LINDSEY ARCHAEOLOGICAL SERVICES

Linwood Road, Market Rasen
Archaeological Excavations and Watching Brief

NGR: TF 111 885
Site Code: MRL 99
LCNCC Acc No.: 96.99
Planning Application: 96/P/0397

Report for

Hugh Bourn Developments (Wragby)

by

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Summary

Excavation was undertaken at Linwood Road, Market Rasen in advance of housing development. Two areas were selected for investigation after archaeological evaluation and geophysical survey of the whole development site. Large areas of Roman quarry pits were uncovered in the western part of the site as well as clay processing/ settling pits. A single kiln was found, associated with pits and ditches, containing pottery production waste. In addition two hearths which were used for agricultural processing and possibly drying pots were also found. The site is of considerable importance being one of the most extensively excavated pottery production sites in Lincolnshire and extends the date range for this important pottery industry centre into the 4th century AD.

Introduction

Lindsey Archaeological Services was commissioned by Hugh Bourn Developments (Wragby) Ltd to undertake an archaeological excavation at Linwood Road, Market Rasen, Lincolnshire. The excavation was carried out according to the specific requirements of the brief prepared by PreConstruct Archaeology (Lincoln) and amended by a letter dated March 1999, and the general requirements set out in the *Lincolnshire Archaeological Handbook* (Lincolnshire County Council Archaeology Section, 1998). Work commenced in May 1999 and was completed in July 1999 under the site direction of Mark Williams.

Site Location and Description (Figs 1 and 2)

The development site, approximately 6.7 ha in extent, is located immediately south-east of the modern settlement. It is irregular in plan and bounded to the west by Linwood Road and to the north and east by field and/or property boundaries.

Within the development site two areas were selected for archaeological investigation which covered 0.36ha in the western half of the development. This comprised Area 1 adjacent to the western boundary of the site (2315m^2 in extent) and Area 2 which extended east along the proposed access road (600m^2). At the time of the excavation it was largely under stubble and weeds.

Planning Background

The land falls within an area allocated for residential development in the West Lindsey Local Plan and an outline planning application to develop the land for housing was submitted (96/P/0397). Permission for development was granted subject to a requirement set out in a Section 106 agreement (*Town and Country Planning Act 1990*) to carry out archaeological excavations and a watching brief which are.

Archaeological Background

An extensive and important Roman pottery industry has been identified to the SE of the modern town of Market Rasen and in the adjoining parish of Linwood. Market Rasen is the centre of one of a number of Roman pottery industries known from the Lincolnshire and South Yorkshire area (**Fig. 3**). There have been several investigations in the Linwood Rd area of the town over the past 40 years. Previous work by teachers and pupils from the De Aston School uncovered evidence for pottery production in the area (Darling *forthcoming*). Geophysical survey in 1998 on the west side of Linwood Road, northwest of the development site identified several Roman pottery kilns, one of which was revealed during excavation (evaluation Trench 3), and various ditches, containing 2nd century pottery (evaluation trenches 1, 2 and 4) which has resulted in this area being set aside for preservation. In the area to the north on the site of the proposed police and fire station evaluation Trenches 5 and 6 were excavated close to the Linwood Road street frontage. A Roman pottery kiln was found in Trench 6, with pits and ditches containing Roman pottery. Ditches and gullies were present in Trench 5 (Field & Williams 1998). Subsequent excavations on the site of the police and fire station investigated the kiln found in Trench 6 and the ditch systems and found a large area of clay extraction pits (Rowlandson *forthcoming*). Excavations to north of this investigation have produced further kilns and evidence for structures (Will Mumford *pers. comm.*).

Aims and Objectives

The importance of kiln sites is nationally acknowledged, and highlighted in the Priorities submission to English Heritage by the Society for Roman Studies (1985, Section 4.5.1.1), and the Research Frameworks for the Study of Roman Pottery, submitted to English Heritage by the study group for Roman Pottery (Willis 1997, 4,4).

There have been few excavations of Roman pottery kilns in Lincolnshire in recent years and little is understood of the associated structures that might be present such as drying sheds, storage areas etc. It was anticipated that the site would provide a valuable opportunity to investigate kiln production in this part of Lincolnshire

The distribution of pottery in Lincolnshire is poorly understood and it was hoped that the material from the excavation would contribute towards an assessment of the regional distribution of pottery. The longevity of the production from the 2nd century to the 4th might indicate changes in distribution patterns over time, essential for an understanding of the developing market structure.

The potential for iron production was also noted and evidence of metalworking was anticipated which will lead to a more complete understanding of the whole industrial base for the site. It is important to consider the date and extent of any smelting activity and to investigate the size and type of furnace used.

The specific site objectives set out in the mitigation strategy (Palmer- Brown 1999) prior to commencement of the excavations were as follows

- To identify and excavate all (or a selection if numerous) pottery kilns located within the excavation areas in order to gain a better understanding of the kiln construction and technical processes
- To investigate related kiln structures and processing areas (e.g. quarry pits, potters' workshops, drying sheds etc)
- To assess the range of products produced at Market Rasen and consider their role in a regional context compared to other production sites
- To establish whether Parisian wares were being manufactured on the site
- To establish the date range of vessels and to consider the longevity of the pottery industry in the Market Rasen area
- To identify and excavate any other evidence for industrial activity on the site such as ironworking, including evidence for smelting and smithing, and to consider the relationship between these industries
- To determine whether there was domestic occupation on the site
- To record any other archaeological features of significance

Method

Overburden was mechanically removed using a 1.6m wide toothless dyking bucket. The areas were hand-cleaned to reveal features in plan. Carefully selected cross-sections through the features were excavated to enable sufficient information about form, development date and stratigraphic relationships to be recorded.

A full written (single context) and photographic record was made of the site, including site plans at a scale of 1:50, and section drawings at 1:20. In addition, further plans and sections were made of individual features, or groups of features, as appropriate. A full photographic record was made during the progress of the excavation to cover each feature together with general site shots. LAS operates a standard context recording system, developed by its staff over the past 20 years based on MOLAS and CAS models.

Sampling strategy varied depending upon the nature of the feature ranging from machining excavation of the quarry pits to 100% hand excavation of the kiln. This was taken in consultation with the curatorial archaeologist.

Many of the features were securely dated, primarily by pottery, but in some cases had been severely disturbed by modern drainage pipes.

Numerous cross-sections were dug through many of the features and have therefore have been recorded with more than one cut number. Cut numbers are referred to by the full list of cuts upon first

mention (eg. **2114/2143**) and subsequently only by the numerically lowest cut number (eg. **2114**). Please refer to **Appendix 1** for full context details.

Results

The results are presented in phases to facilitate an understanding of the archaeology of the excavation as a whole. As the phases have an overlap and some features have only stratigraphic dating, and features such as post holes produced no finds, elements of spatial distribution have been used to help to interpret the site, together with spot dating of the pottery. Sub-phases have been attributed to features in different areas, as the two areas were not physically linked and the sub-phases have been proposed on the basis of stratigraphic evidence. The sub-phases cannot be assumed to be the same from area to area. All feature plans of the investigated features (**Figs 4, 6 & 12**) are supplemented with phase plans (**Figs 7, 9, 10, 13, 16, 19**).

The broad phases are as follows-

Phase 1 Mid 2nd century AD and earlier

Phase 2 2nd – 3rd centuries AD

Phase 3 Late 3rd century AD

Phase 4 3rd- 4th centuries AD

Phase 5 4th century AD

Phase 6 Medieval field systems

Phase 7 Post-medieval and modern features

Natural Geology

The site lies in the Lincolnshire 'clay vale' which lies between the limestone to the west and the Lincolnshire Chalk Wolds to the east (Kent 1980, 4). The drift geology of the site is characterised by aeolian sands, which were recorded as layers **1421** and **2078/2177**, overlying Kimmeridge clay (**1422**). The deepest excavation in Area 2, at the base of pit **2306** encountered no clay (at a depth of 29.54m OD). Nor was any clay encountered in Area 1b during the excavation of well **1031** at a depth of 28.28m OD. In Area 1a clay was encountered at the western edge of the excavation area at a depth of 30.06m OD. This suggests that the clay deposits are closer to the surface to the west of the site and there is a greater build up of aeolian sands to the east and the south.

The topsoil (**2000**) was a mid grey brown sand silt and had an average depth of 0.3- 0.35m. The 'sub-soil' (**2001**) was variously recorded as light grey brown or light orange brown due to the confusion between the subsoil and areas of surviving Roman soil or subsoil layers (eg **1026, 1266, 1267** and **2453**) which were mostly removed prior to archaeological excavation. The subsoil was probably a product of medieval and post medieval ploughing. Surviving areas of buried Roman soils may be remnants of ploughed down spoil heaps from clay extraction or from dumped kiln waste.

A number of ceramic land drains were encountered across the excavations which contributed to the

truncation of Roman features including the kiln in Area 2. These were not investigated except where they cut though the kiln and its associated rake out pit.

AREA 1 (Fig. 2)

Area 1 comprised a large square trench 40 x 40m (Area 1a) with an extension eastward (Area 1b) measuring 40 x 15m. Area 1a (**Fig. 4**) produced evidence for clay extraction represented by a series of intercutting pits. It is impossible to determine if any of the quarry pits in this area represent quarrying in the mid 2nd century due to the truncation from the later pits and the limited investigation of the pits (**Pls 1-3**). The eastern area (Area 1b) (**Figs 6, 7, 9 & 10**; **Pls 4-6**,) contained earlier remains ranging from Phases 1-4.

AREA 1a

PHASE 4 3rd- 4th centuries (Fig. 4)

Previous evaluation in Area 1a comprised a number of small trenches and a larger machine-excavated trench (Albone 1998). All investigations produced predominantly 3rd to 4th century pottery (Darling 1998 and Appendix 2). The pits were large and their precise extent difficult to define. An attempt was made to plan the differing fills but it was deemed to be unproductive to sample the large area of inter-cutting pits in the same manner as the area to the east which had distinct discernable features. Fig. 4 shows only those features which were investigated and had their edges defined in plan and the exposed area of natural sand at the eastern edge showing the furthest extent of the quarrying (**1421**).

Clay extraction pit **1001** was hand excavated and produced pottery of 3rd- 4th century date. It had an irregular base and was cut into the natural clay (**Pl. 7**). It also cut into other quarry pits which were not investigated. Clay extraction pit **1025** contained a number of fills (**1036- 1048**) which produced a variety of ceramic dates ranging from the 2nd- 4th century. The mixed dates of the pottery suggest intermittent filling of the pit with the rubbish lying around the area. The upper fill also contained post-Roman pottery which suggests that the pit continued to fill slowly after the end of the Roman period. It may be the same feature as pit **1125** but this relationship was not demonstrated (**Fig 5.3 & 5.4**; **Pl. 8**).

Machine Trench 1 (**Fig 5.1**; **Pls 9 & 10**) cut through two large clay extraction pits **1125** and **1123**. Pit **1125** was 7.1m wide and a maximum depth of 1.80m. It had a mixed fill of silt sand and redeposited sand and clay (**1124**) and no finds. Assuming that the pit was roughly circular and using an average pit depth it is calculated that an estimated 76m³ of clay would have been extracted from the pit. Pit **1123** was 19.5m wide and contained similar fills to pit **1125** with an organic rich basal fill (**1119**). There were no finds. Using the same calculations as for pit **1125** the volume of clay extracted from the pit would have been approximately 190m³.

Machine Trench 2 cut through two possible plough furrows (see Phase 6) and two possible shallow ditches **1129** and **1130** which produced 3rd century pottery and a clay extraction pit **1133** which was much smaller than the pits investigated in Machine Trench 1 but with similar fill. (**Fig 5.2**).

The clay extraction activity appears to be most intensive at the north end of Area 1a. Large pits **1123** and **1125** may have been left open and re-quarried over a number of seasons before they were filled in by a mixture of washed in fills and dumping. The infilling of the pits may have happened gradually after pottery production in the area ceased. The excavation of the quarry pits in this area was probably due to the shallow depth at which the natural clay out crops. Extraction in this area would have been much more efficient due to the shallow depth of natural sand present in the area.

PHASE 5 4th century (Fig. 4)

The clay extraction pits in Area 1a were probably open and partially backfilled during the 4th century.

AREA 1b (Fig. 6; Pls 4-6)

PHASE 1 2nd century and earlier (Fig. 7)

There was a considerable amount of root disturbance which pre-dated the earliest archaeological features on the site. Although it is not possible to demonstrate that the area was cleared immediately prior to activity on the site in the 2nd century, the development of an industry dependent upon large quantities of fuel might explain the clearance. One area of root disturbance (**1289**) was sandwiched between pits **1414** and **1287** which suggests that some trees/bushes survived into the second century. Pit (**1236**) overlay one area of rooting disturbance (**1390**) but was also truncated by later rooting (**1234**) (**Fig. 7**). One tree throw **1159** contained 3rd – 4th century pottery (**Fig. 16**) and whilst not conclusive it remains possible that Area 1b continued to be sparsely wooded throughout the Roman period.

Three phases of mid-2nd century or earlier date have been identified in Area 1b (**Fig. 7**). The earliest phase comprised a cluster of four pits (Phase 1.0) which were cut by securely dated mid-second century contexts or produced pottery of a second-century date. Most of them were not excavated and were recorded only in plan (**1412, 1414, 1416** and **1419**). Pit **1365** was partially investigated but was not excavated to its base. Their function is not clear as so few were investigated.

Cutting this group of earlier pits were three parallel ditches **1158/1284/1296** (**Fig 8.1**; **Pl. 11**) and **1410** (which was not investigated) aligned northwest-southeast and northeast-southwest (Phase 1.1). They were truncated to the west by later pits. A shallow ditch (**1298**), on the same alignment as **1326** and south-west of **1158**, was also excavated and appeared to be truncated (**Pl. 11**). At right angles to these ditches was **1326** which ran north-eastwards beyond the northern limits of the excavation. It produced no finds but was cut by pit **1324** and an area of tree roots. Another possible shallow gully 0.15m in depth (**1344**) may be a continuation of **1326** but less than 1m in length survived, due to truncation by later pits. Parallel to ditch **1326** was another northeast-southwest ditch (**1107**) (**Pl. 12**) forming the end of a rectangular enclosure, at least 23m wide and a minimum of 23m long, with a possible entrance in the top corner, but this area was heavily disturbed by later features and there may have been no entrance. Parallel and adjacent to **1107** was an irregular feature, interpreted as the remains of rooting (**1057**), which may have been part of a hedgerow flanking **1107** on its south side.

Overlying ditch **1107** a north-south aligned boundary ditch **1068** (**Fig. 8.3**; **Pl. 13**) with associated east-west ditch was established (Phase 1.2). The east-west ditches **1054/1055/1056** (**Fig. 8.4 & 8.5**; **Pl. 14**), which produced mid--2nd century material, had been recut on several occasions and merged to form a single ditch which was a continuation of ditch **1229** on the same alignment. Ditch **1068** was recut as ditch **1420** in the late 3rd-4th century (see **Fig. 9**), whose fill (**1069**) was similar to the fills of Phase 4 gully **1153**.

PHASE 2 2nd –3rd centuries (Fig. 7)

Activity in Area 1b was characterised by a number of pits, fence lines and boundary ditches. The pits can be broken down into two categories. The first comprises large clay extraction pits with a diameter in excess of 10m, with ill-defined edges and fills, which were excavated deeper than the natural clay (**1265**, **1355**, **1368**, **1378**, **1382**, **1386** and **1399**). They were grouped near the western edge of Area 1b, where the underlying clay was close to the surface, making the excavation of clay viable from this point westwards into Area 1a. They share many similar characteristics with the pits investigated in Area 1a (Phase 4). Many were planned but not investigated or recorded, and have been grouped on the plan according to dimensions of excavated examples and phased on the basis of the statigraphic relationships shown on the plan.

The second group was a series of smaller pits (**1236**, **1276** (**Pl. 15**), **1324**, **1337**, **1348**, **1354**, **1361**, **1373**, **1391**, **1392, 1398** and two unnumbered features shown on **Fig. 7**) were predominantly located in areas where the upper parts of the pits cut the natural sand or the backfill of a clay extraction pit and did not penetrate the natural clay. This may indicate the need for the pits to be free-draining or alternatively their distribution may be biased by truncation caused by later quarry pits. They contained water-washed fills and patches of re-deposited clay. Pits **1391** and **1392** contained basal fills of re-deposited natural clay and sand which would support the suggestion that the pits were used for clay processing.

As many of the pits were not excavated some may belong to later phases. Their accurate dating is hindered by the small investigation sample and some of the pottery deposited in the pits may have been dumped from surface scatters or re-deposited from other earlier pits. However, many of the early pits may still have been in use later in the 3rd century.

Two possible fence lines, 4m apart, were recognised and attributed to Phase 2.1. The postholes were heavily truncated but were not believed to form a building but two north- south aligned fences. Postholes **1018**, **1067**, **1072**, **1090**, **1091**, **1111**, **1151 1389** and **1390** formed the most visible north south alignment, with **1388** offset to the west of the main line. Postholes **1105** and **1092** lay west of ditch **1068** and may have been part of a second north-south line. All these postholes were sandwiched between the earlier ditch **1068** and ditch **1188** to the east and may have formed the boundary

previously marked by ditch **1068**. Very few postholes were noted over the rest of Area 1b but **1018**, **1105** and **1151** may have been part of an east west alignment.

A slot excavated along the northern side of Area 1b revealed a boundary ditch, orientated roughly north south, which had been recut on numerous occasions and continued in use to the late Roman period and possibly beyond. Two distinct phases of ditch were assigned to Phase 2.

Phase 2.1 comprised two ditches (**1117** and **1114**) aligned northwest-southeast and an associated northeast-southwest ditch (**1096**) which, together, may have formed the north-west angle of an enclosure (**Fig. 11.1 & 11.2**; **Pls 16-19**). The relationship between **1117** and **1114** could not be proven but one was probably a recut of the other.

Overlying Phase 2.1 a second group of ditches **1177**, **1181**, **1184**, **1186** and **1188** (listed earliest to latest) represent a series of re-cuts along a north-south alignment (Phase 2.2). The first ditch **1177** was the most easterly and each successive re-cut was established slightly to the west of its predecessor (**Fig. 11.1**). This ditch 'migration' suggests that the spoil from the excavation of the ditches was banked to the east of each new ditch and subsequently partially filling it before being re-cut further west. These ditches were probably established as a replacement to the ditch **1068**, to the west. Layer **1026** may represent the remnants of the bank established to the west of the ditches.

A third group on the eastern limits of the excavation consisted of two north- south aligned ditches (**1080** followed by **1078**) which overlay the Phase 2.1 ditches but had no direct relationship with the recut ditches to the west and could be broadly contemporary. They may represent a re-establishment of the main boundary or may have formed a track or drove way with the other Phase 2.2 ditches.

PHASE 3 Late 3rd century (Fig. 9)

Phase 3 consisted of northeast-southwest ditch **1082** and a wide northwest- southeast aligned ditch (**1142**) which were cut on a similar alignment to Phase 2.1.

Towards the west end of Area 1 and running beyond the northern limits of the trench were limited remains of layers which overlay the Phase 2 pit **1265**. Layer **1266** was a very dark grey silty clay 0.20m deep and lay beneath the subsoil. It overlay a light grey silt clay (**1267**). Layer **1266** produced late 3rd century pottery and much of it had been removed during the initial machining of the area. These layers may represent a later Roman ground surface which was truncated by natural processes and subsequent medieval ploughing (**Fig. 8.6**).

PHASE 4 3rd- 4th centuries (Fig. 9)

By the 3rd-4th centuries a new system of gullies was established which cut through many of the Phase 2 pits. Also of this date were two wells, a number of discrete pits and a zone of clay extraction pits at the west end of the trench which continued into Area 1a.

One ENE- WSW aligned gully (**1150/1155/1300/1345**) a number of NNW- SSE aligned gullies (**1190/1194**, **1193/1242/1252/1256/1323** and **1200/1225**) which had three small postholes at its northern most terminus (**1219**, **1222** and **1223**) were recorded. These gullies were aligned off ditch **1420** (see Phase 1.2 above) and truncated a number of Phase 2 pits. Gully **1150** was subsequently cut by a large area of clay extraction pits which was ill-defined and not investigated, but probably connected to the pits discussed in Area 1a above.

A number of discrete pits (**1160**, **1287**, **1288/1310** and **1358**) and two areas of root disturbance (**1168** and **1289**) also belong to Phase 4. Pit **1358** also overlay gully **1150**. This suggests that Area 1b was possibly drained and used as plots or fields after the Phase 2 activity but the field system subsequently went out of use when quarrying and clay processing recommenced.

To the east of Area 1b was a well (**1031**). It appeared to cut an earlier feature **1423** (not recorded at the time) which was probably also a well (**Fig. 10; Pls 4**, **5**, **20 & 21**). Finds retrieved from well **1031** were small and abraded but were of 3rd century date. The feature was shown to be stratigraphically above ditch **1147** (Phase 5) when planned but the photographs show that the well cut a number of small ditches (Phase 2.2) and not one broad ditch. The wells can be phased to the 3rd- 4th century. Well **1031** contained a number of silty fills (**1032**, **1033**, **1059** and **1060**) and well preserved timbers (**1034** and **1035**). The longest timber was 0.90m long and had a roughly triangular cross section (**1034**). Other timbers (**1033**) were more degraded. They were probably the remnants of a timber lining which appeared to have decomposed and collapsed.

PHASE 5 4th century (Fig. 10)

The boundary ditches which had been cut in Phases 2.1 & 3 were re-established by northwest-southeast ditch **1094** which was cut by northeast- southwest aligned ditch **1084**. Ditch **1084** was subsequently cut by ditch **1086** and re-cut **1088.** These Phase 5 ditches represent the final re-cutting of the Phase 2.1 & 3 boundary which was probably evident until the late 4th century (**Fig. 11.1 & 11.2**; **Pls 16-19**).

The latest recorded north-south ditch **1147** (**Figs 10 and 11.1 & 11.2, Pls 16-19**) was probably open at this time and may have remained visible in the landscape into the medieval period and beyond (see Discussion below).

AREA 2 (Fig.12 and Pls 22 and 23)

Area 2 followed that part of the access road which crossed the northern limits of the geophysical survey where a dense area of archaeological features had been identified. Most of this area is now located in a public open space and remain undisturbed. It was c.94m long and 5m wide. The whole area was criss-crossed by numerous ditches on different alignments, most of which had not been

recognised by the geophysics. In addition there was a single pottery kiln (which lay beyond the geophysical survey area) and various pits and postholes.

PHASE 1 2nd century and earlier (Fig. 13)

The earliest datable features in Area 2 were a large field boundary and subsequent smaller boundary ditches. The truncation of these features by later ditches removed many of the relationships between them. Three areas of rooting disturbance were identified, two at the east end of the trench and one in the centre of the area (**2341**) but were not further recorded. Although the features cannot all be securely dated to Phase 1 their stratigraphic relationship beneath **2223** would suggest that they belong to the earliest phase of the site.

One ditch, two curving gullies (**2274/2449, 2073** and **2155**) and a shallow oval pit (**2350, Fig. 14.1 & 14.2**). produced no dating evidence but were cut by other mid 2nd century features (Phase 1.1). Gully **2073** and ditch **2274** (**Pl. 24**) probably represent a precursor to the main ditch system belonging to Phase 1.2.

These fragments of ditches were sealed by a system of north-south and east-west aligned ditches possibly forming small plots (Phase 1.2). The main ditch, **2223** (**Fig. 14.3**; **Pl. 25**), ran approximately west-east, curving to the south (**2080**) at its east end. Ditch **2080** may replace the smaller, earlier gully **2073**. Aligned off ditch **2223** were a number of north-south ditches. Ditch **2223** formed a field or plot with north south ditch **2220** (**Pl.27**). The plot had an east west width of *c.* 35m (5m wider than the Phase 1.1 **2073/ 2448** gullies). Ditch **2220** was replaced by a re cut (**2219, Fig. 14.4, Pl. 26**) and another north south ditch (**2269**, **Fig. 14.2**; **Pl, 27**) was cut forming a field 25m in width probably re using ditch **2223**.

One curving gully (**2185**) and two ditches (**2311** and **2406**) made up Phase 1.3. Gully **2185** could not be placed stratigraphically into this phase but produced early to mid 2nd century pottery. Despite the ceramic date **2185** might best be linked with Phase 2 feature **2033** and may have formed one curving gully. Ditches **2406** (**Fig. 14.5**) and **2311**, aligned NNW- SSE, may also be associated with Phase 1.3. Unlike Phase 1.2 no east-west ditches could firmly be associated with **2311** and **2406**. The stratigraphic relationship between **2311** and **2223** could not be established due to truncation by pit **2306**. It is possible that **2311** and **2406** represent a phase of ditches which predates Phases 1.1 and 1.2.

PHASE 2 2nd –3rd centuries (Fig. 13)

In this phase of activity three discrete zones were identified in Area 2. At the east end of the trench were remnants of two small curving gullies (**2033 & 2082**) and a ditch (**2047**). Gully **2033** possibly represents a continuation of **2185** (Phase 1.3) or **2082** but truncation by furrow **2035** removed any relationships.

Two pits (**2306** and **2329**) lay west of these three gullies, towards the centre of Area 2. Both contained large groups of pottery which may have been dumped from a nearby kiln, beyond the limits of the trench. Pit **2306** was approximately 5m in diameter and was excavated to a depth of 1m but not bottomed due to rising water levels (**Fig. 17.3**). It was filled with a series of pale silt sand fills with darker upper fills (Appendix 1). It is possible that the feature may represent a well or clay processing pit due to its depth. No timbers as found in well **1031** in Area 1b survived but they may have decomposed. The pit did not reach the natural clay so it would appear that it was not a clay extraction pit. Pit **2329** (**Pl. 28**) was not fully excavated but was oval in plan (1.38m in length) and was excavated to a depth of 0.5m. The upper fill (**2295**) was a dark grey silt sand and contained a large quantity of pottery and overlay a paler lower fill (**2330**). Both pits appear to have filled by natural slumping (probably helped by the instability of the sand) and then have had darker fills dumped in them probably to level them out.

Only one Phase 2 ditch was evident in the centre of Area 2. Ditch **2407** (**Fig. 14.5**; **Pl. 29**) to the west of the two pits was heavily truncated and crossed the full width of the trench, roughly from north-west to south-east curving to the south. It produced pottery ranging from 1st- 2nd centuries and was cut by the later rake-out pits from the kiln. Its fills were predominantly pale and sandy, containing no charcoal, suggesting that they had formed prior to the commencement of industrial processes in the area.

At the west end of Area 2 was a cluster of pits and postholes (**2384**, **2101**, **2387**, **2344** (**Pl. 30**) and **2384/2451**) and two hearths **2127** and **2277**, contained within the south-east angle of two gullies **2397** (visible in the background of **Pl. 31)** and **2446** (**Fig. 14, Pl. 31)**.

Shallow scoop **2115** may represent a truncated post hole or drip gully and produced 2nd century pottery. Features **2387** and **2384** (**Pl. 32**) contained have clay stone and tile packing which would have helped to support a post.

Gully **2058** (**Fig. 14.6**) lay parallel to, and 5.25m north of, gully **2446**. It did not meet gully **2397** and may represent an internal division within a larger enclosure. Gully (**2446**) was planned but not investigated. These gullies are on a similar alignment to the ditches recognised in Phase 1.2 and may represent an area of the field system which remained in use into the late 2nd and early 3rd century. Alternatively they may have been shallow beam slots or drip gullies around a structure surrounding the two hearths which would have had dimensions in excess of 7m east-west and 9m north-south. The post holes may represent internal post holes belonging to this structure or have been a wind break or fence associated with the hearths.

Hearth **2277** (**Fig. 15**; **Pls 33 & 34**) consisted of two channels one aligned northeast- southwest (**2128**) and one aligned northwest- southeast (**2099**) cut into the natural sand to a depth of approximately 0.35m forming an 'L' shape. A number of phases of use and repair were evident. Its earliest fill was a

series of charcoal-rich layers (**2360, 2377, 2381, 2382 and 2383**) which were followed by a possible clay lining of the hearth (**2378** and **2379**). Above the remnants of the first lining a further charcoal rich fill was deposited (**2380**) before another layer of clay probably forming a second lining (**2359**). Sealing **2359** were further charcoal rich deposits (**2359, 2129, 2278, 2358, 2284, 2285, 2283, 2282, 2281** and **2374**). Associated pottery was 2nd-3rd century in date.

The smaller of the two hearths **2127** (**Fig. 15**; **Pl. 35**) was an elongated oval with an undulating base 1.4m long, 0.47m wide and a maximum depth of 0.20m. The hearth was beneath layer **2127** and appeared truncated. The fills were charcoal rich with occasional ash and heated sand and clay which suggest burning *in situ* (**2138, 2139, 2278, 2279** and **2280**). Hearth **2127** was dated on the basis of its proximity to Hearth **2277** but contained no finds itself.

Overlying the two hearths and gully **2397** was an irregular spread, **2079/2121**, approximately 0.12m deep, it was originally believed to be the base of a furrow but was cut by a Phase 5 Roman feature (**2401**, **Figs 12, 13 & 19**; **Pl. 31**) and was interpreted as later trample or the remnants of an internal surface.

PHASE 3 Later 3rd century (Fig. 16)

Features assigned to the later 3rd century comprised a series of parallel ditches aligned north-south towards the centre of Area 2 and a kiln with rake-out pit. The earliest of the ditches was **2065** to the west of the kiln, which contained pottery from the middle of the 3rd century (Phase 3.1). East of the kiln was ditch **2339** which contained no finds but whose dimensions and fills were so similar to **2065** it has been assumed to be contemporary and both have been assigned to Phase 3.1. Their relationship to the kiln is unclear. The pottery from **2065** is slightly earlier in date than that from the kiln but may not have been deposited at a significantly earlier time. If contemporary they might represent an attempt to drain the area around the kiln; if earlier they might represent boundary ditches or plots.

Near the kiln two ditches have been attributed to Phase 3.2. Ditch terminus **2086** may represent a cut and a re-cut along the same line or a double-bottomed feature. Ditch **2218** was cut along a similar alignment as **2219** and **2220** (Phase 1.2) may represent the reinstatement of an old plot boundary or an enclosure around the kiln fortuitously on the same alignment. Ditch **2239/2292** east of **2218** contained a large quantity of pottery, which was possibly re-deposited from pit **2329**, through which it was cut (**Pl. 28**).

At the east end of Area 2 ditches **2091**, **2117** and **2193** formed a plot on similar alignment to Phase 1.1 and 1.2 ditches and would suggest a re-establishment of the boundary.

Two post holes **2044** and **2093** can be placed in the phase. They both contained an upper fill of olive coloured clay (**2045/ 2094**) and a basal mid grey brown silt sand fill (**2046/ 2093**). The post holes may have been part of a more extensive structure or a fence line but the area was heavily disturbed by

subsequent ditches and a furrow and insufficient evidence survives. To the west of the kiln a shallow pit (**2189**) was also dated to Phase 3.

The Kiln (**Fig. 18**)

The kiln and flue were constructed in a large oval pit cut (**2334, Pls 22, 23, 36**). When the kiln was uncovered during machining an area of mid brown sandy silt approximately 0.10- 0.15m in depth (**2453**) was left around the structure and rake out pits which was believed to be subsoil. Although the accumulation of subsoil around the kiln structure is a possibility the edges of the rake out pits are evident above this layer and must post-date its deposition (**Pls 36 & 37**). The layer must be the remnants of a Roman soil or subsoil as it is cut by the rake out pits. Other Roman features also cut through it (eg. **2218, Fig. 14.4**; **Pl. 26**).

Two clear phases of oven construction and four distinct rake-out pit cuts were identified (**Pls 37, 38 & 39**). Two land drains (**2162** same number used for both; **Pls 36, 37 & 40**) cut through the kiln destroying much of the oven but enough of the upper fills survived to suggest that its final load was removed prior to abandonment (**Pl. 40**).

At the base of the construction cut for the kiln was a thin band of dark brown silt sand (**2433**) (**Pl. 41**) which probably represents trampling of material from **2453** into the pit during the construction of the kiln. The flue was constructed with limestone blocks (**2349**) which were subsequently heated to a pink-orange. The flue interior was clay-lined (**2428**) and packed on the outside with lumps of clay (**2427**) for support. Neater rectangular blocks (**2436**) closer to the kiln oven were also heat-affected. The flue was capped with large pieces of limestone (**2430**) spanning the two walls (**Pl. 42**).

The oven lay to the north of the flue and had two distinct phases of construction, the latter either a repair or alteration to the internal structure of the kiln. The first kiln structure (**2004**) was formed in the same way as the flue but with rectangular fired blocks of clay (**2425**) which may have been reused from another kiln. (The flue construction was probably of more durable materials as it was intended to survive several firings, whereas the oven required reconstruction after each firing.) There was a ledge (**2437**) around the back of the oven and a pedestal constructed from clay and rectangular fired-clay blocks (**2432**). The off-centre position of this pedestal suggests that it was originally one of a pair. The missing pedestal was either removed during the construction of the second oven (**2448**) or more likely it was destroyed when the land drain was laid.

The length of the second phase oven (**2448**) was much shorter than the first (**Pl. 43**). It was created by filling in the gap between the pedestal and the back wall (**2297**) and the top of the pedestal was re-lined with clay (**2431**) (**Pl. 44 & 45**). The lining also covered the earlier ledge **2437** to produce a shelf at the back of the kiln (**2435**). The oven was probably re-floored at the same time (**2336**) over the top of a charcoal rich layer (**2337**) from a previous firing.

The rake out pits (**Pl. 38**) were rich in charcoal but the kiln appears to have been predominantly fuelled with small brushwood and heather (Appendix 3). Due to the truncation of the kiln and rake out pits and presumably the flue being cleaned following each firing it is impossible to link the earlier rake out pits with a kiln oven **2448** or **2004.** It is certain that the final rake out pit **2405** must post date the construction of the second kiln chamber **2448** as fill **2201** in the flue appears to be of a similar composition to the fills of the pit which represents the final firing which was never swept out from the flue. The other rake out pits may relate to the primary phase (**2004**) but it is more likely that the pits relate to rake out from the final phase as cut **2348** appears to have been packed with **2300** to prevent the level of the rake out pit from dropping below the rough floor of the kiln (**2336**). It is possible that only pit **2347** may relate to an early firing.

After the final firing fills **2200**, **2192** and **2191** represent the backfilling and collapse of the kiln with fragments of the kiln superstructure and waste pottery (**Pl. 40**).

PHASE 4 3rd- 4th centuries (Fig. 16)

Few features in Area two could be dated to Phase 4. To the east of the area the ditch system belonging to Phase 3.2 (**2091**, **2117** and **2193**) was re-cut and extended a further 2.5m to the west by ditch **2243**. Two gullies (**2050** and **2057**) west of the kiln and ditch **2086** were also assigned to Phase 4.

PHASE 5 4th century (Fig. 19)

A system of ditches with a 4th century date were attributed to phase 5.1 which formed a number of plots. A number of ditches aligned NNW-SSE were evident (**2150** and re-cut **2151**, **2006**, **2007** and the truncated **2071**). A heavily truncated ESE- WNW ditch composed of **2136**, **2393** and **2401** ran west from ditch **2071**. The plots had an east- west width of approximately 10m between **2007** and **2071** and **2071** and **2006**. A larger possible field of 45m wide was defined by **2006** and **2150** and re-cut **2151**. These ditches may relate to the linear features which were recorded by the geophysical survey (Johnson 1998, see Discussion below). A small post hole (**2026**) was also dated to Phase 5 and a small pit (**2352**) ,which was could not be phased, may also have belonged to this phase.

A number of small gullies across the site produced pottery dated to the 4th and very late 4th century (Phase 5.2). One curvilinear gully **2097/2113/2140/2290/2438** cut another small gully **2114/2143**. Truncated curving ditch **2041** overlay Phase 5.1 ditch **2006**. Four other gullies also produced material which dated to the 4th century (**2158, 2233/2235/2237, 2264** and **2313**).

PHASE 6 The medieval period (Fig. 19)

Evidence for medieval ridge and furrow ploughing, aligned roughly east- west was recorded in Area 1a section (**1135 & 1137**, **Fig. 5.2)** but was not recorded in plan. Furrows were previously recognised in evaluation Trench 1 running ENE- WSW (Albone 1998). No furrows were found during the investigation of Area 1b. Evidence for tree throws cutting into the backfilled clay extraction pits, which

were not investigated, suggests the presence of trees of the area which were evident on the site prior to commencement of the archaeological investigations.

A number of furrows were encountered during the excavation of Area 2 (**2029/2035 2122/2160/2168/2183/2221, 2003/2355, 2062** and **2069**; **Fig. 19**). As might be expected on a site close to the medieval parish boundary little medieval material was retrieved from them, the majority of finds being Roman, including some very late 4th century pottery, due to their truncation of the underlying Roman features. The furrows were subsequently cut by later land drains (Phase 7).

The Watching Brief

The watching brief carried out on houses north of Area 2 did not reveal any further significant archaeological remains, apart from the continuation of a number of ditches into the house plots. There was no sign of industrial activity of any sort.

Discussion

Pottery production sites generally produce distinctive features which include clay extraction pits, settling tanks for clay purification, wells, kiln structures, 'potters workshops' and occasionally potters wheels (Orton, Tyers and Vince 1993, 113-131) together with large quantities of 'wasters' (misfired pots). At Market Rasen clay extraction was concentrated to the west of the site, close to Linwood Road in Area 1. Possible settling tanks were found in both Areas 1 and 2, together with a well in Area 1 and a kiln in Area 2. Waster pots were found across the site. No features relating to potters wheels were recognised, but they are seldom found. Structures are occasionally found in proximity to kilns such as the workshop at Stibbington, near Peterborough (Wacher 1998, 224) and at East Winch, Norfolk (O'Brien 2003). However, there was scant evidence for any structural remains at Linwood Road. The repeated excavation of ditches, which were presumably land divisions and for drainage, together with the truncation caused by medieval ploughing, may have removed evidence for structures (see below). Recent work undertaken by Pre-Construct Archaeology to the north of the site has produced good evidence for structures in proximity to two kilns (Will Mumford *pers. comm.*).

Medieval ploughing which truncated, or entirely removed, many features, together with the narrow corridor width of Area 2 (5m) hindered a clear understanding of the changing plot boundaries and field systems as there were insufficient east-west aligned ditches to enable a reconstruction of their pattern. The continued reinstatement of ditches along the alignment of the initial Phase 1.1 (see Phases 1.2, 3.2 and 4) alignment suggests that the boundaries mark a plot of land which was in use from the 2nd to 4th century and were redefined when the boundary silted up. The main field system (Area 2 Phase 1.2) comprised a number of rectangular plots while the curving gullies evident in Phases 1.1 and 1.3 suggest smaller boundary or drainage ditches. Their full lengths and alignment could not be confirmed because of truncation which meant interpretation can only be tentative. However, the features in Phase 1.3 appear to represent a change in the land boundaries from those laid out in Phase 1.2. The

absence of charcoal and the predominantly pale fills in the earlier Roman ditches in Area 2 indicate that they were not close to industrial activity.

It may have initially been a plot boundary or paddock but may have subsequently been used for pottery production or crop processing as the Phase 4 ditch is rich in charcoal. Phase 2 ditch **2407** probably represents another larger plot or field which may have been contemporary with the Phase 1.2 ditch system surviving into Phase 2. It is possible that the gap between the two ditches represents the line of a track, orientated roughly north- south, which was defined by **2406** and **2219** and subsequently by the edge of **2407** and **2219**. In Phase 3.1 a narrow track was formed by **2239** or **2339** and **2218**. By Phase 5.1 the ditch systems appear to define a large grid of fields but there are also a number of gullies including **2097** which may represent a boundary around a kiln to the north of the area.

The hearths in Area 2 produced charred grain which suggests that they were used for the drying of corn prior to threshing (Appendix 3). A hearth of a similar shape to **2277** was found at Winterton Roman Villa inside an aisled building (B) along with a number of other hearths (Stead 1976, 32-33, fig. 18G). The truncation of the area around hearth **2277** by furrows and later ditches hinders interpretation but it remains possible that the surrounding postholes may represent a similar aisled structure which surrounded the hearths.

The kiln in Area 2 did not contain an *in situ* load of pottery and the land drains which cut through the oven has hindered interpretation of the internal layout of the kiln oven. The first phase of the kiln (**2004**) fits roughly with Swan's 'Linwood type' (Swan 1984, 122-1224). The surviving internal support from the first phase of the kiln which was not removed by the land drain appears to be similar to the 'Linwood' arrangement of twin rectangular clay pedestals. The flue appears to have been reused whilst the chamber was subsequently reconstructed. Further work on the kiln furniture retrieved from the kiln will help to confirm the internal arrangement of the kiln. The late 3rd century date of the kiln fits with the other known 'Linwood type' kilns. Unfortunately, no comparison can be made with other Market Rasen kilns (Darling *forthcoming*). Kiln 2 at Barnetby Top (North Lincolnshire) is similar in form and of a similar date (Samuels 1979, 12-13). The Barnetby Top kiln was dug into the clay, so it did not require a lining, but its flue had stone capstones and walls of clay and chalk blocks. The Barnetby Top kiln 2 also had a shelf at the back of the kiln similar to the modified second phase of the Market Rasen kiln (**2448**) (Samuels 1979, Fig. 4).

The use of heather for fuel and the lack of large pieces of fuel from the kiln suggest that it may have been used for other processes such as grain drying. This is perhaps supported by the presence of charred grains in the oven of the kiln. Alternatively, the absence of large wood fragments from any of the samples might be due to lack of availability rather than a different usage. The lack of large wood fuel from other Roman kiln sites is unusual. Were heathland fuels used because there was no local woodland source of timber in the area during the late 3rd century. A reckless over exploitation of a fuel source in the Roman period has been deemed unlikely (Millett 1990, 168). We know from the author

Columella that the Romans coppiced woodland (*Res rustica* IV. Xxxiii.4) which provided fuel for other industries such as the vast Roman iron production from the Weald which would have required 23, 000 acres of coppice woodland to support its production (Rackham 1986, 74-5). Woodland management is well documented for the medieval and post-medieval periods and shows that woods were seldom destroyed due to their great financial worth, and were heavily regulated and conserved (Rackham 1986). In Area 1b the presence of large root boles which were cut by later Roman features suggests the presence of woodland prior to the excavation of the clay pits. When did the clearance take place? Was it during the woodland clearances of the Neolithic and Bronze Ages or in response to requirements of the Roman pottery industry in the 2nd or 3rd centuries AD. It has been suggested by Dark and Dark that a decrease in woodland around a pottery production site should be expected but apart from the Oxfordshire Ware production sites at Sidlings Copse and near Headington Wich Villa few pollen sequences are available to support this theory (Dark & Dark 1997, 129).

Although destructive exploitation of woodland would appear to be counter-intuitive it should not be dismissed out of hand, as 'destruction' of the resource may be due to the nature of land tenure in the area. Hadrianic inscriptions from North Africa provide evidence of bringing unproductive imperial waste land under cultivation (Kehoe 1988). This theory is difficult to prove in a British context with an absence of epigraphic data (Taylor 2000, 647-648) but a less contentious explanation for the deforestation might be the need to convert the area to food production for the probable Roman settlement in the vicinity. Further environmental work to test this theory is required.

Metal working is often associated with Roman pottery production sites. Iron smelting and smithing slags were collected from the 1965-68 investigations (Darling *forthcoming*) and environmental samples taken from Area 2 (**Appendix 2**) have produced small quantities of hammerscale which would suggest metal working in the area. Although no excavated features were associated with metal working the magnetometer survey identified a number of ferrous concentrations to the south (Johnson 1998).

A number of pits in Areas 1b and 2 which contained 2nd- 3rd century pottery had not been excavated deep enough to extract the natural clay. There is a possibility that these pits were excavated for the natural sand to use as temper for the pottery but pieces of iron pan may also have been collected for metal working. One other possibility is that these pits represent clay processing or settling pits. The location of pits **2306** and **2329** in what can be suggested to be a 'production zone' would support the theory that they were used for clay processing.

Water is vital at all stages in pottery manufacture form the preparation of the raw clay through to the throwing of the pots. The well in Area 1b lay close to a low-lying waterlogged part of the site. The surviving wooden structure was probably used to secure the sides as the aeolian sands which hold the water are unstable in wet conditions.

The importance of zoning areas of land usage appears evident in Area 1, a strong linear demarcation of the area of clay extraction pits had been repeatedly re-cut to enforce a boundary between the area where raw materials were being extracted and areas of production, and possibly agriculture during the 2nd century and industrial processing and production in the 3rd century. The dating of these features is dependent upon one deeper trench cut along the northern limit of Area 1b. The features contained pottery ranging in date from the 2nd- 4th centuries but the sample retrieved from the features was small.

