

**EXETER SCIENCE PARK DRIVE SOUTH,
SOWTON, DEVON:
ARCHAEOLOGICAL EVALUATION**

Prepared for South West Highways Civils

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Exeter Archaeology

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1. INTRODUCTION (Fig. 1)

This report presents has been commissioned by South West Highways Civils and presents the results of an archaeological evaluation undertaken by Exeter Archaeology (EA) in February 2011 in advance of the construction of the southern element of the road infrastructure serving the forthcoming Exeter Science Park. The road (Exeter Science Park Drive South) forms one of two infrastructure contracts carried out in advance of the construction of the Science Park. The site lies within Sowton parish, Devon, centred on SX 9748 9348 (Fig. 1). The archaeological investigations were required under a condition (condition 14) attached to the grant of planning permission (No. 10/0899/CM DCC/2907/2009) for the provision of internal roads, landscaping, electricity sub station, foul water sewage pumping stations, infiltration basins and associated fencing and lighting for the proposed Exeter Science Park.

2. PREVIOUS ARCHAEOLOGICAL INVESTIGATIONS

The Exeter Science Park area and nearby road schemes have been subject to intensive archaeological investigations. An archaeological assessment of the area was produced by EA in 2005 (EA 2005), and further archaeological assessments have been prepared by Oxford Archaeology and Wessex Archaeology, although these have not been available to EA.

In 2007 and 2008 Wessex Archaeology undertook a geophysical survey and evaluation of the route of what is now known as the Junction 29 Road Scheme (Wessex Archaeology 2008). The eastern part of this road scheme lies to the south of the area under investigation, and here a single archaeological feature, a field boundary ditch, was found.

In 2008 Wessex Archaeology undertook a geophysical survey of the area of the Exeter Science Park Drive North including associated landscaping, but excluding additional contract works. A metal detector survey of this area, and the temporary access track and compound (located immediately north and west of the present site) was undertaken by Wessex Archaeology in November 2010 (Wessex Archaeology 2010a). Archaeological evaluation and monitoring of this area including the additional contract works, by EA in 2010 and 2011 only located features – post-medieval field boundaries – within the field to the west of the present site.

In November 2010 Wessex Archaeology undertook a geophysical survey and a metal detector survey of the Exeter Science Park Drive South (Wessex Archaeology 2010b; 2010c; reproduced in Fig. 2). The geophysical survey identified a number of linear anomalies thought to represent former field boundaries, as well as other anomalies and magnetic responses. The metal detector survey produced mostly modern metal objects, but a number of late-medieval and post-medieval coins, jettons and tokens were also recovered.

3. ARCHAEOLOGICAL AND HISTORICAL BACKGROUND (Figs 3-4)

Archaeological investigations over a number of years have demonstrated that the sandy soils to the northeast of Exeter were settled and utilised during the Bronze Age, Iron Age and Romano-British period. The County Historic Environment Record (HER) records up to 6 ring ditches (identified from aerial photographs) within the field containing the development site. At SX 9775 9332, some 200m to the south-east of the site, a square ditched enclosure was excavated as part of the A30 Exeter to Honiton Improvement Scheme. The excavation revealed an early to middle Iron Age round house, dated by radiocarbon dating to 770–70

BC. Further activity around this main enclosure produced dates in the range 390 BC–AD 90 (Fitzpatrick *et. al.* 1999). At SX9710 9375 (within the site) a continental, La Tène, Iron Age copper alloy decorated stud (measuring 2.1cm x 3cm) with red enamel trumpet voids was found in 2004 by a metal detectorist (HER 71077). A single sherd of prehistoric, probably Iron Age, pottery was recovered during evaluation of the Junction 29 Road Scheme, although no features of that date were excavated (Wessex Archaeology 2008, 10).

The line of the A30 (and the earlier Honiton Road) probably reflects the overall alignment of a Roman road between Honiton and Exeter. Until recently, it had not been conclusively demonstrated that the road was of Roman origin, although there was documentary evidence in the form of place-names, some evidence for paving surviving in the vicinity of Fairmile into the 18th century and indications of its former route on aerial photographs (HER SX99SWE/99). At SX 971 932, adjacent to the site, a V-shaped ditch of probable prehistoric or Roman origin was exposed during the A30 Improvement Scheme (SX99SE/261). A single sherd of Roman pottery was recovered from the topsoil in the adjacent field during the evaluation in January 2011.

By the later post-medieval period the area had been divided into a number of small fields, and their depiction on early 19th-century maps (Figs 3-4) hints at a medieval origin, perhaps as medieval open fields that were enclosed during the later medieval period (EA 2005, 3). By the later 19th century the field boundaries had been removed creating larger fields.

