

**ARCHAEOLOGICAL SALVAGE INVESTIGATIONS  
AT  
KEMPSTON BOX END  
BEDFORDSHIRE**

**Provisional summary of results**

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## **Preface**

*Every effort has been made in the preparation of this document to provide as complete an assessment as possible. All statements and opinions in this document are offered in good faith. Albion Archaeology cannot accept responsibility for errors of fact or opinion resulting from data supplied by a third party, or for any loss or other consequence arising from decisions or actions made upon the basis of facts or opinions expressed in this document.*

## **Acknowledgements**

*This document was prepared by Tracy Preece (Project Officer), Mike Luke (Project Manager), Jackie Wells (Artefacts Officer) and Holly Duncan (Artefacts Manager). Joan Lightning (CAD Technician) undertook digitisation of site plans and produced all illustrations in this report. Albion projects are under the overall management of Drew Shotliff (Operations Manager).*

*The archaeological investigations were managed by Mike Luke (Project Manager). Tracy Preece undertook the day to day responsibility for fieldwork with the majority of the onsite salvage investigation and recording being undertaken by Teresa Hawtin and Matt Smith. In addition to five paid days work undertaken by those mentioned above, the following people gave up their own time to work on this project Richard Gregson, Teresa Hawtin, Adam Lee (who took annual leave to work on this project), Mike Luke, Lesley Ann Mather (non Albion), Dan Miller, Sarah Morton, Helen Parslow, James Pixley, Matt Smith, Tracy Preece and Wayne Preece (non Albion) and this is greatly appreciated.*

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## **Keywords**

Throughout this document the following terms or abbreviations are used:

CAO	County Archaeological Officer of <i>Bedfordshire County Council</i>
BCC	Bedfordshire County Council
Client	Bedfordshire County Council
IFA	Institute of Field Archaeologists
Procedures Manual	Document: <i>The Albion Fieldwork Procedures Manual (2001)</i>

## **Structure of the report**

*After the introductory Section 1, this report provides a summary of results (Section 2). In the subsequent section the various types of evidence (data) are discussed individually (Section 3).*

## **Purpose of the report**

*This report presents a provisional summary of the results of the salvage investigations. Where relevant it does reference the evaluation trenches undertaken in 2000. Due to the absence of funding much of this report has been written by Albion staff in their own time. For the same reason no identification of animal or human bone, assessment or Updated Project Design has been undertaken. However, it is hoped that sufficient funding can be found to publish the results*





## **Non-Technical Summary**

*During 2004 Albion Archaeology undertook archaeological salvage investigations at Kempston Box End quarry, Bedfordshire (TL 0134 4821). This was occasioned by the discovery during quarrying of archaeological remains including human burials by a member of the public. The latter was reported on the front page of Bedfordshire on Sunday. A 5-day halt in extraction works was agreed and the CAO of BCC provided limited funds to enable archaeological salvage investigations to take place. The area subjected to salvage investigation was c. 1800sqm in extent.*

*Prior to these salvage investigations an archaeological evaluation had been undertaken in 2000 as part of a planning application for the extraction of sand and gravel in which archaeological remains were identified. These were considered to represent the continuation of the extensive Roman settlement known to exist to the south. Permission was initially refused on non-archaeological grounds, but was later granted on appeal. Unfortunately the permission did not include the desired archaeological condition.*

*A preliminary assessment of the results suggests the following chronological framework for the archaeological remains:*

***Early Roman:*** *A north-south ditched enclosure system was established and although on a different alignment is comparable to that within the settlement to the south. Evidence of activity within the southern enclosure comprised a well, a possible kiln and large areas of pitting.*

***Later Roman:*** *During this phase the enclosure system continued in use but the earlier north-south boundary was replaced by two parallel ditches that are suggestive of a trackway. A cemetery comprising over 38 graves was established in the southern enclosure. Many of these were badly truncated by quarrying operations and only eight contained reasonably complete skeletons. The orientation of the graves was predominately east-west. A small number were found on north-south and north-east to south-west alignments and these were usually positioned on the periphery of the cemetery. At least ten graves produced evidence that the burials were placed in coffins. Arrangements of postholes, some of which formed two or three post structures, were observed in the cemetery area but their purpose is uncertain.*

*Only one grave contained any gravegoods, but this included a coin provisionally dated to the third quarter of the 4<sup>th</sup> century. Additional dating evidence may be achieved from the pottery recovered from the cemetery and the pits truncated by graves. Until this is undertaken all that can be said is that one of the graves is clearly late 4<sup>th</sup> century. The relatively ordered layout is in contrast to the cemetery found within the same Roman settlement c. 370m to the south which is considered to have been in use from the mid 3<sup>rd</sup> to the late 4<sup>th</sup> century AD.*

*The discovery of a second substantial and probably contemporary cemetery within the Kempston Church End settlement has a significant bearing on the interpretation of its overall size and status.*







## 1. INTRODUCTION

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### 1.1 *Project background*

Albion Archaeology (formerly Bedfordshire County Archaeology Service) was commissioned on the 4<sup>th</sup> May 2004 to undertake archaeological salvage investigations at Kempston Box End quarry, Bedfordshire. This was occasioned by the discovery of archaeological remains including human burials by a member of the public. The latter were reported on the front page of *Bedfordshire on Sunday* on 25<sup>th</sup> April 2004.

### 1.2 *Site location (Figure 1)*

The quarry is located in between Kempston Box End and Church End, c. 3.5km to the west of Bedford. It is situated immediately west of the River Great Ouse and lies entirely within its floodplain. The solid geology comprises Jurassic strata including Oxford Clay which is overlain by sands and gravel.

The area subject to salvage investigation was centred on TL 0134 4821 and was 1800sqm in extent.

### 1.3 *Planning background*

#### 1.3.1.1 *Pre determination*

The original application (BC/CM/99/0027) for winning and working of sand and gravel, restoration to lake and landscape (parkland), on land at Box End Farm, Kempston, was made on 11<sup>th</sup> February 2000. The potential of archaeological remains to be present was one of a large number of matters that needed to be addressed prior to determination of the planning application. The County Archaeological Officer advised that the land was archaeologically sensitive and requested further information to enable an assessment of the impact of the development on archaeological remains within the application area. This was in line with Local Plan Policy HA1a and the guidance contained in PPG 16 *Archaeology and Planning*.

In order to make this assessment a Brief (V3 11<sup>th</sup> February 2000) was issued for an archaeological field evaluation. On 1<sup>st</sup> March 2000 Bedfordshire County Archaeology Service (BCAS) was appointed by The Barbour Partnership to undertake the required field evaluation. The Project Design was approved by the CAO in writing on 17<sup>th</sup> March 2000 and all required fieldwork was rapidly completed by the end of the month. The evaluation report was submitted on 14<sup>th</sup> April 2000<sup>1</sup>.

#### 1.3.1.2 *Determination*

The archaeological evaluation report was submitted to Bedfordshire County Council, along with a significant amount of further information on 14<sup>th</sup> February 2001. The development control committee eventually determined the application on 26<sup>th</sup> July 2001. The officers' recommendation was to approve

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the application subject to conditions although Members disagreed and refused the application for the following reasons:

- There was no overriding need for the extraction of this material to be permitted (Minerals and Waste Local Plan Policy MW8)
- The site was not within the preferred areas for future extraction as identified in the Adopted Minerals and Waste Local Plan (Minerals and Waste Local Plan policy MW8)
- The site was premature in advance of the construction of the Bedford Western Bypass. Therefore, the material was not capable of being transported via the strategic highway network (Minerals and Waste Local Plan MW25) and the proposed after use would have had an unacceptable noise impact on the local residents (Approved Structure Plan policy SP60 (xii))

### ***1.3.1.3 The appeal***

The applicant appealed against the Council's decision and a one-day public hearing took place on 25<sup>th</sup> June 2002. As this was a Members' decision against officer advice, an independent planning consultant was used to put the County's appeal case together and appear at the hearing.

The Inspector appointed by the Secretary of State, considered that taking into account the information in the Environmental Statement, the representations from consultees and the degree to which mitigation of the environmental effects could be achieved through planning conditions, his decision turned on whether:

1. There was a need for the extraction of sand and gravel,
2. The proposed restoration and afteruse for water-skiing was acceptable; having regard to the effects of either on the local highway network, on the living conditions of local residents, and on the rural economy on Bedford's urban fringe.

He considered that the appeal site offered the opportunity for the realisation of an attractively conceived recreational use appropriate to its location, for which there were no significant adverse effects in terms of noise, landscape impact or traffic generation. The growth of Bedford to the north-west with its new housing areas, golf course, bypass and associated protected open land along the river valley could absorb this new use comfortably, in his judgement. The adverse consequences for aggregates supply management were limited by comparison and outweighed by the economic and recreational benefits.

He was satisfied, therefore, that overall the objectives of the development plan were not harmed, even if some of its adopted and emerging policies on location of minerals and recreational land supply were not met to the letter. He concluded that, subject to a raft of planning conditions, the benefits arising from the planned restoration and afteruse of the site did justify mineral extraction and that it could proceed without waiting for the bypass. Therefore, he concluded that the appeal should be allowed.



Bedfordshire County Council considered that there were not sufficient grounds to justify them challenging the decision in the High Court.

Unfortunately the planning condition referring to archaeology placed on the permission after the successful appeal was not the one recommended by the County Archaeological Officer. Instead of requiring a programme of archaeological investigation resulting in publication, the condition merely gave an archaeologist the right to access the quarry.

## **1.4 Archaeological background (Figure 1)**

### **1.4.1 Prior to the evaluation**

The quarry is situated within an area of known important archaeological remains. *BCC* has a catalogue of archaeological sites and historic buildings, the Historic Environment Record (HER), in which all known discoveries in Bedfordshire are recorded.

To the east of the River Great Ouse, within the area known as the Biddenham Loop, extensive settlement and funerary remains are known from the Neolithic. These continue through the Bronze and Iron Ages, with considerable activity during the Roman period.

The quarry is situated on the northern edge of an extensive Roman settlement (HER 162) which was located and partially investigated in 1991 and 1992 in advance of the construction of the Southern Orbital Sewer. A watching brief undertaken during sewer trench digging in the vicinity of the present investigation area located a number of Roman pits and ditches (Figure 2). An area of cropmarks (HER 13976) which partially lie within the quarry may be the continuation of this settlement.

### **1.4.2 The evaluation**

This comprised geophysical survey and trial trenches/test pits. The extent of the geophysical survey and location of trial trenches was restricted by the presence of deep alluvial deposits (in practical terms difficult to penetrate) and the construction of the Southern Orbital Sewer (likely to have destroyed or made any archaeological remains present difficult to detect). Investigations were therefore concentrated on land where alluvial deposits were less than 1m deep, in the vicinity of cropmarks and adjacent to the known Roman settlement. However, the geophysical survey was unproductive in locating potential archaeological anomalies.

The evaluation demonstrated that former river channels of the River Great Ouse existed within the extraction area. Only the upper deposits of these were examined, but boreholes undertaken as part of the mineral reserve assessment indicate that a western and eastern channel were present. These are likely to have formed during the late glacial period. Pollen evidence recovered from the eastern channel during the construction of the Southern Orbital Sewer suggests it was infilling during the early prehistoric period.



The earliest direct evidence for human activity comprised worked flints, likely to be Neolithic or Bronze Age in date. These were derived from deposits more recent in date than the artefacts.

In the southern three trenches Roman remains and artefacts were located. Evidence for two main types of activity was present: boundary and burials in trench 6, and dumping of domestic and other material in trenches 7 and 8 (Figure 2). It is unclear if the latter was a deliberate attempt to infill natural undulations in the ground (probably overlying a former river channel) or simply represented a convenient place in which to dispose of rubbish.