The geophysical survey of Area 1a (Johnson 1998, Fig 8, Area 1) picked out strong disturbances and linear features. One of the linear features can be shown to be a land drain (**Fig. 4**). It is possible that the other linear readings represent land drains which were removed during topsoil stripping. Geophysical Area 2 (Johnson 1998, Fig 8) was located to the south and east of excavation Area 2 shows a number of ditches, burnt features and ferrous concentrations. The ditches appear to be mostly north- south and east- west aligned, one of which was augered and was believed to be a kiln (Johnson 1997, 8 & Fig 8, NGR 510988 388470)). A number of different ditch systems appear to be evident. The area of the gradiometer plot which was subsequently investigated by excavation (south-west corner of Area 2) would appear to show Phase 5.1 feature **2401**. None of the associated north-south ditches from the excavation area were recognised. A number of other similarly aligned ditches (ENE- WNW/ NNW-SSE) would appear to form fields with an east- west width of c. 22m were detected by the survey. The detection of evidence for the earlier field systems was probably hindered by the rich dark fills from the later features and possible buried soils. If that is the case only the latest features may have been detected.

Interpreting the evidence from Area 2 in zones it is possible to suggest that the central and south western part of the trench contained early field systems with subsequent development of industrial processing areas. At the east end of the trench an area of small gullies and pits, and a lack of large Roman ditches may indicate a different land usage. This is supported by the geophysical survey which produced fewer highly magnetic readings further to the east. As the strongest responses proved to have been caused by clay extraction in Area 1 clay conditions are not ideal for geophysical survey unless there is highly magnetic material such as fired clay present. The low density of magnetometer readings in the eastern areas investigated (**Fig. 2**, Johnson 1998) and the lack of features in the evaluation trenches (Albone 1998) is somewhat at variance with the mass of intercutting ditches actually found during the excavations. This may be due to the similarity of the ditch fills to the surrounding undisturbed ground.

Evaluation of the site in 1998 highlighted a concentration of finds to the west of the development site (in the areas investigated by this project). The pick up survey conducted found a quantity of Roman pottery towards the centre of the site which was predominantly of a 3-4th century date (Palmer- Brown 1998) but heavy vegetation prevented investigation of the full area. Recent excavations in the field to the north of excavation Area 2 and immediately to the west of the existing 1960's housing

development have produced further considerable evidence for pottery production (Will Mumford *pers. comm.*) which would suggest activity on the land between the two sites.

It is possible that the ponds highlighted by magnetometer survey to the south east of the excavations may represent another area of clay extraction (Johnson 1998). The evaluation highlighted the presence of Romano-British dump deposits (Albone 1998, 12). Evidence from the upper fills of feature **1025** suggest that many of the pits may have survived as hollows for a long time after the Roman period. The majority of the waste which was produced was backfilled into the large area of clay extraction pits or into clay processing pits such as **2329** but mounds of material may also have accumulated which survived incorporation into the medieval subsoil and plough furrows .

It is now apparent that the Market Rasen industry was active from the 2nd- 4th century. The full extent of its production area cannot yet be defined with certainty but it is clear that there was activity on both sides of Linwood Road (Darling *forthcoming*, Rowlandson *forthcoming*). It is not uncommon for an area of Roman pottery production to be larger than its associated settlement (eg. Water Newton, Wild 1974, Dark & Dark 1997). The evidence uncovered so far which is demonstrated by the two large areas of clay extraction known from Area 1 and at the Old Cattle Market site (Rowlandson *forthcoming*) suggests that a sizable quantity of material was extracted during the period in which the kilns were active and that a considerable quantity of pottery was produced. The Market Rasen industry should also be seen as part of a group of production sites in the area including Linwood and Buslingthorpe.

It is likely that the Market Rasen grey wares were intended for local consumption with a limited area of dispersal. It is presumed that there must have been a settlement area in the vicinity to provide a market for the produce and labour for the pottery production, in common with the pattern for other known grey ware production sites in the Lincolnshire area (Darling *pers. comm.*). Further Roman settlement may have been present on the site to the east of the two excavation areas which produced weaker results in the geophysical survey but substantial settlement remains have yet to be found.

The distribution of Market Rasen kiln products is currently not known due to the similarity of the Market Rasen fabrics to other local grey ware production sites. The Market Rasen Kiln fabrics are macroscopically similar to the product of other local pottery industries in the Lincolnshire 'clay vale' and the Trent Valley (it is difficult to define the distribution of the grey ware vessels without detailed chemical and thin section analysis (Vince 2002 a, Vince 2002 b)). With an increased knowledge of the production sites in the Market Rasen area it may be possible to recognise its products primarily on distinctive aspects of 'form and finish' (Darling 1989, 98-99).

Work on the distribution of Parisian wares which was produced at Market Rasen, Linwood (*c.* 2 km south) and other sites in the vicinity has been published by Elsdon (1982). The decorated Parisian ware from Market Rasen was traded further than the grey ware products, reaching urban centres such as Lincoln. It has been found on sites across Lincolnshire and Yorkshire.

Conclusion

The archaeological investigations have established that the pottery industry at Market Rasen lasted longer than previously thought with new evidence for production extending into the late 3rd and 4th centuries. The use of heather for fuel rather than larger timbers or charcoal raises the question of woodland management in the later Roman period. As is often the case elsewhere the presence of slag and hammerscale on the site and the crop debris from the hearths indicates that a number of different industrial processes were conducted on the site hand-in-hand with pottery production.

Further archaeological investigations, including projects currently under way, will be able to draw from the results of this first large open-area investigation in the town. It will also contribute to a greater understanding of Romano-British industrial production and the social and economic dynamics of the region.

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APPENDIX 1

Market Rasen Linwood Road (MRL 99)
Context List

Context	Type	Fill of	Feature type	Contents	Same as (feature no)	Description	Area	Phase
1000	Deposit		deposit			V. dark grey sand clay silt heated clay and charcoal	1	
1001	Cut			1002, 1003, 1004		Quarry Pit	1	
1002	Fill	1001	QP			Mid-dark grey sand silt some iron panning	1	
1003	Fill	1001	QP			Mid -dark orange brown sand silt	1	
1004	Fill	1001	QP			Dark grey sand silt	1	
1005	Cut			1011, 1014, 1015, 1016		Pit	1	
1006	Cut			1007, 1008, 1009, 1010		Pit	1	
1007	Fill	1006	P			Mid grey sand silt occ. Heated clay frags.	1	
1008	Fill	1006	P			V. dark grey black silt clay	1	
1009	Fill	1006	P			Pale orange grey silt clay	1	
1010	Fill	1006	P			Pale mid grey slightly clay sand silt	1	
1011	Fill	1005	P			Mid grey clay sand silt	1	
1012	Cut			1013		Post hole	1	
1013	Fill	1012	PH			Very dark grey black clay silt, occ flints	1	
1014	Fill	1005	P			Mid dark grey gritty sand silt, occ. Charcoal	1	
1015	Fill	1005	P			Mid dark grey slightly clay sand silt, occ. Small flints	1	
1016	Fill	1005	P			Pale mid grey sand slit, occ. Grey clay and small flints	1	
1017	Deposit		deposit			Very dark grey clay silt, occ. Charcoal, freq. Heated clay	1	
1018	Cut			1019, 1020, 1021		Post hole	1	
1019	Fill	1018	PH			Dark grey clay sand	1	
1020	Fill	1018	PH			Very pale grey silt sand	1	
1021	Fill	1018	PH			Mid grey silt sand	1	
1022	Deposit	?	QP			Mixed yellow brown sand clay	1	
1023	Fill	1024	F			Mid brown silty sand, occ. Small Flint	1	
1024	Cut			1023		Furrow	1	
1025	Cut			1040, 1041, 1042, 1043, 1044, 1045, 1046, 1047, 1048		Irregular Quarry pit	1	
1026	Layer		L			Dark grey clay sand, freq. Iron panning	1	
1027	Fill		D			Mixed orange sand silt, pale to mid grey, occ. Mottling, charcoal flecks, flint frags	1	
1028	Fill	?	QP			Mixed dump deposit	1	
1029	Fill	?	QP			Mixed dump deposit	1	
1030	Fill	?	QP			Mixed dump deposit	1	
1031	Cut			1032, 1033, 1059, 1060, 1034, 1035		Sub rounded well	1	
1032	Fill	1031	W			Mid grey brown silt sand, freq. iron panning	1	
1033	Fill	1031	W			Very dark grey sand silt clay, occ. Lumps of wood and charcoal flecks	1	
1034	Fill	1031	W			Timber possibly from colapsed well revetment	1	
1035	Fill	1031	W			Wickerwork wood deposit possibly from colapsed well revetment	1	

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Context	Type	Fill of	Feature type	Contents	Same as (feature no)	Description	Area	Phase
1036	Fill	1025	QP			Mixed mid brown brown grey sand silt, freq. Mottling, occ. Yellow sand, charcoal	1	
1037	Fill	1025	QP			Dark grey black charcoal rich silt, freq. Heated clay	1	
1038	Fill	1025	QP			Mid grey sand silt occ. Yellow sand and charcoal	1	
1039	Fill	1025	QP			Mixed grey mid brown sand silt, occ.	1	
1040	Fill	1025	QP			Light mid grey sand silt, freq. Yellow sand, charcoal	1	
1041	Fill	1025	QP			Lightmid grey sand silt, occ. Charcoal	1	
1042	Fill	1025	QP			Mid grey sand silt, occ. Yellow sand, charcoal flecks	1	
1043	Fill	1025	QP			Pale yellow clay	1	
1044	Fill	1025	QP			Mid dark grey sand silt, occ. Flint	1	
1045	Fill	1025	QP			Mixed dark grey black charcoal silt and light grey brown sand silt, occ. Heated clay, yellow sand, charcoal flecks	1	
1046	Fill	1025	QP			Light grey brown sand silt	1	
1047	Fill	1025	QP			Dark grey charcoal rich silt, occ. Flecks of heated clay	1	
1048	Fill	1025	QP			Yellow grey clay and pale yellow sand	1	
1049	Fill	1050	P			Very dark grey black charcoal rich silt, freq. Heated clay frags	1	
1050	Cut			1049		Sub square pit	1	
1051	Cut			1052		Rounded post hole	1	
1052	Fill	1051	PH			Dark grey sand clay, occ. Iron panning, small flints	1	
1053	Deposit		D			Dump deposit (?)	1	
1054	Cut			1065	1055, 1056	Gully/ `conjoined gullies´	1	
1055	Cut			1063	1054, 1056	Gully/ `conjoined gullies´	1	
1056	Cut				1054, 1055	Gully/ `conjoined gullies´	1	
1057	Treethrow			1058		Irregular rooting cut by archaeological features	1	
1058	Treethrow	1057	TT			Dark grey sand clay, occ. Flints	1	
1059	Fill	1031	W			Very dark grey black sand clay, freq charcoal, mod woody lumps	1	
1060	Fill	1031	W			Mid grey brown yellow sand, occ charcoal flecks, iron panning	1	
1061	Fill	1056	G			Dark grey silt sand with freq Fe mottling and nodules, occ charcoal lumps	1	
1062	Fill	1056	G			Dark grey silt sand occ Fe mottling and nodules	1	
1063	Fill	1055	G			Very dark grey brown silt clay	1	
1064	Fill	1054	G			Very dark grey brown silt clay	1	
1065	Fill	1054	G			Dark brown silt and cream brown sand	1	
1066	Fill	1054	G			Mid brown silt sand	1	
1067	Fill	1054	G			Secondary Fill (?)	1	
1068	Cut			1077		Linear ditch	1	
1069	Fill	1068	D			Dark grey silt sand, freq iron panning	1	
1070	Fill	1068	D			Dark grey silt sand, occ iron panning	1	
1071	Fill	1068	D			Dark grey silt sand clay, freq iron panning	1	
1072	Cut			1073, 1074, 1075, 1352		Sub circular post hole	1	
1073	Fill	1072	PH			Dark grey sand silt, iron panning and accretions	1	

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Context	Type	Fill of	Feature type	Contents	Same as (feature no)	Description	Area	Phase
1074	Fill	1072	PH			Dark brown sand silt	1	
1075	Fill	1072	PH			Mid red brown silt sand	1	
1076	Fill	1068	D			Mid light grey silt sand	1	
1077	Fill	1068	D			Mottled light and dark grey silt sand with clay lenses	1	
1078	Cut			1079		Linear ditch	1	
1079	Fill	1078	D			Dark brown grey silt sand, occ small flints	1	
1080	Cut			1081, 1099		Ditch	1	
1081	Fill	1080	D			Dark grey silt sand	1	
1082	Cut			1083		Ditch	1	
1083	Fill	1082	D			Very dark brown grey sand silt, freq iron panning	1	
1084	Cut			1085		Ditch	1	
1085	Fill	1084	D			Mid brown grey sand silt, occ iron panning	1	
1086	Cut			1087		Ditch	1	
1087	Fill	1087	D			Very dark grey sand silt, occ iron panning	1	
1088	Cut			1089		Ditch (north- south alligned)	1	
1089	Fill	1088	D			Very dark grey sand silt clay, freq iron panning	1	
1090	Cut			1101, 1102		Post hole (irregular oval shaped)	1	
1091	Cut			1103, 1104		Post hole (oval shaped)	1	
1092	Cut			1093		Post hole (oval shaped)	1	
1093	Fill	1093	PH			Dark grey clay sand, freq iron panning	1	
1094	Cut			1095, 1112, 1113		Ditch (north- south alligned)	1	
1095	Fill	1094	D			Mid light brown grey silt sand	1	
1096	Cut			1097, 1098		Ditch (northwest- southeast alligned)	1	
1097	Fill	1096	D			Mid dark brown grey sand clay silt, occ small flints, fragments of wood	1	
1098	Fill	1096	D			Mid brown greysilt sand, occ small flints	1	
1099	Fill	1080	D			Light mid yellow grey silt sand	1	
1100	Fill	1072	PH			Light cream brown silt sand	1	
1101	Fill	1090	PH			Dark grey sand silt, occ iron panning	1	
1102	Fill	1090	PH			Mid yellow brown sand silt	1	
1103	Fill	1091	PH			Dark grey sand silt, freq sand silt	1	
1104	Fill	1091	PH			Mid brown silt sand	1	
1105	Cut			1106		Pit or terminus of ditch	1	
1106	Fill	1105	PH			Mid grey silt clay, occ iron panning	1	
1107	Cut			1108		Gully (northeast- southwest aligned)	1	
1108	Fill	1107	G			Mid brown grey silt sand, mod iron panning	1	
1109	Fill	1111	PH			?	1	
1110	Fill	1111	PH			?	1	
1111	Cut			1110, 1109		Post hole (sub circular)	1	
1112	Fill	1094	D			Mid dark grey silt sand	1	

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Context	Type	Fill of	Feature type	Contents	Same as (feature no)	Description	Area	Phase
1113	Fill	1094	D			Mid light brown grey silt sand	1	
1114	Cut			1116		Ditch (north- south alligned)	1	
1115	Fill	1142	D			Mid dark grey silt sand	1	
1116	Fill	1114	D			Mid dark grey silt sand, freq iron panning	1	
1117	Cut			1141, 1150		Ditch (north south alligned)	1	
1118	Fill	1123	P			Wooden post ?	1	
1119	Fill	1123	P			Black waterlogged wood and organic matter in sand silt, occ flints	1	
1120	Fill	1123	P			?	1	
1121	Fill	1123	P			?	1	
1122	Fill	1123	P			?	1	
1123	Cut			1122		Pit	1	
1124	Fill	1125	QP			?	1	
1125	Cut			1124		Quarry Pit	1	
1126	Fill	1127	P			?	1	
1127	Cut			1126, 1138		Pit	1	
1128	Fill	1129	D			Very dark grey brown silt sand, occ small flints	1	
1129	Cut			1128, 1357		Ditch (east- west alligned)	1	
1130	Fill	1131	D			?	1	
1131	Cut			1130		Ditch or pit	1	
1132	Fill	1133	QP			?	1	
1133	Cut			1133		Quarry Pit	1	
1134	Fill	1135	F			?	1	
1135	Cut			1134		Furrow (east- west alligned)	1	
1136	Fill	1137	F			?	1	
1137	Cut			1136		Furrow (east- west alligned)	1	
1138	Fill	1127	P			?	1	
1139	Fill	1140	P			?	1	
1140	Cut					Pit	1	
1141	Fill	1117	D			Dark grey brown sand silt clay, occ iron panning	1	
1142	Cut			1115		Ditch (north- south alligned)	1	
1143	Layer		L			Dark brown grey silt sand, freq iron panning	1	
1144	Fill	1142	D			Mid dark grey silt sand, freq iron panning	1	
1145	Fill	1142	D			Mid dark grey silt sand, freq iron panning	1	
1146	Fill	1142	D			Mid dark grey silt sand, freq iron panning	1	
1147	Cut			1175		Ditch (north- south alligned)	1	
1148	Fill	1147	D			Mid dark grey silt sand	1	
1149	Fill	1147	D			Mid dark grey silt sand, freq iron panning	1	
1150	Fill	1117	D			Mid dark brown grey sand clay silt, freq rooting, occ iron panning	1	
1151	Cut			1152		Pit (oval)	1	

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Context	Type	Fill of	Feature type	Contents	Same as (feature no)	Description	Area	Phase
1152	Cut	1151	P			Dark brown grey sand clay, occ heated clay lenses	1	
1153	Fill			1154, 1155		Ditch (east- west alligned)	1	
1154	Fill	1153	D			Dark grey silt sand, occ small flints	1	
1155	Fill	1153	D			Dark grey silt sand, frequent iron panning	1	
1156	Cut			XX		Ditch (north- south alligned)	1	
1157	Cut			XX		Pit	1	
1158	Cut			1170, 1171, 1172	1363, 1284	Ditch (southeast- northwest alligned)	1	
1159	Treethrow		TT			Tree throw, irregular in plan with mixed mid- pale grey sand with clay patches	1	
1160	Cut			1165		Pit (circular)	1	
1161	Fill	1160	P			Dark grey sand clay, freq iron panning	1	
1162	Fill	1160	P			Pale yellow and grey silt sand, occ small flints	1	
1163	Fill	1160	P			Dark grey silt clay, freq sand patches	1	
1164	Fill	1160	P			Pale grey yellow silt sand	1	
1165	Fill	1160	P			Dark grey silt clay, mod sand patches	1	
1166	Cut			1167		Post hole (circular)	1	
1167	Fill	1166	PH			Dark grey sand clay, mod iron panning	1	
1168	Cut			1169		Post hole (circular)	1	
1169	Fill	1169	PH			Dark grey sand clay, occ small flints	1	
1170	Fill	1158	D			Dark grey brown sand, occ flecks of charcoal	1	
1171	Fill	1158	D			Light mid grey sand mottled with yellow sand, occ small flints	1	
1172	Fill	1158	D			Mid brown grey sand, occ lumps of clay	1	
1173	Fill	1142	D			Dark grey silt sand, freq iron panning	1	
1174	Fill	1147	D			Dark grey silt sand	1	
1175	Fill	1147	D			Dark grey silt sand, mod iron panning	1	
1176	Fill	1147	D			Mid dark grey silt sand, freq iron panning	1	
1177	Cut			1178, 1179, 1180		Ditch (north- south alligned)	1	
1178	Fill	1177	D			Mid dark grey silt sand, occ iron panning	1	
1179	Fill	1177	D			Mid light brown grey silt sand	1	
1180	Fill	1177	D			Dark grey silt sand	1	
1181	Cut			1182, 1183		Gulley (north- south alligned)	1	
1182	Fill	1181	G			Mid brown grey silt sand, mod iron panning	1	
1183	Fill	1181	G			Mid grey silt sand, occ iron panning	1	
1184	Cut			1185		Gulley (north- south alligned)	1	
1185	Fill	1184	G			Mid dark grey silt sand	1	
1186	Cut			1187		Gulley (north- south alligned)	1	
1187	Fill	1186	G			Dark grey clay silt	1	
1188	Cut			1189		Gulley (north- south alligned)	1	
1189	Fill	1188	G			Dark grey clay silt	1	
1190	Cut			1208, 1209, 1210, 1211		Ditch (north- south alligned)	1	

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Context	Type	Fill of	Feature type	Contents	Same as (feature no)	Description	Area	Phase
1191	Cut			1217, 1215, 1216		Post hole (circular)	1	
1192	Cut			1215		Ditch (north- south alligned)	1	
1193	Cut			1198, 1196		Gully terminus (east- west alligned)	1	
1194	Cut			1197, 1198, 1199		Gully terminus (east- west alligned)	1	
1195	Fill	1193	G			Mid dark grey brown sand with yellow sand mottles	1	
1196	Fill	1193	G			Dark grey brown silt sand	1	
1197	Fill	1194	G			Dark grey sand silt	1	
1198	Fill	1194	G			Light grey gritty sand	1	
1199	Fill	1194	G			Dark brown grey silt clay	1	
1200	Cut			1201		Gully (northnorthwest- southsoutheast alligned)	1	
1201	Fill	1200	G			Mid grey brown sand silt, freq iron panning, occ small flints	1	
1202	Cut			1203		Iregular tree throw	1	
1203	Treethrow	1202	TT			Light grey brown silt sand, occ charcoal flecks and small flints	1	
1204	Cut			1205		Irregular circular tree throw	1	
1205	Treethrow	1204	TT			Mid dark grey silt sand	1	
1206	Deposit	1153	D			Dark grey slightly silt sand	1	
1207	Landdrain		LD			Land drain running east- west, ceramic pipe 0.1m in diameter	1	
1208	Fill	1190	D			Pale orange grey sand	1	
1209	Fill	1190	D			Pale yellow grey brown slightly silt sand	1	
1210	Fill	1190	D			Dark grey slightly sand silt	1	
1211	Fill	1190	D			Pale grey sand	1	
1212	Fill	1192	D			Pale yellwo grey brown sand	1	
1213	Fill	1192	D			Mid dark grey sand silt, occ. Flint	1	
1214	Fill	1192	D			Mid dark grey slightly silt sand	1	
1215	Fill	1191	PH (?)			Pale grey soft silt sand	1	
1216	Fill	1191	PH (?)			Dark grey sand silt	1	
1217	Fill	1191	PH			Dark grey sand silt	1	
1218	Treethrow		TT			Iregular tree throw, dark black brown silt sand	1	
1219	Cut			1220		Gully terminus (northnorthwest- southsoutheast)	1	
1220	Fill	1219	G			Grey sand clay silt, freq iron planning, occ flints	1	
1221	Fill	1222	PH			Light grey brown silt sand	1	
1222	Cut			1221		Post hole (ovoid in plan)	1	
1223	Cut			1224		Post hole	1	
1224	Fill	1223	PH			Light grey brown silt sand	1	
1225	Cut			1226		Post hole (circular)	1	
1226	Fill	1225	PH			Light grey brown silt sand	1	
1227	Cut			1228		Post hole (irregular oval shaped)	1	
1228	Fill	1227	PH			Mid grey brown sand silt	1	
1229	Cut			1230, 1242		Ditch (east- west alligned)	1	

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Context	Type	Fill of	Feature type	Contents	Same as (feature no)	Description	Area	Phase
1230	Fill	1229	D			Dark grey silt sand	1	
1231	Cut			1232, 1233		Ditch (north- south alligned)	1	
1232	Fill	1231	D			Mid light brown grey silt sand	1	
1233	Fill	1231	D			Dark grey silt sand, freq iron panning	1	
1234	Cut			1235		Irregular feature caused by bioturbation	1	
1235	Treethrow	1234	TT			Mid dark brown grey silt sand, freq iron panning, mod small flints	1	
1236	Cut			1237, 1238, 1239		Pit (oval)	1	
1237	Fill	1236	P			Mid dark brown grey sand clay	1	
1238	Fill	1236	P			Dark grey sand clay, freq small flints	1	
1239	Fill	1236	P			Dark grey silt clay	1	
1240	Fill	1241	D			Dark brown silt sand	1	
1241	Cut			1240		Ditch (northwest- southeast alligned)	1	
1242	Fill	1229	D			Mid grey silt sand	1	
1243	Cut			1246		Pit (oval)	1	
1244	Cut			1245		Gully (northnorthwest- southsoutheast alligned)	1	
1245	Fill	1244	G			Grey brown silt clay, freq iron panning, occ small flints	1	
1246	Fill	1243	P			Mixed light grey brown sand silt	1	
1247	void					Void	1	
1248	Treethrow			1261		Irregular tree throw	1	
1249	Treethrow			1262		Irregular tree throw	1	
1250	Cut			1251	1153	Gully	1	
1251	Fill	1250	G		1154	as 1154	1	
1252	Cut			1253		Pit (oval)	1	
1253	Fill	1252	P			Grey sand clay, freq iron panning	1	
1254	Cut			1255		Gully (northnorthwest- southsoutheast alligned)	1	
1255	Fill	1254	G			Grey brown sand clay silt, occ small flints	1	
1256	Cut			1257		Pit (elongated oval)	1	
1257	Fill	1256	P			Grey sand clay, freq iron panning	1	
1258	Cut			1259		Post hole (square)	1	
1259	Fill	1259	PH			Mid brown grey silt sand	1	
1260	Fill	1204	TT			Mixed grey silt and blue clay	1	
1261	Fill	1248	TT			Mixed grey silt and blue clay	1	
1262	Fill	1249	TT			Mixed grey silt and blue clay	1	
1263	Fill	1264	QP			Dark brown silt sand with blocks of blue clay present	1	
1264	Cut			1263		Quarry Pit (ovoid)	1	
1265	Cut					Quarry pit (irregular)	1	
1266	Layer		L			Very dark grey silt clay with some brown mottling, occ charcoal flecks	1	
1267	Layer		L			Light grey silt clay, very frequent orange brown mottling	1	
1268	Fill	1265	QP			Mid grey silt clay, occ iron panning	1	

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Context	Type	Fill of	Feature type	Contents	Same as (feature no)	Description	Area	Phase
1269	Fill	1265	QP			Light mid grey silt sand	1	
1270	Fill	1265	QP			Light blue grey clay	1	
1271	Fill	1265	QP			Light yellow silt sand	1	
1272	Fill	1265	QP			Light grey brown silt sand	1	
1273	Fill	1265	QP			Light yellow silt sand	1	
1274	Fill	1265	QP			Light grey brown slightly clay silt sand	1	
1275	Fill	1265	QP			Dark grey slightly silty clay	1	
1276	Cut			1277, 1278, 1279		Pit (circular)	1	
1277	Fill	1276	P			Dark brown grey sand silt	1	
1278	Fill	1276	P			Mid light yellow grey sand	1	
1279	Fill	1276	P			Mid yellow orange sand clay	1	
1280	Cut			1281, 1282, 1283		Pit (oval)	1	
1281	Fill	1280	P			Dark brown grey clay sand, mod iron panning, occ small stones	1	
1282	Fill	1280	P			Dark grey sand, occ small flints	1	
1283	Fill	1280	P			Dark grey silt sand, freq blue clay lenses	1	
1284	Cut			1285, 1286, 1294	1363, 1158	Gully (northwest- southeast alligned)	1	
1285	Fill	1284	G			Mid dark grey silt sand	1	
1286	Fill	1284	G			Mottled light and dark grey silt sand	1	
1287	Cut			1289, 1290, 1295		Pit (circular)	1	
1288	Cut			1291		Tree throw	1	
1289	Fill	1287	P			Dark grey slightly clay sand silt	1	
1290	Fill	1287	P			Black sand silt	1	
1291	Treethrow	1288	TT			Mixed tree throw fill	1	
1292	Fill	1293	QP			Dark brown silt sand mottled with white and yellow sand	1	
1293	Cut			1292, 1304		Pit (sub circular)	1	
1294	Fill	1284	G			White and yellow silt sand	1	
1295	Fill	1287	P			Dark grey silt clay	1	
1296	Cut			1297		Gully (northwest- southeast alligned)	1	
1297	Fill	1296	G			Mid dark brown grey silt sand	1	
1298	Cut			1299		Gully (northwest- southeast alligned)	1	
1299	Fill	1298	G			Mid dark grey silt sand	1	
1300	Cut			1301, 1302		Gully (eastnortheast- westsouthwest alligned)	1	
1301	Fill	1300	G			Mid brown grey silt sand, occ small flints, occ charcoal flecks	1	
1302	Layer		L			Discoloured natural sand beneath 1300	1	
1303	Fill	1287	P			Mid pale grey slightly clay sand silt	1	
1304	Fill	1293	P			Mottled yellow sand	1	
1305	Fill	1243	P			Mid grey brown sand clay, occ flints	1	
1306	Fill	1243	P			Mixed grey orange sand silt, occ charcoal flecks	1	
1307	Fill	1243	P			Grey silt clay, freq iron panning	1	

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Context	Type	Fill of	Feature type	Contents	Same as (feature no)	Description	Area	Phase
1308	Fill	1243	P			Grey brown sand clay silt, occ iron panning, small flints	1	
1309	Treethrow		TT			Tree throw, iregular in plan, mixed dark grey silt and dark brown clay fill	1	
1310	c			1315, 1316, 1318, 1319, 1320, 1321		Pit (narrow oval)	1	
1311	Fill	1310	P			Dark grey sand clay, freq iron panning	1	
1312	Fill	1310	P			Mid dark grey clay sand	1	
1313	Fill	1310	P			Dark grey sand clay, freq iron panning	1	
1314	Fill	1310	P			Pale mid grey sand, occ iron panning, small flints	1	
1315	Fill	1310	P			Dark grey sand clay, freq iron panning	1	
1316	Fill	1310	P			Very pale yellow silt sand	1	
1317	Layer		L			Dark grey brown clay silt, occ iron panning, small flints	1	
1318	Fill	1310	P			Mottled white silt sand and dark grey clay sand, occ small flints	1	
1319	Fill	1310	P			Orange and white silt sand, occ blue grey clay, small flints	1	
1320	Fill	1310	P			Dark grey silt clay, occ charcoal flecks	1	
1321	Fill	1310	P			Very pale grey silt sand	1	
1322	Cut			1339, 1340, 1341		Pit (oval)	1	
1323	Cut			1342, 1343		Gully (northnorthwest- southsoutheast alligned)	1	
1324	Cut			1328, 1325		Pit (circular)	1	
1325	Fill	1324	P			Dark grey black sand silt, occ small flints	1	
1326	Cut			1327		Gully (northnortheast- southsothwest alligned)	1	
1327	Fill	1326	G			Brown grey clay silt sand	1	
1328	Fill	1324	P			Pale grey yellow gritty sand silt	1	
1329	Fill	1332	QP			Very dark grey black silt clayy, occ large sandstone blocks, small- medium flints	1	
1330	Fill	1332	QP			Olive grey silt clay	1	
1331	Fill	1332	QP			Mid olive grey clay silt sand, occ small- medium sized flints	1	
1332	Cut			1329, 1330, 1331		Quarry pit (sub circular)	1	
1333	Cut			1334		Pit (sub circular)	1	
1334	Fill	1333	P			Dark grey silt sand, occ small flints, olive green clay patches, yellow sand patches	1	
1335	Cut			1336, 1381		Pit (sub circular)	1	
1336	Fill	1335	P			Mid green grey silt sand, occ flints	1	
1337	Cut			1338		Pit (sub rectangular)	1	
1338	Fill	1337	P			Mid grey brown silt sand, occ small flints, clay lumps	1	
1339	Fill	1322	P			Mixed grey brown/ yellow orange sand clay silt, occ flints	1	
1340	Fill	1322	P			Light grey sand clay, occ flints, freq clay lumps	1	
1341	Fill	1322	P			Grey brown sand clay, freq iron panning	1	
1342	Fill	1323	G			Light grey silt sand, occ charcoal flecks	1	
1343	Fill	1323	P			Dark grey brown sand clay, occ flint, frequent iron panning	1	
1344	Cut			1370		Shallow gully	1	

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Context	Type	Fill of	Feature type	Contents	Same as (feature no)	Description	Area	Phase
1345	Cut			1346, 1347		Gully (eastnortheast- westsouthwest alligned)	1	
1346	Fill	1345	G			White, orange and white mixed silt sand, occ flints	1	
1347	Fill	1345	G			Dark grey silt sand	1	
1348	Cut			1349, 1350, 1351		Pit (irregular)	1	
1349	Fill	1348	P			White, orange and white mixed silt sand, occ flints	1	
1350	Fill	1348	P			Dark grey silt sand, mod dark blue grey lenses	1	
1351	Fill	1348	P			Dark grey silt sand	1	
1352	Fill	1072	PH			Light cream brown silt sand	1	
1353	Cut			***		Pit	1	
1354	Cut			1405, 1406		Pit (circular)	1	
1355	Cut			1401, 1408		Quarry pit	1	
1356	Fill	1409	QP			Very dark grey mixed withmid grey brown silt sand, occ filints	1	
1357	Fill	1129	D			Dark grey silt sand, occ flints	1	
1358	Cut			1359, 1360		Pit (narrow oval)	1	
1359	Fill	1358	P			Dark grey slightly siltt clay, mod iron panning, occ flints	1	
1360	Fill	1358	P			Mid orange and mid light grey mottled silt sand	1	
1361	Cut			1362, 1369		Pit (sub rounded)	1	
1362	Fill	1361	P			Dark grey sand clay, occ flints	1	
1363	Cut			1364	1284, 1158	Gully	1	
1364	Fill	1363	G			Mid dark grey silt sand	1	
1365	Cut			1366, 1367		Quarry pit	1	
1366	Fill	1365	QP			Mixed orange and grey silt sand with blue grey clay, mod flints, occ charcoal flecks	1	
1367	Fill	1365	QP			Dark grey silt sand, freq charcoal fragments	1	
1368	Cut			1371, 1373		Quarry pit	1	
1369	Fill	1361	P			Mid grey silt sand, freq flints, occ charcoal fragements	1	
1370	Cut			XX		Gully terminus	1	
1371	Fill	1368	QP			Dirty blue grey clay	1	
1372	Fill	1368	QP			Mixed yellow, grey and brown clay silt	1	
1373	Cut			1374, 1375		Pit	1	
1374	Fill	1373	P			Very dark grey silt sand	1	
1375	Fill	1373	P			Mixed dark brown grey and yellow clay sand silt	1	
1376	Cut			1377		Quarry pit	1	
1377	Fill	1376	QP			Mixed yellow grey sand clay (may be root affected)	1	
1378	Cut			1379, 1380		Quarry pit	1	
1379	Fill	1378	QP			Dark brown grey silt sand, occ small flints	1	
1380	Fill	1378	QP			Mixed yellow grey sand clay	1	
1381	Fill	1335	P			Mid grey brown silt sand, occ small flints, clay , charcoal flecks	1	
1382	Cut			1383, 1384, 1385		Quarry pit	1	

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Context	Type	Fill of	Feature type	Contents	Same as (feature no)	Description	Area	Phase
1383	Fill	1382	P			Mid dark brown grey silt sand, occ small flints	1	
1384	Fill	1382	P			Mid dark brown grey silt sand, occ small flints	1	
1385	Fill	1382	P			Mixed orange grey silt sand clay, occ small flints	1	
1386	Cut			1387		Pit	1	
1387	Fill	1386	P			Mixed grey brown silt sand, occ small flints	1	
1388	Deposit	1388	deposit			Dark brown silt	1	
1389	Deposit	1389	deposit			Mid dark brown grey silt	1	
1390	Deposit	1390	deposit			Mid brown silt, occ iron panning	1	
1391	Cut			1395, 1396		Pit	1	
1392	Cut			1393, 1394		Pit	1	
1393	Fill	1392	P			Mixed light grey sand and blue clay	1	
1394	Fill	1392	P			Dark grey sand silt, occ iron panning, small flints	1	
1395	Fill	1391	P			Mid dark grey sand clay	1	
1396	Fill	1391	P			Mixed dark grey sand silt, orange brown sand, blue grey clay, occ small flints	1	
1397	Fill	1397	D			Mid dark grey brown, orange sand, blue clay, occ iron panning	1	
1398	Cut			1400		Pit	1	
1399	Cut			1401, 1401		Quarry pit	1	
1400	Fill	1398	P			Mid dark grey brown silt clay, occ small flints	1	
1401	Fill	1399	QP			Light blue grey silt clay, occ small flints	1	
1402	C+F	1399	QP			Mid dark grey sand clay, occ small flints	1	
1403	Deposit	1403	deposit			Dark grey silt clay, occ iron panning	1	
1404	Deposit	1404	deposit			Mid dark grey clay silt mixed with mid pale brown sand, occ iron panning	1	
1405	Fill	1354	P			Light grey brown sand silt, occ flints, freq iron panning	1	
1406	Fill	1354	P			Grey sand clay, freq iron panning	1	
1407	Fill	1355	P			Mixed yellow blue clay, occ sand	1	
1408	Fill	1355	P			Mixed dark grey silt sand, orange sand, grey brown sand silt, occ clay, flints	1	
1409	Cut			1356		Irregular quarry pit	1	
2000	Layer		L			Topsoil, mid grey brown sand silt	2	7
2001	Layer		L			Light grey brown silt sand	2	7
2002	Fill	2003	F			Light grey brown silt sand, freq iron panning	2	6
2003	Cut			2002		Furrow (westnorthwest- eastnortheast)	2	6
2004	Structure	2434	K			Kiln oven structure	2	3
2005	Fill	2006	D		2017	Dark grey sand silt, mod charcoal flecks, occ lumps of heated clay, small flints	2	5
2006	Cut					Ditch (north- south alligned)	2	5
2007	Cut			2008, 2009, 2010		Ditch (north- south alligned)	2	5
2008	Fill	2007	D		2064, 2115, 2019	Light grey silt sand	2	5

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Context	Type	Fill of	Feature type	Contents	Same as (feature no)	Description	Area	Phase
2009	Fill	2007	D		2064, 2115, 2019	Dark grey silt sand, occ small flints	2	5
2010	Fill	2007	D		2064, 2115, 2019	Mixed light grey silt sand and yellw orange sand	2	5
2011	Fill	2006	D		2017	Light mid grey silt sand, mod charcoal flecks, freq white grey sand	2	5
2012	Fill	2006	D		2017	Light brown and light grey silt sand, occ charcoal flecks	2	5
2013	Fill	2006	D		2017	Light mid grey silt sand, freq iron panning, charcoal flecks, occ lumps of clay	2	5
2014	Fill	2006	D		2017	Light grey brown sand, occ charcoal flecks	2	5
2015	Cut			2016		Furrow (westnorthwest- eastnortheast)	2	6
2016	Fill	2015	F		2027	Dark grey slightly silt sand, occ small flints	2	6
2017	Cut			2018, 2052, 2053		Ditch (north- south alligned)	2	5
2018	Fill	2017	D			Grey brown sand silt, occ charcoal flecks	2	5
2019	Cut			2020, 2021, 2022		Ditch (north- south alligned)	2	5
2020	Fill	2019	D		2064, 2115, 2007	Mix of light grey slightly sand silt and yellow orange sand	2	5
2021	Fill	2019	D		2064, 2115, 2007	Light grey slightly silt sand, freq charcoal flecks	2	5
2022	Fill	2019	D		2064, 2115, 2007	Dark grey slightly silt sand	2	5
2023	Fill	2006	D		2017	Very light grey brown sand	2	5
2024	Fill	2026	P			Mid brown grey sand silt, occ charcola flecks, occ lumps of clay, rooting activity	2	5
2025	Fill	2026	P			Very mixed light and mid grey with light mid brown and off white silt sand, occ charcoal flecks	2	5
2026	Cut			2024, 2025, 2024		Pit	2	5
2027	Cut			2028		Furrow (westnorthwest- eastnortheast)	2	6
2028	Fill	2027	F		2015	Dark grey slightly silt sand, occ small flints	2	6
2029	Cut			2030		Furrow (westnorthwest- eastnortheast)	2	6
2030	Fill	2029	F		2122, 2221, 2183, 2160, 2035	Dark grey brown silt sand	2	6
2031	Cut			2032, 2038, 2039		Gully (east- west alligned)	2	2
2032	Fill	2031	G		2033	Mid brown grey sand silt, occ large and small flints, mod clay lumps	2	2
2033	Cut			2034, 2037		Gully (east- west alligned)	2	2
2034	Fill	2033	G		2031	Dark grey sand silt	2	2
2035	Cut			2036		Furrow (westnorthwest- eastnortheast)	2	6
2036	Fill	2035	F		2029, 2122, 2221, 2183, 2160	Mid grey brown silt sand, freq iron panning	2	6
2037	Fill	2033	G		2031	Pale grey and yellow sand clay	2	2

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Context	Type	Fill of	Feature type	Contents	Same as (feature no)	Description	Area	Phase
2038	Fill	2031	G			Olive green clay, occ sandy patches	2	2
2039	Fill	2031	G		2033	Mid light brown grey sand silt, occ small flints	2	2
2040	Fill	2026	P			Light brown sand silt	2	5
2041	Cut			2042		Gully (northwest- south east)	2	5
2042	Fill	2041	G			Mixed grey brown sand silt	2	5
2043	Fill	2050	G			Dark grey and mid grey mid brown mixed sand silt, occ heat affected flints, charcoal flecks	2	4
2044	Cut			2045, 2048		Post hole (circular)	2	2
2045	Fill	2044	PH			Olive green clay, occ sandy patches	2	2
2046	Fill	2044	PH			Mid dark brown grey silt sand	2	2
2047	Cut			2048		Ditch (north- south alligned)	2	1
2048	Fill	2047	D			Mid darkgrey silt sand	2	1
2049	Fill	2050	G			Mixed grey, brown and yellow silt sand	2	4
2050	Cut			2043, 2049		Gully (curving *c.* southeast- northwest)	2	4
2051	Fill	2057	G			Mixed grey, brown and yellow silt sand, occ charcoal flecks	2	3
2052	Fill	2017	D			Light grey sand silt	2	5
2053	Layer		L			Mid brown sand silt	2	6
2054	Cut			2055		Ditch	2	6
2055	Fill	2054	D			Dark grey silt sand, occ small flints, iron panning	2	6
2056	Fill	2057	G			Mixed light grey and brown silt sand, occ flints, iron panning	2	3
2057	Cut			2051, 2056		Gully (southeast- northwest alligned)	2	3
2058	Cut			2059		Gully (east- west alligned)	2	2
2059	Fill	2058	G		2132, 2136, 2399, 2130	Mid brown sand silt, occ flints	2	2
2060	Fill	2062	F			Dark grey brown silt sand with orange mottles and occ flints	2	6
2061	Fill	2062	F			Very dark grey silt sand	2	6
2062	Cut			2060, 2061		Furrow (westnorthwest- eastnortheast)	2	6
2063	Fill	2064	D		2115, 2007, 2019	Light grey silt sand , occ small flints	2	5
2064	Cut			2063		Ditch (north south alligned)	2	5
2065	Cut			2066, 2089, 2090		Gully (north- south alligned)	2	3
2066	Fill	2065	G			Mid brown grey sand silt, occ charcoal flecks	2	3
2067	Cut			2068		Gully (north- south alligned)	2	1.1
2068	Fill	2067	G			Dark grey sand silt	2	1.1
2069	Cut			2070		Furrow (westnorthwest- eastnortheast)	2	6
2070	Fill	2070	F			Furrow fill	2	6
2071	Cut			2072		Gully (northnorthwest- southsoutheast alligned)	2	5
2072	Fill	2071	G		2134	Dark brown sand silt mixed with brown and grey sand silt, occ flecks of charcoal	2	5
2073	Cut			2074		Gully (curving)	2	1.2

