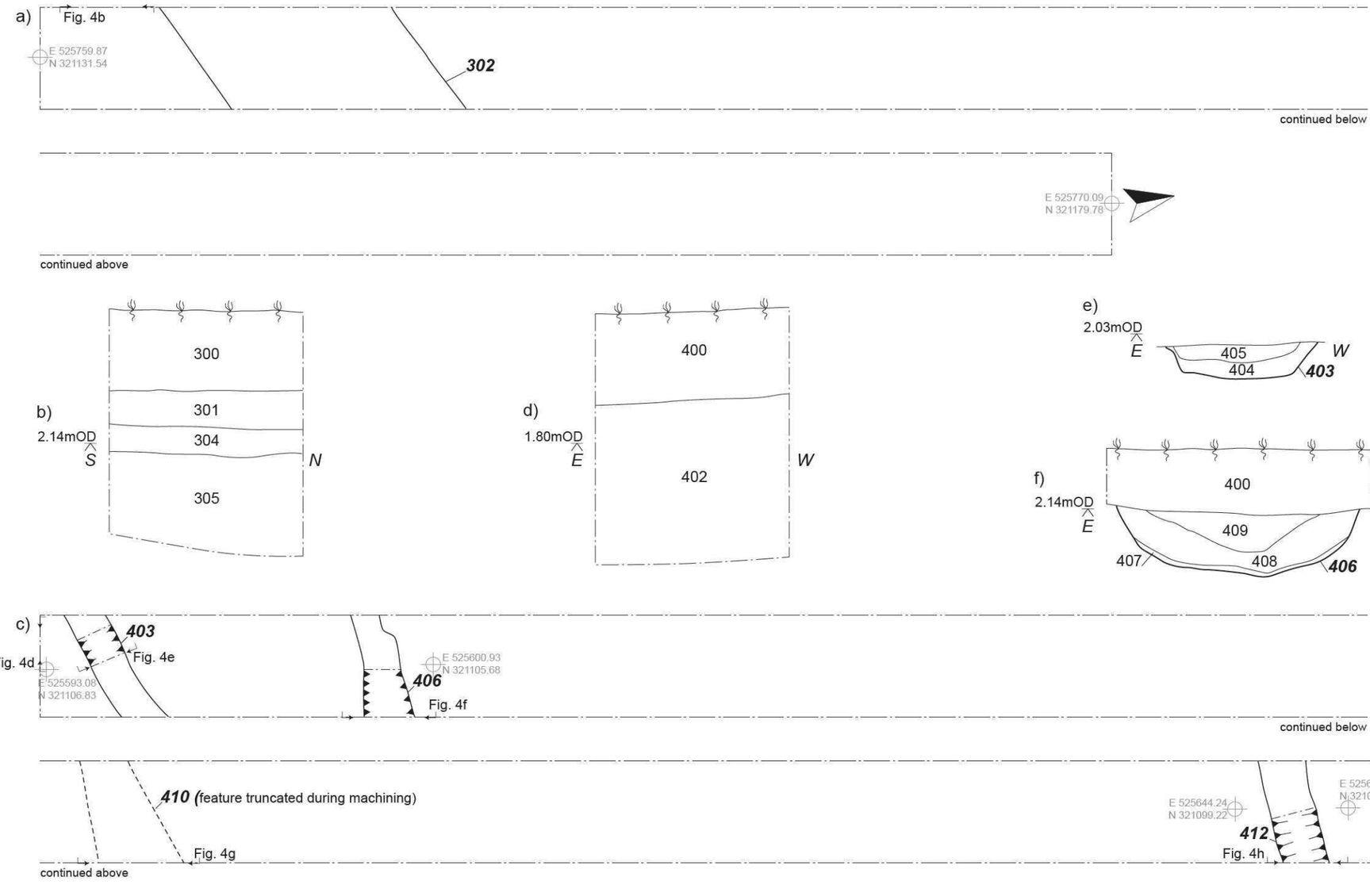
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Clay Lake, Spalding

Figure 3
Location of evaluation trenches in relation to cropmark data

Scale: 1:2500

FILE NAME:SCL114\Illustrations\Figures\GIS\workspaces\ver01.00\figure03.wor



Limit of excavation
Cut line
Layer line
Projected cut line
Field drain/modern features
1234 Cut number
1233 Layer/fill number
Charcoal