The evaluation demonstrated that the Roman settlement to the south continued into the southern part of the quarry and that it extended over an area in excess of c. 20ha.

### **1.5 Nature of the salvage investigations**

Quarrying operations had been undertaken for several months before the disturbance of human bones was reported. Following a site meeting (28<sup>th</sup> April 2004), extraction works were stopped in the vicinity of the discoveries while discussions took place as to what should be done. The CAO of BCC provided limited funds to enable archaeological salvage investigations to take place and the quarry operator agreed to a 3-day halt in extraction in the area where human remains were present. At the end of this period both parties agreed to a 2-day extension. The salvage investigations were therefore carried out between 4<sup>th</sup> and 12<sup>th</sup> May 2004. Albion staff worked unpaid in the evenings and on the only Saturday available (the last day in the football season!).

The objectives of the salvage investigations were to:

1. Identify and plan all surviving archaeological features
2. Hand excavate and record all possible funerary features
3. Hand excavate and record a sample of the non-funerary features e.g. ditches, pits etc. With regard the later, priority was given to those that had not been the subject of disturbance by quarry machining.

To ensure that the objectives were met in the limited time available compromises were made in the level of detail required during recording. These included:

- The 1:100 pre-excavation plan was adapted to avoid the need for a site grid and more detailed post-excavation plans.
- Sketch sections were drawn on the reverse of context sheets rather than scaled section drawings
- No spotheights or levels were taken
- Possible grave goods were issued Registered Artefact numbers and their location was marked on the appropriate sketch plan
- No ecofactual samples were taken



## 2. PROVISIONAL RESULTS OF THE INVESTIGATIONS

### 2.1 Introduction

A total of 303 contexts (units of archaeological recording) were identified during the salvage investigations. In the main these contexts represent components of individual features, for example grave “cut”, skeleton and “fills” (Figure 3). An additional 57 contexts were identified in trial trenches 6, 7 and 8 which are likely to be associated.

A rapid scan of the records, undertaken as part of this assessment, has allowed many of these contexts to be provisionally assigned to two chronological phases. In addition, contexts have been assigned to different activity types e.g. cemetery, trackway etc (Table 1).

Phase	Chronological period	Activity Type
1	Early Roman	<ul style="list-style-type: none"> <li>• Enclosure ditches</li> <li>• Pitting, well, possible kiln</li> </ul>
2	Late? Roman	<ul style="list-style-type: none"> <li>• Cemetery</li> <li>• Post built structures</li> <li>• Trackway</li> </ul>

**Table 1:** Summary of provisional phasing

### 2.2 Limitations of the results

It is important to stress several limitations on the results:

1. It seems likely that a large number of features were destroyed by quarrying operations before Albion Archaeology was instructed to undertake the salvage investigations.
2. Although the all features plan (Figure 3) may look comprehensive for the area that it was possible to investigate, it does reflect the fact that the depth of machining was variable. Therefore features may have been completely removed in the more deeply machined areas and the shapes/dimensions of surviving features may be quite misleading.



## 2.3 Phase 1: Early Romano-British (Figure 4)

Activity during this phase comprised the establishment of a rectilinear ditched enclosure system L1. Two large enclosures were identified located to the E of a N-S boundary. The northern enclosure was devoid of activity and it is likely that this area was utilised as a field. This is in contrast to the southern enclosure which contained all the settlement-type activity comprised of over forty large pits L4, a well and a possible kiln L6. Similar large pits were observed during the watching brief undertaken during the construction of the Southern Orbital Sewer *c.* 50m to the E of the quarry face (see Figure 2). This suggests that activity was more extensive than indicated by the surviving archaeological remains. Although the majority of the pottery assemblage is Romano-British in date there is some evidence which suggests the ditched enclosure may have originated in the late Iron Age period.

### 2.3.1 Ditched enclosure system L1

A rectilinear enclosure system L1 was identified with the investigation area that comprised two large enclosures over 2600sqm in size. Ditch G11 defined the western limit to the system and was clearly a significant boundary as it was present in the entire salvage investigation area. It was also visible as a linear cropmark continuing to the N and S of the salvage investigation area. The absence of features in the zone to the W of it could suggest that it was the eastern ditch of a trackway (see Phase 2). Ditches G10 and G6 were aligned perpendicular to it *c.* 60m apart and defined an enclosure containing settlement activity. The eastern extension of ditch G10 was identified as a linear cropmark over 170m in length and confirmed by evaluation trench 6 and by the watching brief during the construction of the Southern Orbital Sewer. Although both ditches G10 and G11 were continuous, a probable entranceway into the southern enclosure was identified in ditch G6.

#### 2.3.1.1 Boundary ditch G11

N-S boundary ditch G11 was at least 115m long, continuing beyond the limit of the salvage investigations to the N and S. It ranged between 0.8m and 1.4m wide and was 0.5m deep with a V-shaped profile.

The ditch contained primary infilling (G11.1) throughout that was 0.1m thick and comprised of a mid orange brown clay silt. Overlying this was (G11.2) a dark grey brown silty clay with occasional small stones that contained three sherds of late Iron Age-early Roman pottery, three sherds of Roman pottery and 7 fragments of animal bone.

#### 2.3.1.2 Enclosure ditch G6

Ditch G6 was aligned E-W and defined the southern limit of the southern enclosure. It was at least 18m long as it continued beyond the limit of the investigations. The ditch was 2m wide and 0.55m deep with a steep sided concave profile and slightly concave base. A 5m wide gap in the ditch indicates a southern entranceway into the enclosure.

A 0.2m thick primary fill (G6.1) comprised of mid orange brown clay silt with inclusions of gravel was located across the base and up the sides of the ditch.

The main infilling deposit (G6.2) of the ditch comprised a dark brown grey silty clay with moderate small to medium stones.



### 2.3.1.3 Enclosure ditch G10

E-W ditch G10 formed the division between the two main enclosures and was visible for 30m within the salvage investigation area. It varied between 0.9m and 1.2m wide as it had been substantially truncated. In evaluation trench 6 it was 2.5m wide. It had a V-shaped profile and was 0.55m deep.

The primary fill of the ditch (G10.1) comprised a grey sandy silt with frequent small stones which contained five sherds of late Iron Age-early Roman pottery, 11 sherds of Roman pottery and 22 fragments of animal bone.

Overlying this was a deposit of dark brown grey sandy silt (G10.2) with moderate small stones and charcoal flecks which contained nine sherds of late Iron Age-early Roman pottery, 202 sherds of Roman pottery, four sherds of 2<sup>nd</sup> century pottery, 85 fragments of animal bone and a nail.

### 2.3.2 Pits L4

The southern enclosure contained 41 pits that are divided into six main spatial groups G7, G19, G20, G21, G22/23 and G24. The majority of the pits were located in two clusters, one to the NE (G19) and one to the SE (G22/23). The linear arrangement of pit groups G7, G20 and G21 parallel to the enclosure boundaries suggests that they were deliberately sited in these locations. The function of the pits is unclear, some are substantial enough to have served as gravel quarries, yet others were steep sided and appeared to have been deliberately infilled with occupation debris. Four of the pits were truncated by Phase 2 graves.

#### 2.3.2.1 Pits G7

G7 comprises six pits situated adjacent to the southern enclosure limit G6 of which only one was excavated. They were aligned in a row parallel to the ditch, but *c.* 1m to the N of it. The most westerly pit appeared to be situated within the southern entranceway suggesting it is not contemporary. The pits were either oval or circular in plan and between 1.5m and 4m in diameter and up to 0.9m deep with U-shaped profiles.

The excavated pit contained a dark brown grey silty clay primary fill (G7.1) from which a single sherd of late Iron Age-early Roman pottery, three sherds of Roman pottery and a single fragment of animal bone were recovered. Overlying this was a secondary fill (G7.2) comprised of a dark brown grey silty clay with charcoal flecks, which contained a single sherd of late Iron Age-early Roman pottery, 10 sherds of Roman pottery, four sherds of 2<sup>nd</sup> century pottery, a fragment of fired clay, a burnt stone, 2 shells and 12 fragments of animal bone. The tertiary fill of the pits (G7.3) comprised a dark grey brown clay silt with inclusions of charcoal, gravel and orange red sandy clay. It contained a total of 12 sherds of late Iron Age-early Roman pottery, 98 sherds of Roman pottery, 7 sherds of 2<sup>nd</sup> century pottery, a fragment of fired clay, 3 fragments of vitrified clay, 8 shells and 43 fragments of animal bone.

#### 2.3.2.2 Pits G22/G23

Eleven pits G22/G23 (eight excavated and three unexcavated) were clustered together in an area *c.* 16m in diameter within the southern enclosure. Two of the pits were truncated by individual graves and are distinguished from the other pits by their assignment to G22. The pits ranged between *c.* 1m and 3m in diameter and between 0.3m and 1m deep with steep sided profiles and flat bases.

Two pits contained primary infilling (G22.1) comprised of a 0.4m thick yellow brown clay silt with inclusions of gravel. Three sherds of Roman pottery, 38 fragments of animal bone and three fragments of shells were recovered. The secondary infilling of the pits (G22.2. G23.2) comprised mid grey brown silty clay with occasional small stones and charcoal flecks. It contained 75 sherds of late Iron Age-early Roman pottery, 282 sherds of Roman pottery, 17



sherds of 2<sup>nd</sup> century pottery, a fragment of human bone, an early Roman iron knife (RA 7), 7 fragments of fired clay, 3 fragments of vitrified clay, 2 fragments of slag, 64 shells, a burnt stone and 73 fragments of animal bone.

#### 2.3.2.3 Pits G24

Three pits G24 spaced *c.* 2m apart were located on the eastern edge of the investigation area. Their arrangement gives the impression that they form a N-S alignment. Only one of the pits was subject to hand excavation. Overall the pits were 1.5m in diameter and the excavated pit was 0.8m deep with near vertical sides and a flat base. The upper fill of the excavated pit had been truncated by later graves.

The excavated pit contained a 0.1m thick primary fill (G24.1) comprised of mid grey sandy silt with occasional small to medium stones from which a single sherd of Roman pottery was recovered. Overlying this was a secondary fill (G24.2) comprised of mid brown grey sandy silt with frequent gravel inclusions that appeared to be caused by slumpage of the sides. The tertiary fill (G24.3) of the pits comprised either a mid grey clay silt with moderate small to medium stones and charcoal flecks or a dark orange grey silty clay. The excavated pit contained a single sherd of late Iron Age-early Roman pottery, four sherds of Roman pottery and a single fragment of animal bone.

#### 2.3.2.4 Pits G19

Eleven pits G19 were concentrated in an area *c.* 20m in diameter in the NE of the salvage investigation area. Although all the pits had been subjected to machine truncation, three were still subject to hand excavation. Overall they varied in plan from oval to circular to sub-circular and were between 1.5m and 4.5m in diameter. Where hand excavated they were found to be between 0.3m and 0.7m deep with steep sided profiles and concave base.

All of the excavated pits contained some primary infilling (G19.1) comprised of either a mid orange brown sandy clay with inclusions of gravel or a dark grey black clay silt with charcoal flecks. The darker material was found lying across the base of one of the pits and appeared to have been deposited soon after the pit was dug which would indicate that it was used for the deliberate disposal of waste material. The secondary fill of the pits (G19.2) comprised mid grey brown clay silt with occasional small stones and charcoal flecks. It contained 33 sherds of late Iron Age-pottery, 36 sherds of Roman pottery, four sherds of 2<sup>nd</sup> century pottery and 24 fragments of animal bone. Finally, the pits were infilled with (G19.3) a dark black grey clay silt with frequent charcoal. This deposit contained four sherds of late Iron Age-early Roman pottery, 62 sherds of Roman pottery, a single sherd of 2<sup>nd</sup> century pottery, 3 fragments of fired clay, an early Roman toiletry spoon (RA 3), a nail, 4 shells and 16 fragments of animal bone. At least one of the pits appeared to have been used for intermittent disposal of waste material as its infilling sequence contained several lenses of dark material mixed with redeposited natural.