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Context	Type	Fill of	Feature type	Contents	Same as (feature no)	Description	Area	Phase
2074	Fill	2073	G		2084	Mid brown grey sand silt, occ clay	2	1.2
2075	Tree throw		TT			White sand and heavy iron panning	2	0
2076	Fill					Pottery small finds	2	0
2077	Fill	2064	D		2115, 2007, 2019	Dark grey brown silt sand, occ Flints, orange sand	2	5
2078	Layer		NAT			Natural orange yellow sand	2	NAT
2079	Cut	2079	F		2121	Linear, filled as other furrows	2	6
2080	Cut			2081, 2106		Ditch (northwest- southeast)	2	2
2081	Fill	2080	D			Mid brown grey sand silt, occ flint	2	2
2082	Cut			2083		Gully (east- west alligned)	2	2
2083	Fill	2082	G			Mid grey brown sand silt, occ small flints	2	2
2084	Cut			2085		Gully (curving)	2	1.2
2085	Fill	2084	G		2073	Mid brown grey silt sand	2	1.2
2086	Cut			2087		Ditch (north- south alligned)	2	3
2087	Fill	2086	D			Mixed mid brown sand silt with orange sand, occ flints, charcoal flecks	2	3
2088	Fill	2067	G			Mottled yellow and brown silt sand	2	1.1
2089	Fill	2065	G			Mixed light grey and brown silt sand	2	3
2090	Fill	2065	G			Light grey brown sand silt	2	3
2091	Cut			2092, 2157		Ditch (northeast- southwest alligned)	2	3
2092	Fill	2091	D			Mid dark brown grey silt sand	2	3
2093	Cut			2094, 2107		Post hole (circular)	2	2
2094	Fill	2093	PH			Olive green clay	2	2
2095	Fill	2097	G		2110, 2438, 2288, 2140, 2290	Mid brown grey sand silt, freq charcoal flecks, sand and rooting	2	5
2096	Fill	2097	G		2110, 2438, 2288, 2140, 2290	Mixed light grey, white and brown silt sand, occ iron panning, charcoal flecks	2	5
2097	Cut			2095, 2096		Gully (curving)	2	5
2098	Tree throw		TT			Tree throw	2	6
2099	Cut			2100, 2108, 2109		Gully (northwest- south east)	2	5
2100	Fill	2099	G			Very dark brown grey silt sand, freq charcoal, ash, occ flints	2	5
2101	Cut			2102		Post hole (sub circular)	2	0
2102	Fill	2101	PH			Very dark grey brown silt sand, occ flints	2	0
2103	Cut			2104, 2119, 2120		Ditch (north- south alligned)	2	5
2104	Fill	2103	D		2158	Mid grey brown silt sand	2	5
2105	Fill	2103	D		2158	Mid grey brown silt sand	2	5
2106	Fill	2080	D			Mid dark grey silt sand	2	2
2107	Fill	2093	PH			Mid grey brown sand silt, occ small flints	2	1.2

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Context	Type	Fill of	Feature type	Contents	Same as (feature no)	Description	Area	Phase
2108	Fill	2099	G			Light grey silt sand, abundant ash and charcoal (90%), occ flints	2	5
2109	Fill	2099	G			Black firm charcoal in a silt sand matrix, occ flints	2	5
2110	Cut			2111, 2112		Gully (curving)	2	5
2111	Fill	2110	G		2438, 2288, 2097, 2140, 2290	Mixed grey brownsand silt, occ charcoal flecks, iron panning	2	5
2112	Fill	2110	G		2438, 2288, 2097, 2140, 2290	Dark grey sand silt, occ charcoal flecks	2	5
2113	Cut	2110	G		2438, 2288, 2097, 2140, 2290	Gully (curving)	2	3
2114	Fill	2113	G		2143	Mid brown sand silt, occ charcoal flecks	2	3
2115	Cut			2116		Gully	2	5
2116	Fill	2115	G		2064, 2007, 2019	Very dark grey brown silt sand	2	5
2117	Cut			2118		Ditch (northwest- southeast)	2	3
2118	Fill	2117	D			Dark brown grey silt sand, occ flints	2	3
2119	Cut	2103	D		2158	Dark grey silt sand	2	5
2120	Fill	2103	D		2158	Mid grey brown silt sand	2	5
2121	Cut				2079	Furrow	2	6
2122	Fill	2121	F		2221, 2183, 2029, 2160, 2035	As Furrow fills	2	6
2123	Fill	2121	F			As Furrow fills	2	6
2124	Cut			2125, 2126		Gully (north- south alligned)	2	4
2125	Fill	2124	D			Mid brown grey silt sand, occ iron panning	2	4
2126	Fill	2124	D			Dark grey silt sand	2	4
2127	Cut			see matrix	2277	Hearth	2	2
2128	Cut					Gully associated with hearth 2277	2	2
2129	Fill	2128	H			Very dark grey brown sand silt, occ charcoal, burnt clay, ash, flints	2	2
2130	Cut			2131		Gully (northwest- south east)	2	2
2131	Fill	2130	G		2132, 2136, 2058, 2399	Mixed mid dark brown, orange, dark grey silt sand	2	2
2132	Cut			2133		Gully (northwest- south east)	2	2
2133	Fill	2132	G		2136, 2058, 2399, 2130	Mixed mid dark brown, orange, dark grey silt sand	2	2
2134	Cut			2135		Gully (north- south alligned)	2	5
2135	Fill	2134	G		2071	Mixed mid dark brown, orange, dark grey silt sand, occ flint	2	5

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Context	Type	Fill of	Feature type	Contents	Same as (feature no)	Description	Area	Phase
2136	Cut			2137		Gully (eastnortheast- westnorthwest alligned)	2	2
2137	Fill	2136	G		2132, 2058, 2399, 2130	Mixed mid dark brown, orange, dark grey silt sand, occ flint, charcoal flecks	2	2
2138	Fill	2127	H			Very dark brown silt sand, freq charcoal flecks and patches, occ ash, flints, clay lumps	2	2
2139	Fill	2127	H			Very dark brown silt sand, freq charcoal, occ ash, heated clay	2	2
2140	Cut			2141, 2142		Gully (curving)	2	5
2141	Fill	2140	G		2110, 2438, 2288, 2097, 2290	Light brown grey sand silt, occ charcoal flecks	2	5
2142	Fill	2140	G		2110, 2438, 2288, 2097, 2290	Mid grey brown sand silt, occ charcoal flecks	2	5
2143	Cut			2144		Gully (curving)	2	3
2144	Fill	2143	G		2113	Dark grey brown sand silt, occ charcoal flecks	2	3
2145	Fill	2148	D			Dark grey gritty sand	2	3
2146	Fill	2213	G		2212	Dark grey black sand silt	2	4
2147	Fill	2150	D			Dark red grey silt sand	2	4
2148	Cut			2207, 2208, 2211, 2145, 2209, 2210		Ditch (east- west alligned)	2	3
2149	Fill	2150	D			Mid dark grey silt sand, occ sand mottles, small flints	2	4
2150	Cut			2147, 2149, 2178		Ditch (northnorthwest- southsoutheast)	2	4
2151	Cut			2177, 2153, 2152, 2179, 2180, 2181		Ditch (northnorthwest- southsoutheast)	2	4
2152	Fill	2151	D			Mid grey orange silt sand	2	4
2153	Fill	2151	D			Dark grey silt sand	2	4
2154	Fill	2212	D		2213	Dark grey sand silt	2	4
2155	Cut			2156		Ditch (northeast- southwest alligned)	2	0
2156	Fill	2155	D			Mid brown silt sand	2	0
2157	Fill	2091	D			Mid brown grey silt sand	2	3
2158	Cut			2159	2103	Ditch	2	5
2159	Fill	2158	D		2103	Fill as 2104	2	5
2160	Cut			2161	2029	Furrow	2	6
2161	Fill	2160	F		2029, 2122, 2221, 2183, 2035	Fill as 2030	2	6
2162	Cut	2162	LD			Land drain (northwest- southeast alligned)	2	7
2163	Cut			2164		Gully (east- west alligned)	2	1.2
2164	Fill	2163	G			Mid grey brown silt sand	2	1.2

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Context	Type	Fill of	Feature type	Contents	Same as (feature no)	Description	Area	Phase
1383	Fill	1382	P			Mid dark brown grey silt sand, occ small flints	1	
1384	Fill	1382	P			Mid dark brown grey silt sand, occ small flints	1	
1385	Fill	1382	P			Mixed orange grey silt sand clay, occ small flints	1	
1386	Cut			1387		Pit	1	
1387	Fill	1386	P			Mixed grey brown silt sand, occ small flints	1	
1388	Deposit	1388	deposit			Dark brown silt	1	
1389	Deposit	1389	deposit			Mid dark brown grey silt	1	
1390	Deposit	1390	deposit			Mid brown silt, occ iron panning	1	
1391	Cut			1395, 1396		Pit	1	
1392	Cut			1393, 1394		Pit	1	
1393	Fill	1392	P			Mixed light grey sand and blue clay	1	
1394	Fill	1392	P			Dark grey sand silt, occ iron panning, small flints	1	
1395	Fill	1391	P			Mid dark grey sand clay	1	
1396	Fill	1391	P			Mixed dark grey sand silt, orange brown sand, blue grey clay, occ small flints	1	
1397	Fill	1397	D			Mid dark grey brown, orange sand, blue clay, occ iron panning	1	
1398	Cut			1400		Pit	1	
1399	Cut			1401, 1401		Quarry pit	1	
1400	Fill	1398	P			Mid dark grey brown silt clay, occ small flints	1	
1401	Fill	1399	QP			Light blue grey silt clay, occ small flints	1	
1402	C+F	1399	QP			Mid dark grey sand clay, occ small flints	1	
1403	Deposit	1403	deposit			Dark grey silt clay, occ iron panning	1	
1404	Deposit	1404	deposit			Mid dark grey clay silt mixed with mid pale brown sand, occ iron panning	1	
1405	Fill	1354	P			Light grey brown sand silt, occ flints, freq iron panning	1	
1406	Fill	1354	P			Grey sand clay, freq iron panning	1	
1407	Fill	1355	P			Mixed yellow blue clay, occ sand	1	
1408	Fill	1355	P			Mixed dark grey silt sand, orange sand, grey brown sand silt, occ clay, flints	1	
1409	Cut			1356		Irregular quarry pit	1	
2000	Layer		L			Topsoil, mid grey brown sand silt	2	7
2001	Layer		L			Light grey brown silt sand	2	7
2002	Fill	2003	F			Light grey brown silt sand, freq iron panning	2	6
2003	Cut			2002		Furrow (westnorthwest- eastnortheast)	2	6
2004	Structure	2434	K			Kiln oven structure	2	3
2005	Fill	2006	D		2017	Dark grey sand silt, mod charcoal flecks, occ lumps of heated clay, small flints	2	5
2006	Cut					Ditch (north- south alligned)	2	5
2007	Cut			2008, 2009, 2010		Ditch (north- south alligned)	2	5
2008	Fill	2007	D		2064, 2115, 2019	Light grey silt sand	2	5

Market Rasen Linwood Road (MRL 99)
Context List

Context	Type	Fill of	Feature type	Contents	Same as (feature no)	Description	Area	Phase
2009	Fill	2007	D		2064, 2115, 2019	Dark grey silt sand, occ small flints	2	5
2010	Fill	2007	D		2064, 2115, 2019	Mixed light grey silt sand and yellw orange sand	2	5
2011	Fill	2006	D		2017	Light mid grey silt sand, mod charcoal flecks, freq white grey sand	2	5
2012	Fill	2006	D		2017	Light brown and light grey silt sand, occ charcoal flecks	2	5
2013	Fill	2006	D		2017	Light mid grey silt sand, freq iron panning, charcoal flecks, occ lumps of clay	2	5
2014	Fill	2006	D		2017	Light grey brown sand, occ charcoal flecks	2	5
2015	Cut			2016		Furrow (westnorthwest- eastnortheast)	2	6
2016	Fill	2015	F		2027	Dark grey slightly silt sand, occ small flints	2	6
2017	Cut			2018, 2052, 2053		Ditch (north- south alligned)	2	5
2018	Fill	2017	D			Grey brown sand silt, occ charcoal flecks	2	5
2019	Cut			2020, 2021, 2022		Ditch (north- south alligned)	2	5
2020	Fill	2019	D		2064, 2115, 2007	Mix of light grey slightly sand silt and yellow orange sand	2	5
2021	Fill	2019	D		2064, 2115, 2007	Light grey slightly silt sand, freq charcoal flecks	2	5
2022	Fill	2019	D		2064, 2115, 2007	Dark grey slightly silt sand	2	5
2023	Fill	2006	D		2017	Very light grey brown sand	2	5
2024	Fill	2026	P			Mid brown grey sand silt, occ charcola flecks, occ lumps of clay, rooting activity	2	5
2025	Fill	2026	P			Very mixed light and mid grey with light mid brown and off white silt sand, occ charcoal flecks	2	5
2026	Cut			2024, 2025, 2024		Pit	2	5
2027	Cut			2028		Furrow (westnorthwest- eastnortheast)	2	6
2028	Fill	2027	F		2015	Dark grey slightly silt sand, occ small flints	2	6
2029	Cut			2030		Furrow (westnorthwest- eastnortheast)	2	6
2030	Fill	2029	F		2122, 2221, 2183, 2160, 2035	Dark grey brown silt sand	2	6
2031	Cut			2032, 2038, 2039		Gully (east- west alligned)	2	2
2032	Fill	2031	G		2033	Mid brown grey sand silt, occ large and small flints, mod clay lumps	2	2
2033	Cut			2034, 2037		Gully (east- west alligned)	2	2
2034	Fill	2033	G		2031	Dark grey sand silt	2	2
2035	Cut			2036		Furrow (westnorthwest- eastnortheast)	2	6
2036	Fill	2035	F		2029, 2122, 2221, 2183, 2160	Mid grey brown silt sand, freq iron panning	2	6
2037	Fill	2033	G		2031	Pale grey and yellow sand clay	2	2

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Context List

Context	Type	Fill of	Feature type	Contents	Same as (feature no)	Description	Area	Phase
2038	Fill	2031	G			Olive green clay, occ sandy patches	2	2
2039	Fill	2031	G		2033	Mid light brown grey sand silt, occ small flints	2	2
2040	Fill	2026	P			Light brown sand silt	2	5
2041	Cut			2042		Gully (northwest- south east)	2	5
2042	Fill	2041	G			Mixed grey brown sand silt	2	5
2043	Fill	2050	G			Dark grey and mid grey mid brown mixed sand silt, occ heat affected flints, charcoal flecks	2	4
2044	Cut			2045, 2048		Post hole (circular)	2	2
2045	Fill	2044	PH			Olive green clay, occ sandy patches	2	2
2046	Fill	2044	PH			Mid dark brown grey silt sand	2	2
2047	Cut			2048		Ditch (north- south alligned)	2	1
2048	Fill	2047	D			Mid darkgrey silt sand	2	1
2049	Fill	2050	G			Mixed grey, brown and yellow silt sand	2	4
2050	Cut			2043, 2049		Gully (curving *c.* southeast- northwest)	2	4
2051	Fill	2057	G			Mixed grey, brown and yellow silt sand, occ charcoal flecks	2	3
2052	Fill	2017	D			Light grey sand silt	2	5
2053	Layer		L			Mid brown sand silt	2	6
2054	Cut			2055		Ditch	2	6
2055	Fill	2054	D			Dark grey silt sand, occ small flints, iron panning	2	6
2056	Fill	2057	G			Mixed light grey and brown silt sand, occ flints, iron panning	2	3
2057	Cut			2051, 2056		Gully (southeast- northwest alligned)	2	3
2058	Cut			2059		Gully (east- west alligned)	2	2
2059	Fill	2058	G		2132, 2136, 2399, 2130	Mid brown sand silt, occ flints	2	2
2060	Fill	2062	F			Dark grey brown silt sand with orange mottles and occ flints	2	6
2061	Fill	2062	F			Very dark grey silt sand	2	6
2062	Cut			2060, 2061		Furrow (westnorthwest- eastnortheast)	2	6
2063	Fill	2064	D		2115, 2007, 2019	Light grey silt sand , occ small flints	2	5
2064	Cut			2063		Ditch (north south alligned)	2	5
2065	Cut			2066, 2089, 2090		Gully (north- south alligned)	2	3
2066	Fill	2065	G			Mid brown grey sand silt, occ charcoal flecks	2	3
2067	Cut			2068		Gully (north- south alligned)	2	1.1
2068	Fill	2067	G			Dark grey sand silt	2	1.1
2069	Cut			2070		Furrow (westnorthwest- eastnortheast)	2	6
2070	Fill	2070	F			Furrow fill	2	6
2071	Cut			2072		Gully (northnorthwest- southsoutheast alligned)	2	5
2072	Fill	2071	G		2134	Dark brown sand silt mixed with brown and grey sand silt, occ flecks of charcoal	2	5
2073	Cut			2074		Gully (curving)	2	1.2

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Context	Type	Fill of	Feature type	Contents	Same as (feature no)	Description	Area	Phase
2074	Fill	2073	G		2084	Mid brown grey sand silt, occ clay	2	1.2
2075	Tree throw		TT			White sand and heavy iron panning	2	0
2076	Fill					Pottery small finds	2	0
2077	Fill	2064	D		2115, 2007, 2019	Dark grey brown silt sand, occ Flints, orange sand	2	5
2078	Layer		NAT			Natural orange yellow sand	2	NAT
2079	Cut	2079	F		2121	Linear, filled as other furrows	2	6
2080	Cut			2081, 2106		Ditch (northwest- southeast)	2	2
2081	Fill	2080	D			Mid brown grey sand silt, occ flint	2	2
2082	Cut			2083		Gully (east- west alligned)	2	2
2083	Fill	2082	G			Mid grey brown sand silt, occ small flints	2	2
2084	Cut			2085		Gully (curving)	2	1.2
2085	Fill	2084	G		2073	Mid brown grey silt sand	2	1.2
2086	Cut			2087		Ditch (north- south alligned)	2	3
2087	Fill	2086	D			Mixed mid brown sand silt with orange sand, occ flints, charcoal flecks	2	3
2088	Fill	2067	G			Mottled yellow and brown silt sand	2	1.1
2089	Fill	2065	G			Mixed light grey and brown silt sand	2	3
2090	Fill	2065	G			Light grey brown sand silt	2	3
2091	Cut			2092, 2157		Ditch (northeast- southwest alligned)	2	3
2092	Fill	2091	D			Mid dark brown grey silt sand	2	3
2093	Cut			2094, 2107		Post hole (circular)	2	2
2094	Fill	2093	PH			Olive green clay	2	2
2095	Fill	2097	G		2110, 2438, 2288, 2140, 2290	Mid brown grey sand silt, freq charcoal flecks, sand and rooting	2	5
2096	Fill	2097	G		2110, 2438, 2288, 2140, 2290	Mixed light grey, white and brown silt sand, occ iron panning, charcoal flecks	2	5
2097	Cut			2095, 2096		Gully (curving)	2	5
2098	Tree throw		TT			Tree throw	2	6
2099	Cut			2100, 2108, 2109		Gully (northwest- south east)	2	5
2100	Fill	2099	G			Very dark brown grey silt sand, freq charcoal, ash, occ flints	2	5
2101	Cut			2102		Post hole (sub circular)	2	0
2102	Fill	2101	PH			Very dark grey brown silt sand, occ flints	2	0
2103	Cut			2104, 2119, 2120		Ditch (north- south alligned)	2	5
2104	Fill	2103	D		2158	Mid grey brown silt sand	2	5
2105	Fill	2103	D		2158	Mid grey brown silt sand	2	5
2106	Fill	2080	D			Mid dark grey silt sand	2	2
2107	Fill	2093	PH			Mid grey brown sand silt, occ small flints	2	1.2

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Context	Type	Fill of	Feature type	Contents	Same as (feature no)	Description	Area	Phase
2108	Fill	2099	G			Light grey silt sand, abundant ash and charcoal (90%), occ flints	2	5
2109	Fill	2099	G			Black firm charcoal in a silt sand matrix, occ flints	2	5
2110	Cut			2111, 2112		Gully (curving)	2	5
2111	Fill	2110	G		2438, 2288, 2097, 2140, 2290	Mixed grey brownsand silt, occ charcoal flecks, iron panning	2	5
2112	Fill	2110	G		2438, 2288, 2097, 2140, 2290	Dark grey sand silt, occ charcoal flecks	2	5
2113	Cut	2110	G		2438, 2288, 2097, 2140, 2290	Gully (curving)	2	3
2114	Fill	2113	G		2143	Mid brown sand silt, occ charcoal flecks	2	3
2115	Cut			2116		Gully	2	5
2116	Fill	2115	G		2064, 2007, 2019	Very dark grey brown silt sand	2	5
2117	Cut			2118		Ditch (northwest- southeast)	2	3
2118	Fill	2117	D			Dark brown grey silt sand, occ flints	2	3
2119	Cut	2103	D		2158	Dark grey silt sand	2	5
2120	Fill	2103	D		2158	Mid grey brown silt sand	2	5
2121	Cut				2079	Furrow	2	6
2122	Fill	2121	F		2221, 2183, 2029, 2160, 2035	As Furrow fills	2	6
2123	Fill	2121	F			As Furrow fills	2	6
2124	Cut			2125, 2126		Gully (north- south alligned)	2	4
2125	Fill	2124	D			Mid brown grey silt sand, occ iron panning	2	4
2126	Fill	2124	D			Dark grey silt sand	2	4
2127	Cut			see matrix	2277	Hearth	2	2
2128	Cut					Gully associated with hearth 2277	2	2
2129	Fill	2128	H			Very dark grey brown sand silt, occ charcoal, burnt clay, ash, flints	2	2
2130	Cut			2131		Gully (northwest- south east)	2	2
2131	Fill	2130	G		2132, 2136, 2058, 2399	Mixed mid dark brown, orange, dark grey silt sand	2	2
2132	Cut			2133		Gully (northwest- south east)	2	2
2133	Fill	2132	G		2136, 2058, 2399, 2130	Mixed mid dark brown, orange, dark grey silt sand	2	2
2134	Cut			2135		Gully (north- south alligned)	2	5
2135	Fill	2134	G		2071	Mixed mid dark brown, orange, dark grey silt sand, occ flint	2	5

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Context	Type	Fill of	Feature type	Contents	Same as (feature no)	Description	Area	Phase
2136	Cut			2137		Gully (eastnortheast- westnorthwest alligned)	2	2
2137	Fill	2136	G		2132, 2058, 2399, 2130	Mixed mid dark brown, orange, dark grey silt sand, occ flint, charcoal flecks	2	2
2138	Fill	2127	H			Very dark brown silt sand, freq charcoal flecks and patches, occ ash, flints, clay lumps	2	2
2139	Fill	2127	H			Very dark brown silt sand, freq charcoal, occ ash, heated clay	2	2
2140	Cut			2141, 2142		Gully (curving)	2	5
2141	Fill	2140	G		2110, 2438, 2288, 2097, 2290	Light brown grey sand silt, occ charcoal flecks	2	5
2142	Fill	2140	G		2110, 2438, 2288, 2097, 2290	Mid grey brown sand silt, occ charcoal flecks	2	5
2143	Cut			2144		Gully (curving)	2	3
2144	Fill	2143	G		2113	Dark grey brown sand silt, occ charcoal flecks	2	3
2145	Fill	2148	D			Dark grey gritty sand	2	3
2146	Fill	2213	G		2212	Dark grey black sand silt	2	4
2147	Fill	2150	D			Dark red grey silt sand	2	4
2148	Cut			2207, 2208, 2211, 2145, 2209, 2210		Ditch (east- west alligned)	2	3
2149	Fill	2150	D			Mid dark grey silt sand, occ sand mottles, small flints	2	4
2150	Cut			2147, 2149, 2178		Ditch (northnorthwest- southsoutheast)	2	4
2151	Cut			2177, 2153, 2152, 2179, 2180, 2181		Ditch (northnorthwest- southsoutheast)	2	4
2152	Fill	2151	D			Mid grey orange silt sand	2	4
2153	Fill	2151	D			Dark grey silt sand	2	4
2154	Fill	2212	D		2213	Dark grey sand silt	2	4
2155	Cut			2156		Ditch (northeast- southwest alligned)	2	0
2156	Fill	2155	D			Mid brown silt sand	2	0
2157	Fill	2091	D			Mid brown grey silt sand	2	3
2158	Cut			2159	2103	Ditch	2	5
2159	Fill	2158	D		2103	Fill as 2104	2	5
2160	Cut			2161	2029	Furrow	2	6
2161	Fill	2160	F		2029, 2122, 2221, 2183, 2035	Fill as 2030	2	6
2162	Cut	2162	LD			Land drain (northwest- southeast alligned)	2	7
2163	Cut			2164		Gully (east- west alligned)	2	1.2
2164	Fill	2163	G			Mid grey brown silt sand	2	1.2

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Context	Type	Fill of	Feature type	Contents	Same as (feature no)	Description	Area	Phase
2165	Cut			2166, 2167		Gully (north- south alligned)	2	3
2166	Fill	2165	G			Mid brown grey silt sand, mod iron panning	2	4
2167	Fill	2165	G			Dark grey silt sand	2	4
2168	Cut			2169, 2170		Gully (east- west alligned)	2	2
2169	Fill	2168	G			Mid light grey silt sand	2	2
2170	Fill	2168	G			Pale blue grey sand clay	2	2
2171	Cut			2172, 2173, 2174, 2175, 2176, 2182		Ditch (east- west alligned)	2	3
2172	Fill	2171	D			Very dark grey brown black silt sand, occ sand lenses	2	3
2173	Fill	2171	D			Mid dark grey brown silt sand	2	3
2174	Fill	2171	D			pale yellow grey mottled silt sand	2	3
2175	Fill	2171	D			Mid dark grey silt sand	2	3
2176	Fill	2171	D			Pale grey sand silt	2	3
2177	Layer					Natural sand	2	NAT
2178	Fill	2150	D			Pale yellow grey sand	2	4
2179	Fill	2151	D			Pale yellow brown grey sand	2	4
2180	Fill	2151	D			Mid grey sand	2	4
2181	Fill	2151	D			Grey yellow orange sand	2	4
2182	Fill	2171	D			Orange silt sand	2	3
2183	Cut			2184	2029	Furrow	2	6
2184	Fill	2183	F		2029, 2122, 2221, 2029, 2160, 2035	Furrow fill as 2030	2	6
2185	Cut			2186, 2187, 2188		Gully (east- west alligned)	2	0
2186	Fill	2185	G			Mid dark grey brown silt sand, occ small flints	2	0
2187	Fill	2185	G			Olive green clay	2	0
2188	Fill	2185	G			Mid brown grey silt sand	2	0
2189	Cut			2190		Pit	2	3
2190	Fill	2189	P			Mixed mid dark grey brown sand silt with yellow brown sand, charcoal rich	2	3
2191	Fill	2434	K			Upper destruction fill of kiln, mid brown sand silt, freq kiln linning frags	2	3
2192	Fill	2434	K			Debris in kiln (2004) lumps and frags of kiln linning with a mid brown sand silt matrix	2	3
2193	Cut			2194		Ditch (north- south alligned)	2	1.2
2194	Fill	2193	D			Dark grey brown sand silt, occ flints	2	1.2
2195	Cut			2196, 2197, 2198, 2199		Ditch (east- west alligned)	2	4
2196	Fill	2195	D		2266, 2309, 2243	Dark brown grey sand silt, occ small flints	2	4
2197	Fill	2195	D		2266, 2309, 2243	Mixed light mid grey brown sand silt	2	4

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Context List

Context	Type	Fill of	Feature type	Contents	Same as (feature no)	Description	Area	Phase
2198	Fill	2195	D		2266, 2309, 2243	Light grey sand silt	2	4
2199	Fill	2195	D		2266, 2309, 2243	Dark grey silt sand	2	4
2200	Fill	2004	K		2434	Fill within kiln oven area, mid dark brown sand silt, occ charcoal flecks, frags of kiln linning	2	3
2201	Fill	2349	K		2434	Fill of kiln flue, very dark grey to black charcoal rich slightly sand silt, occ heated clay, kiln linning, white sand	2	3
2202	Cut			2204		Ditch (east- west alligned)	2	1.2
2203	Cut			2205, 2206		Ditch (east- west alligned)	2	1.2
2204	Fill	2202	D		2203	Pale yellow orange grey silt sand	2	1.2
2205	Fill	2203	D		2202	Mid pale grey sand	2	1.2
2206	Fill	2203	D		2202	Pale grey sand silt	2	1.2
2207	Fill	2148	D			Very pale grey yellow sand	2	3
2208	Fill	2148	D			Very dark grey silt sand	2	3
2209	Fill	2148	D			Mid dark grey brown sand	2	3
2210	Fill	2148	D			Mid pale grey silt sand	2	3
2211	Fill	2148	D			Mid brown grey sand	2	3
2212	Cut			2214, 2215, 2154		Ditch (east- west alligned)	2	4
2213	Cut			2216, 2217, 2146		Ditch (east- west alligned)	2	4
2214	Fill	2212	D		2213	Very pale yellow grey sand	2	4
2215	Fill	2212	D		2213	Mid dark grey orange silt sand	2	4
2216	Fill	2213	D		2212	Pale yellow grey brown sand	2	4
2217	Fill	2213	D		2212	Mid grey brown silt sand	2	4
2218	Cut			2254		Ditch (northwest- southeast)	2	2
2219	Cut			2255, 2256, 2257, 2258, 2259, 2260		Ditch (northwest- southeast)	2	1.2
2220	Cut			2261, 2262, 2263		Ditch (northwest- southeast)	2	1.2
2221	Cut			2222	2029	Furrow (same as 2029)	2	6
2222	Fill	2221	F		2029, 2122, 2183, 2160, 2035	Furrow fill as 2030	2	6
2223	Cut			2228, 2229, 2230, 2232, 2232		Ditch (east- west alligned)	2	1.2
2224	Cut	2223	D			Mid dark brown grey silt sand, occ small flints, charcoal lumps	2	1.2
2225	Cut	2223	D			Mid dark brown silt sand, occ charcoal flecks and lumps	2	1.2
2226	Cut	2223	D			White sand	2	1.2
2227	Cut	2223	D			Mid dark grey brown	2	1.2
2228	Cut	2223	D			Mid grey brown silt sand	2	1.2

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Context	Type	Fill of	Feature type	Contents	Same as (feature no)	Description	Area	Phase
2229	Cut	2223	D			Mid grey sand	2	1.2
2230	Cut	2223	D			White sand	2	1.2
2231	Cut	2223	D			Mid yellow brown sand	2	1.2
2232	Cut	2223	D			Mid brown grey sand	2	1.2
2233	Cut			2234		Truncated gully/ beamslot	2	5
2234	Fill	2233	G		2235, 2237	Mid dark brown grey silt sand	2	5
2235	Cut			2236	2233	As 2233	2	5
2236	Fill	2235	G		2233, 2237	As 2234	2	5
2237	Cut			2238	2233	As 2233	2	5
2238	Fill	2237	G		2233, 2235	As 2234	2	5
2239	Cut			2240, 2303, 2304		Ditch (northwest- southeast)	2	2
2240	Fill	2239	D		2292	Brown grey sand silt, occ charcoal flecks	2	2
2241	Fill	2357	RP			Very dark grey charcoal rich sand silt, mod fragments of kiln lining, occ flecks of heated clay	2	3
2242	Cut				2248	Gully/ ditch	2	0
2243	Cut			2273, 2331, 2332		Ditch (east- west alligned)	2	4
2244	Fill	2357	RP			Rake out fill	2	0
2245	Fill	2248	D		2242	Fill of ditch 2248	2	0
2246	Fill	2248	D		2242	Fill of ditch 2248	2	0
2247	Fill	2248	D		2242	Fill of ditch 2248	2	0
2248	Cut			2245, 2246, 2247		Ditch (east- west alligned)	2	0
2249	Fill	2347	RP			Very dark grey black charcoal rich, freq flecks of heated clay, mod kiln lining fragments	2	3
2250	Fill	2218	D			Mid grey brown sand silt	2	2
2251	Fill	2218	D			Pale mid brown grey sand silt	2	2
2252	Fill	2218	D			Mid brown grey silt sand	2	2
2253	Fill	2218	D			Mid brown grey sand silt mixed with pale brown sand, dark grey and brown sand silt	2	2
2254	Fill	2218	D			Mixed deposit of orange brown, grey brown, pale grey and mid brown sand silt, occ iron panning	2	2
2255	Fill	2219	D			Mid brown sand silt, occ clay lumps, sand patches	2	1.2
2256	Fill	2219	D			Pale grey brown silt sand	2	1.2
2257	Fill	2219	D			Mid brown grey silt sand, mod iron panning, pale brown grey mottles	2	1.2
2258	Fill	2219	D			Mid dark brown grey brown sand	2	1.2
2259	Fill	2219	D			Mid dark brown grey silt sand, freq pale grey mottles	2	1.2
2260	Fill	2219	D			Mixed mid dark grey sand silt, mid dark brown sand silt, pale brown sand	2	1.2
2261	Fill	2220	D			Mottled mid pale grey brown silt sand	2	1.2
2262	Fill	2220	D			Mid dark grey silt sand	2	1.2

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Context	Type	Fill of	Feature type	Contents	Same as (feature no)	Description	Area	Phase
2263	Fill	2220	D			Mixed mid dark grey brown silt sand, pale brown, orange and dark brown silt sand, occ iron panning, heated clay	2	1.2
2264	Cut			2265		Gully (north- south alligned)	2	4
2265	Fill	2264	G			Dark brown grey black silt sand, occ flints, charcoal flecks	2	4
2266	Cut			2267, 2268	2195,	Ditch	2	4
2267	Fill	2266	D		2195, 2309, 2243	Mid dark grey silt sand	2	4
2268	Fill	2266	D		2195, 2309, 2243	Mid light silt sand	2	4
2269	Cut			2270, 2271, 2278		Ditch (east- west alligned)	2	1.2
2270	Fill	2269	D			Mid light brown grey sand, occ motttling, clay lumps	2	1.2
2271	Fill	2269	D			Light brown grey sand, occ clay lumps	2	1.2
2272	Fill	2269	D			Mid brown grey silt sand mottled slightly with orange silt sand, occ charcoal flecks	2	1.2
2273	Fill	2243	D		2266, 2195, 2309	Mid brown grey silt sand mixed with pale grey brown silt sand	2	1.2
2274	Cut			2275, 2305		Gully (northwest- south east)	2	1.2
2275	Fill	2274	G			Light grey brown sand silt mottled with yellow sand	2	1.2
2276	Fill	2254	D			Upper fill of 2254	2	2
2277	Cut				2099, 2128	Cut for hearth	2	2
2278	Fill	2127	H			Light cream brown sand, occ charcoal	2	2
2279	Fill	2127	H			Very dark grey brown black silt sand, mod charcoal flecks, occ heated clay	2	2
2280	Fill	2127	H			Black silt sand with abundant charcoal, occ pale sand patches, small flints	2	2
2281	Fill	2277	H			Very dark grey brown silt sand, occ small flints, charcoal flecks, heated clay	2	2
2282	Fill	2277	H			Pale brown grey ash and silt sand, occ small heated flints	2	2
2283	Fill	2277	H			Pale grey silt sand, occ charcoal flecks, small flints	2	2
2284	Fill	2277	H			Black firm charcoal, occ patches of clay and silt sand, small flints	2	2
2285	Fill	2277	H			Mottled yellow grey clay, occ silt sand, heated clay, small flints	2	2
2286	Fill	2287	G			Dark grey sand	2	0
2287	Cut					Gully (north- south alligned)	2	0
2288	Cut					Gully (curving northeast- southwest alligned)	2	5
2289	Fill	2288	G		2110, 2438, 2097, 2140, 2290	Very dark grey silt sand, occ small flints	2	5
2290	Cut					Gully (southeast- northwest alligned)	2	5
2291	Fill	2290	G		2110, 2438, 2288, 2097, 2140	Very dark grey black silt sand	2	5
2292	Cut					Ditch (north- south alligned)	2	2

Market Rasen Linwood Road (MRL 99)
Context List

Context	Type	Fill of	Feature type	Contents	Same as (feature no)	Description	Area	Phase
2293	Fill	2292	D		2239	Mid grey brown silt sand	2	2
2294	Fill	2292	D		2239	Mid light grey brown	2	2
2295	Fill	2329	P			Mid dark grey mottled silt sand, occ flints	2	1.2
2296	Void					void	2	void
2297	Fill	2004	K		2434	Light grey fired clay in kiln chamber 2004	2	3
2298	Fill	2434	K		2434	Dark grey black silt below 2297	2	3
2299	Fill	2434	K		2434	Large lumps of clay, stone and fired clay	2	3
2300	Fill	2348	K		2434	Mixed dark grey black charcoal rich silt and lumps of clay, occ heat affected limestone fragments	2	3
2301	Fill	2348	RP			Very dark grey black charcoal rich sand silt	2	3
2302	Fill	2405	RP			Very dark grey black charcoal rich slightly sand silt, occ lumps of heated clay	2	3
2303	Fill	2339	D			Light grey brown silt sand	2	2
2304	Fill	2239	D		2292	Fill of 2239	2	2
2305	Fill	2239	D		2292	Mixed light brown silt sand and cream sand	2	2
2306	Cut					Pit	2	4
2307	Fill	2306	P			Mid dark grey silt sand	2	4
2308	Fill	2306	P			Mid grey silt sand	2	4
2309	Cut					Ditch (east- west alligned)	2	4
2310	Fill	2309	D		2266, 2195, 2243	Mid light grey silt sand	2	4
2311	Cut					Ditch (north- south alligned)	2	0
2312	Fill	2306	P			Mid grey brown silt sand	2	4
2313	Fill	2311	D			Mid grey silt sand	2	0
2314	Fill	2306	P			Mid dark grey brown sand silt	2	4
2315	Fill	2306	P			Dark brown grey silt sand	2	4
2316	Fill	2306	P			Mid dark grey sand	2	4
2317	Fill	2306	P			Dark grey sand	2	4
2318	Cut					Gully (northeast- southwest alligned)	2	5
2319	Fill	2318	G			Very dark grey brown sand silt	2	5
2320	Fill	2311	D			Mid light grey silt sand	2	0
2321	Fill	2306	P			Very dark grey brown sand silt	2	4
2322	Fill	2306	P			Mid dark grey silt sand	2	4
2323	Fill	2306	P			Light grey silt sand	2	4
2324	Fill	2306	P			Very dark grey brown sand silt	2	4
2325	Fill	2306	P			Very dark grey brown sand silt	2	4
2326	Fill	2306	P			Black sand silt	2	4
2327	Fill	2306	P			Dark brown grey sand silt	2	4
2328	Fill	2306	P			Dirty yellow sand	2	4
2329	Cut					Pit (sub oval)	2	1.2

Market Rasen Linwood Road (MRL 99)
Context List

Context	Type	Fill of	Feature type	Contents	Same as (feature no)	Description	Area	Phase
2330	Fill	2329	P			Light grey silt sand	2	1.2
2331	Fill	2243	D		2266, 2195, 2309	Mixed mid orange brown, dark grey, mid grey brown silt sand	2	4
2332	Fill	2243	D		2266, 2195, 2310	Dark brown sand silt mottled with mid orange brown silt sand	2	4
2333	Fill	2333	RP			Light mid grey silt sand, freq fragments of kiln lining, heated clay, yellow clay, occ charcoal flecks	2	3
2334	Fill	2334	RP			Light grey and light brown slightly silt sand, occ charcoal flecks	2	3
2335	Fill	2004	K		2434	Very dark grey to black charcoal rich sand silt, mod sand patches, occ heated clay	2	3
2336	Fill	2349	K		2434	Kiln flue floor (?) Compacted mid grey slightly silt sand, freq fragments of grey clay, occ charcoal patches	2	3
2337	Fill	2349	K		2434	Kiln flue deposit. Very dark grey black charcoal rich sand silt	2	3
2338	Fill	2349	K		2434	Kiln flue deposit. Small lumps of yellow and pink heated clay and dark grey black charcoal rich silt	2	3
2339	Cut					Ditch (northnorthwest- southsoutheast)	2	3
2340	Fill	2339	D			Mid grey brown sand silt, frequent mixed pale sand, occ small flints	2	3
2341	TreeThrow					Irregular tree throw	2	0
2342	Fill	2341	TT			Mixed fills	2	0
2343	Fill	2339	D			Mixed pale sand	2	2
2344	Cut					Pit (sub circular)	2	0
2345	Fill	2345	P			Very dark grey brown silt sand, occ small flints	2	0
2346	Fill	2344	P			Light cream grey silt sand, occ flints	2	0
2347	Cut					Rake out pit (irregular ovoid)	2	3
2348	Cut					Rake out pit (sub circular)	2	3
2349	Structure	2434	KF			Kiln flue. Limestone built kiln flue	2	3
2350	Cut					Pit (oval)	2	1.1
2351	Fill	2350	P			Mid light brown grey silt sand, mixed with dark brown and pale grey silt sand	2	1.1
2352	Cut					Pit (oval)	2	0
2353	Fill	2352	P			Mixed grey brown silt and orange sand, freq iron panning	2	0
2354	Fill	2352	P			Dark grey black sand silt, freq charcoal flecks	2	0
2355	Cut					Furrow	2	6
2356	Fill	2355	F			Mid grey brown sand silt, freq iron panning, occ flints	2	6
2357	Cut					Rake out pit (oval)	2	3
2358	Fill	2277	H			Mid red brown silt sand, occ small flints, fire cracked pebbles, clay patches	2	2
2359	Fill	2277	H			Red brown silt clay mod charcoal flecks, occ flints, clay patches	2	2
2360	Fill	2277	H			Very dark grey, occ charcoal flecks	2	2
2361	Fill	2311	D			Very pale grey mottled sand	2	0
2362	Fill	2311	D			Mid dark grey silt sand	2	0

Market Rasen Linwood Road (MRL 99)
Context List

Context	Type	Fill of	Feature type	Contents	Same as (feature no)	Description	Area	Phase
2363	Fill	2311	D			White and mid to dark grey silt sand	2	0
2364	Fill	2306	P			Dark grey brown sand silt	2	4
2365	Fill	2306	P			Mid grey brown silt sand	2	4
2366	Fill	2306	P			Orange red clay	2	4
2367	Fill	2306	P			Olive green clay	2	4
2368	Fill	2306	P			Mid grey brown silt sand	2	4
2369	Fill	2306	P			Olive green clay	2	4
2370	Fill	2306	P			Light grey sand	2	4
2371	Fill	2306	P			Dark grey sand	2	4
2372	Fill	2357	RP			Black charcoal rich slightly sand silt, mod kiln lining fragments, heated lumps of clay, occ sand patches	2	3
2373	Fill	2405	RP			Mid dark grey charcoal rich sand silt, freq lumps of yellow and pink heat affected clay, occ kiln lining	2	3
2374	Fill	2277	H			Yellow grey and red brown clay, mod heated clay, charcoal flecks, flints	2	2
2375	Fill	2357	RP			Dirty light brown and light grey slightly silt sand, occ rooting action, charcoal flecks	2	3
2376	Fill	2347	RP			Dark grey to black charcoal rich sand silt, mod kiln debris, occ lumps and flecks of heated clay	2	3
2377	Fill	2128	H		2277	Black charcoal rich silt sand	2	2
2378	Fill	2128	H		2277	Red, yellow and mid brown clay, occ charcoal flecks	2	2
2379	Fill	2128	H		2277	Light grey clay	2	2
2380	Fill	2128	H		2277	Very dark brown grey silt sand, mod charcoal flecks	2	2
2381	Fill	2128	H		2277	Black charcoal rich silt sand, occ flints, fire cracked pebbles	2	2
2382	Fill	2128	H		2277	Light brown silt sand	2	2
2383	Fill	2128	H		2277	Black charcoal rich silt sand	2	2
2384	Cut					Post hole	2	0
2385	Fill	2384	PH			Mid brown silt sand, occ clay lumps	2	0
2386	Fill	2384	PH			Mid dark brown silt sand and clay, occ flints	2	0
2387	Cut					Post hole	2	0
2388	Fill	2405	RP			Very dark grey black charcoal rich slightly sand silt, occ kiln debris, lumps of clay	2	3
2389	Fill	2387	PH			Mid grey brown and orange brown silt sand clay, occ flints	2	0
2390	Fill	2387	PH			Mid grey brown silt sand, occ flint	2	0
2391	Fill	2384	PH			Dark brown grey silt sand, occ flints, clay lumps	2	0
2392	Fill	2387	PH			Light yellow brown silt sand	2	0
2393	Cut					Small pit	2	5
2394	Fill	2393	P			Mid grey silt sand, occ flints	2	5
2395	Fill	2393	P			Mid brown grey silt sand, occ flints, sand patches	2	5
2396	Fill	2393	P			Very dark brown silt sand, occ flints, clay patches	2	5
2397	Cut					Gully (north- south alligned)	2	2

Market Rasen Linwood Road (MRL 99)
Context List

Context	Type	Fill of	Feature type	Contents	Same as (feature no)	Description	Area	Phase
2398	Fill	2397	G		2444	Mid grey brown and orange mottled silt sand, occ flints	2	2
2399	Cut				2399	Gully terminus	2	2
2400	Fill	2399	G		2132, 2136, 2058, 2130	Dark grey brown silt sand, occ flints	2	2
2401	Cut					Gully (east- west alligned)	2	0
2402	Fill	2401	G			Very dark grey brown silt sand, occ flint, charcoal flecks	2	0
2403	Fill	2404	G			Dark brown grey sand silt, occ sand patches	2	5
2404	Cut					Gully (curving)	2	5
2405	Cut					Rake out pit	2	3
2406	Cut					Gully (northwest- south east)	2	1.2
2407	Cut					Ditch (east- west alligned)	2	1.2
2408	Fill	2406	G			Mixed light grey silt sand	2	1.2
2409	Fill	2407	D			White and very light grey sand, freq iron panning	2	1.2
2410	Fill	2404	G			Mixed light grey, light brown and white sand	2	5
2411	Fill	2407	D			Mmid grey silt sand, occ iron panning	2	1.2
2412	Fill	2407	D			Light grey sand, freq mid grey sand patches	2	1.2
2413	Fill	2407	D			Very pale yellow sand, freq mid brown sand patches	2	1.2
2414	Fill	2407	D			Off white sand	2	1.2
2415	Fill	2407	D			Light grey sand	2	1.2
2416	Fill	2407	D			Off white sand	2	1.2
2417	Fill	2406	G			Light grey sand	2	1.2
2418	Fill	2406	G			Mixed off white and light grey sand	2	1.2
2419	Fill	2406	G			Clean white sand	2	1.2
2420	Fill	2406	G			Pale sand	2	1.2
2421	Fill	2407	G			White sand, freq brown and grey shallow lenses	2	1.2
2422	Layer		L			Mid brown grey silt sand	2	1.2
2423	Fill	2406	G			Dark grey silt sand with some organic matterial	2	1.2
2424	Fill	2004	K			Fired grey clay kiln lining	2	3
2425	Fill	2004	K			Grey oxidised clay blocks	2	3
2426	Fill	2004	K			Grey oxidsied clay blocks	2	3
2427	Fill	2434	K			Green grey yellow clay packing	2	3
2428	Fill	2349	K			Kiln flue lining. Dark grey oxidised clay with some pink patches	2	3
2429	Fill	2349	K			Kiln flue walls. Limestone blocks, heat affected	2	3
2430	Fill	2349	K			Limestone capping of flue. Heat affected limestone	2	3
2431	Fill	2004	K			Clay lining of kiln structure. Light grey oxidised clay	2	3
2432	Fill	2004	K			Kiln structure. Dark red firm heated clay	2	3
2433	Fill	2434	K			Fill of kiln construction pit. Dark brown and dark grey silt sand	2	3
2434	Cut	2434	K			Construction pit for kiln	2	3
2435	Fill	2437	K			Part of early kiln phase. Dull yellow oxidised clay	2	3

Market Rasen Linwood Road (MRL 99)
Context List

Context	Type	Fill of	Feature type	Contents	Same as (feature no)	Description	Area	Phase
2436	Fill	2437	K			Clay packing. Red heat affected clay	2	3
2437	Fill	2432	K			Remnants of kiln oven ledge. Yellow oxidised clay	2	3
2438	Cut					Terminus of gully	2	5
2439	Fill	2438	G		2110, 2288, 2097, 2140, 2290	Grey brown silt sand, occ charcoal flecks, clay lumps	2	5
2440	VOID					VOID		
2441	Fill	2442	D			Fill of 2442		
2442	Cut			2443		Ditch		
2443					2398	Same as 2398	2	
2444					2397	Same as 2397	2	
2445	Fill	2446	G				2	
2446	Cut			2446		Drip gully or beam slot	2	
2447	VOID					VOID		
2448	Structure	2434	S			Second kiln structure		
2449	Cut			2450	2274	Gully	2	
2450	Fill	2449	G			Fill of 2249	2	
2451	Cut			2452		Same as 2384	2	
2452	Fill	2451	PH				2	
2453	Layer		L			Layer cut by kiln construction pit 2334	2	

APPENDIX 2

REPORT 63 ON THE POTTERY FROM LINWOOD ROAD, MARKET RASEN, MRL99

for LINDSEY ARCHAEOLOGICAL SERVICES

by Margaret J. Darling, M.Phil., F.S.A., M.I.F.A.
June 2000

QUANTITY AND CONDITION

The pottery amounts to 9991 sherds weighing 312.878 kg producing 246.56 EVEs (estimated vessel equivalents based on rim percentages) from 263 contexts and three unstratified groups. The condition is generally good, given that it included quantities of production waste, some under-fired. Upper site layers were more fragmented and abraded. No problems are anticipated for long term storage. The pottery has been archived according to the guidelines of *The Study Group for Roman Pottery*, but as a pottery production site, with the addition of full quantification of count, weight, and EVEs to enable a better definition of vessel types and sizes. Vessel forms have been defined using mnemonic codes, some derived from the City of Lincoln type series, and some based on the illustrations in the unpublished thesis by John Samuels (Samuels 1983). Lists of all codes used for fabrics, forms and decoration and manufacture with details are available to accompany the archive database. A copy of the quantified database is available on disk.