Ver	Date	Description	Drn	Chk	App
1.00	31/5/11	First issue	JLC	CC	MW
0.02	26/5/11	Edits	JLC	CC	MW
0.01	23/5/11	Trenches 3 & 4	JLC	CC	MW

network archaeology

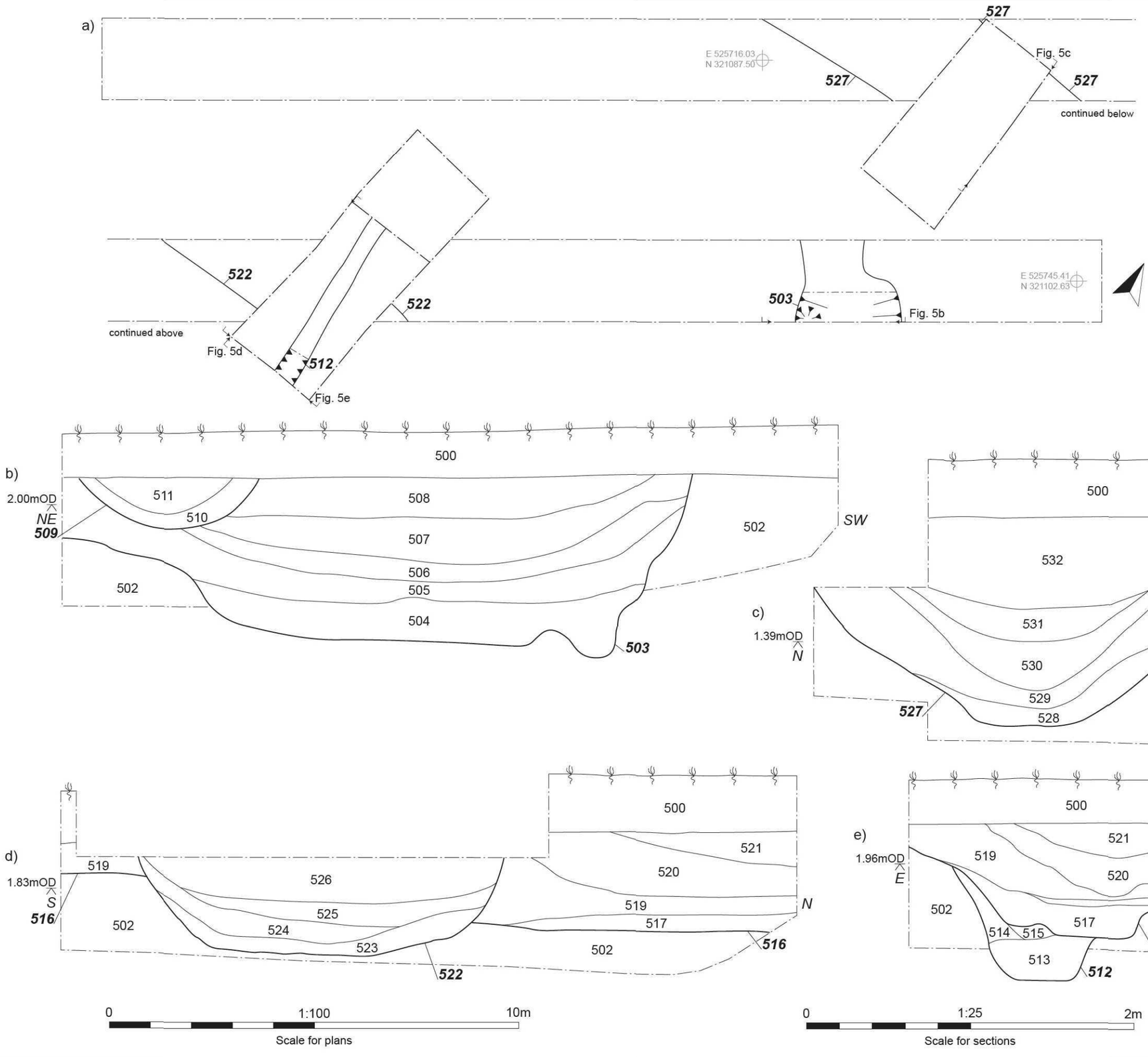
Clay Lakes, Spalding

Figure 04: Plans and sections of Trenches 3 and 4

a) Plan of Trench 3
b) Representative section, Trench 3
c) Plan of Trench 4
d) Representative section, Trench 4
e) Section of ditch 403, Trench 4
f) Section of ditch 406, Trench 4
g) Section of ditch 410, Trench 4
h) Section of ditch 412, Trench 4

