

JOHN MOORE HERITAGE SERVICES

AN ARCHAEOLOGICAL EVALUATION
AT
CHALGRAVE MANOR FARM, BEDFORDSHIRE

NGR TL 0200 2680

On behalf of
Buckle Chamberlain Partnership Ltd

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CONTENTS

	Page
<i>SUMMARY</i>	1
1 INTRODUCTION	1
1.1 Site Location	1
1.2 Planning Background	1
1.3 Archaeological Background	1
2 AIMS OF THE INVESTIGATION	1
3 STRATEGY	3
3.1 Research Design	3
3.2 Methodology	3
4 RESULTS	3
4.1 Excavation Results	4
4.2 Reliability of Results and Techniques	14
5 FINDS	16
5.1 General finds	16
5.2 Small Finds	21
5.3 Soil Samples	22
6 DISCUSSION	23
7 BIBLIOGRAPHY	24

FIGURES

Figure 1	Site Location	2
Figure 2	The Romano-British corner	9
Figure 3	The Area of Cropmarks	15
Figure 4	Trenches 3-7 Plans and Sections	25
Figure 5	Trenches 8-10 Plans and Sections	26
Figure 6	Trenches 11-13 Plans and Sections	27
Figure 7	Trenches 14-15 Plans and Sections	28
Figure 8	Trenches 16-18 Plans and Sections	29
Figure 9	Trenches 19-21 Plans and Sections	30
Figure 10	Trenches 22-23 Plans and Sections	31
Figure 11	Trenches 24-25 Plans and Sections	32
Figure 12	Trenches 26-27 Plans and Sections	33
Figure 13	Trench 29 Plans and Sections	34
Figure 14	Trenches 31-32 Plans and Sections	35
Figure 15	Trenches 33-34 Plans and Sections	36
Figure 16	Trench 35 Plans and Sections	37
Figure 17	Trenches 36-37 Plans and Sections	38

Figure 18	Trenches 38-39 Plans and Sections	39
Figure 19	Trenches 40-41 Plans and Sections	40

TABLES

Table 1	Quantification of Animal Bone	16
Table 2	Quantification of Ceramic Building Material	16
Table 3	Quantification of remains within soil samples	21
Table 4	Quantification of Pottery	41

PLATES

Plate 1	Obverse of Roman coin	6
Plate 2	Reverse of Roman coin	6
Plate 3	Iron objects from (16/09)	17
Plate 4	Iron ferrule from context (29/05)	18
Plate 5	Left side of pipe bowl	18
Plate 6	Right side of pipe bowl	18
Plate 7	Sestertius of Antoninus Pius	21
Plate 8	Saddle quern from context (37/10)	22

Summary

John Moore Heritage Services undertook an archaeological evaluation between the 27th October 2014 and the 7th November 2014. 41 evaluation trenches were excavated by machine revealing linear features and pit features mainly concentrated in the NW and the SE corners of the proposed development area. All of the investigated features are dated to the late Iron-age and early Romano-British periods.

1 INTRODUCTION

1.1 Site Location (Figure 1)

The study site is located between the villages of Charlton and Toddington (centred on NGR TL 0200 2680). The site is currently ploughed and seeded.

1.2 Planning Background

A planning application has been submitted to Central Bedfordshire Council for installation of photovoltaic panels, installation of inverter stations, erection of boundary fencing & CCTV cameras and connection to the existing electricity grid, along with the formation of a temporary construction compound (CB/14/01480/FULL). Due to the potential for archaeological remains a condition of planning has been attached requiring stages of archaeological investigation. This report summarises the first stage of field investigation.

1.3 Archaeological Background

A desk based assessment of the site has been carried out (JMHS 2013). A sub-square enclosure associated with linear features is known from cropmarks in the northwest corner of the investigation area. While undated, the cropmarks probably represent a later prehistoric or Roman settlement site from comparison with other sites in Central Bedfordshire. There is a wider contemporary settlement pattern in the surrounding area with Roman settlement known just east of the southeast corner of the proposal site.

Just outside of the proposal site surface finds of Mesolithic, Neolithic and Bronze Age date have been found indicating occupation during these periods.

Medieval settlement is known around the site including at Fancott and Chalton, with fishponds just west of the site at Chalgrave Manor, and ridge and furrow earthworks to the north east of the site.

2 AIMS OF THE INVESTIGATION

- 2.1 To establish the presence or absence of archaeological remains within the site.
- 2.2 To determine the extent, condition, nature, character, quality and date of any archaeological remains encountered.

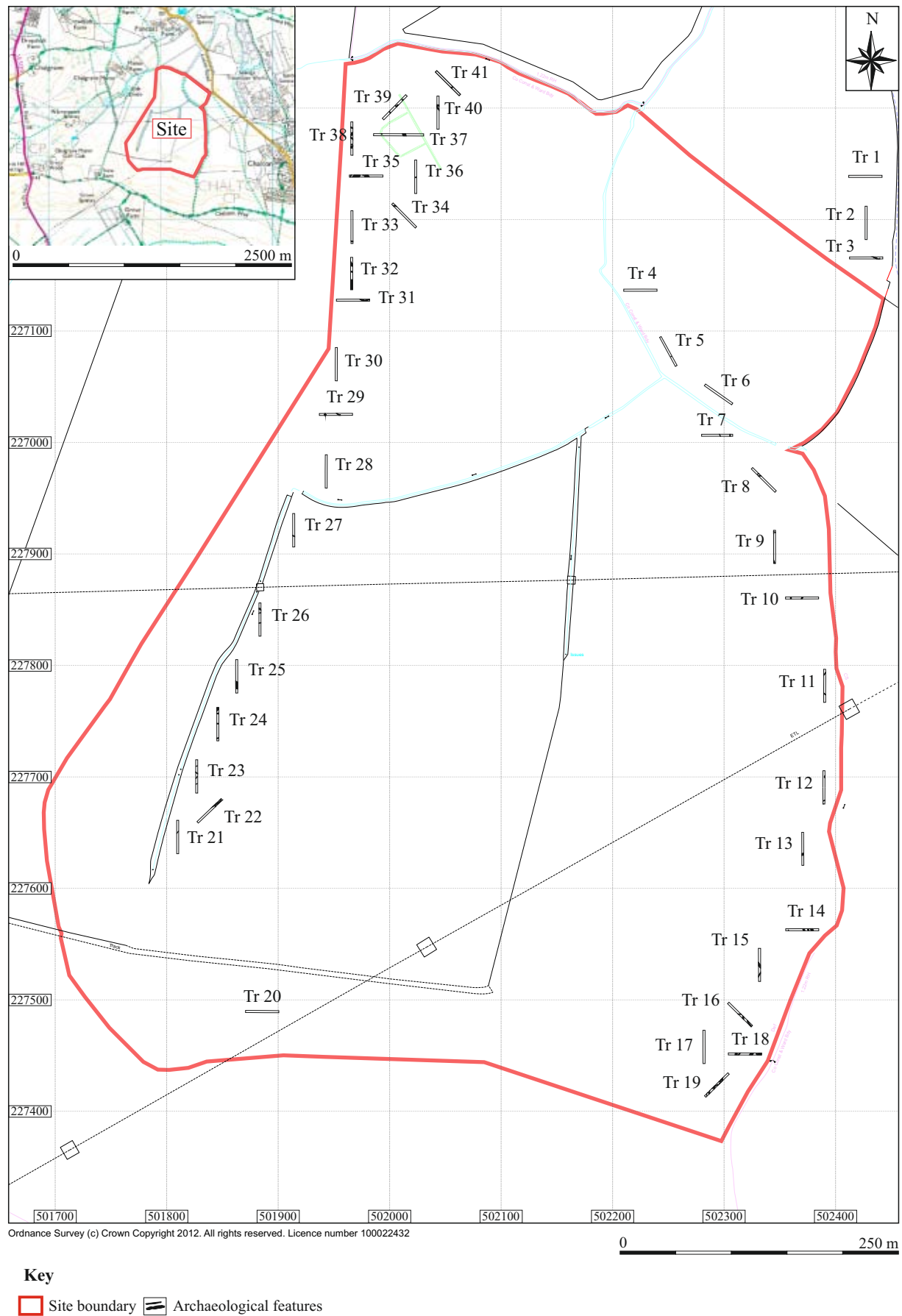


Figure 1: Site location

- 2.3 To assess the ecofactual and environmental potential of the archaeological features and deposits.
- 2.4 To determine the impact of the proposed development on any remains present.
- 2.5 In particular to determine whether any remains relating to known archaeological landscapes in the surrounding area are present.

3 STRATEGY

3.1 Research Design

The design of the proposal has been to avoid impact in areas that do, or have the potential to, contain archaeological remains based on current knowledge. The evaluation trenches have been targeted where impact from inverter stations and main cabling might impact on archaeological remains. In addition a number of trenches have been sited to determine whether the cropmark in the northwest corner of the application site continues beyond what is visible on aerial photographs. A number of trenches have been located in the southeast corner of the application site to determine whether known Romano British settlement remains in the adjacent fields to the east and south continue into the application site.

John Moore Heritage Services carried out the work to a Written Scheme of Investigation agreed with Central Bedfordshire Council. Standard John Moore Heritage Services techniques were employed throughout, involving the completion of a written record for each deposit encountered, with scale plans and section drawings compiled where appropriate and possible.

The recording was carried out with regards to guidelines laid out by the Institute for Archaeologists (2008).

3.2 Methodology

The field evaluation comprised of the mechanical excavation of 41 trenches, 30m in length. Excavation was by a 13 tonne excavator equipped with a 1.80m wide ditching bucket. Mechanical excavation was used to remove topsoil and subsoil to the uppermost archaeological horizon or geological horizon under direct archaeological supervision. The machine excavation was used only for the removal of non-archaeologically significant material. The resulting surfaces were cleaned and excavated by hand where appropriate to achieve the objectives of the investigation.

4 RESULTS

All features were assigned individual context numbers. These numbers covered both the feature cuts and the fills for features. Context numbers in () show feature fills or deposits of material.

4.1 Evaluation Results

The natural geological layer in all of the trenches was gault clay. This was overlain by a secondary plough sub-soil which was between 0.10m-0.20m thick, which in turn was overlain by upper ploughsoil that was approximately 0.30m-0.40m thick.

For the purposes of investigation the development area has been split into five areas and the results detailed below.

4.1.1 The Compound (Trenches 1-3, Fig. 4)

Trenches 1, 2 & 3 were first investigated to determine the impact of the proposed works compound. Trenches 1 & 2 were excavated to the natural geology and were void of any archaeological features. Trench 3 was excavated to the natural geology and a single feature was uncovered. Excavation showed this to be a shallow, irregular sided feature with a sterile brown silt-clay fill, which was interpreted as a treehole.

4.1.2 The Eastern Side (Trenches 4-12, Fig. 1)

The following details the results from the trenches located on the eastern fringe of the investigation area.

Trench 4

No archaeological features were identified in this trench.

Trench 5 (Fig. 4)

There was a single small pit, 5/04, 0.45m in diameter, in-filled with a grey silt-clay and containing a small quantity of rounded and sub-rounded burnt stone along with frequent charcoal flecking (5/05). One large mid-late Iron Age pottery sherd was recovered from the fill.

Trench 6

No archaeological features were identified in this trench.

Trench 7 (Fig. 4)

Two linear features were seen in this trench. A NW-SE aligned gully, 7/04, 0.30m wide x 2.00m long, was found containing a blue-grey clay fill with occasional small sub-angular and sub-rounded stone inclusions and charcoal flecking, (7/05). Also, a N-S aligned ditch, 7/06, 0.70m wide x 1.80m long with a similar fill to the gully. No finds were found in either feature.

Trench 8 (Fig. 5)

Two linear features were seen in the NW half of this trench. 8/04 appears to be the western terminus of a small E-W aligned gully, 0.40m wide x 1.40m long x 0.30m deep. The fill was a brown, orange mottled silt-clay with frequent angular, sub-angular and rounded stone inclusions. Two metres SE of this terminus was a second similar E-W aligned gully, 8/06. This gully measured 0.45m wide x 0.48m deep and ran for 2.50m across the trench. The fill was the same brown, orange mottled clay with small stone inclusions. No finds were found in either feature.

Trench 9 (Fig. 5)

Three features were apparent within this trench. No finds came from them. At the northern end a small gully ran roughly E-W across the trench, 9/04. The gully was 0.40m wide x 2.00m long. This was filled by a grey-brown silt-clay with moderate amount of stone inclusions. One metre south of this was what maybe a small pit, 9/06, not fully exposed on the western edge of the trench. The visible remains were approximately 0.50m in diameter x 0.18m deep and had an upper fill comprising of a grey silt-clay with occasional small sub-angular and sub-rounded stones and some charcoal flecking (9/07). Its lower fill comprised of a dark brown sand-clay with rare charcoal flecking and rare rounded stone inclusions (9/10).

At the southern end of the trench a ditch, 9/08, ran in a NNE-SSW direction for 3.00m. It was 0.65m wide x 0.14m deep and had a mixed grey-brown fill with occasional small stones.