The pottery came from the two areas excavated, together with a small unstratified quantity not located to an area, as table 1. This also shows the average sherd weight, and the brokenness measure, the later calculated as the number of sherds per EVE. Since the count figures are of all sherds, including body sherds, this shows the relative brokenness by area. Brokenness of the principal fabric is further defined below based on rim records alone. [mrl99fig.xls]

Table 1 Pottery by site area

Area	EVEs	%	Sherds	%	Weight	%	g/sherd	Brokenness
1	90.33	36.64	3540	35.43	114275	36.52	32.3	39.2
2	154.77	62.77	6394	64	197310	63.06	30.9	41.3
US	1.46	0.59	57	0.57	1293	0.41	22.7	39.0
Total	246.56		9991		312878			

2785 sherds are unstratified, mostly from Area 1, leaving the stratified pottery distributed across the site as Table 2. [mrl99fig.xls]

Table 2 Stratified pottery by site area

Area	EVEs	%	Sherds	%	Weight	%	g/sherd	Brokenness
Area 1	30.61	18.7	1635	22.7	41240	19.2	25.2	53.4
Area 2	133.12	81.3	5571	77.3	173107	80.8	31.1	41.8
	163.73	100	7206	100	214347	100	29.7	44.0

The stratified pottery represents between 66-72% of the total assemblage, with the largest quantity coming from Area 2 where the kiln was located. Area 2 has less fragmented sherds, with a higher sherd weight, and lower brokenness. although the unstratified pottery from the area is more fragmented than the unstratified material from Area 1. A check on the

fragmentation based on the records of rims only produces a similar result, with the brokenness measure based on rims from Area 2 being 10.1 against 11.7 from Area 1.

QUANTITIES AND DATING BY CONTEXT

The quantities and dating by context are shown in Appendix 1 [mrl99dts.xls], with comments and sherd links. The size of individual contexts has an important bearing on context dates, the smaller contexts with fewer diagnostic sherds generally being dated more widely. Analysis of the stratified contexts by area shows those from Area 2 being on average over double the size of the Area 1 contexts, so that a higher percentage of Area 1 contexts are broadly dated, as to the 2nd to 3rd century. Both areas have pottery dating over the whole period from the 2nd to late 4th centuries; two contexts in Area 2 are dated to the very late 4th century (2055 and 2060) on the basis of the occurrence of late LCOA jars sherds, recognized as an indication of very late Roman dating in Lincoln. These are, however, relatively rare in any 4th century assemblage, and there are indications that marginally more later 4th century contexts occur in Area 2.

Sherd links are noted in Appendix 1 and will be explored when the pottery data has been merged with the site data.

OVERVIEW OF FABRICS

The fabrics from the two areas are detailed on Table 3. The small quantity of unstratified pottery has been excluded. [mrlfabtb.xls]

Table 3 Fabrics by Area

	EVEs				Sherds				Weight			
	Area 1	%	Area 2	%	Area 1	%	Area 2	%	Area 1	%	Area 2	%
CR	0	0	100	0.65	2	0.06	4	0.06	17	0.01	112	0.06
CRSA	0	0	0	0	0	0	1	0.02	0	0	20	0.01
DWSH	5	0.06	69	0.45	1	0.03	27	0.42	8	0.01	505	0.26
GFIN	25	0.28	133	0.86	17	0.48	21	0.33	209	0.18	419	0.21
GREY	8467	93.73	14006	90.5	3326	93.95	5843	91.38	107907	94.43	173024	87.69
GROG	13	0.14	24	0.16	4	0.11	10	0.16	306	0.27	441	0.22
GRRO	73	0.81	20	0.13	12	0.34	12	0.19	586	0.51	527	0.27
IAGR	17	0.19	361	2.33	1	0.03	160	2.5	88	0.08	14265	7.23
IASH	0	0	25	0.16	0	0	2	0.03	0	0	146	0.07
LCOA	0	0	30	0.19	0	0	5	0.08	0	0	125	0.06
MOMH	11	0.12	3	0.02	3	0.08	1	0.02	270	0.24	84	0.04
MORT	0	0	8	0.05	1	0.03	2	0.03	19	0.02	70	0.04
MOSP	9	0.1	10	0.06	1	0.03	2	0.03	47	0.04	113	0.06
NAT	0	0	11	0.07	0	0	1	0.02	0	0	89	0.05
NVCC	0	0	5	0.03	0	0	4	0.06	0	0	24	0.01
NVGW	0	0	0	0	0	0	1	0.02	0	0	13	0.01
OX	152	1.68	259	1.67	52	1.47	105	1.64	2311	2.02	3016	1.53
OXL	0	0	20	0.13	0	0	1	0.02	0	0	7	0
OXRO	0	0	15	0.1	0	0	7	0.11	0	0	86	0.04
OXWS	0	0	10	0.06	0	0	2	0.03	0	0	33	0.02
PART	224	2.48	244	1.58	103	2.91	73	1.14	2327	2.04	1180	0.6
PRO	0	0	0	0	3	0.08	29	0.45	15	0.01	404	0.2
SAMCG	2	0.02	0	0	8	0.23	1	0.02	26	0.02	1	0
SHEL	0	0	0	0	1	0.03	0	0	4	0	0	0
VESIC	35	0.39	124	0.8	5	0.14	80	1.25	135	0.12	2606	1.32
Total	9033	100	15477	100	3540	100	6394	100.01	114275	100	197310	100

Expansions of the fabric codes are given below (Appendix 2). The notable feature is that over 90% of the pottery is of standard GREY fabric, the main product of the Market Rasen kiln field, reflecting the results from the evaluation LRM97 (Darling 1998). The only other fabrics representing 1% or more are Parisian PART, oxidized OX (some of which are likely to be mis-fired grey), and Iron Age tradition coarse fabric IAGR, which occurs mainly in Area 2. Only 10 sherds of mortaria, 9 sherds of samian and 4 sherds of NVCC occur. Other fabrics either definitely, or likely to be, from outside the area are SAMCG, CR, CRSA, DWSH, NVGW, SHEL, and probably OXWS. There are no amphora sherds. The assemblage is typical of that anticipated from a pottery production site, with a minimal admixture of occupation rubbish. The local products are mainly in a grey fabric of no particular distinction macroscopically, the inclusions being the same as seen in many grey fabrics from other local sources. The grey fabric has extremes, the finer versions verging on the very fine Parisian fabric, while others are notably coarser. Thin-section and chemical analysis will be needed to define the fabrics. A few are notable for having more well-rounded quartz, occurring in both reduced and oxidized (GRRO and OXRO).

The sherds known as **Parisian ware** (PART; Elsdon 1982) appear to be slightly more concentrated in Area 1, where the average sherd weight indicates lower fragmentation. The vessels are mostly from closed forms, beakers and flasks, but there is a variety of open forms, commoner in Area 2. The forms include disc-necked flasks and copies of the samian bowl form 38, mostly with rouletted zones below the flanges. The evidence of the flasks (a type more common in the later Roman period), and probably also the bowl, substantiates the view (Darling 1984, 80) that production of vessels in this fine fabric continued after the normal *floruit* of Parisian ware, and it is particularly useful to have this evidence from a production site. The commonest decoration is rouletting, but comb stamps and two block stamps also occur, one unusually on a base. Not all the sherds are in the very fine fabric normally associated with Parisian ware. The finer grey fabrics (**GFIN**) are closely related to the Parisian sherds, and are commoner in Area 2, again with more open forms than found in Area 1. There is less evidence in the forms in GFIN to indicate a wide date range, and most would fit 2nd century dating.

The precise source of the vessels in a late Iron Age tradition (**IASH and IAGR and GROG**) is unknown; the IAGR fabrics are similar to those seen in Lincoln, but also in the Trent Valley, and have a wide variation in the fabric group. These fabrics continue in use well into the 2nd century, and could be current when pottery production first started in the area. A single **SHEL** shell-gritted sherd is not certainly of the Dales ware type, and some of the vesicular sherds (**VESIC**) are likely to have been originally shell-gritted. The lost tempering on other sherds is uncertain, and thin-section analysis is needed to help define the different fabrics in this fabric group; the forms and dating range widely from bowls in the late Iron Age tradition through to later Roman types.

The few sherds of **samian** are all from Lezoux, Central Gaul, and consist of a single rim and bodysherd likely to be from form 18/31 or 31 dish, a footring from a form 33 cup, and bodysherds and flakes. An early to mid 2nd century date is probable. All except a single chip came from Area 1.

Mortaria from the Mancetter-Hartshill kilns include a hammer-head type (Dwg 186), and two hooked rims (Dwgs 294-295), and a bodysherd. Apart from a rim from 2100, all are from unstratified layers in Area 1. Later mortaria from the Swanpool kilns in Lincoln came from 1058, a bead-and-flange type in very poor condition, a bodysherd from 2241B, and a hammer-head type from unstratified layers in Area 2 (Dwg 329). Mortaria of unknown source occurred as bodysherds from 1163 (with quartz and flint) and unstratified Area 2

(with fine slag trituration), and as a reeded rim type from 2066 (Dwg 158) with slag trituration. An unusual mortarium from the evaluation LRM97 with slag trituration is considered to be possibly of local origin, and all sherds will need to be examined with this possibility in mind. There are, however, so few sherds that it seems unlikely that mortaria were produced on this site.

OVERVIEW OF FORMS

Analysis of the forms is based on the grey wares. The overall composition of the grey assemblage is shown in table 4. This excludes the untyped body sherds. [mrlgryfm.xls]

Table 4 Grey wares, forms

	EVEs	%	Sherds	%	Weight	%
Flagon	220	0.97	11	0.25	634	0.33
Jar	7378	**32.63**	1284	**29.36**	52415	**27.36**
Jar/beaker	299	1.32	42	0.96	1328	0.69
Jar large	139	0.61	97	2.22	13047	6.81
Jar or Bowl	140	0.62	475	10.86	16303	8.51
Beaker	372	1.64	85	1.94	2330	1.22
Closed	0	0.00	256	5.85	13957	7.28
Bowl	9393	**41.54**	1229	**28.10**	56055	**29.26**
Dish	2996	13.25	359	8.21	14047	7.33
Bowl/dish	1356	6.00	389	8.90	13464	7.03
Open	0	0.00	119	2.72	6580	3.43
Lid	104	0.46	14	0.32	600	0.31
Unusual	217	0.96	13	0.30	839	0.44
Total	22614	100	4373	100	191599	100

The measure giving the more accurate information is EVEs based on rim sherds, where the percentage of bowls at 41.5% surpasses that of jars at 32.6%. Body sherds that could be positively identified for form would account for the almost identical percentages of bowls and jars by sherd count and weight. This is demonstrated by table 5 which shows an analysis of the grey ware forms based on records containing rims, excluding the bodysherd records. [mrlgreve.xls]

Table 5 Grey wares forms, based on rim records

	EVEs	%	Sherds	%	Weight	%	g/sherd	Brokenness
Flagon	2.2	0.97	10	0.43	614	0.62	61.4	4.5
Jar	73.78	32.63	674	28.74	28138	28.32	41.7	9.1
Jar/beaker	2.99	1.32	17	0.72	486	0.49	28.6	5.7
Jar large	1.39	0.61	15	0.64	738	0.74	49.2	10.8
Beaker	3.72	1.64	19	0.81	895	0.90	47.1	5.1
Jar/bowl	1.4	0.62	24	1.02	504	0.51	21.0	17.1
Bowl	93.93	41.54	1059	45.16	48643	48.96	45.9	11.3
Dish	29.96	13.25	344	14.67	13719	13.81	39.9	11.5
Bowl/dish	13.56	6.00	170	7.25	4668	4.70	27.5	12.5
Lid	1.04	0.46	8	0.34	309	0.31	38.6	7.7
Unusual	2.17	0.96	5	0.21	637	0.64	127.4	2.3
Total	226.14	100.00	2345	100.00	99351	100.00	42.4	10.4

This shows relatively similar percentages for the principal forms, jars and bowls, by all three measures. Here the brokenness measure is more closely calculated on rims (and any associated bodysherds). The designation as a cross-form, i.e., jar/bowl or bowl/dish comes from the incompleteness of the sherds leading to difficulties of secure identification, and this

is clearly demonstrated by the brokenness measure and average sherd weight for these categories.

The relative fragmentation between the two excavated areas is best assessed on the basis of the predominant grey wares, particularly derived from records including rims. This is shown on table 6. [mrlgreve.xls]

Table 6 Fragmentation: brokenness measure by area, based on grey ware rim records

	Area 1	Area 2
Flagon	4.0	6.7
Jar	10.6	8.4
Jar/beaker	6.9	5.4
Jar large	10.3	15.4
Beaker	14.0	3.5
Jar/bowl	20.0	15.9
Bowl	13.4	10.1
Dish	11.6	11.3
Bowl/dish	12.4	12.8
Lid	7.0	8.2
Unusual	2.0	2.4
Total	11.9	9.4

All the principal forms show lower figures, i.e., less broken with fewer sherds per EVE, from Area 2.

The range of forms cover a relatively wide period, including vessels likely to be of mid to late 2nd century date, but running through to parallels with the late Lincoln Rookery Lane and Swanpool kilns (Webster 1960; Webster & Booth 1947). Since rim diameters have been recorded, it will be possible to establish the range of sizes for the commoner vessels. Many vessels are paralleled by those illustrated by Samuels (1983), although there are notable new forms. The open forms, bowls and dishes, are dominated by the quantity of wide-mouthed bowls, accounting for 19.3% of all grey wares. This is the commonest vessel type. Flanged bowls and dishes represent 8.9%, while triangular-rimmed bowls and dishes amount to 5.9%. The commonest dish is the plain-rimmed type, 10.8%, while grooved-rim types account for 1.25%. Later bowls include bead-and-flange types at 6.7%, and the later inturned type (a common type at the late Swanpool kilns in Lincoln) represent 1.4%.

Most of the jars have everted or curved rims. A distinctive lid-seated type (J105) represents 2.4%, and also occurs in IAGR fabric. These are paralleled among the products of the Roxby kilns (Rigby & Stead 1976), and should belong to the earlier 2nd century production. Rusticated jars, mostly with linear rustication also occur, dating to the 2nd century. Copies of dales ware jar types (also occurring in VESIC fabric) belong to the mid-late 3rd century. Later jars with narrow rims, paralleled at the late Swanpool kilns, amount to 1.7%.

Decoration includes a wide variety of burnished decoration, rustication, rouletting, scoring and slashing, quite apart from stamping on the parisian wares. An oxidized bowl possibly of the type of samian form 36 is decorated with painted blobs and curves, and a NVCC body sherd from a closed form also has remnants of painted decoration.

DISCUSSION

The presence of "waste" from pottery production occurs in both areas, although the only kiln structure was found in Area 2. The dating of the pottery from these areas differs from that currently accepted for this pottery industry of c AD150-200 (Samuels 1983, 684; Swan 1984, fiche 457-8), although Swan suggests a broader late 2nd to 3rd century range. Types illustrated by Samuels, however, suggest that his dating was based on samian and Parisian ware, the latter being a minor part of the production from these kilns. It is proposed to undertake a dating analysis to establish the chronological ranges for each area to establish if there is evidence for a chronological basis for a spatial spread of the industry, given that kilns are known from the west side of Linwood Road (Swan 1984). This will be based on the combination of fabric and form, and using a technique developed at the City of Lincoln Archaeological Unit.

It seems clear that the Market Rasen pottery industry has a long-life, certainly starting in the 2nd century, but continuing through into the later Roman period. This longevity confirms the considerable importance of this industry for the area. The quantity of slag from the site suggests a close association between the potters and iron workers, and wheat impressions on fired clay from earlier excavations in the area may be evidence for the proximity of threshing. This appears to indicate an important industrial area for an adjacent settlement and surrounding area. This has significant implications for the area, and further information about the pottery industry at Market Rasen is needed to assess Roman settlement in the area, and its relationship to other kilns to the south and east.

The evidence from these excavations needs to be amalgamated with that from the other interventions in this area in the 1960s, and later, particularly including the original evaluation on this particular site (LRM97), and the evaluation on the west side of Linwood Road (MRH98). Some of the pottery from the 1960s work has been studied by Samuels (1983), but much remains unstudied and unillustrated. A complete type series to illustrate the range and chronology is needed, and scientific analysis of the fabrics to define them more clearly. This basis is essential to explore the distribution of the kilns to get them into the Roman landscape.

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APPENDIX 1
QUANTITIES AND DATING BY CONTEXT

Area	Cxt	EVEs	Sherds	Weight	Date	Comments & links
1	1000	22	12	183	3-4	ABR
1	1002	21	17	301	4C	VABR;SCRAPPY
1	1004	80	31	628	L3-4?	VABR
1	1013	0	1	8	ROM	
1	1015	21	47	939	3-4?	ABR;FEW DIAGNOSTIC
1	1016	0	11	196	ML2+	
1	1017	243	126	4158	L3-4	
1	1019	0	2	10	ROM	
1	1023	59	62	674	4C?	VABR;SCRAPPY
1	1026	22	9	361	L2-3	
1	1027	103	70	1474	M3+?	WASTE;SOME ABR
1	1028	266	195	3231	ML3?	ABR;FRAGMENTED
1	1029	302	189	4098	3C	ABR
1	1030	39	12	1082	3C?	
1	1033	9	8	71	L3+	
1	1036	78	27	688	3C/POST-MED	
1	1039-40	37	32	593	ML3?	ABR
1	1041	9	5	82	3C?	
1	1042	17	14	366	L3-4	SOME ABR
1	1044	4	7	57	L2+	
1	1047	51	16	552	2-3C	
1	1049	61	35	526	L2-3	
1	1052	8	9	198	2-3C	
1	1053	433	314	5830	ML4	ABR;SCRAPPY
1	1058	9	5	102	L3-4?	DATE ?MOSP
1	1059	4	14	295	3C?	POOR COND;ABR
1	1069	10	7	156	L3-4?	POOR COND;ENCRUST SAND
1	1070	0	2	24	ML2+	ENCRUST SAND
1	1071	0	1	23	ROM	ENCRUST SAND
1	1083	40	9	263	3C?	BIBF? ENCRUST SHS
1	1087	15	1	56	L2-3	
1	1089	0	3	23	ML2+	
1	1093	0	1	12	ROM	
1	1095	10	4	281	ML3?	
1	1099	0	1	56	M2-3	
1	1106	7	3	33	ML3	
1	1108	10	8	259	ML2+	
1	1128	15	5	174	ML3+	ABR
1	1141	29	5	406	L2-3	Links to 1150
1	1144	18	4	187	ML4	
1	1145	14	12	258	L2-3?	
1	1146	30	3	262	M3+?	
1	1150	35	1	411	L2-3	Link to 1141
1	1152	0	1	5	ROM	
1	1155	7	1	50	L3-?4	
1	1159	100	3	41	L3-?4	
1	1161	0	1	7	ROM	
1	1163	0	1	19	2C?	
1	1165	0	1	100	3C+	
1	1172	0	1	15	ROM	
1	1220	7	2	137	L3-4	
1	1230	104	22	980	ML2+	HEAVY SLAG ENCRUST
1	1233	26	4	118	M3?+	
1	1237	0	1	7	ROM	

1	1240	36	12	323	L2-3?	ENCRUSTED
1	1251	37	5	93	ML2+	ENCRUSTED
1	1260	0	3	26	ROM	
1	1261	0	1	37	ROM	
1	1262	9	4	33	L2-3?	
1	1263	0	6	31	ROM	
1	1266	14	4	61	L3+	
1	1269	0	1	15	ROM	
1	1271	0	4	1287	ML2?	
1	1273	7	1	23	L2-3	
1	1274	0	1	49	ROM	
1	1277	0	3	80	2-3C	
1	1281	6	2	51	L3-4	
1	1289	0	5	33	ROM	
1	1291	30	10	686	L3-4	
1	1292	0	3	72	ROM	
1	1295	0	8	87	L2-3	
1	1308	0	1	9	ROM	VABR
1	1311	3	5	69	M3+	
1	1318	0	1	40	ROM	
1	1325	0	15	112	L2-3	
1	1328	0	1	247	ML2+	
1	1329	241	46	3189	L2M3?	VIRT COMP JAR
1	1331	94	13	468	ML2+	
1	1336	0	6	152	ML2+	
1	1338	9	10	263	L2-3	
1	1356	8	6	118	L2+?	
1	1357	16	8	132	ML3	ABR
1	1359	0	1	1	E2+	
1	1362	0	5	200	L2-3	
1	1364	0	4	34	ROM	
1	1366	0	3	63	ROM	
1	1367	0	1	24	ROM	
1	1396	12	1	23	ML2?	
1	1400	0	4	104	2C	
1	1401	0	13	273	ML2	Link to 1402
1	1402	33	5	229	ML2+	Link to 1401
1	1406	0	1	25	ROM	
1	1408	0	2	24	L2-3	
		2930	1603	39852		
1	EVAL-1	131	32	1388	L3-?4	
1	US-1	5972	1905	73035	3C	ABR-VABR
-	US	146	57	1293	3-4C	VABR
2	2002	140	185	2543	ML4?	VABR
2	2005	355	216	6236	4C	
2	2008	182	61	1815	L3-4	SOME ABRASION
2	2009	94	40	919	4C	
2	2010	0	1	11	ROM	
2	2012	19	2	143	ML3?	
2	2013	43	27	707	L3+?	
2	2016	10	14	218	L3-4	
2	2018	317	140	3251	4C	SOME ABR
2	2020	17	4	97	L3?	
2	2021	34	11	473	L3-4	
2	2022	49	10	305	L3?	
2	2024	5	1	26	4C	
2	2025	30	3	282	L3?	
2	2030	21	15	310	4C	VABR

2	2032	187	104	2021	M2	MOST U'FIRED WASTE
2	2034	58	17	257	M2-3?	ABR
2	2036	15	8	110	4C	
2	2042	0	3	59	ROM	
2	2043	53	11	694	L3-4	MOST=2 BWM'S
2	2046	9	17	370	3C?	
2	2048	0	2	14	ML2+	
2	2049	11	7	75	3C?	
2	2051	0	1	29	3C?	
2	2055	30	35	500	VL4?	ABR
2	2060	58	31	966	VL4?	VABR
2	2061	33	18	295	4C?	VABR
2	2063	0	10	136	3-4?	
2	2066	55	19	419	M3+	SCRAPPY BSS
2	2070	0	4	47	M3+?	
2	2072	0	14	109	3C?	NO DEFINITE DATE
2	2074	113	33	985	ML2?	LGE PT 2 JARS
2	2076	0	5	29	3C?	
2	2077	109	31	941	L3-4?	ABR
2	2081	32	16	259	M3+	ABR;SCRAPPY
2	2083	0	4	61	ROM	
2	2087	100	24	1544	3C?	SCRAPPY EXC BOWL
2	2090	0	3	34	ROM	
2	2092	15	15	195	3C?	ABR
2	2095	53	41	668	4C	ABRADED;SCRAPPY
2	2096	15	19	382	L3-4	
2	2100	30	16	463	L3-4	Link to 2109
2	2102	0	2	19	ROM	
2	2104	12	10	334	3C?	
2	2107	26	6	78	ML2?	
2	2109	6	3	79	L3-4	Link to 2100
2	2111	0	1	20	2-3C	
2	2112	10	4	103	3C?	
2	2114	0	3	20	ML3?	
2	2115	6	10	42	2C+	
2	2118	26	11	338	3C?	
2	2121	42	9	75	M2?	
2	2123	166	59	722	L4	VABR; Link to 2169
2	2125	9	13	241	ROM	
2	2126	38	10	254	3-4?	
2	2131	0	2	24	M2+	
2	2133	11	5	407	L2-3	
2	2135	11	4	49	L4/POSTRO	
2	2137	5	7	48	L2-3	
2	2141	5	11	103	ROM	
2	2142	41	17	410	3C?	NO DEF EVID DATE
2	2144	0	5	42	ROM	
2	2145	0	4	17	ROM	
2	2146	0	1	76	2C	
2	2147	97	37	646	ML2?	
2	2149	94	26	462	L2-3?	
2	2152	40	16	213	ML2?	
2	2153	6	16	299	2-3C?	NO DEF EVID DATE
2	2154	10	1	22	2C?	
2	2162	73	25	731	L3	
2	2164	24	16	237	M2?	Link to 2167
2	2166	5	17	578	ML2?	Link to 2167
2	2167	25	8	196	ML2?	Links to 2164;2166
2	2169	96	25	1029	ML2-3?	Link to 2123

2	2172	65	21	624	3C?	
2	2173	11	5	47	3C?	
2	2174	0	5	69	ROM	
2	2175	0	9	193	2C?	
2	2178	11	1	56	ML2	
2	2179	3	1	11	ML2	
2	2184	8	5	53	2C?	ABR
2	2188	29	10	155	EM2?	
2	2190	3	4	32	ML3?	
2	2191	45	26	467	L3	
2	2192	132	74	2487	L3	
2	2194	4	12	328	3C?	
2	2196	35	19	560	3C?	
2	2197	0	2	32	2-3C	
2	2200	110	25	551	L3	
2	2201	10	34	610	L3	
2	2208	11	18	391	M2-3	NO DEF DATE EVID
2	2211	11	6	125	L3?	
2	2214	0	1	17	2C	
2	2215	8	2	32	M2?	
2	2216	4	14	170	M2?	
2	2222	2	7	129	L3-4	VABR
2	2224	0	5	16	ROM	
2	2234	0	3	7	ROM	
2	2236	2	6	30	ROM	
2	2238	0	3	5	ROM	
2	2240	102	47	1991	M3?	Links to 2295;2303;2304
2	2241A	769	278	8764	L3?	FRAGMENTED;SOME ABR
2	2241B	956	350	11160	L3?	
2	2249	1162	452	18208	L3	
2	2249A	264	93	2805	L3	
2	2253	0	2	176	L2-3	
2	2265	23	18	223	L3-4	
2	2267	0	2	15	ROM	
2	2270	66	29	453	ML2?	Links to 2271;2273
2	2271	136	39	811	ML2?	1 ?BWM LATER?;Link to 2270
2	2271?	140	35	787	L3-4	SOME ABR;?U/S
2	2272	14	11	171	2C?	
2	2273	0	2	13	2C	Link to 2270
2	2276	156	43	1624	4C	
2	2281	4	21	381	2C?	NO DEF DATE EVID
2	2282	100	1	640	L2-3?	SINGLE SF STRAINER
2	2283	32	8	334	M3	
2	2284	36	5	424	3C?	
2	2289	34	74	1131	3C?	Link to 2293
2	2291	7	14	77	ML2	
2	2293	314	110	2826	M2+?	Links to 2289;2295
2	2294	40	11	182	2C?	
2	2295	2595	958	38083	ML2-EM3	MOST WASTE;LATE INTR?;Links to 2240;2293
2	2302	46	32	866	L3	
2	2303	24	15	1039	L2-3	Links to 2240;2304
2	2304	8	8	243	L2-3	Links to 2240;2303
2	2307	297	22	1286	ML2?	
2	2308	76	31	1334	ML2?	IA TRAD BOWL
2	2310	0	1	2	ROM	
2	2312	0	18	361	2C	
2	2313	0	3	68	ROM	
2	2314	46	12	743	ML2	

2	2315	38	16	279	ML2?	
2	2316	154	37	1938	ML2?	
2	2317	24	11	728	M2?	
2	2320	4	18	450	ROM	
2	2321	8	9	150	ML2?	
2	2322	0	18	562	ML2	
2	2324	4	10	299	ML2?	
2	2325	29	13	319	ML2?	
2	2326	0	1	81	2-3C	
2	2331	111	55	925	L3-4	SCRAPPY;ABR;RESID 2C
2	2332	32	12	307	L3-?4	SOME ABR
2	2333	96	36	1068	L3	
2	2335	54	24	365	L3	
2	2336	11	3	97	L3	
2	2345	0	2	18	ROM	VABR
2	2353	0	4	20	ROM	VABR
2	2356	0	3	18	ROM	VABR
2	2358	5	10	143	M3+/POST-MED	
2	2359	17	13	139	2-3C?	
2	2365	307	109	3170	M2?	OCCUP & WASTE?
2	2370	71	9	231	M2?	
2	2371	175	3	5109	ML2	
2	2372	426	119	5369	L3?	
2	2376	188	79	2535	L3	
2	2388	34	20	707	L3	
2	2394	22	11	301	3C?	Links to 2395;2396
2	2395	71	34	940	4C	SOME ABR;Links to 2394;2396
2	2396	62	94	1296	4C	SOME ABR;Links to 2394;2395
2	2398	21	10	210	L2-3	
2	2403	55	33	2311	2C	
2	2409	0	2	27	ROM	
2	2411	25	1	186	2C	
2	2412	11	1	89	1-2?	
2	2417	0	1	7	ROM	
2	2433	8	7	64	L3?	
2	2439	13	5	147	2C?	
2	KRAKE-2	109	53	1172	L3	
		13312	5571	173107		
2	US-2	2165	823	24203	3-4C	ABR-VABR
	Total	24656	9991	312878		

APPENDIX 2
FABRIC CODES

Fabrics to be fully defined in publication.

CODE	Fabric
CR	Cream
CRSA	Cream sandy
DWSH	Shell-gritted dales ware
GFIN	Grey fine
GREY	Grey
GROG	Grog-tempered
GRRO	Grey rounded quartz
IAGR	Iron Age tradition gritty
IASH	Iron Age tradition shell-gritted
LCOA	Late coarse grey pebble inclusions
MOMH	Mortaria Mancetter-Hartshill
MORT	Mortaria unsourced
MOSP	Mortaria Swanpool Lincoln kilns
NAT	Native coarse
NVCC	Nene Valley colour-coated ware
NVGW	Nene Valley grey ware
OX	Oxidized red-brown (some mis- or re-fired grey)
OXL	Oxidized light shades
OXRO	Oxidized rounded quartz
OXWS	Oxidized with white exterior slip
PART	Parisian ware type
PRO	Post Roman
SAMCG	Samian Central Gaul
SHEL	Shell-gritted
VESIC	Vesicular

APPENDIX 3 MARKET RASEN MRL99 VESSEL FORM CODES

References to Lincoln types are to the types defined in the type series of the City of Lincoln Archaeological Unit (forthcoming; original references noted). References to Samuels' types are to the illustrations in Samuels 1983.

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CODE	Form	Details
18/31 OR 31	Dish	as samian 18/31 or 31
33	Cup	as samian form 33
B	Bowl	
B113	Bowl	as Samuels 113
B316	Bowl	Lincoln 316 (Petch 1962; fig 7; 24)
B318	Bowl	Lincoln 318 (Petch 1962; fig 7; 23)
B318V	Bowl	Lincoln 318 variant
B321	Bowl	Lincoln 321 (Webster 1949; fig 14; 72)
B334	Bowl	Lincoln 334 (Petch 1962; fig 5; 8-10)
B36	Bowl	as samian 36
B38	Bowl	as samian 38
B38V	Bowl	as samian 38 variant
BCAR	Bowl	carinated
BCU15	Bowl	as samian Curle 15
BCUR	Bowl	curved rim
BD	Bowl or dish	
BDFL	Bowl or dish	flanged
BDLS	Bowl or dish	lid-seated
BDRR	Bowl or dish	round rim
BDTR	Bowl or dish	triangular rim
BEV	Bowl	everted rim
BFB	Bowl	bead-and-flange
BFBH	Bowl	bead-and-flange high
BFBL	Bowl	bead-and-flange low
BFL	Bowl	flanged
BHEM	Bowl	hemispherical
BIBF	Bowl	inturned bead-and-flange
BJS13	Bowl	as Samuels 13
BJS17	Bowl	as Samuels 17
BJS25	Bowl	as Samuels 25
BJS25V	Bowl	as Samuels 25 variant
BJS34	Bowl	as Samuels 34
BJS36	Bowl	as Samuels 36
BJS38	Bowl	as Samuels 38
BK	Beaker	
BK110	Beaker	as Samuels 110
BKCAR	Beaker	carinated
BKEV	Beaker	everted rim
BKFN	Beaker	funnel-necked
BKFO	Beaker	folded
BKPH	Beaker	poppy-head

BKROU	Beaker	rouletted
BL	Bowl	large
BNAT	Bowl	native type
BNK	Bowl	necked
BNNK	Bowl	no neck
BPR	Bowl	plain rim
BREED	Bowl	reeded rim
BRR	Bowl	rounded rim
BST	Bowl	strainer
BTR	Bowl	triangular rim
BWM	Bowl	wide-mouth
BWM101	Bowl	wide-mouth as Samuels 101
BWM101-2	Bowl	wide-mouth as Samuels 101/2
BWM102	Bowl	wide-mouth as Samuels 102
BWM103	Bowl	wide-mouth as Samuels 103
BWM104	Bowl	wide-mouth as Samuels 104
BWM52	Bowl	wide-mouth as Samuels 52
BWM97	Bowl	wide-mouth as Samuels 97
BWM98	Bowl	wide-mouth as Samuels 98
BWM99	Bowl	wide-mouth as Samuels 99
BWMEV	Bowl	wide mouth everted
CHP	Cheese-press	
CLSD	Closed	
CPEV	Jar	cooking pot everted rim
CPN	Jar	cooking pot native type
D	Dish	
D36	Dish	as samian form 36
D452	Dish	Lincoln 452 (Thompson & Whitwell 1973; fig 13; 12)
DFL	Dish	flanged
DGR	Dish	grooved rim
DPR	Dish	plain rim
DPRS	Dish	plain rim straight wall
DTR	Dish	triangular rim
F	Flagon	
FC	Flagon	cupped
FDN	Flagon	disc-neck
FGR	Flagon	grooved rim
FR	Flagon	ringed
FS	Flask	
FTR	Flagon	triangular rim
J	Jar	
J105	Jar	Lincoln 105 (Coppack 1973; fig? ; 17)
J105V	Jar	Lincoln 105 variant
J55	Jar	as Samuels 55
J56	Jar	as Samuels 56
J56V	Jar	as Samuels 56 variant
J60	Jar	as Samuels 60
J73	Jar	as Samuels 73
J85	Jar	as Samuels 85
J86	Jar	as Samuels 86
J86V	Jar	as Samuels 86 variant
J93	Jar	as Samuels 93
JB	Jar or bowl	
JBCUR	Jar or bowl	curved rim
JBEV	Jar or bowl	everted rim
JBK	Jar or beaker	
JBKCUR	Jar or beaker	curved
JBKEV	Jar or beaker	everted
JBNAT	Jar or bowl	native type

JBRR	Jar or bowl	round rim
JBWM	Jar or bowl	wide mouth
JCR	Jar	collared rim
JCUR	Jar	curved rim
JDLS	Jar	double lid-seated
JDW	Jar	as dales ware
JDWV	Jar	as dales ware variant
JEV	Jar	everted
JH	Jar	handled
JIR	Jar	inturned rim
JL	Jar	large
JLH	Jar	lug-handled
JLS	Jar	lid-seated
JNN	Jar	narrow-necked
JRR	Jar	rounded rim
JRUST	Jar	rusticated
JS82	Jar	as Samuels 82
JS86	Jar	as Samuels 86
JSQ	Jar	square-rim
JTR	Jar	triangular rim
JUR	Jar	undercut rim
L	Lid	
L106	Lid	as Samuels 106
L107	Lid	as Samuels 107
LSQ	Lid	square rim
M	Mortarium	
MBF	Mortarium	bead and flange
MHH	Mortarium	hammer-head
MHK	Mortarium	hook rim
MRR	Mortarium	reeded rim
OPEN	Open	
PL	Plate	
ST	Strainer	
TZ	Tazza	
Z	Unusual	

APPENDIX 4
MARKET RASEN MRL99
DECORATION & MANUFACTURE CODES

CODE	Type	Details
BCCIR	Burnished	concentric circles
BCIR	Burnished	circles
BDL	Burnished	diagonal lines
BVL	Burnished	vertical lines
BVL;BHL	Burnished	vertical & horizontal lines
BIA	Burnished	intersecting arcs
BIWL	Burnished	intersecting wavy lines
BS	Burnished	scroll
BSCR	Burnished	vertical scroll
BSPIR	Burnished	spiral
BV	Burnished	vertical
BVL	Burnished	vertical lines
BVLZ	Burnished	vertical line zone
BVLZ;ZZ	Burnished	vertical line zone above zig-zag
BVZ	Burnished	vertical
BWL	Burnished	wavy line
BWLV	Burnished	wavy line vertical
COST	stamped	comb
GRAF?	Graffito	
GROOVED	Grooved	
TUBE RING	Impressed	tube rings
HBONE STAB	Stabbed	herringbone
HM	Hand-made	
JUDD	Juddered	
LA	Burnished	lattice
AP BOSS	Applied	boss
LML	Burnished	lattice multi-line
BHL	Burnished	horizontal line
NOTC	Notched	
NOTC;FF	Notched	fingered
PA	Painted	
PAB	Painted	blobs
PCUR	Painted	curves
RIB	Ribbed	
RLIN	Rusticated	linear
RNOD	Rusticated	nodular
ROUL	Rouletted	lines
ROUZ	Rouletted	zone
RUST	Rusticated	
SCRIB	Scribbled	
SDL	Scored	diagonal lines
SHBONE	scored	herringbone
SLAS	Slashed	
STAB	Stabbed	
STMP	Stamped	
STRO	Stamped	round
SWL	Scored	wavy lines
SZZ	Scored	zig-zag

