Appendix C.1

Gazetteer of Cultural Heritage Sites

Cultural Heritage Baseline

World Heritage Sites

The nearest World Heritages Site is the Pontcysyllte Aqueduct and Canal at Froncysyllte near Llangollen.

Scheduled Ancient Monuments (SAMs)

There are no Scheduled Ancient Monuments within the study area. The nearest SAMs are Newtown Old Church (MG056) and Newtown Castle Mound (MG160) in Newtown's historic core, and Gro Tump medieval motte and bailey castle (MG059) on its eastern outskirts.

Conservation Areas

The historic core of Newtown is designated as a Conservation Area. The Conservation is not within the study area.

Historic Parks and Gardens

There are no registered Historic Parks or Gardens within the study area. The nearest is Gregynog (PO33), 4km to the north of the study area boundary.

Historic Landscapes

The study area is not within any Historic Landscape, as described by the Cadw, CCW and ICOMOS UK Register of Landscapes of Special Historic Interest in Wales (1998) or Register of Landscapes of Outstanding Historic Interest in Wales (2001). The nearest such landscape is Caersws Basin, 1.5km to the west of the study area (HLW P5). The Vale of Montgomery (HLW P2) is 6km to the east.

Listed Buildings

ID	Name	Period	NGR X	NGR Y	Status	Value	Condition	Description
8194	Black Hall Farmhouse	Post Medieval	310444	289833	LB II	Medium	Intact	17th century farmhouse with later additions and alterations
8195	Farm range attached to Black Hall Farmhouse	Post Medieval	310440	289845	LB II	Medium	Intact	Range attached to 8194; 18th century with later alterations and additions
8196	Agricultural Buildings at Black Hall	Post Medieval	310427	289875	LB II	Medium	Intact	Barn associated with 8194; ?17th century with later alterations and additions
8206	Castell-y-Dail Farmhouse	Medieval, Post Medieval	309602	289891	LB II	Medium	Intact	Cruck-framed farmhouse of 19th-century date but with earlier origins
15623	Glandulais Farmhouse	Post Medieval	308730	290144	LB II	Medium	Intact	Late 18th or early 19th-century century farmhouse, notable for the survival of its original interior plan form.
17327	Glanhafren Hall	Post Medieval	308289	290414	LB II	High	Intact	Early 19th-century three-storey house in Georgian style.
17328	Glanhafren Hall gateway	Post Medieval	308353	290254	LB II	Medium	Intact	A set of cast iron gateway and railings, set on a stone plinth, the main gates of which are now missing

ID	Name	Period	NGR X	NGR Y	Status	Value	Condition	Description
17329	Apple House at Glanhafren Hall	Post Medieval	308283	290449	LB II	Medium	Intact	Listed as an ornate and distinctive dovecote of the late 19th century, though early 19th-century construction date is possible.
8215	Glan Hafren House	Post Medieval	313136	292343	LB II	Medium	Intact	Early to mid 17th-century timber framed house. Early Renaissance type regional house. Later extension to rear, c. 1840
8216	Barn at Glan Hafren House	Post Medieval	313118	292318	LB II	Medium	Intact	Barn, 17th-century in date, with 18th-century addition

Non-statutory sites and finds (HER)

ID	Name	Period	NGR X	NGR Y	Value	Condition	Description
969	Castell y Dail Hillfort	Iron Age	309430	289710	Medium	Damaged	Univallate oblong enclosure some 150m by 46m internally. Rampart remaining as single scarp with probably inturned entrance at W end. The medieval date suggested by OS in 1961 seems unlikely. Defences generally degraded though better preserved in scrub in places
1036	Glan Hafren ringwork	?Medieval	313380	292290	Low	Destroyed	Probable tree ring, levelled c. 1948. Noted as possible ring motte.
1586	Maes y Castell	Iron Age	309100	290000	Low	Unknown	Place-name suggestive of a defended site. Field now under permanent pasture with no physical feature indicating archaeological site
1794	Belle Vue (find spot)	Post Medieval	310550	290600	Negligible	Moved	A groat coin of Henry VIII found in a private garden at No. 15 Garth Owen
1816	Kerry Old Turnpike	Post Medieval	312000	291320	Low	Damaged	Turnpike road, course now followed by a modern lane
3724	Maes y Groes	Unknown	309200	289900	Unknown	Unknown	Place-name suggestive of a cross. May refer to paths crossing and thus not an antiquity. No sign of any cross at this location
4650	Lower Brimmon Cropmark	Prehistoric	312200	291250	Medium	Damaged	Y-shaped cropmark. Evaluation Trench 10 revealed a rough metalled surface, aligned NE-SW, overlying a more substantial and compacted surface. No dating evidence was recovered from either surface, although the underlying deposit contained a range of 18th and 19th-century finds and is likely to represent a former ploughsoil. In the area beneath the metalled surfaces the former ploughsoil was significantly deeper and appeared to be filling a broad depression around 3.5m in width, which may be an infilled holloway, of which the metalling represents a more recent phase.

ID	Name	Period	NGR X	NGR Y	Value	Condition	Description
4808	Glan Hafren Road	Roman	308450	290440	Medium	Near Destroyed	Possible trace of a road, showing as a cropmark that is aligned with the course of the Roman road
5757	Castell y Dail cairn	Bronze Age	309600	289900	Medium	Unknown	Undescribed cairn of stones on Castell y Dail Farm, removed about 1817. The centre containing an urn inverted over a cremation
11712	Forden-Caersws Roman Road	Roman	310074	290910	Medium	Unknown	Surmised route of the Roman road through central Newtown. No physical evidence for this alignment
11717	Roman Road from Forden to Caersws (Southeast of Glanhafren Hall)	Roman	308588	290519	Medium	Damaged	Roman road surviving in earthwork form for a distance of 330m. Fine agger, height up to 0.6m; also shows as a cropmark on aerial photographs
11718	Roman Road from Forden to Caersws (South and southwest of Glanhafren Hall: option 1)	Roman	308418	290401	Medium	Destroyed	Predicted line of Roman road. No trace in the modern landscape, but this is its logical course leading SW from section described by PRN 11717. Alternative course is denoted by PRN 47049
17986	Kerry Earthworks	Post Medieval	312100	291100	Negligible	Damaged	Area of quarry remains
21558	Wheatsheaf, 40-43 Pool Road	Post Medieval	311327	291514	Low	Intact	Dwelling. No further information available
21882	Pen-y-gelli pond I	Post Medieval	313160	292000	Low	Damaged	Pond with dam and remains of outlet channel to the north
21883	Pen-y-gelli pond II	Post Medieval	313050	291910	Low	Damaged	Dam on stream has created pond but is now silted and overgrown

ID	Name	Period	NGR X	NGR Y	Value	Condition	Description
26684	Glan Dulas Mill	Post Medieval	308788	290126	Low	Destroyed	Former corn mill now destroyed
26685	White Factory mill	Post Medieval	308840	289990	Low	Intact	Former woollen mill now converted into houses
26686	Red Factory	Post Medieval	308700	289800	Low	Damaged	Mill, also known as Pandy South Mill, shown on the tithe map and the OS map of 1891
29847	44-45 Pool Road	Post medieval	311303	291513	Low	Intact	Dwelling. No further information available
34899	Pen-y-gelli trackway	Post Medieval	312790	291560	Low	Damaged	Section of trackway between Ty'n-y-green and Pen-y-gelli including stretches of hollow way
37506	Craigfryn Mill	Post Medieval	311400	291500	Low	Destroyed	Site of combined corn and flannel mill dating to the early 19th century
47040	Roman Road from Forden to Caersws (Dyffryn Industrial Estate)	Roman	313023	292155	Medium	Unknown	Predicted course of Roman road. Its location has been confirmed by excavation at the Tesco site in 2009 NGR 311450, 291470) and by geophysics and evaluation at NGR 312921, 292114). The latter confirmed several phases of metalling and possible flanking ditches. Geophysical Survey: Features 2,3,4; Evaluation Trench 1.
47046	Roman Road from Forden to Caersws (Maesyrhandir)	Roman (rejected)	310121	290528	N/A	N/A	Proposed course of Roman road on the higher ground to the S of Newtown. Now discounted: rejected by OS as tortuous and not Roman-like

ID	Name	Period	NGR X	NGR Y	Value	Condition	Description
47047	Roman Road from Forden to Caersws (Eastwards from Fridd Wood towards Glandulais Farm)	Roman (rejected)	308323	290110	N/A	N/A	Proposed course of Roman road, but now discounted
47049	Forden – Caersws (South and southwest of Glanhafren Hall: option 2)	Roman	308337	290353	Medium	Unknown	Predicted line of roman road. In the same area as PRN 11718 but a more direct line down to the Severn. No physical trace of the road identified here
57552	Castell y Dail cairn, excavation c.1817	N/A	309600	289900	N/A	N/A	Excavation of the Bronze Age barrow denoted by PRN 5757
87219	Powell Dyffryn Sawmill	Post Medieval	312700	292100	Low	Destroyed	Sawmill on outskirts of Newtown, operational in the 1960s and 70s.
312140	Wroxeter-Trefeglwys Roman Road	Roman	312140	292027	Medium	Unknown	General record for this stretch of Roman Road. No physical evidence of the road in this locality

Non-statutory sites and finds (NMR)

ID	Name	Period	NGR X	NGR Y	Value	Condition	Description
40155	Glan Dulas	Post Medieval	308788	290126	Low	Intact	Mill Site

41089	Whitefactory (Woollen Mill)	Post Medieval	308840	289990	Low	Intact	Watermill, converted to dwelling
265578	Bod-Forgan	Post Medieval	310840	291294	Low	Intact	This garden is depicted on the Second Edition Ordnance Survey 25-inch map of Montgomeryshire XXXVI, sheet 15 (1902). Its main elements on that map include lawns, parterres, terrace and woodland.
265581	Newtown Cemetery Garden	Post Medieval	311785	291930	Medium	Intact	This garden is depicted on the Second Edition Ordnance Survey 25-inch map of Montgomeryshire XXXVI, sheet 15 (1902). Its main elements on that map include formal features and a lodge
309315	Glanhafren Roman Road	Roman	308330	290350	Medium	Damaged	A c.800m segment of Roman road, represented by discontinuous linear parchmark features. Line of Roman road confirmed as a clear parchmark during aerial reconnaissance in the summer of 2006
400768	Great Brimmon, Cropmark Enclosure to NE	Unknown	311860	291045	Medium	Intact	Cropmarks of the SE & SW sides of a ditch-defined enclosure, c.100m NE-SW by 40-50m, set on the summit of a NE-SW ridge. RCAHMW AP94-CS. Geophysical survey confirmed the presence of multiple ditches and gullies, whilst evaluation revealed a series of rock-cut ditches, gullies, pits and post-holes. Geophysical Survey: Features 54, 55, 57. Evaluation Trenches 11, 12, 13, 14, 15.

Non-statutory sites and finds (Portable Antiquities Scheme)

ID	Name	Period	NGR X	NGR Y	Value	Condition	Description
CPAT 2B 31A0	Findspot	Prehistoric	308610	290110	Low	Moved	Late Neolithic or Bronze Age perforated stone axe hammer, found at Glandulais Farm caravan park

Non-statutory sites and finds (New Sites)

ID	Name	Period	NGR X	NGR Y	Value	Condition	Description
A01	Ford north of Black Hall	Post Medieval	310278	290201	Negligible	Unknown	Ford, marked on OS maps of 1886 and 1891, missing from OS maps of 1903 onwards
A02	Ford north of Great Brimmon	Post Medieval	311465	291037	Negligible	Unknown	Ford, marked on OS maps between 1886 and 1953
A03	Kerry Road turnpike gate	Post Medieval	312072	291317	Negligible	Destroyed	Turnpike gate marked on the Newtown tithe map, absent from 1st edition OS
A04	Cefnaire turnpike gate	Post Medieval	310590	290686	Negligible	Destroyed	Turnpike gate marked on the Newtown tithe map, absent from 1st edition OS
A05	Castell-y-Dail Quarry	Post Medieval	309590	289835	Negligible	Damaged	Area of quarrying to the north of Castell-y-Dail Farm, marked on OS map of 1886. Labelled as 'old quarry' by 1903. Quarry survives as an area of disturbed ground amidst woodland, measuring about 30m in diameter by 10m deep.
A06	Bron-haul house	Post Medieval	310648	290455	Low	Intact	Brick-built house with a slate roof. Some modern alterations. Depicted on the OS 1st edition map of 1886. Walkover Survey Site 14.
A07	Lower Brimmon farmstead	Post Medieval	312361	291239	Low	Intact	Extant farmstead, with a range of associated buildings, although none of these were examined in detail. Depicted on the OS 1st edition map. Walkover Survey Site 15.
A08	Castell-y-dail building	Post Medieval	309595	289855	Low	Damaged	Stone revetment wall observed, 7m N/S by 2m high. This is clearly the E side of a building depicted on the 1st edition. Walkover Survey Site 16.
A09	Castell-y-dail reservoir	Post Medieval	309507	289897	Low	Intact	An extant pond used as the central feature of an environmental area. Examination of the 1st edition OS map shows that it was a small reservoir and formed part of a water supply system with a leat (A10). Walkover Survey Site 17.
A10	Castell-y-dail leat	Post Medieval	309380	289897	Low	Intact	Leat defined by a channel with a bank on its N side, about 3m in overall width. Clearly forms part of a water supply system with reservoir (Walkover Site 17) and is depicted on the 1st edition OS map. Ponded area at NGR 30929,28988. Walkover Survey Site 18.

A11	Castell-y-dail farm buildings	Post Medieval	309570	289910	Low	Intact	Range of farm buildings and structures at Castell-y-dail depicted on 1st edition OS map. This includes the main farm buildings forming a courtyard, which are extant and partially stone built. Also a 'saw pit' to W depicted on the 1st edition OS map, which seems to have been filled in, and a probable pigsty to the S the foundations of which appear to survive. Walkover Survey Site 20.
A12	Fronlas platform	?Medieval	309014	289816	Low	Damaged	Possible platform, internally 15m WNW/ESE by 7m and overall about 25m by 12m. Cut into slope by 3m and built up on the downslope (WNW) by 1.5m. Might be the remains of a quarry. Walkover Survey Site 21.
A13	Glanhafren Hall quarry	?Roman	308366	290315	Low	Intact	Sub-circular quarry hollow, about 20m in diameter and up to 2m deep. Date unknown, but its proximity to the Roman road may be significant. Walkover Survey Site 22.
A14	Hafren View House	Post Medieval	308014	290038	Low	Intact	Inhabited house. Not examined in detail, but depicted on 1st edition OS map. Walkover Survey Site 23.
A15	Geophysical Survey Features 23, 24, 25, 26, 28, 29 and 33.	?Iron Age ?Roman	312456	291688	Medium	Intact	Geophysical survey indicated a probable Iron Age or Romano British enclosure of about 0.22 ha with what appears to be a wide (18m) entrance between slight terminals of two ditches. The enclosure may also have had an annexe, suggested by a probable ditch fill. The enclosure is part of a wider complex that includes two further enclosures. One, defined by a narrow fill is overlaid by, or overlays, the larger example and is in turn overlaid or overlaid by a further and smaller enclosure hinted at by another fill deposit. There are no signs of internal structures evident in the data. Geophysical Survey: Features 23, 24, 25, 26, 28, 29, 33. Evaluation Trench 2 revealed a broad ditch which corresponded with the feature revealed by the geophysical survey. The ditch was up to 2.9m wide and at least 1.5m deep. A post-hole with stone packing was identified 0.5m from the inner edge of the enclosure ditch. The only other feature identified within the interior was a shallow butt-ended gully adjacent to the post-hole and aligned NE-SW. Evaluation Trench 3 revealed two further ditches and four features within the interior of the enclosure: a roughly circular pit or posthole; an adjacent pit or stonehole; a possible gully; and a shallow pit.

A16	Geophysical Survey Feature 34.	Unknown	312431	291416	Low	Intact	Geophysical survey indicated a small knot of probable enclosure ditches although interpretation of these is difficult. They might represent a former pound or perhaps some similar agricultural structure. Geophysical Survey: Feature 34. Evaluation Trenches 6 and 7 revealed two ditches, and a possible pit, but none of these features produced any artefactual evidence. The ditches may be part of a field system which pre-date the present arrangement of fields.
A17	Geophysical Survey Features 36 and 37	N/A	312342	291411	N/A	N/A	Geophysical anomalies suggestive of a possible enclosure. Evaluation suggests that the anomalies are most likely to be caused by differing magnetic responses caused by variations in the depth, thickness and composition of the deposits. Geophysical Survey: Features 36 and 37. Evaluation Trenches 8 and 9.
A18	Geophysical Survey Features 63, 64, 65 and 66.	Unknown	310955	290635	Medium	Unknown	A complex of ditch fills which seem to define parts of enclosures. Two fills might be former field boundaries while a third continues the line of the extant eastern boundary westwards across the site, confirming the former presence of an interestingly-shaped field - possibly another discrete enclosure. Geophysical Survey: Features 63, 64, 65, 66.
A19	Geophysical Survey Feature 68	Neolithic/ Bronze Age	310845	290400	Medium	Intact	Close to the Dolfor road and below Bryneira is a possible enclosure on a low promontory and enclosing approximately 0.14 ha within a scarp or ditch. A possible ditch was identified by evaluation in the central area of the trench and is likely to represent the feature revealed by the geophysical survey. Two sherds of pottery were recovered from the subsoil, the fabrics of which suggest that one may be Neolithic and the other more likely to be Bronze Age in date. A sub-circular pit was also present, from which a sherd of Neolithic pottery was recovered. Geophysical Survey: Feature 68. Evaluation Trench 18
A20	Geophysical Survey: Feature 88	Unknown	309337	289821	Unknown	Unknown	A group of discrete linear anomalies. Not evaluated. Possibly archaeological. Geophysical Survey: Feature 88.
A21	Geophysical Survey: Feature 105	Unknown	308611	290316	Unknown	Unknown	A group of discrete linear anomalies. Not evaluated. Possibly archaeological. Geophysical Survey: Feature 105.
A22	Geophysical Survey: Features 103 and 109	Unknown	308477	290301	Unknown	Unknown	Two features marking a ditch fill that appears to be crossed by the main road west of Newtown and which, if not a former field boundary, might be an ancient feature.

A23	Trial Pit 29	Unknown	309406	289855	Low	Intact	GI Trial Pit 29 contained a small, undated pit, 0.85m long and at least 0.35m wide, with frequent charcoal flecks within the fill
A24	Trial Pit 30	?Modern	309478	289850	Low	Intact	A narrow, shallow gully, 0.25m wide and 50mm deep was identified in GI Trial Pit 30. Although no dating evidence was recovered the nature of the fill suggested that this was likely to be relatively modern
A25	Trial Pit 116	Post Medieval	313407	292249	Low	Intact	A rough stone surface identified in GI Trial Pit 116, pottery from which was of post-medieval date.
A26	Geophysical Survey: Feature	?Post Medieval	310148	289931	Low	Intact	Curvilinear feature. Roman pottery recovered from upper layers, probably introduced by ploughing. Below was a shallow depression, possibly a trackway.
A27	Geophysical Survey: Features 43-48 and 51-53	Unknown	312154	291129	Low	Unknown	A series of linear features that are interpreted as possible field boundaries, ditches and drains. 51-53 may be natural features.
A28	Geophysical Survey: Features 40-42	Unknown	312002	291158	Low	Unknown	Linear features, possibly field structures.

Appendix C.2

Archaeological Walkover Survey

CPAT Report No 1214

Newtown Bypass, Powys
Archaeological walkover survey

THE CLWYD-POWYS ARCHAEOLOGICAL TRUST

Client name:	Alun Griffiths Contracting Ltd
CPAT Project No:	1891
Project Name:	Newtown Bypass
Grid Reference:	SO 1132 9085
County/LPA:	Powys
Report Title:	Newtown Bypass, Powys: Archaeological Walkover Survey
CPAT Report No:	1214
Report status:	Final
Confidential:	Yes

Report Prepared by:	*Position:*
R Hankinson	Project Archaeologist
Completion date:	26 July 2013

Checked by:	*Position:*	*Signed:*
R J Silvester	Head of Field Services	
Checked on:	1 August 2013	

Approved by:	*Position:*	*Signed:*
R J Silvester	Head of Field Services	
Approved on:	1 August 2013	

Bibliographic reference:

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Contents

Summary

A walkover survey was undertaken by the Field Services Section of the Clwyd-Powys Archaeological Trust, on behalf of Alun Griffiths Contracting Ltd, as part of a wider programme of works associated with the proposed construction of the Newtown Bypass in northern Powys. The survey comprised the examination of the proposed route, including any alternative alignments, junctions and links to side roads.

The survey has assessed the nature and survival of the archaeological sites recorded in the cultural heritage baseline assessment of 2009, while identifying a further nine sites which had not been recognised previously.

A range of sites have been identified within the route corridor, most of which are likely to suffer some impact from the construction of the road, varying from partial to total loss. On the basis of present evidence the more significant sites which are likely to be affected are Castell-y-dail Hillfort, a section of the Forden to Caersws Roman road, a potential medieval house platform at Fronlas, an enclosure at Great Brimmon and a possible field system at Lower Brimmon, both of which are currently only known from cropmark evidence. It is expected that further archaeological evidence will be forthcoming from a phase of geophysical survey which will as also help to inform the development of a programme of field evaluation.

1 Introduction

1.1 In June 2013 the Field Services Section of the Clwyd-Powys Archaeological Trust (CPAT) was engaged by Alun Griffiths Contracting Ltd to undertake a programme of archaeological investigations as part of the Key Stage 3 investigations along the route of the proposed Newtown Bypass, between SO 1295 9215 and SO 0790 9015. The work was detailed in a written scheme of investigation prepared by CPAT (WSI 1283). This report presents the results from the field survey element of those works and will be followed by further stages, as detailed in the WSI.

1.2 A cultural heritage baseline assessment had previously been undertaken for the route in 2009 as part of the Key Stage 2 environmental impact assessment, which identified a range of archaeological sites within the locality (Pearson 2009).

1.3 The walkover survey was conducted on 22 and 24 July 2013 and this report was prepared immediately thereafter.

2 Methodology

2.1 The survey was conducted using normal fieldwalking techniques to provide a thorough examination of a corridor extending 75m on either side of the centreline, together with associated road junctions, side roads and an alternative junction with the Dolfor road. It was based on the walking of transects with a separation of around 50m, although this was modified in areas of poor visibility to ensure thorough coverage out. Further modifications to the transects, though consistent with the same overall aims, were also required to fit in with the local field pattern.

2.2 Most of the route crosses farmed pasture land and was readily accessible, but there were a number of areas where access was not possible, which are depicted in Fig. 2. These included localities with very steep slopes and dense vegetation, fields with cereal or root crops, and factory units in adjoining industrial estates. An attempt was made to assess the ground as closely as possible within these constraints.

2.3 All of the sites recorded within the cultural heritage assessment (Pearson 2009) were visited to determine their current state and preservation and the route was also searched for physical remains of any sites which had not been identified. All sites were recorded as appropriate and are depicted on Fig. 2.

3 Results

3.1 The sites recorded within the study area by the cultural heritage assessment (Pearson 2009) and those which have been revealed by the walkover survey are presented in Table 1, below. They are also listed in Appendix 1, where a brief description is included for reference purposes.

3.2 In total, some 23 sites have been identified in the study area, comprising 14 which were recorded by the cultural heritage assessment and a further nine which were revealed by the walkover survey. Those of greater significance are the Forden - Caersws Roman road (Site 1), the Castell-y-dail hillfort (Site 8, below), and a cropmark enclosure to the north-east of Great Brimmon Farm (Site 10). There are also two designated sites within the corridor, both of which are listed as Grade II; Castell-y-dail Farmhouse (Site 6) and Glanhafren Hall gateway (Site 7).

Fig. 1 Castell-y-dail hillfort, this extends into the forestry on the right (CPAT 3663-0008)

3.3 Some revisions to the existing site information, both descriptive and locational, were necessary following the visits, and these have been incorporated into Table 1 and Appendix 1. In addition to the information gathered by the visits to known sites and the recording of unknown sites, the opportunity was also taken to assess the perceived values of all the sites. In a few cases this has led to the value of the known sites being modified to reflect to fit more readily with their nature and survival.

3.4 Where possible, the extent of each site has been mapped to assist the mitigation process, although it should be stated that in some cases the mapping is necessarily approximate. Furthermore, some sites do not have physical traces which can be observed on the ground.

Table 1. Archaeological sites within the study area

No	CHA No	Name	Type	Period	NGR	Value
1	47,040	Forden - Caersws Roman road	Road	Roman	SO1297792128	Medium
2	17985	Kerry earthworks	Quarry ?	19th century	SO121911	Negligible
3	4650	Lower Brimmon Cropmark	Field system	Prehistoric ?	SO12199125	Low
4	1816	Kerry Old Turnpike	Turnpike Road	Post Medieval	SO12009132	Low
5	3724	Maes y Groes	Cross ?	Unknown	SO092899	Negligible
6	8206	Castell-y-dail Farmhouse	House	Medieval	SO0906289891	High
7	17328	Glanhafren Hall	Gateway	Post	SO0835390254	Medium

		gateway		Medieval		
8	969	Castell-y-dail Hillfort	Hillfort	Iron Age	SO09438971	High
9	26685/ 41089	White Factory Mill	Mill	Post Medieval	SO08848999	Low
10	400768	Great Brimmon, Cropmark Enclosure	Enclosure	Prehistoric	SO11839103	Medium
11	A01	Ford north of Black Hall	Ford	Post Medieval	SO1027890201	Negligible
12	A03	Kerry Road turnpike gate	Turnpike gate	Post Medieval	SO1207291317	Negligible
13	A05	Castell-y-dail quarry	Quarry	Post Medieval	SO0959089835	Negligible
14		Bron-haul house	House	Post Medieval	SO1064890455	Low
15		Lower Brimmon farmstead	Farmstead	Post Medieval	SO1236191239	Low
16		Castell-y-dail building	Outbuilding	Post Medieval	SO0959589855	Low
17		Castell-y-dail reservoir	Reservoir	Post Medieval	SO0950789897	Negligible
18		Castell-y-dail leat	Leat	Post Medieval	SO0938089897	Low
19	5757	Castell-y-dail cairn	Cairn	Bronze Age	SO096899	Negligible
20		Castell-y-dail farm buildings	Building	Post Medieval	SO0957089910	Low
21		Fronlas platform	Platform ?	Medieval ?	SO0901489816	Medium
22		Glanhafren Hall quarry	Quarry	Roman ?	SO0836690315	Medium ?
23		Hafren View House	House	Post Medieval	SO0801490038	Low

3.5 The survey has identified three earthwork sites together with two sites which are only known from cropmark evidence where field evaluation may be appropriate and these are listed in Table 2.

Table 2. Archaeological sites which may require field evaluation

No	CHA No	Name	Type	Period	NGR	Value
1	47,040	Forden - Caersws Roman road	Road	Roman	SO1297792128	Medium
3	4650	Lower Brimmon Cropmark	Field system	Prehistoric ?	SO12199125	Low
8	969	Castell y Dail Hillfort	Hillfort	Iron Age	SO09438971	Medium
10	400768	Great Brimmon, Cropmark Enclosure	Enclosure	Prehistoric	SO11839103	Medium
21		Fronlas platform	Platform ?	Medieval ?	SO0901489816	Medium

4 Conclusions

4.1 The survey has assessed the nature and survival of the archaeological sites recorded in the cultural heritage assessment, while identifying a further nine sites which had not been recorded previously. It should be noted that although the original baseline survey will be reviewed as part of the overall Key Stage 3 assessment, this had not been completed at the time of the field survey.

4.2 A range of sites have been identified within the route corridor, most of which are likely to suffer some impact from the construction of the road, varying from partial to total loss. The significance of each site has been assessed in the light of evidence from the field survey.

4.3 On the basis of present evidence the more significant sites which are likely to be affected include a section of the Forden to Caersws Roman road (Site 1), Castell-y-dail Hillfort (Site 8), a potential medieval house platform at Fronlas (Site 21), together with a enclosure at Great Brimmon (Site 10) and a possible field system at Lower Brimmon (Site 3), both of which are currently only known from cropmark evidence. It is expected that further archaeological evidence will also be forthcoming from a phase of geophysical survey which will assist in the development of programme of field evaluation.

5 References

Pearson, A., 2009. Cultural Heritage Baseline, in *A483/A489 Newtown Study. DMRB Stage 2 Environmental Impact Assessment. Volume 1a: Report.* Parkers Brinckerhoff Report HHC 91371A/27a, Section 2.3.

APPENDIX 1

GAZETTEER OF ARCHAEOLOGICAL SITES

No ID (CHA) Name Type Period NGR
Description

1 47,040 Forden - Caersws Roman road Road Roman SO1297792128
Roman road alignment (Cultural Heritage Assessment). The alignment is visible as a change in slope with a linear parchmark highlighting its northern extent.

2 17985 Kerry earthworks Quarry ? 19th century SO121911
Area of quarry remains (Cultural Heritage Assessment). No visible trace of the site; the original reference is probably to natural features.

3 4650 Lower Brimmon Cropmark Field system Prehistoric ? SO12199125
Y-shaped cropmark (Cultural Heritage Assessment). The cropmark clearly should be 50m south of original NGR, where there is a Y-shaped depression. This is probably a drainage feature of natural or artificial origin.

4 1816 Kerry Old Turnpike Turnpike Road Post Medieval SO12009132
Turnpike road the course now followed by a modern lane (Cultural Heritage Assessment). The main A489 road from Newtown to Kerry follows the route; this section is terraced into the steep north-facing slope.

5 3724 Maes y Groes Cross ? Unknown SO092899
Place name suggestive of a cross. May refer to paths crossing and thus not an antiquity (Cultural Heritage Assessment). No visible evidence.