4. AIMS

The aims of the work were to provide further information concerning the presence/absence, date, nature and extent of any buried archaeological remains and to investigate and record these. This was to be achieved through the targeting of a number of anomalies identified by geophysical survey.

5. METHOD

All the archaeological investigations at the Exeter Science Park are being undertaken in accordance with an overarching written scheme of investigation (WSI) prepared by Wessex Archaeology (2010d). The evaluation was undertaken in accordance with a project design prepared by Wessex Archaeology (2011) and a supplementary WSI prepared by EA (Stead 2011).

The approved Wessex Archaeology project design proposed a total of six trenches to be excavated. However, the presence of an overhead electricity cable prohibited the excavation of trench 5. In addition, the road corridor had been fenced off and the available area was less than that covered by the geophysical survey. As a consequence four of the proposed trenches were either moved (nos 1, 3, and 6) or shortened (4).

The evaluation was undertaken using a machine fitted with a toothless grading bucket under the supervision of the site archaeologist. This involved the removal of topsoil and subsoil down to the top of the *in-situ* natural sand subsoil at which level archaeological features cutting into the subsoil were exposed. All features were hand excavated. Initially features were sample excavated (50%) and recorded, but subsequently, and on the advice of the Deputy County Archaeologist, the remaining 50% of features (where no dating evidence had been recovered) were hand excavated to retrieve finds.

Standard EA recording procedures were employed. Stratigraphic information was recorded on pro-forma trench record sheets and single context record sheets, with a drawn record compiled in plan and section at scales of 1:20 and 1:50. A photographic record was prepared in black and white film and digital (colour) format. Finds were recovered from stratified contexts; post-1750 finds from the topsoil were not retained. Due to the low carbon content and significant worm and root action (typical of the local sandy soils) none of the fills of the features was considered suitable for environmental sampling. The positions of the trenches were recorded and tied to OS data using an EDM.

6. RESULTS (Figs 5-7; Appendix 1)

Broadly speaking the deposit sequence comprised topsoil and subsoil overlying natural sand. A single flint flake was recovered from the subsoil in trench 4 (context 401). Unstratified post-medieval glass, pottery and clay pipes on the surface of the fields were noted but not collected. The top of natural deposits occurred between 0.44m and 0.74m below the surface. No archaeological features were found in trenches 1 and 6, although natural hollows were exposed within both trenches. A large E-W aligned natural hollow exposed in trench 6 represents the geophysical anomaly 4010 (Fig. 7).

Within trench 2 a single E-W aligned ditch was exposed (203 - geophysical anomaly 4011). The ditch measured 1.1m wide by 0.16m deep and had irregular-sloping sides with an undulating base (Fig. 5). A single sherd of 18th-century pottery and two fragments of brick were recovered from its fill (204), along with four pieces of unidentified animal bone and a small piece of oyster shell.

Within trench 3 two features (306 and 304) – provisionally interpreted as ditches – were exposed (Fig. 6). Ditch 304 survived as a SW terminus and cut through ditch 306. Both were of a similar size and profile, although the earlier ditch, 306, was slightly deeper. The fill (305) of ditch 306 contained abundant sandstone fragments, whereas the fill (303) of ditch 304 contained only occasional fragments of stone. The hollow left by the partly infilled ditches was sealed by further layer of clean silty sand (302). No finds were recovered from any of these contexts.

Trench 4 contained three archaeological features (Fig. 7). A NW-SE ditch was exposed (402 - probable geophysical anomaly 4008). It measured 2m wide by 0.6m deep and contained a sand fill (403) with occasional stone inclusions. Adjacent to the south edge of the ditch was a small cut feature (404) that may represent a pit, although it is also possible that it represents a natural hollow. To the south, a NE-SW aligned ditch was exposed (406 - geophysical anomaly 4011). It measured 1.7m wide by 0.22m deep and appeared broadly similar to ditch 203, although the sides were regularly steep and the base was wide and flat. No finds were recovered from any of these features.

7. DISCUSSION (Figs 3-4)

Two main conclusions can be drawn from the evaluation with regards to the interpretation of the geophysical anomalies. Firstly, those described as an ‘archaeological feature’ are indeed archaeological features (ditches) and those described as ‘probable archaeology’ represent either archaeological features (ditches) or natural hollows. Secondly, only in some cases do the anomalies described as ‘possible archaeology’ and ‘increased magnetic response’

represent archaeological features. On balance it seems likely most anomalies are the result of changes in the natural geology, although some, such as that investigated in trench 3 can be confirmed as features, even if their form does not correlate with the geophysical survey.