The Drawn Pottery Archive

DNo	Cxt	Fabric	Form	Manuf+	V	Details	Diam	VE	Sh	Wt	Link
001	2241A	GREY	BTR	-	-	RIM/WALL	16	37	1	148	-
002	2241A	GREY	BFL	-	-	RIM/WALL	27	19	1	213	-
003	2241A	GREY	B38V	-	-	RIM/PT WALL	15	17	1	26	-
004	2241A	GREY	JCR	-	-	RIM/PT NECK	16	25	1	84	-
005	2241A	GREY	JTR	-	-	RIM/PT NECK	12	15	1	20	-
006	2241A	GREY	CPEV	-	-	RIM/PT SHLDR	22	15	1	38	-
007	2241A	GREY	BWM	-	-	RIM/WALL;SMALL	22	11	1	41	-
008	2241A	GREY	BWM52	-	-	RIM/PT SHLDR	32	14	1	104	-
009	2241B	GREY	BFB	-	-	RIM/WALL	21	26	1	143	-
010	2241B	GREY	BFB	BWL	-	RIM/WALL	28	12	1	142	-
011	2241B	GREY	BFB	-	-	RIM/WALL	25	20	1	108	-
012	2241B	GREY	BFB	-	-	RIM/WALL	19	16	1	68	-
013	2241B	GREY	BFB	-	-	RIM/WALL	19	19	1	65	-
014	2241B	GREY	BFB	-	-	RIM/WALL	20	20	1	67	-
015	2241B	GREY	BIBF	-	-	RIM/WALL	26	5	1	28	-
016	2241B	GREY	DGR	-	1	COMP PROF	16	17	2	52	-
017	2241B	GREY	DPR	-	-	COMP PROF	20	20	1	211	-
018	2241B	GREY	BWM52	-	-	RIM/WALL	26	19	1	121	-
019	2241B	GREY	BWM52	-	-	RIM/WALL	34	10	1	105	-
020	2241B	GREY	BWM52	-	-	RIM/WALL	25	7	1	45	-
021	2241B	GREY	JLH	-	-	RIM/BODY;HDLE	10	40	1	72	-
022	2241B	GREY	JDW	-	-	RIM/SHLDR	11	27	1	36	-
023	2241B	GREY	JCR	-	-	RIM/SHLDR	13	20	1	55	-
024	2241B	GREY	JEV	BWL	-	RIM/SHLDR	16	9	1	53	-
025	2372	GREY	BKCAR	-	-	COMP/BROK;DISTORT;<24>;DPR INSIDE	13	100	2	577	-
026	2372	GREY	DPR	-	-	COMP PROF;INSIDE <24>BKR	14	70	5	363	-
027	2372	GREY	BFB	-	-	COMP PROF	18	9	1	52	-
028	2372	GREY	BFB	-	-	COMP PROF	20	27	1	135	-
029	2372	GREY	BWM52	-	-	RIM/WALL	22	18	1	81	-
030	2372	GREY	BWM52	-	-	RIM/WALL	30	9	1	113	-
031	2388	GREY	BFB	-	1	RIM/WALL	20	7	3	85	-
032	2333	GREY	BTR	-	-	COMP PROF	19	9	1	171	-
033	2333	GREY	JBKCUR	-	-	RIM >SHLDR	9	20	1	9	-
034	2192	GREY	J93	-	1	RIM/PT WALL	18	25	5	111	-
035	2376	GREY	BTR	-	-	RIM/PT WALL	16	12	1	17	-
036	2335	GREY	Z	-	-	CURIOUS BS CUT APERTURES	-	-	1	5	-
037	2302	GREY	BIBF	-	-	RIM/WALL	23	12	1	46	-
038	2249	GREY	BIBF	-	1	RIM/WALL	36	19	2	339	-
039	2249	GREY	BIBF	-	-	RIM/WALL	25	20	1	164	-
040	2249	GREY	BIBF	-	-	RIM/WALL	17	22	1	70	-
041	2249	GREY	BIBF	-	-	RIM/PT WALL	24	13	1	54	-
042	2249	GREY	BIBF	-	-	RIM/PT WALL	22	6	1	35	-
043	2249	GREY	BFBH	-	1	COMP PROF	24	23	2	211	-
044	2249	GREY	BFB	-	-	COMP PROF	17	34	1	169	-
045	2249	GREY	BFB	BIA?	-	RIM/PT WALL	26	12	1	74	-
046	2249	GREY	BFB	-	-	RIM/WALL	16	11	1	52	-
047	2249	GREY	BTR	-	-	COMP PROF	18	25	1	155	-
048	2249	GREY	TZ	NOTC;FF	-	RIM/WALL	14	30	1	59	-
049	2249	GREY	DPR	-	1	COMP PROF	18	27	2	161	-
050	2249	GREY	DPR	-	-	RIM/WALL	12	20	1	26	-
051	2249	VESIC	DPR	-	-	COMP PROF	16	10	1	21	-
052	2249	GREY	BWM52	-	-	RIM/WALL	38	21	1	335	-
053	2249	GREY	BWM52	-	-	RIM/WALL	20	20	1	53	-
054	2249	GREY	BWM52	-	-	RIM/WALL	36	10	1	110	-
055	2249	DWSH	JDW	-	-	RIM/SHLDR;SOOTED	18	20	1	68	-
056	2249	GREY	JBKEV	-	-	RIM/SHLDR	10	20	1	21	-
057	2249	GREY	FC	-	-	RIM/PT NECK	6	15	1	5	-
058	2249	GREY	JRR?	BIA?	-	RIM/PT NECK	16	13	1	32	-
059	2249	GREY	DPR?	-	-	RIM/WALL	34	8	1	114	-
060	2249	GREY	B	-	-	RIM ONLY	30	12	1	109	-
061	2249	PART	FS?	-	-	INCOMP.NECK	-	-	1	38	-
062	2249	GREY	CLSD	LA;AP BOSS	-	BSS;FINE LA;APPLIED BLOB	-	-	3	27	-
063	2249A	GREY	BTR	-	-	RIM NR COMP PROF	13	20	1	39	-
064	2249A	GREY	BIBF	-	-	RIM/WALL	30	10	1	56	-
065	2365	IAGR	CPN	-	-	RIM/WALL;GROG?;SOOTED	16	16	1	89	-
066	2365	OX	DFL	BWL	-	LWR WALL;PT FLANGE	20	15	1	36	-
067	2365	GREY	J60	-	-	RIM/BODY	13	24	1	51	-
068	2365	GREY	J60	-	1	RIM/PT WALL	14	20	2	58	-
069	2365	GREY	J56	-	1	RIM/WALL	16.5	40	4	257	-
070	2365	GREY	J105	STAB	-	RIM/STABBED SHLDR	15	20	1	51	-
071	2365	GREY	BWM	-	-	RIM/SHLDR	20	10	1	33	-
072	2365	GREY	BWM	-	-	RIM/PT SHLDR	30	7	1	29	-
073	2365	GREY	JLS	-	-	RIM/NECK ONLY	13	5	1	9	-
074	2365	GREY	L107	-	-	RIM/PT WALL	18	8	1	13	-
075	2365	GREY	L106	-	-	RIM/PT WALL	16	14	1	23	-
076	2365	GREY	L	-	-	RIM/PT WALL	18	15	1	22	-
077	2365	GREY	JCUR	-	-	RIM/SHLDR	13	37	1	33	-

078	2370	GREY	JUR	SWL	1	RIM/WALL	13	55	3	149	-
079	2317	GREY	B318	-	-	RIM/WALL;?UNUSED	16	24	1	79	-
080	2307	GREY	B334	-	1	RIM>LWR WALL	13	30	2	54	-
081	2307	GREY	JEV	RLIN	-	RIM/BODY	15	10	1	29	-
082	2307	GREY	JCUR	LA	1	RIM/BODY	13	30	2	51	-
083	2307	GREY	J105	-	-	RIM/NECK	20	17	1	59	-
084	2307	CR	FTR	-	-	RIM/NECK ?3R HDLE SCAR	5.2	100	1	98	-
085	2308	IASH	BNAT	-	-	RIM/WALL;VESIC;SOOT INT	32	10	1	108	-
086	2308	GREY	BWM52	-	-	RIM/SHLDR	32	8	1	74	-
087	2308	GREY	JEV	-	-	RIM FRAG/SHLDR	14	6	1	16	-
088	2308	GREY	BWM	-	1	RIM/SHLDR	22	19	3	62	-
089	2316	GREY	J60	-	1	COMP PROF;DAMAGE BASE;HOLE	12.5	100	6	384	-
090	2316	GREY	JEV	RNOD	-	RIM/WALL;UNUSED?	8.5	15	1	31	-
091	2316	GREY	B334	-	1	RIM>LWR WALL	13	2	2	16	-
092	2371	GREY	B318	-	-	COMPLETE BAR CHIP <22>	17.2	100	1	479	-
093	2371	IAGR	JLH	SWL	-	COMPLETE BAR RIM FRAG<23>;WASTER	16	75	1	4625	-
094	2307	GREY	JBKCUR	-	-	COMPLETE BAR CHIP;<18>	11.7	90	1	314	-
095	2315	GREY	JEV	-	-	RIM/SHLDR;GROOVE INT RIM	18	10	1	36	-
096	2315	GREY	BEV	-	-	RIM/SHLDR	23	8	1	30	-
097	2315	GREY	JCUR	-	1	RIM/SHLDR	16	20	2	27	-
098	2314	IASH?	CPN	-	-	RIM;SOOTED BELOW RIM	20	15	1	38	-
099	2314	PART	BK	-	-	RIM/WALL;?EXT SLIP	5	20	1	13	-
100	2325	GREY	JNN	-	-	RIM ONLY;TRIANG.	9	14	1	8	-
101	2295	IAGR	CPN	-	1	COMP PROF;POOR COND	28	100	91	4685	-
102	2295	GREY	J60	-	-	COMP PROF;WASTER	13.5	68	1	641	-
103	2295	GREY	J60	-	1	COMP PROF;WASTER	14	87	24	459	-
104	2295	GREY	J60	-	1	COMP PROF;WASTER	16	79	6	870	-
105	2295	GREY	J60	-	1	COMP PROF;WASTER	13	16	2	159	-
106	2295	GREY	J60	-	1	COMP PROF;WASTER	12	60	5	321	-
107	2240	GREY	J60	-	-	RIM/WALL;SAME	12.5	18	1	43	2295
107	2295	GREY	J60	-	1	RIM/WALL;WASTER;SAME	12.5	82	4	149	2240
108	2295	GREY	JEV	LA	1	COMP PROF ?WASTE	14.5	75	12	568	-
109	2295	GREY	JCUR	LA	1	COMP PROF ?WASTE	13	55	11	567	-
110	2295	GREY	JEV	-	1	RIM/WALL;?WASTE	16	63	5	258	-
111	2295	GREY	JEV	-	1	RIM/WALL;?WASTE	16	42	3	121	-
112	2295	GREY	J105	STAB	1	COMP PROF;WASTE;STAB HALFMOONS	15.5	100	10	1202	-
113	2295	OX	J105V	STAB	1	COMP PROF;WASTE;STAB DIAG	16	42	21	762	-
114	2295	GREY	J105	STAB	-	RIM/SHLDR	16	25	1	90	-
115	2293	GREY	J105	-	-	RIM/PT BODY;JOINS	18	15	1	52	2295
115	2295	GREY	J105	STAB	-	RIM/SHLDR	18	15	1	55	2293
116	2295	GREY	J105	STAB	-	RIM/SHLDR	16	12	1	44	-
117	2295	GREY	J105	-	-	RIM	20	10	1	28	-
118	2295	GREY	JNN	BWL	1	RIM/BODY	10	15	10	286	-
119	2295	GREY	JLH	BWL	1	RIM/BODY	12	80	15	518	-
120	2295	GREY	J105V	-	-	RIM/PT SHLDR	11	19	1	16	-
121	2295	OX	JNN	-	1	RIM/PT NECK	12	42	2	47	-
122	2295	GREY	JNN?	-	-	RIM/NECK;DISTORTED	11	44	1	70	-
123	2295	GREY	JNN?	-	-	RIM/WALL;OR BK?	10	14	1	12	-
124	2295	GREY	B334	-	-	COMP PROF;SMALL EG;WASTE	9	32	1	145	-
125	2295	GREY	B334	-	1	RIM > BASAL	14	23	2	85	-
126	2295	GREY	DPR	-	-	COMP PROF	18	8	1	117	-
127	2295	GREY	D	-	-	RIM/WALL UNUS FORM	32	18	1	403	-
128	2295	GREY	BWM98	BWL	1	COMP PROF	18	25	2	468	-
129	2295	GREY	JCUR	RLIN	-	RIM/WALL;?UNUSED	15.5	32	1	133	-
130	2240	GREY	JCUR	RNOD	-	RIM/WALL;JOINS	24	16	1	152	2295
130	2295	GREY	JCUR	RNOD	-	RIM/WALL;JOINS	24	15	1	256	2240
131	2295	GREY	JEV	RLIN?	-	RIM/WALL	14	16	1	50	-
132	2295	GREY	BFB	-	-	RIM/WALL	20	9	1	58	-
133	2295	GREY	BFB	-	-	RIM/PT WALL	22	10	1	47	-
134	2295	GREY	BFB	-	-	RIM/PT WALL	18	12	1	45	-
135	2295	GREY	BWM52	-	-	RIM/PT WALL	23	28	1	122	-
136	2295	GREY	BWM52	BWL?	-	RIM/PT WALL	20	10	1	68	-
137	2295	GREY	BNK	-	-	RIM/PT WALL;ABR	18	13	1	40	-
138	2295	GREY	BWM	-	-	RIM/PT SHLDR	22	10	1	31	-
139	2295	GFIN	BKEV	-	1	RIMS	8	60	4	15	-
140	2295	IAGR	J105	SWL	1	RIM/SHLDR	17	28	2	119	-
141	2295	IAGR	J105	STAB	-	RIM/SHLDR	17	15	1	39	-
142	2240	IAGR	B	HM?	1	RIM JOINS	37	7	1	78	2295
142	2295	IAGR	B	HM?	1	COMP PROF UNUS;?COIL;JOINS	37	15	2	555	2240
143	2295	IAGR	BNAT	-	1	RIMS/BODY	29	25	2	361	-
144	2295	IAGR	BNAT	-	1	RIMS/BODY	28	25	4	327	-
145	2005	GREY	BFBL	-	-	COMP PROF;WASTER	18	18	1	131	-
146	2005	OX	B38	-	-	RIM/WALL	17	26	1	83	-
147	2018	GFIN	B	-	-	RIM/WALL;BURNISH EXT	18	13	1	66	-
148	2018	GREY	BHEM	-	-	RIM/WALL	13	17	1	33	-
149	2018	GREY	B318V	-	-	RIM;PT WALL;GROOVED FLANGE	17	9	1	13	-
150	2018	GREY	BFL	-	-	RIM/WALL	16	19	1	31	-
151	2018	PART	FDN	-	-	RIM>DISC	2.7	100	1	40	-

152	2009	VESIC?	DFL	BCIR	1	COMP PROF;BCIR INT BASE	15	20	3	159	-
153	2021	GREY	BWM101	-	-	RIM/BODY	30	10	1	105	-
154	2025	GREY	BTR	-	-	COMP PROF;WASTER?	19	30	1	218	-
155	2008	GREY	CHP	-	1	COMP PROF;RECT HOLES POST-COCT	17	37	2	303	-
156	2022	GREY	BCUR	-	-	RIM/WALL SMALL BWM?	12	16	1	12	-
157	2002	GREY	D452	-	-	RIM/WALL	15	18	1	31	-
158	2066	MORT	MRR	-	-	RIM/PT WALL;SLAG TG	28	8	1	56	-
159	2066	GREY	B	RIB;LA	-	SQ.CUT RIM/WALL	19	10	1	61	-
160	2066	GREY	BK	-	-	RIM/PT WALL	8	25	1	13	-
161	2095	GREY	DPR	-	-	RIM/WALL;CHAMFER	20	15	1	43	-
162	2095	PART?	B38	ROUZ	-	RIM>LWR WALL;DIAM FLANGE	20	12	1	46	-
163	2049	PART	BHEM?	-	-	RIM/PT WALL	18	11	1	25	-
164	2077	GREY	BFB	-	-	COMP PROF	16	40	1	246	-
165	2077	GREY	BK	-	-	RIM/SHLDR	7	15	1	7	-
166	2055	LCOA?	JLS	-	-	RIM/NECK	16	14	1	28	-
167	2074	PART	BKEV	-	1	RIMS/WALL	8	45	5	49	-
168	2074	GREY	JNN	-	1	RIMS>SHLDR	11	42	2	80	-
169	2032	GREY	BJS36	-	1	COMP PROF;WASTE?	18	80	8	387	-
170	2032	GREY	JCUR	RLIN?	1	RIM >RUST	10.5	48	2	46	-
171	2032	OX	JEV	RLIN	1	NR COMP PROF;VPOOR U'FIRED COND	10.5	12	6	155	-
172	2166	GREY	BFL	-	-	RIM/PT WALL	27	5	1	35	2167
172	2167	GREY	BFL	-	1	RIM/WALL	27	10	2	84	2166
173	2164	GREY	BFL	BWL	-	RIM/WALL;CARINATED;SAME	14	12	1	24	2167
173	2167	GREY	BFL	BWL	-	RIM/PT WALL	14	15	1	39	2164
174	2147	GREY	JEV	SWL	-	RIM/SHLDR	15	30	1	83	-
175	2147	GRRO	L?	-	-	RIM/PT WALL	24	2	1	47	-
176	2147	GREY	JBEV	-	-	RIM/PT SHLDR	32	8	1	67	-
177	2147	GREY	JNN	-	-	RIM/PT NECK	9	15	1	7	-
178	2149	GREY	JBK?	-	-	RIM;OFFSET ?HDLE SCAR	12	10	1	15	-
179	2149	OX	DPR	-	1	RIM NON J BASE;COMP PROF	18	10	2	43	-
180	2149	OXRO	JSQ	-	1	RIM/NECK;NON J BSS	17	15	4	73	-
181	2172	PART	BK	-	-	RIM	6	6	1	2	-
182	2172	GREY	JNN	-	-	RIM/NECK	16	30	1	151	-
183	2126	GRRO	JLS	-	-	RIM ?LCOA	22	4	1	31	-
184	2126	GRRO?	BWM	-	-	RIM/SHLDR	28	14	1	106	-
185	2100	GREY	BWM97	-	-	RIMS/BS	30	12	3	95	2109
185	2109	GREY	BWM97	-	-	RIM/WALL	30	6	1	62	2100
186	2100	MOMH	MHH	-	-	RIM/WALL;GRY/RB TG	24	3	1	84	-
187	2123	GROG	JUR	-	-	RIM/PT SHLDR;BURNT/SOOT;JOINS	17	17	1	41	2169
187	2169	GROG	JUR	-	-	UCUT RIM/SHLDR	17	7	1	29	2123
188	2169	IAGR?	JBNAT	HM?	-	SQCUT RIM/WALL;VESIC;?WORN INT	36	4	1	95	-
189	2169	GREY	BDFL?	-	-	RIM FRAG ONLY	19	7	1	10	-
190	2104	GREY	BHEM?	-	-	RIM/PT WALL	20	6	1	11	-
191	2112	GREY	BWM	-	-	RIM/SHLDR	20	10	1	26	-
192	2121	OXL	F	-	-	RIM;GROOVED EDGE	8	20	1	7	-
193	2121	GREY	FR?	-	-	RIM/PT NECK	4	15	1	2	-
194	2118	GREY	BDFL	-	-	RIM/PT WALL;GROOVE INT	17	6	1	22	-
195	2118	GREY	BWM	-	-	RIM/PT WALL	28	11	1	75	-
196	2123	GREY	BFL	-	-	RIM/WALL	16	20	1	38	-
197	2276	GREY	JEV	-	1	RIM/SHLDR	13	100	2	512	-
198	2289	GREY	JEV	RLIN	-	RIM/WALL;OXID;JOINS	14	15	1	56	2293
198	2293	GREY	JEV	RLIN	1	RIM/BODY	14	26	5	107	2289
199	2293	GREY	JEV	RLIN	1	RIM/PT BODY	16	16	3	141	-
200	2293	GREY	JEV	-	-	RIM/PT SHLDR	15	20	1	36	-
201	2293	GREY	D452	-	1	RIM/BODY	18	16	2	51	-
202	2293	GREY	BFL	-	-	RIM/PT WALL	18	9	1	22	-
203	2270	GREY	B318	-	-	RIM>BELOW CARINATION	19	30	1	78	-
204	2271	PART	CLSD	ROUZ	1	ANGLED BSS	-	-	2	20	-
205	2271	PART	BK?	STMP	1?	BSS;COMB STMP;BLOCK STMP B2;?SAME	-	-	2	14	2270;2273
205	2273	PART	BK?	STMP	-	BS BLK STMP ELSDON B2;UNABR BUT SAME	-	-	1	3	2271;2270
206	2271	VESIC	JUR	-	-	RIM/PT SHLDR	15	15	1	29	-
207	2272	GREY	L107	-	-	RIM/WALL	18	14	1	48	-
208	2284	GREY	DPR	-	-	COMP PROF	22	16	1	227	-
209	2208	GREY	JBKEV	-	-	RIM/SHLDR	16	11	1	18	-
210	2211	GREY	DGR	-	-	RIM/WALL ?CHAMFER	22	6	1	31	-
211	2291	GREY	B?	-	-	RIM	14	5	1	24	-
212	2265	OX?	B36?	PAB;PCUR	1	RIM/BS;GRY;RB CORTEX;GRYBN SURFS	26	13	2	72	-
213	2240	GREY	BNAT	-	1	NR COMP PROF;BASE JOINS	28	7	11	463	2303
213	2303	GREY	BNAT	-	-	BASE JOINS	-	-	1	458	2240
214	2240	GREY	B318	-	-	COMP PROF	16.5	28	1	139	-
215	2240	GREY	BWM52	-	-	RIM/SHLDR	31	21	1	213	-
216	2087	GREY	BFL	-	1	RIM/WALL <8>&<13> MIS-SHAP.WASTER	28	90	5	1320	-
217	2271	GREY	BKCAR	-	-	COMPLETE EXCEPT BASE	8.8	100	1	111	-
218	2282	GREY	BST	-	-	COMP PROF <19> HOLES POST-COCT	21.2	100	1	640	-
219	2411	IAGR	J105	SLAS	-	RIM/PT WALL;VERT SLAS SHLDR	20	25	1	186	-
220	2412	NAT?	J	-	-	RIM/PT WALL;GRY W LTBN SURFS;CR CLAY NODULES	16	11	1	89	-
221	2331	GREY	BJS17	-	-	RIM/PT WALL	20	7	1	26	-
222	2331	GREY	DTR	-	-	COMP PROF	18	4	1	32	-

223	1017	GRRO?	BRR	LA	-	RIM/WALL;SL.VESIC LTGRY	36	12	1	235	-
224	1017	GREY	BFL	-	1	COMP PROF;MOST VES;DKGRY	23	30	6	450	-
225	1017	GREY	BFL	-	1	COMP PROF;SL.CHAMFER	19	27	2	213	-
226	1017	GREY	BWM104	-	1	RIM/BODY;RIM DISTORTED	30	21	2	200	-
227	1017	GREY	JLH	-	1	RIM NON J SHLDR/HDLE	11	25	3	100	-
228	1017	PART	BPR	-	1	RIMS;NON J FTRG FRAGS	20	15	4	98	-
229	1027	GREY	BWM98	-	1	RIM/SHLDR;THIN WALL	20	20	2	42	-
230	1027	GREY	J85	-	-	RIM FRAG LGE JAR	34	5	1	82	-
231	1027	GREY	J105V	-	-	RIM FRAG LGEISH ?JAR	24	4	1	30	-
232	1028	GREY	JNN	-	1	RIMS ONLY	18	40	3	100	-
233	1028	GREY	JBK	-	-	RIM/PT WALL	8	20	1	24	-
234	1028	GREY	D	-	-	RIM/PT WALL UNUS	32	7	1	34	-
235	1029	GREY	JLH	-	1	RIM/BODY/HDLE;BURNT PF	18	2	15	575	-
236	1029	GREY	BKFO	-	1	BASE GROOVE BELOW/BODY	-	-	11	262	-
237	1029	GREY	JCUR	-	-	RIM/PT WALL	10.5	35	1	49	-
238	1029	GREY	JSQ	STAB	-	RIM FRAG;STAB IMMED BELOW NECK	12	23	1	45	-
239	1029	GREY	F	-	1	RIM;3R HDLE	12	10	2	73	-
240	1029	GFIN	CLSD	STRO;COST	-	BS;LTGRY COARSE FOR PART	-	-	1	5	-
241	1053	GREY	JIR	-	-	RIM COARSER FABRIC	20	7	1	32	-
242	1053	GREY	F	-	-	RIM GROOVED	10	14	1	10	-
243	1047	GREY	BWM	-	-	RIM/PT WALL;THIN WALL;FFINE	21	10	1	31	-
244	2295	GREY	J60	-	1	COMP PROF;POOR FIRING	14	20	9	375	-
245	2359	OX?	JSQ	-	-	RIM/SHLDR;MIS-FIRED?	18	13	1	42	-
246	2271?	GREY	Z	-	-	COMP PROF UNQUENT FLASK	2	100	1	84	-
247	US-1	GREY	J86	SWL	1	NR COMP POT;<6>	20	80	27	2590	-
248	US-1	GREY	JLH	-	1	RIM/WALL <5>	16	32	14	850	-
249	US-1	GREY	JCUR	-	1	COMP PROF POSS <10>	14.5	30	18	418	-
250	US-1	GREY	BWMEV	-	1	COMP PROF>FTM GROOVE BELOW <7>	19	67	17	638	-
251	US-1	GREY	DFL	ROUZ;SWL?	1	COMP PROF>FTM GROOVE BELOW <7>	23.5	31	4	316	-
252	1049	PART?	BK	ROUZ	-	RIM/PT WALL;LTGRY	7	30	1	23	-
253	1049	GREY	DPR	-	-	COMP PROF W CHAMFER	19	15	1	80	-
254	1083	GREY	BIBF?	-	-	RIM/CURVED BODY	19	20	1	122	-
255	1083	GREY	JLH	-	1	RIM EVERTED >SMALL HDLE	11	20	2	35	-
256	1095	GREY	JL	-	1	RIM/NECK;NON J BSS	40	10	4	281	-
257	1141	GREY	BFL	-	-	RIM/WALL	22	17	1	64	1150
257	1150	GREY	BFL	-	-	COMP PROF;NO CHAMFER;DISTORTED	22	35	1	411	1141
258	1141	GREY	BWM	-	-	RIM/WALL;NECKLESS	28	12	1	130	-
259	1146	GREY	DPR	-	-	COMP PROF;MIS-FIRED	19	10	1	186	-
260	1230	GREY	B334	-	1	COMP PROF;H.ENCRUST SLAG	12.5	21	3	341	-
261	1230	GREY	JLH?	-	1	COMP PROF POSS;ENCR.SLAG;VAR.COL;NO HDLES	12	50	8	457	-
262	1240	GREY	BWM104	-	-	RIM/WALL;NON J BSS;FE ENCRUST	26	7	3	158	-
263	EVAL-1	GREY	BWM99	-	1	RIM;PT WALL;BURNT	24	25	2	118	-
264	EVAL-1	PART	BK	-	-	RIM/PT WALL;UPR W BEAD	8.5	25	1	26	-
265	1329	GREY	JEV	-	1	VIRT.COMP;SPALLED;FTM BASE	14	100	11	739	-
266	1329	GREY	BCUR	-	-	RIM/WALL SM.B	14	12	1	32	-
267	1331	GREY	J56V	-	-	RIM/SHLDR;EVERTED	15	26	1	74	-
268	1331	GREY	J56	-	-	RIM/PT SHLDR	15	21	1	46	-
269	2295	GREY	J60	-	-	COMP WASTER JAR <17>	13.5	100	1	604	-
270	US-1	GREY	DPR	-	1	NR COMP DISH <4>	19	80	6	586	-
271	US-1	GREY	DGR	-	1	COMP DISH FLAKE INT <2> WASTE	18.5	100	1	711	-
272	1329	GREY	JNN	-	-	COMP JAR <25> GROOVED SHLDR & GIRTH	10	100	1	685	-
273	US-1	GREY	FS	-	-	COMP JAR <3> CHIP ON RIM ?WASTE	5.4	100	1	416	-
274	US-1	PART	CLSD	STMP	-	BASE FTM GROOVE BELOW;STMP L2 IN RECT;L3	-	-	1	34	-
274A	US-1	GREY	B334	-	1	COMP PROF;SM.VESS	9	50	19	85	-
275	US-1	GREY	D36?	-	-	RIM/PT WALL	20	21	1	52	-
276	US-1	GREY	L107	-	-	COMP PROF	16	20	1	102	-
277	US-1	GREY	L	-	-	RIM/WALL	16	16	1	28	-
278	US-1	GREY	BJS38	-	-	RIM/WALL;DK SURF	26	11	1	55	-
279	US-1	GREY	FGR	-	-	RIM/PT NECK;BURNISH;DK FAB	11	16	1	27	-
280	US-1	GREY	FGR	-	-	RIM/PT NECK;LTGRY	11	15	1	30	-
281	US-1	GREY	F	-	-	RIM/NECK;HDLE ATTACH RIM;LS INT RIM	14	20	1	49	-
282	US-1	GREY	JNN	-	-	RIM/NECK	10	25	1	33	-
283	US-1	GREY	JNN	-	-	RIM/NECK	11	21	1	44	-
284	US-1	GREY	JCR	-	1	RIMS/PT NECK	15	40	2	143	-
285	US-1	GREY	JCR?	-	-	RIM	15	20	1	67	-
286	US-1	GREY	B334	-	-	RIM/WALL	13	21	1	98	-
287	US-1	GREY	JCUR	SWL	-	RIM/PT WALL;SWL SHLDR AREA	13	24	1	29	-
288	US-1	GREY	JEV	STAB	-	RIM/PT WALL;STAB SHLDR AREA;DISTORTED	14	20	1	58	-
289	US-1	GFIN?	BKEV	-	-	RIM CONCAVE INT/PT WALL;SL DISTORT?	10	25	1	13	-
290	US-1	GREY	JS82	-	-	RIM/PT SHLDR	14	40	1	112	-
291	US-1	GREY	BK110?	-	1	RIM/PT WALL;> ?START CORDON	15	11	3	52	-
292	US-1	GREY	JEV	-	-	RIM/NECK;?DISTORTED	15	25	1	51	-
293	US-1	GREY	CHP	-	-	BASE;WALL BROKEN;RANDOM HOLES;BURNT	15	50	1	191	-
294	US-1	MOMH?	MHK	-	-	RIM/PT WALL;BLK&RED? TG	30	4	1	90	-
295	US-1	MOMH?	MHK	-	-	RIM/PT WALL;RED ?GROG TG;NR SPOUT	30	7	1	134	-
296	US-1	GREY	JS86?	-	1	RIM/PT SHLDR	16	28	2	100	-
297	US-1	GREY	JS86?	-	-	RIM/PT SHLDR	14	37	1	96	-
298	US-1	GREY	BDFL	-	1	RIM/PT WALL;DKFAB;LTER SURFS	23	25	2	84	-

299	US-1	PART?	DFL	-	-	RIM/PT WALL;DKFAB & SURFS;LT CORTEX	26	7	1	36	-
300	2403	PART	B38	-	-	RIM>LWR WALL;UNDEC	20	33	1	155	-
301	2439	PART?	DGR	-	-	RIM/PT WALL;CURVED WALL	20	7	1	16	-
302	1240	GREY	BNAT	-	-	RIM/PT WALL;FE ENCRUST	32	10	1	115	-
303	US-1	IAGR	CPN	STAB	-	RIM/PT SHLDR STABBED	19	17	1	88	-
304	US-1	GREY	BTR	-	-	RIM/PT WALL	30	5	1	57	-
305	US-1	GREY	BJS25	LA	-	RIM/PT WALL;LA INT;EXT?	34	6	1	80	-
306	US-1	GREY	BRR	-	-	RIM/PT WALL;2 GROOVES FLANGE	36	4	1	93	-
307	US-1	GREY	BFB	-	-	RIM/PT WALL;GROOVES FLANGE	26	5	1	20	-
308	US-1	GREY	BFB	-	-	RIM/PT WALL;GROOVES FLANGE	20	5	1	17	-
309	US-1	GROG	BFL	-	-	RIM/PT WALL;LGE CRUDE VESS	36	7	1	201	-
310	US-1	GREY	JEV?	-	-	RIM/PT WALL;DISTORTED	13	10	1	11	-
311	US-1	GREY	JIR	-	-	RIM/PT SHLDR	14	11	1	15	-
312	US-1	GREY	JNN?	-	-	RIM/FLANGE;PT NECK	14	6	1	18	-
313	US-1	GREY	JCR	-	1	RIM/FLAKED SHLDR;V LGE VESS;WASTER	30	14	2	311	-
314	US-1	GREY	BNAT	-	-	RIM/PT WALL;WM	32	17	1	174	-
315	US-1	GREY	BNNK	-	-	RIM/PT WALL;NECKLESS ROLL RIM	20.5	40	1	133	-
316	US-1	GREY	BNNK?	-	-	RIM/PT WALL;ROLL RIM	25	23	1	89	-
317	US-1	GREY	BWM102?	-	1	RIM/PT WALL;ROLL FLANGE RIM	29	16	2	215	-
318	US-1	GREY	BWM99	-	-	RIM/PT WALL;SL.DISTORTED	34	9	1	130	-
319	US-1	GREY	BWM	-	-	RIM/PT WALL;STUBBY U/C RIM	30	15	1	147	-
320	US-1	GREY	BNAT	-	-	RIM/PT WALL	27	12	1	93	-
321	US-1	GREY	BJS25V	-	1	RIM/PT WALL	36	12	2	162	-
322	US-1	PART	BK110	-	-	RIM/PT WALL;LTGRY	15	10	1	54	-
323	US-1	GRRO	JRR	-	-	RIM/PT SHLDR	18	10	1	31	-
324	US-1	PART?	BKEV	-	-	RIM/WALL;MIS-FIRED OXID	11	16	1	23	-
325	US-1	VESIC	JEV	-	1	RIM/PT WALL	16	26	2	82	-
326	US-1	VESIC	JEV	-	-	RIM/PT WALL;?SCORED DECOR	16	9	1	27	-
327	US-1	GREY	JBKEV	RLIN?	-	RIM/SHLDR	10	22	1	23	-
328	US-2	GREY	B321	BWL?	-	RIM/PT WALL;V FAINT BWL?	18	15	1	28	-
329	US-2	MOSP?	MHH	-	-	RIM DKRED ON GRY;CR SLIP;VABR	24	10	1	44	-
330	US-2	GREY	BCU15	-	-	RIM/PT WALL;POLISH DKGRY INT;STD FAB	18	15	1	31	-
331	US-2	GREY	BJS34	-	-	RIM/PT WALL	26	7	1	27	-
332	US-2	GREY	DFL	-	-	RIM/WALL	18	30	1	88	-
333	US-2	GREY	B?	-	-	RIM RIDGED & SQ.CUT;UNUS	18	7	1	14	-
334	US-2	GREY	BNK	-	-	RIM/PT WALL	19	20	1	51	-
335	US-2	GREY	BHEM	-	-	RIM/PT WALL	18	10	1	45	-
336	US-2	PART	DFL?	-	-	RIM/PT WALL	18	10	1	16	-
337	US-2	GREY	JDW	-	-	RIM/SHLDR	13	20	1	38	-
338	US-2	GREY	JB?	-	-	RIM CURVED;BKR'ISH;SHLDR?	10	11	1	10	-
339	US-2	GREY	BWM	-	-	RIM THICK/WALL	24	14	1	187	-
340	US-2	GREY	BNAT	-	-	RIM/SHLDR;SL.VESIC COARSEISH FAB	26	11	1	100	-
341	US-2	GREY	BWM	-	-	RIM/PT SHLDR;RIDGE INT RIM	22	12	1	39	-
342	US-2	OXWS	PL?	-	-	RIM;FLAKED WALL	24	10	1	30	-
343	US-2	VESIC	L	HM	-	RIM/WALL	28	10	1	149	-
344	US-2	VESIC	BNAT	-	-	RIM/SHLDR;WHEEL MADE?	22	10	1	34	-
345	US-2	VESIC	BNAT	HM?	-	RIM/PT SHLDR	32	9	1	112	-
346	US-2	VESIC	BNAT	HM?	-	RIM/PT SHLDR	37	7	1	115	-
347	US-2	VESIC	JDW	-	-	RIM/SHLDR;SOOTED FROM USE;?WM	19	9	1	46	-
348	US-2	VESIC	BDRR	-	-	RIM/PT WALL	18	7	1	11	-
349	US-2	VESIC	BD	-	-	RIM/PT WALL	18	7	1	14	-

APPENDIX 3

Market Rasen, Lincolnshire – MRL99

Environmental Archaeology Assessment

Introduction

Excavations were conducted by a team from Lindsey Archaeological Services on the site of a Roman pottery kiln at Market Rasen. During the course of the excavations a series of samples were taken from deposits in Area 2 associated with the kiln structure (2004), two hearth features, 2127 and 2128, and ditches and gullies. In Area 1 a small number of samples were taken from a series of features including a well. In addition to these the sediments infilling six pottery vessels were also sampled. In total 46 soil samples were collected for assessment (Table 1). In addition to these samples twelve small samples were taken during augering of the deposits in Area 1 to ascertain the depth of the quarry pits in advance of excavation. Woodwork and timbers survived in the well excavated in Area 1 and six pieces of worked structural timber from the well and a small collection of small roundwood, possibly wicker or wattle was also sampled (Table 2). During the excavations animal bone was recovered by hand and the small assemblage has been recorded. The pottery dates the site to the 2nd- late 3rd/4th century AD.

The site lies on acid aeolian sands and it was recognised prior to excavation that the primary environmental material would be charred plant remains and charcoal, with the possible fuels being used to fire the pottery kilns being one area for research. Evidence for other activities such as domestic occupation or other industrial processes being a secondary aspect of the environmental work.

Methods

The soil samples were processed in the following manner. Sample volume and weight was measured prior to processing. The samples were washed in a 'Siraf' tank (Williams 1973) using a flotation sieve with a 0.5mm mesh and an internal wet-sieve of 1mm mesh for the residue. Both residue and float were dried, except for the waterlogged contexts, and the residues subsequently re-floated to ensure the efficient recovery of charred material and mollusc shells. The first flot of the waterlogged contexts was kept wet and the residue refloated while it was still a little damp. The second flot was only partially dried before bagging. The dry (or damp) volume of the flots was measured, and the volume and weight of the residue recorded.

The residue was sorted by eye, and environmental and archaeological finds picked out, noted on the assessment sheet and bagged independently. A magnet was run through each residue in order to recover magnetised material such as hammerscale and prill. The residue was then discarded. The float of each sample was studied under a low power binocular microscope. The presence of environmental finds (ie snails, charcoal, carbonised seeds, bones etc) was noted and their abundance and species diversity recorded on the assessment sheet. The float was then bagged. The float and finds from the sorted residue constitute the material archive of the samples.

The individual components of the samples were then preliminarily identified and the results are summarised below in Tables 3 and 4.

Results

A few uncharred seeds of goosefoots, *Chenopodium* sp., and docks, *Polygonum* sp., recent rootlets and occasional worm egg capsules were recorded in a number of the samples indicating low levels of contamination.

Table 1: Market Rasen. Samples taken for environmental analysis

sample no.	area	context	sample vol. l.	sample wt kg	feature type	Date
1	1	1000	5	5	Burnt deposit	Rom.
2	1	1059	10	12.5	Organic layer, well	Rom.
3	1	1033	9	12	Organic layer, well	Rom.
4	2	2109	7	7	Charcoal from primary fill 2099	Rom.
5	1	1119	14	13	Organic waterlogged secondary fill	Rom.
6	2	2200	10	12	Fill inside kiln 2004	Rom.
7	2	2201	30	37	Charcoal rich fill of fire pit	Rom.
8	2	2139	2	1.5	Secondary fill hearth 2127	Rom.
9	2	2280	2	2	Primary fill hearth 2127	Rom.
10	2	2281	4	4	Tertiary fill hearth 2277	Rom.
11	2	2282	9	8.5	Secondary fill (ash) hearth 2277	Rom.
12	2	2283	1	0.5	Burnt clay from 2203, hearth 2277	Rom.
13	2	2284	4	4	Mixed 2284/2285, hearth 2277	Rom.
14	2	2285	5	4.5	Hearth material 2277	Rom.
15	2	2286	3	2.5	Single fill of gully 2287	Rom.
16	2	2138	3	2.5	Tertiary fill hearth 2127	Rom.
17	2	2335	8.5	11	Fill inside kiln 2004	Rom.
18	2	2241	10	13	Rake out for kiln 2004	Rom.
19	2	2302	10	13	Rake out for kiln 2004	Rom.
20	2	2388	10	11	Rake out for kiln 2004	Rom.
21	2	2249	10	13	Rake out for kiln 2004	Rom.
22	2	2301	5	6	Rake out for kiln 2004	Rom.
23	2	2372	10	15	Rake out for kiln 2004	Rom.
24	2	2333	10	15	Rake out for kiln 2004	Rom.
25	2	2359	7	6	Secondary fill of hearth? 2128	Rom.
26	2	2285	8	8	Hearth make-up 2128	Rom.
27	2	2358	8	8	Secondary fill of hearth 2128	Rom.
28	2	2381	3	2.5	Primary fill hearth 2128	Rom.
29	2	2377	3	3	Fill of hearth 2128	Rom.
30	1	1329	7	9	?tertiary fill of 1332	Rom.
31	1	1330	7	11	?secondary fill of 1332	Rom.
32	1	1049	19	22	Fill of pit 1050	Rom.
33	2	2010	7	11	Fill of 2007	Rom.
34	2	2005	29	40	Secondary fill of 2006	Rom.
35	2	2013	20	28	Primary fill of 2006	Rom.
36	2	2412	30	55	Primary fill of 2407	Rom.
37	2	2095	20	27	Tertiary fill of 2097	Rom.
38	2	2096	20	29	Primary fill of 2097	Rom.
39	2	2439	5	6.5	Single fill of 2438	Rom.
/6\			5	7.5	Vessel fill	Rom.
/17\	2	2295	4	4.5	Vessel fill	Rom.
/18\	2	2307	1	1	Vessel fill	Rom.
/22\	2	2371	1	1	Vessel fill	Rom.
/24\	2	2372	2	1.5	Vessel fill	Rom.
	2	2284	0.5	0.5	Vessel fill	Rom.
U/S			3	3.5	Vessel fill	Rom.

Area 1

Seven samples were taken from Area 1. Samples 1, 30 and 31 derive from dumps within the upper fills of an area of quarrying. Sample 32 is a fill of pit 1050 which is cut in to the top of the quarry fills and sample 5 is an organic rich deposit from the base of a quarry pit. Samples 2 and 3 derive from two fills of well 1332.

All these deposits produced Roman pottery, while those from the quarry and features in the quarry also produced reduced fired clays. Three samples produced a little slag and bone (Table 3). Two of the contexts were rich in charcoal, 1049 and 1330, both from features cut into the quarry fills. These also produced small quantities of charred grain and weed seeds, with a little chaff in feature 1332.

The well fills and deposits at the base of a quarry pit (1119) were all waterlogged and contained exceedingly well preserved organic assemblages. These included numerous seed and beetle fragments, wood – including small roundwood, twigs and plant stems. The invertebrates included caddis larval cases, waterfleas (*Daphnia* sp.) in sample 5, many terrestrial beetles including carabids, weevils, dung beetles and other families. The plant remains are dominated by seeds and small wood fragments with occasional leaves, including possible gorse, and seed heads. The condition, abundance and diversity of the plant and invertebrate remains is exceptional and can be expected to give a good indication of the immediate environment of the well and quarry pits.

Table 2: Small soil and wood samples from Area 1

Samples		
auger no.	depth	description
1	0-0.45	fine yellow sand
1	0.45-0.5	grey sandy clay
2	1.0m	grey brown slightly silty sand
2	1.1	grey slightly sandy clay
3	1.35	dark grey slightly silty sand *
6	1.25	dark grey organic humic silty sand *
8	0.25	dark grey humic sand
10	1.1	dark grey organic silty sand *
12		grey silty sand
14	0.15-0.2	grey sandy clay
16	0.25	grey slightly silty sand
18	0.4-0.45	grey slightly silty sand
Timber		
context	feature	description
1034	well 1031	radially split timber
1034	well 1031	radially split timber
1034	well 1031	radially split timber
1034	well 1031	timber
1034	well 1031	timber
1034	well 1031	3 small pieces timber
1035	wicker?	several pieces small roundwood

* samples suitable for pollen analysis

No work has been carried out on the timber from the well or the small roundwood or wicker samples. These will require identification and assessment of the evidence for working in the context of the well structure and context 1035.

No processing has been conducted on the soil samples collected during the augering. On the basis of the results of the assessment of the bulk samples from the well and quarry pit the samples marked with an asterisk in Table 2 may be suitable for pollen analysis and could give a more regional picture of the local environment around the site.

Area 2

A series of discrete features were sampled in Area 2. These included ten samples from deposits within and associated with the kiln, 2004; two from the secondary and tertiary fills of ditch 2006; one from the primary fill of ditch 2007; two from the primary and secondary fills of ring gully 2097; one from feature 2099 adjacent to hearth 2277; three from deposits of hearth 2127; five from deposits of hearth 2128; five from the fills of 2277 a part of hearth structure 2128; and single fills of ditches 2287, 2407 and 2438.

Kiln 2004

The rake out deposits and fills of kiln 2004 are characterised by relatively large quantities of pottery, a large amount of reduced fired clay, a few small globules of slag and occasional fragments of animal bone (Table 3). The fired clay is presumably part of the fabric of the kiln. The pottery are reduce fired grey wares.

The environmental finds from these samples are consistent. They are all dominated by charcoal with only a few charred cereal grains, but several charred weed seeds. There is no chaff in any of the samples. The charcoal element of the flots is made up almost entirely of small and very small twisted twiggy material, with occasional tuberous matter. The presence of charred flower buds and shoots, the latter apparently of heather (*Calluna vulgaris*), with small twiggy material suggests that most of the charcoal may derive from heather or something similar. There is little to no small brushwood or roundwood charcoal with a diameter of greater than 6mm in the charred state. The tuberous material might derive from grasses and the relative abundance of small weed seeds perhaps indicates some dry plant matter being used as kindling for the kiln fire.

Wheat, barley, pulses and a plum stone have been preliminarily identified among the charred remains.

There is a slight variation in the assemblages from different parts of the kiln. Samples 6, 7 and 17 were taken from the oven area, while samples 18-24 were the rake out from the kiln. The rake out samples contain much higher concentrations of charcoal than the oven samples, and in these latter samples charred grain is absent or at a much lower concentration.

Hearths 2127, 2277 and 2128

This group of features lies adjacent in one area of the site and were preliminarily identified as hearths for the drying of the pots prior to firing.