Scales 1:100 and 1:20

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Limit of excavation

Cut line

Layer line

Field drain/modern features

1234 Cut number

1233 Layer/fill number

Ver	Date	Description	DM	Chk	App
1.00	31/5/11	First issue	JLC	CC	MW
0.02	26/5/11	Edits	JLC	CC	MW
0.01	23/5/11	Trench 5	JLC	CC	MW

network archaeology

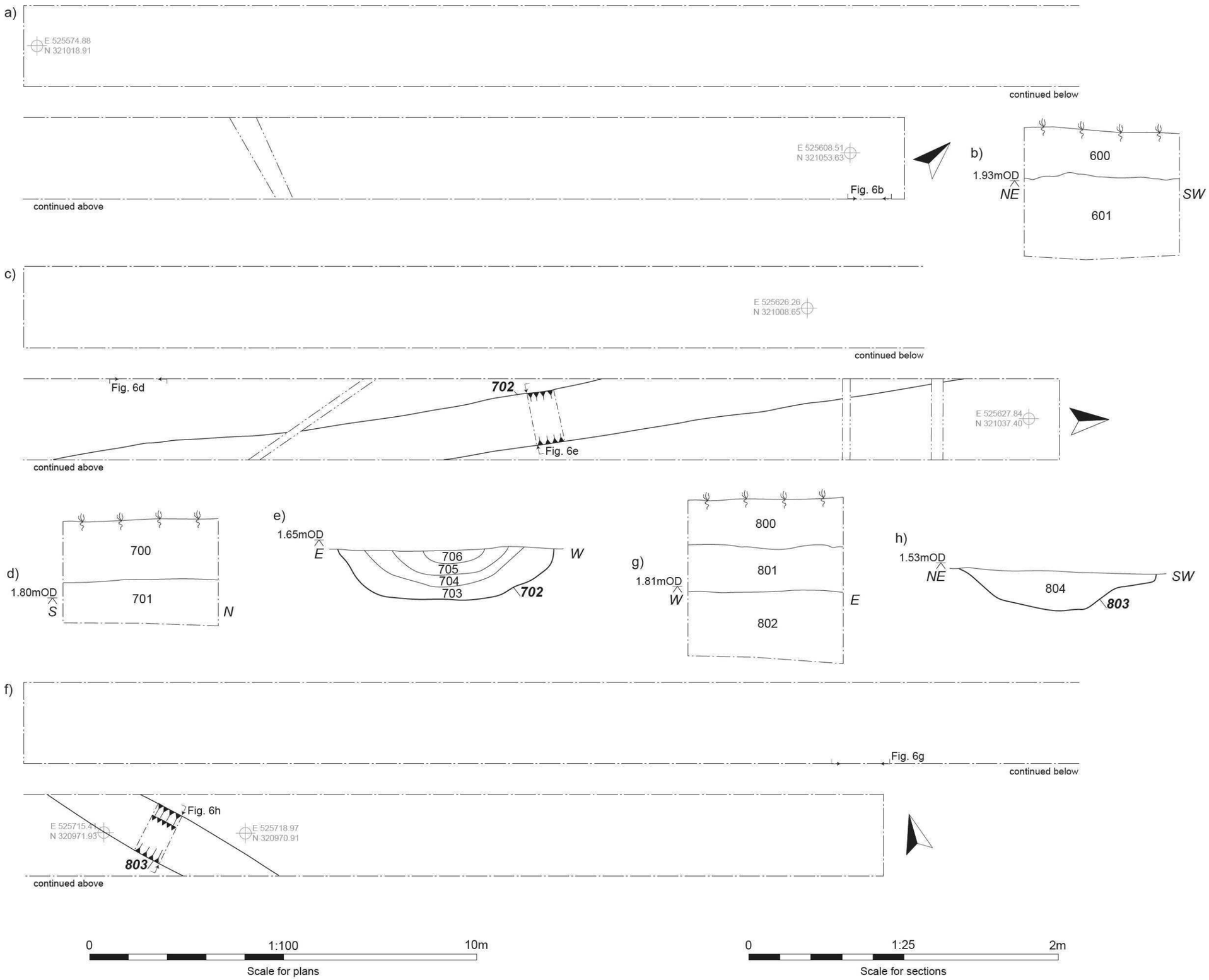
Clay Lakes, Spalding

Figure 05: Plans and sections of Trench 5

a) Plan of Trench 5
b) Section of ditch 503, Trench 5
c) Section of ditch 527, Trench 5
d) Section of ditch 522, Trench 5
e) Section of ditches 522 and 516, Trench 5
g) Section of ditches 512 and 516, Trench 5

Scales 1:100 and 1:25

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- Limit of excavation
- Cut line
- Layer line
- Field drain/modern features
- ***1234*** Cut number
- 1233 Layer/fill number

Ver	Date	Description	DM	Chk	App
1.00	31/5/11	First issue	JLC	CC	MW
0.02	26/5/11	Edits	JLC	CC	MW
0.1	24/5/11	Trenches 6-8	JLC	CC	MW