With the exception of the possible pit 404, all of the excavated features are associated with former field systems, and represent drainage ditches flanking the sides of field boundaries. Ditches 203 and 406 form part of a boundary depicted on the 1801 OS Surveyors' drawing (Fig. 3) but had been removed by 1839 when the tithe map (Fig. 4) was produced. The geophysical anomalies 4006, 4009 and 4014 also form part of this field system, whilst anomalies 4004 and 4005 represent further boundaries added between 1801 and 1839. As put forward by EA in 2005 these boundaries may have a medieval origin, perhaps as open fields that were enclosed during the later medieval period.

Ditch 402 is on a slightly different alignment to the field system represented by 4006, 4009 and 4014, and appears to be earlier in date. Its fill was similar to the subsoil above, almost certainly indicating that the feature was open whilst ploughing was taking place nearby, and on this basis a historic rather than prehistoric date is put forward. The date and function of features 304 and 306 are unknown but they are probably related to this earlier ditch.

8. SITE ARCHIVE

The site records have been compiled into a fully integrated site archive which is currently held at Exeter Archaeology's offices under project number 7420, pending deposition at the Royal Albert Memorial Museum. Details of the investigations, including a pdf copy of this report have been submitted to the on-line archaeological database OASIS (reference exeterar1-110877).

ACKNOWLEDGMENTS

The evaluation was commissioned South West Highways Civils and managed for them by D. Greedy and for EA by P. Stead. The fieldwork was supervised by A.J. Passmore, assisted by S.E. Blackmore and F. Pink. The finds were processed by C. Coles and the report figures prepared by S.E. Blackmore

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APPENDIX 1: EVALUATION TRENCH DESCRIPTIONS

TRENCH 1: 10m long by 1.50m wide			
Context	Depth	Description	Interpretation
100	0-0.20m	Dark black-brown loose silty sand	Post-medieval topsoil
101	0.20-0.56m	Light orange-brown loose silty sand	Post-medieval subsoil
102	0.56-0.74m (max)	Light yellow-brown friable silty sand with abundant large sandstone fragments	Natural infilling of hollows

TRENCH 2: 30m long by 1.50m wide			
Context	Depth	Description	Interpretation
200	0-0.30m	Dark grey-brown firm clayey sand with rare charcoal and occasional sandstone fragments	Post-medieval topsoil
201	0.30-0.65m	Reddish grey-brown loose slightly clayey sand with frequent sandstone fragments	Post-medieval subsoil
202	0.65-0.70m	Red-brown soft sand with red sand mottles	Post-medieval subsoil – subsoil mixed with weathering natural sand
203	0.70-0.86m	1.10m wide by 0.16m deep ditch with irregular sides and an undulating base	Post-medieval field boundary ditch (depicted on the OS 1801 drawing)
204	0.70-0.86m	Reddish grey-brown loose slightly clayey sand with rare sandstone fragments	Fill of ditch 203

TRENCH 3: 30m long by 1.50m wide			
Context	Depth	Description	Interpretation
300	0-0.20m	Dark grey-brown firm clayey sand with rare charcoal and occasional stones	Post-medieval topsoil
302	0.20-0.56m	Mid grey-brown soft slightly clayey sand becoming redder at the base with occasional stones	Post-medieval subsoil
302	0.46-0.60m	Mid yellow-orange loose silty sand	Upper fill of ditch 304, also filling earthwork hollow of ditch 306
303	0.60-0.78m	Dark pink-orange loose silty sand with rare sandstone fragments	Lower fill of ditch 304
304	0.46-0.78m	1.16m wide by 0.20m deep ditch with gently-sloping sides and a concave base	Ditch cut
305	0.56-0.76m	Dark brown-orange loose silty sand with abundant sandstone inclusions	Fill of ditch 306
306	0.56-0.76m	1.20m wide by 0.26m deep ditch with gently-sloping sides and a concave base	Ditch cut

TRENCH 4: 17m long by 1.50m wide			
Context	Depth	Description	Interpretation
400	0-0.20m	Dark grey-brown friable silty sand with occasional charcoal and stones	Topsoil
401	0.20-0.60m	Mid grey-brown slightly soft silty sand with rare stones	Subsoil
402	0.60-1.20m	2.20m wide by 0.60m deep ditch with steep sides and a small flat base	Ditch cut
403	0.60-1.20m	Light grey-brown soft sand with red mottles towards the base	Fill of ditch 402
404	0.60-0.70m	0.68m wide by 0.10m deep possible cut feature with very gently-sloping sides and a flat base	Possible pit
405	0.60-0.70m	Light grey-brown loose sand with abundant red mottles	Fill of 404
406	0.50-0.70m	1.66m wide by 0.22m deep ditch with generally steep sides and a wide flat base	Ditch cut
407	0.50-0.70m	Mid grey-orange loose silty sand with frequent sandstone fragments and rare flecks of charcoal	Fill of 406