Trench 10 (Fig. 5)

Two linear features and a posthole were noted in this trench. At the western end was a posthole or small pit, 10/04. The pit had a diameter of 0.45m and was 0.16m deep. This had a grey-brown clay fill with a moderate amount of small sub-angular and sub-rounded stone inclusions. One metre east of the pit was a N-S aligned ditch feature, 1.80m long x 1.00m wide x 0.55m deep, 10/06. The fill was a brown silt-clay with moderate amounts of small stone inclusions (10/07).

Linear feature 10/08 was a NE-SW aligned ditch, 1.00m wide x 1.90m long within the trench. This had a grey silt-clay fill, a moderate amount of small stone inclusions and some charcoal flecking (10/09). Seven sherds of late Iron Age – early Roman pottery were recovered.

Trench 11 (Fig. 6)

Two linear features were discovered in this trench, neither yielding any finds. A gully running NE-SW, 2.40m long x 0.50m wide was seen in the northern half of this trench, 11/04, filled with a grey silt-clay with frequent stone inclusions.

In the southern half was a NW-SE ditch, 2.30m long x 0.60m wide x 0.31m deep which had a grey silt-clay fill with frequent small stone inclusions.

Trench 12 (Figs. 2 & 6)

Four features comprising a linear feature, a possible pit, a posthole and the edge of an un-identifiable feature; no finds were seen. The un-identifiable feature, 12/06, was noticed in the very southern end of the trench in the southwest corner. Two metres north of this was a ENE-WSW aligned gully, 12/04, 1.90m long x 0.50m wide, with a light grey silt-clay fill that had occasional small stone inclusions.

At the northern end of the trench was a posthole, 12/09. This had a diameter of approximately 0.30m and was filled by a grey brown silt-clay with frequent small stone inclusions. This was left unexcavated.

Further north of this was what seemed to be the western edge of a large pit, 12/11. Excavation revealed this to be a tree hole and contained a fill of a brown-grey silt-clay that had abundant small stone inclusions.

4.1.3 Romano-British Corner (Trenches 13-19, Fig. 2)

The following trenches detail the remains found relating to the area of investigation close to the known Roman settlement to the east and south of the investigation area. See also Trench 12 above.

Trench 13 (Fig. 6)

One single large boundary ditch, 13/04 was noted in this trench. Roughly aligned E-W it was 1.80m long x 1.90m wide x 0.50m deep. The fill was a brown silt-clay with occasional sub-angular and sub-rounded stone inclusions (13/05). A mid-18th century clay pipe bowl was recovered from this fill.

Trench 14 (Fig. 7)

The eastern half of this trench revealed three ditch features. Ditch 14/04 was NW-SE aligned 2.60m wide x 1.90m long. The fill was grey-brown silt clay, (14/05) and contained Roman and residual Iron Age pottery and a broken piece of Roman floor tile. Excavation of this feature showed that it cut two other features, 14/17 & 14/18. These intercutting features could not be properly understood in this investigation.

1.50m west of this was a N-S aligned ditch, 14/06. This ditch was 1.80m long x 1.40m wide and its fill was a grey-brown silt-clay with occasional small stone inclusions. This feature was left un-excavated.

A further two metres west of this was another NW-SE aligned ditch, 14/08. It measured 1.00m wide x 0.22m deep. Its fill was again a grey-brown silt clay with occasional small stone inclusions, (14/09) and contained Roman pottery and animal bone. A land drain 14/14 cut into it. Close to the western end was a small pit feature, 14/10. This was filled by a grey-brown silt-clay with occasional small stone inclusions.

Trench 15 (Fig. 7)

Two linear features were seen in the southern half of this trench. A gully, NE-SW aligned, measuring 3.10m long x 0.70m wide x 0.24m deep was noted, 15/04, with a grey-brown silt-clay and occasional small stone inclusions. Four metres north of this was a NW-SE aligned large ditch feature, 15/06. 2.00m long x 2.50m wide x 0.90m deep; it had a fill with a grey-brown silt-clay nature (15/07) and pottery along with Roman roof tile. There was a very unusual imbrex sherd found within this context, thought to be a locally made repair piece made from a shelly fabric (see pottery report). A bronze Roman coin, SF01, was recovered from fill (15/07). The coin is a sestertius of Antoninus Pius (AD138-161).



Plate 1 – Obverse of Roman coin



Plate 2 – Reverse of Roman coin

Trench 16 (Fig. 8)

Three significant ditch features all in the SE half of this trench were noted. At the far SE end of the trench was a NW-SE aligned ditch feature, 7.00m long x 1.45m wide x 0.54m deep, which appeared to turn to the north at its NW end, 16/04. The fill, a light grey silt-clay (16/05), contained a moderate amount of Roman pottery.

Roughly five metres NW was a further ditch feature, aligned in a N-S direction, 16/06. This ditch ran for 2.30m and was 1.70m wide x 0.50m deep. Its fill was grey with chalky fleck inclusions and occasional small stones, (16/07) and contained some fragmentary animal bone and 2nd century AD pottery.

A gully, aligned in an E-W direction and measuring 1.90m long x 0.35m wide, 16/08, had one of the most significant deposits in the investigation (16/09). This contained ceramic building material, possibly Roman floor/roof or oven tile, along with possible kiln/oven daub, iron nails, pottery and animal bone fragments all of which seem to be indicative of 1st-4th century occupation. One black/oxidised sandy base sherd from 16/09 has an incised X on the underside made after firing.

Trench 17

No archaeological features were identified in this trench.

Trench 18 (Fig. 8)

A complex series of intercutting features were discovered in this trench. At the far eastern end an indistinct feature was excavated, 18/04. This had three notable fills. A charcoal rich deposit, (18/05) contained fine Romano British type pottery and was overlain by a re-deposited natural layer which in turn was overlain by a grey silt clay, (18/06). Hand excavation was unable to clearly identify the nature of this feature and it may be that it is a shallow pit with additional intercutting features.

Four metres further west was a NE-SW aligned ditch feature, 18/16. This large feature was 2.50m wide x 0.76m deep and had two initial stages of fill. The first comprised of a firm grey-brown silt-clay with rare small stone inclusions (18/17). This was overlain by a firm grey-brown silt-clay with occasional small stone and charcoal fleck inclusions (18/19). This feature has subsequently been cut by a small pit 18/13 roughly 1.00m in diameter. The pit had an initial fill comprised of a compact light grey-brown silt-clay with occasional small rounded stone inclusions (18/14). This in turn was overlain by a grey-brown silt-clay that had moderate small angular and rounded stone inclusions (18/15). The ditch was finally re-cut, 18/18 and had a further two stages of fill. The first was a compact, dark grey silt-clay with occasional angular and rounded small stone inclusions along with frequent charcoal flecking. The final stage of infilling was a very dark grey silt-clay with abundant charcoal inclusions.

At the western end was a linear feature, N-S aligned, 18/24. This appears to be two intercutting ditches. The first ditch, 18/24 is 1.80m wide x 0.46m deep running the full width of the trench. This has two stages in fill. The first is a compact brown silt clay with occasional angular and rounded small stone inclusions (18/25). The second is a firm dark grey silt-clay with occasional rounded and angular small stone inclusions. This appears to be cut by ditch 18/27. This ditch is 0.82m wide x 0.20m deep and again ran the entire width of the trench. This appear to cut along the previous ditch's

eastern side. Its single fill was a firm very dark grey silt-clay with a moderate amount of small angular and rounded stones and a high degree of charcoal inclusions.

East of this feature was a further NE-SW aligned ditch, 2.10m long x 0.65m wide x 0.18m deep, 18/07. This had two fills, the first of which was a grey-brown silt-clay with occasional sub-angular and sub-rounded small stone inclusions (18/08). The second was shown to be a compact light brown-grey silt-clay with a rare amount of small rounded stone inclusions. This had been cut by a terminal end of a ditch of the same width, progressing on the same alignment northeast 18/10. This had been cut to a depth of 0.30m and had two stages of fill. The first stage consisted of a compact dark grey-brown silt-clay with frequent rounded stone inclusions and manganese flecking. The upper fill was a firm light grey-brown clay with rare small rounded stone inclusions.

Trench 19 (Fig. 9)

Two features were investigated in this trench. In the SW of this trench an E-W running feature 19/07 was investigated but this does not seem to be archaeological and may actually be modern wheel rutting from heavy farm machinery.

Two intercutting features were seen centrally in the trench, one of which 19/09 seems to be a small gully 0.66m wide running E-W into a potential N-S ditch, 19/11. Another linear feature, 19/19 was noticed, running E-W, but left un-excavated. The rest of the disturbed ground in this trench is assumed to be bio-turbation based on the obvious nature of the sterile fills and the irregular shapes seen in plan.

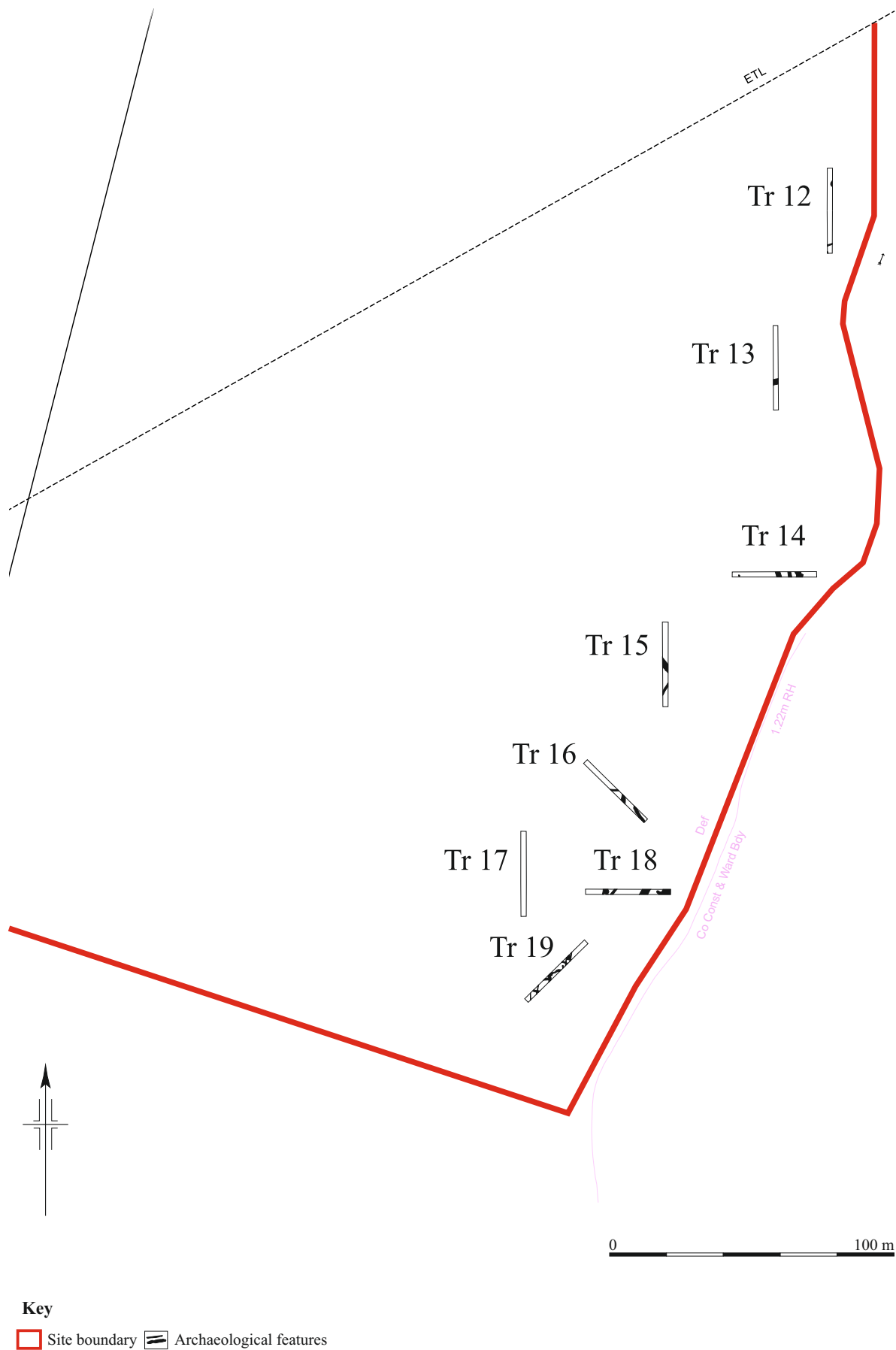


Figure 2: The Romano-British corner

4.1.4 The Western Side (Trenches 20-28, Fig. 1)

The following details the trenches located on the western fringe of the site.

Trench 20

No archaeological features were identified in this trench.

Trench 21 (Fig. 9)

Two potential postholes or small pits, 21/05 & 21/07, 0.35m in diameter x 0.10m deep close together were noted in this trench. No dating could be recovered.

Trench 22 (Fig. 10)

Two linear features and a single pit-like feature were uncovered. There was a small NW-SE running ditch feature, 22/06, 0.70m wide x 0.56m deep with a brown silt-clay fill (22/04). This was cut by another small NE-SW aligned ditch feature, 22/09, which ran for 7.00m across the trench and had two stages of fill (22/08 & 22/07). The lower fill was made up of firm grey-brown silt-clay with occasional small angular stone inclusions. The upper fill consisted of a compact brown silt-clay with occasional small angular and sub-rounded stones.