#### 2.3.2.5 Pits G20

Two large sub-circular pits G20 were located *c.* 3m S of ditch G10. Both had been subjected to machine truncation and were therefore not hand excavated. They were between 3m and 4m in diameter and their unexcavated fills (G20.1) comprised dark black grey silty clay.

#### 2.3.2.6 Pits G21

Located in the western part of the enclosure were a further six pits G21. Three were located in a possible N-S alignment, *c.* 5m apart and 3m to the E of the enclosure western boundary. They were either sub-circular or sub-square in plan, between 2.8m and 4m long and between 2.5m and 3.5m wide. The other three pits were located 13m to the E of the ditch and were also *c.* 5m apart in a possible NW-SE alignment. They were between 1.5m and 4.5m in diameter. The pits were infilled with (G21.1) either a dark grey brown or grey black silty clay.





### 2.3.3 Other activity L6

Apart from the pits the only other evidence for settlement-type activity within the enclosure was a well G8 and a possible kiln G9.

#### 2.3.3.1 Well G8

A large feature G8 interpreted as a stone lined well was identified on the SW edge of the investigation area, *c.* 11m from the N-S boundary ditch G11. The construction pit of the well was 1.5m in diameter and over 1m deep with a steep sided profile. Within this was a stone lined well shaft that had at least a 1m internal diameter and was over 1m deep with a vertical profile. This shaft was constructed from limestone blocks between 0.15m and 0.35m in size and positioned in flat courses. A dark grey blue clay, which was packed behind and between the stones contained two sherds of Roman pottery and a fragment of animal bone.

#### 2.3.3.2 Possible kiln G9

A possible kiln G9 was located *c.* 1.5m to the SE of pit group G19. Its identification is based on its figure of eight shape characteristic of kilns. Overall it was 3.5m long and orientated N-S. The wider “chamber” end was to the N and was 1.6m in diameter and 0.6m deep. To the S were the “flue” and “stokehole” which were under *c.* 0.8m wide and shallowed to only 0.1m deep. There was no evidence for in situ lining or charcoal rich deposits. Therefore it is possible that the kiln was either never finished or used. It was infilled with a mid grey brown silty clay with occasional small stones and charcoal flecks containing two sherds of late Iron Age-early Roman pottery, seven sherds of Roman pottery, a glass vessel fragment (RA 7) and 15 fragments of animal bone.

## 2.4 Phase 2: Late Roman-British (Figure 5)

The enclosure system established in the previous phase continued in use. The earlier N-S boundary was replaced by two parallel ditches *c.* 10m apart which clearly defined a trackway L2. It is possible that this originated in the previous phase. The two main enclosures remained unchanged though a cemetery L3 was established in the southern one.

To the east of the enclosure, evaluation trenches 7 and 8 contained extensive dark deposits rich in Roman occupation debris L7. It is presumed that these were either a deliberate attempt to infill natural undulations in the ground (probably overlying a former river channel) or was a convenient place in which to dispose of rubbish.

### 2.4.1 Trackway L2

Parallel ditches G12 and G13 defined a N-S aligned trackway that was 10m wide and visible for *c.* 100m within the salvage investigation area. No deposits that could be interpreted as being associated with a surface for the trackway were observed. The ditches correspond to parallel linear cropmarks observed to the N and S of the salvage investigation area.

#### 2.4.1.1 Ditch G12

Ditch G12 formed the western boundary of the trackway and was only visible for *c.* 42m within the NE part of the salvage investigation area. It was 3.25m wide and 0.9m deep with an irregular V-shaped profile.

The primary fill (G12.1) comprised a mid orange grey silty clay with moderate small stones. Nineteen sherds of Roman pottery, four sherds of 2<sup>nd</sup> century pottery and 21 fragments of animal bone were recovered. The secondary fill (G12.2) comprised a mid brown grey silty



clay with occasional small stones and contained two sherds of late Iron Age-early Roman pottery and five fragments of animal bone.

#### **2.4.1.2 Ditch G13**

N-S ditch G13 formed the eastern boundary of the trackway and was visible for *c.* 100m within the salvage investigation area. It was 1m wide but the depth and profile are unknown as it was unexcavated.

The unexcavated fill comprised a mid brown grey silty clay that contained no artefacts.

### **2.4.2 Cemetery L3 (Figure 6 and Table 2)**

A cemetery L3 was established within the eastern part of the enclosure. In total thirty-eight graves were identified. Thirty graves were located in the SE part of the salvage investigation area and a further eight graves (G26 and G27) had been previously located in evaluation trench 6, *c.* 36m to the NE. It is therefore likely that quarrying prior to this salvage investigation destroyed a considerable number.

The graves within the salvage investigation area were all subjected to some level of truncation varying from moderate to severe. In some cases, only the very base of the graves was identified and therefore no skeletal remains were present. However, human remains were recovered from 26 of the graves within the salvage investigation area. At least ten graves appear to have contained coffins as indicated by either stains within the soil and/or the presence of nails. The absence of graves to the west may be “real” and suggests that the western limit of the cemetery was located within the salvage investigation area despite the absence of any obvious boundary. The eastern limit of the cemetery is uncertain, although no graves were observed during the watching brief associated with the construction of the Southern Orbital Sewer (see Figure 2).

The majority of the graves were orientated E-W and laid out in rows G1. There were several graves on different alignments which tended to be situated on the periphery of the main cemetery. Two were aligned N-S (G2) and four were aligned NE-SW (G3). Grave G5 was exceptional in that it was located *c.* 20m to the W of the main cemetery. Five graves truncated the upper fills of Phase 1 pits and these have been distinguished by assignment to G4.

Although it is impossible to be certain that posthole structures L5 were contemporary with the cemetery it is noticeable that they appear to be situated in an area where there are no graves.

#### **2.4.2.1 Grave group G1**

A total of 18 E-W aligned graves were identified in the salvage investigation area, S2, S3, S7, S8, S10, S12, S14, S17, S18, S19, S23, S24, S21, S22, S20, S25, S26 and S27. It is presumed that all of the graves would have contained a single inhumation burial though only twelve contained human remains. The majority of the graves appear to have been laid out in rows. At least four of the graves S17, S23, S25 and S27 contained nails suggestive that they originally contained coffins. No grave goods were found associated with these burials.



#### **2.4.2.1.1 Grave S2**

E-W oval grave S2 was 1.85m long and 0.80m wide. The grave had been severely truncated with only a depth of 0.05m surviving. A few fragments of human bone HS134 were recovered including fragments of human skull at the W end of the grave. The backfill of the grave comprised a dark grey brown silt with frequent gravel. No artefacts or evidence for a coffin was present.

#### **2.4.2.1.2 Grave S3**

E-W oval grave S3 was located 0.5m to the S of adjacent grave S2. It was 1.1m long and 0.55m wide. It had been severely truncated with only a depth of 0.05m surviving. No skeletal remains were located in the grave. The backfill of the grave comprised a dark brown grey sandy silt with frequent gravel.

#### **2.4.2.1.3 Grave S7**

E-W aligned grave S7 was located 4m to the N of grave S12. It was 1.8m long and 0.4m wide with a concave profile and base. The grave had been severely truncated with only a depth of 0.1m surviving. Only a few fragments of human bone HS158 survived, which were found situated in the centre of the grave. The backfill of the grave comprised a dark brown grey sandy silt with frequent gravel inclusions.

#### **2.4.2.1.4 Grave S8**

E-W grave S8 was located *c.* 1m to the N of similarly aligned grave S10. It was 1.4m long, 0.45m wide with a concave profile and base. The grave had been severely truncated with a depth of 0.05m surviving. No skeletal remains were found within it. The backfill of the grave comprised a mid grey brown sandy silt with frequent gravel inclusions.

#### **2.4.2.1.5 Grave S10**

E-W grave S10 was 1.1m long, 0.5m wide with a shallow U-shaped profile and concave base. It had been subjected to a relatively high degree of truncation with a depth of 0.1m. Only a few human bones HS138 were present in the grave. Some of the leg bones appeared to be extended and were located in the E part of the grave. A few rib bones were also present and it is likely that this was an extended inhumation burial with the head at the W end. From the size of the surviving bones it was thought this was a child burial. The backfill of the grave comprised a dark grey brown sandy silt with frequent gravel inclusions.

#### **2.4.2.1.6 Grave S12**

E-W grave S12 was located 1.5m to the E of grave S10. The cut was 1.85m long and 0.5m wide. The grave had been heavily truncated with a depth of only 0.05m. Only a few fragments of human bone HS173 survived. At the W end of the grave a few fragments of skull were discovered and towards the centre of the grave was a possible finger bone. The backfill of the grave comprised a mid grey brown sandy silt with frequent gravel inclusions.

#### **2.4.2.1.7 Grave S14**

E-W grave S14 was 1.05m long and 0.6m wide. The grave had been severely truncated with a depth of 0.05m. Only a few tiny fragments of rib and arm bones HS177 survived. The backfill of the grave comprised a mid grey brown sandy silt with frequent gravel.

#### **2.4.2.1.8 Grave S17**

E-W grave S17 was located 0.3m to the N of another E-W grave S18. The grave cut was 1.58m long, 0.65m wide with a U-shaped profile and concave base. It had been heavily truncated with a depth of 0.1m. The skeleton HS126, with the head at the W end of the grave lay in an extended position. The right arm was extended but the left arm was not present. A few rib and spine fragments survived but the lower part of the skeleton from the pelvis down was lost. Overlying the skull were three large flat limestone blocks that were part of a covering over the skeleton. A small iron fitting (RA9) was identified near the right arm suggesting a coffin may have been present. The backfill of the grave comprised a dark grey brown sandy silt with frequent gravel inclusions.



#### 2.4.2.1.9 Grave S18

E-W aligned grave S18 was 1.35m long, 0.65m wide and under 0.05m deep. This grave was extremely truncated. No skeletal remains were present. The backfill of the grave comprised a dark grey brown sandy silt with inclusions of gravel.

#### 2.4.2.1.10 Grave S19

E-W grave S19 was located in a row of three similarly aligned graves that were set about 1m apart. It was 1.7m long and 0.5m wide. It had been severely truncated with a depth of only 0.02m. Only a small pile of disarticulated human bones HS122 survived towards the centre of the grave. The backfill of the grave comprised a dark grey brown sandy silt with frequent gravel inclusions.

#### 2.4.2.1.11 Grave S23

E-W grave S23 was located 1m to the S of grave S19. The grave cut was 1.95m long, 0.65m wide with a U-shaped profile and concave base. It had been disturbed but had a depth of 0.15m. The skeleton HS118 had the head positioned at the W end and lay in an extended position. The arms were extended but were flexed inwards at the elbow in order to place the hands across the pelvis. Both of the legs were fully extended and some of the feet bones survived. The inhumation had been placed in a coffin as at least 5 nails were recovered mainly from the W and E end of the grave. The backfill of the grave comprised a dark grey brown sandy silt with frequent gravel inclusions which contained a single sherd of late Iron Age-early Roman pottery and two sherds of Roman pottery.

#### 2.4.2.1.12 Grave S24

E-W grave S24 was located *c.* 1m to the S of grave S23. The cut was 2m long, 0.75m wide with a U-shaped profile and concave base. The grave had been heavily truncated with a depth of 0.05m. The only human bones HS114 surviving comprised the vertebrae and ribs. From the position of these it can be suggested that the burial was an extended inhumation with the head positioned at the W end. The backfill of the grave comprised a dark grey brown sandy silt with frequent gravel.