TRENCH 6: 25m long by 1.50m wide			
Context	Depth	Description	Interpretation
600	0-0.24m	Dark grey-black loose silty sand	Topsoil
601	0.24-0.46m	Mid orange-brown loose silty sand	Subsoil filling a natural hollow
602	0.46-0.70m	Light-mid grey-black loose silty sand	Subsoil filling a natural hollow
603	0.70-0.96m	Light brown-yellow loose silty sand	Subsoil filling a natural hollow

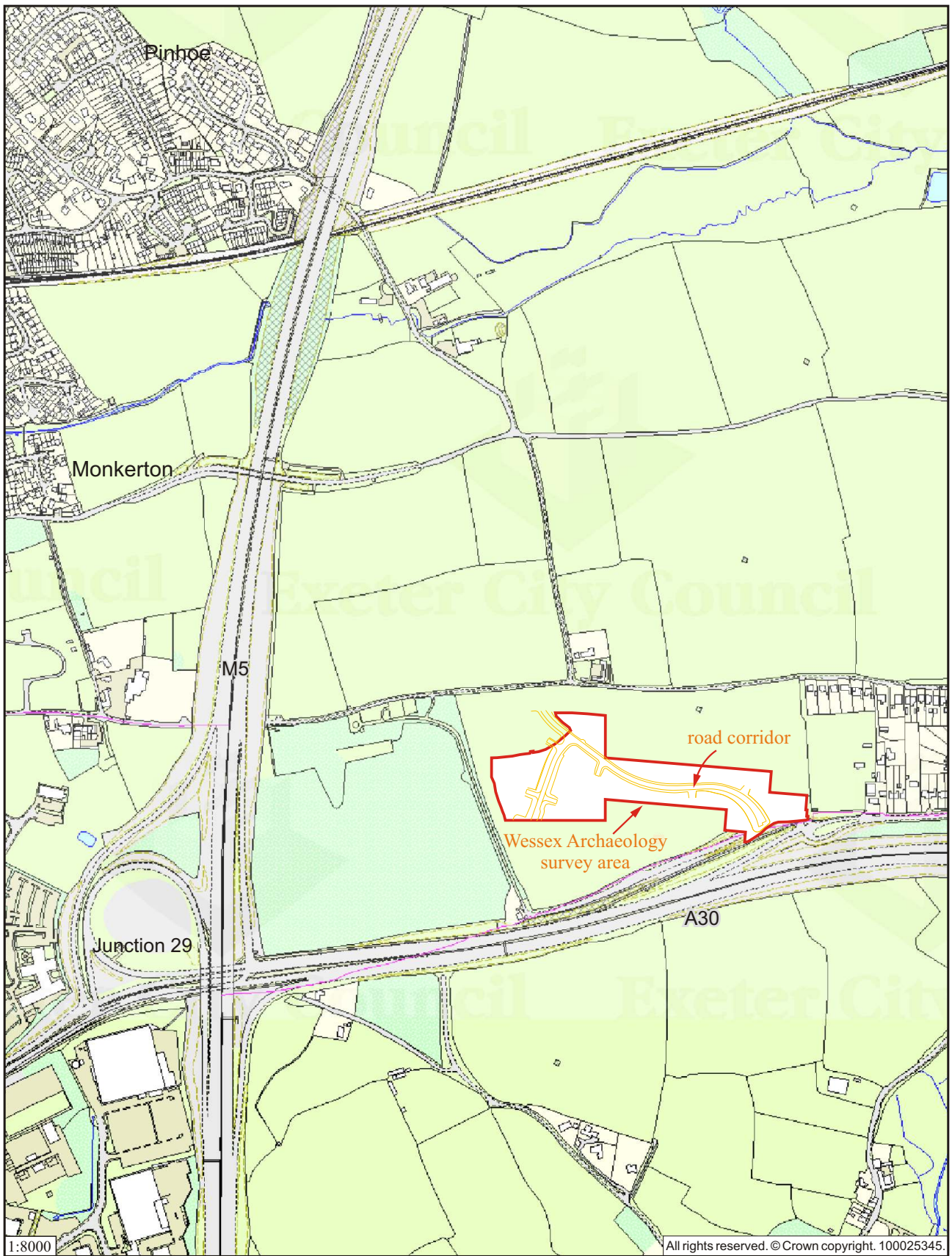


Fig. 1 Location of site.