Feature 2127 is provisionally identified as a hearth. The primary, secondary and tertiary fills of this feature were sampled in small samples (see Table1). Archaeological finds were fairly limited with a few small sherds of pottery, a little fired clay and fragments of slag, coal, and a little animal bone in the tertiary fill. The fired clay in this feature was generally oxidised rather than the reduced fired clays found in the kiln samples. The flots were small (Table 4) and produced little material, although the tertiary fill, sample 16, included an abundance of

Table 3: Archaeological finds from the assessed samples

sample no.	context	feature	sample vol. l.	residue vol. ml.	pot £/#	fired clay wt. *	ham' scale	slag	fuel ash slag	coal	bone wt	other
3	1033	well	9	350	1/7							
2	1059	well	10	100	13/39						4	small frags brick/tile
1	1000	quarry	5	150	6/16	56						burnt flint
5	1119	quarry	14	250	68/187	3		11				
32	1049	1050	19	1750	75/594	696		+			<1	
30	1329	1332	7	50	7/48	+						
31	1330	1332	7	75	5/11	27		+			<1	
6	2200	2004	10	600	18/34	421		+	+	+		
7	2201	2004	30	1250	47/115	1187		2		+		burnt stone
18	2241	2004	10	300	20/86	180	+	+				
21	2249	2004	10	800	16/71	488		+				splinter of glass
22	2301	2004	5	250	5/34	104		+		+	1	
19	2302	2004	10	500	7/21	258		+				
24	2333	2004	10	1000	14/40	753				+	<1	
17	2335	2004	8.5	600	8/13	432			+			
23	2372	2004	10	550	20/123	281				+	1	
20	2388	2004	10	400	11/53	261		+			1	
34	2005	2006	29	1000	70/628	336	+	+		+	<1	
35	2013	2006	20	750	53/185	313		+		+	<1	
33	2010	2007	7	200	8/108	6	+	+				
37	2095	2097	20	250	18/86	77		+			<1	
38	2096	2097	20	150	15/267	37	+	+		+	<1	
4	2109	2099	7	50		4			+		<1	
16	2138	2127	3	10		4	+	+		+	1	
8	2139	2127	2	8	4/<1	+				+		
9	2280	2127	2	100	4/<1	9		?*	+	+		
26	2285	2128	8	100	1/<1	30		2			1	
27	2358	2128	8	100	6/12	17					<1	
25	2359	2128	7	100		22		+	+			
29	2377	2128	3	20		8						
28	2381	2128	3	50		8						
10	2281	2277	4	100	11/21	17		?	+	+		
11	2282	2277	9	400	5/6	28		80	+			
12	2283	2277	1	10					+			
13	2284	2277	4	250		31						
14	2285	2277	5	150		64			+	+		
15	2286	2287	3	25	2/5	16		+		+		burnt flint
36	2412	2407	30	50	7/23	1						
39	2439	2438	5	25	4/3	3	+					
U/S			3	100	14/199	14						
/6\			5	70	18/26	<1					<1	
	2284		0.5	30		18						
/17\	2295		4	25	30/15	<1					<1	spalled pottery sherds
/18\	2307		1									
/22\	2371		1	6							3	eroded bone fragments
/24\	2372		2	10		8						

£/# - no sherds/weight in g.
+ present in quantities of less than 1 gramme weight or 1-10 pieces; ++ = >10 pieces
* sorted from >7mm fraction of residue only (+ present in <7mm fraction)

charred cereal grain, with wheat, barley, oats(?) and pulse (possible pea) preliminarily identified. This concentration of grain in the tertiary fill may derive from deposits in the adjacent feature 2128/2277 (see below).

Hearth 2277/2128

This feature appeared to be a sunken hearth and was filled by numerous layers most of which were individually sampled. Ten samples were collected from nine layers, and sample size varied from one to nine litres of deposit. A little pottery was recovered from six of the samples with small quantities of fired clay coming from all but the smallest. Most of the fired clay was fired under oxidising conditions. A little slag and fuel ash slag was present in a number, whilst samples 9 and 11 produced relatively large quantities of light vescicular grey slag. Close examination (up to x30 magnification) shows that some of these slag pieces have a top and bottom surface. On the bottom surface many unfused grains of sand are visible within the slag matrix, while on the upper surface almost all the grains are fused and glassy. This suggests the slag has formed from the natural sands on the site, probably at temperatures up to approximately 600° C.

The flots from these samples are not large, but a group of three samples from three of the earlier fills of the feature (see Fig. 00) produced relatively large flots which were dominated by charred cereal grain, and in two of the contexts included abundant chaff fragments and weed seeds (2377 and 2381). Context 2099 (sample 4) associated with hearth 2277 is the richest sample from the site with large quantities of charcoal, charred grain, chaff and weed seeds (Table 4), suggesting perhaps a primary deposit of this debris within Area 2. The cereals included wheat, barley and oats with legumes, and probably peas and beans also present. These assemblages have the appearance of crop processing debris, and may occur in this feature as a result of being used for fuel or may indicate the drying of corn, prior to threshing, over fires that were also used for drying the pots. A detailed botanical and statistical analysis of these assemblages may help to resolve the character of the charred plant assemblages and establish whether this feature could have indeed served a dual purpose.

Ditch and gully fills

For the location of these fills see Figure 00. Two samples were taken from a ring gully, 2097, west of the kiln. These contained pottery, fired clay, a little slag and bone much like most of the other samples. The flots included fairly high concentrations of charred cereal grain and chaff, as well as charcoal, and although a much lower density of material than in 2128 the assemblage appears similar and suggests the inclusion of crop processing waste in the gully.

The two samples from ditch 2006, a few metres west of the kiln, produced a finds and environmental assemblage very similar to that from the kiln rake out (Tables 3 and 4) suggesting that this probably represents material redeposited or distributed from the rake out of the kiln, or potentially another kiln not excavated within the trench.

The remaining ditches produced small quantities of pottery, fired clay, occasional hammerscale, charcoal, charred grain and weed seeds. This assemblage is an amalgam of the debris on the site and presumably reflects the incorporation of the general site debris in these features with no specific evidence of one activity or another.

Table 4: Environmental finds from the assessed samples

sample no.	cont.	feature	sample vol. l.	flot vol. ml.	char-coal	charr'd grain	charr'd chaff	charr'd seeds	snails	burnt bone	
3	1033	well									
2	1059	well									
1	1000	quarry	5	1	1	?		1	1		
5	1119	quarry	14								
32	1049	1050	19	160	5+	2		4			buds, shoots
30	1329	1332	7	6	3		1	2			shoots
31	1330	1332	7	55	5	2	2	2		+	
6	2200	2004	10	9	2			1		+	
7	2201	2004	30	50	4	1		4	1	+	wheat, barley?, plum, shoots
18	2241	2004	10	28	4	1		2			
21	2249	2004	10	50	5	1		2			barley?
22	2301	2004	5	40	5	1		2	1		buds
19	2302	2004	10	65	5			3		+	buds
24	2333	2004	10	60	5	1		3			barley?, buds, shoots, cattle
17	2335	2004	8.5	11	3			3	1		
23	2372	2004	10	55	5	1		3			barley, pulse?, buds
20	2388	2004	10	40	5	1		2	1		buds, shoots
34	2005	2006	29	68	5	1		2	1	+	wheat, buds
35	2013	2006	20	42	5	1		2	1		pulse?
33	2010	2007	7	8	3	1	1	1			barley
37	2095	2097	20	50	5	3	2	1	1		wheat, barley
38	2096	2097	20	35	4	3	2	2	1		wheat, barley
4	2109	2099	7	350	5+	5	5	3		+	wheat, barley, oats
16	2138	2127	3	6	1	4	1	1			wheat, barley, oats?, pulse/pea?
8	2139	2127	2	1	2						
9	2280	2127	2	<1	1						
26	2285	2128	8	1	1	2	1	2			wheat, oats
27	2358	2128	8	1	2	2					wheat, barley?
25	2359	2128	7	10	2	4		3			wheat, barley, oats
29	2377	2128	3	4	2	4	3	3			wheat, barley, oats, pea/bean, legume
28	2381	2128	3	7	3	5	2	5	1		wheat, barley, oats, bean, pea?, legume
10	2281	2277	4	6	2	2		2		+	wheat, barley, bean?, pea?
11	2282	2277	9	4	2	1		1			barley?
12	2283	2277	1	<1							
13	2284	2277	4	6	2	1	1				
14	2285	2277	5	8	3	1	1	1			wheat, barley
15	2286	2287	3	<1	1	2		3			wheat, barley, cherry/sloe
36	2412	2407	30	4	2	1		1			
39	2439	2438	5	9	3	1		1			
U/S			3								
/6\			5	1	1	1		1			
	2284		0.5	1	1						
/17\	2295		4	<1	1						
/18\	2307		1	<1							
/22\	2371		1	<1							
/24\	2372		2	3	2			1			shoots

* frequency – 1=1-10; 2=11-50; 3=51=150; 4=151-250; 5=>250 items

Vessel contents
The seven small samples taken from within pottery vessels produced very little material (Table 3). Small finds <6>, <17> and U/S included pottery, that from <17> being all spalled sherds, while U/S was a major part of the pot itself. Small find <24>, that from context 2284 and U/S also produced some fired clay. <22>, context 2371, produced only eroded bone, probably animal bone with a little coarse sand. The environmental components of the samples were even more restricted with a little charcoal in five of them, charred weed seeds in two and a few charred cereal grains in one (Table 4).

The contents of these vessels appears to be fairly incidental and is probably composed of the soils that surrounded the pots when they were discarded.

Discussion
Industrial evidence
The occurrence of very small quantities of hammerscale in six of the samples, all of them in Area 2, perhaps suggests that some iron smithing was taking place somewhere in the vicinity. At these low concentrations such activities need not have been very close to the excavated trench.

Much of the small quantities of slag from the site are probably fuel ash slags that have derived merely from the fires being used to fuel the kiln and hearths. Two contexts produced rather larger assemblages, 2280 and 2282. 2282 was described on site as an ash layer and 2280 as charcoal rich. Both derive from hearth type structures and the character of the slag is similar to the smaller fuel ash slag from the site. These contexts may indicate *in situ*, perhaps repeated, firing producing a vitrification of the sandy matrix of the hearth, or perhaps the redeposition of such material from a hearth. This slag clearly indicates that fairly high temperatures were probably reached in these hearths, perhaps up to 600° C.

Charcoal
The charcoal from the site is characterised by a lack of larger wood fragments, brushwood or coppice wood. Apart from one or two pieces in several samples the majority of the charcoal is thin, less than 6mm diameter, twisted stem and twig fragments. Although none of this has been identified the presence of small charred shoots apparently of heather (*Calluna vulgaris*), charred flower buds or seed heads, and a similar looking stem type in all the features suggests that there may have been a specific selection of heather and similar fuel types to fire both the kiln and hearths on the site.

This lack of larger wood fuel is unusual, and has not been recorded on any other Roman kiln sites (pers comm. Rowena Gale and Paul Booth) where a mixed species assemblage of brushwood and roundwood is more typical. The presence of shoots and buds also suggests that the fuel is being collected and possibly used while still green. The site lies on aeolian acid sand upon which a heathland may have developed and gorse and heather may have been local resources.

Charred plant remains
Two elements of the charred plant remains are interesting. Most of the kiln and other flots include small plant stems, tuberous material and fairly frequent weed seeds – even when little or no cereals are present. It may be that this component of the charred material derives from

something like tinder used to start the fires. Although species such as heather and gorse catch fire very easily when dried, if being used green, as has been suggested above, a tinder would may have been needed.

The second element is the charred cereal assemblages rich in grain and chaff. This appears to be an indication of crop processing on the site but will need to be specifically identified and quantified before a final interpretation can be made. Its presence particularly around hearth 2128 and 2099 suggests that these structures may have been functioning as corn driers as well as, or possibly rather than, pot drying hearths.

Waterlogged samples
The three waterlogged samples from Area 1 are likely to give little information relating to the activities taking place at the site. On the other hand their richness and excellent preservation means that the plant and insect remains that survive in them may give a good picture of the environment of, and around, the quarry pits contemporary with their filling. Three of the samples from the auger survey are suitable for studying the pollen preserved in the sediments to give a broader environmental picture than the macrofossil evidence.

The waterlogged deposits in the well also preserved some of the timbers of the well structure. These are clearly worked and should be described and their species and reduction method analysed.

Excavated Animal Bone
A small collection of fifty-three bone fragments, several of them in pieces, was made during excavation. These have been identified and recorded following the procedures of the Environmental Archaeology Consultancy (see Appendix). There is a fairly wide range in the state of preservation of the material, from severely eroded bone fragments to those in an excellent state of preservation from the organic fills at the base of the quarry pit. Nearly 80% of the bone fragments were recorded from Area 1, while only thirteen pieces were recovered from Area 2. The bone from Area 2 was in poorer condition. Some of the preservation is sufficiently poor to suggest that some bones will have been lost from the assemblage completely as a result of post-depositional corrosion in the acid sands of the site.

Table 5: Excavated animal bones

	Area 1	Area 2
Horse	5	1
Cattle	12	4
Cattle size	14	8
Sheep/goat	4	
Sheep size	1	
Pig	2	
Dog	1	
Unidentified	1	

Bones of cattle, horse, sheep/goat, pig and dog have been specifically identified (Table 5). This small assemblage includes both immature and adult cattle and sheep, and immature horse. A few of the bones are butchered and a similar proportion dog gnawed.

There are a number of important facets about the environmental assemblages from this site that are unusual and justify further work. There is very little bone from Area 2. This may be, in part, due to preservation but is more likely a reflection of a lack of domestic activity on the site. Most of the environmental data can be readily placed within an industrial context, whether pottery making or corn drying. The environmental evidence falls into four areas of possible research:

1. The fuelling of the kiln and nearby hearths. - The charcoal and charred plant and tuberous material from selected samples from the kiln, 2004, and hearths 2099, 2127, 2128 and 2277 should be identified to species and characterised in order to define the fuel being used at this site. The site may have lain in an area of heathland with heathers and gorse a locally available fuel resource. The analysis of the pollen from the base of the quarry pits may help characterise the local vegetation around the site.

2. The character of the charred crop remains and their functional significance. - The charred plant assemblages from selected samples from the kiln (2004), hearths 2099, 2127, 2128 and 2277, and the fills of ditches 1332, 2097 and 2287 should be studied. The study should include the identification of the cereal species present and their relative abundance; the weed taxa present; and the proportion of grain, chaff and weed seeds. These results should be used to interpret the origin of the assemblages and their probable context on this site and compared with other contemporary assemblages, such as Marijke van der Veen's (1989) work on Roman corn dryer assemblages. It may be that the possible corn drying was being carried out on a commercial basis reflecting the industrial rather than domestic or agricultural character of the site.

3. The palaeoenvironment of the site and its region. – The three waterlogged samples from Area 1 should be studied for plant macrofossils, wood and invertebrate remains to establish the character of the immediate environment of the site with a more regional picture being obtained from pollen analysis of three samples taken during the auger survey. The pollen data may be an important element for considering the reasons for the fuel selection at the site.

4. The identification and description of the structural timber and wood. – The sampled timbers and wood from the structure of the well should be identified to species and consideration given to the manner in which the timbers were reduced or worked to their functional shape. The apparent absence of large charcoal as a fuel on the site may indicate a relative lack of timber and the species selection and character of the wood used to construct the well may also reflect the local availability of timber.

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Archive Catalogue of Animal Bone from Market Rasen - MRL99

site	context	species	bone	no.	side	fusion	zone	butchery	gnawing	toothwear	measurement	path.	comment	preservation
MRL99	1015	BOS	UPM3	1	L					G12			LOCALLY ERODED TOOTH DENTINE AND ÉNAMEL	3
MRL99	1028	EQU	FEM	1	F								SHAFT FRAGMENT	4
MRL99	1029	EQU	FEM	1	F								DISTAL SHAFT FRAGMENT - WITH PART ZONE 4	4
MRL99	1029	SUS	SKL	1	F								PARIETAL FRAG-SUTURE OPEN	4
MRL99	1033	OVCA	MTC	1	R		125						PROX END AND SHAFT	4
MRL99	1033	OVCA	TIB	1	L	DF	567				SD-6.3 Bd-30.8 Dd-22.9		DISTAL HALF	5
MRL99	1053	BOS	TIB	1	L								DISTAL SHAFT- 2 PIECES	4
MRL99	1053	CSZ	RIB	1	F								4 PIECES-SHAFT FRAG	3
MRL99	1053	CSZ	TIB	1	F								SHAFT-MANY FRAGMENTS-SPLITTING	3
MRL99	1070	OVCA	ULN	1	R	PN	2						PROX FRAGMENT- 2 PIECES-CONCRETED	3
MRL99	1083	BOS	HC	1	L		1						BASAL HALF CORE AND PART FRONTAL- 12 PIECES-OVAL SECTION FORWARD CURVING	3
MRL99	1083	CAN	MAX	1	R								FRAGMENT WITH CARNBASSIAL AND MOLARS-ERODING- SOME LOSS OF TOOTH TISSUE	3
MRL99	1083	CSZ	TRV	1	F								TRANSVERSE PROCESS	3
MRL99	1095	BOS	DLP3	1	R					h7				3
MRL99	1095	BOS	INN	1	L	EF	59						ACETAB FRAGMENT- SEVERELY ERODED	2
MRL99	1144	BOS	RAD	1	L		3	CH	DG				PROX HALF SHAFT-PROX END CHEWED-SHAFT CHOPPED	3
MRL99	1145	BOS	INN	1	R	EF	34579						3 PIECES-SEVERELY ERODED	2
MRL99	1145	BOS	SCP	1	L	DF	12345						FRAGMENTED - 10 PIECES	2
MRL99	1145	BOS	TIB	1	L	DJ	567						DISTAL END	2
MRL99	1145	CSZ	UNI	6	F								PROBABLY PARTS OF ABOVE	2
MRL99	1145	SUS	LC	1	F								FRAG CANINE- MALE	4
MRL99	1240	BOS	AST	1	R		1						COMPLETE-ERODED	2
MRL99	1240	CSZ	RIB	1	F								SHAFT FRAG	3
MRL99	1260	EQU	PH3	1	F								FRAGMENT	3
MRL99	1262	OVCA	TIB	1	R		7		DG				DISTAL HALF SHAFT-DISTAL CHEWED	4
MRL99	1262	SSZ	LBF	1	F								SHAFT FRAG	3
MRL99	1262	UNI	LBF	1	F								INDET	4
MRL99	1289	BOS	HUM	1	L		69		DG				DISTAL SHAFT-END CHEWED- 7 PIECES	4
MRL99	1291	BOS	HUM	1	L		69	KN					DISTAL SHAFT-MEDIAL SIDE WITH CUT MARKS	4
MRL99	1291	CSZ	RIB	1	F								SHAFT FRAG- 7 PIECES	4
MRL99	1325	CSZ	UNI	3	F								PARTS OF ABOE BONES?	4
MRL99	1325	EQU	FEM	1	L	DJ	4567						DISTAL END- 6 PIECES	4
MRL99	1325	EQU	TIB	1	L	PN	123						PROX EPI-SAME JOINT AS ABOVE- 2 PIECES	4
MRL99	2020	CSZ	RIB	1	F								SHAFT FRAG-4 PIECES	3
MRL99	2087	CSZ	UNI	1	F			C					CALCINED FRAG-ACETAB?	4

Archive catalogue MRL99 (continued)

site	context	species	bone	no.	side	fusion	zone	butchery	gnawing	toothwear	measurement	path.	comment	preservation
MRL99	2142	BOS	LM2	1	R					J6			POST CUSP ONLY	4
MRL99	2276	CSZ	UNI	1	F								FRAGMENT-?LBF	2
MRL99	2276	CSZ	UNI	4	F								INDET	3
MRL99	2283	BOS	ULN	1	F								SHAFT FRAG DISTAL TO SEMILUNARIS-VERY ERODED	2
MRL99	2295	BOS	HUM	1	L	DF	78						DISTAL END-SEVERELY ERODED- 6 PIECES	2
MRL99	2370	BOS	TTH	1	F								ENAMEL FRAGMENTS- 7 PIECES	1
MRL99	2396	CSZ	RIB	1	F								SHAFT FRAG- 3 PIECES	3
MRL99	2412	EQU	LPM2	1	R								WORN-DENTINE AND CEMETUM LOST	2

THE ENVIRONMENTAL ARCHAEOLOGY CONSULTANCY

Key to codes used in the cataloguing of animal bones

SPECIES

BOS	cattle
CSZ	cattle size
SUS	pig
OVCA	sheep or goat
OVI	sheep
SSZ	sheep size
EQU	horse
CER	red deer
CAN	dog
MAN	human
UNI	unknown
CHIK	chicken
GOOS	goose, dom
LEP	hare
UNB	indet bird
MALL	duck, dom.
GULL	gull sp.
FISH	fish
UNIB	bird indet
UNIF	fish indet
GSZE	goose size
BEAV	beaver
CORV	crow or rook
POLE	polecat/ferret
PART	partridge
ORC	rabbit
ROD	rodent
JACK	jackdaw
OWL	owl indet.
AUR	aurochs
DUCK	duck sp.
CRA	goat
FER	feral dove
DAM	fallow deer

BONE

SKL	skull
TEMP	temporal
FRNT	frontal
PET	petrous
PAR	parietal
OCIP	occipital
ZYG	zygomatic
MAN	mandible
MAX	maxilla
ATL	atlas
AXI	axis
CEV	cervical vertebra
TRV	thoracic vertebra
LMV	lumbar vertebra
SAC	sacrum
CDV	caudal vertebra
SCP	scapula
HUM	humerus
RAD	radius
MTC	metacarpus
MC1-4	metacarpus 1-4
INN	innominate
ILM	ilium
PUB	pubis
ISH	ischium
FEM	femur
TIB	tibia
AST	astragalus
CAL	calcaneum
MTT	metatarsus
MT1-4	metatarsus 1-4
PH1	1st phalanx
PH2	2nd phalanx
PH3	3rd phalanx
LM1-LM3	Lower molar 1 - molar 3
UM1-UM3	upper molar 1 - molar 3
LPM1-LPM4	lower premolar 1-4
UPM1-UPM4	upper premolar 1-4
DLPM1-4	deciduous lower premolar 1-4
DUPM1-4	deciduous upper premolar 1-4
MNT	mandibular tooth
MXT	maxillary tooth
LBF	long bone
UNI	unidentified
STN	sternum
INC	incisor
TTH	indet. tooth
CMP	carpo-metacarpus
SKEL	skeleton

SIDE

W - whole
L - left side
R - right side
F - fragment

FUSION

Records the fused/unfused condition of the epiphyses
P - proximal; D - distal; E - acetabulum;
N - unfused; F - fused; C - cranial; A - posterior

TOOTH WEAR

Codes are those used in Grant, A. 1982 The use of tooth wear as a guide to the age of domestic animals, in B.Wilson, C.Grigson and S.Payne (eds) *Ageing and sexing animal bones from Archaeological sites, 91-108.*

Teeth are labelled as follows in the tooth wear column:

h ldpm4/dupm4	f ldpm2/dupm2
H lpm4/upm4	g ldpm3/dupm3
I lm1/um1	
J lm2/um2	
K lm3/um3	

ZONES

zones record the part of the bone present.
The key to each zone on each bone is on page 2

MEASUREMENTS

Any measurements are those listed in A.Von den Driesch (1976) *A Guide to the Measurement of Animal Bones from Archaeological Sites*, Peabody Museum Bulletin 1, Peabody Museum, Harvard, USA

PRESERVATION

1 - enamel only surviving
2 - bone very severely pitted and thinned, tending to break up teeth with surface erosion and loss of cementum and dentine
3 - surface pitting and erosion of bone, some loss of cementum and dentine on teeth
4 - surface of bone intact, loss of organic component, material chalky, calcined or burnt
5 - bone in good condition, probably with some organic component

ZONES - codes used to define zones on each bone

SKULL -
1. paraoccipital process
2. occipal condyle
3. intercornual protuberance
4. external acoustic meatus
5. frontal sinus
7. entorbitale
8. temporal articular facet
9. facial tuber
0. infraorbital foramen

MANDIBLE
1. Symphyseal surface
2. diastema
3. lateral diastemal foramen
4. coronoid process
5. condylar process
6. angle
7. anterior dorsal acsending ramus posterior M3
8. mandibular foramen

VERTEBRA
1. spine
2. anterior epiphysis
3. posterior epiphysis
4. centrum
5. neural arch

SCAPULA
1. supraglenoid tubercle
2. glenoid cavity
3. origin of the distal spine
4. tuber of spine
5. posterior of neck with foramen
6. cranial angle of blade
7. caudal angle of blade

HUMERUS
1. head
2. greater tubercle
3. lesser tubercle
4. intertuberal groove
5. deltoid tuberosity
6. dorsal angle of olecranon fossa
7. capitulum
8. trochlea

RADIUS
1. medial half of proximal epiphysis
2. lateral half of proximal epiphysis
3. posterior proximal ulna scar and foramen
4. medial half of distal epiphysis
5. lateral half of distal epiphysis
6. distal shaft immediately above distal epiphysis

ULNA
1. olecranon tuberosity
2. trochlear notch- semilunaris
3. lateral coronoid process
4. distal epiphysis

METACARPUS -
1. medial facet of proximal artciulation, MC3
2. lateral facet of proximal articulation, MC4
3. medial distal condyle, MC3
4. lateral distal condyle, MC4
5. anterior distal groove and foramen
6. medial or lateral distal condyle 6. ectorbitale

FIRST PHALANX
1. proximal epiphysis
2. distal articular facet

INNOMINATE
1. tuber coxae
2. tuber sacrale + scar
3. body of illium with dorso-medial foramen
4. iliopubic eminence
5. acetabular fossa
6. symphyseal branch of pubis
7. body of ischium
8. ischial tuberosity
9. depression for medial tendon of rectus femoris

FEMUR
1. head
2. trochanter major
3. trochanter minor
4. supracondyloid fossa
5. distal medial condyle
6. lateral distal condyle
7. distal trochlea
8. trochanter tertius

TIBIA
1. proximal medial condyle
2. proximal lateral condyle
3. intercondylar eminence
4. proximal posterior nutrient foramen
5. medial malleolus
6. lateral aspect of distal articulation
7. distal pre-epiphyseal portion of the diaphysis

CALCANEUM
1. calcaneal tuber
2. sustentaculum tali
3. processus anterior

METATARSUS
1. medial facet of proximal artciulation, MT3.
2. lateral facet of proximal articulation, MT4
3. medial distal condyle, MT3
4. lateral distal condyle, MT4
5. anterior distal groove and foramen
6. medial or lateral distal condyle

THE FIGURES

Fig. 1 Location of the Market Rasen Linwood Road site (C based on the 1956 Ordnance Survey 1:25,000 map Sheet TF 19. © Crown copyright, reproduced at reduced scale with the permission of the Controller of HMSO. LAS Licence No. AL 100002165).

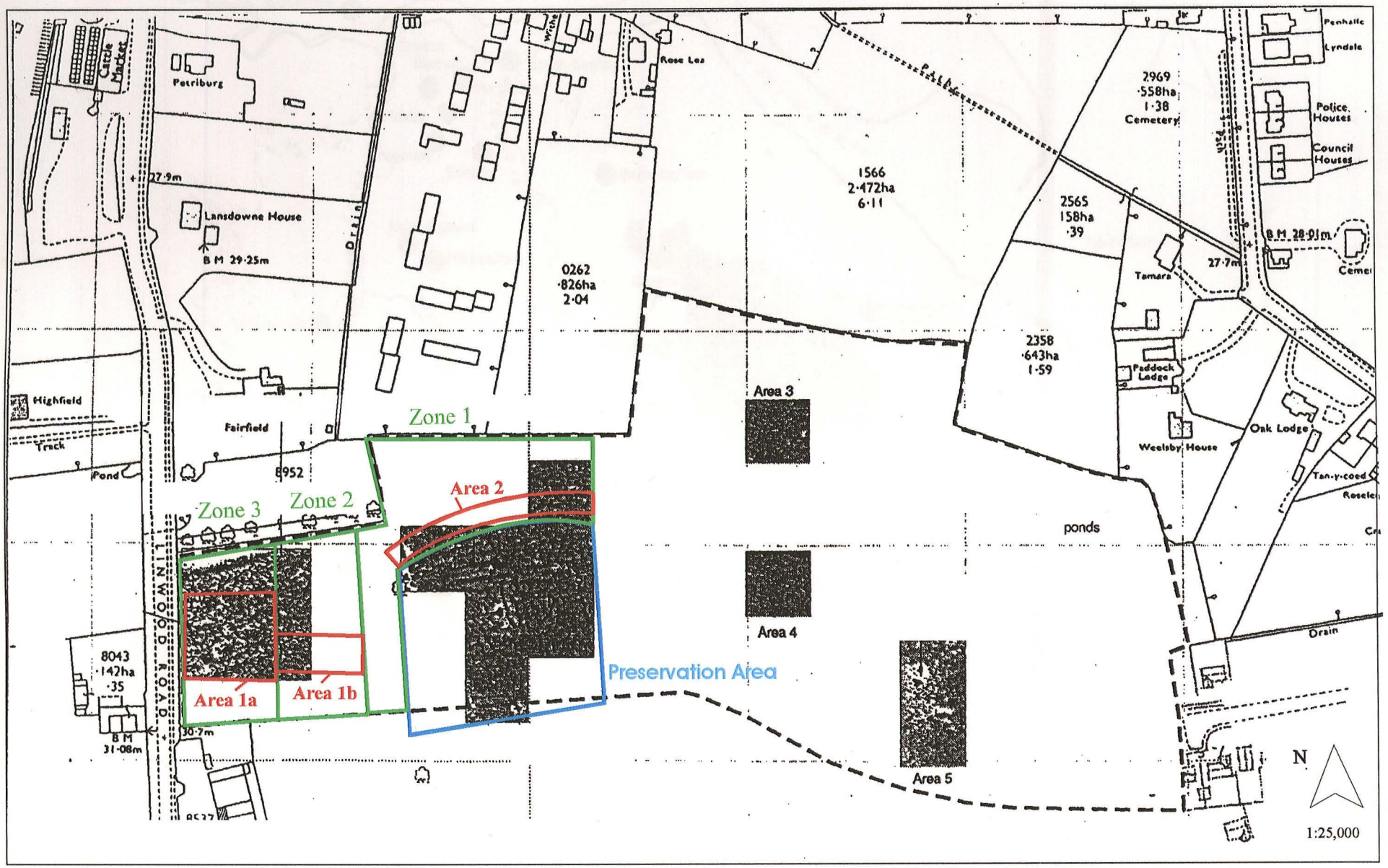


Fig. 2 Plan showing areas of geophysical investigation, evaluation and areas of subsequent archaeological investigation (after Johnson 1998).

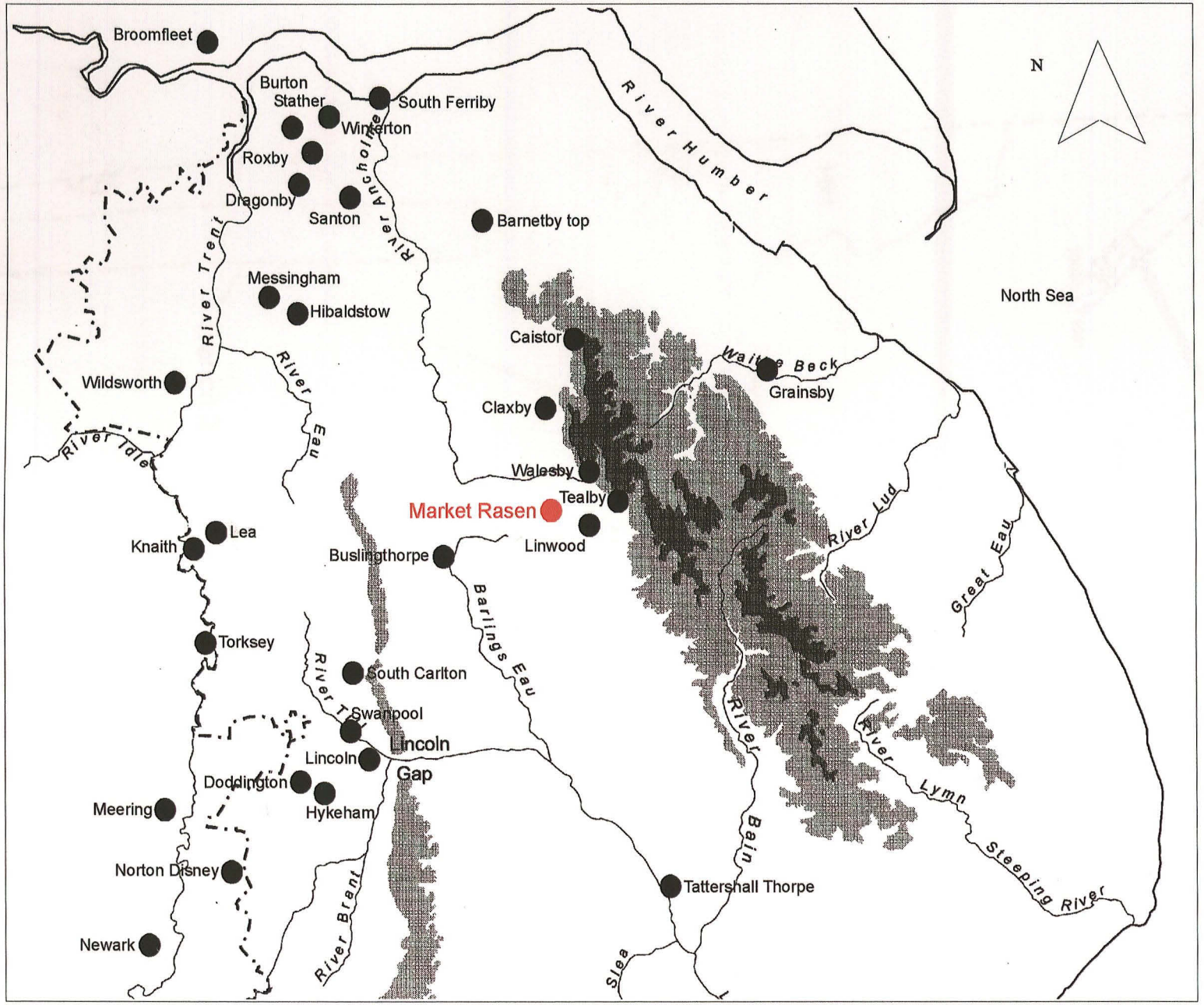


Fig. 3 Location of kiln sites in north Lincolnshire and East Yorkshire (after Swan 1984).

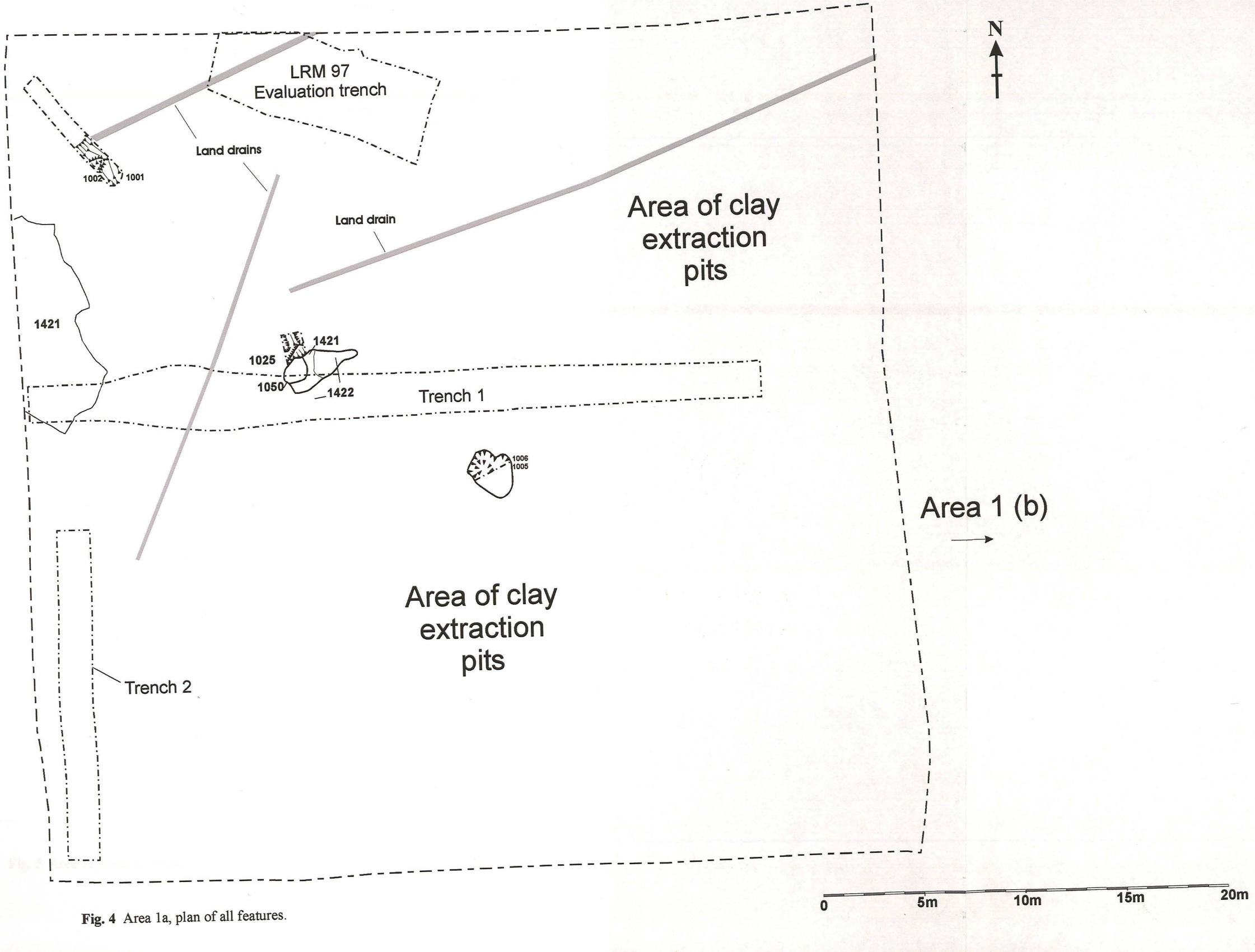


Fig. 4 Area 1a, plan of all features.

Fig. 5.1

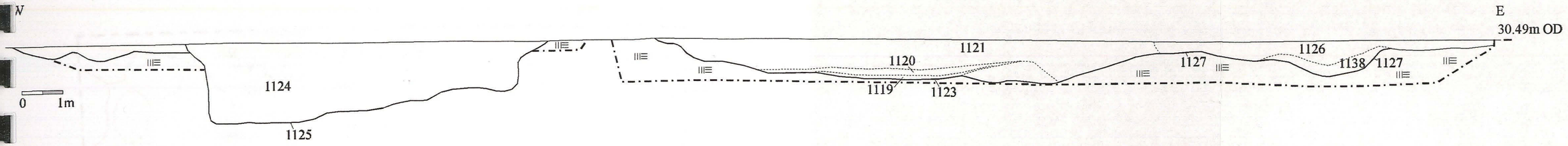


Fig. 5.2

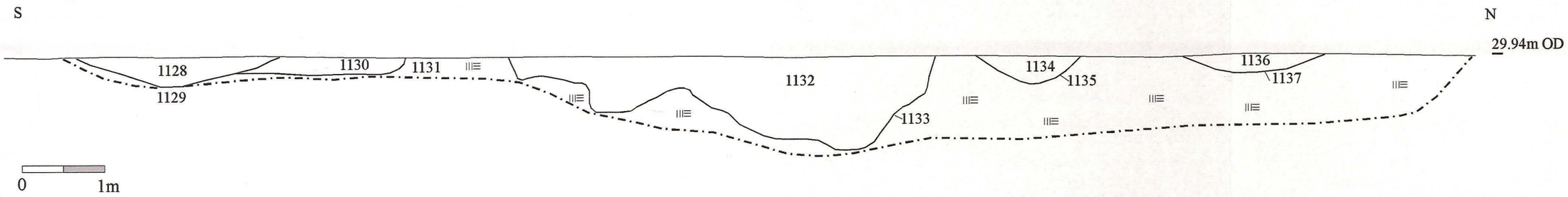


Fig. 5.3

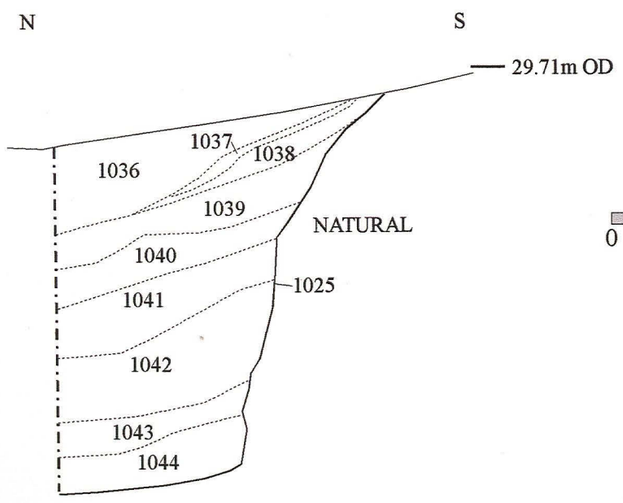


Fig. 5.4

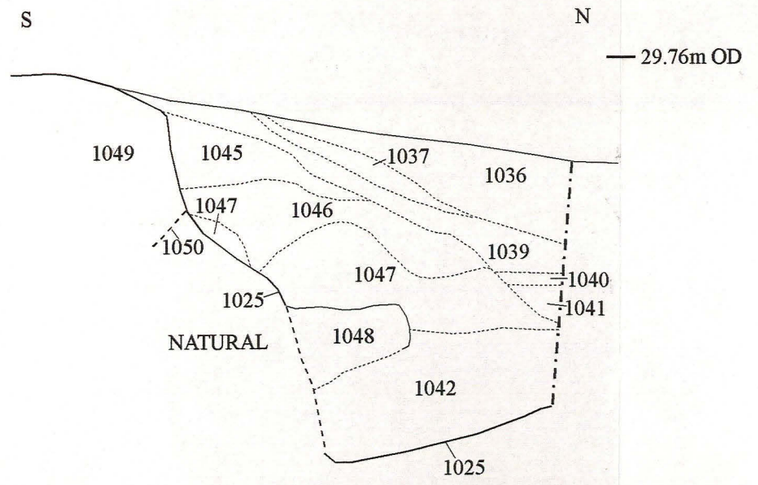


Fig. 5 Area 1a, sections Phases 3-5.

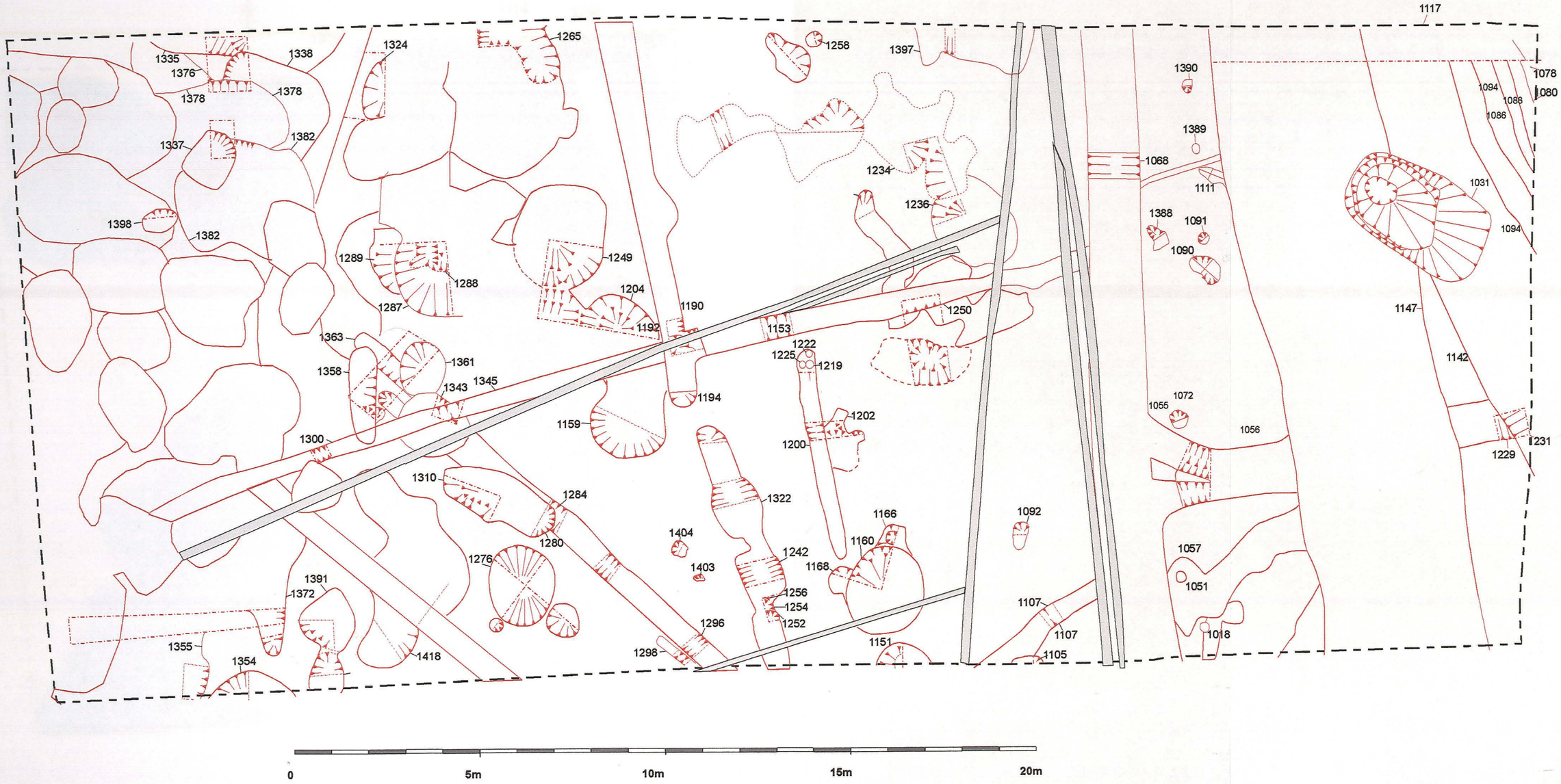


Fig. 6 Area 1b, plan of all features.