#### 2.4.2.1.13 Grave S21

E-W grave S21 was one of four graves aligned in a row orientated E-W and was only 0.30m to the W of another E-W grave S22. The grave cut was 2.1m long, 0.8m wide and with a U-shaped profile and flat base. The grave had been severely truncated with a depth of 0.20m and no skeletal remains were present. The backfill of the grave comprised a dark brown grey sandy silt with frequent gravel.

#### 2.4.2.1.14 Grave S22

E-W grave G22 was 0.9m long and 0.3m wide. It had been severely truncated with a depth of only 0.02m. It contained only one fragment of human bone HS154. The backfill of the grave comprised a dark brown grey sandy silt with frequent gravel.

#### 2.4.2.1.15 Grave S20

E-W grave S20 was located in a row of four similarly aligned graves that were set about 1m apart. It was 1.85m long, 0.7m wide with a concave profile and base. The grave had been severely truncated with a depth of 0.05m. No skeletal remains were present. The backfill of the grave comprised a dark orange brown sandy silt with frequent gravel.

Grave number	Group number	Grave Alignment	Human Skeleton	Quantity of bones surviving)	Coffin (no. nails)	Adult/child	Head end (* skull surviving)	Grave Goods
S1	G3	NE-SW	HS130	Y (few)	N	-	-	N



S2	G1	E-W	HS134	Y (some)	N	Adult?	W*	N
S3	G1	E-W	-	N	N	-	-	N
S4	G3	NE-SW	-	N	N	-	-	N
S5	G5	NE-SW	HS199	Y (most)	Y (5)	Adult	SW*	?
S6	G3	NE-SW	-	N	N	-	-	N
S7	G1	E-W	HS158	Y (few)	N	Adult?	-	N
S8	G1	E-W	-	N	N	-	-	N
S9	G3	NE-SW	HS146	Y (most)	Y (6)	Adult	SW*	N
S10	G1	E-W	HS138	Y (some)	N	Child	W	N
S11	G2	N-S	HS142	Y (few)	Y	Adult?	N*	N
S12	G1	E-W	HS173	Y (few)	N	Adult?	W*	N
S13	G4	E-W	HS182	Y (most)	Y (1 & 4 stains)	Child	W*	Y (RA5 & 6)
S14	G1	E-W	HS177	Y (few)	N	-	-	N
S15	G4	NE-SW	HS150	Y (some)	N	Adult	W	N
S16	G4	E-W	HS170	Y (most)	Y (1)	Adult	W*	?
S17	G1	E-W	HS126	Y (some)	Y (RA9)	Adult	W*	?box
S18	G1	E-W	-	N	N	-	-	N
S19	G1	E-W	HS122	Y (few)	N	Adult?	-	N
S20	G1	E-W	-	N	N	-	-	N
S21	G1	E-W	-	N	N	-	-	N
S22	G1	E-W	HS154	N	N	Adult?	-	N
S23	G1	E-W	HS118	Y (most)	Y (5)	Adult	W*	N
S24	G1	E-W	HS114	Y (few)	N	Adult	W	N
S25	G1	E-W	HS102	Y (most)	Y (15)	Adult	W*	N
S26	G1	E-W	-	N	N	-	-	N
S27	G1	E-W	HS110	Y (some)	Y (1)	Adult	E*	N
S28	G4	NE-SW	HS166	Y (some)	N	Adult	SW	?
S29	G4	E-W	HS106	Y (most)	Y (1 stain)	Adult	W	?
S30	G2	N-S	-	N	N	-	-	N
S120	G27	E-W	EVAL	Y (most)	N	-	-	N
S121	G27	E-W	EVAL	-	-	-	-	-
S122	G27	E-W	EVAL	Y (some)	N	-	-	N
S123	G27	E-W	EVAL	-	-	-	-	-
S124	G26	NW-SE	EVAL	Y (unknown)	-	-	-	-
S125	G26	WNW-ESE	EVAL	Y (most)	-	-	-	-
S126	G26	WNW-ESE	EVAL	Y (most)	-	-	-	-
S127	G26	WNW-ESE	EVAL	Y (some)	-	-	-	-

? => 5 sherds of pottery

**Table 2: Summary of graves**

#### 2.4.2.1.16 Grave S25

E-W grave S25 was located 1m to the S of grave S20. It was 2.2m long, 0.65m wide and 0.2m deep with a U-shaped profile and concave base and had only been partially truncated. The skeleton HS102 was almost complete and lay in an extended position with the head positioned



at the W end. The skull was lying on its side facing S so the left side had suffered some machine damage. Both of the arms were extended but were flexed inwards at the elbows so that the lower part of the arms and the hands lay across the pelvis. Both of the legs were extended but the left foot was pointing to the N. The burial had originally been placed inside a coffin as evidenced by staining in the soil and the presence of large coffin nails. The backfill of the grave comprised a dark grey brown sandy silt with frequent gravel and contained a single sherd of late Iron Age-early Roman pottery.

#### **2.4.2.1.17 Grave S26**

E-W grave S26 was located *c.* 1m to the S of grave S25. It was 1.65m long and 0.55m wide. It had been severely truncated with a depth of only 0.05m. No skeletal remains survived within the grave. The backfill of the grave comprised a dark grey brown sandy silt with occasional small stones.

#### **2.4.2.1.18 Grave S27**

E-W grave S27 was 2.2m long and 0.75m wide. The grave had been heavily truncated with a depth of 0.12m. Human bone fragments HS110 comprised part of the skull at the E end of the grave and a few foot bones towards the W end. Only one arm survived (it was uncertain which one) apparently flexed towards the head. One fragment of leg bone was identified and only a few fragments of vertebrae and ribs were present. The burial had originally been placed in a coffin as a nail was recovered. The backfill of the grave comprised a dark grey brown sandy silt with frequent gravel. It contained two sherds of late Iron Age-early Roman pottery.

#### **2.4.2.2 Grave group G2**

Two N-S aligned graves were located 18m apart in peripheral locations to the N and W sides of the cemetery. Only grave S11 contained human bones. The other grave S30 was interesting because although it had a depth of 0.2m, suggesting minimal truncation, no human bone was present. However, an animal skull was placed on the base of the grave.

##### **2.4.2.2.1 Grave S30**

N-S grave S30 was the northernmost grave to be identified within the salvage investigation area. The grave cut was 1.85m in long, 0.65m wide and 0.2m deep. No human bones were present in the grave. However, an animal skull AS201 was discovered close to the base of the grave. The backfill of the grave comprised a dark grey brown sandy silt with frequent gravel containing a single sherd of Roman pottery.

##### **2.4.2.2.2 Grave S11**

Grave S11 was located 18m to the SW of grave S30 and situated on the western edge of the main area of burials. The grave cut was 1.3m long, 0.45m wide with a concave profile and base. The grave had been heavily truncated being only 0.1m deep. At the N end of the grave a few skull fragments HS142 were discovered. It appeared that the burial was originally placed in a coffin as there was evidence of staining/outline of a coffin although no nails were identified. The backfill of the grave comprised a dark grey brown sandy silt with frequent gravel inclusions.

#### **2.4.2.3 Grave group G3**

Four graves were identified on NE-SW alignments and these were located close together in the NW part of the cemetery. Although all four graves had been disturbed two S1 and S6 contained partial remains while one, S9 contained an almost complete skeleton.

##### **2.4.2.3.1 Grave S1**

NE-SW aligned grave S1 was 0.7m long, 0.3m wide with a shallow profile and concave base. The grave had been severely truncated with a depth of 0.05m. It contained only a few



fragments of disarticulated human bone HS130. No other artefacts were recovered and there was no evidence for a coffin. The backfill of the grave comprised a dark brown grey sandy silt with frequent gravel.

#### **2.4.2.3.2 Grave S4**

NE-SW grave S4 was located 5m to the SW of a similarly aligned grave S1. The grave was 0.75m long, 0.4m wide with a concave profile and base. It had been severely truncated being only 0.05m deep. No human bones were present. The backfill of the grave comprised a dark orange brown sandy silt.

#### **2.4.2.3.3 Grave S6**

NE-SW grave S6 was situated 2.4m to the SE of grave S4. The cut was 1.1m long, 0.4m wide and 0.05m deep with a concave profile and base. The grave had been severely truncated and there were no human bones were present. The backfill of the grave comprised a dark orange brown sandy silt.

#### **2.4.2.3.4 Grave S9**

NE-SW grave S9 was 2.1m long, 0.65m wide with a U-shaped profile and flattish base. The grave had been partially truncated though the skeleton HS146 was reasonably intact. It lay supine with the head at the SW end in an extended position. Both of the arms were extended with the hands placed over the pelvis. The legs were fully extended and the feet were straight, (Film 1 – photos 19-20). This inhumation had been placed inside a coffin as six coffin nails were recovered. The backfill of the grave comprised a dark brown sandy silt with moderate gravel and charcoal inclusions. It contained four sherds of Roman pottery and a single fragment of animal bone.

#### **2.4.2.4 Grave G5**

A single NE-SW grave was situated in an apparently isolated position *c.* 18m W of the main cemetery.

##### **2.4.2.4.1 Grave S5**

The grave cut was 2m long, 0.75m wide with and had been partially truncated being 0.2m deep. The skeleton HS199 was largely intact although some of the skull, lower leg, hand and feet bones were missing. The skeleton lay in a supine position and was fully extended with the head at the SW end. The arrangement of the feet was unknown. Both of the arms were extended and the right hand was laid on top of the pelvis while the left hand was positioned below the pelvis, (Film 3 – photos 22-25). The inhumation had been buried in a coffin as up to 5 nails were recovered. The backfill of the grave comprised a dark grey brown sandy silt with moderate gravel. It contained four sherds of late Iron Age-early Roman pottery, six sherds of Roman pottery and a single fragment of animal bone.

##### **2.4.2.5 Grave group G4**

G4 represents five graves that truncated the upper fills of the four of the Phase 1 pits. Three graves S13, S16 and S29 were orientated E-W and are therefore comparable to grave group G1 while graves S16 and S28 were orientated NE-SW. Grave S29 appeared to truncate grave S13, one of only two such occurrences within the cemetery. All of the graves contained single inhumation burials and three (S13, S16 and S29) contained evidence for coffins.

##### **2.4.2.5.1 Grave S13**

E-W grave S13 was 1.95m long, 1m wide and 0.25m deep with a concave profile and base. This grave was cut into the upper fill of pit [294] and was itself truncated by a later grave S29 which caused damage to the bones on the left side of the skeleton. The skeleton HS182 was of a juvenile and was laid out in supine extended position with head at the W end. The arms were



folded across the abdomen and the legs were fully extended. None of the feet bones survived and only a few finger bones were present. The grave may have originally been stone lined as blocks of limestone were found positioned on either side of the skeleton. These blocks measured 0.14m by 0.1m. One nail, and ferrous coloured stains of four others were found at the feet and right side of the skeleton. A knife (RA 6) and a coin (RA 5) were found in this grave near the upper right leg and are presumed to be grave goods. Both of these items were situated adjacent to one another on the right side of the skeleton. The grave was backfilled with dark grey brown sandy silt with moderate gravel inclusions. It contained 17 sherds of Roman pottery, a flint side scraper (RA 8), a shell and nine fragments of animal bone.

#### 2.4.2.5.2 Grave S29

E-W grave S29 truncated grave S13 on its N side by 0.35m. The grave cut was 1.55m long, 0.7m wide with a U-shaped profile and concave base. The western part of the grave was lost due to truncation but elsewhere it survived to a depth of 0.1m. The skeleton HS106 appeared to belong to an adult, apparently laid out in an extended position although only the pelvis and legs survived. The head although not found would have been positioned at the W end of the grave. The legs were extended but the position of the feet was unknown as they did not survive. This inhumation was buried in a coffin as a ferrous stain was present. The backfill of the grave comprised a dark grey brown sandy silt with occasional small stones which contained 11 sherds of Roman pottery, a single sherd of 2<sup>nd</sup> century pottery and 23 fragments of animal bone.