The pit-like feature 22/11 had a dimension of 1.50m x 1.00m and was 0.22m deep. Its irregular undulating nature and sterile fill (22/10), suggests this is the remains of a treehole.

Trench 23 (Fig. 10)

There were two linear features seen in this trench. A NW-SE aligned gully, 23/06, 0.56m wide x 0.23m deep x 2.10m long with a grey-brown silt-clay fill that had occasional small flinty gravel inclusions (23/07).

Further in this trench was a NE-SW gully-like feature, 23/04. This was 2.50m long x 0.28m wide x 0.08m deep, with a light yellow-grey clay fill that had frequent small gravel inclusions and manganese flecking.

Trench 24 (Fig. 11)

Four features were investigated in this trench. 24/04 was an E-W aligned linear feature. Hand excavation showed this to be a trench dug for a modern land drain.

24/08 was an E-W aligned linear, 0.60m wide x 1.80m long x 0.20m deep. Its fill was comprised of a brown silt-clay with occasional small stone inclusions. 24/10 was a flat bottomed, vertical sided feature, E-W aligned and 0.60m wide. This has been interpreted as a potential old hedgerow ditch.

24/13 was a large feature not fully investigated or understood, but clearly has at least two stages of in-filling (24/12 & 24/11).

Trench 25 (Fig. 11)

There was one large ditch feature 25/07 measuring 6.50m wide x 1.80m long within this trench. A small, 2.50m long x 0.50m wide slot was dug into the southern side of the feature, showing it to have at least three stages of fill. The lowest fill was comprised of a plastic grey clay with rare organic matter (25/06). Above this was a layer of firm light brown-grey clay with less than 1% small sub-angular stone

inclusions (25/05). The final fill was a compact grey-brown silt-clay with rare sub-angular small stone inclusions (25/04). Pottery was recovered from this final fill.

Trench 26 (Fig. 12)

Two features were investigated within this trench. Feature 26/04 seems in plan to be a curvi-linear feature, 2.00m long x 1.00m wide x 0.12m deep. It had a single fill of light grey-brown clay with rare charcoal flecks (26/05). Three meters south of this was an E-W aligned land drain 26/08. Ten meters south of this was another E-W aligned land drain 26/07.

Trench 27 (Fig. 12)

Excavation uncovered a single linear feature. This is a ditch of unknown function 27/05. The feature is 2.40m long x 0.52m wide x 0.15m deep, with a single fill of firm light yellow-brown, with grey mottled clay and very rare small angular stone inclusions (27/04). No dating was recovered.

4.1.5 The Crop-marks (Trenches 29-41, Fig.3)

In the NW of the investigation area cropmarks had been noted through aerial survey and plotted onto our investigation area plan. The following trench descriptions detail the results for those trenches located on and around the crop marks.

Trench 28

No archaeological features were identified in this trench.

Trench 29 (Fig. 13)

Three features were seen in this trench. A N-S ditch, 0.80m x 1.80m long x 0.40m deep, 29/04 with irregular shaped holes from probable bio-turbation at its sides (29/06, 29/08, 29/10), in-filled with a brown silt-clay fill (29/05) containing an iron object.

A second linear feature 29/12 ran for 3.10m across the trench centre. This was 0.80m wide x 0.60m deep with an initial fill of light brown-grey silt-clay (29/13) and a final fill of dark grey-brown silt-clay with occasional small rounded stones. Two sherds of mid-late Iron Age pottery were recovered from this final stage fill. It appeared to cut a gully terminal 29/15 the remains of which were 1.40m long x 0.59m wide x 0.36m deep and in-filled with a single fill of compact light grey silt-clay (29/16).

Trench 30

No archaeological features were identified in this trench.

Trench 31 (Fig. 14)

A large curvi-linear feature was investigated in this trench. It was approximately 9.50m in length and roughly 1.00m wide and 0.55m deep. Two interventions were dug from which animal bone and 38 sherds of mid to late Iron Age pottery were recovered. It had three stages of fill. The lowest fill was a firm light grey clay with manganese flecking (31/14) = (31/11). Above this was a firm dark grey clay with manganese flecking and moderate charcoal inclusions (31/13) = (31/10). A final fill of compact dark grey clay with frequent gravel inclusions over lay this on its eastern half (31/04). The whole feature seems to cut a small indistinct gully on its southern edge 31/16. This had a sterile compact light brown-grey silt-clay fill (31/17).

Trench 32 (Fig. 14)

Four linear features were noted within this trench. At the southern end a NE-SW aligned ditch, 32/19 was excavated. It measured 2.20m in length and was 2.00m wide with a depth greater than 0.80m, but which was not reached. This had two distinct fills (32/17) upper fill & (32/18) lower fill. Fill (32/17) contained some fragments of animal bone.

The ditch seems to have been re-cut along its original course by a shallower 1.20m wide cut, 32/16 through its upper fill, which was then in-filled with a material, (32/15) in which was discovered a fragment of mid to late Iron Age pottery and small amount of animal bone.

The north half of the trench revealed an E-W aligned gully, 32/06. This was 1.80m long x 0.90m wide x 0.34m deep. Fill (32/04) had 5 fragments of late Iron Age pottery. Further north were two inter-cutting linear features, 32/11 & 32/13. Both were shown to be ditches. From the filling sequence it would appear that 32/13 was the later ditch. Fill (32/07) had a large amount of pottery sherds possibly from the same vessel dated to the mid to late Iron Age. Fill (32/08) contained some animal bone.

Trench 33 (Fig. 15)

The trench contained a single linear feature. This was a ditch 1.85m long x 0.70m wide x 0.36m deep, in-filled with a single distinct deposit (33/05) and an area of charcoal rich dump (33/06).

Trench 34 (Fig. 15)

Seen in this trench was a single linear feature, possibly a field enclosure ditch 34/04, which had two stages of filling, (34/05) & (34/06). It contained a single pot sherd, un-abraded and glazed shown to be post-medieval in date in its upper fill.

Trench 35 (Fig. 16)

This trench had two areas of intercutting features. At the western end was a small N-S aligned ditch, 35/06. This was 1.00m wide x 0.40m deep and contained a brown silt-clay fill.

To the east of this was an area of six intercutting features, covering an area of about 7.00m. The upper fill of this was machine excavated revealing at least two ditches with possible pits or treeholes cutting into them. Hand excavation could not fully determine the nature and characteristics at this time. 1.50m further east was a small pit-like feature, 35/10, 0.90m in diameter. It had a bio-turbated western edge and two stages of fill. The bottom fill was a firm light grey silt-clay with rare small stone inclusions (35/08). This was overlain by a dark orange-grey silt-clay (35/07).

To the east of this was another area of intercutting features covering an area of approximately 4.5m. Hand excavation revealed possible pits or treeholes, 35/40 & 35/36. This could also be quarrying for clay but investigation could not make this clear at this time. A single sherd of mid to late Iron Age pottery was recovered from the upper fill of this complex (35/37).

Trench 36 (Fig. 17)

There were two small discrete features both notionally interpreted as possible postholes although they could be possible natural features, 36/06 & 36/08.

Trench 37 (Fig. 37)

A 45m long trench across the cropmark enclosure exposed a small pit (37/05), with two fills (37/04) & (37/10). Within fill (37/04) were eight pieces of animal bone and a sherd of late Iron Age pottery. SF002, a large fragment of a saddle quern, was recovered from later fill (37/10). A linear feature, 37/09, was hand dug. This appears to be a large ditch, possibly re-cut.

The features do not appear to correspond to the cropmarks. If ditch 37/09 represents the eastern cropmark feature then it does not appear in Trench 39 to the north.

Trench 38 (Fig. 18)

This trench has five features. Only two can be described with any certainty. Firstly there was a NW-SE ditch, 38/05. This was 2.20m long x 0.90m wide x 0.32m deep, containing a single brown silt-clay fill (38/04). There was a second ditch feature at the northern end of the trench, aligned WNW-ESE, 2.00m long x 1.00m wide x 0.22m deep 38/10. This had a single fill of soft brown-grey silt-sand with moderate small stone inclusions (38/09).

The three remaining features were all shallow with irregular sides and undulating bases with very sterile fills. These were all interpreted as treeholes.

Trench 39 (Fig. 18)

There was a linear ditch feature, 39/03 aligned N-S measuring 1.80m long x 0.48m wide x 0.20m deep. It had a fill of compact, light grey-brown clay with frequent angular and rounded stone inclusions. It corresponds with the eastern cropmark feature. Also investigated was a potential pit, 39/05. This was 2.00m in diameter with an overall depth of 0.45m and contained two stages of fill. The first was a firm dark grey clay with slight charcoal flecking a moderate small stone inclusions (39/06). This was overlain by a fill that had a firm grey-brown, charcoal flecked, silt-clay (39/10).

Further along the trench was a NW-SE gully/ditch terminal, 39/08 measuring 1.95m long x 0.75m wide x 0.10m deep. The fill was described as a dark grey silt-clay with occasional small angular and sub-angular stone inclusions (39/09).

One further feature, 39/11 was identified. This was 0.65m x 0.43m x 0.22m and had a very irregular shape in plan and a very undulating base so is probably a natural feature.

Trench 40 (Fig. 19)

Three features appeared within this trench. A NW-SE aligned linear feature, 40/08, which is a large ditch at least 3.00m long, 1.05m wide and 0.60m deep. Three infilling stages were noted. The initial fill was a sterile compact grey clay (40/06). Overlying this was a firm green-brown silt-clay (40/05). A final fill of light brown-grey silt clay overlay this (40/04).

Further in this trench was a irregular feature, 40/09. This measured 1.95m x 1.50m x 0.08m and had irregular sides and base with a yellow-brown clay fill which had been

cut by a shallow gully terminal 40/11. This was a small shallow feature, at least 1.25m long, 0.80m wide and 0.12m deep. This had a firm dark grey silt-clay fill (40/12).

Trench 41 (Fig. 19)

The southeast half of this trench revealed two features. A posthole, 41/06, 0.60m in diameter and 0.45m deep with two fills. The lower fill was a firm yellow-grey silt-clay with rare small sub-angular stone inclusions (41/04). Its upper fill, (41/05), was a firm very dark grey sand-silt with a moderate amount of charcoal flecking. A second irregular shaped feature was hand excavated and could possibly be a ditch terminal, 41/08. The remains were 1.10m wide x 0.12m deep and the single, soft, light brown-grey silt-clay fill had a few fragments of animal bone recovered from it (41/07).

4.2 Reliability of Results and Techniques

Conditions were overcast and mixed from wet to dry on the days of investigation, but the obvious natural layer was fairly easily identifiable with the features reasonably distinct and identifiable when the cloud cover was favourable. Excavation of features required no special processes and was managed with ease. The reliability of the results is therefore considered good.

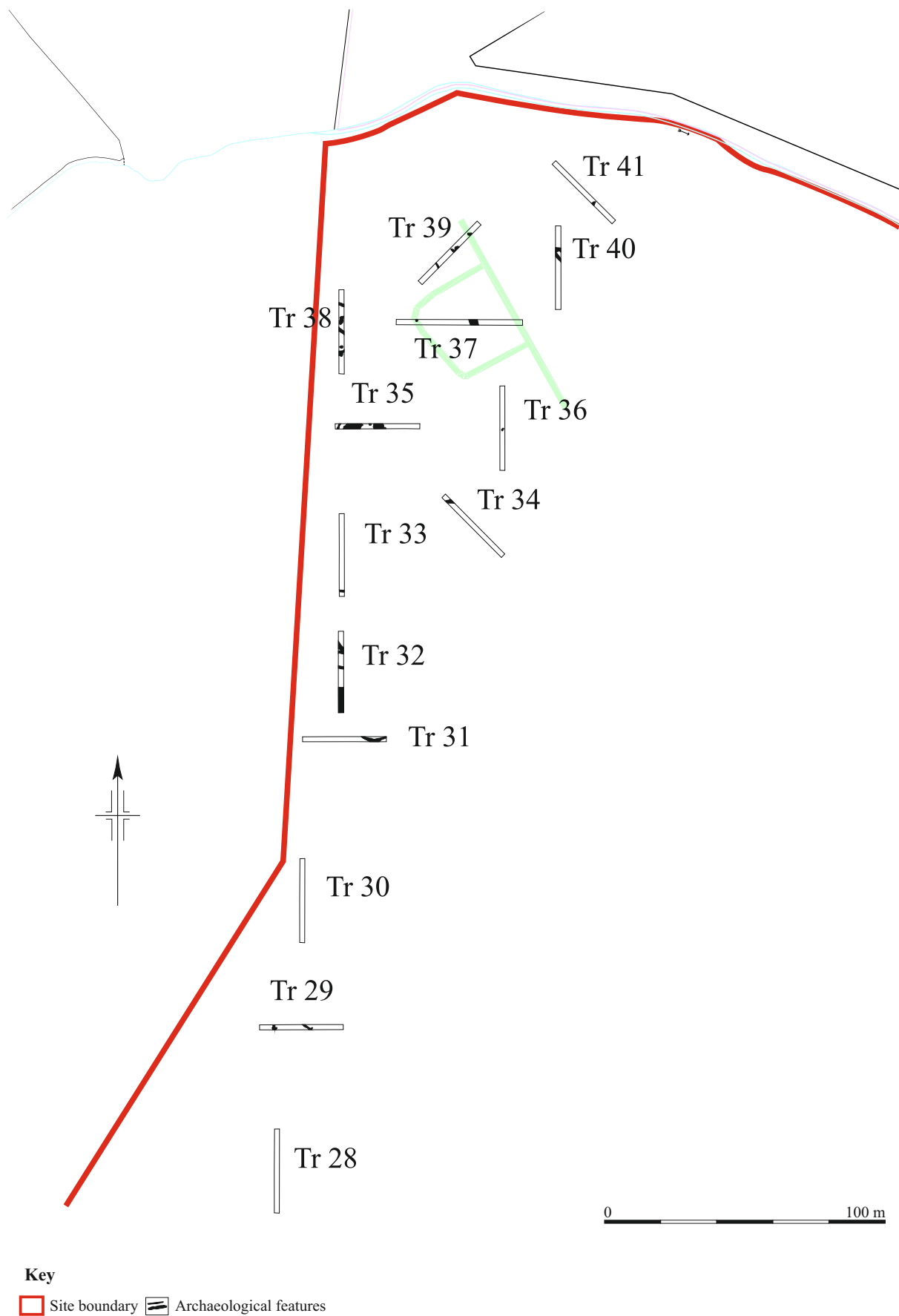


Figure 3: Area of crop marks

5 FINDS

5.1 General finds

5.1.1 Bone by Gavin Davis

Animal bone was recovered from 15 separate contexts from across the site totalling 170 fragments with a combined weight of 922g. The majority of fragments were un-diagnostic and none showed any butchery marks.