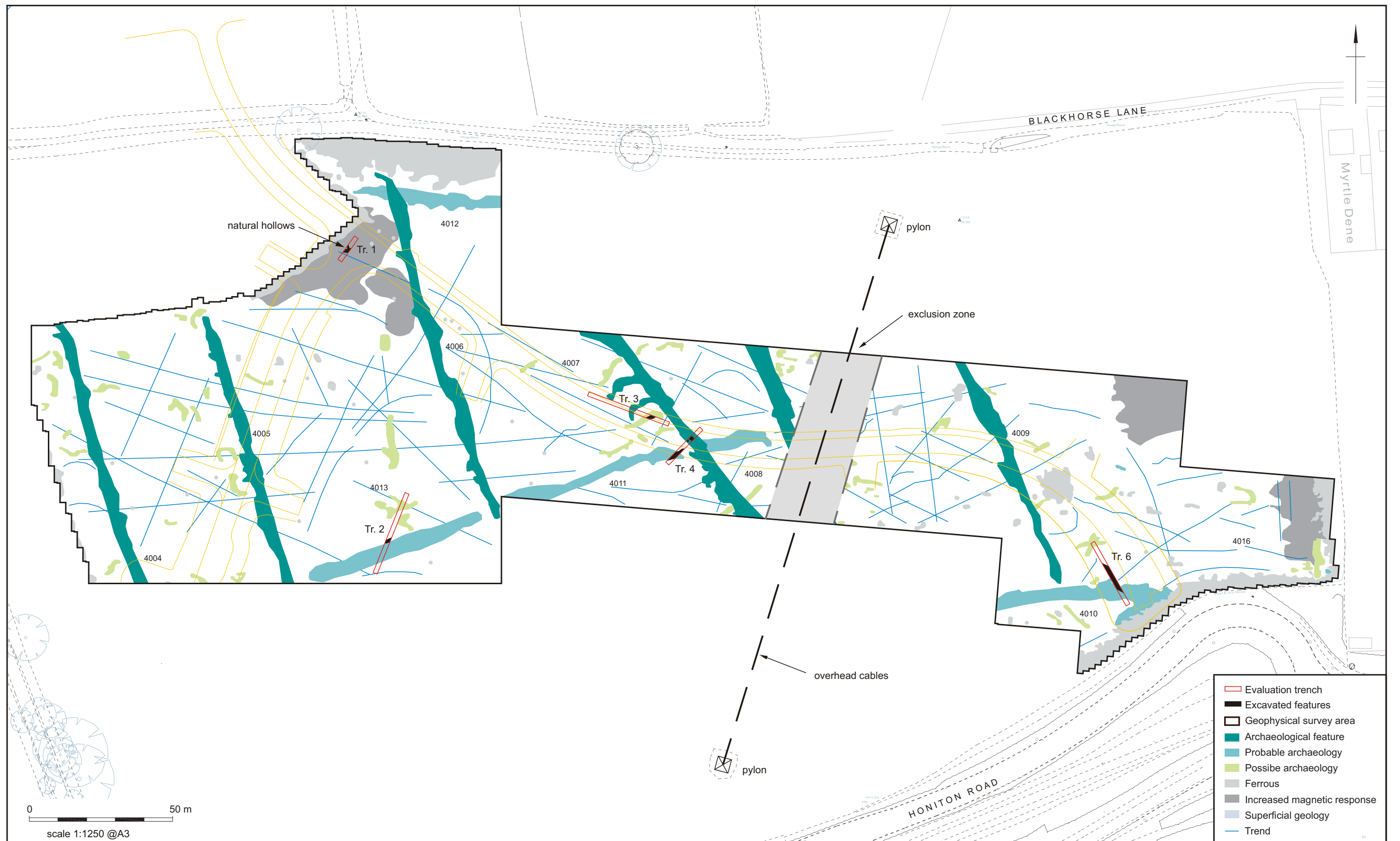


Fig. 2 Plan of the evaluation trenches (red) showing excavated features. Overlain onto the geophysics survey supplied by Wessex Archaeology.



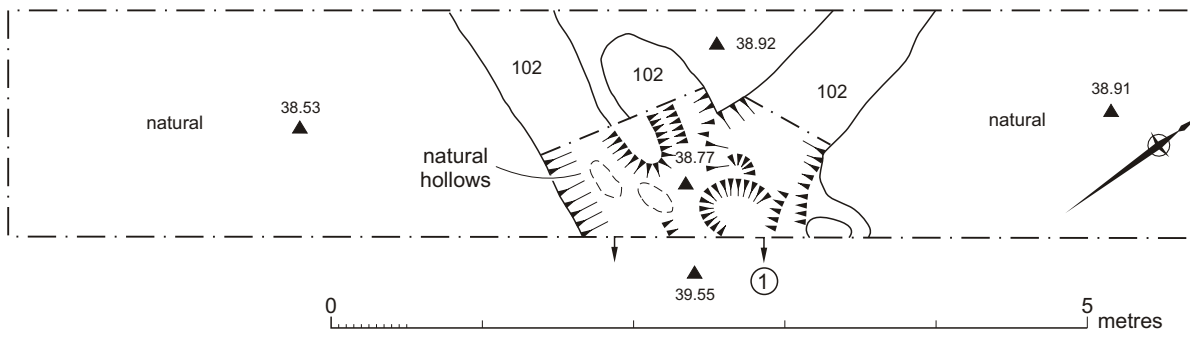
Fig. 3 The site area in 1801 (OS surveyors' 3" drawing No. 40W; fields containing site shaded).