6 8206 Castell-y-dail Farmhouse House Medieval SO0906289891
Cruck-framed farmhouse with a major extension added at the start of the 19th century (Cultural Heritage Assessment). Outer skin largely of brick. Listed building.

7 17328 Glanhafren Hall gateway Gateway Post Medieval SO0835390254
Cast iron gateway and railings, set on a stone plinth, the main gates of which are now missing (Cultural Heritage Assessment). Listed building.

8 969 Castell y Dail Hillfort Hillfort Iron Age SO09438971
Univallate oblong enclosure some 150 by 46m internally. Rampart remaining as a single scarp with probable inturned entrance at W end (Cultural Heritage Assessment). Well preserved in both pasture and woodland. The scarp has a terrace below from 2m to 4m wide which parching suggests is the site of a ditch.

9 26685/41089 White Factory Mill Mill Post Medieval SO08848999
Former woollen mill, now converted into houses (Cultural Heritage Assessment). Location given in the assessment is for White Factory Cottages, but the mill is almost certainly the building adjacent to the river at SO 08760 89865.

10 400768 Great Brimmon, Cropmark Enclosure Prehistoric SO11839103
Cropmarks of the SE and SW sides of a ditch-defined enclosure, measuring c.100m NE/SW by 40-50m, set on the summit of a NE/SW ridge (Cultural Heritage Assessment). Hill summit seems to have been deliberately levelled. The owner noted that the defences are visible as cropmarks (in grass) in dry summers. Hay recently taken so not convincingly visible at the time of the field survey.

11 A01 Ford north of Black Hall Ford Post Medieval SO1027890201
Ford marked on 1886 and 1891 OS maps. Missing from OS maps of 1903 onwards (Cultural Heritage Assessment). Not visible.

12 A03 Kerry Road turnpike gate Turnpike gate Post Medieval SO1207291317
Turnpike gate marked on the Newtown tithe map, absent from 1st edition OS (Cultural Heritage Assessment). Site does appear on the 1st edition OS, but is no longer extant.

13 A05 Castell-y-dail quarry Quarry Post Medieval SO0959089835
Area of quarrying to S of Castell-y-dail farm, marked on 1886 OS map, disused by 1903 (Cultural Heritage Assessment). Stone quarry, measuring about 30m in diameter by 10m deep.

14 *No ID* Bron-haul house House Post Medieval SO1064890455
Brick-built house with a slate roof. Some modern alterations. Depicted on the OS 1st edition map of 1886.

15 *No ID* Lower Brimmon farmstead Farmstead Post Medieval SO1236191239
Extant farmstead, with a range of associated buildings, although none of these were examined in detail. Depicted on the OS 1st edition map.

16 *No ID* Castell-y-dail building Outbuilding Post Medieval SO0959589855
Stone revetment wall observed, 7m N/S by 2m high. This is clearly the E side of a building depicted on the 1st edition.

17 *No ID* Castell-y-dail reservoir Reservoir Post Medieval SO0950789897
An extant pond used as the central feature of an environmental area. Examination of the 1st edition OS map shows that it was a small reservoir and formed part of a water supply system with a leat (Site 18).

18 *No ID* Castell-y-dail leat Leat Post Medieval SO0938089897
Leat defined by a channel with a bank on its N side, about 3m in overall width. Clearly forms part of a water supply system with reservoir (Site 17) and is depicted on the 1st edition OS map. Ponded area at SO 0929 8988.

19 5757 Castell-y-dail cairn Cairn Bronze Age SO096899
Undescribed cairn on Castell-y-dail farm, removed about 1817. The centre containing an urn inverted over a cremation (Cultural Heritage Assessment). No visible evidence.

20 *No ID* Castell-y-dail farm buildings Building Post Medieval SO0957089910
Range of farm buildings and structures at Castell-y-dail depicted on 1st edition OS map. This includes the main farm buildings forming a courtyard, which are extant and partially stone built. Also a 'sw pit' to W depicted on the 1st edition OS map, which seems to have been filled in, and a probable pigsty to the S the foundations of which appear to survive.

21 *No ID* Fronlas platform Platform ? Medieval ? SO0901489816
Possible platform, internally 15m WNW/ESE by 7m and overall about 25m by 12m. Cut into slope by 3m and built up on the downslope (WNW) by 1.5m. Might be the remains of a quarry.

22 *No ID* Glanhafren Hall quarry Quarry Roman ? SO0836690315
Sub-circular quarry hollow, about 20m in diameter and up to 2m deep. Date unknown, but its proximity to the Roman road may be significant.

23 *No ID* Hafren View House House Post Medieval SO0801490038
Inhabited house. Not examined in detail, but depicted on 1st edition OS map.

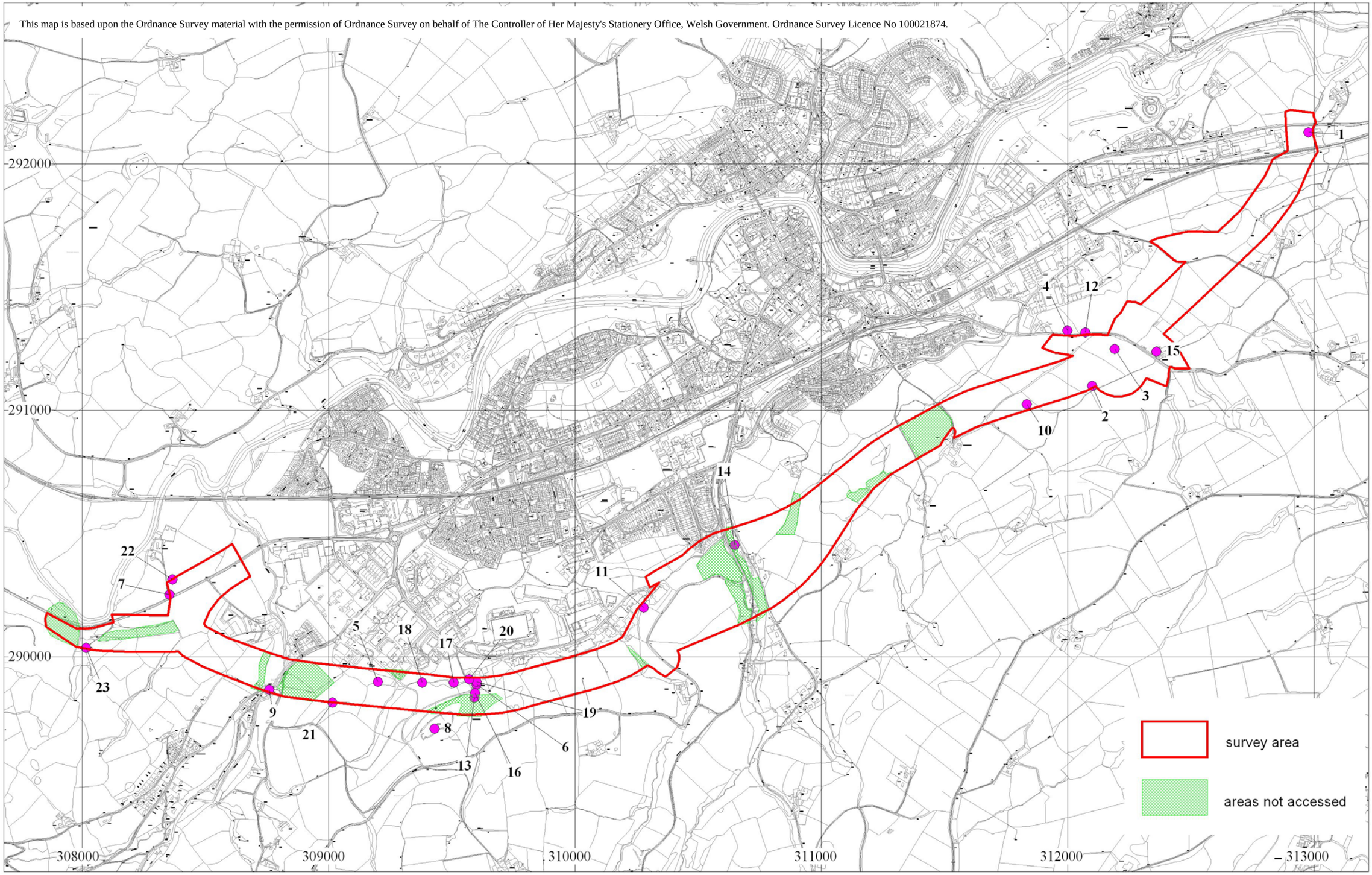
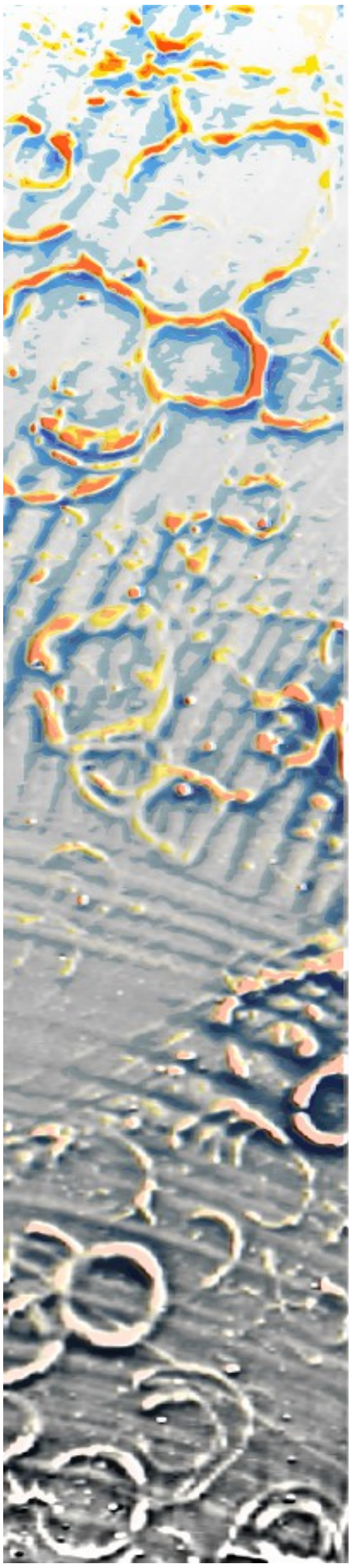


Fig. 2 Overall plan of the route showing the archaeological sites

Appendix C.3

Geophysics Report



Newtown Bypass, Powys

Geophysical Survey Report

Produced for Clwyd-Powys Archaeological Trust

Project code NBP131

V1.1 updated 3rd October 2014

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Non-Technical Summary

A magnetic survey was commissioned by the Clwyd-Powys Archaeological Trust to prospect the route of the proposed Newtown bypass for buried structures of archaeological interest. Survey was intended to provide 100% coverage of the route and useful coverage was achieved throughout much of the route, except where steep slopes prevented survey or there were obstructions, e.g. crops, woodland or buildings.

Overall the quantity of buried structures of potential archaeological interest is fairly low, although given this is a linear sample it does not inform upon the likely quantity of such structures within the wider landscape south of Newtown. Some discrete clusters of structures have been found (disregarding the usual former field boundaries, cultivation features and drains), including a multiphase complex of prehistoric enclosures and one or two possible fortified knolls or headlands.

Digital Data

Item	Sent to	Sent date
CAD – Vector Elements	Nigel Jones	7th October 2013

Audit

Version	Author	Checked	Date
Interim			
Draft Final	MJR	ACKR	7th October 2013
Final			
Revision (includes later survey)	RF, ACKR	ACKR	3rd October 2014
OASIS			

Table of Contents

1 Introduction

A magnetic survey was commissioned by the Clwyd-Powys Archaeological Trust to prospect the route of the proposed Newtown bypass for buried structures of archaeological interest. This scheme runs from just east of the Dyffryn Enterprise Park westwards through Great Brimmon and Bryneira farms before crossing the Dolfor road. From there it passes south of the Mochdre Industrial Estate before connecting with Llanidloes Road south of Glanhafren Hall.

Much of the scheme has benefited from hedge to hedge magnetic survey of the entire corridor but there are some gaps where there are crops or other obstructions. Some fields, or parts of fields, have proved too steep to safely survey but in these cases it is debatable whether they could host buried structures.

1.1 Location

Country	Wales
County	Powys
Nearest Settlement	Newtown / Y Drenewydd
Central Co-ordinates	311600, 291200

Survey has been attempted in 79 fields along approximately 6.4km of corridor with an average width of about 150m. Approximately 72 hectares of survey was successfully undertaken.

1.2 Constraints & variations

As is inevitable with corridor surveys some fields were not or were only partly accessible for survey and these are listed below:

Field	Coverage	Reason	Field	Coverage	Reason
6-7	none	Ownership/access issue	10	none	Ownership/access issue
15/18	none	Small, survey not practical	19	none	Steep slope & bull
23	none	Small, survey not practical	24-30	most	Steep areas excluded
33/35	most	Steep areas excluded	37-38	most	Steep areas excluded
39	part	Overgrown, steep areas	40	most	Steep areas excluded
41-42	parts	Steep areas excluded	44-45	most	Steep areas excluded
46-47	part	Steep areas excluded	48-50	none	Small & steep, survey impractical
51-53	most	Steep areas excluded	54-56	none	Steep slopes
57-58	none	Crop	60/62	most	Steep areas excluded
61	none	Small, survey not practical	63/66	none	Caravan park
65	part	Caravan park	67	none	Small, survey not practical
68	most	Steep area excluded	70	none	Small, survey not practical
72	none	Small & steep, survey impractical	73	none	Small & steep, survey impractical
74	none	Access issue (agricultural)			

2 Context

2.1 Archaeology

There is little known about the archaeology of the area south of Newtown apart from what is listed in the HER and this can be summarised as:

- a Roman road east of the Dyffryn Enterprise Park
- a cropmark enclosure at Great Brimmon farm
- a scatter of 25 or so findspots and non-statutory sites mostly outside the survey area

2.2 Environment

Superficial 1: 50000 BGS	Various alluvial, glacial fluvial and till deposits and occasionally none
Bedrock 1:50000 BGS	Dingle Mudstone Member – Siltstone (DIM), higher areas and southwest end of route and Nantglyn Flags Formation – Mudstone (NGF), lower areas
Topography	Variable, locally very steeply sloping valley sides, some valley bottoms
Hydrology	Variable, mostly free draining on slopes
Current Land Use	Mostly pasture, some arable
Historic Land Use	Mixed agricultural
Vegetation Cover	Mostly grazed grassland
Sources of Interference	Various

The surface geological context is summarised as DWG 42 of this report and comprises about thirty areas where different types of superficial or bedrock geology form the present surface. These can be grouped into the two mudstone bedrocks, different sorts of alluvium and post glacial deposits. Generally speaking the alluvial materials are a capping of the glacial and their location within the corridor is limited to particular locations and especially passing northwards beneath the town. Bedrock is only evident in certain locations within the corridor and generally where the till does not predominate.

The data is based upon the BGS 1:50,000 mapping and hence contacts are not accurately mapped; in some cases these have become apparent in the magnetic data and further work could probably be done to refine the model. It is also likely that even where bedrock geology has been mapped as the surface material there could still be a thin capping of glacial till and similar materials at scales of interest to archaeologists. To what extent the character of magnetic anomalies from features of archaeological interest has been directly influenced by the bedrock is therefore open to discussion.

The impact upon the magnetic data of these geological contexts is potentially complex. There are three contexts of most interest; till, alluvium and the Silurian bedrock. The latter is predominantly mudstone and unless steeply dipping relative to the surface would be expected to contribute a fairly uniform background magnetic texture. However, soils derived from it tend to support the production of strong magnetic anomalies associated with buried ditch fills.

Alluvium will affect the magnetic field depending upon it composition and to some extent depth. Clay rich alluvium tends to result in a low susceptibility soil, creating a uniform magnetic background and low anomaly strengths. In contrast, the sand and gravel alluvial fan deposits also present on this route are likely to result in soils that are naturally more magnetic than the alluvial clays.

Glacial tills are variably magnetic because this depends upon the material within the till and therefore the soil chemistry. Some tills are only weakly magnetic, others more strongly so. Some contain erratics from miles away, e.g. north Wales, that might be strongly magnetic. In these cases the background texture is overlaid by a scatter of strong discrete dipolar anomalies similar to debris. Tills are also susceptible to hosting localised magnetic variations linked with seasonal waterlogging, former pools and channels and also reworking. They can be clay-rich or sandy and again this will affect soils derived from them.

3 Methodology

3.1 Survey

3.1.1 Technical equipment: Caesium magnetometer survey

Over all fields excluding field no. 40, 45, & 75.

Measured variable	Magnetic flux density / nT
Instrument	Array of Geometrics G858 Magmapper caesium magnetometers
Configuration	Non-gradiometric transverse array (4 sensors, ATV towed)
Sensitivity	0.03 nT @ 10 Hz (manufacturer's specification)
QA Procedure	Continuous observation
Spatial resolution	1.0m between lines, 0.3m mean along line interval

3.1.2 Technical equipment: Fluxgate magnetometer survey

Survey over field no. 40, 45 & 75.

Measured variable	Vertical component of vertical magnetic field component nT/m
Instrument	Bartington Grad 601-2
Configuration	Carried dual gradiometer
Sensitivity	0.1 nT
QA Procedure	Continuous observation
Spatial resolution	1.0m between lines, 0.25m along line interval

3.1.3 Monitoring & quality assessment

For the caesium magnetometer survey, the system continuously display all incoming data as well as line speed and spatial data resolution per acquisition channel during survey. Rest mode system noise is therefore easy to inspect simply by pausing during survey, and the continuous display makes monitoring for quality intrinsic to the process of undertaking a survey. Rest mode test results (static test) are available from the system.

During fluxgate magnetometer survey, quality monitoring is by continuous observation during data collection and examination of the data after download.

A suitably qualified Project Geophysicist was in the field at all times and fieldwork and technical considerations were guided by the Senior Geophysicist.

3.2 Data processing

All data processing is minimised and limited to what is essential for the class of data being collected, e.g. reduction of orientation effects, suppression of single point defects (drop-outs or spikes) etc. The processing stream for this data is as follows:

3.2.1 Procedure: Caesium magnetometer survey

Process	Software	Parameters
Measurement & GNSS receiver data alignment	Proprietary	
Temporal reduction, regional field suppression	Proprietary	0.3s lowpass then 5.0s highpass filters
Gridding	Surfer	Kriging, 0.25m x 0.25m
Smoothing	Surfer	Gaussian lowpass 3x3 data
Imaging and presentation	Manifold GIS	

3.2.2 Procedure: Fluxgate magnetometer survey

Process	Software	Parameters
Heading correction	Proprietary	Zero median line
Line bandpass	Proprietary	FFT 0.25m - 30m
Line smoothing	Proprietary	3 point
Cross line interpretation	Surfer	0.25m x 0.25m cubic spline
Imaging and presentation	Manifold GIS	

The initial processing uses proprietary software developed in conjunction with the multisensor acquisition system. Gridded data is imported as data surfaces (not images) into Manifold GIS for final imaging and detailed analysis. Specialist analysis is undertaken using proprietary software.

General information on processes commonly applied to data can be found in standard text books and also in the 2008 English Heritage Guidelines "Geophysical Survey in Archaeological Field Evaluation" at http://www.helm.org.uk/upload/pdf/Geophysical_LoRes.pdf.

ArchaeoPhysica uses more advanced processing for magnetic data using potential field techniques standard to near-surface geophysics. Details of these can be found in Blakely, 1996, "Potential Theory in Gravity and Magnetic Applications", Cambridge University Press. All archived data includes process metadata.

3.3 Interpretation framework

3.3.1 Resources

Numerous sources are used in the interpretive process which takes into account shallow geological conditions, past and present land use, drainage, weather before and during survey, topography and any previous knowledge about the site and the surrounding area. Old Ordnance Survey mapping is consulted and older sources if available.

3.3.2 Magnetic

Interpretative logic is based on structural class and examples are given below. For example a linear field or gradient enhancement defining an enclosed or semi-enclosed shape is likely to be a ditch fill, if there is no evidence for accumulation of susceptible material against a non-magnetic structure. Weakly dipolar discrete anomalies of small size are likely to have shallow non-ferrous sources and are therefore likely to be pits. Larger ones of the same class could also be pits or locally-deeper topsoil but if strongly magnetic could also be hearths. Strongly dipolar discrete anomalies are in all cases likely to be ferrous or similarly magnetic debris, although small repeatedly heated and in-situ hearths can produce similar anomalies. Reduced field strength (or gradient) linear anomalies without pronounced dipolar form are likely to be caused by relatively low susceptibility materials, e.g. masonry walls, stony banks or stony or sandy ditch fills.

3.4 Standards & guidance

All work was conducted in accordance with the following standards and guidance:

- David et al, "Geophysical Survey in Archaeological Field Evaluation", English Heritage, 2008.
- "Standard and Guidance for Archaeological Field Evaluation", Institute for Archaeologists, 2008.

In addition, all work is undertaken in accordance with the high professional standards and technical competence expected by the Geological Society of London and the European Association of Geoscientists and Engineers.

All personnel are experienced surveyors trained to use the equipment in accordance with the manufacturer's expectations. All aspects of the work are monitored and directed by fully qualified professional geophysicists.

4 Catalogue

Label	Field	Anomaly Type	Anomaly confidence	Feature Type	Description	Easting	Northing
1	2	Strong linear enhanced dipolar	High	Service? / fill?	A very strong magnetic anomaly typical of a buried (non-jointed or rolled) service	312920.3	292144.9
2	2	Linear enhanced	Medium	Fill - Ditch?	Possible ditch fill, however, much of the adjacent area is obscured and the interpretation is tentative	312922.6	292125.1
3	2	Area enhanced	High	Fill	This runs parallel and adjacent to the southern edge of the supposed Roman road	312923.4	292113.6
4	2	Linear enhanced	High	Fill - Ditch	See [2]; this is parallel to it and about 5m to the south. Could it be another road alignment?	312957.6	292106.5
5	2	Strong dipolar (sample)	High	Ferrous	Typical of anomalies often around field margins and caused by wire fences etc.	312953.6	292068.0
6	4	Linear enhanced dipolar	Medium	Fill - Ditch?	Possibly related to [7] although not the same feature and potentially a former field boundary	312780.6	291939.8
7	4	Linear enhanced dipolar	High	Fill - Ditch?	Possible narrow ditch fill, crossing the present southern field boundary and perhaps of different date, or a drain?	312839.3	291965.6
8	5	Linear enhanced dipolar	High	Fill - Ditch?	See [7] which is a continuation	312856.4	291927.1
9	5	Area enhanced	Medium	Fill - Ditch?	With [10] and [13] this might define former enclosures with this being a perpendicular division?	312790.1	291831.0
10	5	Area enhanced	Medium	Fill - Ditch?	See [9]	312841.7	291842.5
11	5	Linear enhanced	Low	Fill?	Drain?	312877.8	291876.7
12	5	Linear enhanced	Low	Fill?	Drain?	312870.3	291864.8
13	5	Area enhanced	Medium	Fill - Ditch?	See [10] which is presumably the same feature	312765.9	291794.5

Label	Field	Anomaly Type	Anomaly confidence	Feature Type	Description	Easting	Northing
14	9	Linear enhanced dipolar	High	Fill - Ditch	Former land division or drain? It crosses the southeast field boundary as [16] and appears to continue further as [13] and [10]	312648.4	291735.0
15	9	Linear enhanced dipolar	High	Fill - Ditch	See [14]	312680.9	291749.7
16	8	Linear enhanced dipolar	High	Fill - Ditch	See [14] and [15]	312727.8	291772.7
17	8	Linear reduced field	High	Structure - Drain?	Drain?	312715.5	291742.9
18	8	Linear enhanced	High	Fill / natural - Ditch?		312722.6	291721.9
19	8	Area reduced	Medium	Structure? / fill?	Possibly a former alignment of the field boundary?	312733.7	291718.3
20	8	Variable strong dipolar enhanced	High	Natural	Possibly the edge of the till deposits?	312694.4	291683.8
21	8	Area enhanced dipolar	High	Natural / fill - Drainage?	Former channel?	312672.2	291702.0
22	8	Variable strong dipolar enhanced	High	Natural	See [20]	312627.0	291648.5
23	8	Linear dipolar enhanced	High	Fill - Ditch	Part of an enclosure with a fill approximately 1m wide	312419.4	291650.8
24	8	Weak linear dipolar enhanced	Medium	Fill - Ditch	A very narrow (<1m) ditch fill seems to define an enclosure with the same anomaly [29] overlapping or overlapped by larger ditch fill [28]	312418.6	291667.9
25	8	Linear dipolar enhanced	High	Fill - Ditch?	Perhaps extends the northwest part of [26]?	312410.3	291688.1
26	8	Linear dipolar enhanced	High	Fill - Ditch	This defines the northern part of a small likely prehistoric enclosure and has a fill about 2m wide. See also [28]	312431.3	291700.8
27	8	Linear dipolar enhanced	High	Fill - Ditch?	Crosses or is crossed by [26] and [28] and perhaps a former field boundary?	312457.9	291687.4

Label	Field	Anomaly Type	Anomaly confidence	Feature Type	Description	Easting	Northing
28	8	Linear dipolar enhanced	High	Fill - Ditch	This defines the southern part of a small likely prehistoric enclosure and has a fill about 2.5m wide. See also [26]	312488.9	291697.3
29	8	Weak linear dipolar enhanced	Medium	Fill - Ditch	See [24]	312463.5	291650.4
30	8	Linear dipolar reduced field	High	Fill / structure - Drain?	Uncertain interpretation	312478.3	291690.1
31	11	Area enhanced field	High	Fill? - Natural / ditch?	This might be natural, e.g. [22] nearby, but the plan form involves perpendicular elements and hence artificial structure might (also) be present?	312585.3	291609.4
32	11	Area enhanced field	High	Fill? - Natural / ditch?	See [31]	312577.0	291601.0
33	11	Linear enhanced field	Medium	Fill - Natural?	Former channel?	312559.5	291563.3
34	14	Linear dipolar enhanced field (group)	Medium	Fills - Ditches	A series of narrow (<1m) ditches appear to define a dense set of enclosures within an area just 20m x 25m	312429.7	291421.6
35	14	Linear reduced field	Low	Structure? - Drain?		312442.4	291385.5
36	13	Area enhanced field	High	Fill - Ditch?	A likely fill perhaps 3m wide within a ditch or bench cut round the summit of a low valley bottom knoll. See also [37] which is a continuation of the same anomaly in the next field	312368.6	291420.9
37	16	Area enhanced field	High	Fill - Ditch?	See [36]	312325.3	291374.8
38	16	Linear dipolar enhanced field	Medium	Fill - Ditch	Mostly hidden by the anomaly from a parallel pipeline, but presumably a former field boundary?	312269.8	291412.1
39	20	Area enhanced field (sample)	Medium	Fill - Natural? / ditch?	With [44] there may be a ditch fill and a natural feature here; the interpretation is uncertain	312141.0	291218.6

Label	Field	Anomaly Type	Anomaly confidence	Feature Type	Description	Easting	Northing
40	21	Area enhanced field	High	Fill - Natural / pit?	This seems most likely to be natural; the character is of a fill perhaps within a hollow in the mudstone. Other examples exist nearby	311996.1	291142.8
41	21	Linear reduced field (sample)	Medium	Structure?	Drain?	311996.1	291132.1
42	21	Linear various	Medium	Fills and structure?	Three parallel anomalies seem to define something about 40m long by about 8m wide with a reduced field structure to each side of a possible fill	312004.9	291168.6
43	21	Area enhanced field	Medium	Fill	Could this be a former field boundary? See also [44]	312088.2	291139.7
44	21	Area enhanced field	Low	Fill	Possible ditch or channel fill, parallel to [43]. Again this could be a former boundary	312175.1	291166.7
45	22	Linear enhanced field	Medium	Fill - Ditch?	A short length of possible ditch fill without obvious function although it probably continues northeast as [46]	312126.7	291065.1
46	22	Linear enhanced field	Low	Fill? - Ditch?	See [45]	312171.2	291097.2
47	22	Linear enhanced field	Medium	Fill? - Ditch?		312278.7	291117.4
48	22	Linear enhanced field (group)	Medium	Fills - Ditches?	A series of linear fills are probably drains although their approximate 6-7m spacing is similar to ridge and furrow	312331.9	291102.4
49	22	Strong enhanced dipolar (group)	High	Structures - Ferrous	Possibly large buried objects?	312374.8	291151.2
50	24	Strong area enhanced dipolar	High	Fill - Natural?	This is probably the transition between the alluvial deposits to the north and the till to the south and presumably once had topographic expression as possible former field boundary ditches [43] and [44] terminate at it	311968.4	291014.3
51	21	Strong area enhanced dipolar	High	Fill - Natural?	See [50]	312098.1	291094.0

Label	Field	Anomaly Type	Anomaly confidence	Feature Type	Description	Easting	Northing
52	21	Strong area enhanced dipolar	High	Fill - Natural?	See [50]	312164.8	291138.1
53	20	Strong area enhanced dipolar	High	Fill - Natural?	See [50]	312260.1	291176.2
54	24	Linear dipolar enhanced field	High	Fill - Ditch	One of series (with [55] and [57]) of short lengths of ditch fill that terminate in this field and are also apparent as cropmarks (Jones, pers. comm.). Why they end is not certain but might reflect a change from alluvium to the Dingle mudstone, however, it might also be that they are clearest over the mudstone, depending upon where exactly the contact lies	311873.1	291038.9
55	24	Linear dipolar enhanced field (group)	High	Fills - Ditches	See [54]	311887.8	291039.3
56	24	Linear enhanced field	Medium	Fills - Ditches?	The pair of fills are parallel and approximately 8m apart. They could be ditch fills or might be drains	311891.8	291083.7
57	24	Linear dipolar enhanced field	Medium	Fill - Ditch	See [54]	311910.4	291038.9
58	28	Texture	N/A	Natural	The alluvium here (deep fills, not alluvial fans) shows a mottled contact with the till which is turn gives way to the Nantglyn Flags immediately to the east. There is no appreciable magnetic difference between the alluvial deposits	311284.1	290882.9
59	28	Texture	N/A	Natural	Till deposits	311296.1	290788.8