Context	Quantity	Weight (g)
14/09	10	37
15/07	22	137
16/04	12	37
16/07	9	39
16/09	24	82
31/04	2	5
31/10	5	7
31/11	40	210
31/14	15	39
32/07	6	59
32/08	8	71
32/15	2	3
32/17	1	49
37/04	8	135
41/07	6	12
<i>Total</i>	<i>170</i>	<i>922</i>

Table 1: *Quantification of animal bone*

5.1.2 Ceramic Building Material by Mark Woodley

Three contexts from the evaluation produced a few tile sherds of Roman building material. The two common roof tile types, *Tegulae* and *Imbrices*, were present in this small assemblage as was floor or brick tile.

Context	Quantity	Type	Weight (g)
14/05	1	Floor	690
15/07	4	Tegulae & Imbrices	294
16/09	5	Floor, Tegulae & Imbrices	815
<i>Total</i>	<i>10</i>		<i>1799</i>

Table 2: *Quantification of Ceramic Building Material*

Context (14/05): One large fragment of floor tile. Shows circular finger marks on surface. Thickness: 50mm. Fabric: Dark orange clay tempered with rare small stone inclusions.

Context (15/07): Four fragments of tile, all of a similar fabric. One tile sherd is obviously a lipped tegula, 27mm thick and another is curved piece most likely representative of an imbrex, 20mm thick. Fabric: Light orange clay with dark red grog temper.

Context (16/09): Five sherds of tile were recovered from this context. Two pieces are un-diagnostic. There are two floor tiles fragments of two different fabrics. One is a light orange-brown clay which has small stone and dark red grog temper, oxidised on both faces and 34mm thick. Circular finger marks can be seen on one face. The other is a small piece, made from dark orange clay which has red grog temper and is oxidised on both faces. This piece is 35mm thick. The last is a curved piece of tile, 17mm thick, of a dark orange clay with fine silica and red grog temper, and seems to be a piece of imbrex.

It is interesting to note that the floor and roof tile from this evaluation comes only from three trenches, 14, 15 & 16. This evidence supports the theory that a Romano-British period building is located somewhere close to this area of the investigation.

5.1.3 Iron Objects *by Mark Woodley*

Two contexts contained iron objects.

Context (16/09): Six iron objects were recovered from this deposit. Two of these are obvious nails. One has a large 'T' shaped head and is 47mm long while the other has a flat 'L' shaped head and is 52mm long. Both have a square section.

Two of the iron objects are twisted square sectioned pieces, approximately 63mm long which also may have been nails. The other twisted piece is 66mm long with a thin rectangular section. This does not appear to be a nail, but it is unclear what this may be. The final piece is a small sub-triangular object with no obvious function.



Plate 3. *The iron objects from context (16/09)*

Context (29/05): One small iron object was recovered from this fill. This is 44mm long and appears to be an iron ferrule, possibly for something like the socket for an iron spear.



Plate 4. *The iron ferrule from context (29/05)*

5.1.4 Clay Pipe *by Mark Woodley*

One context, (13/05) contained a complete clay pipe bowl. The bowl is 35mm high x 20mm wide with an inside diameter of 17mm. There is 20mm of stem remaining, which has a central bore with a diameter of roughly 1.50mm. The bowl rim is trimmed parallel with the stem and the bowl has no heel spur. The clay is a smooth white fabric and the bowl has thin walls. The underside and seams of the bowl have been decorated with a leaf pattern.

These types of pipe bowls are consistent with those produced in the mid 18th century.



Plate 5. *Left side of Pipe Bowl*



Plate 6. *Right side of Pipe Bowl*

5.1.5 Pottery by Jane Timby

Introduction and methodology

The archaeological work resulted in the recovery of a small assemblage of 157 sherds of pottery weighing *c* 1834 g. The material mostly dates to the mid-later Iron Age and early-mid Roman periods. In addition there is a single post-medieval sherd, three fragments of fired clay and six fragments of ceramic building material.

The assemblage was sorted into fabrics based on the colour, texture and nature of the inclusions present in the clay. The later prehistoric material was classified following the recommended nomenclature in PCRG (1997) where the letters denote the main inclusions present. Other wares, generally of local origin, were coded more generically according to colour and main characteristics.

The sorted assemblage was quantified by sherd count and weight for each recorded context. Freshly broken sherds were counted as single pieces. Rims were additionally coded to general form. A catalogue of the main fabrics for each context can be found summarised in Table 3 (page 41) along with a provisional date for that context.

In general terms the assemblage was in moderately good condition with an overall average sherd weight of 11.7 g. Surface preservation was quite good and in many cases surface finish could be detected. There were very few diagnostic rim sherds present in the group.

Pottery was recovered from 13 of the 41 evaluation trenches excavated; a total 21 contexts with the quantities ranging from single sherds up to a maximum of 36 sherds from context (31/4).

In the following, the general composition of the assemblage is described by chronological period followed by an overall assessment of the potential of the material.

Later prehistoric

Approximately half the assemblage dates to the later prehistoric period. Certain fabrics, most notably the shelly wares and grog-tempered wares, continue to feature in the early Roman period and are thus difficult to date in small groups.

In addition to the shelly and grog-tempered wares there are four main fabric groups: sandy (SA); sandy with sparse limestone (SAL); sandy with organic matter (SAOR) and finely micaceous with organic matter (OR). All these fabrics are well-known in the Bedfordshire area (cf Slowikowski 2005, fabrics F19, F29, F30, F35, F37) spanning the middle to later Iron Age.

Apart from two rimsherds; a small necked carinated bowl from 37/04 and a bowl from 32/07 there are no other featured or decorated sherds to allow a more precise dating.

Roman pottery

Roman pottery accounts for most of the remaining assemblage. It is overwhelmingly dominated by 'local' coarse wares with no recognisable imported traded wares or any specialist wares.

The main local wares include wheel-made and handmade shelly ware, grey sandy wares, a pink grog-tempered ware, a black sandy ware which may be imitating black burnished ware, fine oxidised ware and other miscellaneous sandy wares. Overall there were only seven rimsherds, six from jars and one from a dish with burnished arc decoration.

One black/oxidised sandy basesherd from 16/09 has an incised X on the underside made after firing.

The Roman wares are also difficult to date closely as they are fabrics which seem to date from the later 1st century through to the 2nd or 3rd centuries. There are too few to determine if there is continuity of occupation but the general lack of grog-tempered and other obvious pre-Flavian wares might suggest the Roman material could start from the 2nd century on.

Post-medieval

A single rim from an internally glazed red earthenware bowl came from 34/06.

Fired clay and ceramic building material (CBM)

Three pieces of fired clay were recovered from Trench 16. The pieces have no shape or surviving surfaces to indicate their original purpose.

Four fragments from a shelly fabric imbrex tile of Roman date came from Trench 15 (15/07).

A thick fragment of ceramic building material, perhaps from a brick or internal flooring came from 16/09. The piece was 63 mm thick with two opposing flat surfaces and shows a small diameter (6 mm) perforation on one break. This perforation, presumably to assist with drying the clay, is too small to suggest a perforated floor as is often found with kiln structures. The fragment also did not appear to have been overfired or burnt.

Distribution

Most of the later prehistoric pottery came from Trenches 29, 31, 32 and 35 with highest frequency in Trenches 31 and 32.

The Roman pottery largely features in Trenches 14, 15, 16, 18 and 25.

Summary and potential

The work at Chalgrave Manor Farm produced a small assemblage of pottery which seems to indicate two main phases of activity; one in the mid-later Iron Age; the other in the early Roman period. With such a small group it is difficult to identify whether it represents two discrete phases of activity or a continuum but the former seems most likely on the present evidence.

The very small size of the assemblage limits both the precision which can be given to the dating and the potential for any further work on this particular group of material. The character of the assemblage as it stands suggests a very modest low status rural settlement in the area.

5.2 Small finds

The Bronze Coin (SF001) *by Mark Woodley*

The coin from context (15/07) is a Sestertius of the emperor Antoninus Pius (AD138-161). It is in a fairly good condition overall, with an even brown-green patina on the obverse and reverse, but with a slightly pitted deteriorated surface on the reverse. The coin surfaces are very worn on both sides, but parts of the legends can be clearly made out. The 'COS III' inscribed on the reverse proclaims Antoninus in his 3rd Consulship so the coin would have been minted c.AD140-144. The amount of surface wear suggests a coin in circulation for a long period of time so it can be reasonable to speculate a much later date for its deposition.

These types of coins are scarce but not uncommon on Roman period rural sites during the occupation period.

Characteristics:

Diameter: 32.6 mm

Weight: 26.64 g

Die-Axis: 1 O'clock

Obv: [ANT]ONINVS AVG [?] – laureate bust facing right

Rev: [TRPIII?] COS III – Goddess standing left holding sceptre in left hand



Plate 7. *Sestertius of Antoninus Pius from context (15/0)*

The Saddle Quern (SF002) *by Mark Woodley*

A large stone object from context (37/10) appears to be a piece of broken saddle quern. The stone measures 277mm long x 195mm wide x 65mm thick. The material is fine grained, well compacted, sandstone. The majority of faces are weather worn natural surfaces, however one face is smoothed and slightly lipped suggesting it has been used as the grinding surface.

Saddle querns were in use from the Neolithic to the Roman period in Britain. The pit in which this item was discovered also contained a single sherd of pottery with a sandy, organic temper from the late Iron-age, suggesting this stone is from the same contemporary period.



Plate 8. *The Saddle Quern from context (37/10)*

5.3 Environmental Soil Samples

Environmental soil samples of 40 litres were taken from a selected few contexts based upon their potential to be dated and contain charcoal or seeds. The table below shows the results of analysis of the residues left after flotation sieving.

Sample	Context	Pottery	Bone	Charcoal	Seeds/grain	other
1	32/15	X	X	X	X	X
2	32/07	X	X	VR	X	X
3	18/23	X	X	H	A	x
4	18/05	X	X	H	M	X
5	37/10	X	X	VR	X	X
6	16/05	X	X	VR	X	X
7	16/09	R	X	A	X	Fe hobnail x 4
8	16/07	R	X	M	X	X
9	14/09	X	X	R	X	X
10	35/38	X	X	X	X	X
11	31/11	VR	X	VR	X	X
12	29/14	X	X	VR	X	X
13	31/10	VR	X	X	X	X

14	31/14	X	X	VR	X	X
15	32/04	X	X	R	X	X
16	14/05	X	X	R	X	X
17	31/04	M	M	R	X	X
18	15/05	M	M	R	X	X
19	15/07	X	X	VR	X	X
20	25/06	X	X	VR	X	X

Table 3 – *Quantification of remains within the samples*

X	=	not present
Vr	=	very rare
R	=	rare
M	=	moderate
A	=	abundant
H	=	high

6 DISCUSSION

Two areas are of particular interest from the results. As suspected there is some evidence for the area of cropmarks to be related to prehistoric settlement in the area. The area of features is fairly small in nature and shows no signs of concentrated domestic or industrial activity so it may be that the evidence is pointing to something like stock enclosures on the periphery of a small farmstead.