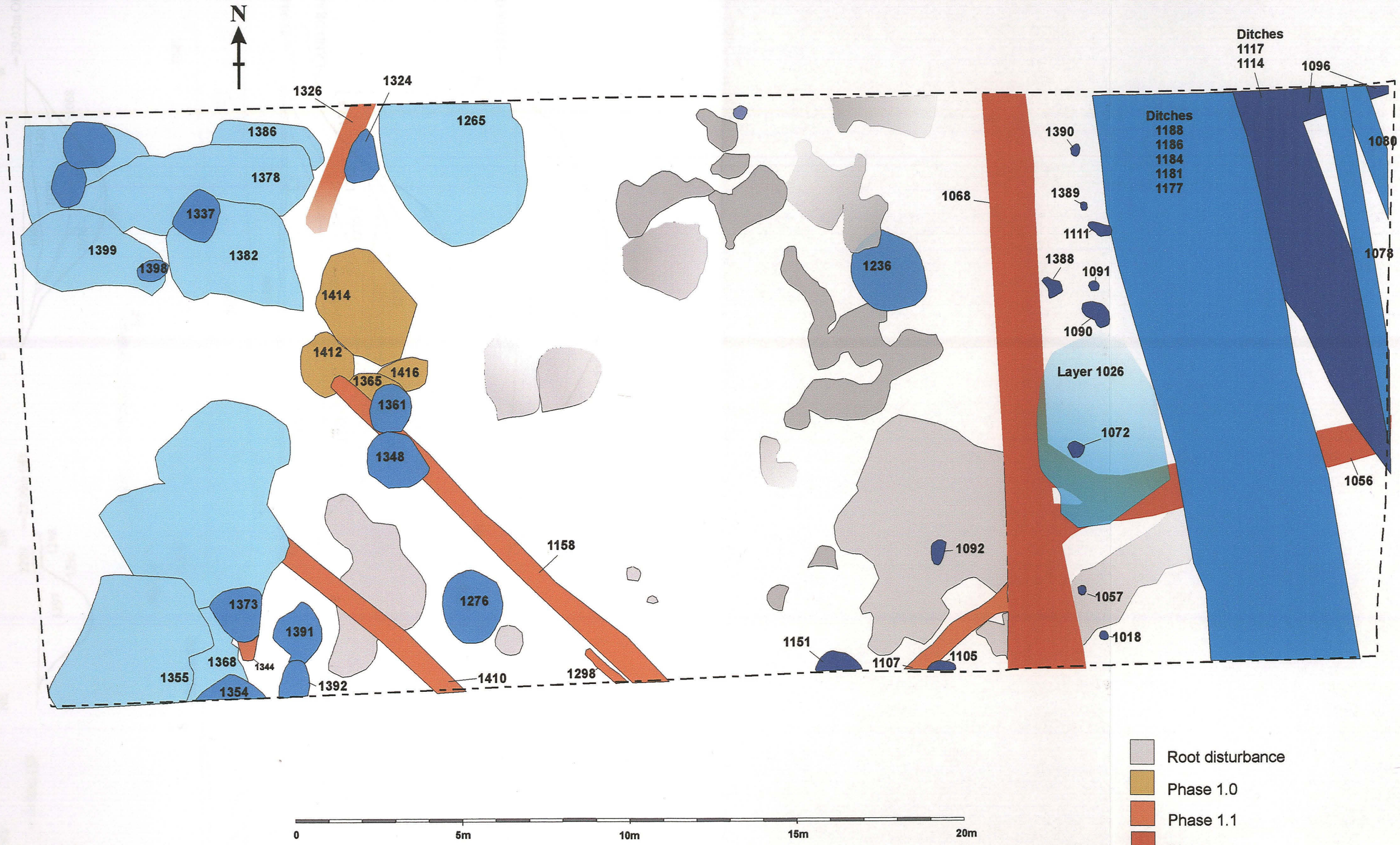


Fig. 7 Area 1b, plan of Phases 1-2.

Fig. 8.1

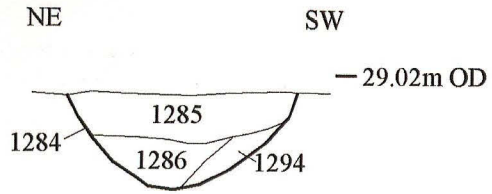


Fig. 8.2

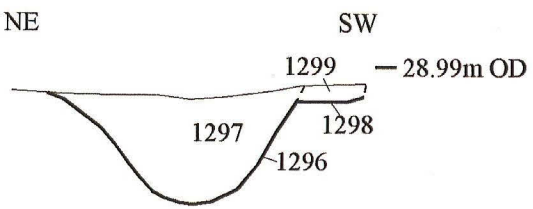
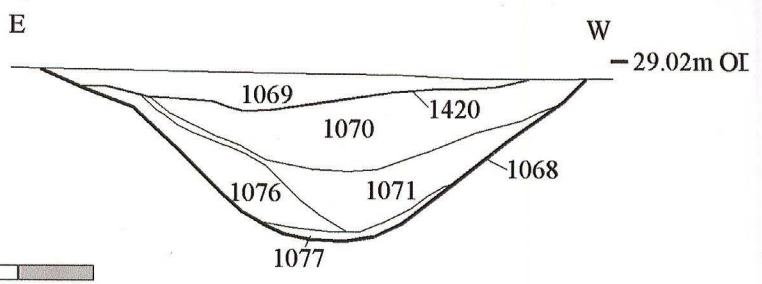


Fig. 8.3



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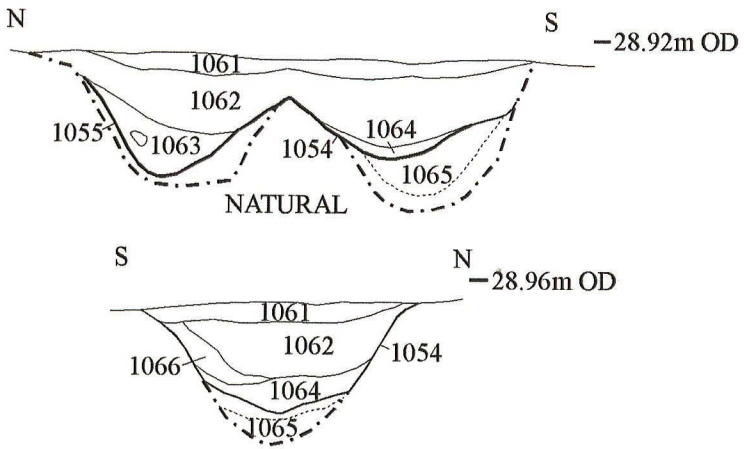


Fig 8.5

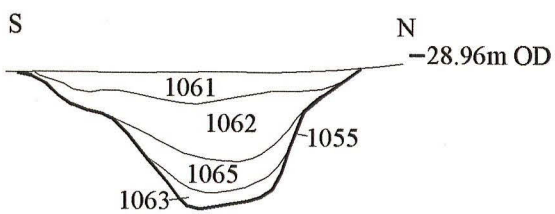


Fig. 8.6

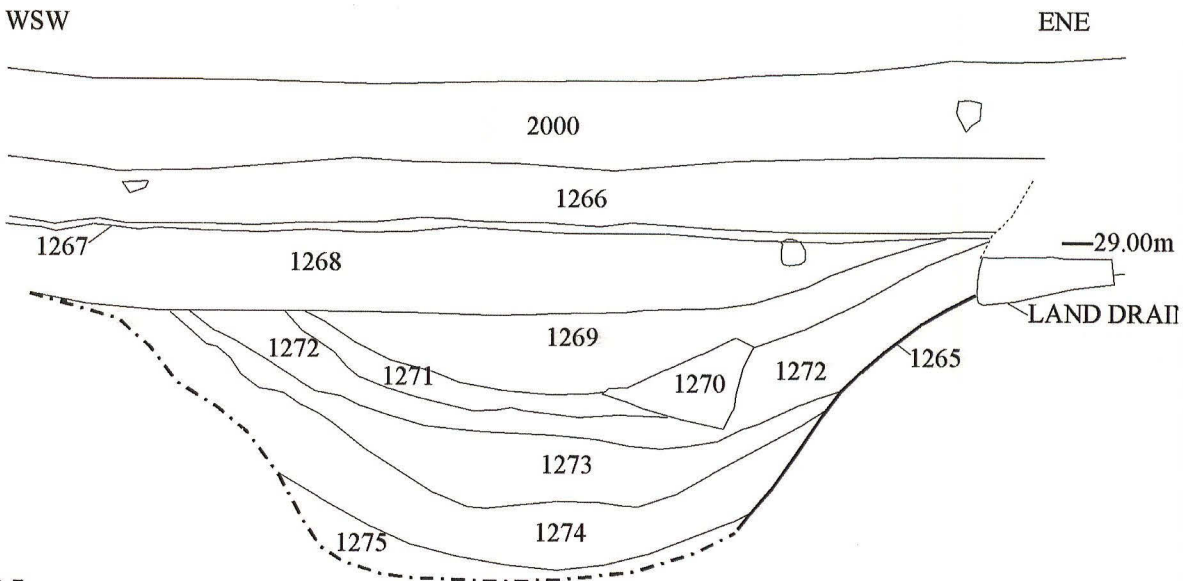


Fig. 8.7

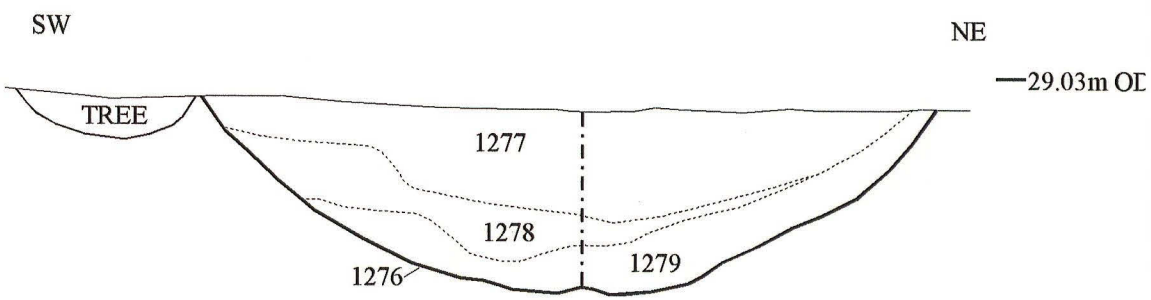


Fig. 8 Area 1b, sections Phases 1-2.

Fig. 9 Area 1b, plan of Phases 3-4.

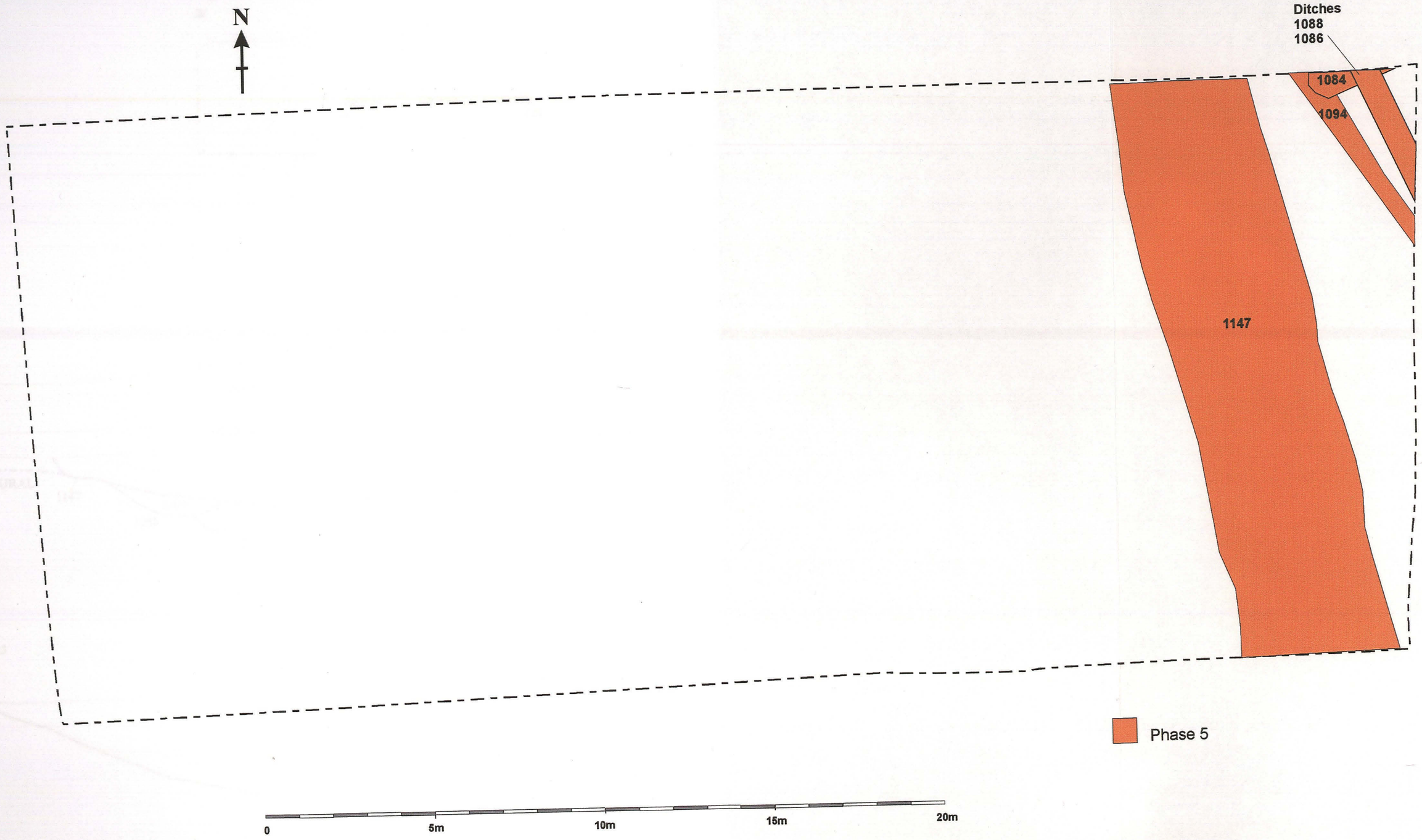


Fig. 10 Area 1b, plan of Phase 5.

Fig. 11.1

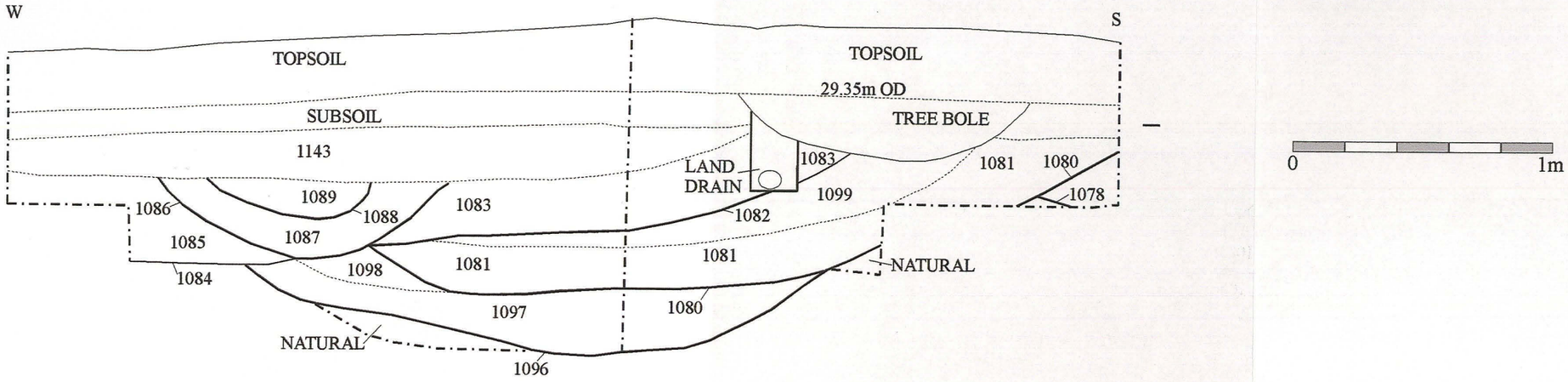


Fig. 11.2

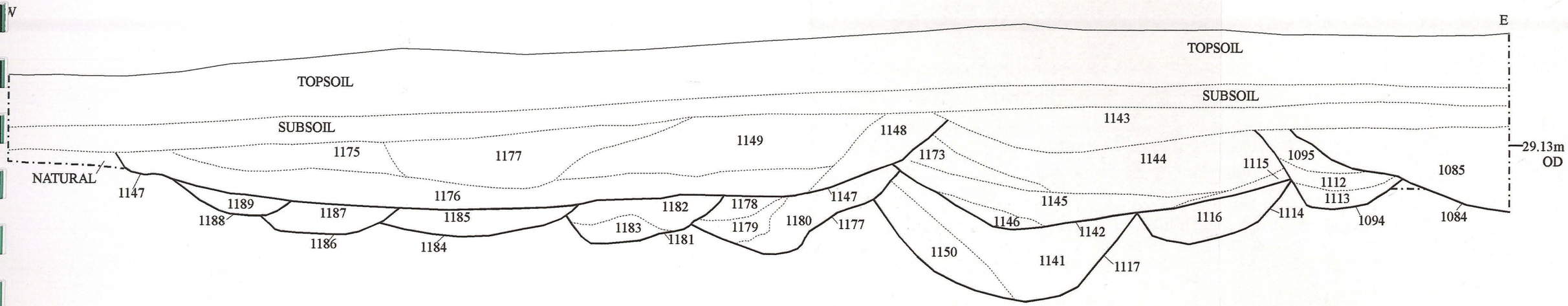


Fig. 11.3

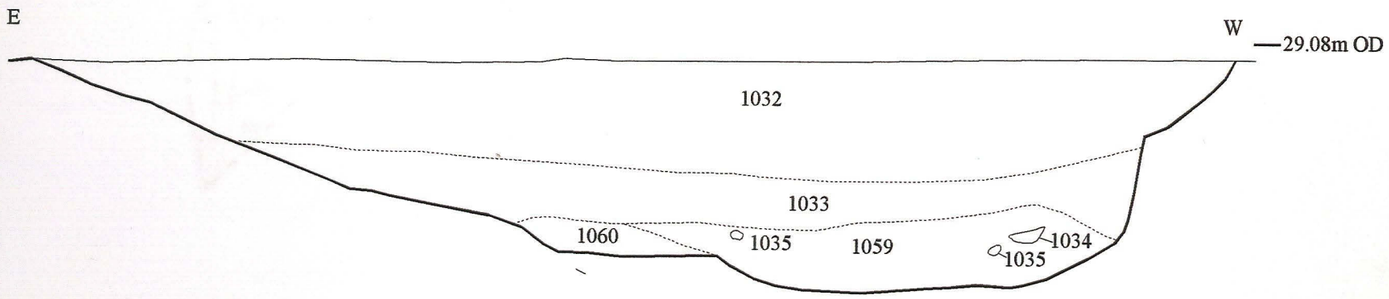


Fig. 11.4

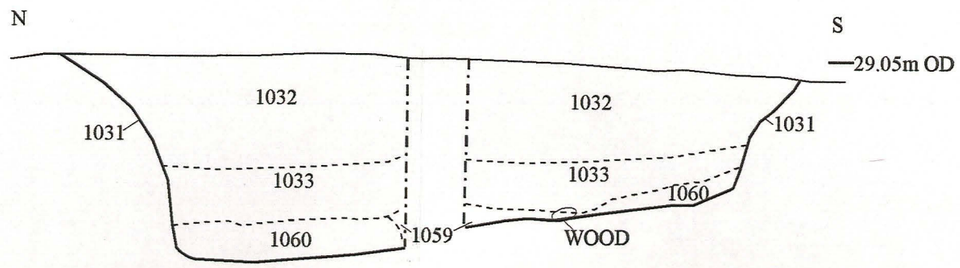


Fig. 11.5

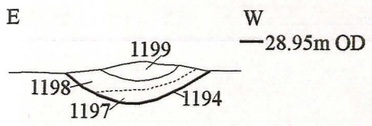


Fig. 11 Area 1b, sections Phases 3-5.

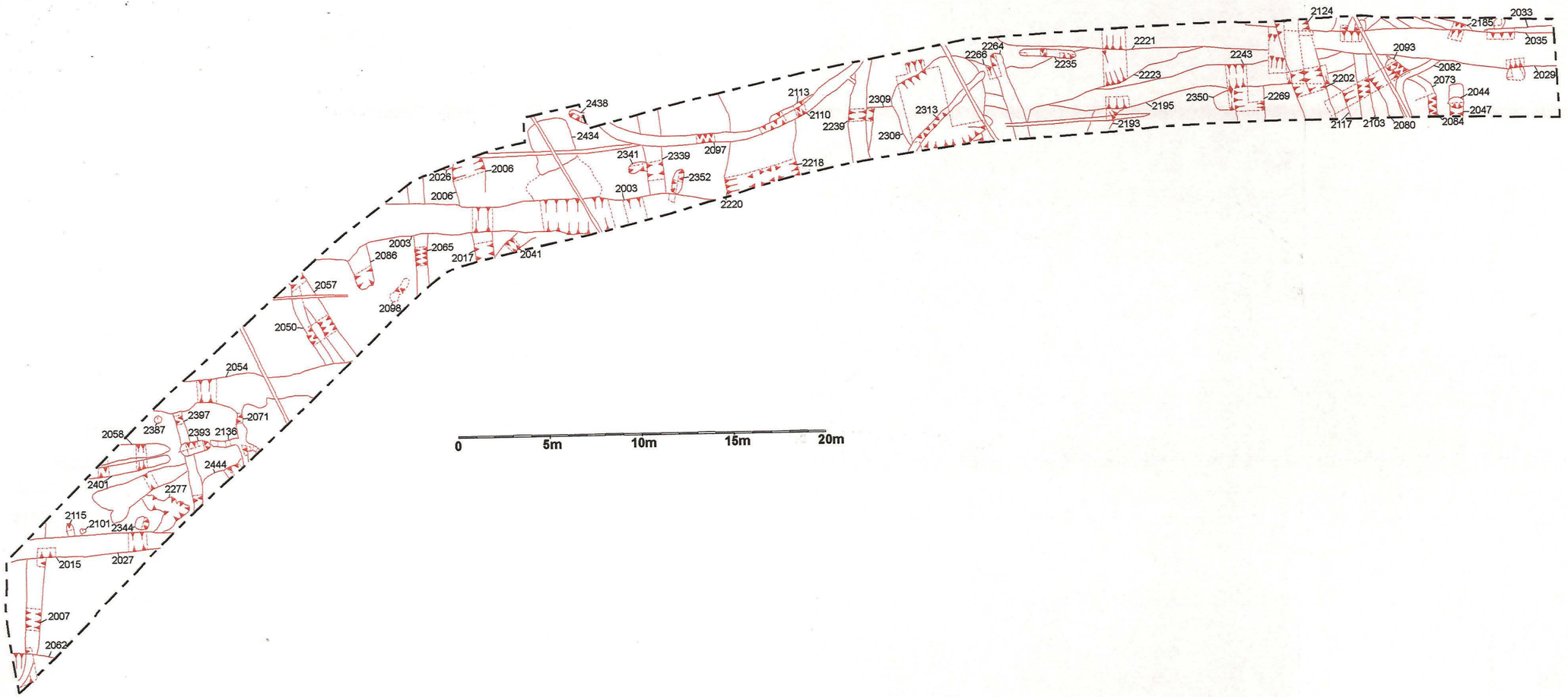


Fig. 12 Area 2, plan of all features.

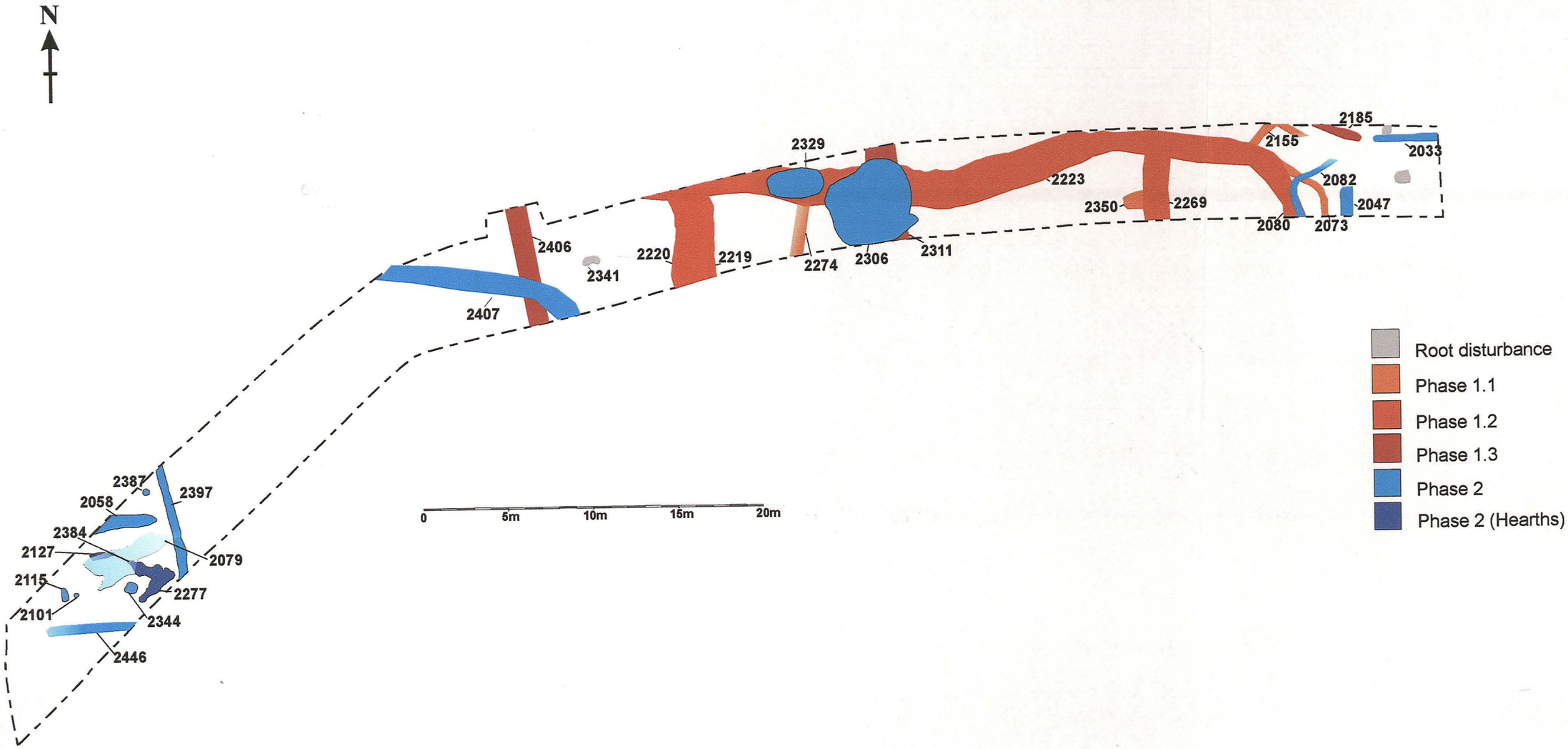


Fig. 13 Area 2, plan of Phases 1-2.

Fig. 14.1

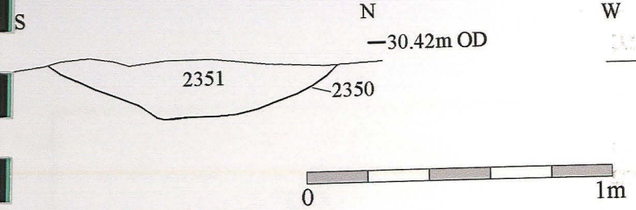


Fig. 14.2

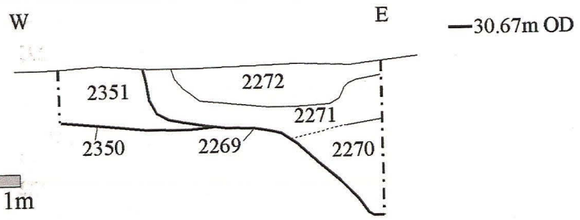


Fig. 14.3

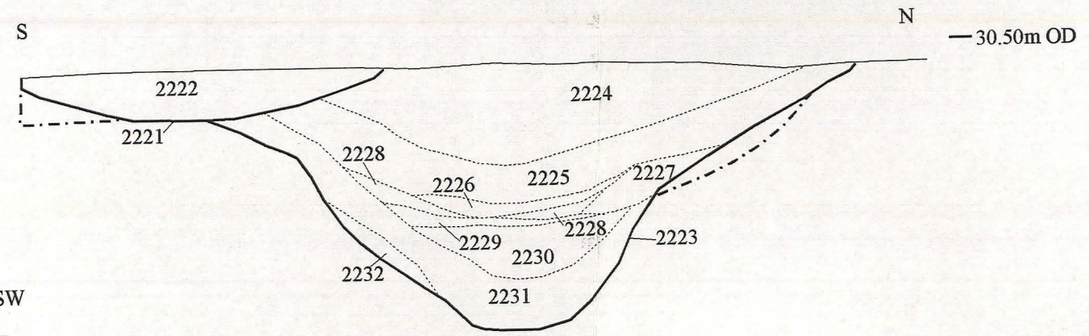


Fig. 14.4

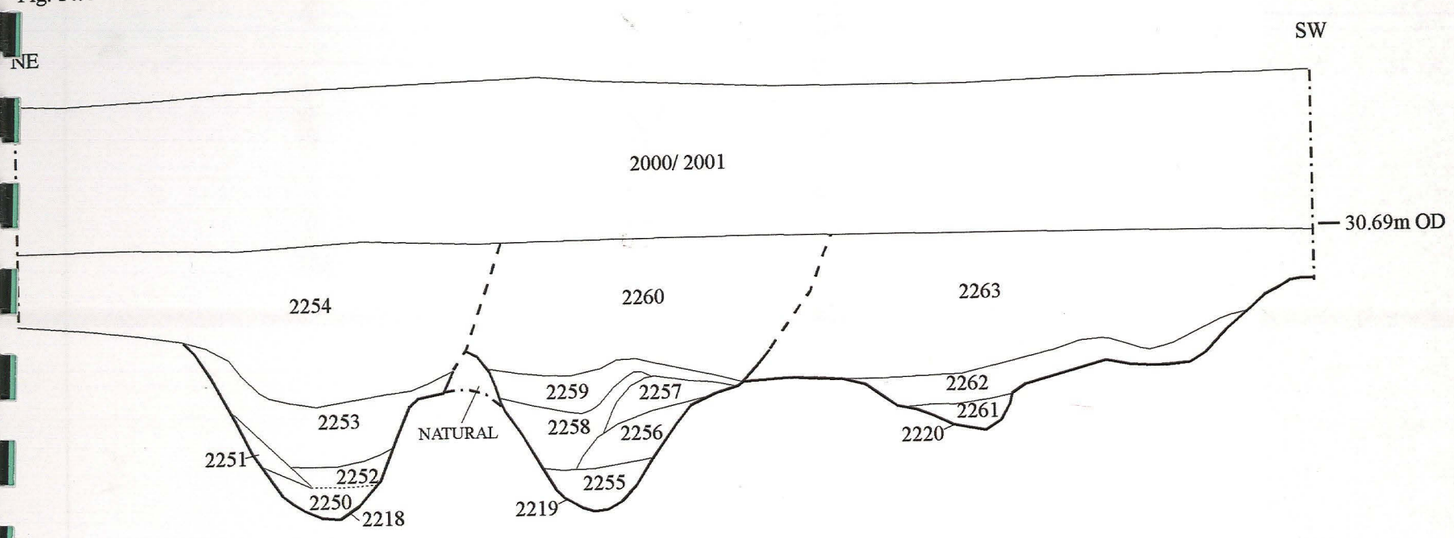


Fig. 14.5

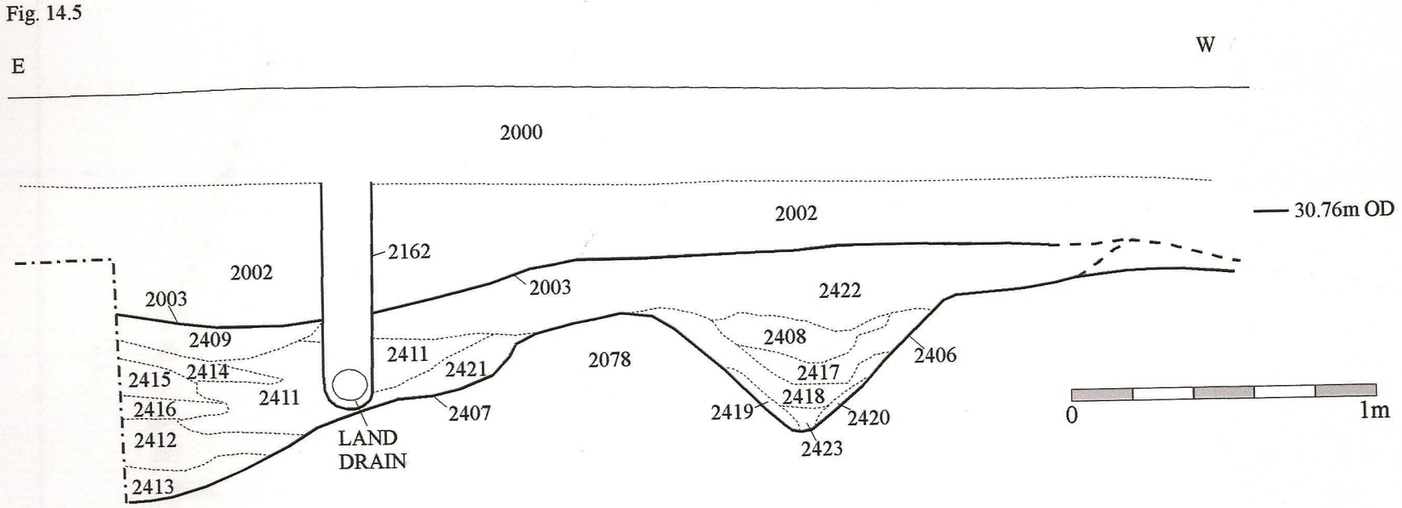


Fig. 14.6

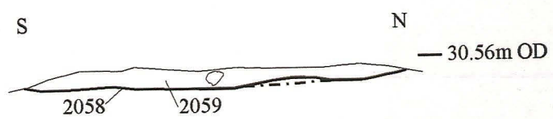


Fig. 14.7

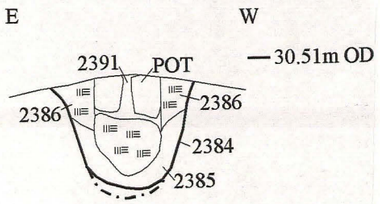


Fig. 14.8

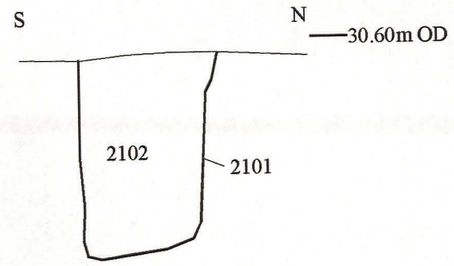


Fig. 14.9

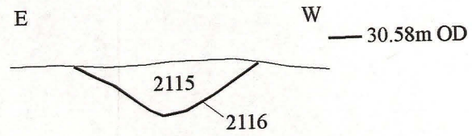


Fig. 14.10

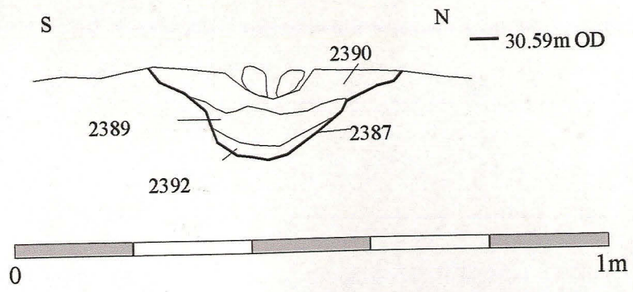


Fig. 14.11

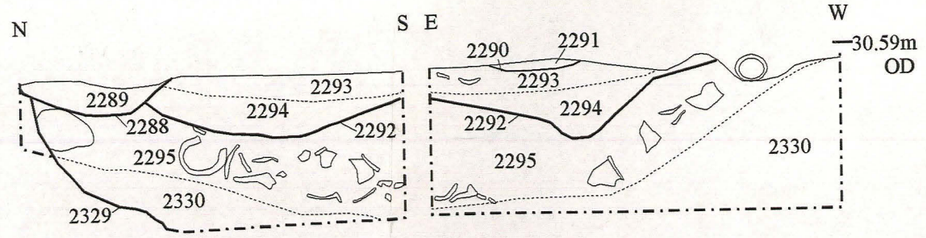


Fig. 14 Area 2, sections Phases 1-2.

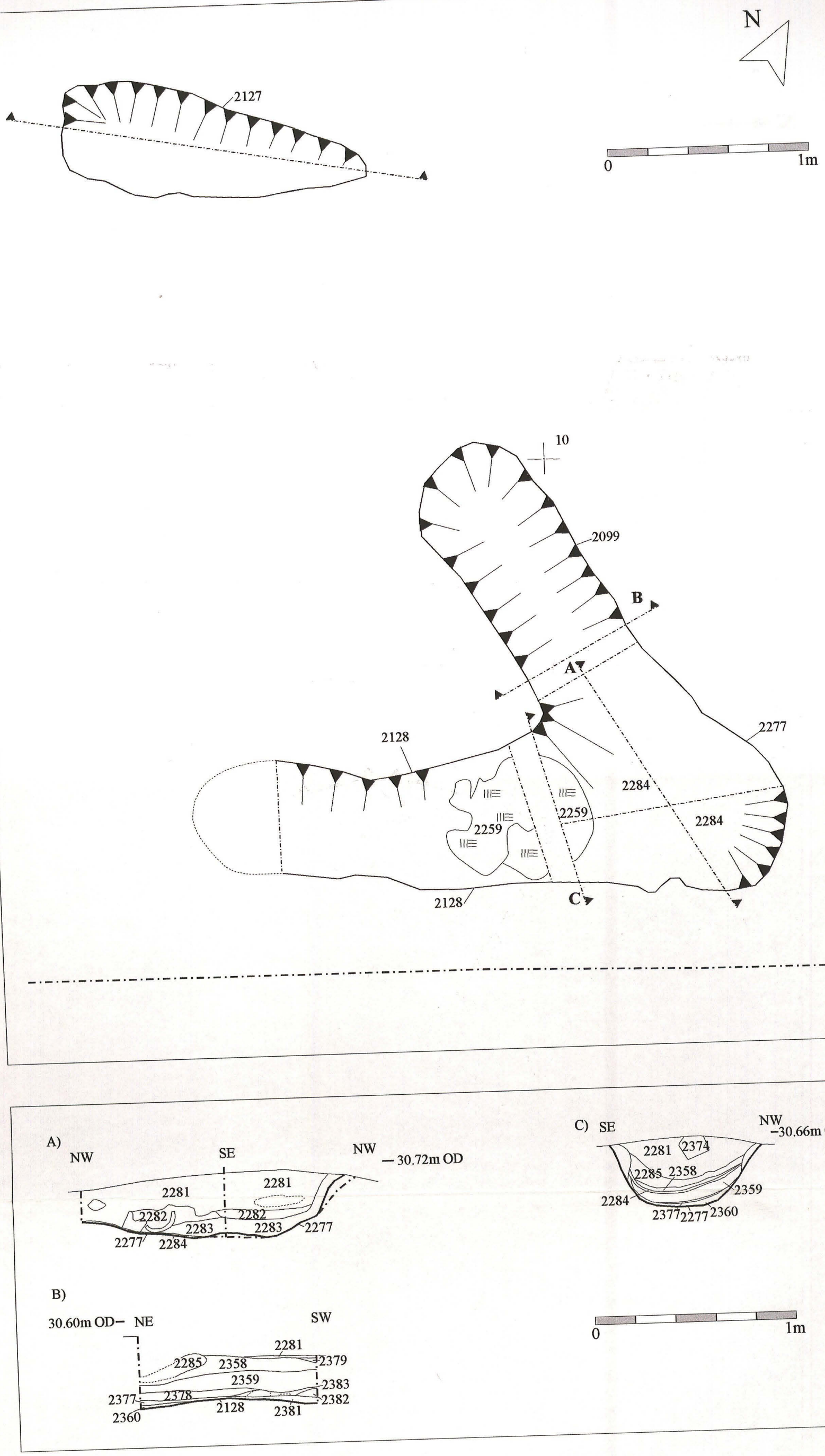


Fig. 15 Area 2, plans and sections of the hearths.

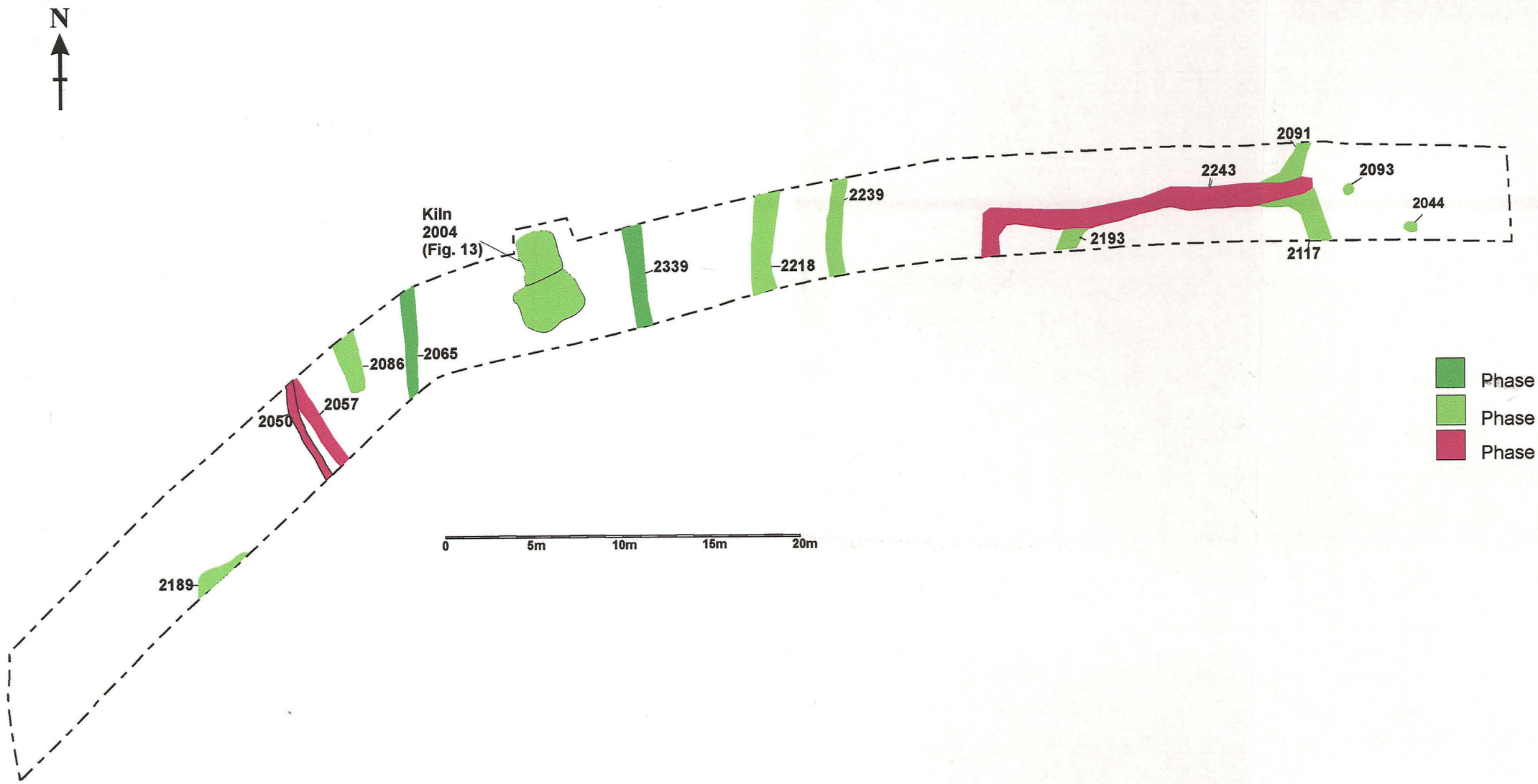


Fig. 16 Area 2, plan of Phases 3-4.