Label	Field	Anomaly Type	Anomaly confidence	Feature Type	Description	Easting	Northing
60	28	Area enhanced field	High	Fill	A fill approximately 7-8m wide extends through the survey for about 170m, turning southeast with the contours at the southern end. It might be a former track, perhaps a filled-in holloway? A narrower fill extending northwards from a bend might represent braiding or a drain; it ends at the alluvium {58]	311325.4	290882.5
61	27	Strong variable dipolar	High	Debris	A spread of debris seems to occupy an area of this field	311431.4	290991.6
62	28	Linear reduced dipolar field	Low	Structure / fill?	Drain?	311371.5	290783.3
63	31	Linear enhanced dipolar field	High	Fill - Ditch	Enclosure ditch, approx. 1m wide. It seems to end at or next to [64]	310950.4	290632.9
64	31	Linear enhanced dipolar field	High	Fill - Ditch	See [63] which is perpendicular to this	310957.9	290620.2
65	31	Linear enhanced dipolar field	High	Fill? - Ditch?	Might be natural and is about 2.5m wide	310979.3	290620.2
66	31	Linear enhanced dipolar field	High	Fill - Ditch	This fill continues southwest then west the present field boundary so is presumably a former section of that	310977.8	290597.1
67	33	Area enhanced field	Low	Natural / fill?	Uncertain, could be natural	310716.6	290504.7
68	34	Linear enhanced field (group)	High	Fill - Ditch?	Possible fill up to 2.5m wide of a bench or ditch encircling the top of a low promontory and therefore perhaps an enclosure?	310824.2	290384.4
69	34	Linear enhanced dipolar field	Low	Fill?	Uncertain	310824.6	290368.5
70	35	Linear enhanced field	Medium	Fill - Ditch?	An irregular anomaly like a ditch fill, possibly related to [71] nearby? It might be natural and / or a drainage feature	310960.3	290438.4

Label	Field	Anomaly Type	Anomaly confidence	Feature Type	Description	Easting	Northing
71	35	Linear enhanced dipolar field	Medium	Fill - Ditch? / natural?	A broad band of elevated magnetic field, aligned with [72] and defining what might be a fill up to 4m wide. This could be a former track although it could also be natural	311002.0	290436.8
72	35	Linear enhanced dipolar field	Medium	Fill - Ditch? / natural?	See [71]	310942.4	290328.8
73	35	Linear enhanced dipolar field	Low	Fill - Ditch?		310889.3	290341.9
74	35	Linear enhanced dipolar field (group)	Medium	Fills - Ditches?	A pair of parallel linear anomalies approximately 5m apart. Could these once have bounded a track, but they do not appear to continue to the northwest into the next field. There are changes in surface geology in this area so the relative visibility of anomalies may reflect this	310888.5	290329.6
75	36	Linear enhanced field (group)	Medium	Fills	These could be various things from ditch fills to drains or cultivation furrows (there are possible further examples to the south)	310796.8	290305.8
76	37	Linear reduced field (group)	Low	Natural?	There is a weak parallel banding across this field which might suggest that this anomaly relates in some way to the underlying mudstone. In this same general location there is an expected contact between this and alluvial fan deposits	310559.1	290421.7
77	37	Linear reduced dipolar field (group)	Medium	Fill / structure	See [76], however, this would be more typical of a structure (or two) closer to the surface and might therefore be a drain or similar feature	310567.4	290410.6
78	37	Linear enhanced field	High	Fill - Natural	Probably a former stream channel	310584.9	290384.0
79	37	Linear enhanced field	Medium	Fill - Ditch?	A narrow (<1m) possible ditch fill turning northwest through a right-angle bend?	310638.0	290364.2
80	38	Linear reduced field	Low	Fill / structure / natural?	Uncertain, however, it would be typical of a buried non-magnetic structure	310468.6	290343.9

Label	Field	Anomaly Type	Anomaly confidence	Feature Type	Description	Easting	Northing
81	41	Strong linear enhanced dipolar field	Medium	Fill? - Ditch?	This might be the end of a ditch although this is uncertain	310485.2	290188.4
82	41	Linear enhanced field	Low	Fill?	Could be a narrow (<1m) ditch or a drain	310483.3	290165.7
83	38	Strong variable dipolar	High	Debris? / service?		310405.9	290333.2
84	46	Linear enhanced field	Low	Fill? - Ditch?	Uncertain	310076.9	289897.8
85	46	Linear reduced field	High	Structure?	Drain?	310113.8	289912.5
86	46	Linear enhanced field	Low	Fill? - Ditch?	Uncertain	310126.9	289892.3
87	46	Linear reduced field	Medium	Structure?	Drain?	310125.7	289901.4
88	53	Discrete enhanced field (group)	High	Fills - Pits?	A line of at least six small (<1.5m diameter) pit fill like anomalies spaced about 5m apart in a straight line. None are sufficiently magnetic to be likely to be the bases of fence stanchions or a similar construction	309336.9	289820.3
89	59	Linear enhanced dipolar field	Medium	Fill - Ditch / cultivation?	Ambiguous, but unlikely to be natural. There may be other, less visible, examples	308762.6	289972.3
90	59	Linear enhanced dipolar field	Medium	Fill - Ditch / cultivation?	See [89]	308773.7	289980.6
91	59	Linear enhanced dipolar field	Medium	Natural?	There is an expected contact between the Nantglyn Flags and the alluvium in this location and it is possible this slightly zigzag anomaly is related to this	308791.6	289989.3
92	60	Linear enhanced dipolar field	Low	Fill? - Ditch?	Uncertain, could be a drain or natural feature	308624.1	289943.3
93	60	Linear enhanced field	Medium	Natural?	It is straight and perpendicular to an extant field boundary which might suggest the line of a former boundary, however, it could be natural	308651.1	289943.3

Label	Field	Anomaly Type	Anomaly confidence	Feature Type	Description	Easting	Northing
94	64	Linear enhanced dipolar field	High	Fill - Ditch	Former field boundary or drain?	308503.8	290038.1
95	64	Linear enhanced dipolar field	High	Fill - Ditch		308488.4	289956.0
96	65	Various strong dipolar	High	Natural?	Probably the contact between the Devensian Till (east) and Nantglyn Flags (west)	308384.4	290026.2
97	68	Linear enhanced dipolar field	High	Fill / structure	Drain?	308230.8	290148.9
98	68	Linear reduced field	Medium	Fill / structure	Perhaps a drain because it appears to branch	308433.2	290187.4
99	68	Linear reduced field	Low	Fill / structure?	A weak reduction of the magnetic field might mark a gently curved structure, however, contrast is too low to be sure	308461.4	290231.8
100	68	Linear reduced field (group)	Medium	Fills?	This looks like a serious of branching structures but curving so unlikely to be drains. They could be former channels and especially if their fill is sandy or peaty	308445.9	290164.7
101	68	Linear enhanced field	Low	Fill / natural?	Uncertain, could just be natural	308495.1	290218.3
102	68	Linear reduced dipolar field	High	Fill / structure	Drain?	308503.8	290201.3
103	68	Linear enhanced dipolar field	Medium	Fill - Ditch?	Might be a drainage feature although a former field boundary is possible? However, see also [109]	308496.3	290275.9
104	68	Linear enhanced field	Medium	Fill - Ditch / natural?	Uncertain	308520.9	290258.4
105	69	Discrete enhanced field (group)	Low	Fills? / Erratics?	A possible line of pit fill type anomalies among a more random spread of others. Is this just fortuitous?	308610.2	290315.6
106	69	Linear enhanced dipolar field	High	Fill - Ditch / drain?	This looks like a ditch fill but cuts across the field system so is perhaps a drainage feature?	308638.4	290315.6
107	71	Linear enhanced field	Medium	Fill - Ditch?	Uncertain, although some sort of ditch fill seems likely	308399.9	290303.6

Label	Field	Anomaly Type	Anomaly confidence	Feature Type	Description	Easting	Northing
108	71	Linear enhanced field	Medium	Fill - Ditch?	See [107]	308411.0	290309.2
109	71	Linear enhanced dipolar field	High	Fill - Ditch	This appears to be the fill of a ditch approximately 1m wide and arguably too sinuous to have been a former field boundary. It might be crossed by the present road in which case perhaps [103] is a continuation of this?	308459.8	290347.3

5 Discussion

5.1 Introduction

The sections below first discuss the geophysical context within which the results need to be considered and then specific features or anomalies of particular interest. Not all will be discussed here and the reader is advised to consult the catalogue (ibid) in conjunction with the graphical elements of this report.

5.2 Principles

In general, topsoil is more magnetic than subsoil which can be slightly more magnetic than parent geology, whether sands, gravels or clays, however, there are exceptions to this. The reasons for this are natural and are due to biological processes in the topsoil that change iron between various oxidation states, each differently magnetic. Where there is an accumulation of topsoil or where topsoil has been incorporated into other features, a greater magnetic susceptibility will result.

Within landscapes soil tends to accumulate in negative features like pits and ditches and will include soil particles with thermo-remanent magnetization (TRM) through exposure to heat if there is settlement or industry nearby. In addition, particles slowly settling out of stationary water will attempt to align with the ambient magnetic field at the time, creating a deposit with depositional remanent magnetization (DRM).

As a consequence, magnetic survey is nearly always more a case of mapping accumulated magnetic soils than structures which would not be detected unless magnetic in their own right, e.g. built of brick or tile. As a prospecting tool it is thus indirect. Fortunately, the mechanisms outlined above are commonplace and favoured by human activity and it is nearly always the case that cut features will alter in some way the local magnetic field.

5.2.1 Instrumentation

The use of the magnetic sensors in non-gradiometric (vertical) configuration avoids measurement sensitisation to the shallowest region of the soil, allowing deeper structures, whether natural or otherwise to be imaged within the sensitivity of the instrumentation. However, this does remove suppression of ambient noise and temporal trends which have to be suppressed later during processing. When compared to vertical gradiometers in archaeological use, there is no significant reduction in lateral resolution when using non-gradiometric sensor arrays and the inability of gradiometers to detect laminar structures is completely avoided.

Caesium instrumentation has a greater sensitivity than fluxgate instruments, however, at the 10 Hz sampling rate used here this increase in sensitivity is limited to about one order of magnitude.

The array system is designed to be non-magnetic and to contribute virtually nothing to the magnetic measurement, whether through direct interference or through motion noise. There is, however, some limited contribution from the towing ATV.

For fields 40, 45 & 75 only: The use of a vertical gradiometer sensitises the measurement process to within a particular depth extent governed by the instrument sensitivity and the sensor separation. In this case the extent is approximately one meter, i.e. sufficient for the detection of buried archaeological structures of normal magnetic susceptibility. As especially strong response will be measured from magnetic sources at the surface; conversely variations in deep alluvium or within the shallow geology will not normally be detected.

5.3 Character & principal results

5.3.1 Geology

In general magnetic character varies by surface geology much as expected and with the caveat that

differences in land use and drainage also affect this and will therefore be influencing the result. The differences are not especially striking; there are few locations were a transition is evident and hence anomalies from shallow sources tend to be fairly continuous. There seems little to suggest that any particular geological context is not allowing buried structures of archaeological interest to be detected, but this is subject to two caveats. First, the alluvium could mask deeply buried features, which in the case of the clay rich alluvium, might be only weakly magnetic and second, small discrete sources like pit fills and hearths will always be difficult to differentiate from a variable background, e.g. within till.

It would appear that there is a thin covering of till of greater extent than implied by the BGS 1:50,000 mapping, however, this could be very thin and evident only at archaeological scales. There are certainly instances of what appear to be glacial erratics where bedrock is expected. The background texture of the till is fairly uniform but it is punctuated by strong localised variations and overall magnetic anomaly strengths associated with near surface structures are fairly high (5 – 10nT).

There is some evidence for former channels and probable wet areas within the till which is entirely expected and highlights that fact that soils may in the past have been at least seasonally wetter. In the earliest prehistoric times there may have been small bodies of water.

Contacts between the alluvium and till are nearly all visible as linear distributions of strong amorphous (perhaps reflecting their depth) anomalies along each one, e.g. [50] – [52] and in field 20. Other contacts, e.g. between the till and bedrock, are less or not evident which reinforces the impression that close to the surface at least there is little in the way of an actual contact. An example of this is fields 26 and 27.

The Dingle mudstone exhibits a strongly variable texture, more magnetic than expected and with natural sources creating anomalies of 5 – 10 nT. In contrast the Nantglyn flags are associated with lower magnetic anomaly strengths but a slightly more uniform background.

Clay and silt alluvium is producing a smooth background texture and overall, low anomaly strengths, however, the alluvial sand and gravels are as expected, more variable (e.g. fields 69 and 71 at the western tip of the scheme).

5.3.2 Land use

There is little to suggest variations in land use although the survey shape, being a corridor, is not best suited to the detection of previous layouts of fields or past cultivation for example. However, there are numerous isolated ditch fills that might have been field boundaries and / or drainage ditches, e.g. [6] and [7]. Other possible boundaries include [9], [10] and [13], however, they define a long straight structure with [14] and [16] and might therefore represent some element of an organised scheme of drainage.

Sometimes the former presence of a field boundary is obvious, e.g. [27] where this crosses a likely earlier enclosure defined by [26] and [28]. A set of boundaries are suggested by [43] and [44] which both appear to terminate at the end of the alluvium [51] – [53] and in doing so suggest this geological contact was associated with a physical expression.

Overall there is evidence for the removal of the occasional field boundary but little evidence for any comprehensive reorganisation.

Former cultivation is evident in some areas, e.g. signs of ridge and furrow in field 8 and a large area within fields 68, 69 and 71 at the west end of the scheme. More ephemeral traces survive, e.g. in fields 29 and 30.

5.3.3 Archaeology

The following paragraphs highlight specific anomalies or groups of anomalies that appear to be of at least potential archaeological interest. The catalogue should be consulted for individual details.

At the east end of the scheme a possible service [1] is unusual in the context of this site and while being very magnetic and typical of steel it lacks the alternation of anomaly polarity along its length which implies it not to be jointed or to have been coiled while hot during manufacture. It could perhaps be some sort of brick structure.

In the same field is the supposed line of the Roman road, here visible as a band of magnetic ground [3] adjacent to or perhaps within the road alignment. There are also [2] and [4] which appear to be the flanking ditches of a different aligned structure, perhaps also a road.

Further south and west there is a probable Iron Age or Romano British enclosure of about 0.22 ha with what appears to be a wide (18m) entrance between slight terminals of ditches [26] and [28]. The enclosure may also have had an annexe, suggested by probable ditch fill [25]. The enclosure is part of a wider complex that includes two further enclosures. One, defined by a narrow fill [24] and [29] is overlaid by or overlays the larger example and is in turn overlaid or overlaid by a further and smaller enclosure hinted at by fill [23]. This group is in contrast to much of the rest of the corridor, there being no other enclosure ditches nearby with the possible exception of [33]. There are no signs of internal structures evident in the data.

In the same field as [33] there are hints of possible activity centred on [31] and [32] although it is possible that both these anomalies have a natural origin.

In field [14] there is a small knot of probable enclosure ditches [34] although interpretation of these is difficult. They might represent a former pound or perhaps some similar agricultural structure, although any date is possible.

Across fields 13 and 16 anomalies [36] and [37] may be a ditch fill or scarp cut part way around the summit of a low valley bottom knoll, almost half of which is obscured by strong magnetic fields from an adjacent pipeline. If it is an enclosure the visible part encloses about 0.19 ha.

At Great Brimmon a known cropmark enclosure is apparent in the magnetic data as a set of likely ditch fills [54], [55] and [57]. The first two sets of ditches correlate with the aerial photograph and confirm that each fill apparently ends in field [24], i.e. any continuation to form the suggested enclosure is not apparent magnetically or from the air. The double nature of [55] is confirmed and a further 'outer' example [57] is suggested by the magnetic data. In field 25 the continuation of [54] defining the west end of enclosure has not been seen in the magnetic data. The reasons for these differences are not clear, especially as most of the enclosure appears to occupy the same geological and agricultural context.

In field 28 a broad magnetic anomaly [60] might represent a former holloway to Upper Brimmon.

A complex of ditch fills [63] – [65] exists in field 31 and these seem to define parts of enclosures. Fills [63] and [64] might be former field boundaries while fill [66] continues the line of the extant eastern boundary westwards across the site, confirming the former presence of an interesting shape field. Could this be the site of another discrete enclosure?

Close to the Dolfor road and below Bryneira is another possible enclosure [68] on a low promontory and enclosing approximately 0.14 ha within a scarp or ditch.

In field 53 west of Castell-y-Dail Wood there is a line [88] of six discrete anomalies for which no obvious interpretation exists although a modern origin is possible.

At the western end of the scheme in field 69 a possibly fortuitous alignment of anomalies [105] may exist amongst a wider scatter of probable glacial erratics. This might not be real.

Finally [103] and [109] mark a ditch fill that appears to be crossed by the main road west of Newtown and if not a former field boundary might be an ancient feature.

5.4 Conclusions

It is difficult to draw conclusions about what amounts to a disparate and for the most part disconnected set of anomalies spread along the corridor. The following points can be made:

- where anomalies of potential archaeological interest have been found they tend to be clustered together;
- there are recognisable archaeological monuments in fields 2 (the Roman road), 8 (multiphase enclosures), 14, 13 and 16 (possible enclosure), 24 (Great Brimmon cropmark), 28 (holloway?), 31 (enclosures) and 34 (possible enclosure). Fields 68 and 69 may also be of interest in this regard;

- elsewhere there is a thin distribution of ditch fills throughout the corridor, probably mostly relating to former boundaries and drainage;
- there is little clear correlation of anomaly strength with surface geological context, although some variation is evident. The effect of geological and agricultural context upon the visibility of anomalies of interest is thus difficult to quantify.

5.5 Caveats

Geophysical survey is a systematic measurement of some physical property related to the earth. There are numerous sources of disturbance of this property, some due to archaeological features, some due to the measuring method, and others that relate to the environment in which the measurement is made. No disturbance, or 'anomaly', is capable of providing an unambiguous and comprehensive description of a feature, in particular in archaeological contexts where there are a myriad of factors involved.

The measured anomaly is generated by the presence or absence of certain materials within a feature, not by the feature itself. Not all archaeological features produce disturbances that can be detected by a particular instrument or methodology. For this reason, the absence of an anomaly must never be taken to mean the absence of an archaeological feature. The best surveys are those which use a variety of techniques over the same ground at resolutions adequate for the detection of a range of different features.

Where the specification is by a third party ArchaeoPhysica will always endeavour to produce the best possible result within any imposed constraints and any perceived failure of the specification remains the responsibility of that third party.

Where third party sources are used in interpretation or analysis ArchaeoPhysica will endeavour to verify their accuracy within reasonable limits but responsibility for any errors or omissions remains with the originator.

Any recommendations are made based upon the skills and experience of staff at ArchaeoPhysica and the information available to them at the time. ArchaeoPhysica is not responsible for the manner in which these may or may not be carried out, nor for any matters arising from the same.

5.6 Acknowledgements

ArchaeoPhysica would like to acknowledge the support of the great majority of the landowners contacted for access arrangements during the fieldwork; Nigel Jones at Clwyd-Powys Archaeological Trust and the team at Alun Griffiths.

6 Appendices

6.1 Project metadata

Project Name	Newtown Bypass, Powys
Project Code	NBP131
Client	Clwyd-Powys Archaeological Trust
Fieldwork Dates	5th August 2013 - 28th April 2014
Field Personnel	ACK Roseveare, D Rouse, R Vine, S Purvis, R Dean, M Edwards
Data Processing Personnel	ACK Roseveare, R Fry
Reporting Personnel	MJ Roseveare, ACK Roseveare, R Fry
Draft Report Date	4th October 2013
Final Report Date	1st October 2014

6.2 Qualifications & experience

All work is undertaken by qualified and experienced geophysicists who have specialised in the detection and mapping of near surface structures in archaeology and other disciplines using a wide variety of techniques. There is always a geophysicist qualified to post-graduate level on site during fieldwork and all processing and interpretation is undertaken under the direct influence of either the same individual or someone of similar qualifications and experience.

ArchaeoPhysica meets with ease the requirements of English Heritage in their 2008 Guidance "Geophysical Survey in Archaeological Field Evaluation" section 2.8 entitled "Competence of survey personnel". The company is one of the most experienced in European archaeological prospection and is a key professional player. It only employs people with recognised geoscience qualifications and capable of becoming Fellows of the Geological Society of London, the Chartered UK body for geophysicists and geologists.

6.3 Safety

Safety procedures follow the recommendations of the International Association of Geophysical Contractors (IAGC).

Principal personnel have passed the Rescue Emergency Care – Emergency First Aid course and CSCS cards are being sought for those members of staff currently without them.

All personnel are issued with appropriate PPE and receive training in its use. On all sites health and safety management is performed by the Project Geophysicist under supervision by the Operations Manager.

Health and safety policy documentation is reviewed every 12 months, or sooner if there is a change in UK legislation, a reported breach of such legislation, a reported Incident or Near Miss, or changes to ArchaeoPhysica's activities. Anne Roseveare, Operations Manager, has overall responsibility for conducting this review and ensuring documentation is maintained.

We are happy to confirm that ArchaeoPhysica has suffered no reportable accidents since its inception in 1998.

6.4 Archiving

ArchaeoPhysica maintains an archive for all its projects, access to which is permitted for research purposes. Copyright and intellectual property rights are retained by ArchaeoPhysica on all material it has produced, the client having full licence to use such material as benefits their project.

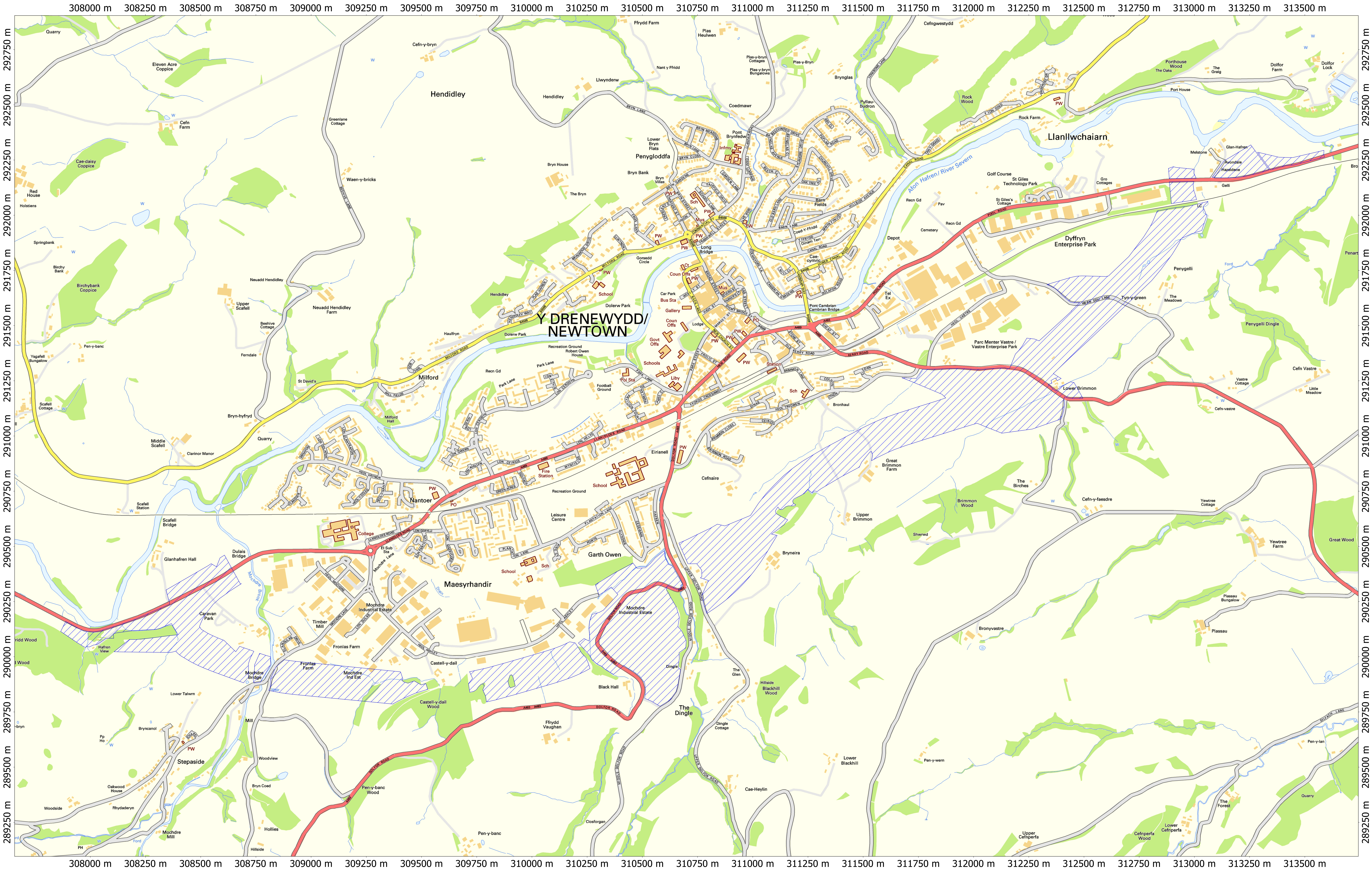
Archive formation is in the spirit of Schmidt, A., 2001, "Geophysical Data in Archaeology: A Guide to Good Practice", ADS.

Access is by appointment only. Some content is restricted and not available to third parties. There is no automatic right of access to this archive by members of the public. Some material retains commercial value and a charge may be made for its use. An administrative charge may be made for some enquiries, depending upon the exact nature of the request.

The archive contains all survey and project data, communications, field notes, reports and other related material including copies of third party data (e.g. CAD mapping, etc.) in digital form. Many are in proprietary formats while report components are available in PDF format.

In addition, there are paper elements to some project archives, usually provided by the client. Nearly all elements of the archive that are generated by ArchaeoPhysica are digital.

It is the client's responsibility to ensure that reports are distributed to all parties with a necessary interest in the project, e.g. local government offices, including the HER where present. ArchaeoPhysica reserves the right to display data from projects on its website and in other marketing or research publications, usually with the consent of the client. Information that might locate the project is normally removed unless otherwise authorised by the client.



NBP131 Newtown Bypass, Powys
DWG 01 Location

ArchaeoPhysica Ltd

Orthographic Centre X: 310699.82 m Centre Y: 291000.13 m Scale: 1:15000 @ A4 Spatial Units: Meter. Do not scale off this drawing
File: NBP131.map from DELHI 1/10/2014

310500 m 311000 m 311500 m 312000 m 312500 m 313000 m 313500 m

292000 m

291500 m

291000 m

290500 m

310500 m 311000 m 311500 m 312000 m 312500 m 313000 m 313500 m

NBP131 Newtown Bypass, Powys
DWG 02 Field Numbers - East

ArchaeoPhysica Ltd

Orthographic Centre X: 311875.74 m Centre Y: 291214.56 m Scale: 1:9000 @ A4 Spatial Units: Meter. Do not scale off this drawing

308000 m 308500 m 309000 m 309500 m 310000 m 310500 m 311000 m

291000 m

290500 m

290000 m

289500 m

289000 m

Survey areas
Envisaged
Actual
Labels
text Field numbers

NBP131 Newtown Bypass, Powys
DWG 03 Field Numbers - West

ArchaeoPhysica Ltd

Orthographic Centre X: 309361.14 m Centre Y: 289973.93 m Scale: 1:9000 @ A4 Spatial Units: Meter. Do not scale off this drawing

Appendix C.4

G.I. Watching Brief and Evaluation Report

CPAT Report No 1236.1

Newtown Bypass, Powys

Archaeological Evaluation and Watching Brief

THE CLWYD-POWYS ARCHAEOLOGICAL TRUST

Client name:	Alun Griffiths Contracting Ltd
CPAT Project No:	1891
Project Name:	Newtown Bypass
Grid Reference:	SO 1132 9085
County/LPA:	Powys
Report Title:	Newtown Bypass, Powys: Archaeological Evaluation and Watching Brief
CPAT Report No:	1236
Report status:	Final
Confidential:	Yes

Report Prepared by:	*Position:*
N W Jones	Senior Project Archaeologist
Completion date:	6 December 2013
Report Revised by:	*Position:*
N W Jones	Senior Project Archaeologist
Completion date:	12 June 2014

Checked by:	*Position:*	*Signed:*
P Belford	Director	
Checked on:	12 June 2014	
Approved by:	*Position:*	*Signed:*
P Belford	Director	
Approved on:	12 June 2014	

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Contents

Summary

A programme of field evaluation has been conducted as part of the Key Stage 3 investigations along the route of the proposed Newtown Bypass in Powys, the results from which, together with earlier phases of field survey and geophysical survey, provide the baseline data for the cultural heritage, elucidating further the archaeological potential of the route.

Evidence has been forthcoming to indicate a range of human activity from the Neolithic period to the present day. The earliest evidence for activity consists of a few sherds of Neolithic and Bronze Age pottery and flints which provide an indication of earlier prehistoric activity in three separate areas along the route.

Later prehistoric activity was already known within the general area, with the prominent Iron Age hillfort at Castell-y-dail, while cropmark evidence had suggested a possible defended enclosure near Great Brimmon (SO 1183 9103). The latter site remains unconfirmed, however, as the current evidence indicates the presence of a ditch curving around the south-eastern side of hill, but with no evidence for a corresponding feature on the opposite side.

Further evidence has been provided for later prehistoric activity in the form of a previously unknown enclosure on a hilltop location north of Wern Ddu Lane (SO 1246 9170). The enclosure is defined by a single ditch with an entrance on the western side, enclosing an area 55m long and between 32m and 48m in width. Although the excavated section of the ditch produced no direct evidence for dating a small number of sherds of Romano-British pottery were found within the interior.