The trenching in the southeast of the development has also shown a considerable amount of evidence to support the theory of a Roman settlement to the east of the investigation area. The roof tile, floor tile and charcoal rich fills of a number of the ditches, particularly within Trenches 14-18, supports the speculation of a Roman period building located very close to this area. The density of features located in Trenches 13, 14, 15, 16 & 18, with intercutting ditches and pits would need further investigation to fully understand and characterise them. Of particular interest was the high concentration of finds within the small ditch in Trench 16. The fill 16/09 contained pottery, ceramic building material, iron nails and bone. At present the evidence points to a rural agricultural settlement and the features in this corner of the development may well be close to the nucleus of the settlement.

The ditches seen in the trenches on the western and eastern fringes of the application area are mostly void of finds. These ditches have been harder to date and characterise than those around the cropmarks and in the southeast corner, but it is speculated they amount to field boundaries possibly connected to the prehistoric and Roman period settlements close by, or relate to medieval and post-medieval field systems. The development is unlikely to impact on anything of note in these areas.

In general terms, the majority of the works to be undertaken as part of any development of a solar farm should not have a great impact on any important or significant archaeological remains. However, the area of cropmarks in the northwest part of the site and the area of Romano-British evidence in the southeast corner do appear to be of some interest and potentially would suffer some limited impact from the project.

7 BIBLIOGRAPHY

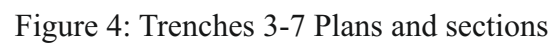
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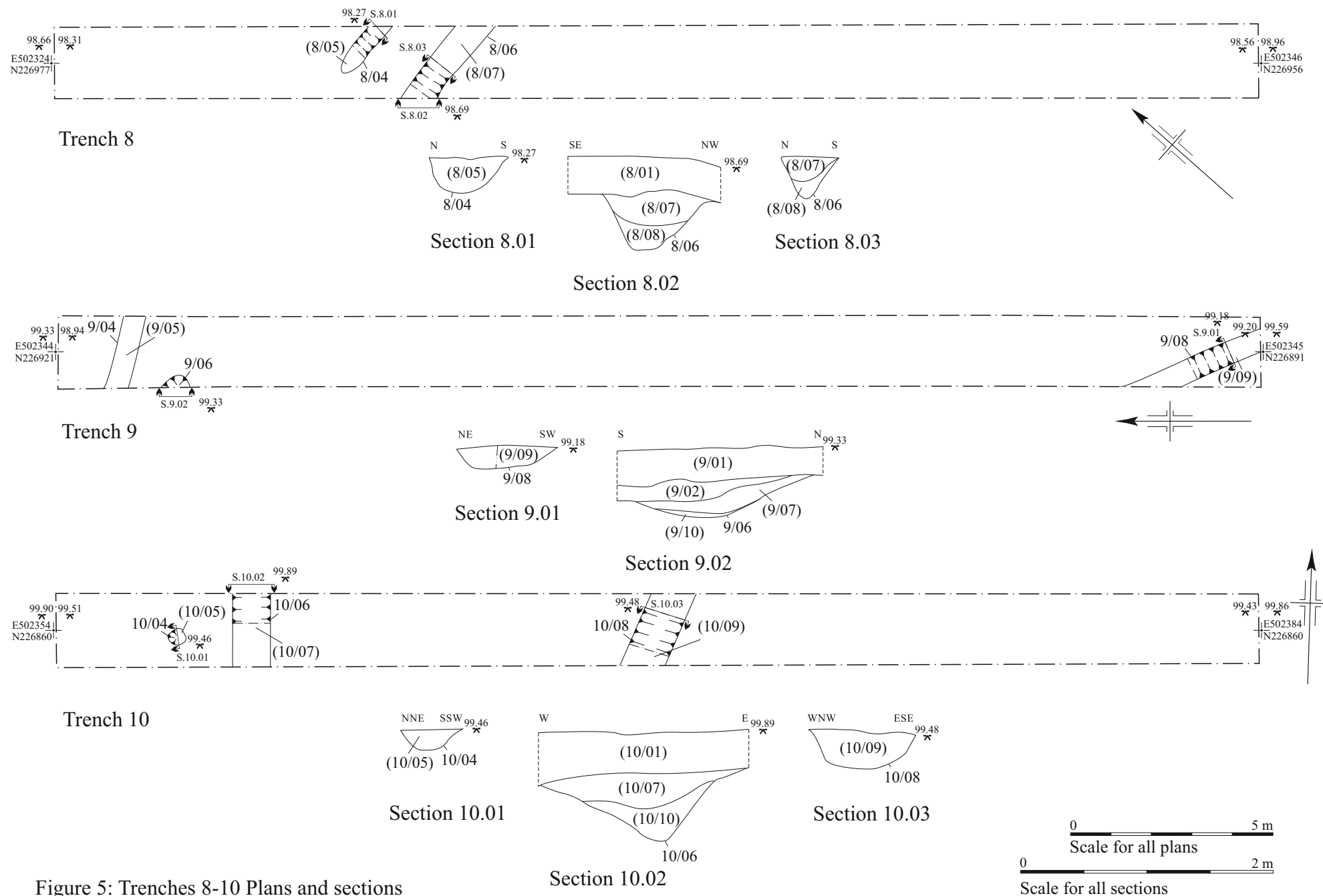