#### 2.4.2.5.3 Grave S15

NE-SW grave S15 truncated the NW side of a large pit [62] and was located *c.* 3m from another grave S16 which also truncated an earlier pit. The grave was 0.7m long, 0.55m wide with a concave profile and base. The grave had been heavily truncated with a depth of 0.15m. Only a few fragments of bone HS150 survived. The presence of a few fragments of leg and foot bones at the E end of the grave suggests that the head was positioned at the W. The backfill of the grave comprised a dark grey brown sandy silt with frequent gravel. It contained a single sherd of late Iron Age-early Roman pottery and a single sherd of Roman pottery.

#### 2.4.2.5.4 Grave S16

E-W grave S16 truncated an earlier pit [67]. It was located *c.* 3m to the SW of another grave S15 that also truncated an earlier pit. The grave cut was 2.2m long, 0.6m wide and 0.2m deep with a steep sided concave profile and concave base. A reasonably complete skeleton HS170 of an adult was present. The grave had suffered some truncation as the skull was damaged and the feet bones were missing. The skeleton lay in an extended position with the head at the W end of the grave. The arms were extended and the hands were placed over the pelvis. The legs were also extended, but the position of the feet was unknown. The burial may have originally been placed in a coffin as indicated by staining in the soil and the presence of a coffin nail. The backfill of the grave comprised a dark grey brown sandy silt with moderate gravel. It contained nine sherds of late Iron Age-early Roman pottery, seven sherds of Roman pottery and eight fragments of animal bone.

#### 2.4.2.5.5 Grave S28

NE-SW grave S28 truncated an earlier pit [307] and was located at the southern limit of the salvage investigation area. It was 1.95m long, 0.65m wide and 0.4m deep with a U-shaped profile and a concave base. The grave had been badly truncated and only the lower part of the skeleton HS166 survived. All that survived of this burial were the legs which were located at the NE end of the grave. However, the skeleton appeared to represent an adult that may have been laid out in an extended position with the head at the SW end. The backfill of the grave comprised a dark grey brown sandy silt and contained seven sherds of late Iron Age-early Roman pottery, five sherds of Roman pottery and 20 fragments of animal bone.

#### 2.4.2.6 Grave group G26

G26 comprises four graves located in close proximity to one another in evaluation trench 6. Three S125, S126 and S127 were on WNW-ESE





alignments and one S124 on a NW-SE alignment. All were situated to the south of enclosure ditch G26 *c.* 36m to the NW of the main cemetery. Because these graves were identified as part of an evaluation it was not appropriate for them to be fully excavated. Therefore investigation was restricted to limited hand excavation which demonstrated the presence of articulated human bones in all graves.

#### **2.4.2.6.1 Grave S124**

Unexcavated NW-SE grave S124 was 1.15m long and 0.45m wide. The grave was unexcavated its backfill comprised a mid brown grey sandy silt from which a single sherd of Roman pottery was recovered.

#### **2.4.2.6.2 Grave S125**

WNW-ESE grave S125 that was 1.9m long and 0.45m wide. Although the grave was unexcavated, a skull was observed that had been damaged by truncation. The backfill of the grave comprised a brown grey sandy silt.

#### **2.4.2.6.3 Grave S126**

WNW-ESE grave S126 was located between graves S125 and S127. It was 2.1m long and 0.65m wide. Although the grave was not fully excavated, skull fragments, vertebrae and pelvis were observed and it was thought that the skeleton was lying on its side. The backfill of the grave comprised a brown grey sandy silt.

#### **2.4.2.6.4 Grave S127**

WNW-ESE grave S127 was located to the S of graves S125 and S126. It was 1.5m long and 0.55m wide. Only rib fragments were observed. The backfill of the grave comprised a brown grey sandy silt.

#### **2.4.2.7 Grave group G27**

Four E-W aligned graves S120, S121, S122 and S122 were identified within evaluation trench 6 and are comparable to G1 *c.* 36m to the SW. The location of grave S121 was so close to enclosure ditch G10 that is it likely to have truncated its upper fill. Grave S122 appeared to truncate grave S124 (G26) and would be one of only two such occurrences within the entire cemetery. Another grave S120 was located to the north of the enclosure ditch. Because these graves were identified as part of an evaluation it was not appropriate for them to be fully excavated. Therefore investigation was restricted to limited hand excavation which demonstrated the presence of articulated human bones in all graves.

##### **2.4.2.7.1 Grave S120**

E-W grave S120 was located in evaluation trench 6 and the skeleton was partially exposed but not removed. It was the only grave to be located to the N of enclosure ditch G10. The grave cut was at least 1.35m long as it continued beyond the trench to the E and was 0.65m wide. The grave contained an extended inhumation of which the skull, vertebrae, pelvis and femurs were present. The backfill of the grave comprised a brown grey sandy silt.

##### **2.4.2.7.2 Grave S121**

E-W grave S121 was located in evaluation trench 6. The grave was unexcavated but the cut was at least 1.3m long and 0.7m wide as it continued beyond the trench to the W. The backfill of the grave comprised a brown grey sandy silt.

##### **2.4.2.7.3 Grave S122**



E-W grave S122 was located 0.5m to the S of grave S121 in evaluation trench 6 and it appeared to truncate grave S124. The skeleton was partially exposed but not removed. The grave cut was at least 1.4m long and 0.5m wide. The parts of the skeleton observed included the right leg and the upper part of the left leg. Skull fragments were observed next to the left knee possibly suggesting either decapitation or the inclusion of disturbed bone from grave S124. The backfill of the grave comprised a brown grey sandy silt.

#### **2.4.2.7.4 Grave S123**

E-W grave S123 was located 1.5m to the S of grave S122 in evaluation trench 6. Although the grave was unexcavated the cut was at least 1.25m long and 0.8m wide as it continued beyond the western limit of the trench. The backfill of the grave comprised a brown grey sandy silt.

### **2.4.3 Structures L5**

Nineteen postholes were identified within the cemetery area with the majority concentrated in an area *c.* 9m in diameter. The location of the majority of the postholes does not appear to coincide with graves and therefore are not interpreted as grave markers. However, the spatial arrangement of the postholes suggests that the majority occupied a space where no graves were dug suggesting they were contemporary with the cemetery. It is presumed that they represent the remains of several post-built structures associated with the cemetery.

The spatial arrangement of the postholes suggests that they are not part of a single structure. However, postholes G15 could represent a fenceline or wall line to the N of the other postholes. Posthole groups G16, G17 and G18 may represent two and/or three post structures. The function of postholes G14 is uncertain as these are located away from the main concentration and maybe associated with an individual grave.

#### **2.4.3.1 Postholes G14**

Two unexcavated circular postholes G14 were found to the south of the main group of postholes, within 1.2m of grave S16. They were *c.* 0.25m in diameter and may have formed a two-post structure or grave marker. They were infilled with a dark brown grey silty clay with occasional flecks of limestone and gravel.

#### **2.4.3.2 Postholes G15**

Five unexcavated circular postholes G15 appeared to form the northern corner of a post-built fence or structure. The postholes were aligned SW-NE and NW-SE. They were positioned *c.* 2.5m apart and were between 0.2m and 0.3m in diameter. They were infilled with a dark grey brown silty clay with occasional flecks of limestone and gravel.

#### **2.4.3.3 Postholes G16**

Three circular postholes G16 were located in a 1.8m area, spaced *c.* 0.5m apart. They were between 0.2m and 0.3m in diameter. The only excavated posthole was 0.1m deep and contained no evidence for postpipes or packing. They were infilled with a mid grey brown silty clay with occasional gravel inclusions.

#### **2.4.3.4 Postholes G17**

Three pairs of circular postholes G17 were located within a 1.3m area. They were spaced between 0.3m and 0.7m apart and were *c.* 0.2m in diameter. Where excavated none of the postholes contained any evidence for postpipes or packing. They may have formed individual two-post structures that are likely to have been contemporary with the graves.



Their infilling deposits comprised dark grey brown silty clay with occasional limestone flecks and grave that contained no artefacts.

#### **2.4.3.5 Postholes G18**

Three circular postholes G18 were orientated in a row aligned approximately E-W. They were spaced *c.* 0.3m apart and were between 0.2m and 0.3m in diameter. Two of the postholes were excavated and were found to be 0.05m deep with steep sided profiles and flat bases. There was no evidence for postpipes or packing. All of the postholes were infilled with a dark brown grey silty clay with occasional limestone flecks and gravel.

#### **2.4.4 Hollows L7**

Two extensive areas of dark occupation rich deposits G28 and G29 were located in evaluation trenches 7 and 8. No gravel was found below these deposits and it is presumed that the original undulation reflected an underlying former river channel. These deposits contained moderate quantities of small flints and small to large limestone fragments, along with occasional charcoal flecks. Roman artefacts recovered included a large number of pottery sherds, a small coin (evaluation RA 1) and a piece of lead waste (evaluation RA 2). A small quantity of animal bone and oyster shell was also recovered. It is presumed that these deposits were either part of a deliberate attempt to infill natural undulations in the ground (probably overlying a former river channel) or simply represent a convenient place in which to dispose of rubbish.

##### **2.4.4.1 Deposit G28**

This deposit comprised a layer of dark grey clay silt between 0.1 and 0.15m thick that was located across almost the entire length of evaluation trench 8. Underlying this was a darker grey clay silt layer between 0.4m and 0.45m thick that contained four sherds of late Iron Age-early Roman pottery, 51 sherds of Roman pottery and 10 sherds of 2<sup>nd</sup> century pottery.

##### **2.4.4.2 Deposit G29**

This deposit comprised a layer of dark grey clay silt between 0.1 and 0.15m thick that was located across almost the entire length of evaluation trench 7. Underlying it was a darker grey clay silt layer between 0.4m and 0.5m thick that contained seven sherds of late Iron Age-early Roman pottery, 62 sherds of Roman pottery and five sherds of 2<sup>nd</sup> century pottery.





### 3. DATA QUANTIFICATION

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#### 3.1 Introduction

The following quantifications of the data-sets recovered during the investigations have been divided into three main classes: structural, artefactual and ecofactual.

*Structural* data relate to the identification of individual events such as the digging of a ditch, primary infilling, digging of a grave, placement of body and grave goods, infilling etc. These have been recorded as context records during the investigations. All contexts will have a detailed record sheet, a plan and a sketch section, along with photographs.

*Artefactual* data comprise human-made objects recovered during the investigations. These have been divided for ease of discussion into pottery, ceramic building material and other artefacts.

*Ecofactual* data from the investigations comprise animal and human bone. These are not described in this report.

In the following sections contextual data is discussed first as this has provided the framework for the summary of results and the subsequent data-set discussions. The methodological approach taken with each data-set is discussed, followed by sections dealing with quantification, provenance (spatially and chronologically) and also condition.

Much of the data-set discussion refers to the preliminary phase and landscapes to which contexts have been assigned.



## 3.2 Structural data

### 3.2.1 Quantity of records

Table 3 presents a breakdown of the total quantity and type of structural records. These comprise the written description/interpretation of a deposit/feature (context sheets), a map-like drawing showing the location and inter-relationship between features (a plan), a profile drawing through a feature and its fills (sketch section) and photographs.

Record type	
Contexts	303
Plan Sheets	3
Sections*	108
Photographs	123

\*Note. sketch sections on context sheets

**Table 3:** Quantity of site structural records

### 3.2.2 Context types

Table 4 presents the different feature types that were identified during the investigations and the subsequent number of contexts that were assigned to them.