network archaeology

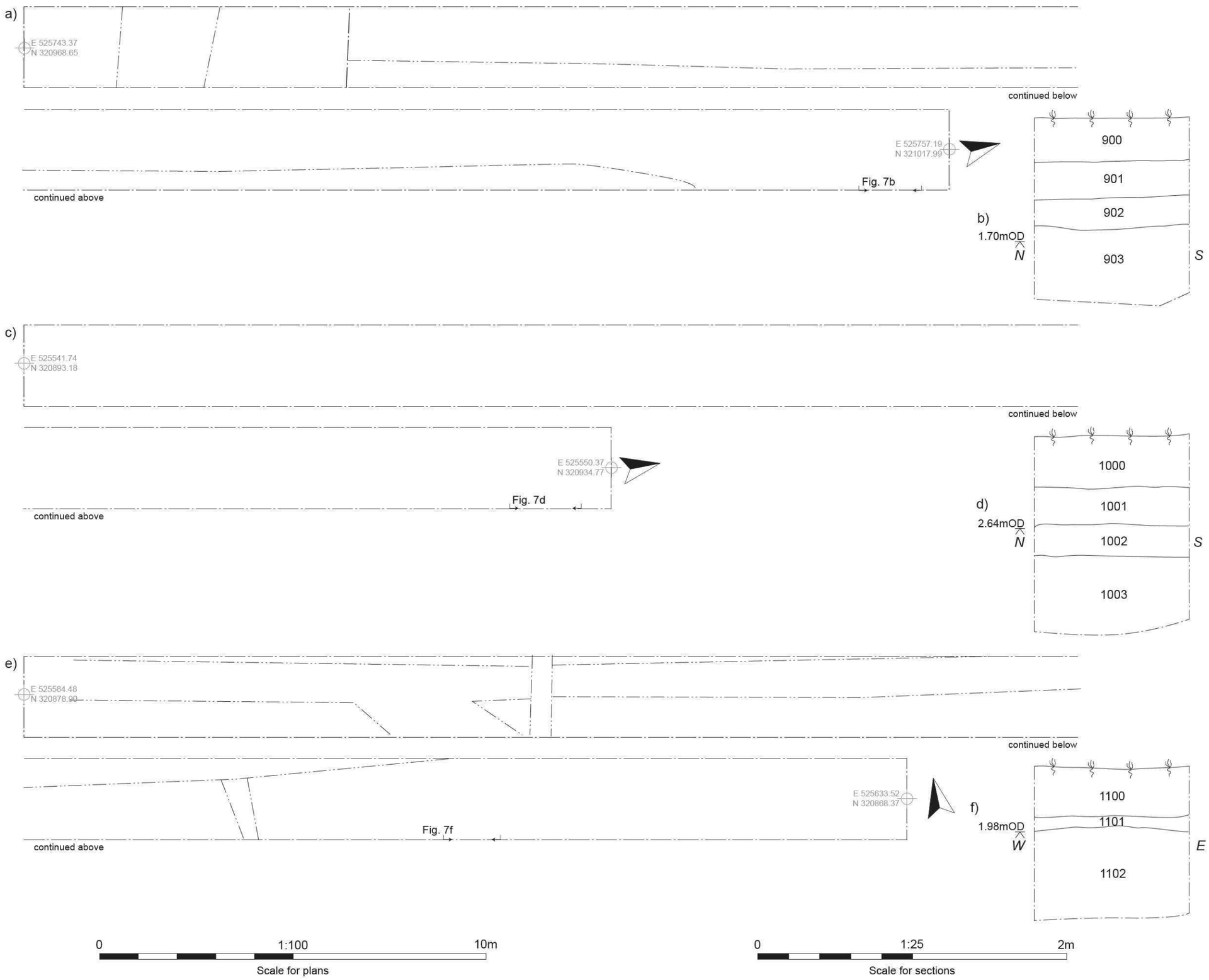
Clay Lakes, Spalding

Figure 06: Plans and sections of Trenches 6, 7 and 8

a) Plan of Trench 6
b) Representative section, Trench 6
c) Plan of Trench 7
d) Representative section, Trench 7
e) Section of ditch 702, Trench 7
f) Plan of Trench 8
g) Representative section, Trench 8
h) Section of ditch 803, Trench 8

Scales 1:100 and 1:25