Figure 5: Trenches 8-10 Plans and sections

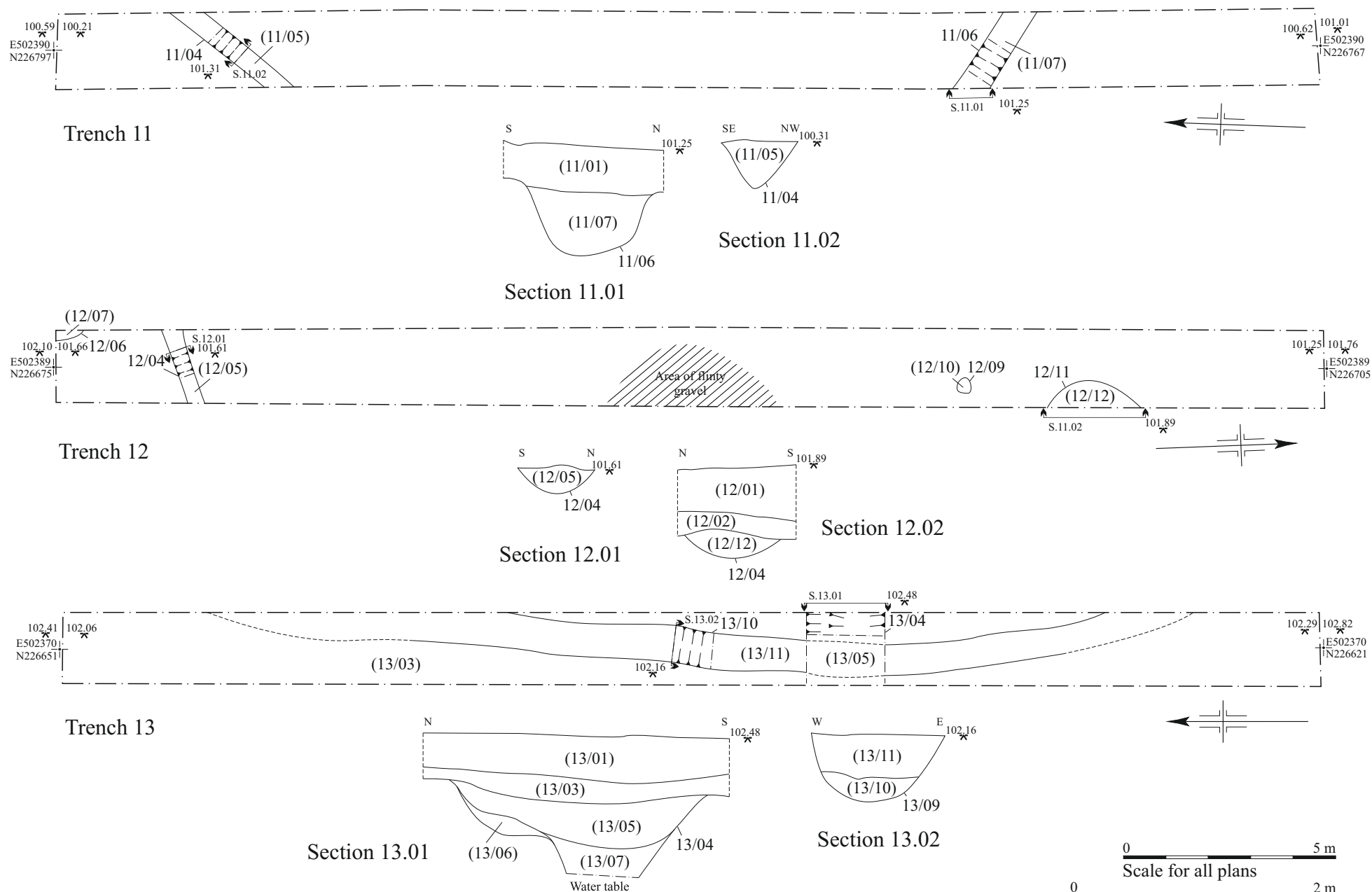


Figure 6: Trenches 11-13 Plans and sections

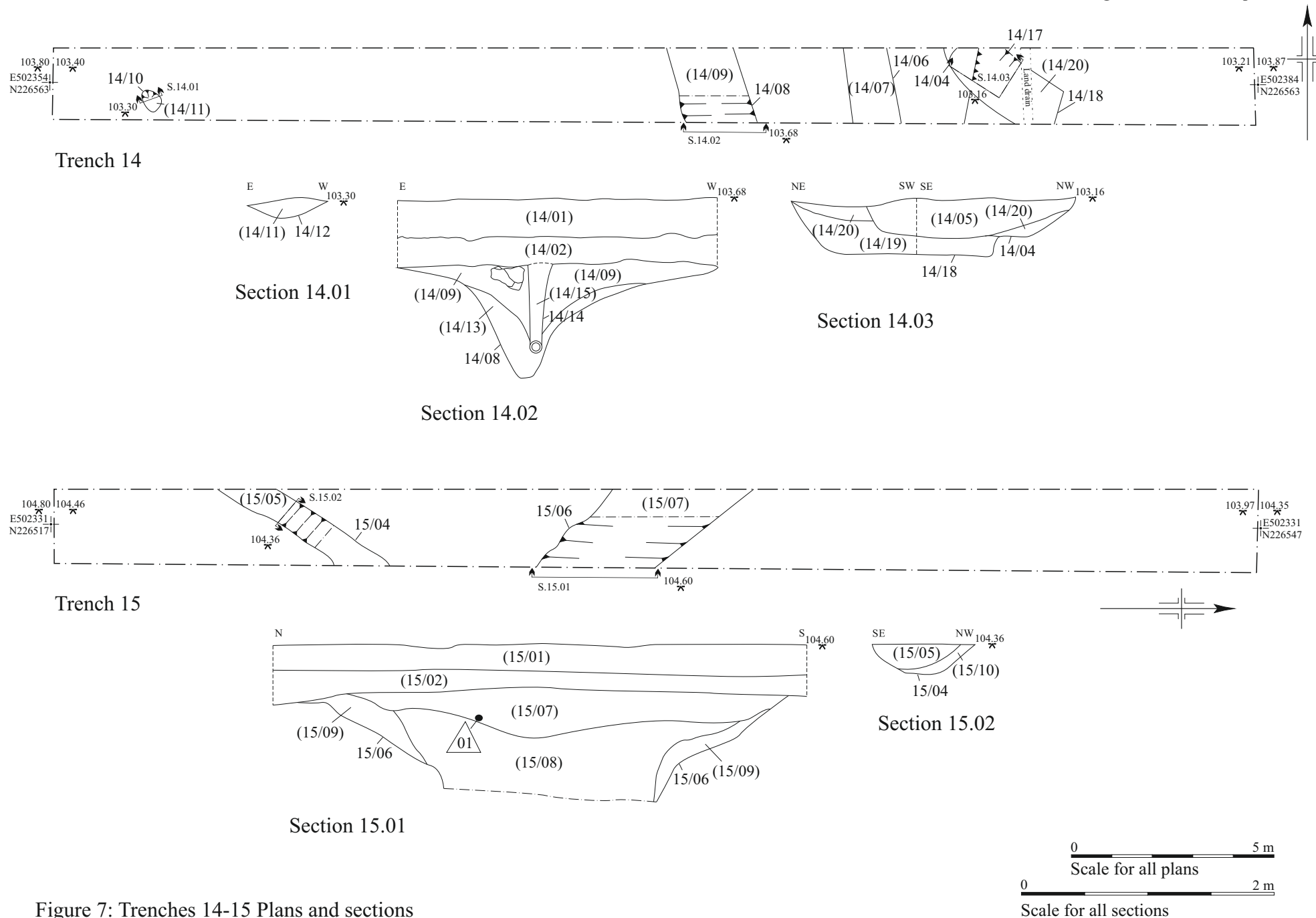


Figure 7: Trenches 14-15 Plans and sections

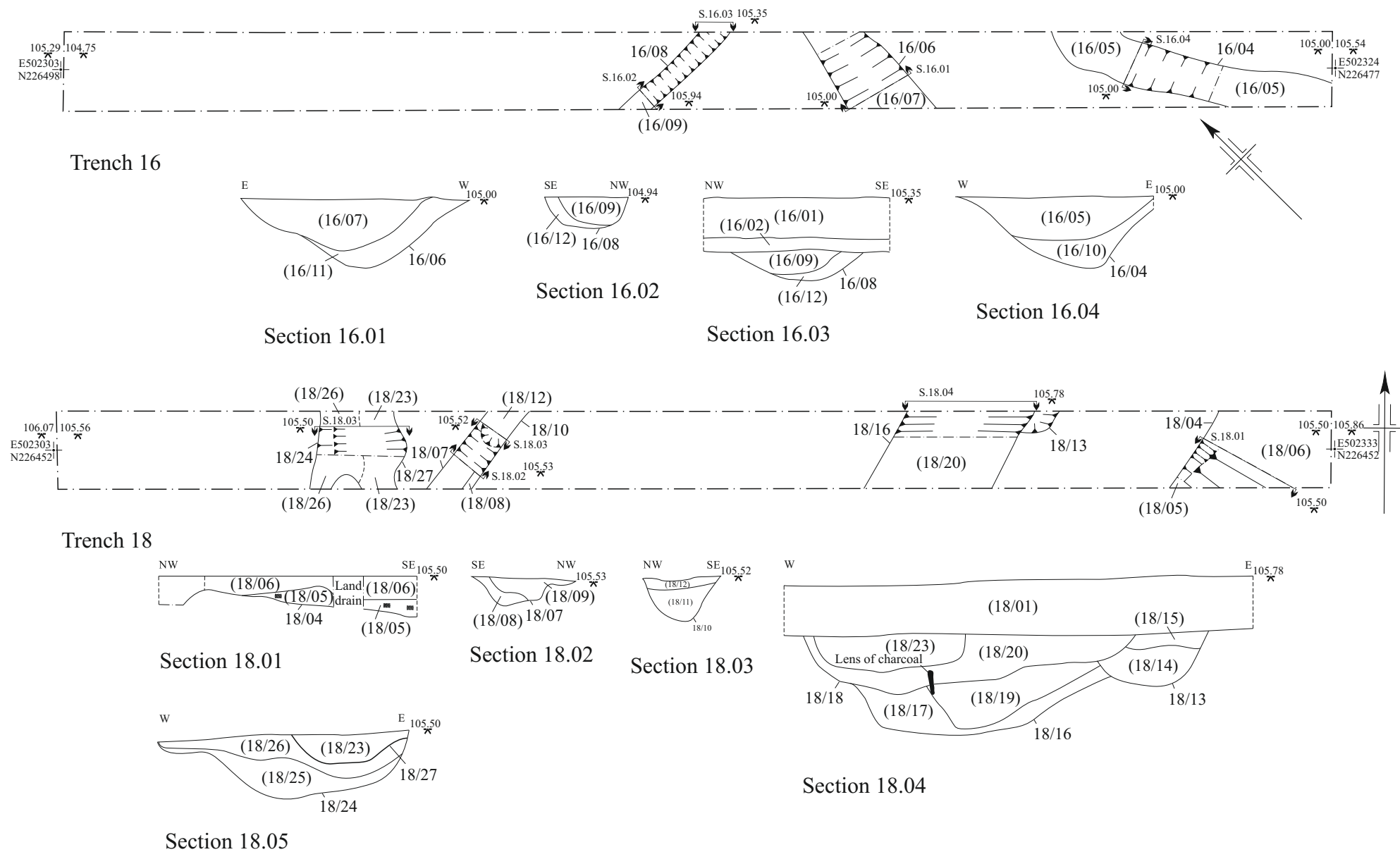


Figure 8: Trenches 16-18 Plans and sections

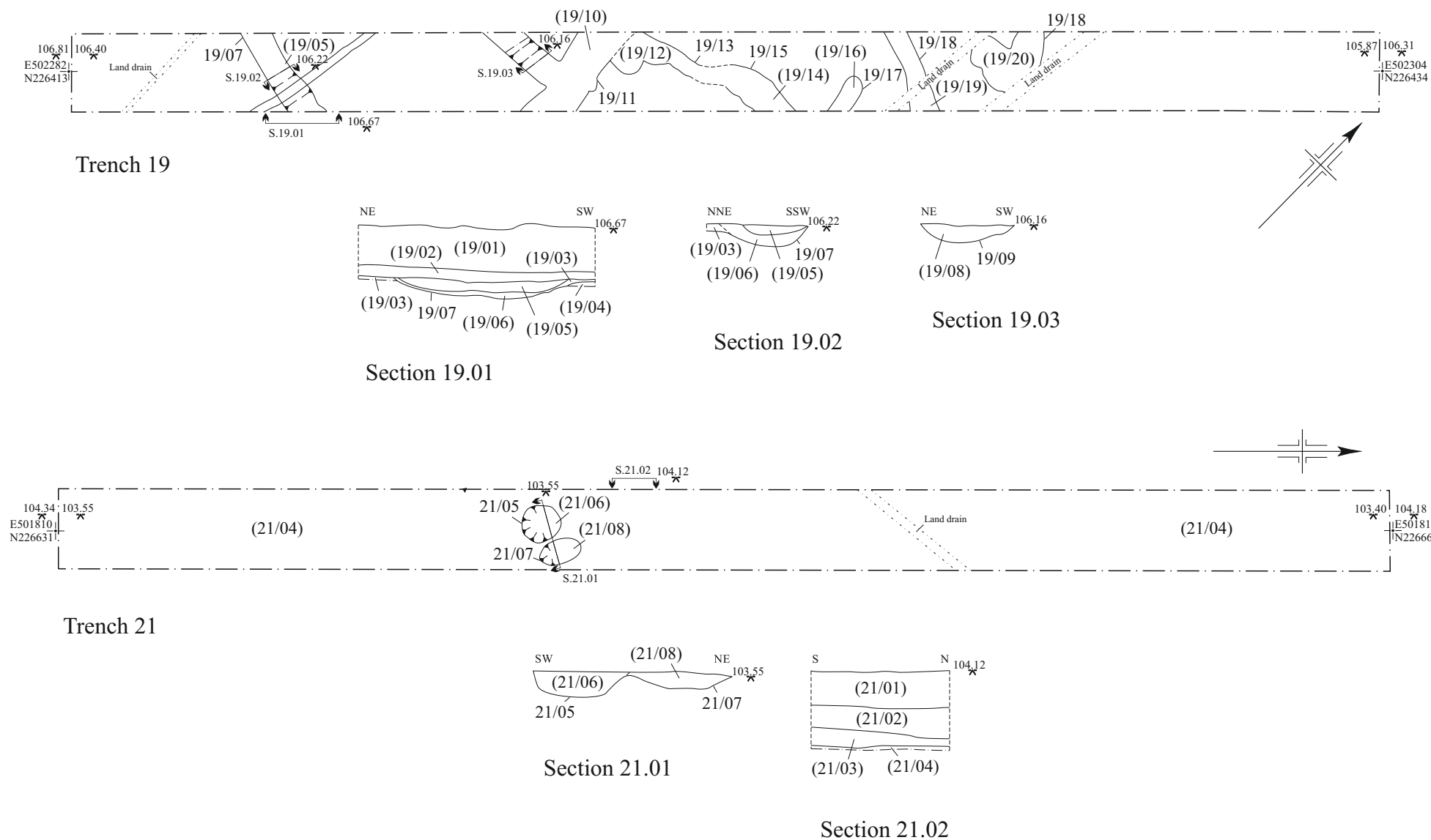


Figure 9: Trenches 19-21 Plans and sections

Figure 10 displays the plans and sections for Trenches 22 and 23, showing the layout of the trenches and the locations of the sections.

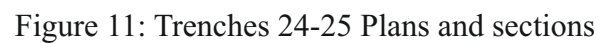
Trench 22 Plan: The plan view shows the layout of Trench 22, including sections 22.01, 22.02, 22.03, 22.04, 22.05, 22.06, 22.07, 22.08, 22.09, 22.10, and 22.11. The plan also shows the locations of the sections and the coordinates of the trench corners.

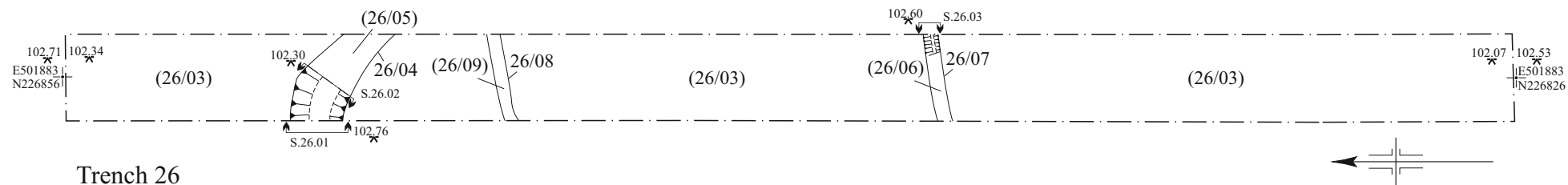
Trench 23 Plan: The plan view shows the layout of Trench 23, including sections 23.01, 23.02, 23.03, 23.04, 23.05, 23.06, and 23.07. The plan also shows the locations of the sections and the coordinates of the trench corners.

Sections: The sections are labeled as follows:

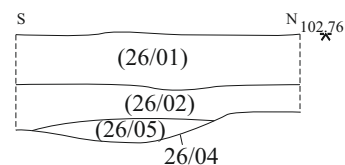
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- Section 22.02: (22/04), 22/06
- Section 22.03: (22/07), (22/08), 22/09
- Section 22.04: (22/01), (22/02), (22/10), 22/11
- Section 22.05: (22/10), 22/11
- Section 23.01: (23/05), 23/04
- Section 23.02: (23/07), 23/06
- Section 23.03: (23/01), (23/02), (23/03)

A scale bar indicates 0 to 5 meters.

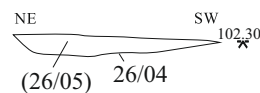




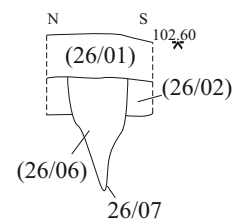
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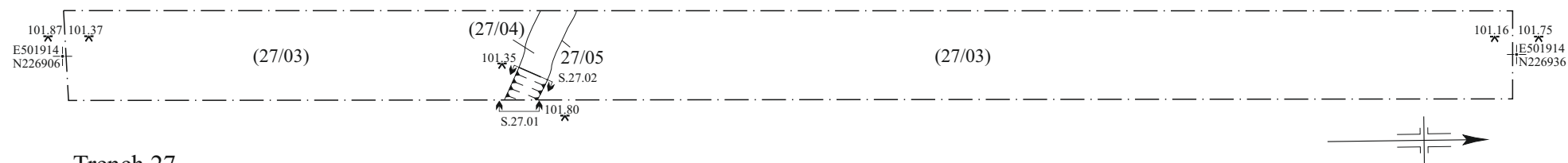
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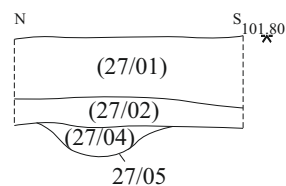
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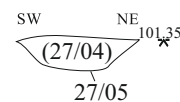
Section 26.03



Trench 27



Section 27.01



Section 27.02

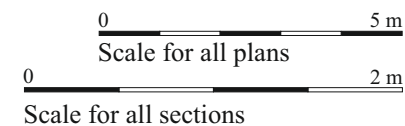
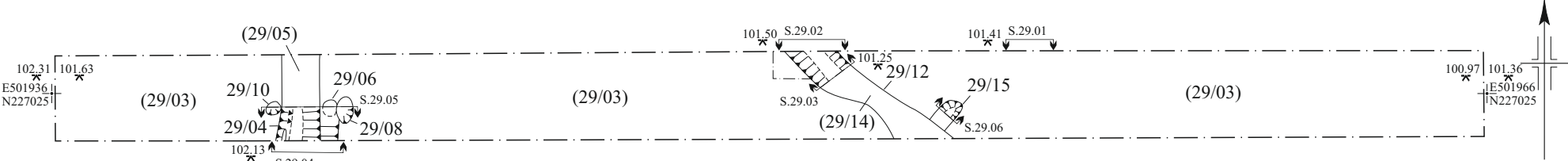
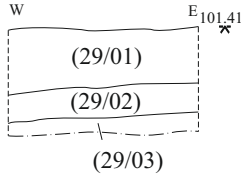


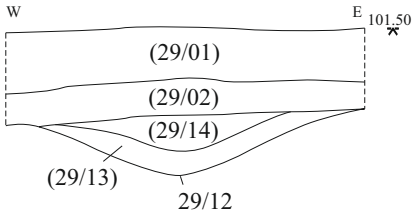
Figure 12: Trenches 26-27 Plans and sections