	Graves	Pits	Postholes	Well	Kiln	Ditches	Quarry	TOTAL
Number of features	38*	41	19	1	1	5	3	108
Number of contexts	116	101	38	3	2	34	6	300

\* includes 8 in evaluation trench 6. Note. topsoil contexts not included

**Table 4:** Contexts by feature type

### 3.2.3 Methodological approach to assessing contexts

The structural data was rapidly assessed in order to establish whether it would provide a coherent chronological framework. This proved to be the case and therefore, within the chronological framework, the contexts were assigned to “preliminary” landscapes based on the following criteria:

- Do the contexts form a coherent spatial unit, e.g. ditch length, pit group, cemetery etc?
- Do the contexts represent key positions within the stratigraphic sequence?
- Do the contexts contain suitable dating material?

The total number of contexts assigned to “preliminary” landscapes was 294 (Table 5).

Much of the discussion in Section 3 and the following data-set discussions are based on the phase and landscape assignments.



Phase	Landscape	Description	No. contexts
1	1	Enclosure ditches	27
	4	Pits	101
	6	Domestic activity	5
2	2	Trackway	7
	3	Cemetery	116
	5	Postholes	38
	7	Dump desposits	Evaluation
<b>Total</b>			294

**Table 5:** Landscape descriptions (ordered by phase) with a count of assigned contexts

### 3.2.4 Survival and condition of features

Due to the circumstances preceding archaeological salvage investigation the surviving area of the quarry available for examination had been subjected to a variable degree of truncation. Over the majority of the investigation area only the larger features such as pits were present. While this may reflect a genuine spatial distribution of these features it is impossible to be sure. Elsewhere it was clear that the survival of features was dependent on the depth to which machining had occurred. The depths reached within the area were clearly variable because some graves contained reasonably intact skeletons and in others only the very base of the grave and no human bone were present. The presence of postholes is intriguing, as these would normally be the shallowest features and therefore the first to be destroyed by machining.

Another factor to be noted is that some of the larger pits had been partially machine excavated before archaeological attendance in the quarry. This is believed to have been part of the process to leave relatively clean gravel and sand, rather than for any other purpose.



### 3.3 Artefacts

#### 3.3.1 Ceramics

An assemblage comprising 1,211 pottery sherds, representing 618 vessels, weighing 36.4kg was recovered. Approximately 9% (by weight) of this material derived from ploughsoil and subsoil deposits assigned to Phase 4, and, unless of intrinsic interest, has not been further discussed.

The pottery was examined by context, and fabric types and form codes identified in accordance with the Bedfordshire Ceramic Type Series. Quantification was by minimum vessel and sherd count, and weight. Sherds belonging to the same vessel, but deriving from separate contexts, were quantified as one. The condition of the pottery from each deposit was noted and attributes such as decoration, manufacture, levels of abrasion and evidence of function (residues, sooting and wear marks etc.) were recorded. All information was entered onto an Access database.

#### 3.3.2 Ceramic building material

Ceramic building material comprises eleven pieces of Roman roof tile and brick (1.6kg). The assemblage was quantified by fragment count and weight, and any measurable dimensions recorded. Data was entered onto the relevant table within the project database. All examples are shell tempered, and likely to derive from a similar source to shelly building material recovered from excavations at Kempston Church End.

#### 3.3.3 Other Finds

##### 3.3.3.1 Methodology

A total of 53 non-ceramic artefacts were recovered from the salvage investigations. These were assigned broad terms and catalogue descriptions compiled on the project database. All of the ironwork, and three copper alloy objects were submitted for radiography (Lincolnshire Archives). In addition, remedial conservation of one copper alloy artefact was undertaken.

##### 3.3.3.2 Quantification, range and variety

Quantities of objects by material and artefact type are presented in Table 6.

Broad Term	Copper alloy	Iron	Flint	Glass	TOTAL
Box		1			1
Coin	2				2
Knife		2			2
Nail		44			44
Ring	1				1
Scraper			1		1
Toiletry	1				1
Vessel				1	1
<b>TOTAL</b>	4	47	1	1	53

**Table 6:** Non-ceramic artefacts by material and type





### 3.3.3.3 Provenance and chronology

Topsoil accounted for two artefacts, a 4<sup>th</sup> century coin (?Constantius II 348-354) and a cast copper alloy annular ring. Pit [82] (G19, L4, Phase 1) yielded a nail and toiletry spoon with bead-, double- reel and spool moulding (RA3) on the stem. Long handled toiletry implements are not closely datable within the Roman period. A close parallel for RA3 was found in 2<sup>nd</sup> century deposits at Colchester (Crummy 1983, fig 65 no 1932). Pit [62] (G22, L4, Phase 1) produced a Manning type 8 knife (RA7), comprising a solid handle with the blade back angled down from the handle (Manning 1985, 113). This type is uncommon and is thought to be an early Roman form.

The sole fill of possible kiln G9 (L6) yielded a small body sherd of translucent yellow-green glass retaining single vertical rib (RA7). The sherd may derive from a collared, globular ribbed jar or conical/globular jug (Cool and Price 1995, 106-07 and 120-121, also fig 7.2 no. 733 and fig 8.3 no 874), probably dating to the later 1st to first half 2<sup>nd</sup> century.

The remaining artefacts were found within eight graves of the Phase 2 cemetery L3, 44 of which comprised nails presumed to be associated with coffins. Seven graves yielded nails while S29 contained ferrous stain suggestive of the presence of at least one nail (Table 7). However, disturbance of the burials prior to salvage investigations often resulted in only evidence for a single nail. The majority of the nails retained mineral preserved wood along the length of the shank.

Although all the nails possessed flat heads of square to rectangular outline, there were two distinct sizes – Type A nails were more robust with thickened heads, complete lengths ranging between 100mm to 120mm. These closely resemble some of the coffin nails from Lankhills, Winchester (Clarke 1979, fig 4). Type B nails are less robust and would be considered general purpose carpentry nails. The majority of these nails, perhaps due to their less robust nature, were incomplete and so total length cannot be certain, although surviving shanks suggest that lengths would have been less than 100mm. The greater size of the Type A nails suggests that the coffin planks used in graves S25 and S9 were much thicker than in the other graves. Whether this is significant, e.g. a chronological difference or perhaps a status indicator remains uncertain.

Burial	Nails found	Ferrous stain	Nail type	Find spots
S5 (G5)	5		Type B	2 feet; 3 right side
S9 (G3)	6		Type A	3 head and 3 feet
S13 (G4)	1	4	Type B	3 feet; 1 right side; 1 left side
S16 (G4)	1		Type B	1 left side
S17 (G1)			RA9	1 right side
S23 (G1)	5		Type B	2 head; 2 feet; 1 left side
S25 (G1)	15		Type A	3 head; 3 feet; 1 left side; 2 right side
S27 (G1)	1		Type B	disturbed
S29 (G4)		1	n/a	1 left side

**Table 7: Graves yielding nails, evidence of nails or iron fittings**

A small iron fitting (RA9), comprising two parallel narrow strips with a small tack perforating the upper strip, was recovered near the right shoulder of skeleton HS126 (S17, G1, Phase 1). Mineral preserved wood appears to survive between the strips. Whether this formed a decorative fitting on a coffin, or represents the remains of a small box or casket is unclear.

Only one burial S13 yielded any metallic grave goods, comprising a knife RA6 (Manning type 13) and a copper alloy coin RA5 provisionally dated to the third quarter of the 4<sup>th</sup> century (Gratian(?) 367-383). Philpott notes that although the inclusion of knives in inhumations is not common, it did form a consistent element of late Roman native practice in Britain and may have been continuing a rural tradition of the occasional burial of equipment (1991, 176-177). The inclusion of coins in burials increased in the 4<sup>th</sup> century, perhaps reflective of the increase in coin issues. Where coins are included they most often occur in the mouth or in such a position that they may have fallen from the mouth. The positioning of the knife and coin, near the upper right leg of the inhumation, may suggest they were originally contained within a purse or container. The combination of a knife and a coin as grave goods is not common. The neighbouring cemetery at Kempston Church End while having burials with these two elements - Inhumation 3906 was contained within a coffin and was accompanied by a coin of 367-375 and a ceramic jar, while Inhumation 3963 was accompanied by a knife – did not have them in combination.



#### 4. REFERENCES

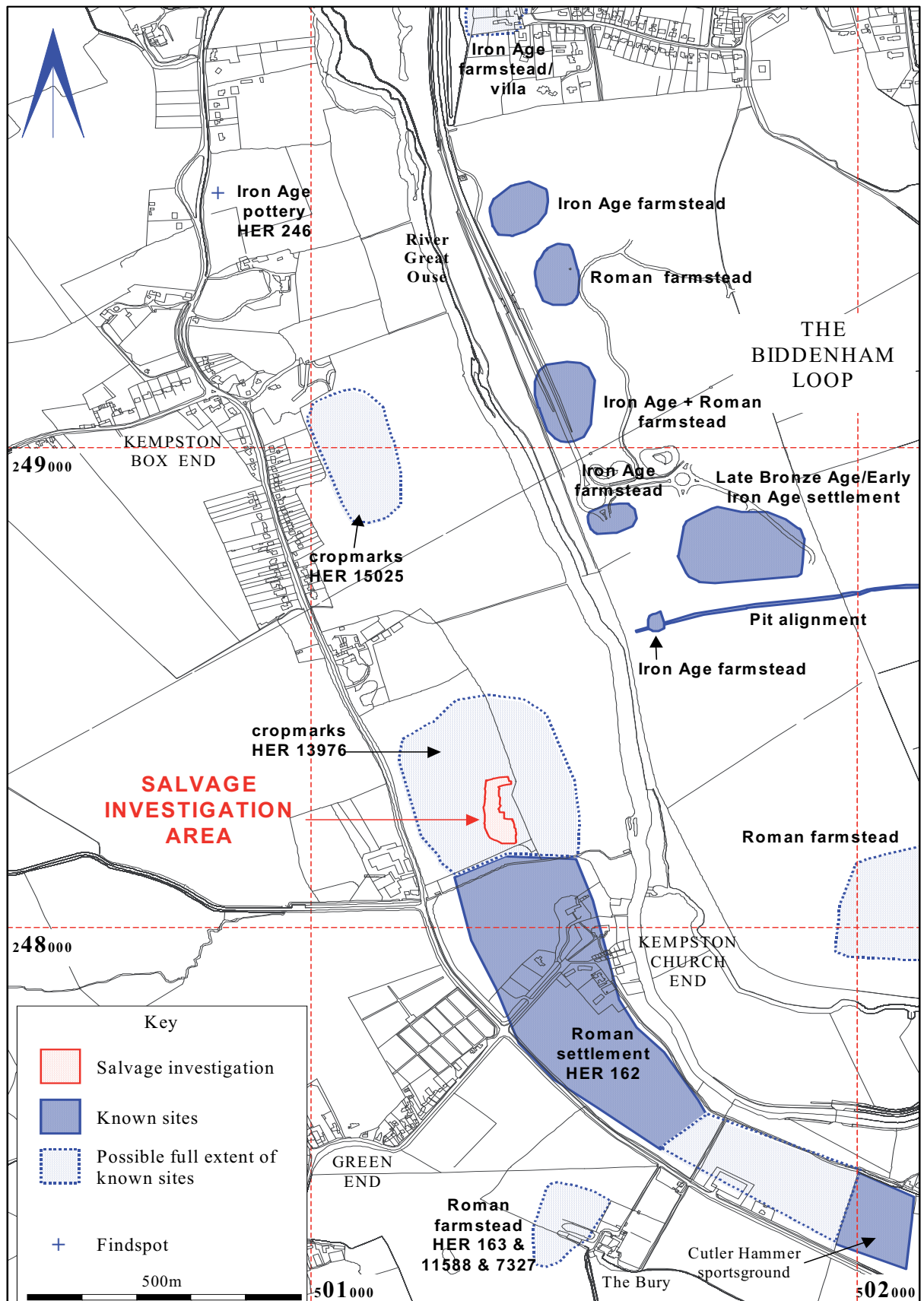
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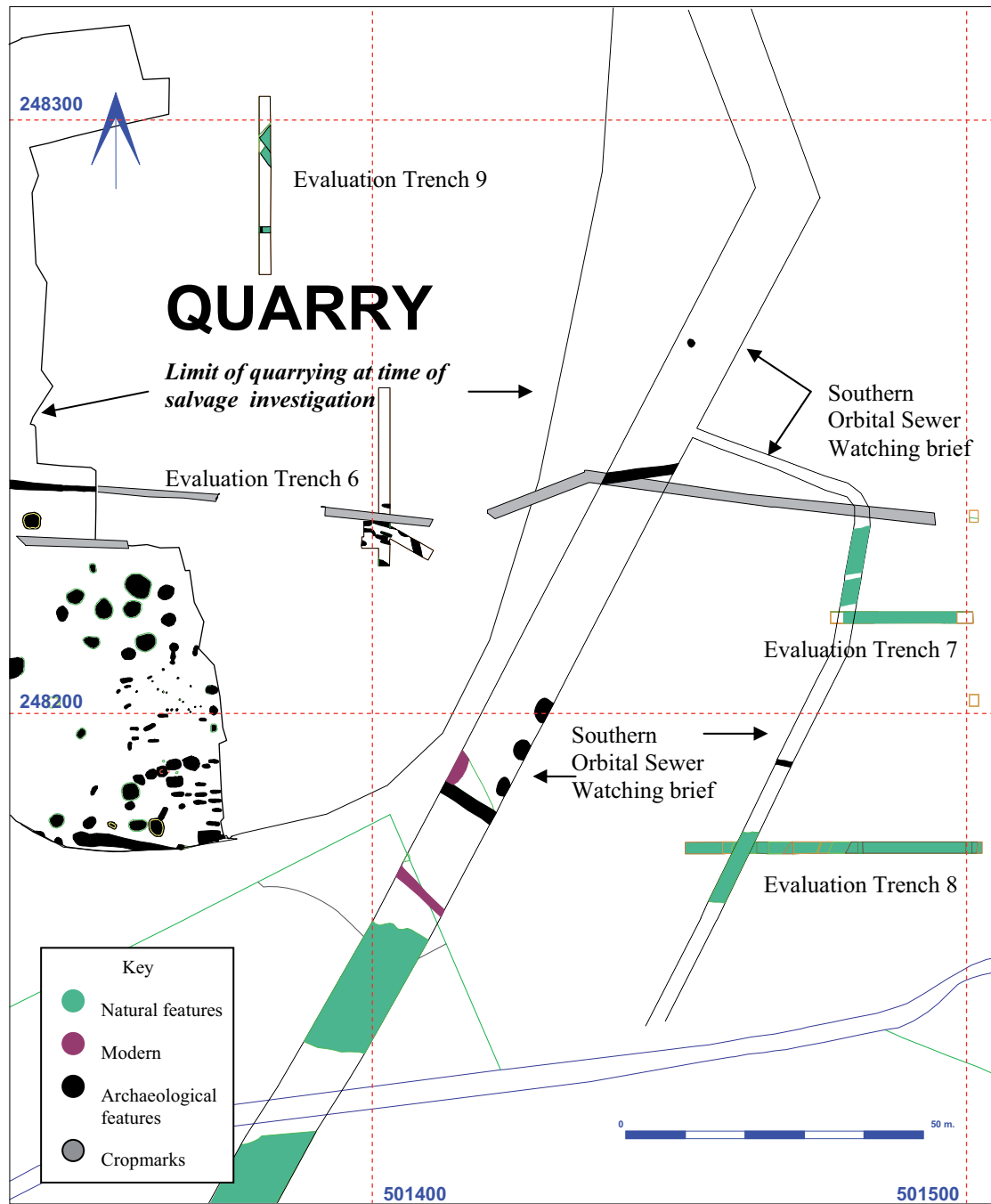