Fig. 4 The site area in 1839 (Pinhoe Tithe Map; fields containing site shaded).

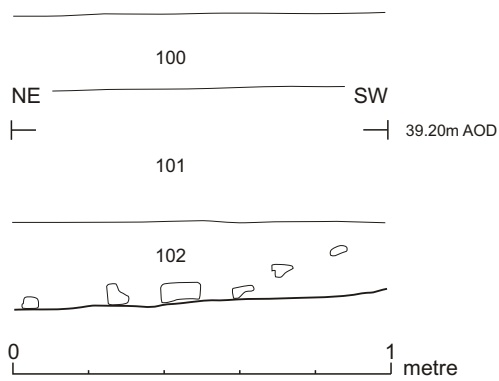
Trench 1

Plan



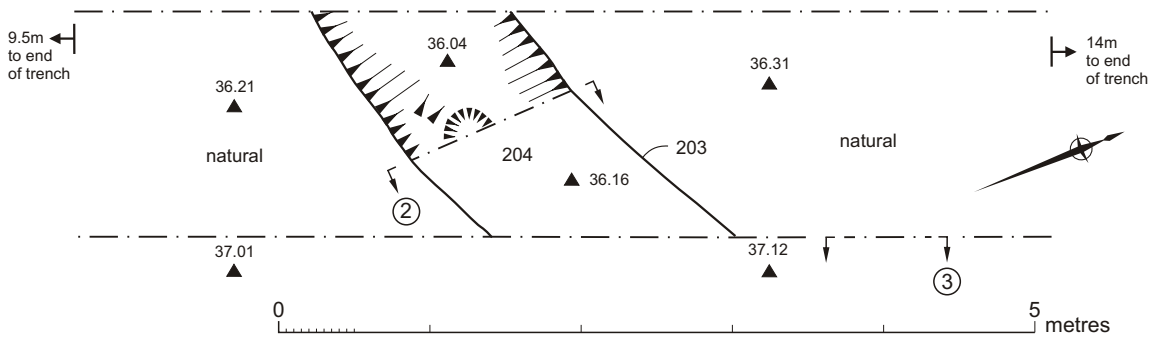
Section

1



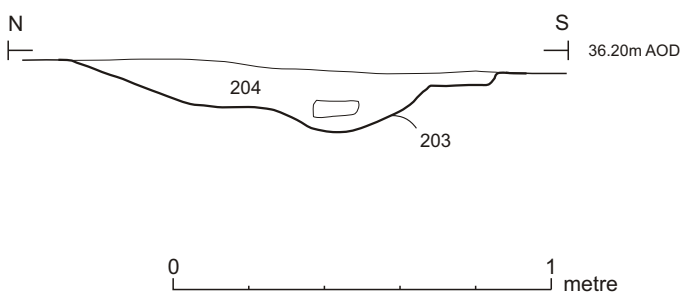
Trench 2

Plan



Section

2



Section

3

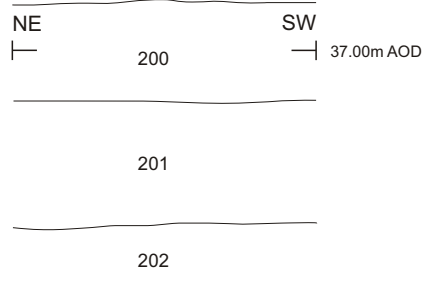
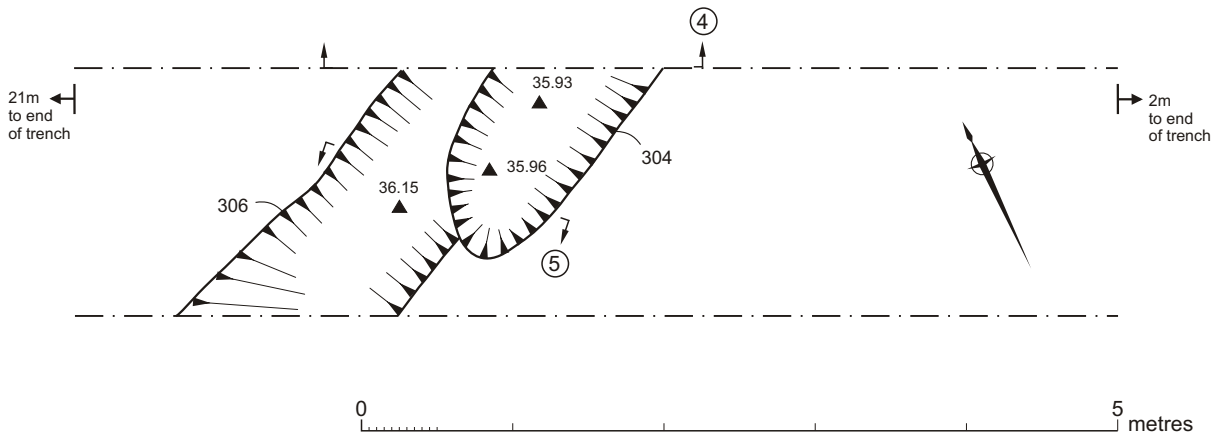