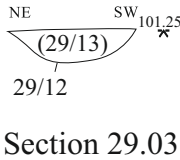
Trench 29



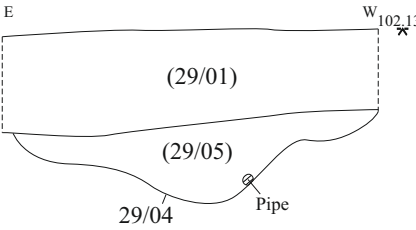
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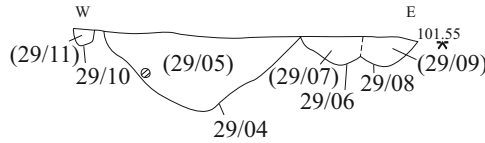
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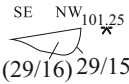
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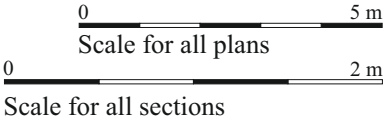


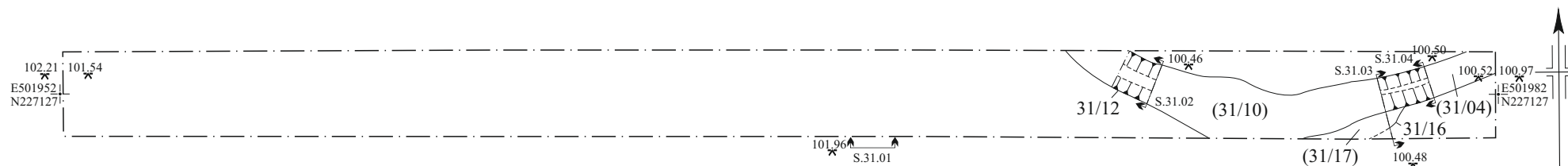
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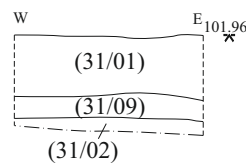
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Figure 13: Trench 29 Plans and sections

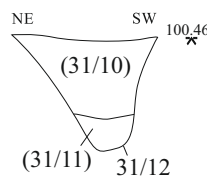




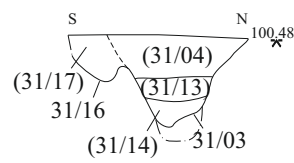
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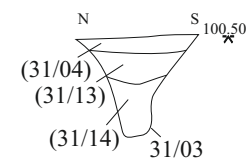
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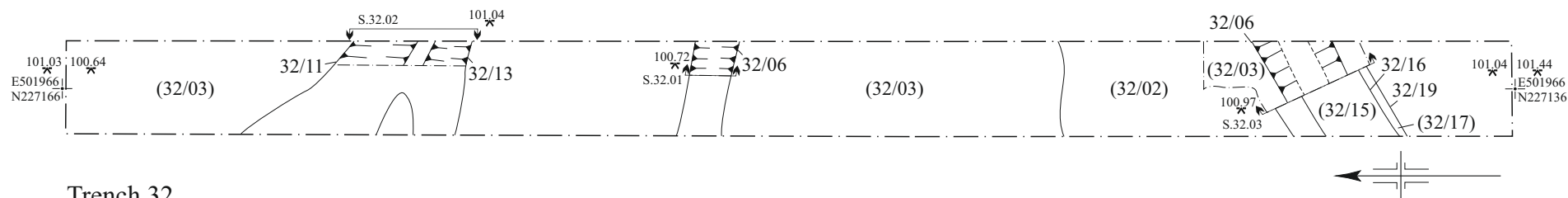
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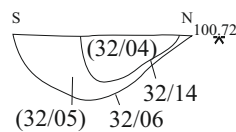
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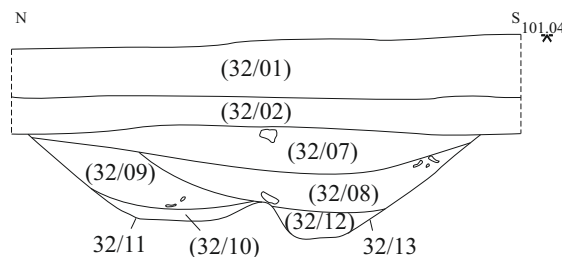
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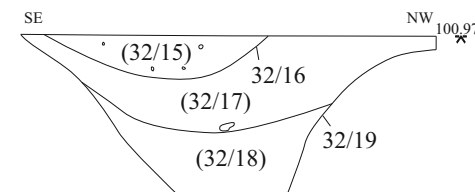
Trench 32



Section 32.01



Section 32.02



Section 32.03

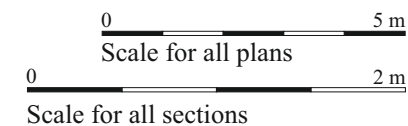


Figure 14: Trenches 31-32 Plans and sections

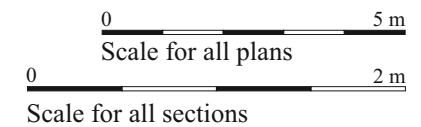
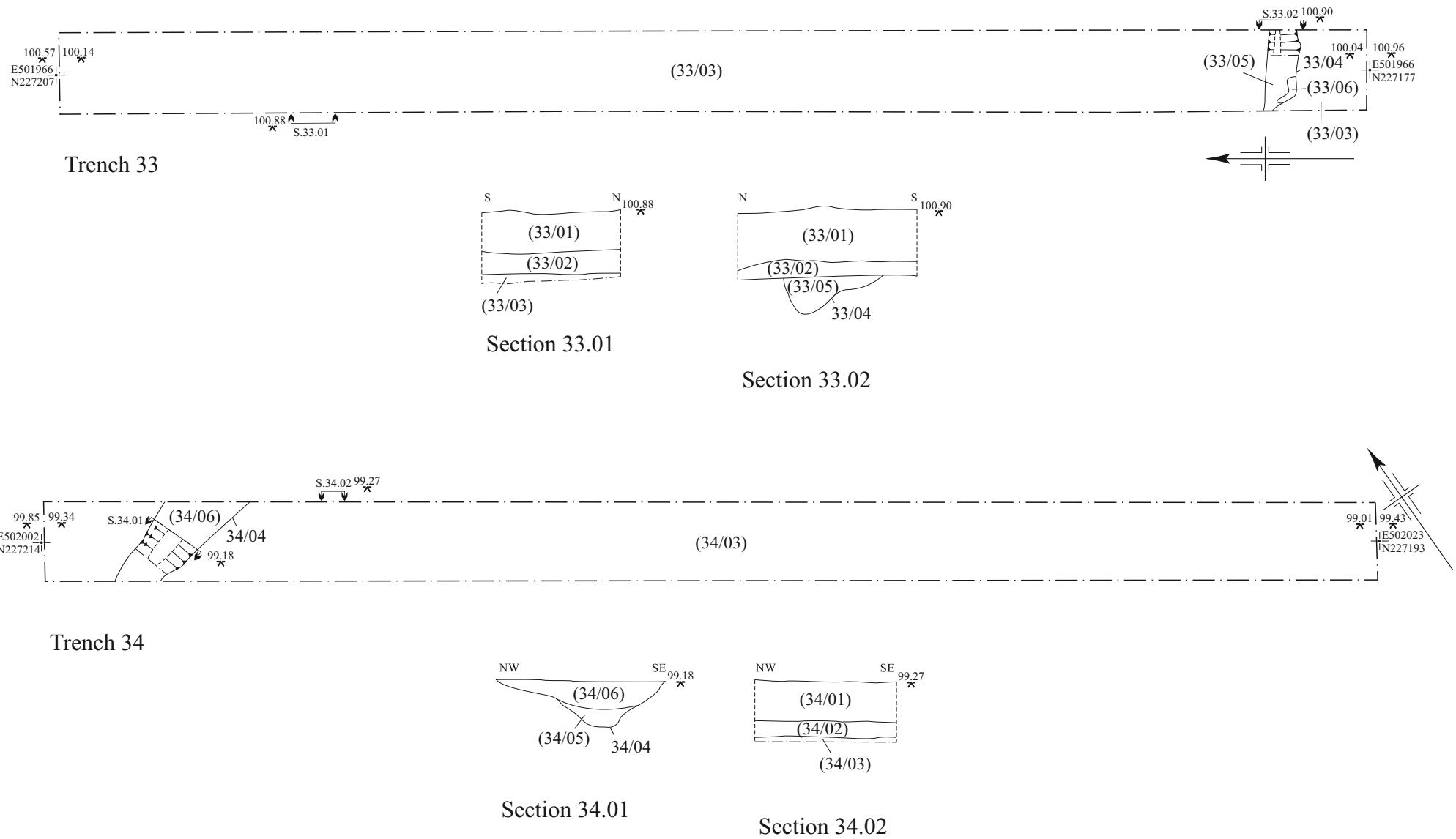