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Limit of excavation

Cut line

Layer line

Field drain/modern features

1234 Cut number

1233 Layer/fill number

Ver	Date	Description	DM	Chk	App
1.00	31/5/11	First issue	JLC	CC	MW
0.02	26/5/11	Edits	JLC	CC	MW
0.1	24/5/11	Trenches 9-11	JLC	CC	MW

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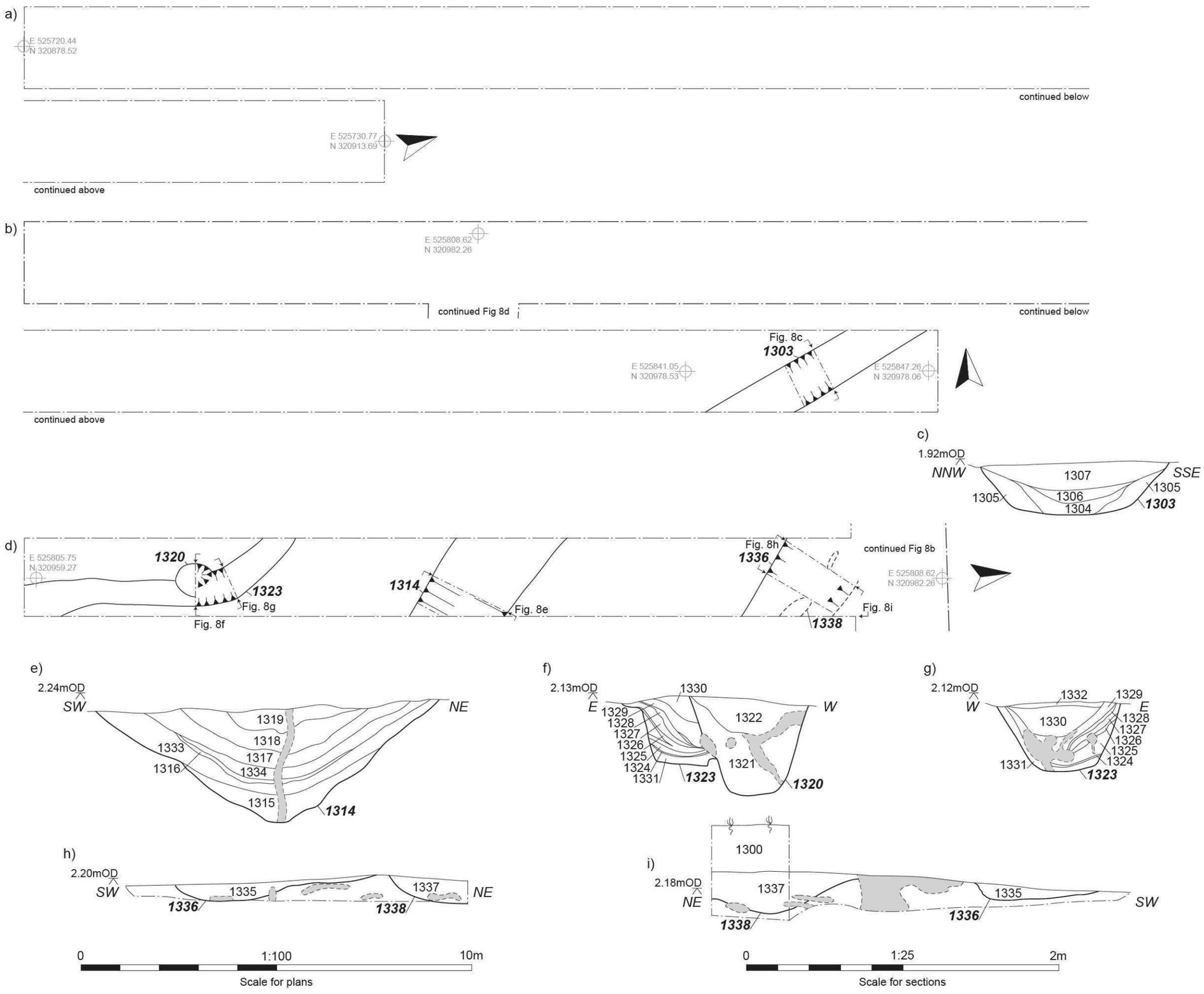
Clay Lakes, Spalding