Fig. 5 Trenches 1 and 2: plans and sections.

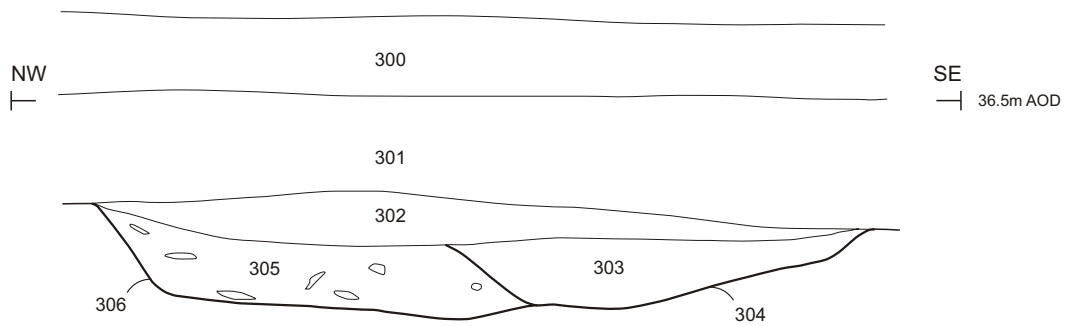
Trench 3

Plan



Section

4



Section

5

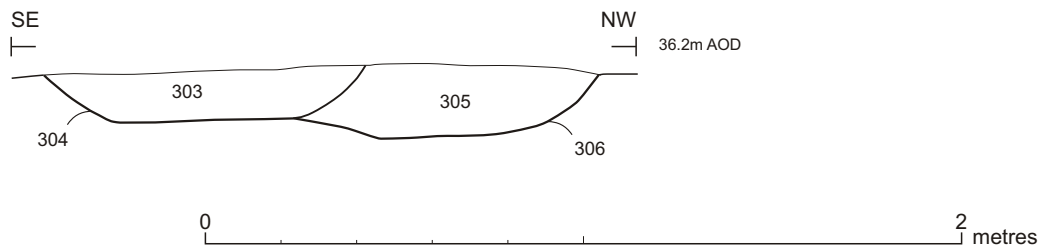
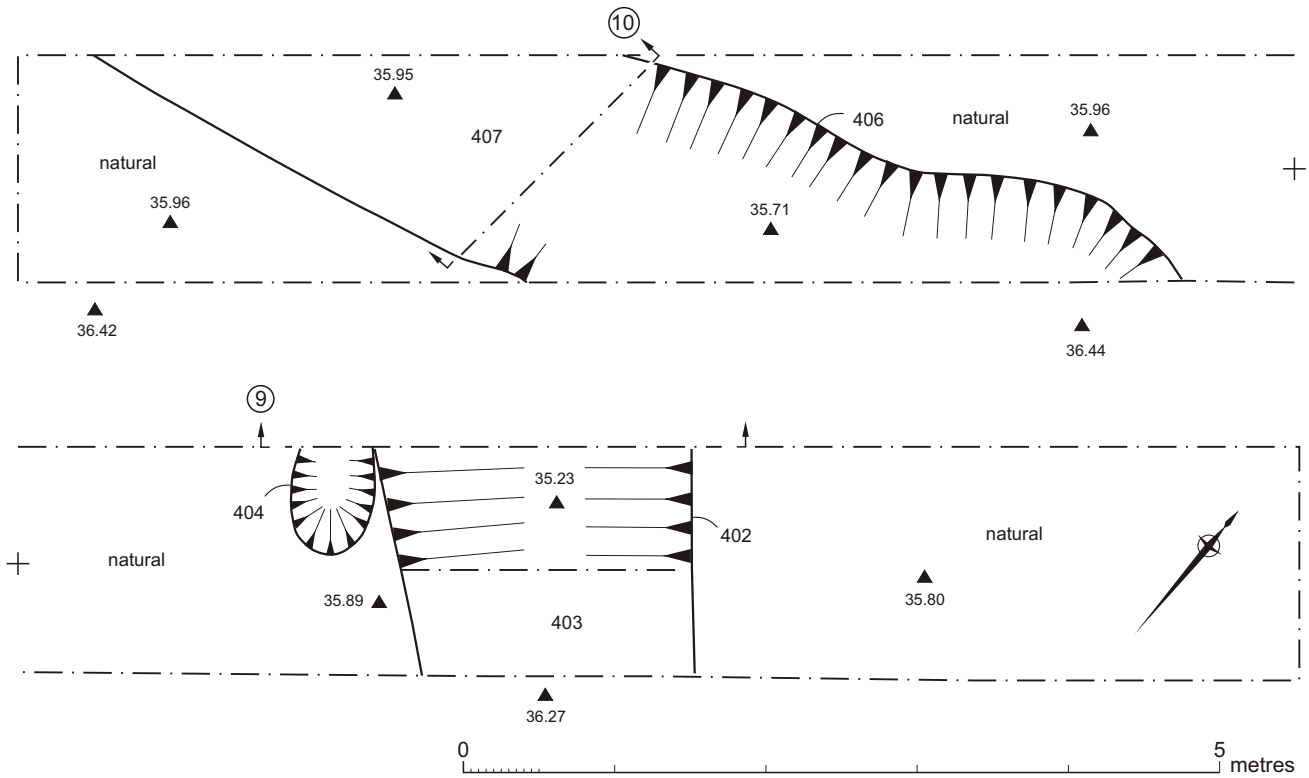