The Roman road between the forts at Forden Gaer and Caersws is already well-attested and its position has been confirmed at either end of the scheme. At the eastern end (SO 1301 9213) the road survives as a slight earthwork terrace in a pasture field and excavations have demonstrated that it is relatively well preserved. The metalled surface was around 6.2m wide with three phases of construction or resurfacing evident, the uppermost preserving a number of wheel ruts. At the western end of the scheme, near Glan Hafren, the line of the road has been known since 2006 while evidence from trench 21 has demonstrated two phases of construction with a later phase of resurfacing of possible later Roman, or post-Roman date.

Evidence from the geophysical survey and evaluation suggest the presence of a possible field system near Lower Brimmon (SO 1243 9142), comprising a number of ditches which remain undated.

Post-medieval activity is indicated by the general spread of finds from the topsoil and ploughsoil within every trench, presumably being derived from cultivation. Evidence from trench 10 suggested a possible holloway of potentially medieval date, which was superseded by a deliberately stoned surface during the 18th or 19th centuries.

Although the trenches were mostly positioned in order to evaluate features revealed by the geophysical survey the presence of previously unrecorded archaeological features in a number of trenches, and in particular the recovery of prehistoric artefacts indicates that there is potential for significant discoveries elsewhere along the route for which there is currently no evidence.

1 Introduction

1.1 In June 2013 the Field Services Section of the Clwyd-Powys Archaeological Trust (CPAT) was engaged by Alun Griffiths Contracting Ltd to undertake a programme of archaeological investigations as part of the Key Stage 3 investigations along the route of the proposed Newtown Bypass, between SO 1295 9215 and SO 0790 9015. The work was detailed in a written scheme of investigation prepared by CPAT (WSI 1283). This report presents the results from the field evaluation element of those works, together with the results from a watching brief maintained during the excavation of a series of test pits as part of a programme of geotechnical investigations.

1.2 A cultural heritage baseline assessment had previously been undertaken for the route in 2009 as part of the Key Stage 2 environmental impact assessment, which identified a range of archaeological sites within the locality (Pearson 2009).

1.3 Further stages of assessment were conducted between July and September 2013 as part of Key Stage 3, comprising a field walked survey, undertaken by CPAT (Hankinson 2013), and a geophysical survey, conducted by ArchaeoPhysica (Roseveare 2013). The results from both elements were used to formulate a programme of field evaluation which was developed by Dr Andrew Pearson, Cultural Heritage Consultant for TACP, in consultation with Mark Walters, the regional archaeological curator.

1.4 This report was prepared in December 2013 and revised in June 2014 following the excavation of two additional trial trenches.

2 Watching Brief

2.1 A watching brief was conducted intermittently between 16 September and 6 December 2013 to monitor the excavation by machine of test pits and trial trenches as part of a programme of geotechnical investigations conducted by Quantum Geotechnical Ltd. The watching brief focused on those investigations, which lay in relatively close proximity to known archaeological sites.

2.2 The watching brief was concentrated in four areas, one at the western end of the scheme (Fig. 1), one near Castell-y-dail (Fig. 2), one near Great Brimmon (Fig. 3) and the third at the eastern end of the scheme (Fig. 4).

2.3 In each case a mechanical excavator was used to remove the turf and topsoil using a 0.9m-wide toothless bucket under close archaeological supervision. The surface of the soils was then inspected and subject to hand cleaning where appropriate. A record was made of the dimension of each pit or trench, the nature and thickness of overlying deposits, and the nature of the subsoil. High resolution digital photographs were taken as appropriate which have been catalogued and included within the project archive.

2.4 In all 40 trial pits and four trial trenches were originally identified as requiring a watching brief, although six trial pits were subsequently cancelled and trial pits 4-6 were conducted without arranging archaeological monitoring. In only three cases were archaeological features identified. Trial pit 29 contained a small, undated pit, 0.85m long and at least 0.35m wide, with frequent charcoal flecks within the fill. A narrow, shallow gully, 0.25m wide and 50mm deep was identified in trial pit 30. Although no dating evidence was recovered the nature of the fill suggested that this was likely to be relatively modern. Finally, a rough stone surface was identified in trial pit 116, pottery from which was of post-medieval date.

Table 1 Summary of the watching brief during geotechnical investigations

Trial Pit/Trench	Dimensions	Archaeological Interest	Watching brief results
Trial Pit 1	2.5 x 0.9m	Vicinity of Roman road	no archaeology present
Trial Pit 2	2.7 x 0.9m	Vicinity of Roman road	no archaeology present
Trial Pit 3	2.5m x 1m	Vicinity of Roman road	no archaeology present
Trial Pit 4		Vicinity of Roman road	no watching brief undertaken
Trial Pit 5		Vicinity of Roman road	no watching brief undertaken
Trial Pit 6		Vicinity of Roman road	no watching brief undertaken
Trial Pit 7	3m x 0.6m	Vicinity of Roman road	no archaeology present
Trial Pit 26	Test pit replaced with Borehole	Vicinity of Castell-y-dail hillfort (PRN 969)	no watching brief required
Trial Pit 27	2.5 x 0.85m	Vicinity of Castell-y-dail hillfort (PRN 969)	no archaeology present
Trial Pit 28	3 x 0.9m	Vicinity of Castell-y-dail hillfort (PRN 969)	no archaeology present
Trial Pit 29	2.2 x 0.7m	Vicinity of Castell-y-dail hillfort (PRN 969)	Small undated pit 0.85m long and at least 0.35m wide. Frequent charcoal flecks in fill.
Trial Pit 30	2.5 x 0.8m	Vicinity of Castell-y-dail hillfort (PRN 969)	Narrow, shallow gully 0.25m wide and 50mm deep. No dating, but appeared to be modern
Trial Pit 31	3 x 0.9m	Vicinity of Castell-y-dail hillfort (PRN 969)	no archaeology present
Trial Pit 32	3 x 0.9m	Vicinity of Castell-y-dail hillfort (PRN 969)	no archaeology present
Trial Pit 33	3 x 0.9m	Vicinity of Castell-y-dail hillfort (PRN 969)	no archaeology present
Trial Pit 34	cancelled	Vicinity of Castell-y-dail hillfort (PRN 969)	
Trial Pit 35	3 x 0.9m	Vicinity of Castell-y-dail hillfort (PRN 969) and burial cairn (PRN 5757)	no archaeology present
Trial Pit 38	3 x 0.7m	Vicinity of burial cairn (PRN 5757)	no archaeology present
Trial Pit 39	3 x 0.7m	Vicinity of burial cairn (PRN 5757)	no archaeology present
Trial Pit 40	3 x 0.7m	Vicinity of burial cairn (PRN 5757)	no archaeology present
Trial Pit 83	3.2 x 0.9m	Vicinity of Great Brimmon Cropmark Enclosure	no archaeology present
Trial Pit 84	3.2 x 1.1m	Vicinity of Great Brimmon Cropmark Enclosure	no archaeology present
Trial Pit 85	3.2 x 0.9m	Vicinity of Great Brimmon Cropmark Enclosure	no archaeology present
Trial Pit 86	3 x 0.9m	Vicinity of Great Brimmon	no archaeology present

		Cropmark Enclosure	
Trial Pit 87	3 x 0.9m	Vicinity of Great Brimmon Cropmark Enclosure	no archaeology present
Trial Trench 22	3x 1m	Vicinity of Great Brimmon Cropmark Enclosure	no archaeology present
Trial Trench 23	9 x 1m	Vicinity of Great Brimmon Cropmark Enclosure	no archaeology present
Trial Trench 24	11.5 x 0.9m	Vicinity of Great Brimmon Cropmark Enclosure	no archaeology present
Trial Trench 25	3 x 0.9m	Vicinity of Great Brimmon Cropmark Enclosure	no archaeology present
Trial Pit 88	3 x 0.9m	Vicinity of Lower Brimmon Cropmark (PRN 4650)	no archaeology present
Trial Pit 89	3 x 0.9m	Vicinity of Lower Brimmon Cropmark (PRN 4650)	no archaeology present
Trial Pit 90	3 x 0.9m	Vicinity of Lower Brimmon Cropmark (PRN 4650)	no archaeology present
Trial Pit 91	3 x 0.9m	Vicinity of Lower Brimmon Cropmark (PRN 4650)	no archaeology present
Trial Pit 105	cancelled	Vicinity of Roman road	
Trial Pit 106	3 x 1m	Vicinity of Roman road	no archaeology present
Trial Pit 107	3 x 0.8m	Vicinity of Roman road	no archaeology present
Trial Pit 110	3 x 0.85m	Vicinity of Roman road	no archaeology present
Trial Pit 111	cancelled	Vicinity of Roman road	
Trial Pit 112	cancelled	Vicinity of Roman road	
Trial Pit 113	3 x 0.9m	Vicinity of Roman road	no archaeology present
Trial Pit 115	2.5 x 1m	Vicinity of Roman road	no archaeology present
Trial Pit 116	3 x 0.9m	Vicinity of Roman road	stony surface revealed beneath ploughsoil with post-medieval pottery
Trial Pit 117	cancelled	Vicinity of Roman road	
Trial Pit 118	cancelled	Vicinity of Roman road	

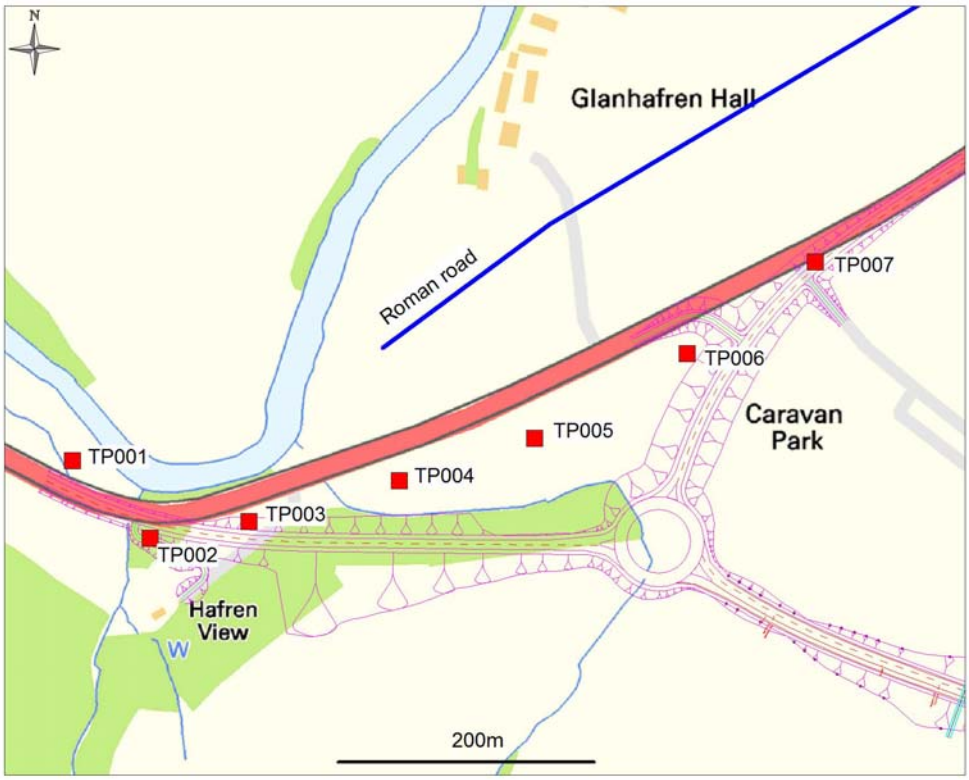

Fig. 1 Location of test pits 001-007

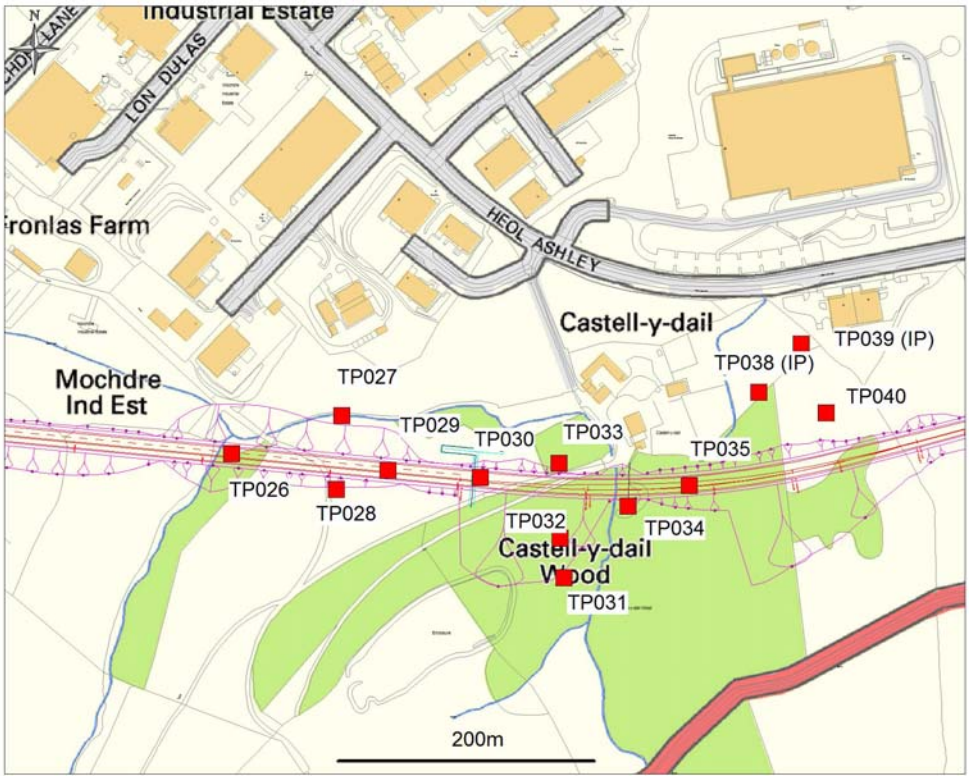

Fig. 2 Location of test pits 026-040

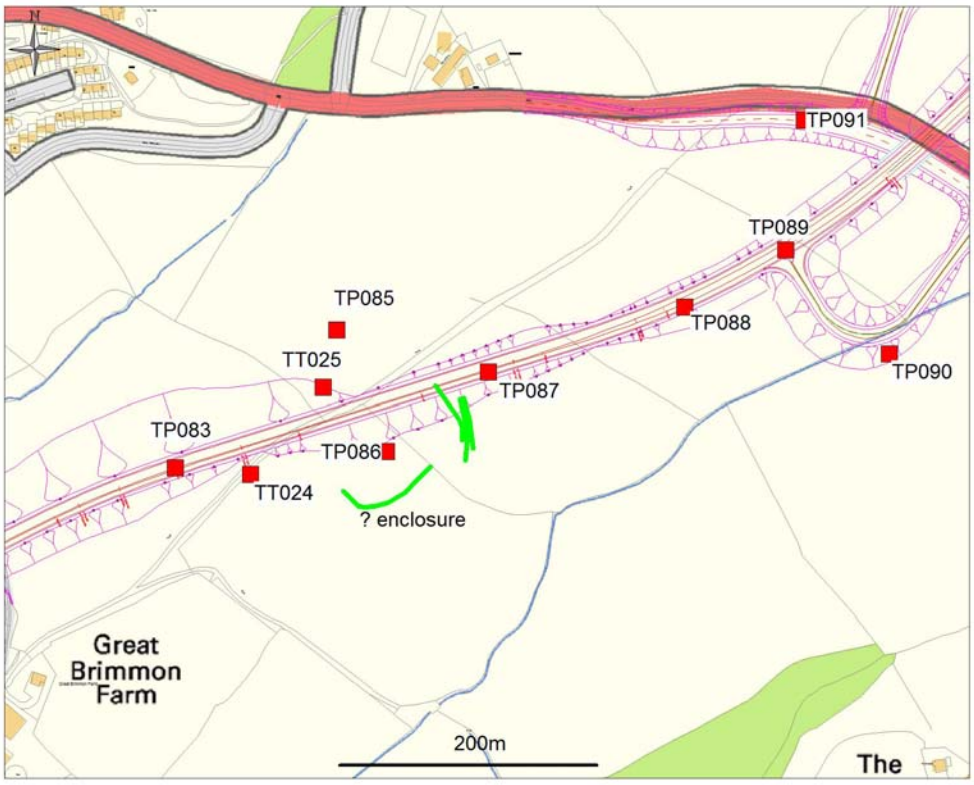

Fig. 3 Location of test pits 083-091

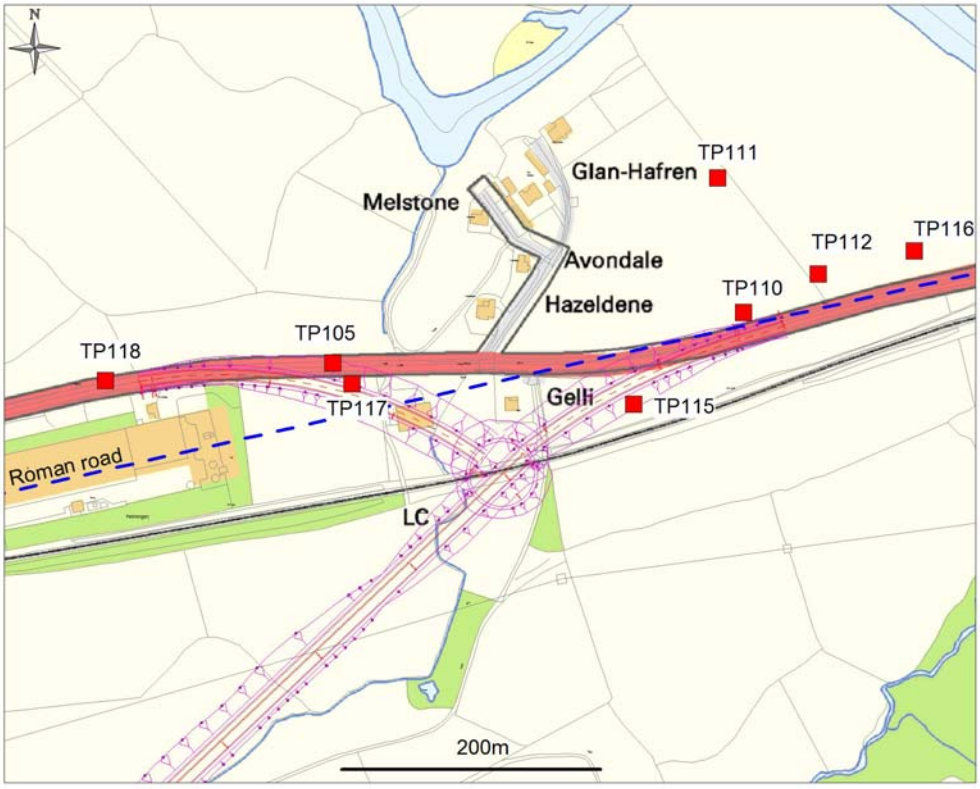

Fig. 4 Location of test pits 001-007

3 Evaluation

3.1 The initial phase of evaluation was conducted between 14 October and 22 November 2013 and was originally designed to consist of 19 trenches (Fig. 5), although four of these (trenches 4, 5, 16 and 17) were subsequently withdrawn owing to changes in the scheme, which left them outside any areas of potential impact and problems with access prevented the excavation of trench 19. Two further trenches (20 and 21) were later excavated in May and June 2014, responding to the results from further geophysics.

3.2 In each trench the modern overburden was removed by machine under close archaeological supervision down to the surface of the undisturbed natural subsoil or the first recognisable archaeological horizon. Thereafter all excavation was undertaken by hand. A written, drawn and photographic record was maintained during all excavations, a summary of which is provided in Appendix 1. All trenches measured 1.5m in width and were located with respect to the Ordnance Survey national grid using a Global Positioning System (GPS) with sub-metre accuracy. The numbers in brackets in the following text refer to individual context records that form part of the site archive, which will be deposited with the regional Historic Environment Record in Welshpool in due course. Detailed plans of the individual trenches are provided in A3 format at the end of the report.

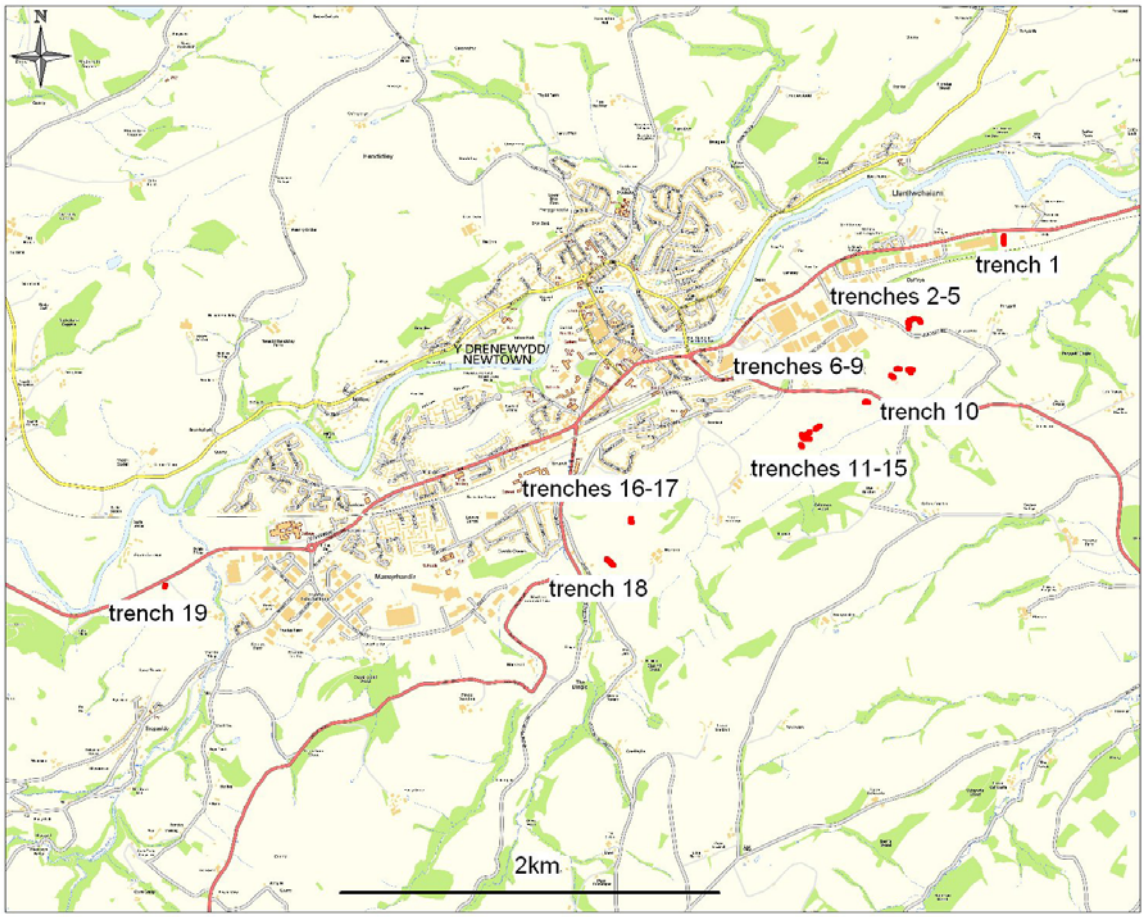

Fig. 5 The location of the evaluation trenches

Trench 1

3.3 Trench 1 was positioned to investigate the Roman road between the forts at Forden Gaer and Caersws (Roseveare 2013; feature 34). The trench measured 40m in length, aligned north/south and centred at SO 12922 92088 (Fig. 6).

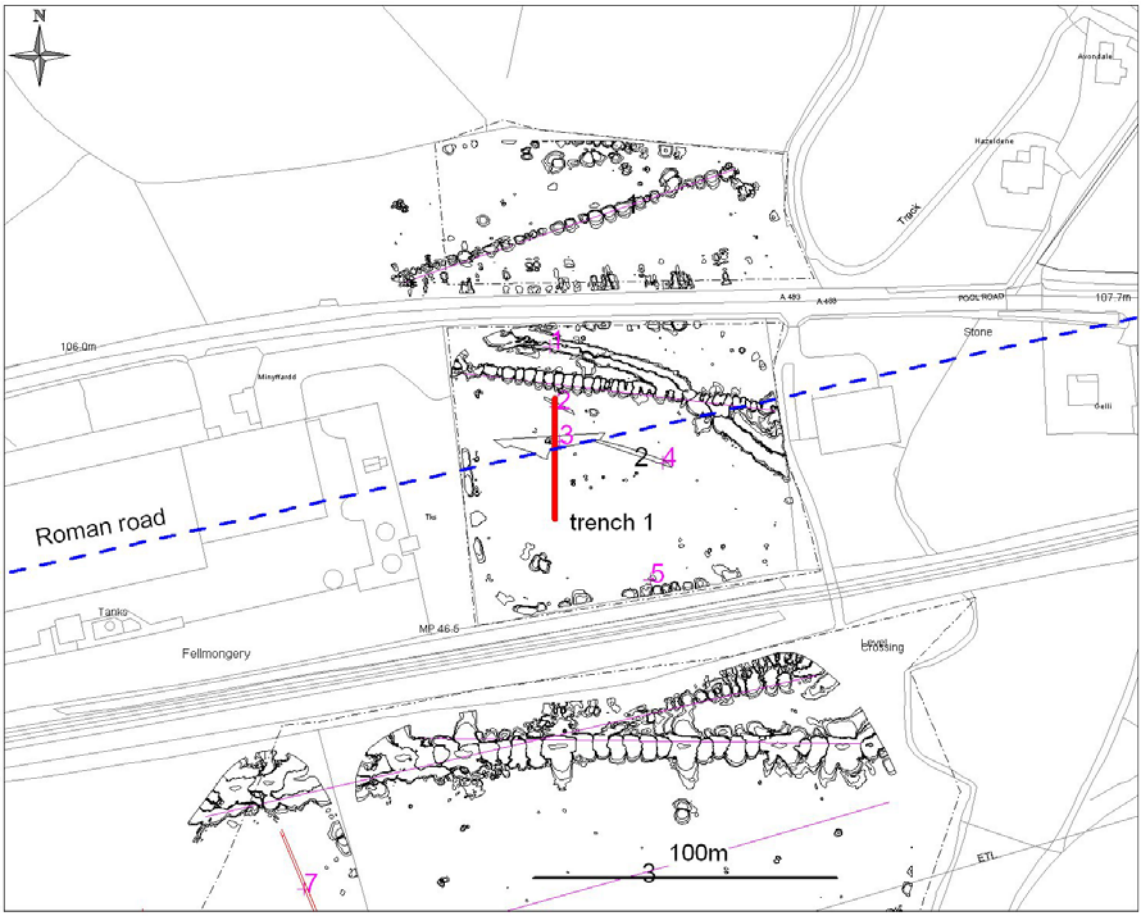

Fig. 6 Location of trench 1

3.4 Following the removal of the modern ploughsoil (01-001) the surface of the Roman road (01-004) was immediately apparent at a depth of 0.25m below the modern ground surface (Fig. 36). The position of the road corresponded with a feature identified by the geophysical survey as well as a notable earthwork terrace, which crossed the field from east to west.

3.5 Although the road was not subject to any excavation beyond the initial hand cleaning three phases of construction, or at least resurfacing, were apparent, each consisting of compacted gravel and river cobbles. The uppermost surface (01-006) was relatively well preserved, within which four wheel ruts (01-007) were identified. Earlier surfaces were visible on either side of the road, beneath the extents of the latest surface, the earliest of which consisted of context 01-015 on the north side and a presumably equivalent layer, context 01-008, on the south side. Similarly, the second phase consisted of context 01-019 on the north side and 01-005 on the south side. The maximum surviving width of the road metalling was around 6.2m.

Fig. 7 The Roman road (01-004), viewed from the west. Photo CPAT 3717-0184

3.6 The level of the natural subsoil was not established to the west of the road, machine excavations having removed up to 0.5m of topsoil (01-001) and ploughsoil (01-002) and part of an underlying deposit of yellowish brown silty clay (01-003) without identifying any evidence for a roadside ditch. This may reflect the evidence revealed during recent excavations some 1.5km further to the west where over 200m of the Roman road were exposed, revealing one or two ditches on the southern side, while there was no ditch present to the north (Jones and Grant 2013). A similar situation pertained to the south of the road, although the possible outer edge of a ditch (01-011) was identified around 5.4m from the edge of the road.

3.7 The eastern half of the trench contained no archaeological features, the ploughsoil having been removed directly onto the underlying bedrock, within which several ploughscars were noted, and the natural subsoil, a yellow brown silty clay (01-018), at the eastern end of the trench.

Trench 2

3.8 Trench 2 was positioned to investigate the south-eastern side of an enclosure identified by the geophysical survey (Roseveare 2013; feature 28). The trench measured 23m in length, aligned north-west/south-east and centred at SO 12478 91681 (Fig. 8).