Figure 07: Plans and sections of Trenches 9, 10 and 11

a) Plan of Trench 9
b) Representative section, Trench 9
c) Plan of Trench 10
d) Representative section, Trench 10
e) Plan of Trench 11
f) Representative section, Trench 11

Scales 1:100 and 1:25

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- Limit of excavation
- Cut line
- Layer line
- Field drain/modern features
- Projected cut line
- ***1234*** Cut number
- 1233 Layer/fill number
- Animal disturbance

Ver	Date	Description	DM	Chk	App
1.00	31/5/11	First issue	JLC	CC	MW
0.02	26/5/11	Edits	JLC	CC	MW
0.1	24/5/11	Trenches 12 & 13	JLC	CC	MW

network archaeology

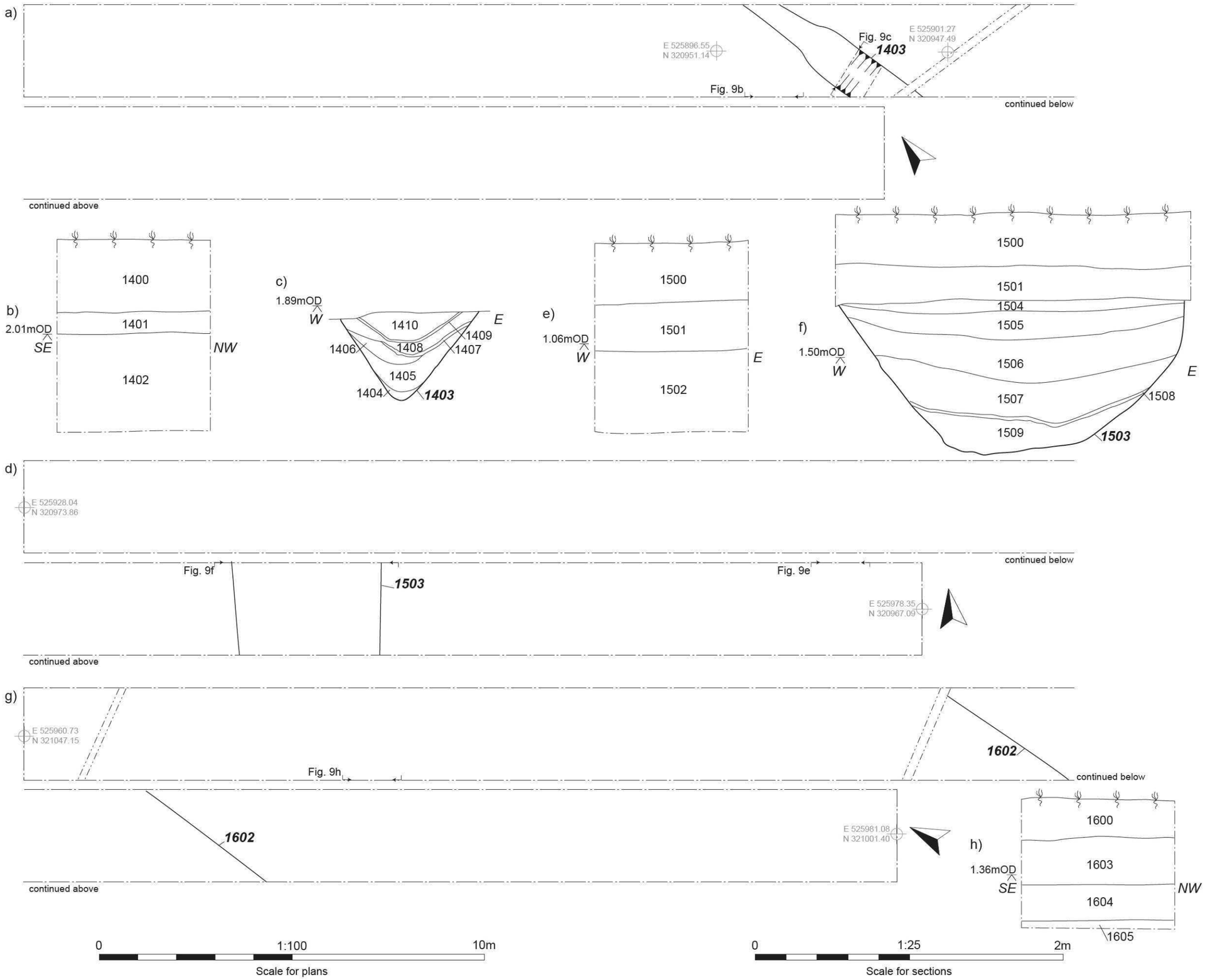
Clay Lakes, Spalding

Figure 08: Plans and sections of Trenches 12 and 13

a) Plan of Trench 12
b) Plan of Trench 13
c) Section of ditch 1303, Trench 13
d) Plan of Trench 13 southern extension
e) Section of ditch 1314, Trench 13
f) Section of ditches 1320 and 1323, Trench 13
g) Section of ditch 1323, Trench 13
h) Section of ditches 1336 and 1338, Trench 13
i) Section of ditches 1336 and 1338, Trench 13

Scales 1:100 and 1:25

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- Limit of excavation
- Cut line
- Layer line
- Field drain/modern features
- ***1234*** Cut number
- 1233 Layer/fill number

Ver	Date	Description	DM	Chk	App
1.00	31/5/11	First issue	JLC	CC	MW
0.02	26/5/11	Edits	JLC	CC	MW
0.1	24/5/11	Trenches 14-16	JLC	CC	MW