## **Figures**

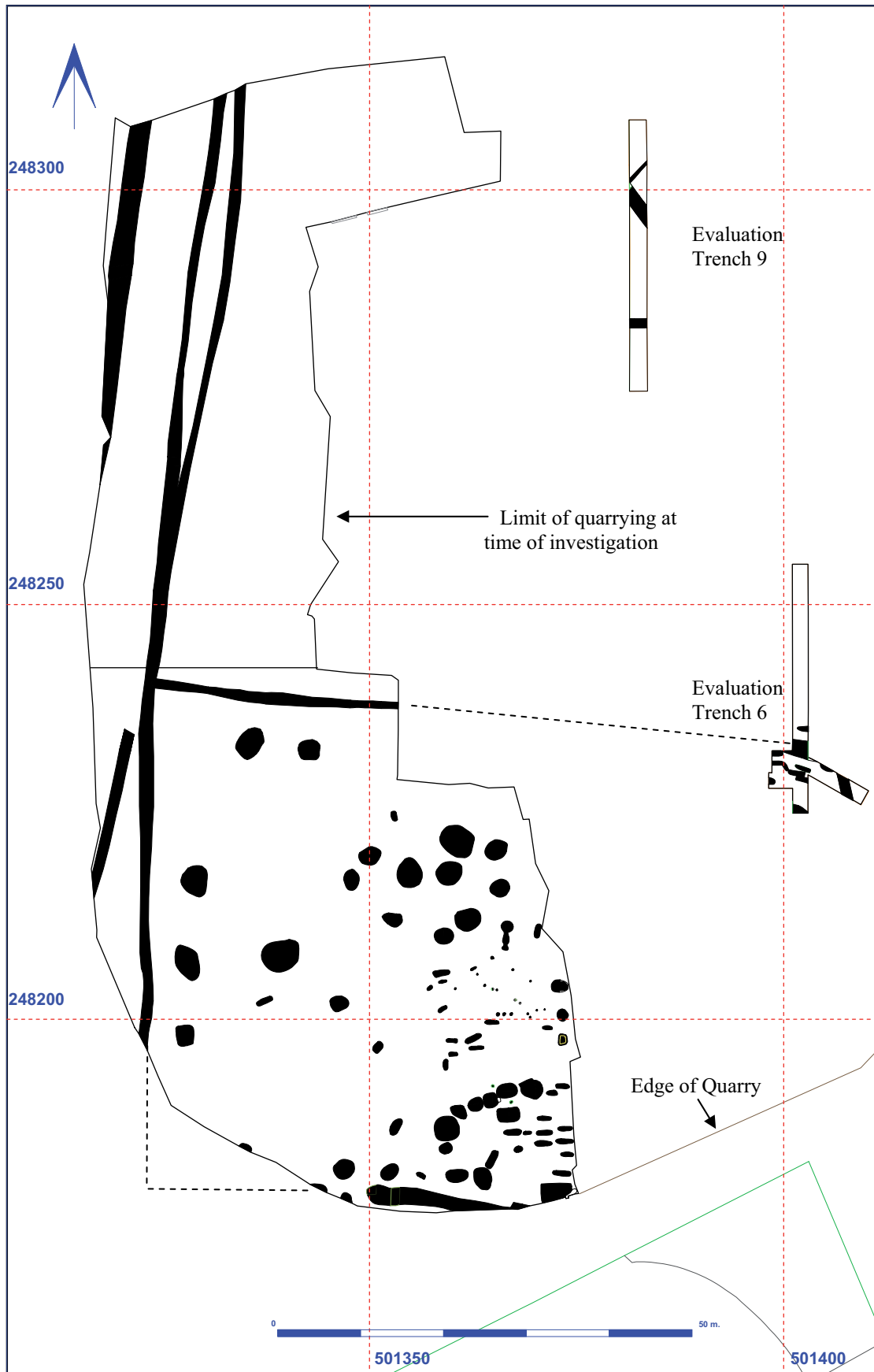


**Figure. 1:** Location of the investigation area and adjacent Iron Age and Roman sites.

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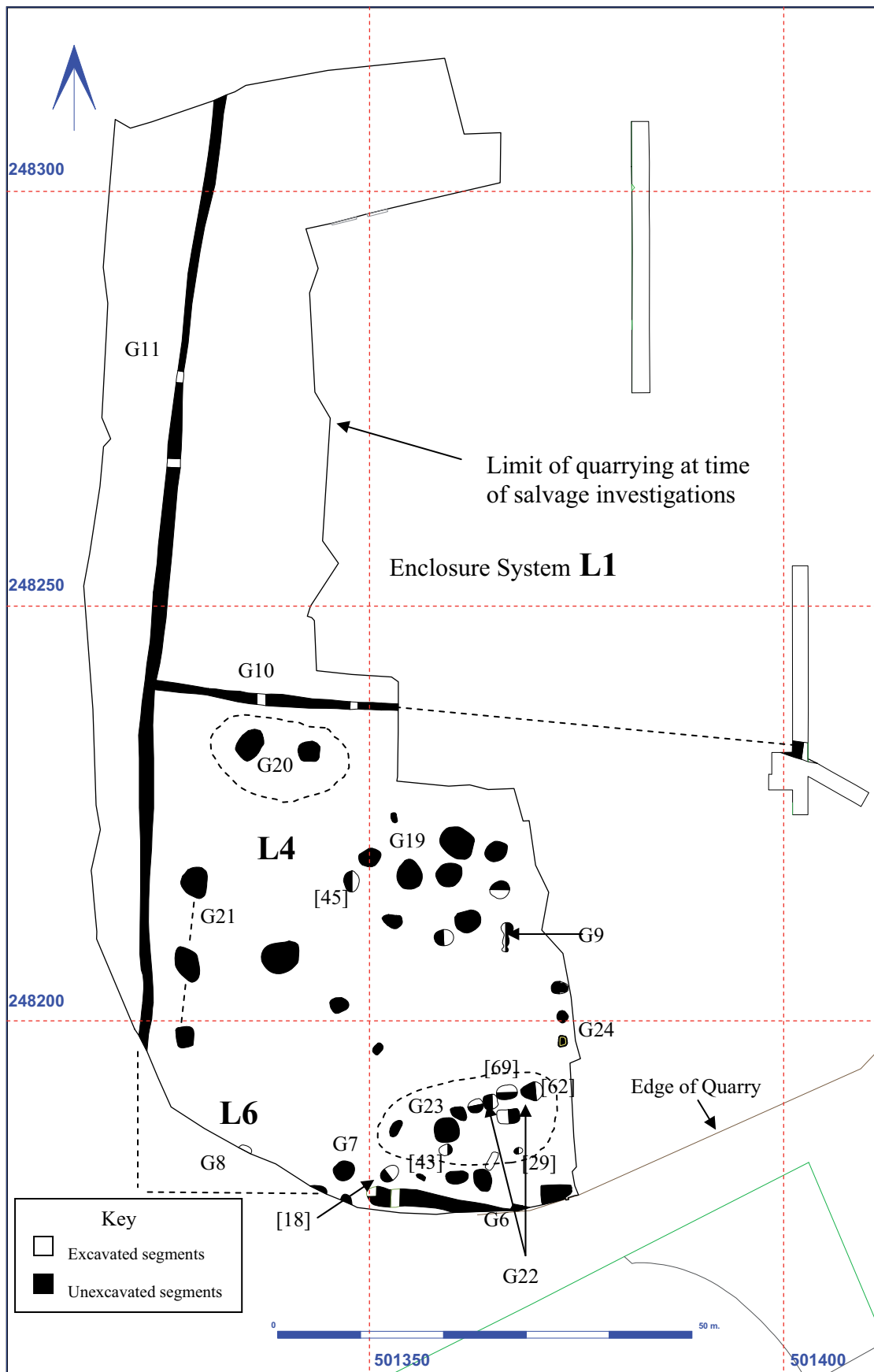