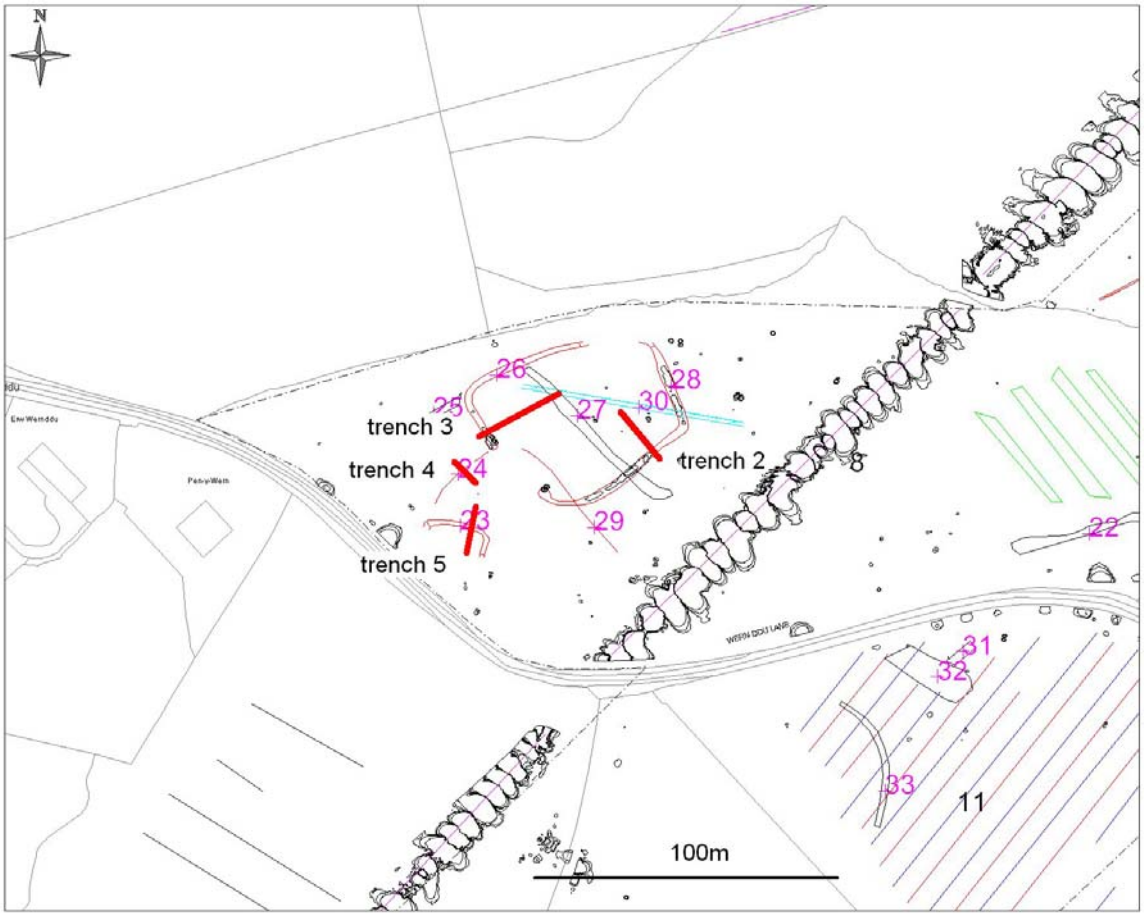

Fig. 8 Location of trenches 2-5

3.9 The natural subsoil (02-004), a mid-brown clay-silt, was exposed along the length of the trench following the removal by machine of up to 0.55m of topsoil and ploughsoil (02-001 and 002). A broad ditch (02-008) was identified towards the south-eastern end of the trench (Fig. 37) in a position, which corresponded with the feature revealed by the geophysical survey. The ditch was up to 2.9m wide and at least 1.5m deep, although the base was not excavated owing to waterlogging. The ditch had a generally V-shaped profile, although it was notable that the outer edge sloped more steeply than the inner (Fig. 10). The basal fill consisted of a light greyish yellow clay with small stones (02-018), representing an initial period of stabilization. This was sealed by a grey clay silt (02-017) containing rounded stones and a brown silty clay (02-015). These deposits appear to have been derived primarily from the inner side of the ditch, perhaps owing to the presence of an accompanying bank, but also reflecting the natural slope of the hilltop. The silting profile suggests that a second period of stabilization may have followed before the advent of further silting and the formation of a 0.32m-thick layer of light grey clay silt (02-016) containing charcoal flecking. The upper section of the ditch deposits had the appearance of having been deliberately infilled, initially by a dump of large angular stones within a silty clay matrix (02-014; Fig. 9) which, although lying against the south-eastern edge of the ditch, was probably deposited from the north-west, perhaps indicating a slighting of the bank. This was sealed by a deposit of grey-brown silty clay (02-013) and an upper fill consisting

of brown silty clay (02-007). Bulk soil samples were taken from two of the fills (02-014 and 016).

Fig. 9 Enclosure ditch 02-008 partly excavated, showing stone deposit 02-014, viewed from the south-west. Photo CPAT 3716-0124

Fig. 10 Enclosure ditch 02-008 viewed from the south-west. Photo CPAT 3716-0170-0117

3.10 A post-hole (02-010) with stone packing was identified 0.5m from the inner edge of the enclosure ditch, measuring 0.48m by 0.4m and 0.3m deep (Fig. 11). The position of the post-hole is likely to correspond with enclosure bank, which it has been assumed lay on the inside of the ditch. Given the lack of surviving stratigraphy it is not possible to determine its relationship with the enclosure, but if contemporary the post-hole must have been dug before the bank was constructed, perhaps to hold a post which was later embedded within the bank and could have been part of a palisade.

Fig. 11 Post-hole 10-010 showing stone packers, viewed from the south-east.
Photo CPAT 3716

3.11 The only other feature identified within the interior was a shallow butt-ended gully (02-006) adjacent to the post-hole and aligned north-east to south-west, measuring 0.6m wide and 0.16m deep. The fill consisted of a brown clay-silt (02-005) from which no artefacts were forthcoming.

Trench 3

3.12 Trench 3 was positioned to investigate the south-western side of an enclosure and a linear feature crossing it which were identified by the geophysical survey (Roseveare 2013; features 26 and 27). The trench measured 34m in length, aligned north-east/south-west and centred at SO 12439 91688 (Figs 8 and 38).

3.13 The trench was located on the summit of a small hill and the topsoil and ploughsoil (03-001 and 002) were generally rather thin, with a combined thickness of around 0.15m, though greater at the south-western end of the trench, below the crest of the hill. In the central section of the trench a thin deposit of compacted, stony, silty clay (03-004) up to 80mm thick lay below the ploughsoil and directly above the natural subsoil, a mottled clay containing shattered bedrock and rounded stones (03-006).

3.14 A 2.5m-wide ditch (03-005) was identified towards the south-western end of the trench (Fig. 12), corresponding with that revealed by the geophysics and representing the south-western side of the enclosure. The ditch was not excavated, although a single sherd of Roman greyware was recovered from the upper fill (03-003), which partly overlay an earlier fill (03-019) which was visible against the inner edge of the ditch. The ditch was slightly narrower than its counterpart in trench 2 which may be due in part to truncation of the upper levels by cultivation.

Fig. 12 The enclosure ditch (03-005) in trench 3, viewed from the east. Photo CPAT 3716-0148

3.15 A second ditch (03-016) was identified at the north-western end of the trench (Fig. 13) which corresponded with a linear feature revealed by the geophysics (Roseveare 2013, aligned north-west to south-east. The ditch was at least 1.7m wide, extending beyond the limits of excavation, and was filled by a deposit of silty clay (03-015) which had been cut by a trench containing a ceramic land drain (03-018). The function of the ditch is uncertain, although it has the appearance from the geophysics of perhaps being a former field boundary and it may be significant that the nature and depth of the ploughsoil was different in trenches 2 and 3, lying either side of the feature, with the area to the west (trench 2) having been subject to a higher level of agricultural activity. While it is clear that the feature is not contemporary with the

enclosure its date remains unproven, although the relationship with the land drain demonstrates that it is likely to pre-date the 19th century at least.

Fig. 13 Ditch (03-006) viewed from the north-east. Photo CPAT 3716-0137

3.16 Four features were identified within the interior of the enclosure, although it is not possible to determine their association owing to a lack of stratigraphy: a small, roughly circular pit or post-hole (03-008) 0.6m cross and 0.15m deep; an adjacent pit or stonehole (03-010); a possible gully (03-012), 0.4m in width; and a shallow pit (03-014), 1.5m across and 0.2m deep.

Trenches 4 and 5

3.17 Trenches 4 and 5 were originally positioned to investigate two narrow ditched features identified by the geophysical survey adjacent to an enclosure (Roseveare 2013; features 23 and 24), although they was subsequently withdrawn from the programme as changes in the design of the road scheme meant that the area would not be subject to any potential impacts.

Trench 6

3.18 Trench 6 was positioned to investigate a narrow ditched feature identified by the geophysical survey and thought to represent part of a possible enclosure (Roseveare 2013; feature 34). The trench measured 10m in length, aligned north/south and centred at SO 12432 91410 (Fig. 14).

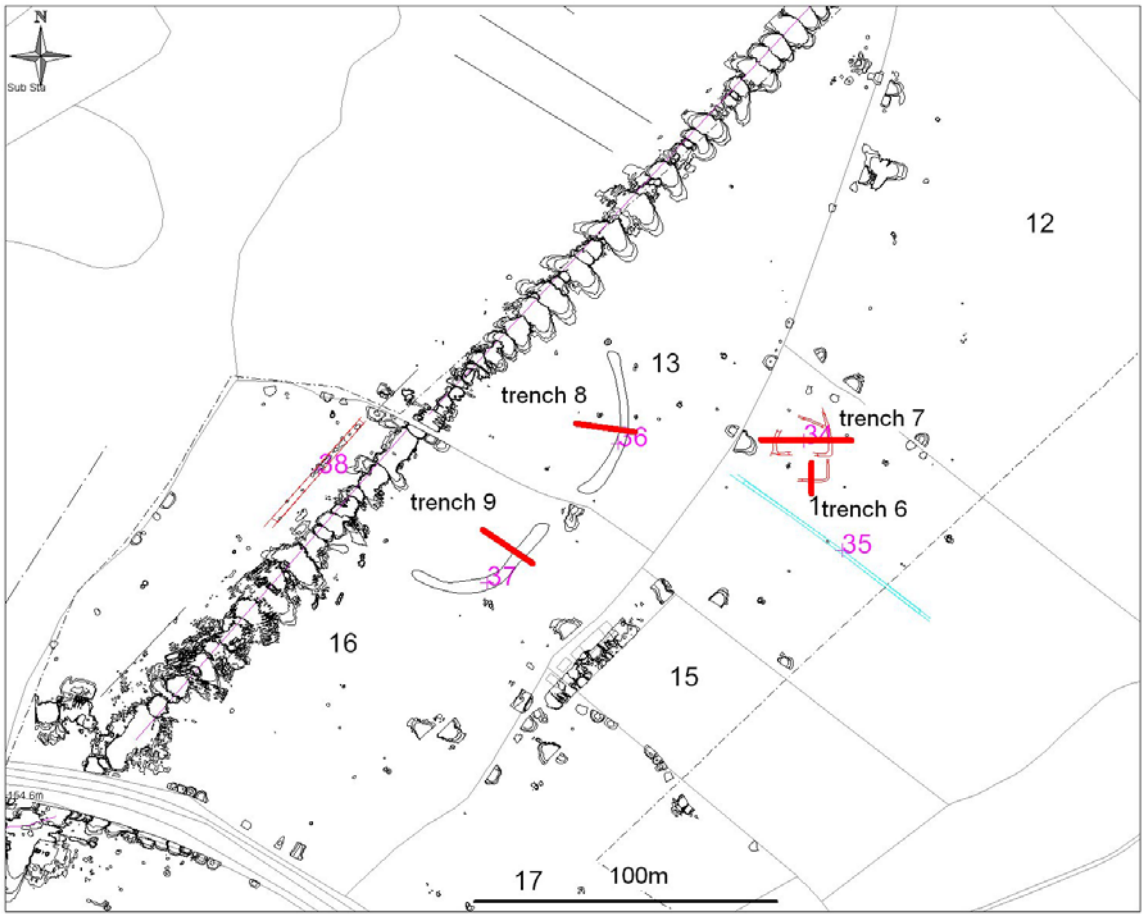

Fig. 14 Location of trenches 6-9

3.19 The removal of around 0.2m of topsoil (06-001) and a further 80mm of former ploughsoil (06-002) revealed the natural subsoil, a mottled silty clay (06-005), changing to an orange brown silty clay (06-003) to the south. The subsoil had been cut by a ditch (06-006) corresponding to the feature identified by the geophysics (Fig. 39). The ditch was up to 1.3m in width and 0.48m deep, with sloping sides and a relatively flat base (Fig. 15). The primary fill (06-008) consisted of a 70mm-thick deposit of grey brown silty clay, sealed beneath a layer of yellowish brown silty clay (06-007), which contained some small stones, more notably towards the base of the deposit. There was no evidence to suggest the position of any accompanying banks and no artefacts were recovered from the ditch fills to indicate the likely date of the feature.

3.20 The surface of the natural subsoil was notably different on either side of the ditch, being more disturbed on the south side and perhaps reflecting differing land-use, suggesting that the ditch may be part of a field system which pre-dates the present arrangement of fields.

Fig. 15 Trench 6, ditch 06-005 viewed from the east. Photo CPAT 3717-0160

Trench 7

3.21 Trench 7 was positioned to investigate a narrow ditched feature identified by the geophysical survey and thought to represent part of a possible enclosure (Roseveare 2013; feature 34). The trench measured 30m in length, aligned east/west and centred at SO 12431 91422 (Figs 14 and 40).

3.22 The removal of up to 0.45m of topsoil and former ploughsoil (07-001 and 002) revealed the natural subsoil (07-20 and 21), which consisted of variable clay, silts subject to waterlogging. A number of potentially archaeological features were investigated, but subsequently discounted, including an irregular pit-like feature (07-010) around 3.5m across which was interpreted as a probable tree-throw.

3.23 A narrow, linear ditch (07-005) was identified cutting into the natural subsoil, which corresponded with one of the anomalies revealed by the geophysics. The ditch was aligned north/south and measured up to 0.95m wide and 0.36m deep, with sloping sides and a rounded base (Fig. 16). The basal fill consisted of a 70mm-thick deposit of yellowish grey silty clay (07-023), while the majority of the ditch was filled by a greyish brown clay silt (07-006). A possible pit (07-003) lay immediately adjacent to the eastern side of the ditch, although no relationship could be established with certainty. Neither feature produced any artefactual evidence.

3.24 The results from the geophysical survey had suggested that a second ditch might be present within the western half of the trench, which, together with ditch 07-005, could have defined the southern part of a rectilinear enclosure. However, the evaluation failed to provide any evidence for a ditch in this area, although owing to waterlogging of the trench during the excavation there remains an element of uncertainty.

3.25 The only artefactual evidence from the trench consisted of a single piece of flint (Find no 07-103) from the ploughsoil and a rim sherd of Neolithic pottery from the surface of the natural subsoil 07-022.

Fig. 16 Trench 7 ditch 07-005 viewed from the south. Photo CPAT 3717-0152

Trench 8

3.26 Trench 8 was positioned to investigate a curving ditched feature identified by the geophysical survey and thought to represent part of a possible enclosure or field system (Roseveare 2013; feature 36). The trench measured 20m in length, aligned east/west and centred at SO 12364 91426 (Figs 14 and 41).

3.27 The topsoil (08-001) and ploughsoil (08-002), with a combined thickness of around 0.3m, were removed by machine to reveal three successive deposits of silty clay (08-004, 003 and 005) with a total thickness of 0.6m, which were interpreted as hillwash or cultivation soils and also removed by machine. In the lower, eastern half of the trench three waterlogged deposits of clay (08-006, 007 and 008) lay below the hillwash and above the underlying yellow clay subsoil (08-010).

3.28 No archaeologically significant deposits or features were identified and the geophysics anomaly is most likely caused by differing magnetic responses caused by variations in the depth, thickness and composition of the deposits.

Trench 9

3.29 Trench 9 was positioned to investigate a curving ditched feature identified by the geophysical survey and thought to represent part of a possible enclosure or field system (Roseveare 2013; feature 37). The trench measured 20m in length, aligned north-west/south-east and centred at SO 12332 91387 (Figs 17 and 41).

Fig. 17 Trench 9 viewed from the west. Photo CPAT 3716-0063

3.30 The deposits observed in trench 9 were very similar to those in trench 8. Up to 0.47m of topsoil and ploughsoil were removed by machine to reveal a sequence of silty clay deposits (09-003, 004 and 005) which may represent layers of hillwash or cultivation soils. These too were removed carefully by machine. Flecks of charcoal were noted two of the deposits (09-004 and 005) and a single piece of struck flint (09-101) was recovered from 09-005. A band of stones (09-006) was observed within one of the deposits (09-004), although there was no indication that they had been artificially placed. At the south-eastern end of the trench a grey brown silty clay (09-007), around 0.3m thick, was identified below the ploughsoil and above the hillwash, from which a single flint (09-100) was recovered.

Trench 10

3.31 Trench 10 was positioned to investigate a Y-shaped cropmark thought to represent part of a possible field system (PRN 4650). The trench measured 20m in length, aligned east/west and centred at SO 12200 91250 (Figs 18 and 42).

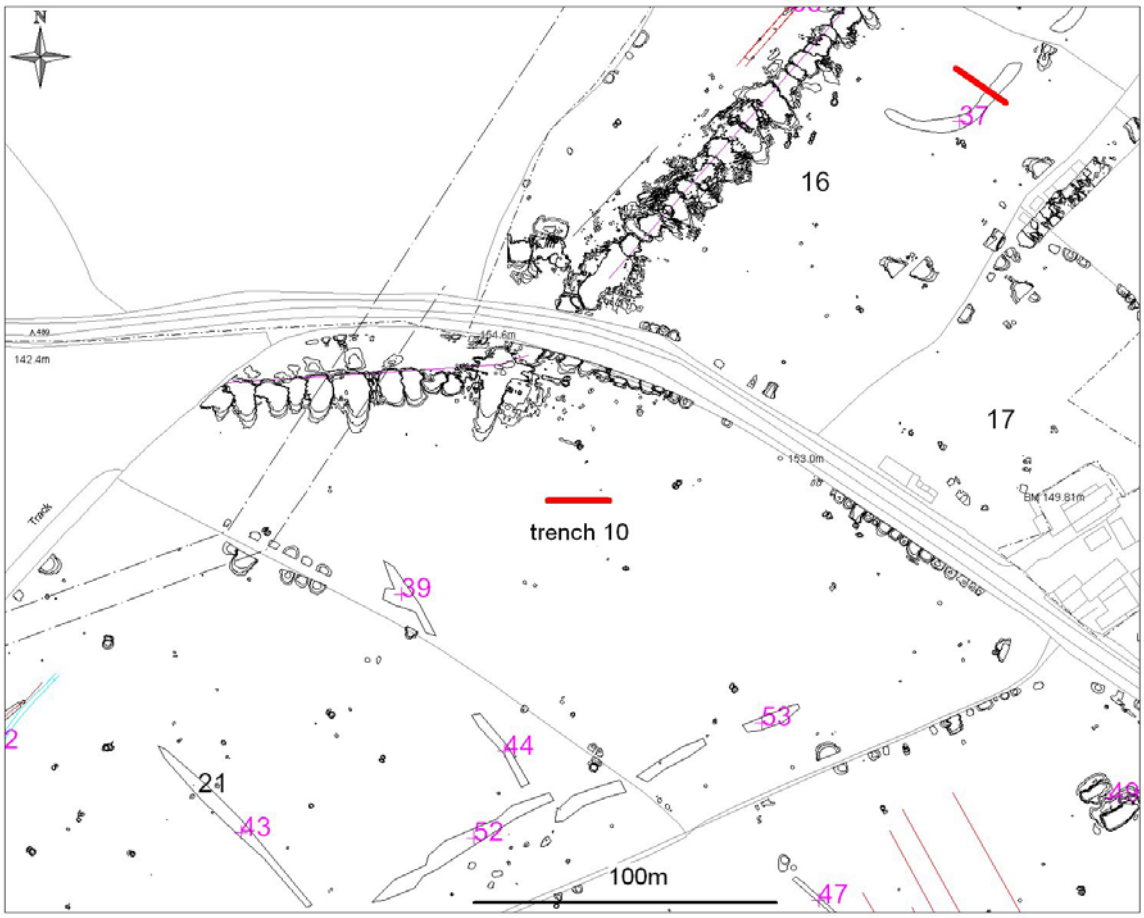

Fig. 18 Location of trench 10

3.32 The removal by machine of up to 0.3m of topsoil (10-001) and ploughsoil (10-002) revealed a rough metalled surface (10-003) at the western end of the trench, measuring around 7.8m wide, and aligned north-east to south-west (Fig. 18). Further investigation demonstrated that this was only 80mm thick but overlay a more substantial and compacted surface (10-011) up to 0.12m thick, composed of rounded pebbles within a matrix of pale greenish grey silty clay. No dating evidence was recovered from either surface, although the underlying deposit, a brown silty clay (10-004), contained a range of 18th- and 19th-century finds (10-105) and is likely to represent a former ploughsoil, indicating that the stone surfaces are relatively recent. The lower stone surface also sealed a deposit of mottled brown silty clay (10-016) which may have been the fill of a feature cutting into the former ploughsoil. In the area beneath the metalled surfaces the former ploughsoil was significantly deeper and appeared to be filling a broad depression around 3.5m in width, which may be an infilled holloway, of which the metalling represents a more recent phase.

3.33 The former ploughsoil (10-004) was removed by hand onto the surface of a brown silty clay (10-006) to the east of the presumed holloway and similar mottled deposits with occasional charcoal flecking (10-005) to the west. The only artefactual evidence for either layer was a flint flake (Find 10-100) from eastern deposit. Both layers sealed a 0.16m-thick deposit of pale grey

silty clay (10-010), which lay within a natural depression in the surface of the underlying subsoil (10-008). Finds from the deposit included two joining rim sherds of pottery with impressed cord decoration (Find 10-103) and a flint flake (10-101). The pottery is typical of the later Neolithic Peterborough ware tradition. A band of rounded stones (10-009) was also noted within the layer, although this was not obviously associated with any feature or structure.

3.34 A probable gully (10-014) at the eastern end of the trench cut into the natural subsoil (10-008). The feature was up to 0.2m deep and at least 0.54m wide with a basal fill (10-013) similar to deposit 10-010 and an upper fill (10-012) similar to deposit 10-006. At the western end of the trench a possible pit (10-015), around 1.1m across, was identified, perhaps cutting through deposit 10-010, but not investigated owing to waterlogging.

Fig. 19 Trench 10 viewed from the east showing the position of the metalled surface (10-003 and 10-011) between the furthest two scales and the surface of the natural subsoil (10-008) in the foreground, cut by a pit or gully (10-014) and a land drain (10-007).
Photo CPAT 3716-0043).

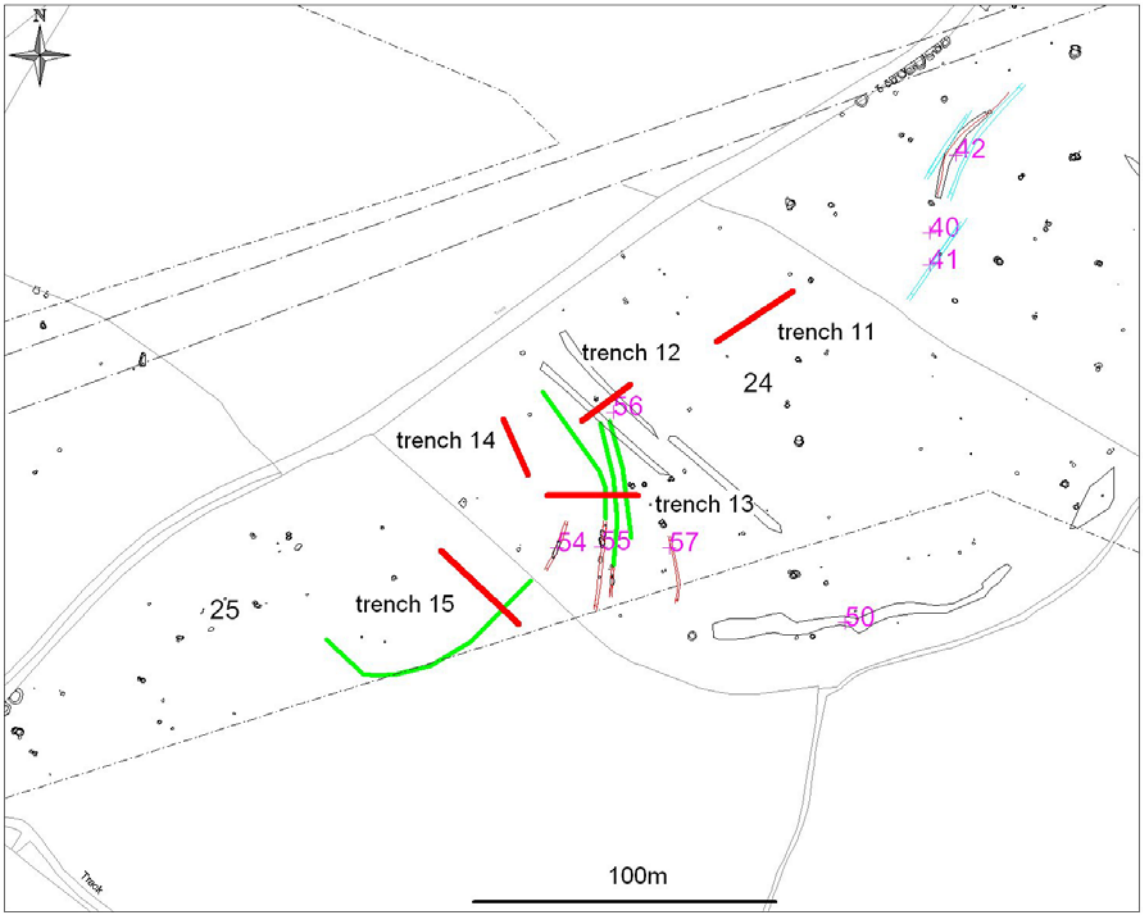

Fig. 20 Location of trenches 11-15

Trench 11

3.35 Trench 11 was positioned along the crest of a natural ridge, the topography of which was such that it presented a likely location for past human activity, although the geophysical survey produced no evidence for such. The trench measured 30m in length, aligned north-east/south-west and centred at SO 11938 91115 (Fig. 20).

3.36 The removal of up to 0.3m of topsoil (11-001) and modern ploughsoil (11-002) revealed the underlying bedrock (11-003) along the entire length of the trench with no evidence for any archaeological features or finds.

Trench 12

3.37 Trench 13 was positioned to investigate two parallel ditch-like features identified by the geophysical survey (Roseveare 2013; feature 56). The trench measured 20m in length, aligned north-east/south-west and centred at SO 11889 91087 (Figs 20 and 43).

3.38 The topsoil (12-001) and modern ploughsoil (12-002), with a combined thickness of 0.3m, were removed, revealing a layer of stiff, yellow-grey silty clay (12-07), which extended across the entire trench. The deposit is assumed to represent a former ploughsoil, up to 80mm thick, although hand-excavation produced no evidence to indicate its date. A shallow gully (12-006; Fig. 21) was revealed beneath the deposit, aligned north-east/south-west and cut into the underlying subsoil, a yellow-brown stony clay (12-003) at the upper end of the trench and shale bedrock (12-004) at the lower end of the trench. The gully was around 0.55m wide and 0.25m deep, filled by a single deposit of might to mid grey silty clay (12-005). No cultural material was recovered from the gully, the date and function of which remain unknown.

3.39 There was no evidence for the potential features identified by the geophysical survey which may therefore be related to changes in the underlying geology.

Fig. 21 Trench 12 viewed from the north-east, showing gully 12-006. Photo CPAT 3716-0025

Trench 13

3.40 Trench 13 was positioned to investigate a series of ditches identified by the geophysical survey (Roseveare 2013; features 54 and 55), and also previously recorded as cropmarks, which were thought to represent a later prehistoric hilltop enclosure and associated features. The trench measured 30m in length, aligned east/west and centred at SO 11885 91056 (Figs 20 and 44).

3.41 The topsoil (13-001) was of a fairly uniform thickness of 90mm along the length of the trench, while the underlying ploughsoil (13-002) varied in thickness from 0.15m at the upper, western end of the trench, to 0.24m at the eastern end. The only artefacts recovered from the topsoil were a sherd of medieval pottery and another of 17th- or 18th-century slipware (Find no. 13-111). The removal of the ploughsoil revealed the surface of the bedrock (13-003) along the upper, western half of the trench, and a natural clay subsoil (13-016) further to the east. Patches of weathered bedrock (13-014 and 018) were also noted, as well as areas of weathered, stony clay (13-015 and 017) at the interface of the clay subsoil and ploughsoil. The latter were subject to further investigation which determined that they were naturally occurring deposits.

3.42 Three narrow, rock-cut gullies were identified cutting into the subsoil and bedrock which, from their position and orientation, are likely to equate to some of the cropmarks which have been recorded in this area. Unfortunately, the aerial photograph (RCAHMW 95-cs-1316) in question is at an oblique angle with insufficient fixed control points to allow for accurate rectification, given the sloping nature of the terrain.

Fig. 22 Trench 13 viewed from the south, showing gully 13-010. Photo CPAT 3716-0026

3.43 The eastern gully (13-010) was between 0.51m and 0.36m in width and up to 0.25m deep (Fig. 22), filled by a deposit of clay silt (13-011) from which no artefacts were forthcoming. Around 2m further to the west, and with a slightly different orientation, were a pair of parallel gullies, separated by around 0.4m (Fig. 23). The easternmost of the pair (13-006) was 0.6m wide and 0.3m deep, with concave sides and a relatively flat base. The lower fill (13-007) consisted of a light yellowish-grey clay silt, while the upper fill was similar, but darker in colour and with a

greater proportion of stone. The western gully (13-004) measured up to 0.85m in width and 0.23m deep, with similar lower and upper fills (13-005 and 012 respectively) to those in the adjacent gully. The only artefactual evidence was a very small sherd of undiagnostic redware pottery (Find no. 13-103) from the lower fill (13-005) of the western gully (13-004).

Fig. 23 Trench 13 viewed from the south-east, showing gullies 13-004 and 006.
Photo CPAT 3716-0024

3.44 The trench had been positioned in order to intersect the projected line of the ditch defining the postulated ridge-top enclosure, which had been identified from cropmarks and the geophysical survey. However, although the ditch was confirmed in trench 15 (see below), the excavations within trench 13 produced no evidence for its continuation.