Fig. 6 Trench 3: plan and sections.

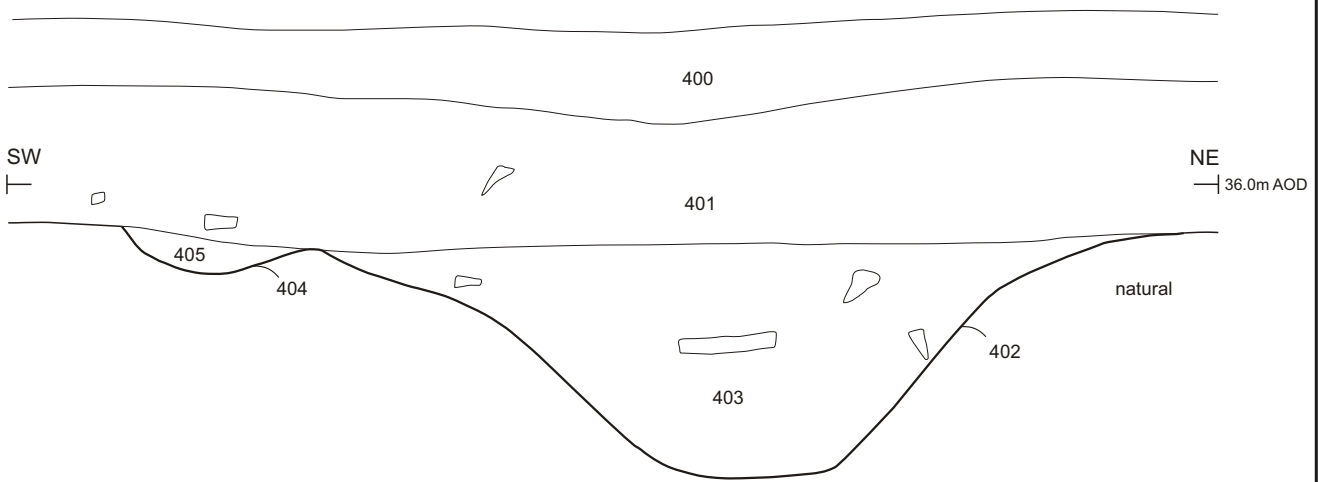
Trench 4

Plan



Section

9



Section

10



Trench 6

Section

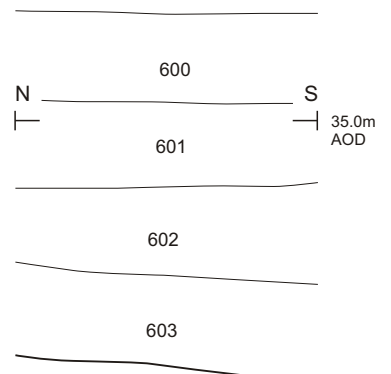


Fig. 7 Trenches 4 and 6: plan and sections.