Figure 15: Trenches 33-34 Plans and sections

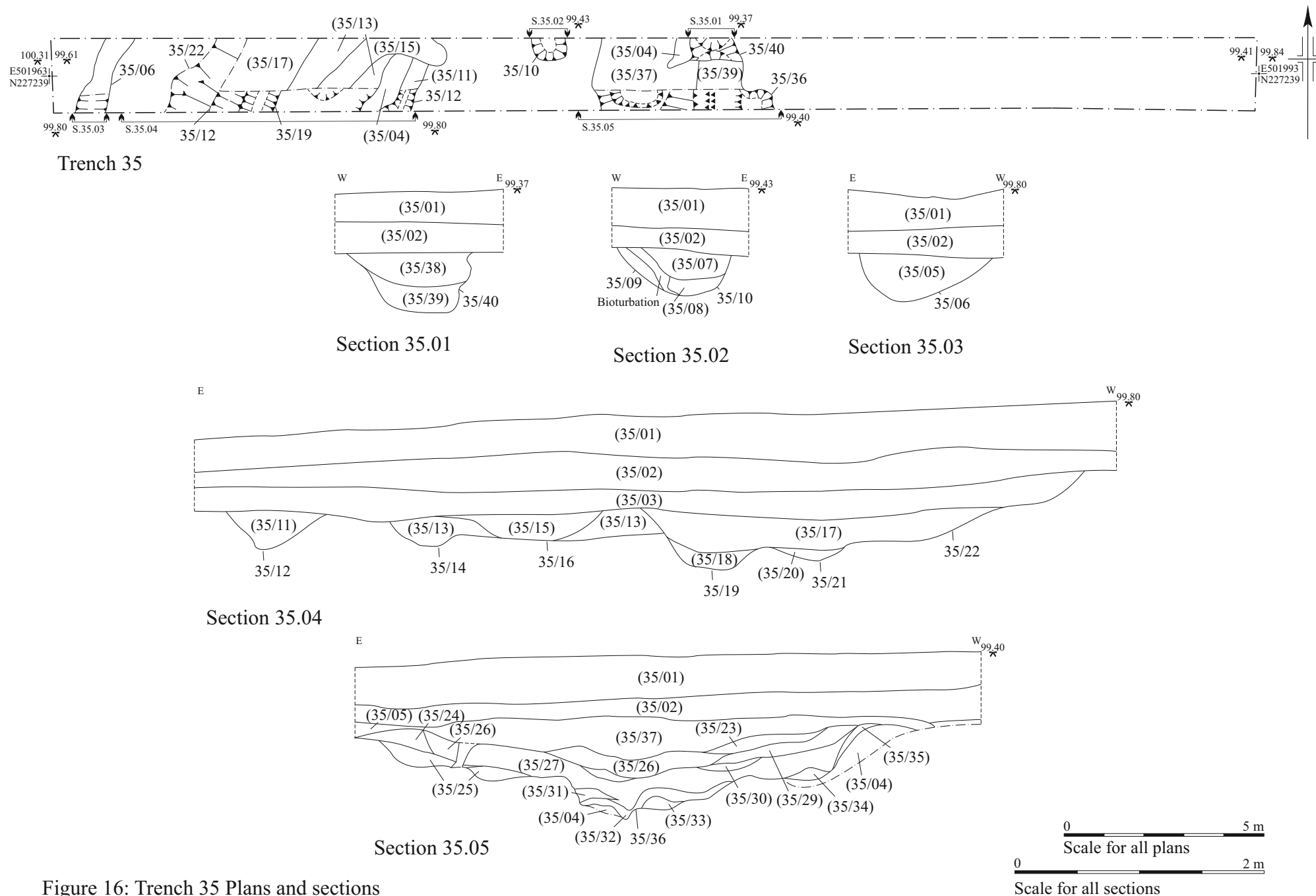


Figure 16: Trench 35 Plans and sections

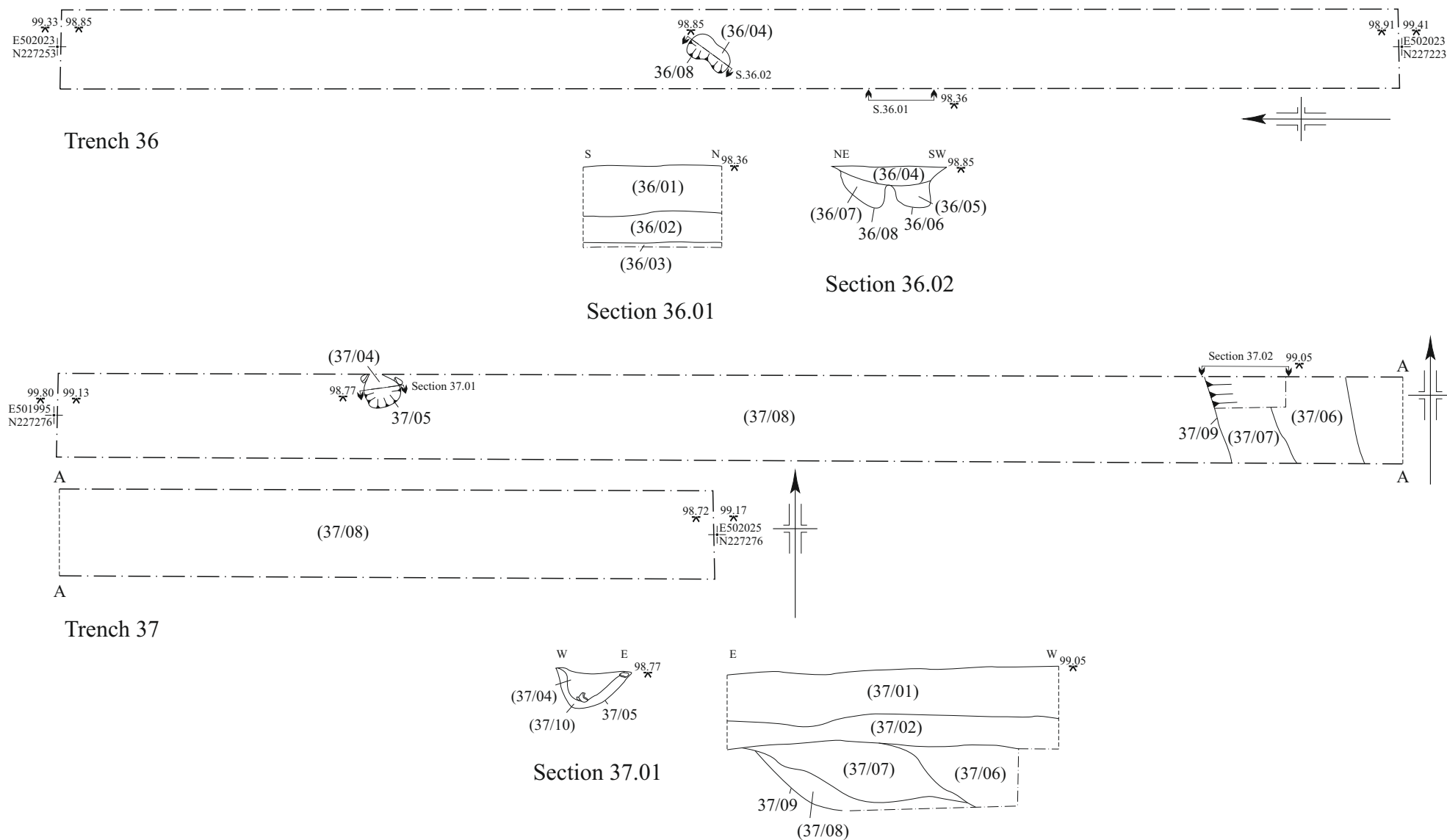


Figure 17: Trenches 36-37 Plans and sections

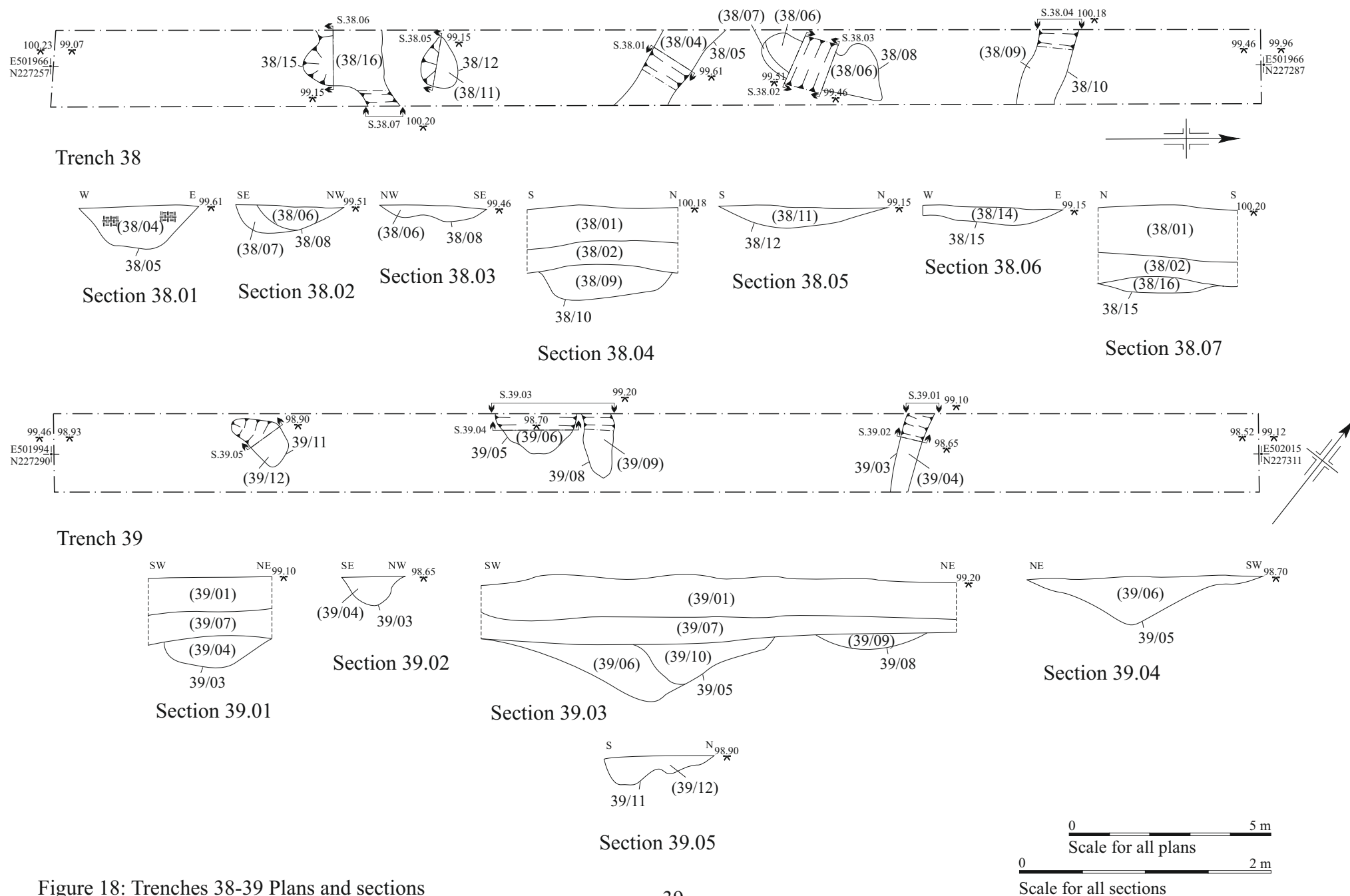


Figure 18: Trenches 38-39 Plans and sections

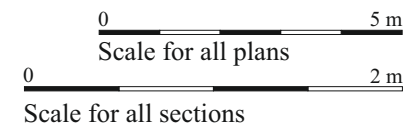
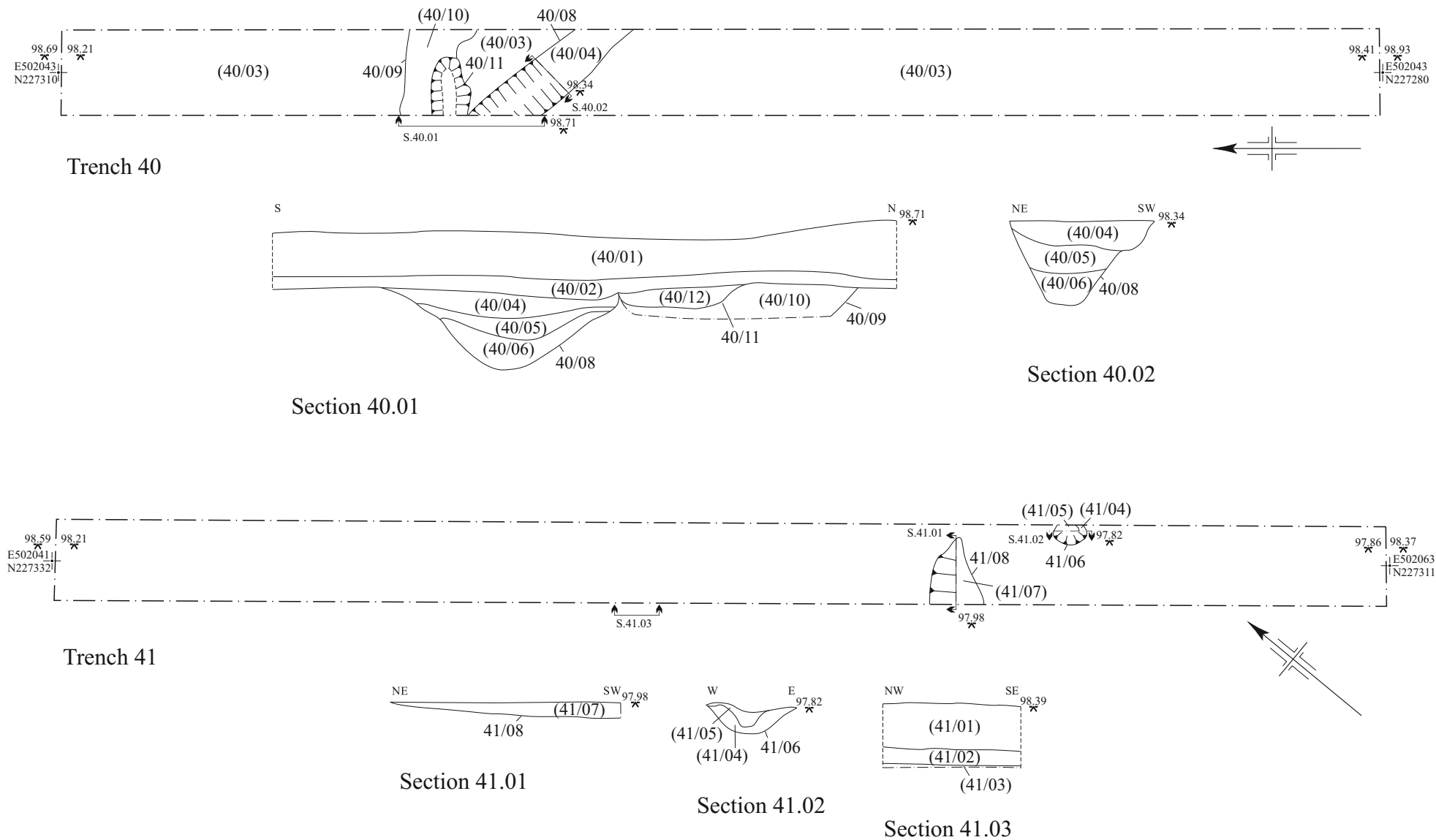


Figure 19: Trenches 40-41 Plans and sections

Tr	Cxt	IA				IA/Ro	IA/Ro	Ro		Pmed	Tot No	Tot Wt	Date	fc	cbm	
		SA	SALI	SAOR	OR	SHELL	GR	GY	OTHER					no	no	wt
5	5	0	0	0	1	0	0	0	0	0	1	35	M-LIA			
10	9	0	0	0	0	0	7	0	0	0	7	58	LIA-ERo			
14	5	1	0	0	0	1	0	6	0	0	8	75	Ro			
14	9	0	0	0	0	1	0	6	3	0	10	107	Ro			
15	7	0	0	0	0	5	0	1	5	0	11	60	Ro		4	300
16	5	0	0	0	0	0	1	3	0	0	4	97	Ro			
16	7	0	0	0	0	6	0	0	2	0	8	128	C2			
16	9	0	0	0	0	9	2	6	5	0	22	512	Ro	2	1	127
18	5	0	0	0	0	0	0	0	4	0	4	11	Ro	1		
18	23	0	0	0	0	0	0	0	1	0	1	41	Ro			
25	4	0	0	0	0	2	1	0	1	0	4	126	Ro		1	1
29	14	2	0	0	0	0	0	0	0	0	2	0.5	M-LIA			
31	4	0	11	12	13	0	0	0	0	0	36	138	M-LIA			
31	10	0	1	1	0	0	0	0	0	0	2	4	M-LIA			
32	4	1	0	2	0	2	0	0	0	0	5	51	LIA			
32	7	0	6	20	1	0	0	0	0	0	27	283	M-LIA			
32	15	1	0	0	0	0	0	0	0	0	1	10	M-LIA			
32	17	0	0	0	0	0	0	0	1	0	1	0.5	Ro?			
34	6	0	0	0	0	0	0	0	0	1	1	65	Pmed			
35	37	0	0	1	0	0	0	0	0	0	1	17	M-LIA			
37	4	0	0	1	0	0	0	0	0	0	1	15	LIA			
TOT		5	18	37	15	26	11	22	22	1	157	1834		3	6	428

M-LIA = mid to late Iron Age. ERo= early Roman. C2 = 2nd Century Roman. Pmed = post-medieval

Table 3. *Pottery Quantification*