Trench 14

3.45 Trench 14 was positioned to investigate the northern side of a possible later prehistoric hilltop enclosure in an area not covered by the geophysical survey, and where no cropmarks had been recorded. The trench measured 20m in length, aligned north/south and centred at SO 11850 91072 (Figs 20 and 45).

3.46 The removal of the topsoil (14-001) and modern ploughsoil (14-002), with a combined thickness of 0.18m revealed the underlying bedrock (14-003) across the entire trench, within which ploughscarring was evident. The only feature was a small, undated, rock-cut post-hole (14-004; Fig. 24), measuring 0.34m by 0.28m and up to 0.15m deep (Fig. 24). The fill (14-005), a bluish-grey sandy-silt, contained flecks of charcoal but produced no cultural material.

Fig. 24 Trench 14 viewed from the north-east, showing post-hole 14-004.
Photo CPAT 3717-0022

Trench 15

3.47 Trench 15 was positioned to investigate the southern side of a possible later prehistoric hilltop enclosure in an area where cropmark evidence suggested a curving ditch partly surrounding the hilltop, although this was not identified by the geophysical survey. The trench was originally intended to be 15m in length, but at the request of the curator, and with the consent of the client, this was extended to 35m in order to examine a greater area of the possible enclosure interior. The trench was aligned north-west/south-east and centred at SO 11847 91026 (Figs 20 and 46).

3.48 The removal of 0.1m of topsoil (15-001) and up to 01.5m of ploughsoil (15-002) revealed the underlying bedrock (15-003) along the majority of the trench. At the downslope, south-western end of the trench the bedrock, which had a near vertical bedding plain, was interspersed with a natural deposit of silty clay.

3.49 A rock-cut ditch (15-008) was identified which corresponded with the cropmark evidence and may be part of a small hilltop enclosure. This was up to 1.72m wide and 0.95m deep with a steeply-sloping outer edge and more gradual slope to the inner edge (Fig. 25). Initial weathering of the ditch had formed a thin primary silt (15-018) in the base and against the inner edge of the ditch, while the main fill was a uniform deposit of yellow brown clay silt (15-017).

Fig. 25 Ditch 15-008 viewed from the south-west.
Photo CPAT 3717-0079

3.50 Two features were identified in the interior of the possible enclosure, consisting of an elongated pit, or perhaps the butt-end of a gully (15-006) and a small post-hole (15-004). The former was around 1.55m wide and up to 0.5m deep, filled by a basal deposit of stony clay silt (15-016) and a main will consisting of grey brown clay silt (15-007). The post-hole measured 0.7m in diameter and 0.5m deep, with a fill of yellowish brown clay silt (15-005) (Fig. 26). No artefacts were recovered from either feature.

Fig. 26 Post-hole 15-004 viewed from the south-west.
Photo CPAT 3717-0097

Trenches 16 and 17

3.51 Trenches 16 and 17 were positioned to investigate possible ditched features identified by the geophysical survey (Roseveare 2013; feature 63 and 64), although they was subsequently withdrawn from the programme as changes in the design of the road scheme meant that the area would not be subject to any potential impacts.

Trench 18

3.52 Trench 18 was positioned to investigate a possible enclosure or geological feature identified by the geophysical survey (Roseveare 2013; feature 68). The trench measured 15m in length, aligned north-west/south-east and centred at SO 10860 90400 (Figs 27 and 47).

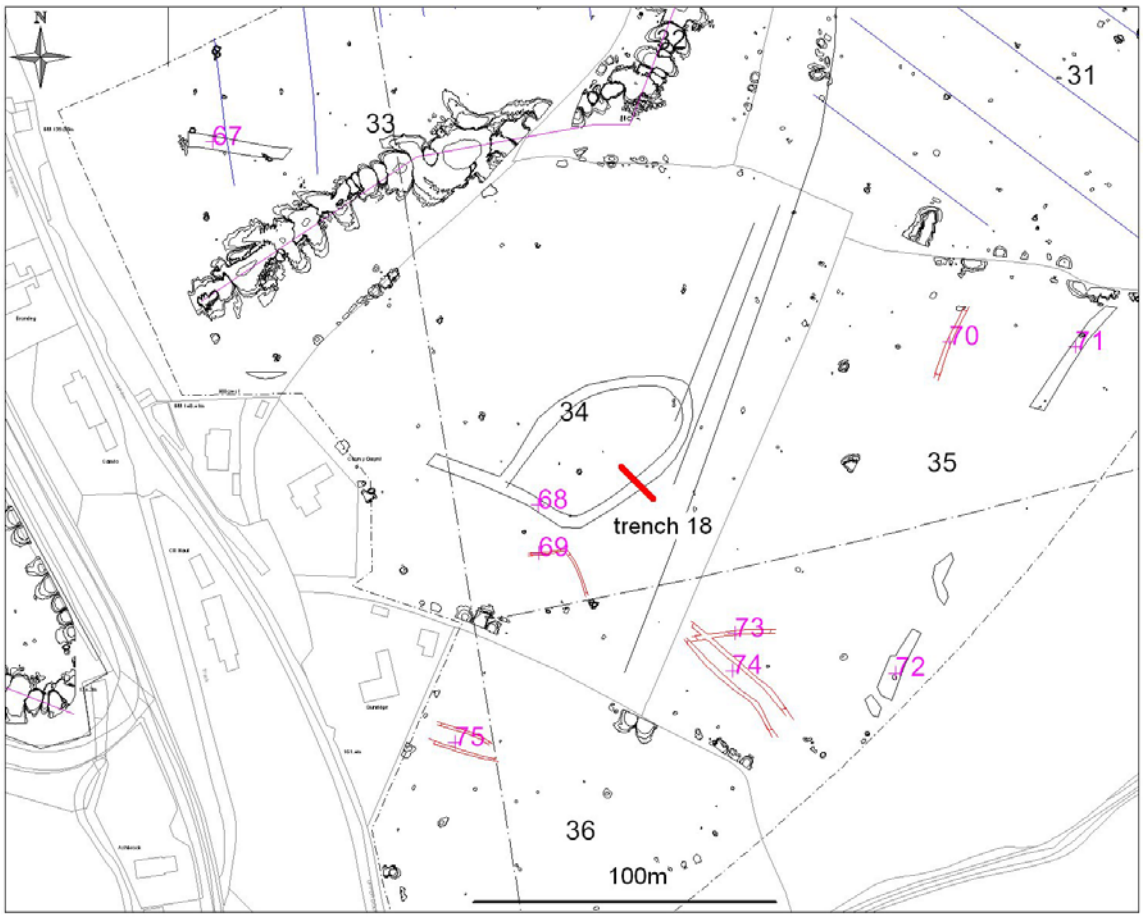

Fig. 27 Location of trench 18

3.53 Following the removal of up to 0.3m of topsoil and ploughsoil (18-001 and 002), which contained a single flint blade (find 18-102), the natural clay subsoil (18-012) was revealed at the south-eastern end of the trench, cut by a modern land drain (18-011). Elsewhere there was a 0.24m-thick layer of orange brown silty clay (18-003), from which two sherds of pottery were recovered, the fabrics of which suggest that one may be Neolithic (find 18-104) while the other is more likely to be Bronze Age in date (find 18-103).

3.54 Context 18-003 sealed two further deposits, a reddish brown silty clay (18-004) and beneath that a thin layer of greenish grey clay (18-005). The removal of the lower deposit revealed a sub-circular pit (18-007) up to 1.1m across and 0.1m deep, cut through a layer of grey silty clay (18-013) which contained frequent flecks of charcoal. The pit was filled by a dark grey silty clay (18-006) from which a sherd of Neolithic pottery (find 18-106) was recovered and a 20 litre soil sample (find 18-107) was retained for possible analysis.

3.55 A possible ditch (18-009) with a width of around 1.8m was identified in the central area of the trench and is likely to represent the feature revealed by the geophysical survey. The ditch was filled by a deposit of dark grey silty clay (18-008) containing frequent charcoal flecks and was

sealed beneath layer 18-005. Although the ditch was not excavated owing to waterlogging a sherd of Neolithic pottery (find 18-005) was recovered from the surface upper part of the fill.

Fig. 28 Trench 18 viewed from the north-west, showing pit 18-007 adjacent to the short scale and ditch 18-009 between the larger scales. Photo CPAT 3717-0097

Trench 19

3.56 Trench 19 was intended to investigate a possible ditched feature identified by the geophysical survey (Roseveare 2013; feature 103), although problems with access prevented the excavation of the trench.

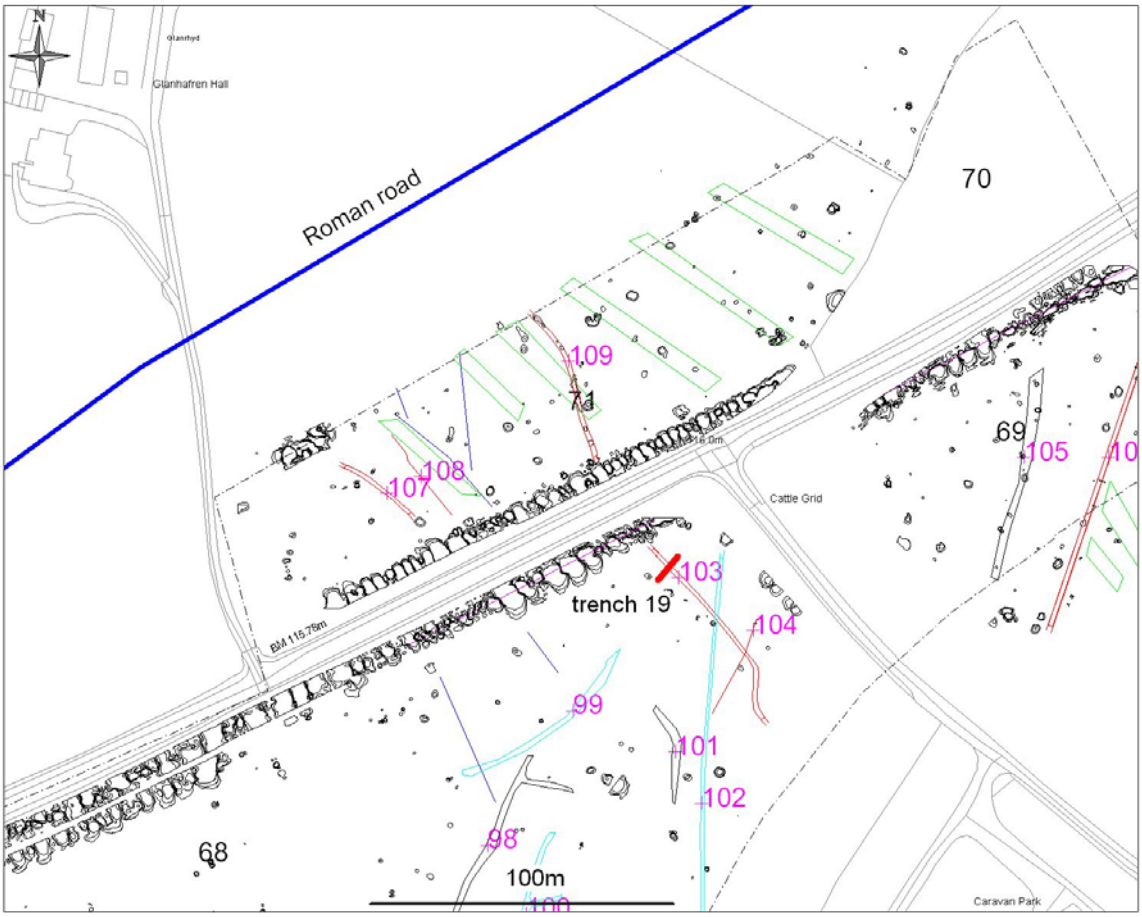

Fig. 29 Location of trench 19

Trench 20

3.57 Trench 20 was positioned to investigate a possible enclosure or geological feature identified by the geophysical survey (Roseveare 2013). The trench measured 18.3m in length, aligned north-east/south-west and centred at SO 10150 90248 (Figs 30-31).

3.58 Following the removal of around 0.4m of topsoil and ploughsoil (20-001 and 002), the natural clay subsoil (20-009) was revealed along the length of the trench. Owing to difficulties in positioning the trench the geophysical anomaly on which the excavation was targeted lay at the north-eastern end of the trench and corresponded with a broad, shallow, irregular depression (20-005/013) up 0.35m deep, the upper fill of which consisted of a layer of dark brown silty clay (20-003) which extended for around 5.4m. The only artefacts recovered from this layer were several sherds of Romano-British pottery, including Malvernian ware and some abraded redware (20-101). On the eastern side this overlay a deposit of orange-brown silty clay (20-012) which appeared to be against the edge of a feature (20-013) which was cut through a layer of mottled silt (20-008), lying above the natural subsoil. A shallow, sub-rounded pit (20-007), 0.8m across and 0.5m deep, was revealed in the base of the depression, although its date and function are unknown.

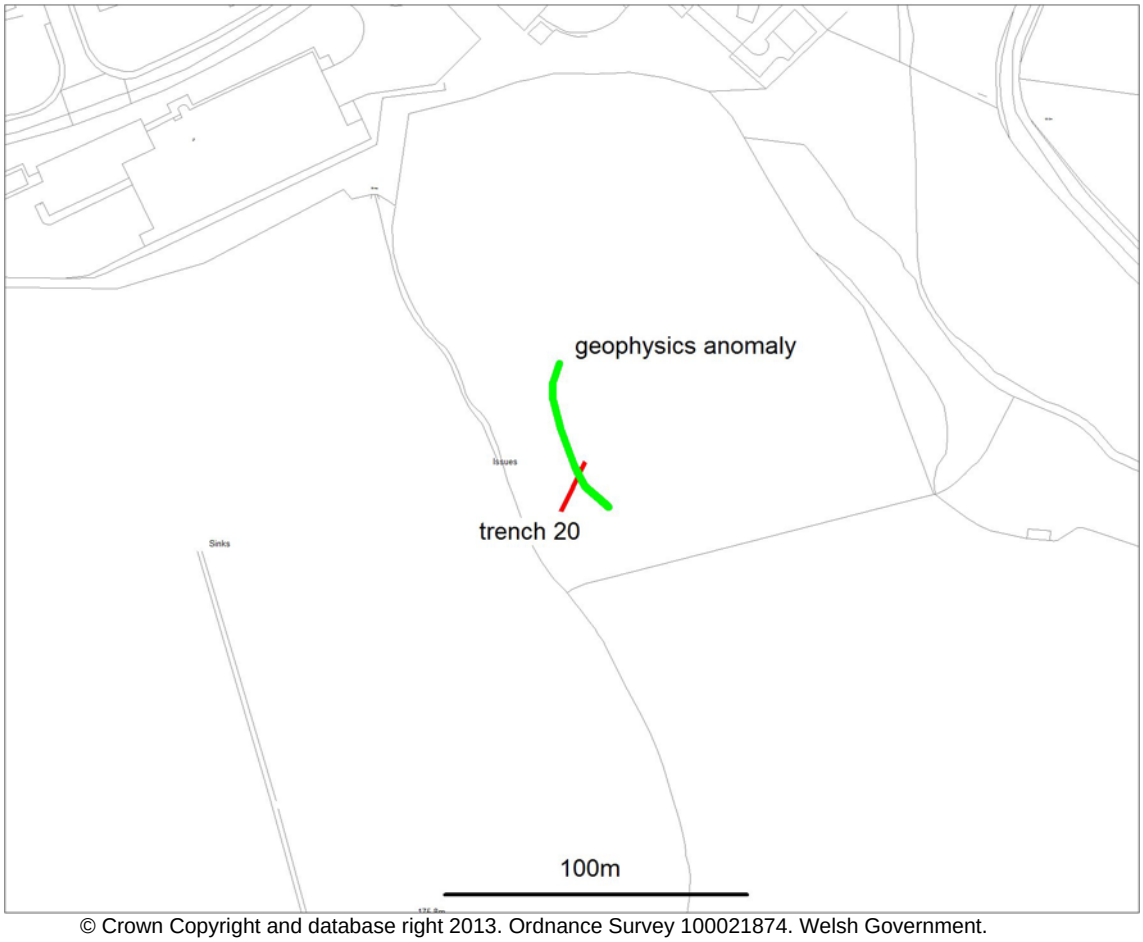

Fig. 30 Location of trench 20

3.59 Following the removal of layer 20-013 a narrower depression (20-005) was evident, cutting into the natural subsoil. This was up to 1.8m wide and 0.18m deep, with a spread of stony material (20-011) against either side, sealed beneath a layer of dark brown silty clay (20-004).

3.60 It is possible that these depressions are the remnants of a former trackway and the presence of the stony layer (20-011) adds some weight to this interpretation, although this is far from certain. Although collectively these features coincide with the position of the geophysics anomaly they appear too slight top produce this response. The anomaly follows the contours of a low spur and it is possible that it may in part reflect a greater depth of soils around the base of the slope, which perhaps coincide with a former trackway. The presence of Romano-British pottery clearly indicates some activity in the area, though their abraded nature suggests that they may have been deposited within the feature through the action of the plough, rather than providing primary dating evidence.

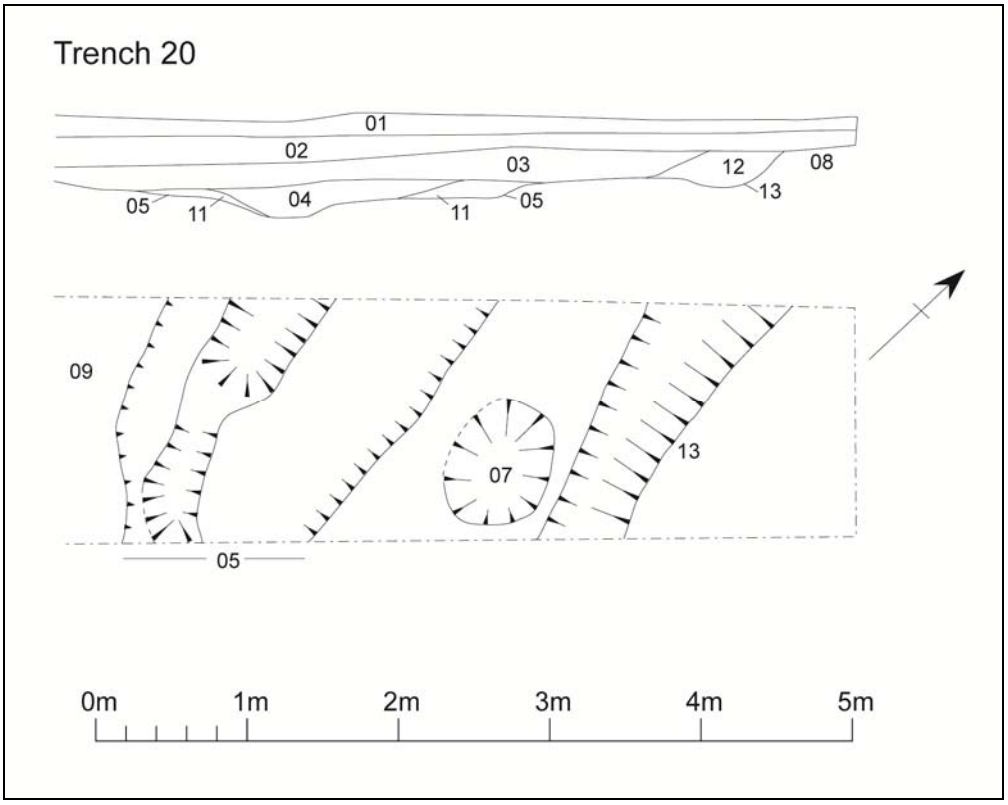

Fig. 31 Plan and section of the north-eastern end of trench 20

Fig. 32 Trench 20 – the base of the depression (05) viewed from the south-east, showing the stony material against either side. Photo CPAT 3835-0020

Trench 21

3.61 Trench 21 was positioned to investigate a section of the Roman road between Forden Gaer and Caersws near Glan Hafren, at the western end of the scheme. The line of the road had been confirmed in 2006 when it was recorded by RCAHMW as a series of parchmarks in pasture. The trench measured 16m in length, aligned north-west/south-east and centred at SO 08216 90248 (Figs 33 and 48).

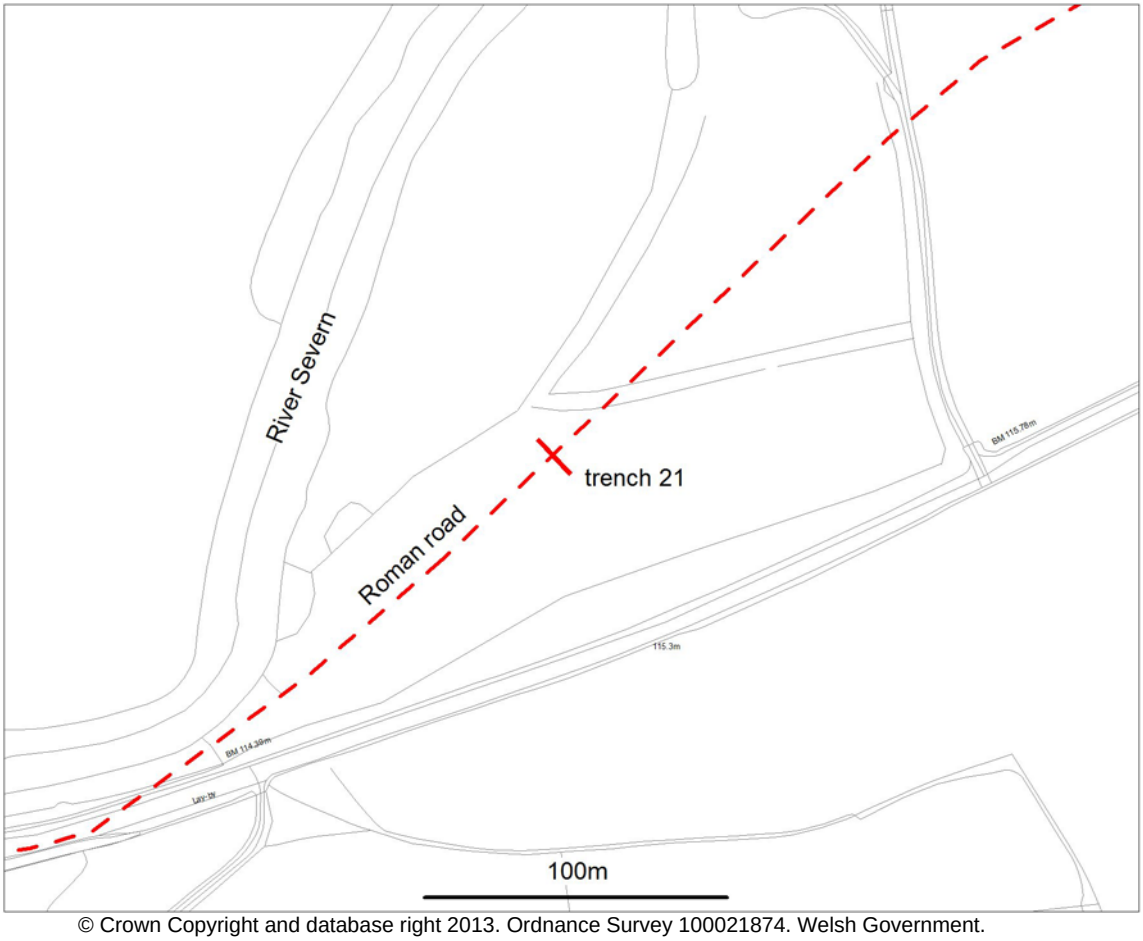

Fig. 33 Location of trench 21

3.62 Topographically, the Roman road lies on the south-east side of a natural ridge and crosses the edge of a depression, its line having been chosen to avoid a prominent meander in the nearby River Severn. The excavation demonstrated that the road was constructed above a deposit of silty clay (21-015) which contained charcoal flecks and a small quantity of organic material, including fragments of small twigs. This deposit, which lay directly above the natural subsoil (21-018), presumably represents a natural accumulation of material in the base of the depression which may have at one time held a small pond.

3.63 The primary road construction consisted of a compacted layer of large river gravel (21-014), which was at least 0.14m thick and included a number of larger cobbles defining the south-eastern edge (Fig. 34). This was sealed beneath a further construction deposit of clay and stones (21-013), up to 0.16m thick, onto which the earliest phase of road was constructed. This comprised a metalled surface around 5.2m in width formed by a very compact deposit of small river gravel in a silty clay matrix (21-012).

Fig. 34 The Roman road surfaces in Trench 21 and construction deposits on the south-eastern side of the road. Photo CPAT 3842-0055

Fig. 35 Trench 21 showing the latest road surface (21-007), viewed from the south. Photo CPAT 3842-0005

3.64 A second phase of construction was evident, sealing the original surface and comprising a deposit of stony clay (21-011) up to 0.18m thick, which provided the base for a very compacted layer of river gravels (21-010) forming a metalled surface around 3.2m wide with a possible wheelrut along the south-eastern edge of the road. There was no evidence to suggest the presence of roadside ditches associated with either phase of the road.

3.65 The depositional sequence on the south-east side of the road revealed an accumulation of silty clay (21-006), up to 0.2m thick, which overlay the first phase road edge and extended as far as the edge of the second phase road surface. A later period of usage for the road is indicated by a rough, loose surface, around 3.2m wide and consisting of small rounded gravel in a silty clay matrix (21-007), within which a number of ploughscars were evident. This extended beyond the second phase road edge on the south-east side, where it was founded on two deposits of silty clay (21-008 and 009), sealing layer 21-006. The surface was not as well-made as the two previous road surfaces and was not of typically Roman construction, suggesting that this might reflect a later reuse of the road in either the later, non-military, Roman period, or possibly reuse during the medieval or later periods.

3.66 No artefactual evidence was forthcoming to indicate the date of any of the phases of road construction.

4 Finds

4.1 The evaluation produced only a small assemblage of artefacts, a full catalogue of which is provided in Appendix 1. The majority of finds consisted of 18th- and 19th-century material from the topsoil and ploughsoil which has been recorded but not retained. There were, however, a small number of more significant artefacts which are summarized below.

Prehistoric artefacts

4.2 Sherds of prehistoric pottery were recovered from trenches, 7, 10 and 18. Two conjoining sherds from trench 10 had impressed cord decoration typical of the later Neolithic Peterborough ware tradition (find 10-103), while a single sherd from trench 7 (find 07-106) and four sherds, including a rim, from trench 18 (finds 18-104 to 106) are also likely to be Neolithic in date. Trench 18 also produced a single sherd of pottery which is perhaps more likely to be Bronze Age in date (find 18-103). Six flints were recovered from trenches 7, 9, 10 and 18. These included a small blade from trench 18 (find 18-102), while the remainder were flint flakes.

Romano-British pottery

4.3 Trenches 2 and 3, which investigated a small hilltop enclosure revealed by the geophysical survey, produced the only Romano-British pottery from the excavations, consisting of two sherds of greyware and a single sherd of redware, none of which were diagnostic. Romano-British pottery was also forthcoming from the possible Holloway identified in Trench 20.

Palaeoenvironmental samples

4.4 Bulk soil samples were recovered from the enclosure ditch (finds 02-104 and 105) in trench 2, the ditch of a possible enclosure in trench 15 (find 15-105) and an adjacent pit or gully (find 15-104) and a post-hole (find 15-1005), as well as from the fill of a pit (find 18-107) containing prehistoric pottery in trench 18. None of the samples have been processed.

4.5 It was also evident that there is the potential for palaeoenvironmental evidence to be preserved in the deposit underlying the Roman road at Glan Hafren (Trench 21), which may be associated with the former presence of a small pond or wet area in a natural depression to the south-east of the road.

5 Archive Assessment

5.1 The results from the preliminary assessment have demonstrated that the site archive has the potential for revealing further information which could aid the interpretation of the archaeology revealed in a number of the evaluation trenches. Depending on the outcome of the project as a whole further investigations may be undertaken which could provide additional information relating to those archaeological features, deposits and artefacts recorded during the evaluation. The current site archive would need to be integrated with that from any future work. Any specialist services and reporting required from the current phase of evaluation has been deferred until a decision is made regarding the project as a whole.

Site archive

5.2 The drawn, written and photographic record contains the primary data relating to the evaluation. This has been checked, catalogued and ordered in preparation for deposition with the regional HER in due course.

Artefactual record

5.3 The excavations produced a small collection of lithics and prehistoric pottery which will all require specialist identification and reporting.

Palaeoenvironmental record

5.4 The bulk samples are likely to preserve palaeoenvironmental evidence in the form of carbonized plant macro remains. Specialist analysis of the bulk samples from trenches 2, 15 and 18 has the potential for providing information on the fauna and flora of the sites and their environs.

Radiocarbon dating

5.5 This technique has the potential for complementing the artefactual evidence and assisting with phasing the site and identifying priorities for detailed palaeoenvironmental analysis.

6 Conclusions

6.1 The results from the evaluation, together with the geophysical survey, have provided information which elucidates further the archaeological potential along the route of the proposed Newtown Bypass.

6.2 Evidence has been forthcoming to indicate a range of human activity from the Neolithic period to the present day. The earliest evidence for activity consists of a few sherds of Neolithic and Bronze Age pottery and flints found within trenches 7, 10 and 18. While the excavations have produced no direct evidence for occupation, in the form of features which might suggest the presence of structures which can definitely be associated with the artefacts, the existence for these finds, sometimes within stratified deposits, provides an indication of earlier prehistoric activity in three separate areas along the route.

6.3 Trenches 8 and 9 provided no evidence for any archaeological features, although the general accumulation of soils towards the base of the slope included two flints, suggesting prehistoric activity in the general area (SO 1233 9139).