network archaeology

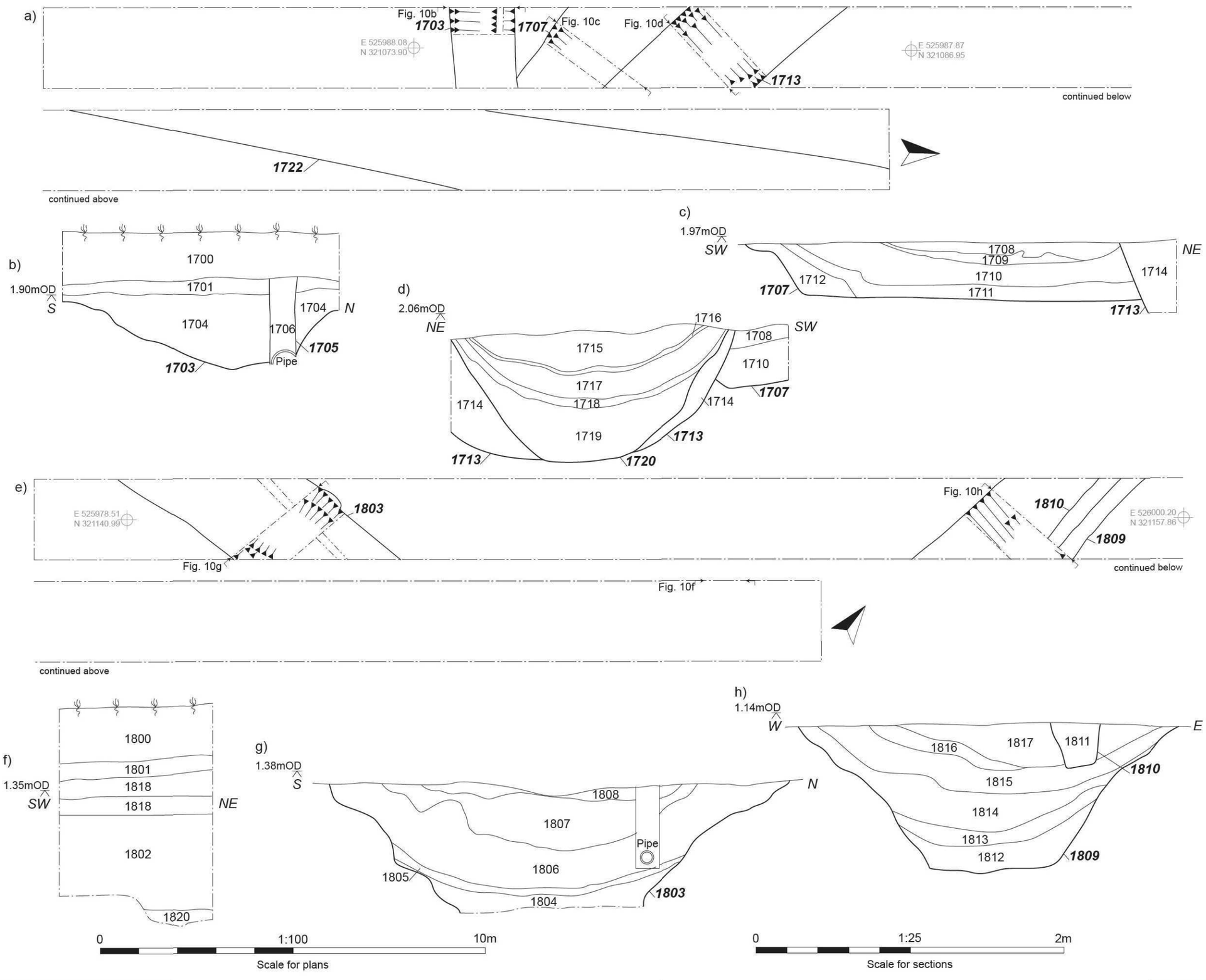
Clay Lakes, Spalding

Figure 09: Plans and sections of Trenches 14, 15 and 16

a) Plan of Trench 14
b) Representative section, Trench 14
c) Section of ditch 1403, Trench 14
d) Plan of Trench 15
e) Representative section, Trench 15
f) Section of ditch 1503, Trench 15
g) Plan of Trench 16
h) Representative section, Trench 16

Scales 1:100 and 1:25

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Limit of excavation

Cut line

Layer line

Field drain/modern features

1234 Cut number

1233 Layer/fill number

Ver	Date	Description	DM	Chk	App
1.00	31/5/11	First issue	JLC	CC	MW
0.02	26/5/11	Edits	JLC	CC	MW
0.1	25/5/11	Trenches 17 & 18	JLC	CC	MW

network archaeology

Clay Lakes, Spalding

Figure 10: Plans and sections of Trenches 17 and 18

a) Plan of Trench 17
b) Section of ditch 1703, Trench 17
c) Section of ditches 1707 and 1713, Trench 17
d) Section of ditches 1707, 1713 and 1720, Trench 17
e) Plan of Trench 18
f) Representative section, Trench 18
g) Section of ditch 1803, Trench 18
h) Section of ditch 1809 and 1810, Trench 18

Scales 1:100 and 1:25

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