Fig. 17.1

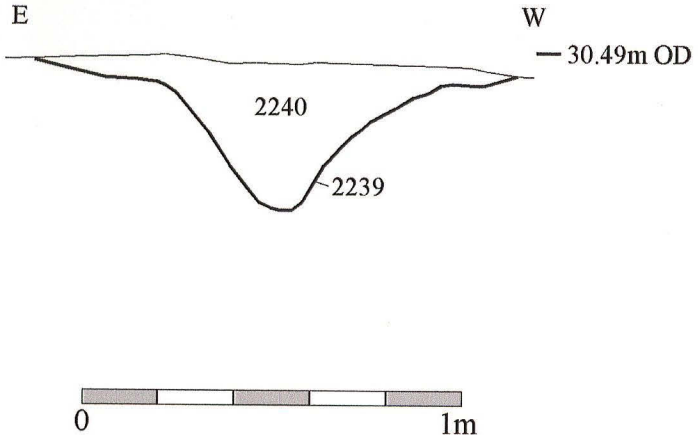


Fig. 17.2

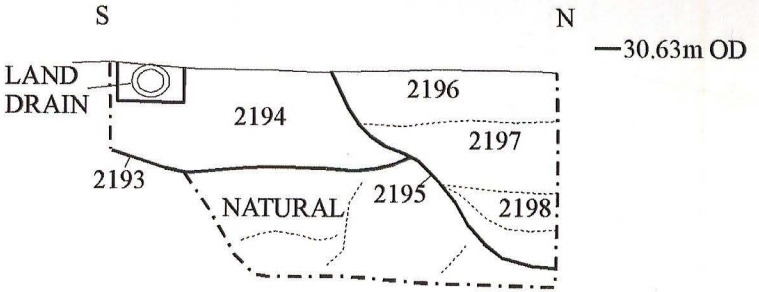


Fig. 17.3

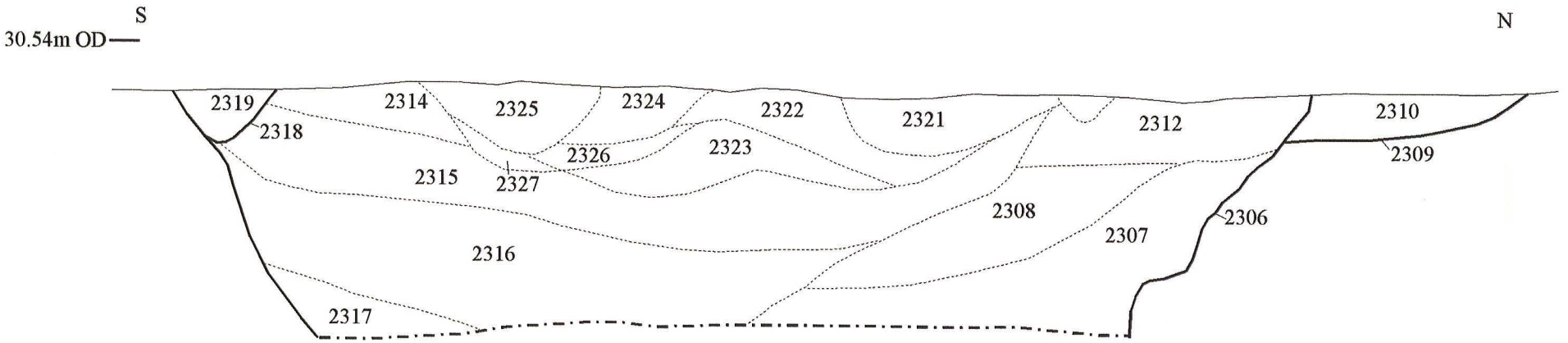
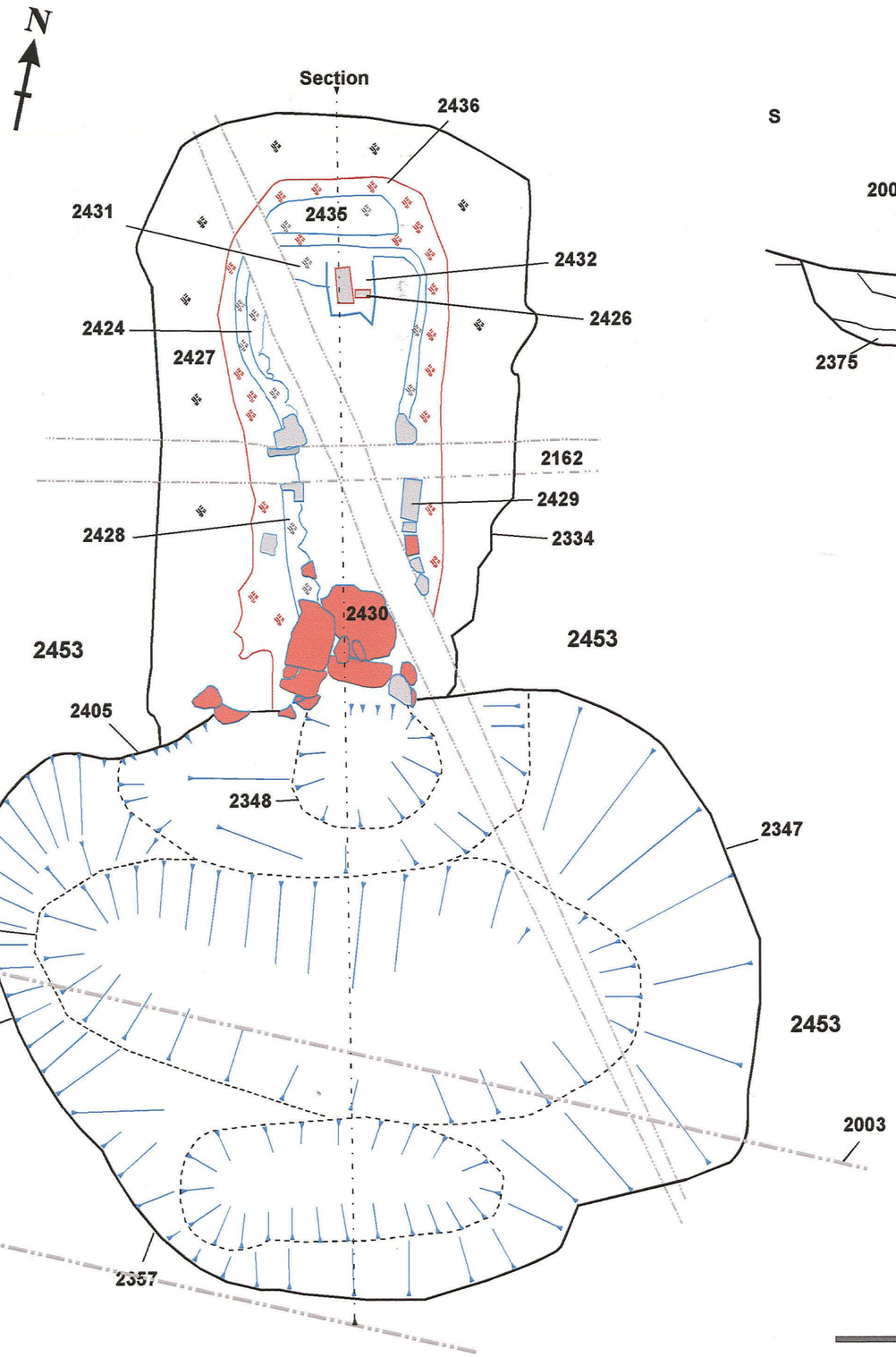
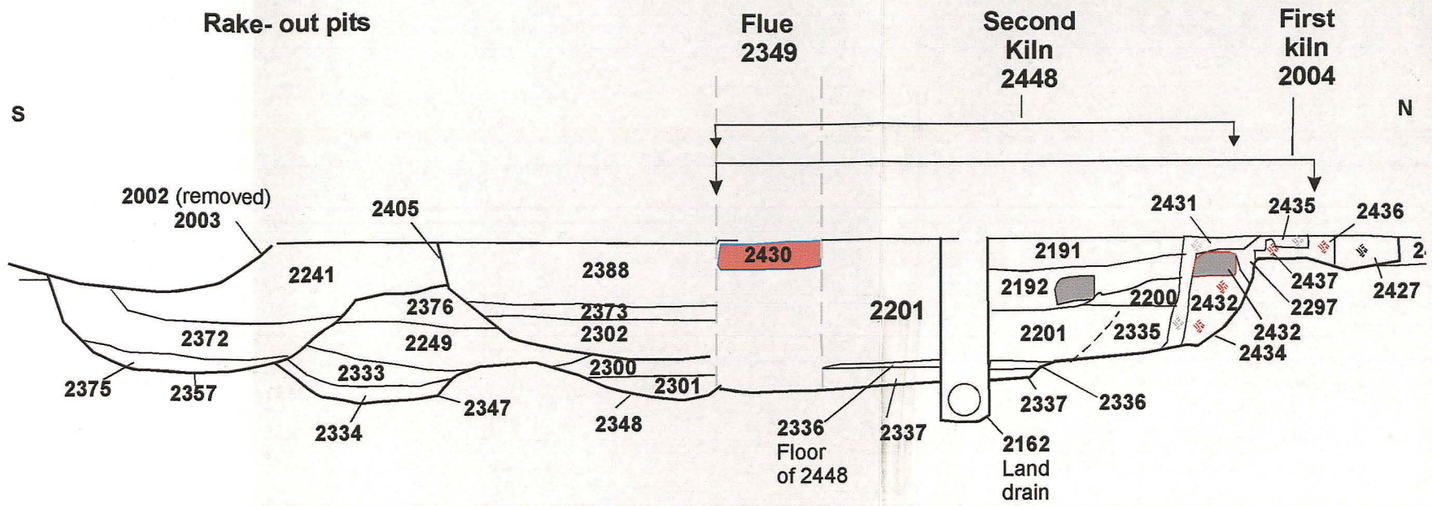


Fig. 17 Area 2, sections Phases 3-5.





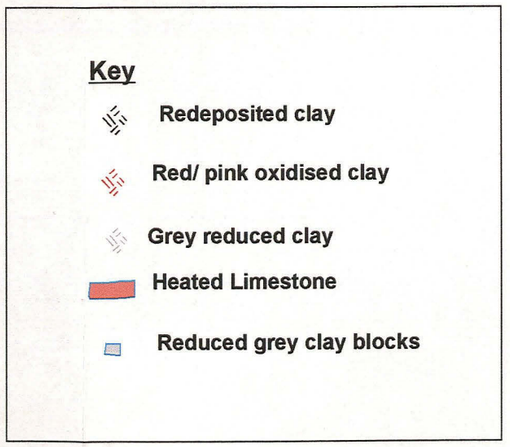


Fig. 18 Area 2, plans and sections of the kiln.

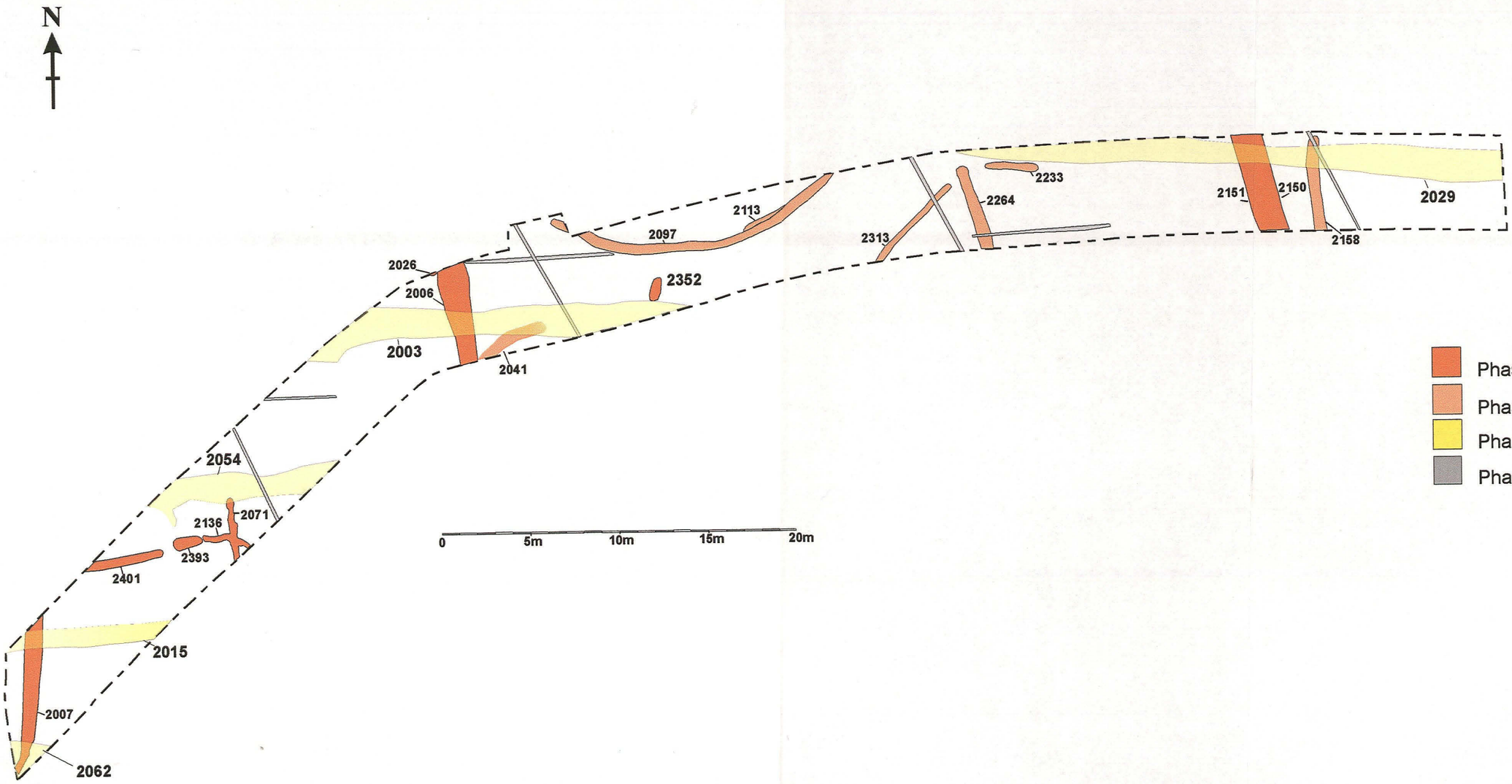


Fig. 19 Area 2, plan of Phases 5-7.

THE PLATES

Pl. 1 General shot of Area 1a, looking north- west. Scales 2m.

Pl. 2 Working shot of Area 1a, looking west. Scales 2m.

Pl. 3 Area 1a showing area of natural aeolian sand, cut by pits in the foreground, looking west. Scales 2m.

Pl. 4 Area 1b, eastern half, looking south. Scales 2m.

Pl. 5 Area 1b, eastern half, looking north. Scales 2m.

Pl. 6 Area 1b, western half, looking north. Scales 2m.

Pl. 7 Quarry pit **1001**, looking west. Horizontal scale 2m, vertical scale 1m.

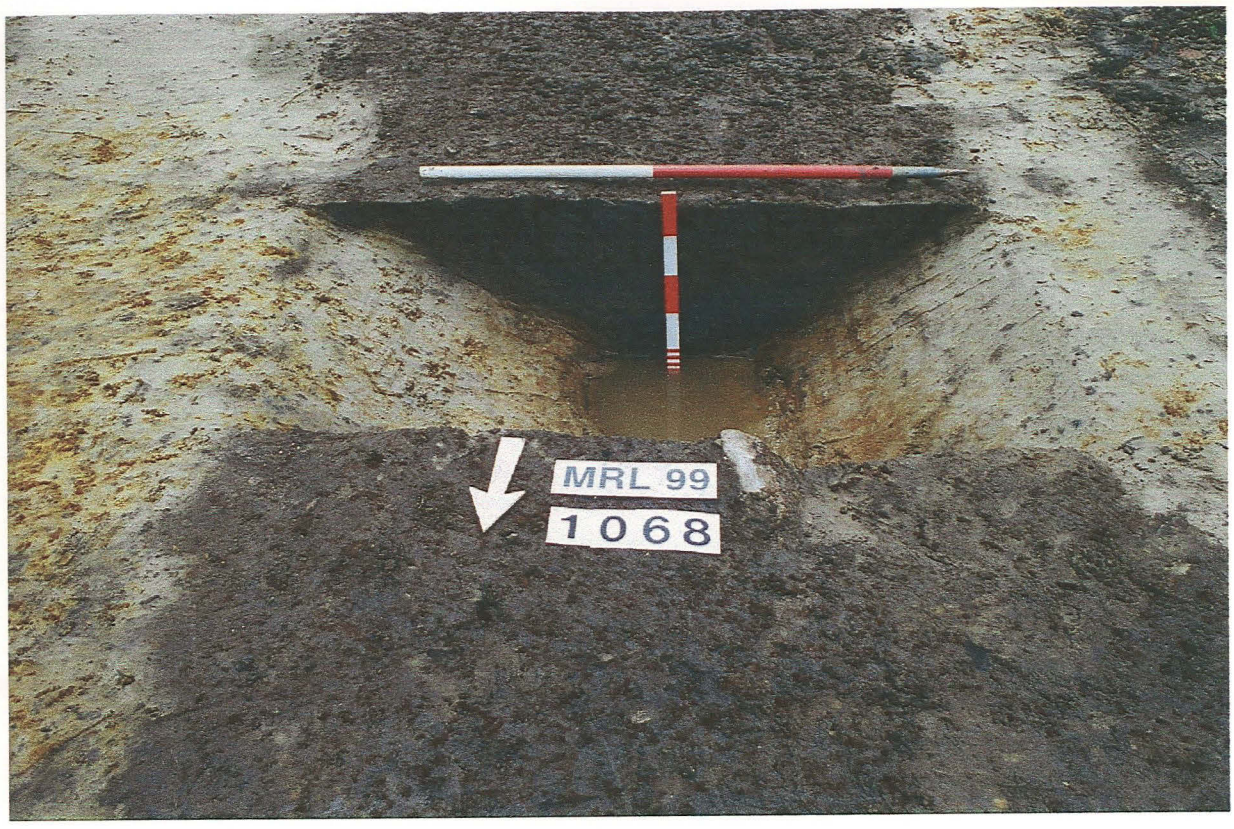
Pl. 8 Quarry pit **1025,** looking east. Horizontal scale 1m, vertical scale 1m.

Pl. 9 Machine excavation of Trench 1 Area 1a, looking north-east.

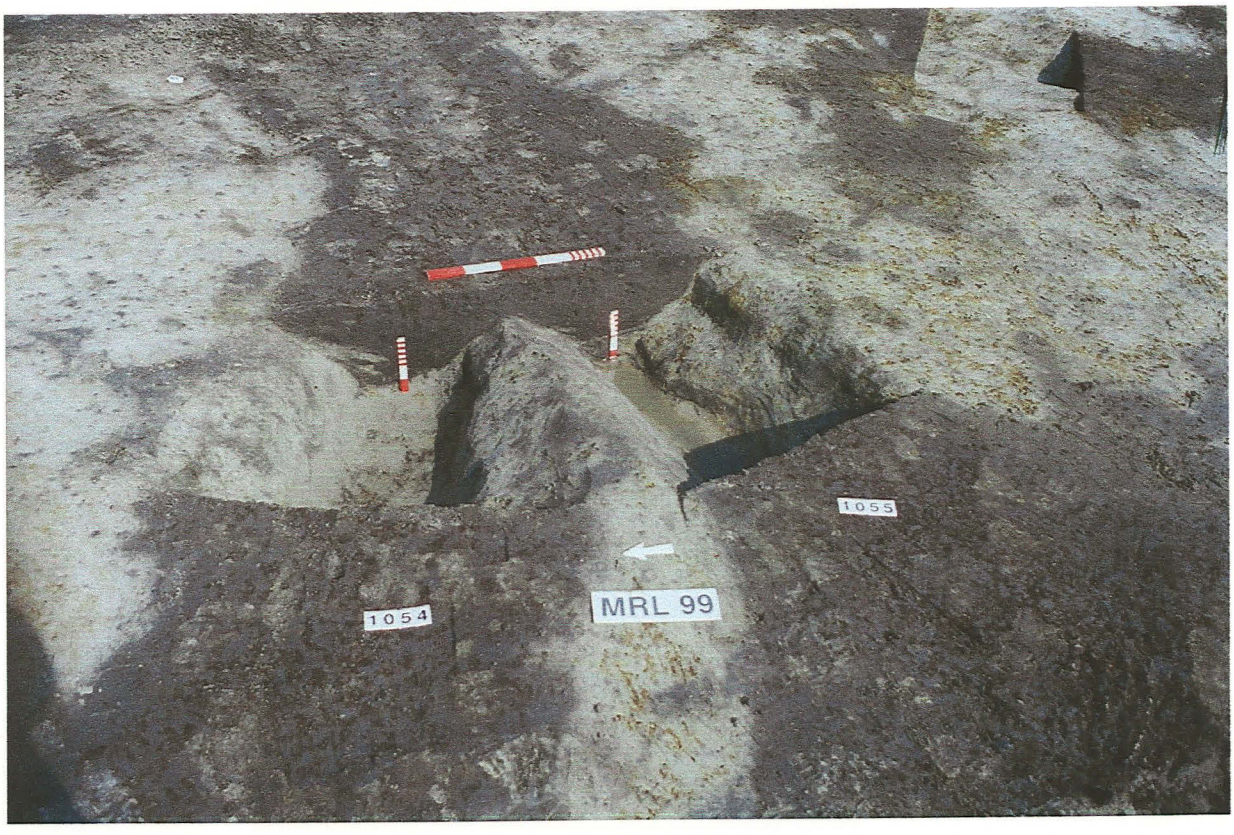
Pl. 10 Western end of Trench 1 Area 1a, showing edge of quarry pits, looking north.

Pl. 11 Gullies **1296** and **1298**, looking east. Horizontal scale 0.5m, vertical scale 0.3m.

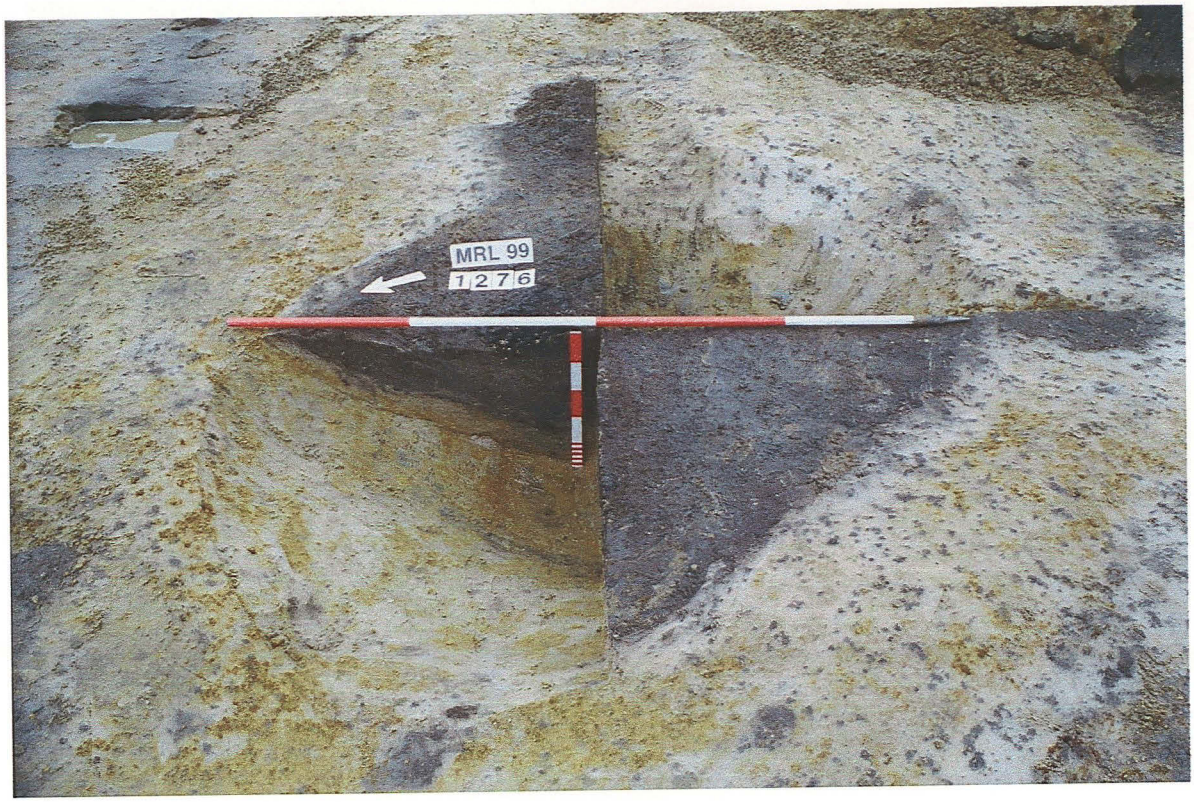
Pl. 12 Gully **1107**, looking north- east. Horizontal scale 0.3m, vertical scale 0.1m.



Pl. 13 Ditch **1068**, looking south. Horizontal scale 1m, vertical scale 0.5m.



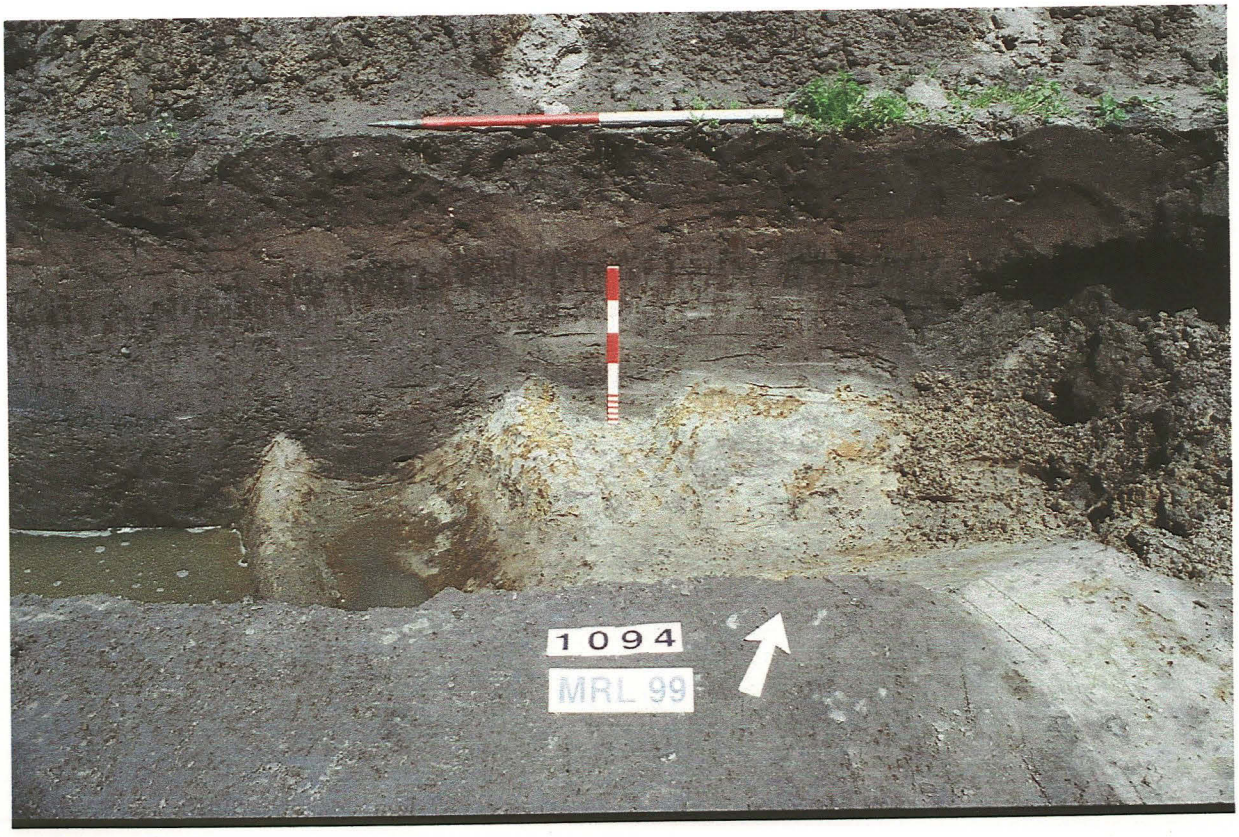
Pl. 14 Ditches **1054** and **1055**, looking east. Horizontal scale 0.5m, vertical scales 0.2m.



Pl. 15 Pit **1276**, looking south- east. Horizontal scale 2m, vertical scale 0.5m.

Pl. 16 Ditch **1088**, looking east. Horizontal scale 2m, vertical scale 1m.

Pl. 17 Ditch **1088**, looking north. Horizontal scale 2m, vertical scale 1m.



Pl. 18 Ditch **1094**, looking north. Horizontal scale 1m, vertical scale 0.5m.

Pl. 19 Ditch **1147**, looking north. Horizontal scale 2m, vertical scale 1m.

Pl. 20 Well **1031**, looking west. Scales 2m, 1m and 0.5m.

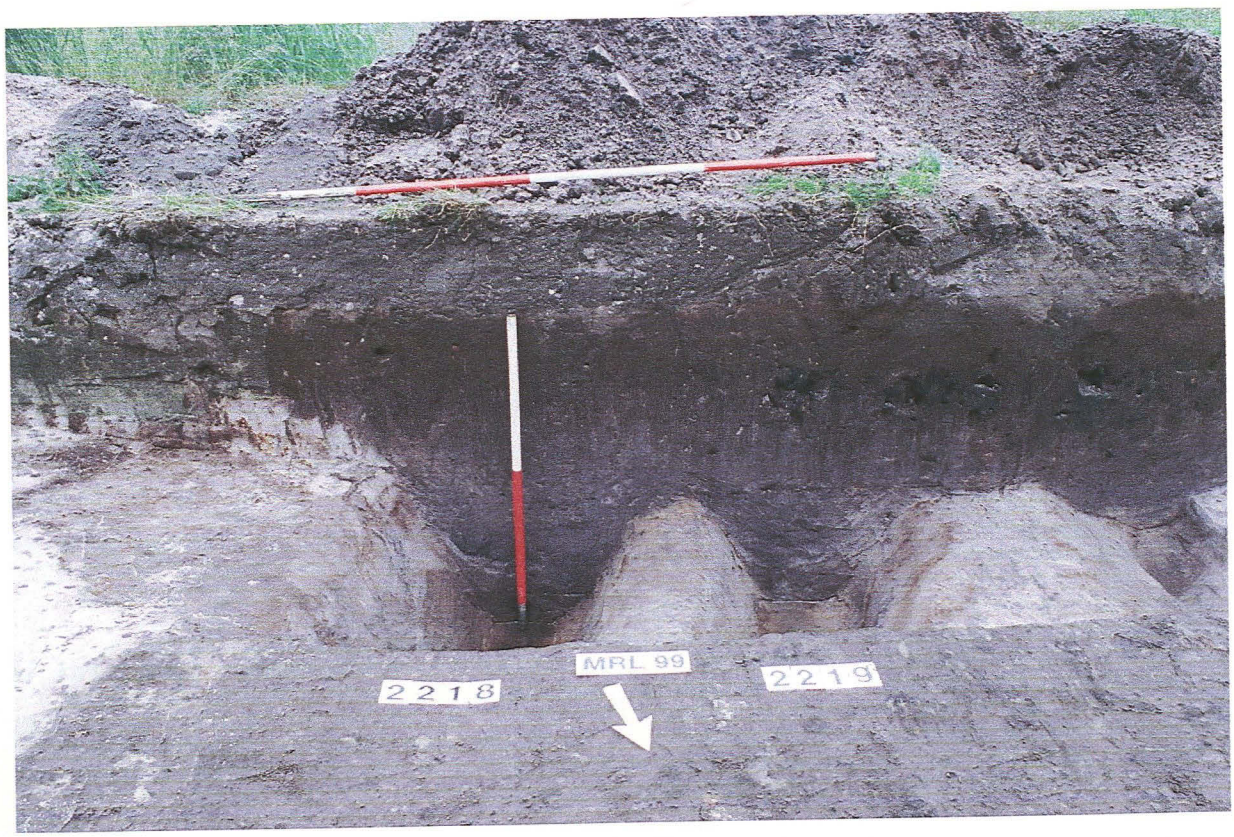
Pl. 21 Well **1031**, looking east. Horizontal scale 2m, vertical scale 0.5m.

Pl. 22 Area 2, west half, looking south- west. Scales 2m.

Pl. 23 Area 2, east half, looking east. Scales 2m.

Pl. 24 Ditches **2239** and **2274**, looking north- west. Horizontal scale 1m, vertical scale 0.5m.

Pl. 25 Ditch **2223** and furrow **2221**, looking east. Horizontal scale 2m, vertical scale 1m.



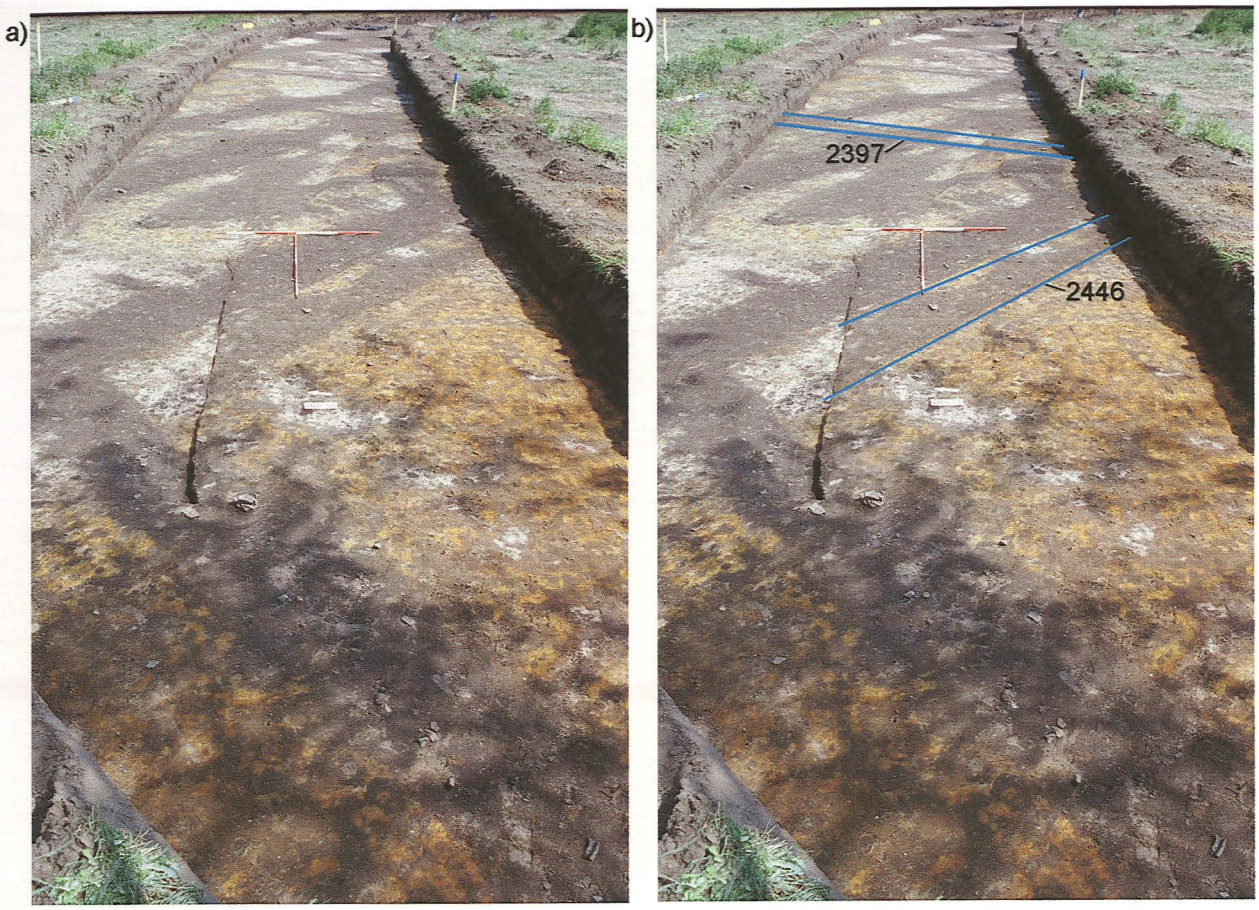
Pl. 26 Ditches **2218**, **2219** and **2220**, looking south- west. Horizontal scale 2m, vertical scale 1m.

Pl. 27 Ditch **2269**, looking south. Horizontal scale 1m, vertical scale 0.5m.

Pl. 28 Pit **2329**, ditches **2239/2292** and **2288**, looking east. Horizontal scale 1m, vertical scale 0.5m.

Pl. 29 Truncated ditch **2407**, looking north- west. Scale 0.5m.

Pl. 30 Pit **2344**, looking north- west. Horizontal scale 0.5m, vertical scale 0.1m.



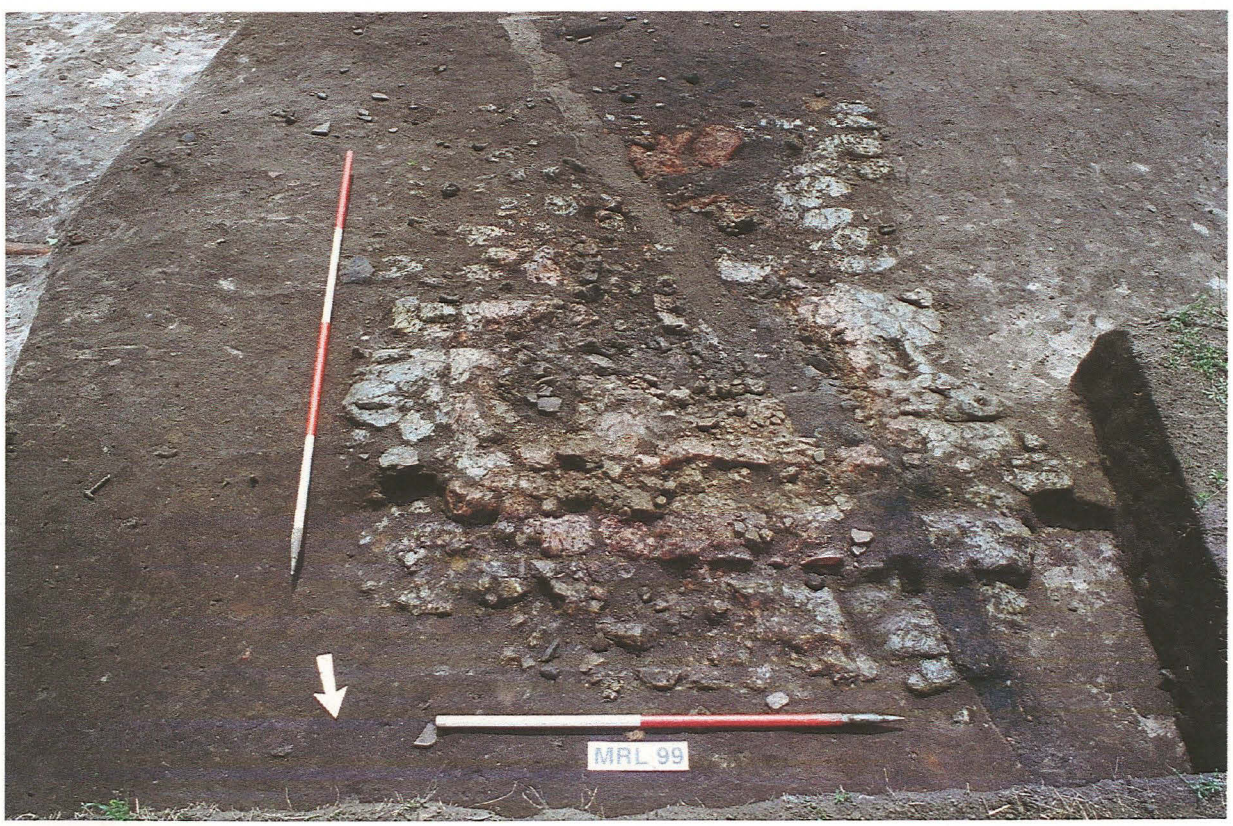
Pl. 31 South western end of Area 2, looking east. Scales 2m. Features **2397** and **2446** highlighted.

Pl. 32 Post hole **2384**, looking east. Horizontal scale 0.2m, vertical scale 0.1m.

Pl. 33 Hearth **2277**, looking south- west. Horizontal scales 0.5m and 0.3m, vertical scale 0.1m.

Pl. 34 Hearth **2277** showing detail of clay lining, looking north- east. Horizontal scale 0.5m, vertical scale 0.2m.

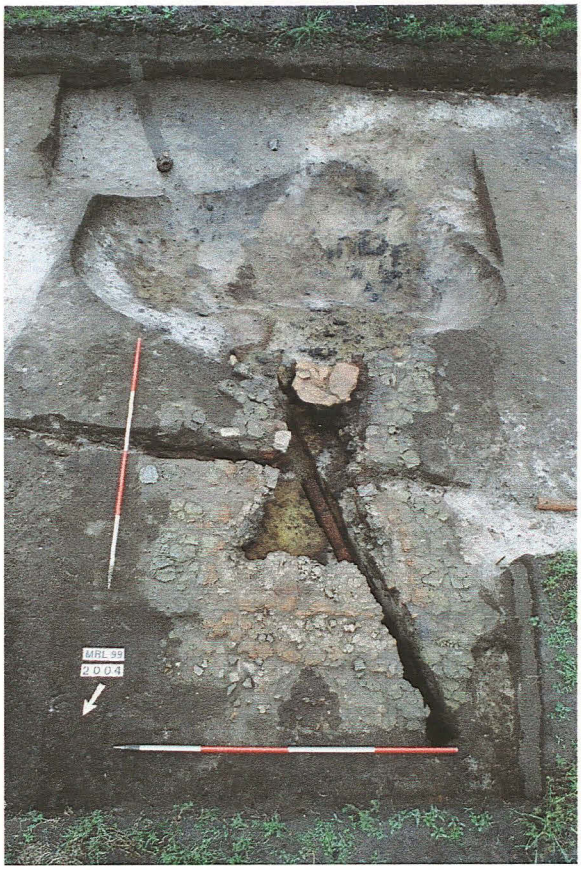
Pl. 35 Hearth **2127**, looking south- east. Horizontal scale 0.3m, vertical scale 0.1m.



Pl. 36 The kiln prior to excavation, looking south. Scales 2m and 1m.

Pl. 37 The kiln showing furrow **2003**, with land drains removed and rake out pits half- sectioned, looking north- west.

Pl. 38 Detail of rake out pits, looking west. Horizontal scale 2m, vertical scale 0.5m.



Pl. 39 Kiln with rake out pits fully excavated, looking south- east. Scales 2m.

Pl. 40 Kiln oven (partially excavated), looking north. Horizontal scale 0.5m.

Pl. 41 Kiln during excavation showing **2433**, looking north- east. Scale 1m.

Pl. 42 Entrance to kiln flue showing capping stone, looking north- west. Vertical scale 0.5m.

Pl. 43 Kiln oven chamber (mid excavation), looking north- east.

Pl. 44 Detail of kiln section, looking south- west. Horizontal scale 0.5m.

Pl. 45 Longitudinal section through the kiln structure, looking west. Horizontal scale 2m, vertical scale 0.2m.