6.4 Later prehistoric activity was already known within the general area, with the prominent Iron Age hillfort at Castell-y-dail lying in close proximity to the southern boundary of the route, while cropmark evidence had suggested a possible defended enclosure near Great Brimmon (SO 1183 9103). The latter site remains unconfirmed despite investigation through geophysics and trial excavations (trenches 13-15). Taken together, the current evidence indicates the presence of a moderately-sized ditch curving around the south-eastern side of a prominent local summit. However, trial excavations on the opposite side of the hill failed to identify a corresponding ditch and although a small number of features were identified towards the crest of the hill the lack of any artefactual or stratigraphic evidence has restricted their interpretation.

6.5 The combination of geophysics and trial excavation (trenches 2-3) has provided further evidence for later prehistoric activity in the form of a previously unknown enclosure on a hilltop location north of Wern Ddu Lane (SO 1246 9170). The enclosure is defined by a single ditch around 2.8m wide and 1.5m deep with an entrance on the western side, enclosing an area 55m long and between 32m and 48m in width. Although the excavated section of the ditch produced no direct evidence for dating a small number of sherds of Romano-British pottery were found within the interior.

6.6 The Roman road between the forts at Forden Gaer and Caersws is already well-attested (Jones and Grant 2013) and its position has been confirmed at the eastern end of the scheme, immediately to the south of the A483 (SO 1301 9213; trench 1). Here the road survives as a slight earthwork terrace in a pasture field and excavations have demonstrated that it is relatively well preserved. The metalled surface was around 6.2m wide with three phases of construction or resurfacing evident, the uppermost preserving a number of wheel ruts. At the western end of the scheme, near Glan Hafren, the line of the road has been known since 2006 while evidence from trench 21 has demonstrated two phases of construction with a later phase of resurfacing of possible later Roman, or post-Roman date.

6.7 Evidence from the geophysical survey and evaluation suggest the presence of a possible field system near Lower Brimmon (SO 1243 9142). Narrow ditches were identified in trenches 6 and 7, although their form suggested that they were not necessarily associated and no artefactual evidence was forthcoming to indicate their likely date.

6.8 Post-medieval activity is indicated by the general spread of finds from the topsoil and ploughsoil within every trench, presumably being derived from cultivation and the spreading of manure. Evidence from trench 10 (SO 12200 91250) suggested a possible holloway of potentially medieval date, which was superseded by a deliberately stoned surface during the 18th or 19th centuries.

6.9 The trenches were mostly positioned in order to evaluate features revealed by the geophysical survey. However the presence of previously unrecorded archaeological features in a number of trenches, and in particular the recovery of prehistoric artefacts, indicates that there is the potential for significant discoveries elsewhere along the route for which there is currently no evidence. The undulating topography along the route and the presence of a number of steep slopes does, however, reduce significantly the potential for new discoveries along certain sections.

8 Acknowledgements

8.1 The project was managed by the writer with overall supervision of the evaluation by Ian Grant. Thanks are also due to the following for their assistance: Richard Bruten and Nick Madani, Alun Griffiths (Contracting) Ltd; Jo Wall, TCAP; Dr Andrew Pearson, archaeological consultant for TACP; Mark Walters, CPAT Curatorial Section; and Ross McDermott and Phil Darby, Quantum Geotechnical Ltd.

8 References

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APPENDIX 1
SITE ARCHIVE

Trench 01

Context Register

Context	Type	Comments
01-001	Topsoil	
01-002	Ploughsoil	
01-003	Deposit	Old ploughsoil
01-004	Roman Road	Group context for road surface and makeup
01-005	Road surface	Late surface or repair
01-006	Road surface	Late surface or repair
01-007	Wheel ruts	Series of ruts visible in surface of 01-006
01-008	Road surface	Earlier road surface on SE side
01-009	Deposit	Possible bedding deposit for surface 01-008
01-010	Fill	Deposit likely to mark position of ditch on SE side of road
01-011	Ditch	Possible outer edge of roadside ditch on SE of road
01-012	Deposit	Same as 01-003
01-013	Deposit	Soil layer against NW side of road
01-014	Deposit	Possible bedding for road surface 01-019
01-015	Road surface	Earlier road surface on NW side of road
01-016	Natural bedrock	
01-017	Natural subsoil	
01-018	Natural subsoil	
01-019	Road surface	Road surface on NW side of road possibly same as 01-005 on opposite side
01-020	Deposit	Possible bedding for road surface 01-015
01-021	Deposit	Silting in area of roadside ditch 01-011

Finds Register

Find	Context	No	Material	Comments
01-101	01-001		Pottery, glass, iron, clay pipe	19th-century material - discarded
01-102	01-002		Pottery, glass, iron, clay pipe	19th-century material - discarded

Drawings Register

DWG No	Sheet No.	Sheet Size	Scale	Contexts	Comment
1	1	A1	1:20		SW-facing trench section
2	2	A1	1:20		Post-excavation plan

Trench 02

Context Register

Context	Type	Comments
02-001	Deposit	Topsoil
02-002	Deposit	Ploughsoil
02-003	Deposit	Old ploughsoil
02-004	Deposit	Natural subsoil
02-005	Fill	Fill of 02-006
02-006	Gully?	Linear, butt-ended gully
02-007	Fill	Upper fill of ditch 02-008
02-008	Ditch	Enclosure ditch up to 2.9m wide and 1.46m deep
02-009	Fill	Fill of post-hole 02-010
02-010	Post-hole	Stone-packed post-hole 0.48m x 0.4m and 0.3m deep
02-011	Land drain	
02-012	Deposit	Remnant layer within depressions in natural subsoil
02-013	Fill	Fill of ditch 02-008
02-014	Fill	Fill of ditch 02-008
02-015	Fill	Fill of ditch 02-008
02-016	Fill	Fill of ditch 02-008
02-017	Fill	Fill of ditch 02-008
02-018	Fill	Fill of ditch 02-008

Finds Register

Find	Context	No	Material	Comments
02-100	02-009	1	Pottery	Redware bodysherd, possibly Romano-British
02-101	02-001		Pottery, clay pipe, iron	19th-century material - discarded
02-102	02-007	1	Pottery	19th-century
02-103	02-003	1	Pottery	Roman greyware bodysherd
02-104	02-014	10l	Soil sample	Fill of ditch 02-008
02-105	02-016	10l	Soil sample	Fill of ditch 02-008

Drawings Register

DWG No	Sheet No.	Sheet Size	Scale	Contexts	Comment
01	1	A1	1:20		Pre-excavation trench plan
02	3	A3	1:10		SE-facing section of post-hole 02-010
03	3	A3	1:10		Post-hole 02-010 part excavated
04	2	A1	1:20		Post-excavation trench plan
05	4	A4	1:10		Intermediate plan of ditch 02-008
06	3	A1	1:20		SW-facing trench section

Trench 03

Context Register

Context	Type	Comments
03-001	Deposit	Topsoil
03-002	Deposit	Ploughsoil
03-003	Fill	Upper fill of enclosure ditch 03-005
03-004	Deposit	Compacted soil layer in central area of trench
03-005	Ditch	Enclosure ditch 2.5m wide
03-006	Deposit	Natural subsoil
03-007	Fill	Fill of pit/post-hole 03-008
03-008	Pit/post-hole	Circular feature 0.65m across and 0.14m deep
03-009	Fill	Fill of pit or stonehole 03-010
03-010	Pit/stonehole	Circular feature 0.46m across and 90mm deep. Stonehole?
03-011	Fill	Fill of feature 03-012
03-012	Gully?	Shallow gully or natural depression
03-013	Fill	Fill of pit 03-014
03-014	Pit?	Sub-circular feature 1.6m across and 0.2m deep
03-015	Fill	Fill of ditch 03-016
03-016	Ditch	Ditch at E end of trench, possibly a field boundary
03-017	Fill	Fill of land drain 03-017
03-018	Land drain	
03-019	Fill	Fill of ditch 03-005, below 03-003
03-020	Fill	Primary fill of feature 03-012

Finds Register

Find	Context	No	Material	Comments
03-100	03-001		Pottery, glass, clay pipe	Topsoil finds - discarded
03-101	03-002		Pottery, glass, clay pipe	Ploughsoil finds - discarded
03-102	03-003	1	Pottery	Body sherd of Roman greyware

Trench 06

Context Register

Context	Type	Comments
06-001	Deposit	Ploughsoil/subsoil (0.20m thick) below 13-01
06-002	Deposit	Old ploughsoil (0.08m thick) below 6-01
06-003	Deposit	Natural deposit (0.08m thick) below 6-01
06-004	Deposit	Natural glacial deposit, same as 6-05, below 6-03
06-005	Deposit	Natural glacial deposit, same as 6-04, below 6-02
06-006	Ditch	Ditch 1.3m wide x 0.48m deep filled by 6-07 & 6-08, cut into natural 6-05. Possible boundary demarcation?
06-007	Layer of fill	Secondary fill of ditch 6-06, 0.42m thick
06-008	Layer of fill	Primary fill of ditch 6-06, 0.07m thick

Drawings Register

DWG No	Sheet No.	Sheet Size	Scale	Contexts	Comment
1	T6-01	A2	1:20	6-06	Trench 6 plan
2	T6-01	A2	1:20	6-06	Trench 6 East-facing section

Trench 07

Context Register

Context	Type	Comments
07-001	Deposit	Ploughsoil, average 0.22m thick, above T7-02
07-002	Deposit	Old ploughsoil, max thickness 0.24m, below T7-01, above T7-06, 06, 11,22
07-003	Scoop?	Probable shallow natural hollow 0.63m across, cut by ditch T7-05, and has similar fill (T7-04)
07-004	Layer of fill	Fill of T7-03, 0.10m thick contained charcoal (sample 105) & brick
07-005	Ditch	Ditch 0.96m wide x 0.36m deep runs N/S across trench. Cuts T7-21..
07-006	Layer of fill	Upper fill of ditch T7-05.Grey brown clay-silt. Above T7-23
07-007	Cancelled	Not a cut feature (though looked like ditch when first revealed) – outer limit of deposit T7-08
07-008	Deposit	Natural deposit 0.03m thick, below old ploughsoil T7-02, above natural T7-20
07-009	Layer of fill	Fill of tree throw T7-10
07-010	Tree throw	
07-011	Layer of fill	Fill of tree throw T7-10
07-012		Same as T7-10
07-013	Deposit	Fill of tree throw T7-10
07-014	Posthole/pit	Sub-circular pit 0.75m diameter x 0.05m deep filled by T7-15, cuts deposit T7-21, 22
07-015	Layer of fill	Fill of posthole/pitT7-14, 0.05m thick. Light grey-yellow clay/silt
07-016	Cancelled	context not used
07-017	Cancelled	context not used
07-018	Natural hollow	Natural hollow (0.7m x 0.47m x 0.8m deep) where a glacial stone has been naturally removed. Hollow filled by T7-19
07-019	Layer of fill	Fill of natural hollowT7-18
07-020	Natural deposit	Natural clay deposit (glacial) in base of trench, below old ploughsoil T7-02
07-021	Natural deposit	Yellow-olive silt in base of trench. Lies below old ploughsoil T7-02, cut by ditch T7-05
07-022	Deposit	Light yellow-brown clay-silt Glacial podsol > 0.12m thick, below old ploughsoil T7-02
07-023	Layer of fill	Primary fill of ditch T7-05 0.07m thick, below T7-06

Finds Register

Find	Context	No	Material	Comments
07-101	07-001		Pottery and glass	19th-century material - discarded
07-102	07-002	1	Pottery	Tiny undiagnostic fragment from old ploughsoil - discarded
07-103	07-002	1	Flint	
07-104	07-004	1	Brick	Fragment only - discarded
07-105	07-004	1	Charcoal	Several fragments from isolated feature
07-106	07-002	1	Pottery	Neolithic rim sherd from the surface of the natural subsoil 07-022

Drawings Register

DWG No	Sheet No.	Sheet Size	Scale	Contexts	Comment
1	T7-01	A1	1:20		Trench 7 pre-excavation plan
2	T7-02	A1	1:20		Trench 7 post-excavation plan
3	T7-02	A1	1:20		Trench 7 South-facing section

Trench 08

Context Register

Context	Type	Comments
08-001	Deposit	Topsoil 0.10m thick
08-002	Deposit	Ploughsoil <0.22m thick, below T8-01
08-003	Deposit	Silty deposit > 0.14m thick, below ploughsoil T8-02, perhaps hillwash
08-004	Deposit	Stoney silty clay deposit< 0.26m thick, below ploughsoil T8-02, above T8-03, 05
08-005	Deposit	Dark brown silty clay <0.20m thick, below T8-04 and above waterlogged deposits T6-06,07, 08
08-006	Deposit	Waterlogged stoney grey clay <0.14m thick, below T8-05, 07 and above natural clayT8-10
08-007	Deposit	Yellow-brown clay <0.20m thick, below T8-05 and above clayT8-6, possibly waterlogged natural within damp channel
08-008	Deposit	Light grey silty clay deposit 0.12m thick, slightly waterlogged,below T8-05 and above T8-10
08-009	Land drain	Land drain 0.42m wide runs NW/SE across trench, visible as line of yellow clay. Cuts T8-03
08-010	Natural deposit	Natural yellow clay in bottom of trench, below T8-06, 07, 08
08-011	Natural bedrock	Natural shale bedrock exposed by machine at Western end of trench below ploughsoil T8-02 at depth of 0.26m below field surface

Drawings Register

DWG No	Sheet No.	Sheet Size	Scale	Contexts	Comment
1	T8-01	A1	1:20		Trench 8 South-facing section

Trench 09

Context Register

Context	Type	Comments
09-001	Topsoil	
09-002	Ploughsoil	
09-003	Deposit	Sandy silt deposit below ploughsoil
09-004	Deposit	Silty clay deposit
09-005	Deposit	Silty clay deposit
09-006	Deposit	Stony natural deposit
09-007	Deposit	Silty clay with charcoal flecks
09-008	Bedrock	

Finds Register

Find	Context	No	Material	Comments
09-100	09-007	1	Flint	Burnt waste flake
09-101	09-005	1	Flint	Waste flake

Drawings Register

DWG No	Sheet No.	Sheet Size	Scale	Contexts	Comment
01	T09-01	A1	1:20		Trench plan
02	T09-02	A1	1:20		Trench section

Trench 10

Context Register

Context	Type	Comments
10-001	Topsoil	
10-002	Ploughsoil	
10-003	Stone surface	Small rounded stones within grey clay
10-004	Deposit	Soil layer containing 19th-century finds
10-005	Deposit	Soil layer pre-dating stone surface 10-003/011
10-006	Deposit	?former ploughsoil
10-007	Land drain	Cuts 10-006
10-008	Natural subsoil	
10-009	Deposit	Layer of cobbles within grey clay, containing sherds of Neolithic pottery
10-010	Deposit	Waterlogged clay deposit, possibly filling a hollow

10-011	Stone surface	Compact metalled surface below 10-003
10-012	Deposit	Same as 10-006
10-013	Fill	Primary fill of 10-014
10-014	Pit / gully	Possibly contemporary with deposit 10-009
10-015	Fill	Fill of 10-014
10-016	Deposit	Soil layer containing 19/20th-century finds, below stone surface 10-003/011

Finds Register

Find	Context	No	Material	Comments
10-100	10-006	1	Flint	Flake
10-101	10-010	1	Flint	Flake
10-102	10-003	1	Iron	Nail
10-103	10-010	2	Pottery	Neolithic decorated rim
10-104	U/S	1	Stone	Struck stone fragment, possibly by machine or plough. Discarded.
10-105	10-004	4	Pottery	18/19th-century. Discarded.

Drawings Register

DWG No	Sheet No.	Sheet Size	Scale	Contexts	Comment
01	T09-01	A1	1:20		Trench plan
02	T09-02	A1	1:20		Trench section

Trench 11

Context Register

Context	Type	Comments
11-001	Deposit	Topsoil
11-002	Deposit	Ploughsoil
11-003	Bedrock	Natural bedrock

Trench 12

Context Register

Context	Type	Comments
12-001	Deposit	Topsoil
12-002	Deposit	Ploughsoil
12-003	Natural deposit	Undisturbed natural clay, cut by ditch/gully 12-06
12-004	Natural bedrock	Shattered shale bedrock in base of trench at southern end
12-005	Layer of fill	Fill of ditch/gully 12-06, 0.55m thick
12-006	Ditch/gully	V- profile ditch/gully runs NE/SW, width 0.55m, depth 0.25m. Predates post-med ploughsoil
12-007	Deposit	Layer of stiff silty clay overlying gully 12-06 and pre-dating post-medieval ploughsoil

Drawings Register

DWG No	Sheet No.	Sheet Size	Scale	Contexts	Comment
1	T12-01	A2	1:20		Plan of Trench 12
2	T12-02	A2	1:20		Trench 12 Section Drawing (north-west facing)
3	T12-03	A4	1:10	12-05, 12-06	Ditch 12-06 Section Drawing (NE facing)
4	T12-03	A4	1:10	12-05, 12-06	Ditch 12-06 Section Drawing (NE facing)

Trench 13

Context Register

Context	Type	Comments
13-001	Deposit	Topsoil
13-002	Deposit	Ploughsoil
13-003	Natural bedrock	Natural bedrock, cut by ditches 13-004 & 13-006
13-004	Ditch	Linear ditch 0.85m wide x 0.23m deep, cut into bedrock and filled by 13-005 & 13-012
13-005	Layer of fill	Primary fill of ditch 13-004
13-006	Ditch	Linear ditch 0.60m wide x 0.30m deep cut into bedrock and filled by 13-007 & 13-013
13-007	Layer of fill	Primary fill of ditch 13-06, 0.30m thick
13-008		context number not used
13-009		context number not used
13-010	Gully	Gully 0.57m wide at S end, 0.36m at N end x 0.25m max depth, filled by 13-011
13-011	Layer of fill	Fill of ditch 13-010
13-012	Layer of fill	Secondary fill of ditch 13-004
13-013	Layer of fill	Secondary fill of ditch 13-006
13-014	Deposit	Broken shale layer up to 0.10m thick, above bedrock 13-003
13-015	Deposit	Brown sandy silt below layer 13-014. Glacial?
13-016	Deposit	Silty boulder clay below 13-016
13-017	Deposit	Grey-brown clay-silt 0.55m thick. Glacial? Below Ploughsoil/subsoil 13-002. Erosion material from 13-016
13-018	Deposit	Brown-grey broken mudstone. Erosion of 13-003 bedrock

Finds Register

Find	Context	No	Material	Comments
13-101	13-001	2	Pottery	Slipware and stoneware - discarded
13-102	13-002		Iron, clay pipe, pottery	18/19th-century pottery and iron nails - discarded
13-103	13-001	1	Pottery	

Drawings Register

DWG No	Sheet No.	Sheet Size	Scale	Contexts	Comment
1	T13-01	A1	1:20		Trench 13 pre-excavation plan
2	T13-02	A2	1:10	13-10, 13-11	North facing section of gully 13-10
3	T13-02	A2	1:10	13-10, 13-11	South facing section of gully 13-10
4	T13-02	A2	1:10	13-4, 13-6	ESE facing section of Trench 13 showing double ditch
5	T13-03	A1	1:20	13-4, 13-6	Trench 13 post-excavation plan
6A	T13-04	A2	1:20		Trench 13 South facing section (joins with dwg 6A)
6B	T13-05	A2	1:20		Trench 13 South facing section (joins with dwg 6B)

Trench 14

Context Register

Context	Type	Comments
14-001	Deposit	Topsoil
14-002	Deposit	Ploughsoil below 14-01
14-003	Bedrock	Natural bedrock over full extent of trench, below 14-02
14-004	Post hole	Small square-ish post hole filled by 14-05
14-006	Layer of fill	Fill of post hole 14-04

Finds Register

Find	Context	No	Material	Comments
14-101	14-001		Pottery, iron	19th-century pottery and an iron nail - discarded
14-102	14-002		Pottery, glass, iron	19/20th-century finds - discarded
14-103	14-005	1	Charcoal	Fill of isolated post-hole 14-004 - Discarded

Drawings Register

DWG No	Sheet No.	Sheet Size	Scale	Contexts	Comment
1	T14-01	A2	1:20		Plan of Trench 12
2	T14-01	A2	1:10	T14-04, T14-05	Section and plan of post hole T14-04

Trench 15

Context Register

Context	Type	Comments
15-001	Topsoil	
15-002	Ploughsoil	
15-003	Bedrock	
15-004	Post-hole	Roughly circular, 0.5m diameter
15-005	Fill	Fill of Post-hole 004
15-006	Pit/gully	Pit or butt-ended gully around 1.55m across
15-007	Fill	Fill of 006
15-008	Ditch	Ditch around 1.7m wide and 0.95m deep, possible demarcating a hilltop enclosure
15-009	Fill	Upper fill of ditch 008
15-010	Cancelled	?pit later seen to be natural
15-011	Cancelled	Fill of 010 – natural
15-012	Cancelled	Natural deposit
15-013	Cancelled	Natural deposit
15-014	Cancelled	Natural deposit
15-015	Cancelled	Natural deposit
15-016	Fill	Basal fill of 006
15-017	Fill	Secondary fill of ditch 008
15-018	Fill	Primary fill of ditch 008
15-019	Fill	Fill of ditch 008
15-020	Fill	Fill of ditch 008

Finds Register

Find	Context	No	Material	Comments
15-101	15-002		Pottery, iron	19th-century pottery and an iron nail - discarded
15-102	15-001		Pottery	19th-century pottery - discarded
15-103	15-005	10l	Soil sample	Fill of post-hole 15-004
15-104	15-007	10l	Soil sample	Fill of pit/gully 15-006
15-105	15-017	10l	Soil sample	Fill of ditch 15-008

Drawing Register

DWG No	Sheet No.	Sheet Size	Scale	Contexts	Comment
1	T15-01	A1	1:20		Pre-excavation plan
2	T15-04	A3	1:10	15-004, 15-005	Sections of post-holes
3	T15-04	A3	1:10	15-006, 15-007	Ditch section
4	T15-04	A3	1:10	15-006, 15-007	Ditch section
5	T15-02	A1	1:20		Trench section
6	T15-03	A1	1:20		Post-excavation plan
7	T15-04	A3	1:10	15-008	Ditch section
8	T15-04	A3	1:10	15-011	section

Trench 18

Context Register

Context	Type	Comments
18-001	Deposit	Topsoil
18-002	Deposit	Ploughsoil
18-003	Deposit	Silty clay containing prehistoric pottery
18-004	Deposit	Silty clay
18-005	Deposit	Clay layer
18-006	Fill	Fill of 18-007
18-007	Pit	Sub-circular pit 1.1m across and 0.1m deep
18-008	Deposit	Silty clay containing prehistoric pottery
18-009	Gully?	Possible gully 1.8m wide aligned WSW/ENE
18-010	Deposit	Silty clay
18-011	Land drain	
18-012	Natural subsoil	Yellow clay
18-013	Deposit	Silty clay containing charcoal

Finds Register

Find	Context	No	Material	Comments
18-101	18-002			Topsoil finds - discarded
18-102	18-001	1	Flint	Blade
18-103	18-003	1	Pottery	Prehistoric
18-104	18-003	1	Pottery	Prehistoric
18-105	18-008	2	Pottery	Prehistoric
18-106	18-006	1	Pottery	Prehistoric
18-107	18-006	20l	Soil sample	Fill of pit

Drawings Register

DWG No	Sheet No.	Sheet Size	Scale	Contexts	Comment
1	1	A1	1:20		Trench plan
2	1	A1	1:20		Trench section

Trench 20

Context Register

Context	Type	Comments
20-001	Deposit	Topsoil
20-002	Deposit	Ploughsoil
20-003	Deposit	Upper fill of depression 20-003
20-004	Fill	Fill of depression 20-005
20-005	Depression	Shallow depression, possibly part of a trackway
20-006	Fill	Fill of pit 20-007

20-007	Pit	The base of a shallow, truncated pit
20-008	Deposit	Mottled, orange-brown silty clay above the natural
20-009	Deposit	Natural clay subsoil
20-010	Void	
20-011	Fill	Stony material on either side of depression 20-005
20-012	Deposit	Orange-brown silty clay within depression 20-013
20-013	Depression	Broad depression, including 20-005, possibly a trackway

Finds Register

Find	Context	No	Material	Comments
20-100	20-001		Pottery	18th/19th-century topsoil finds - discarded
20-101	20-003	4	Pottery	Very abraded Roman redware
20-101	20-003	5	Pottery	Malvernian ware body sherds

Drawings Register

DWG No	Sheet No.	Sheet Size	Scale	Contexts	Comment
1	1	A1	1:20		Pre-excavation plan
2	2	A3	1:20		Interim plan
3	3	A4	1:20	20-005	Partial excavation of feature 20-005
4	4	A4	1:20	20-005	Intermiate plan of 20-005
5	5	A1	1:20		South-east-facing trench section
6	6	A4	1:20	20-005	Post-excavatiojn plan

Trench 21

Context Register

Context	Type	Comments
21-001	Deposit	Topsoil
21-002	Deposit	Ploughsoil
21-003	Deposit	Silty clay deposit on north-west of Roman road
21-004	Deposit	Natural subsoil
21-005	VOID	
21-006	Deposit	Accumulation of soil against south-east edge of Roman road
21-007	Deposit	Latest road resurfacing – later Roman or post Roman?
21-008	Deposit	Deposit below 21-007 and above 21-006
21-009	Deposit	Deposit below 21-007 and above 21-006
21-010	Deposit	Surface of the second phase of Roman road
21-011	Deposit	Construction deposit for second phase of Roman road
21-012	Deposit	Surface of the first phase of Roman road
21-013	Deposit	Construction deposit for first phase of Roman road
21-014	Deposit	Stony base from Roman road
21-015	Deposit	Layer containing palaeo potential below Roman road
21-016	Deposit	Silty clay deposit on north-west of Roman road
21-017	Deposit	Accumulation of soil against south-east edge of Roman road
21-018	Deposit	Natural subsoil on south-east side of Roman road

Drawings Register

DWG No	Sheet No.	Sheet Size	Scale	Contexts	Comment
1	1	A1	1:20		Initial plan
2	1	A1	1:20		Final plan
3	1	A1	1:20		Trench section