**Figure 2:** Previous archaeological investigations in vicinity

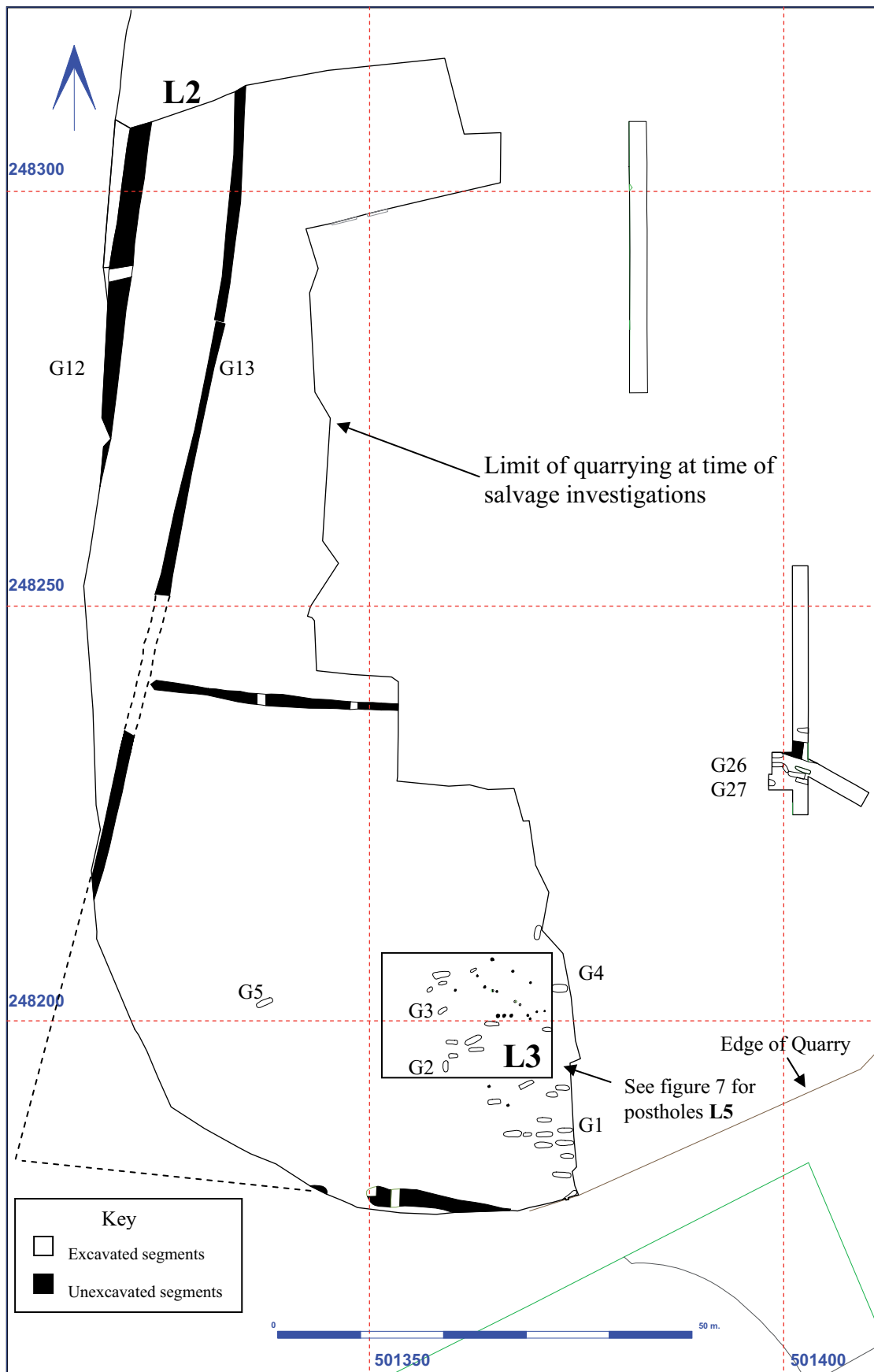


**Figure 3 - All features plan**

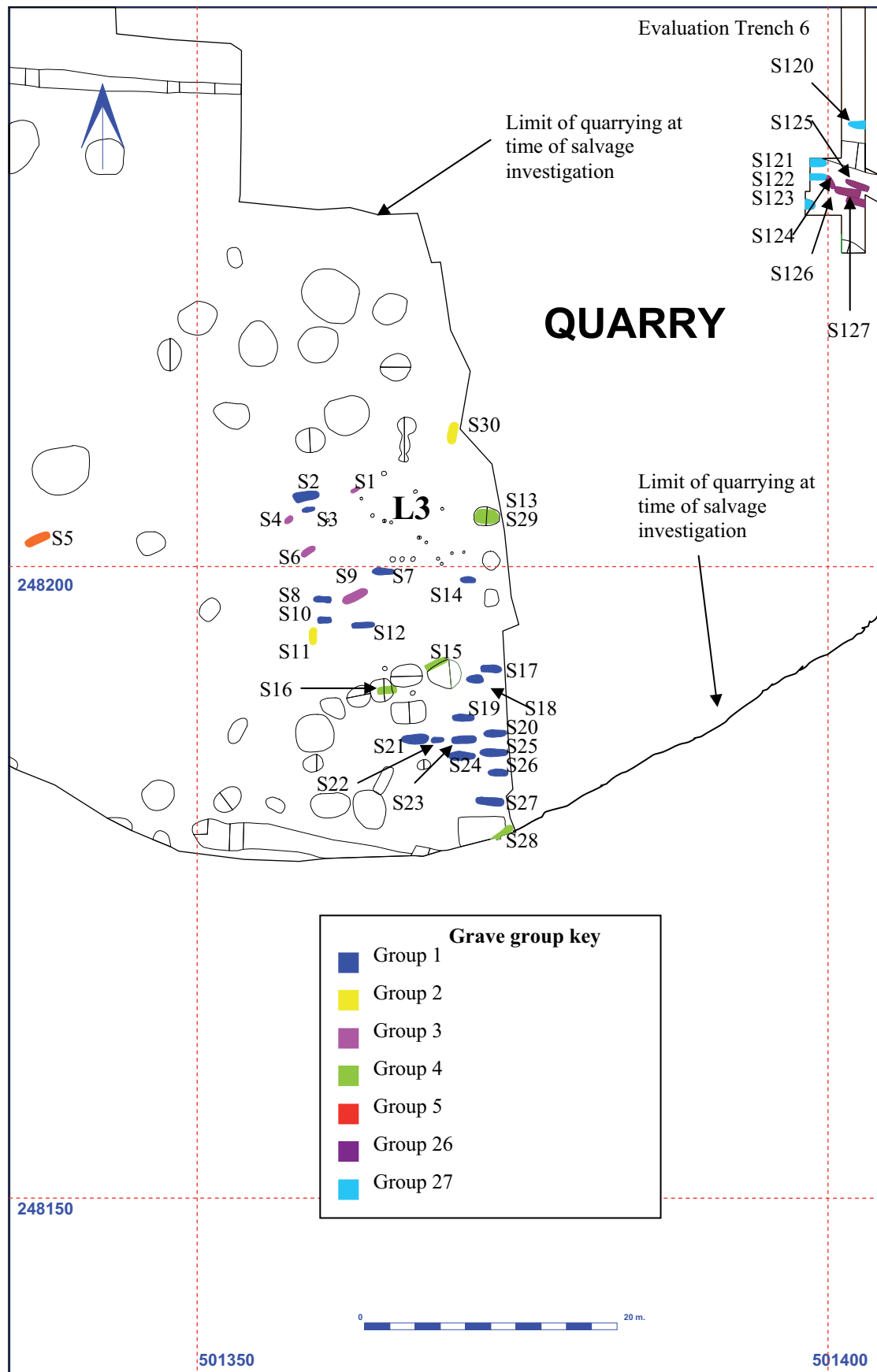




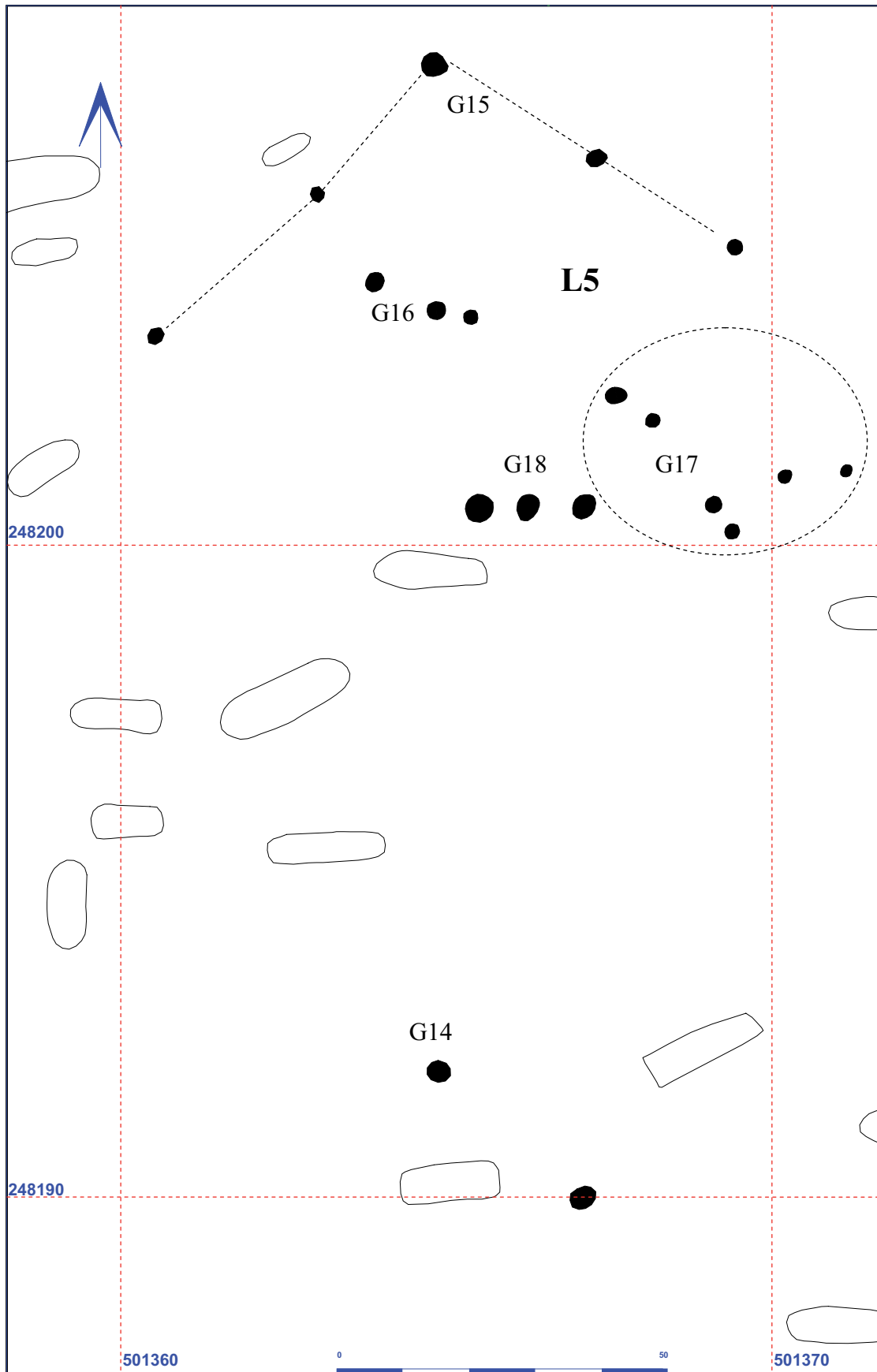
**Figure 4: Phase 1: Early Roman (showing L and G numbers)**



**Figure 5:** Phase 2: Later Roman (showing L and G numbers)



**Figure 6:** Close up of cemetery L3



**Figure 7:** Close up of postholes L5