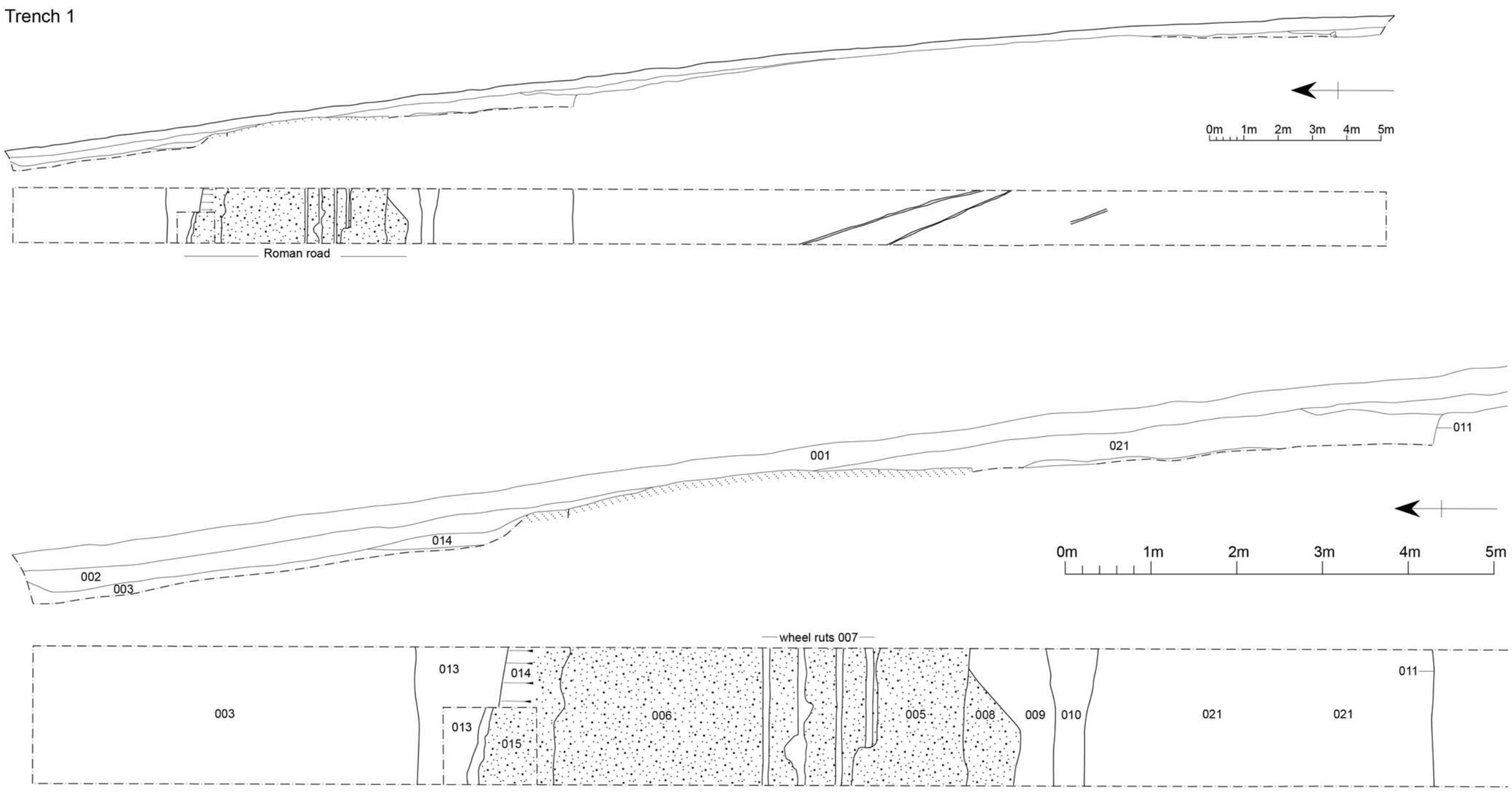

Fig. 36 Plan and section of Trench 1, showing detail of the Roman road

Trench 2

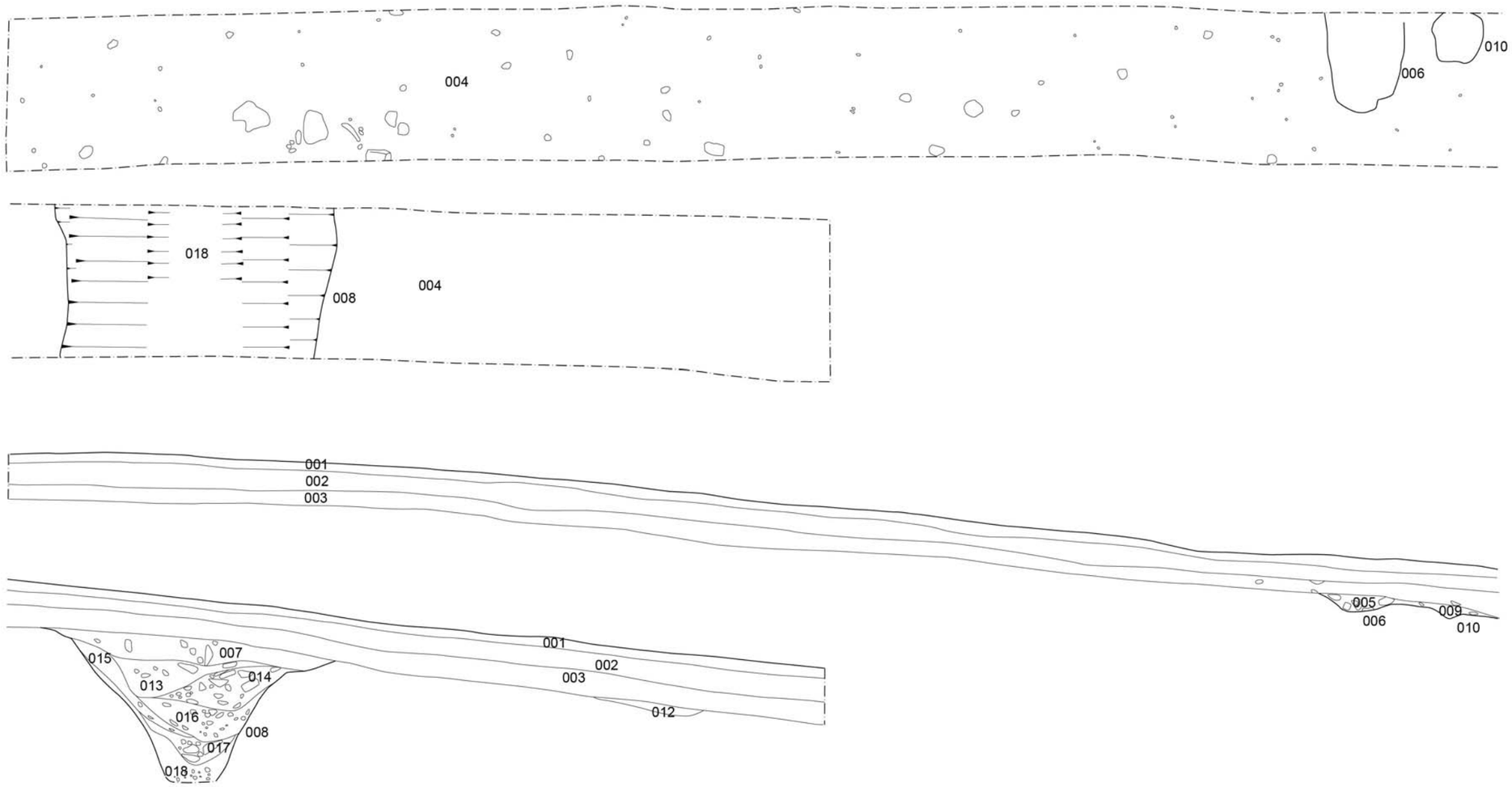

Fig. 37 Plan and section of Trench 2

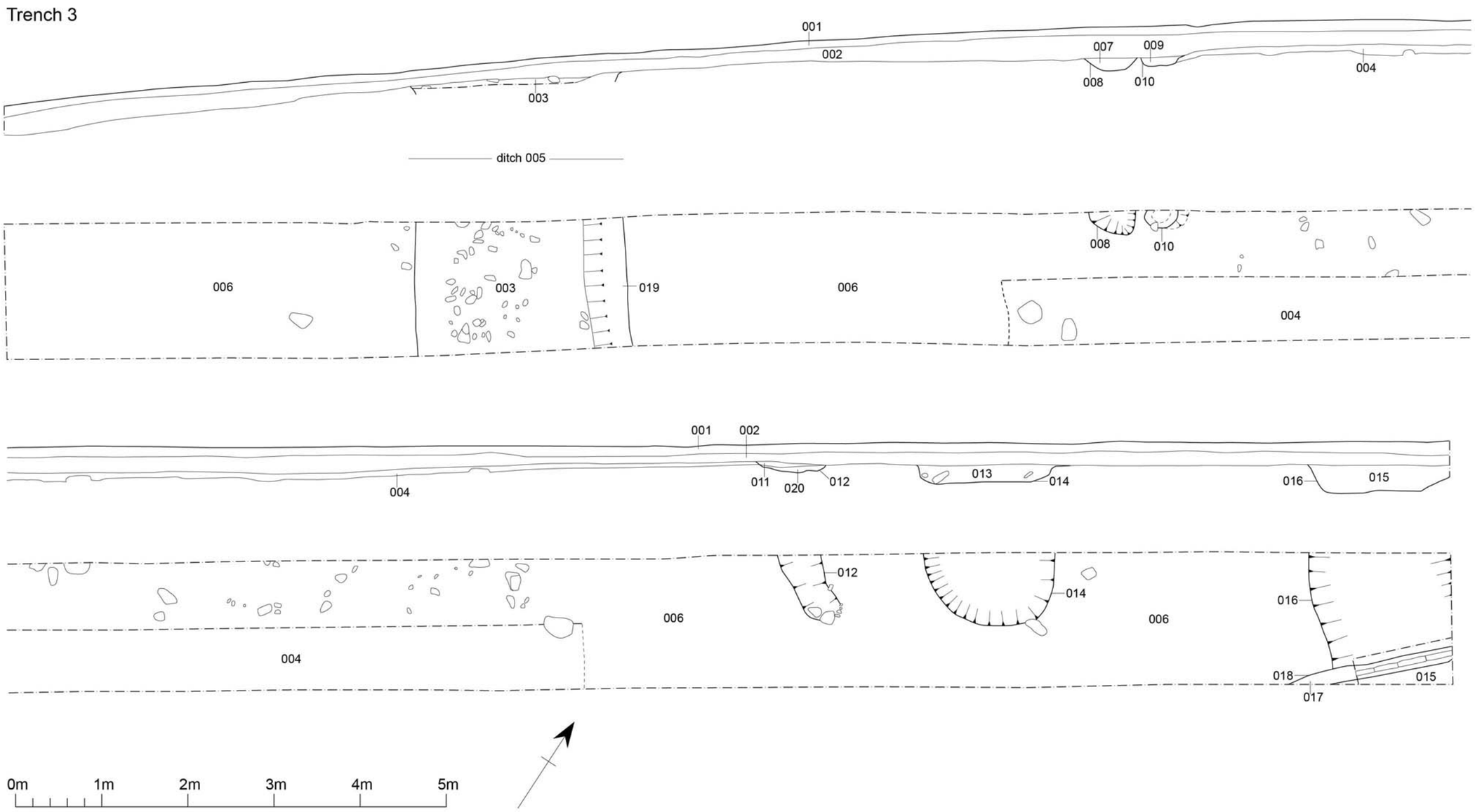

Fig. 38 Plan and section of Trench 3

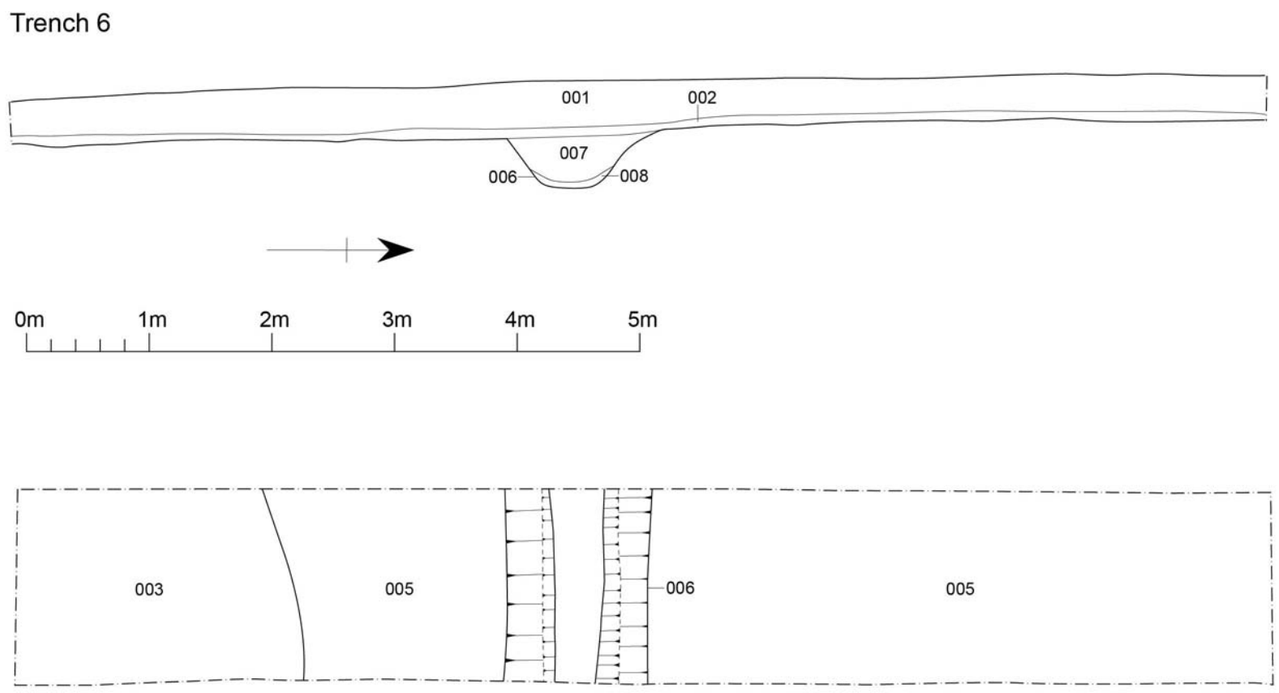

Fig. 39 Plan and section of Trench 6

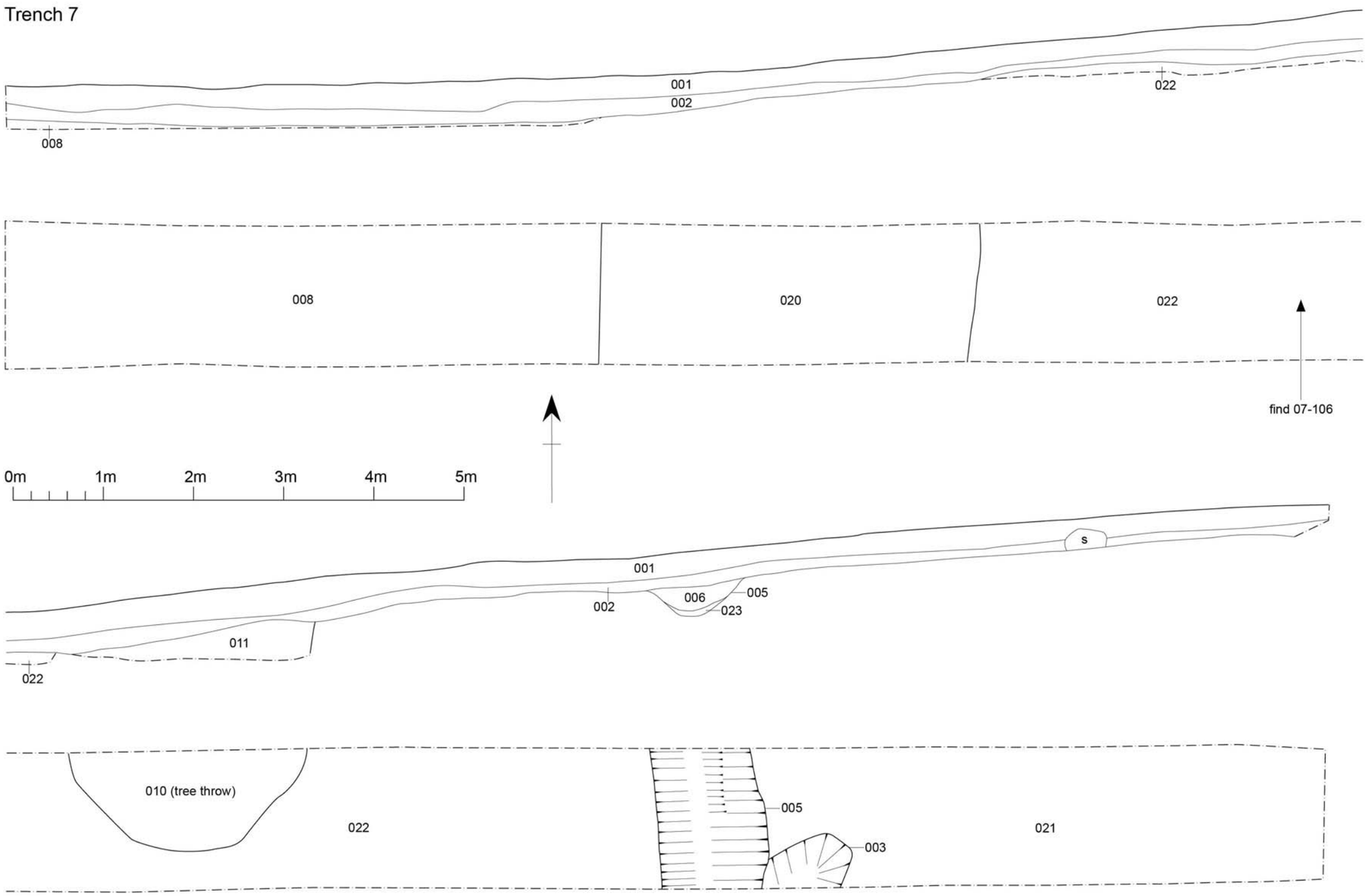

Fig. 40 Plan and section of Trench 7

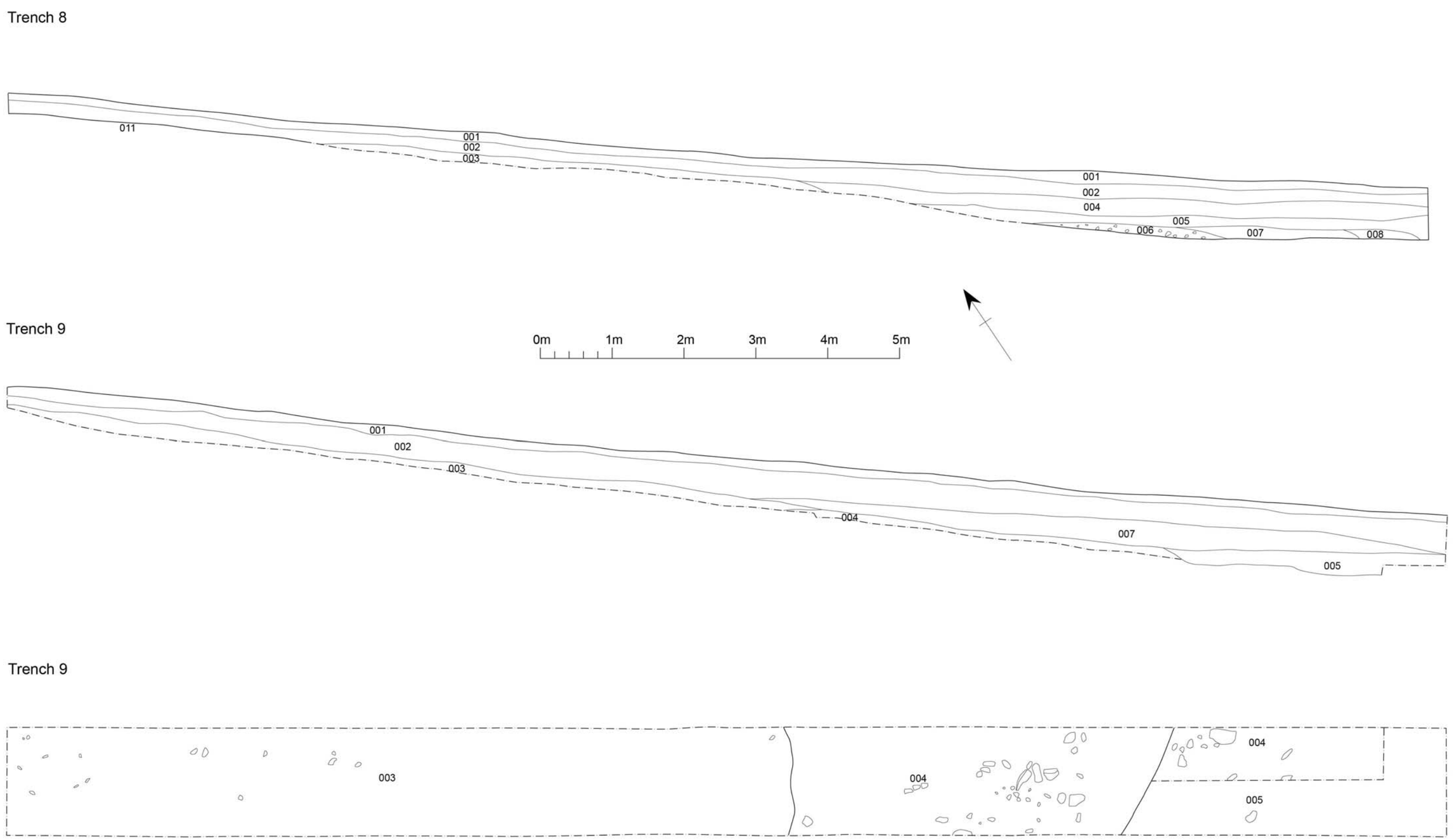

Fig. 41 Plan and section of Trench 9 and section of Trench 8

Trench 10

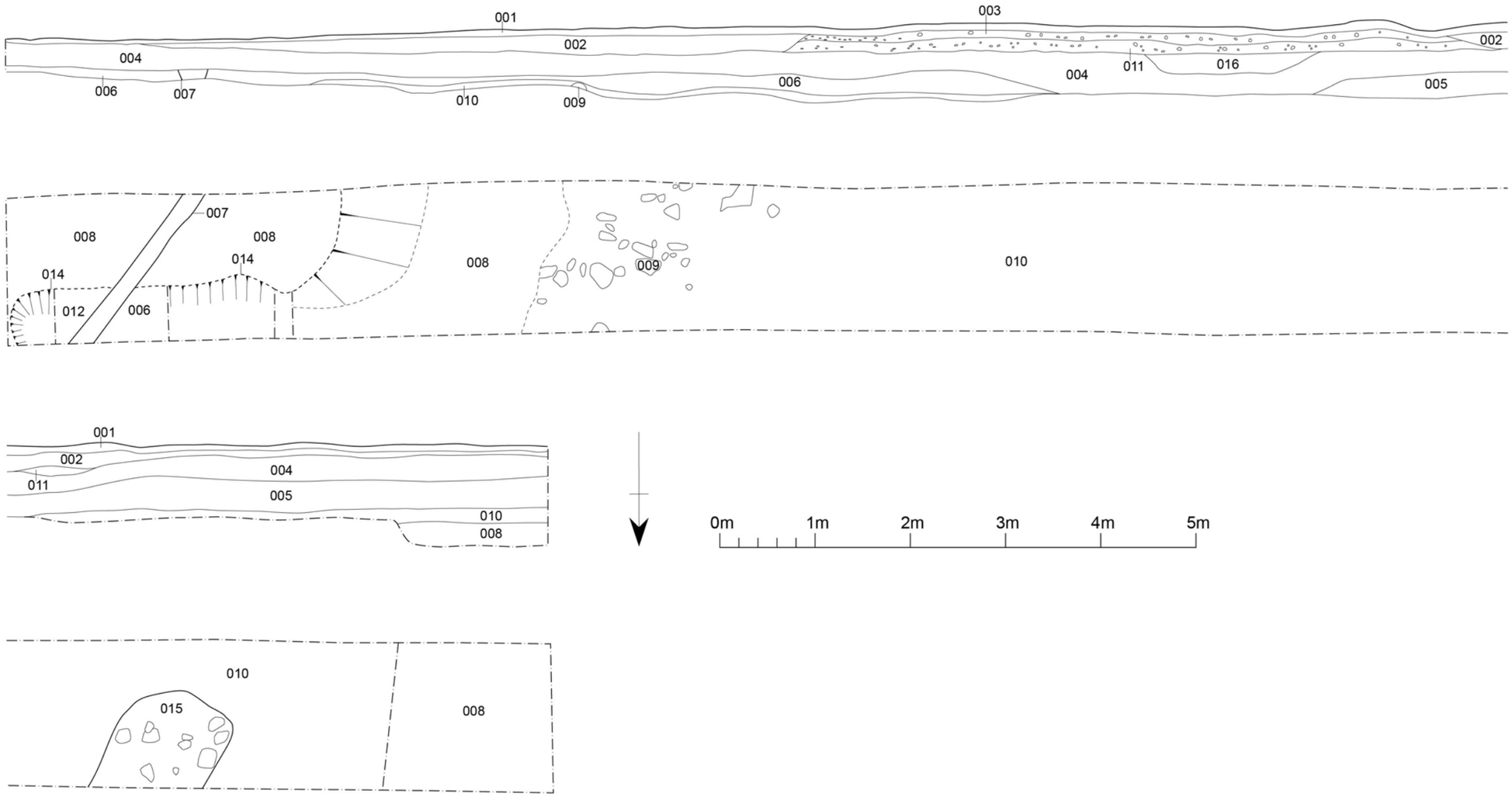

Fig. 42 Plan and section of Trench 10

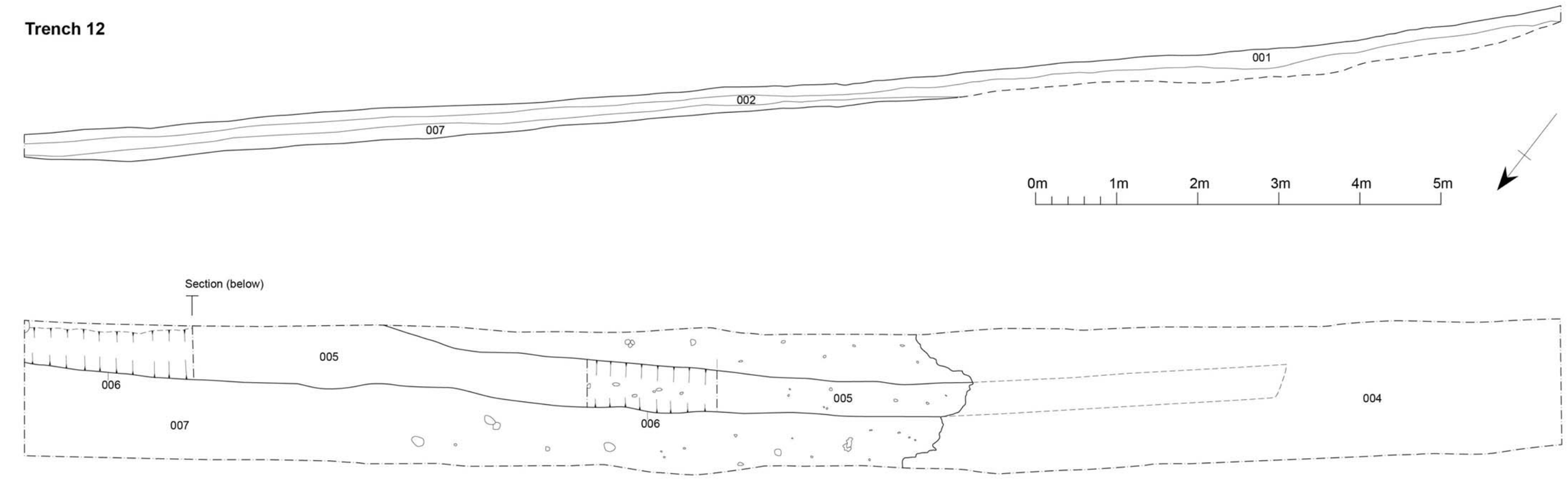

Fig. 43 Plan and section of Trench 12

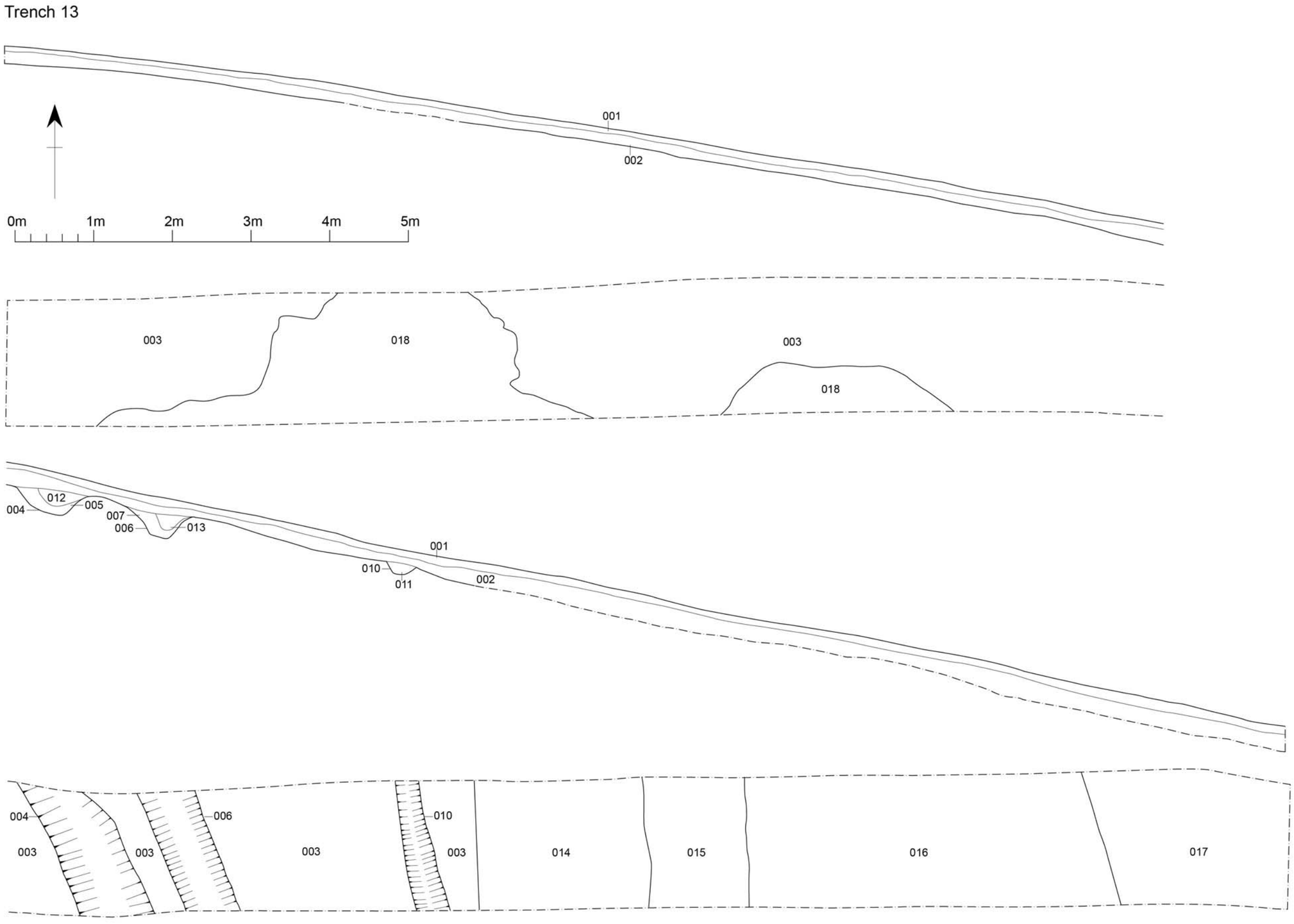

Fig. 44 Plan and section of Trench 13

Trench 14

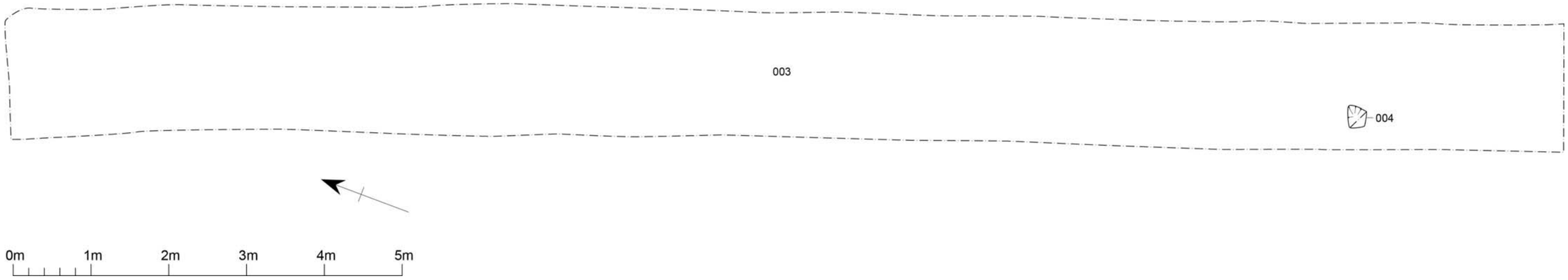

Fig. 45 Plan and section of Trench 14

Trench 15

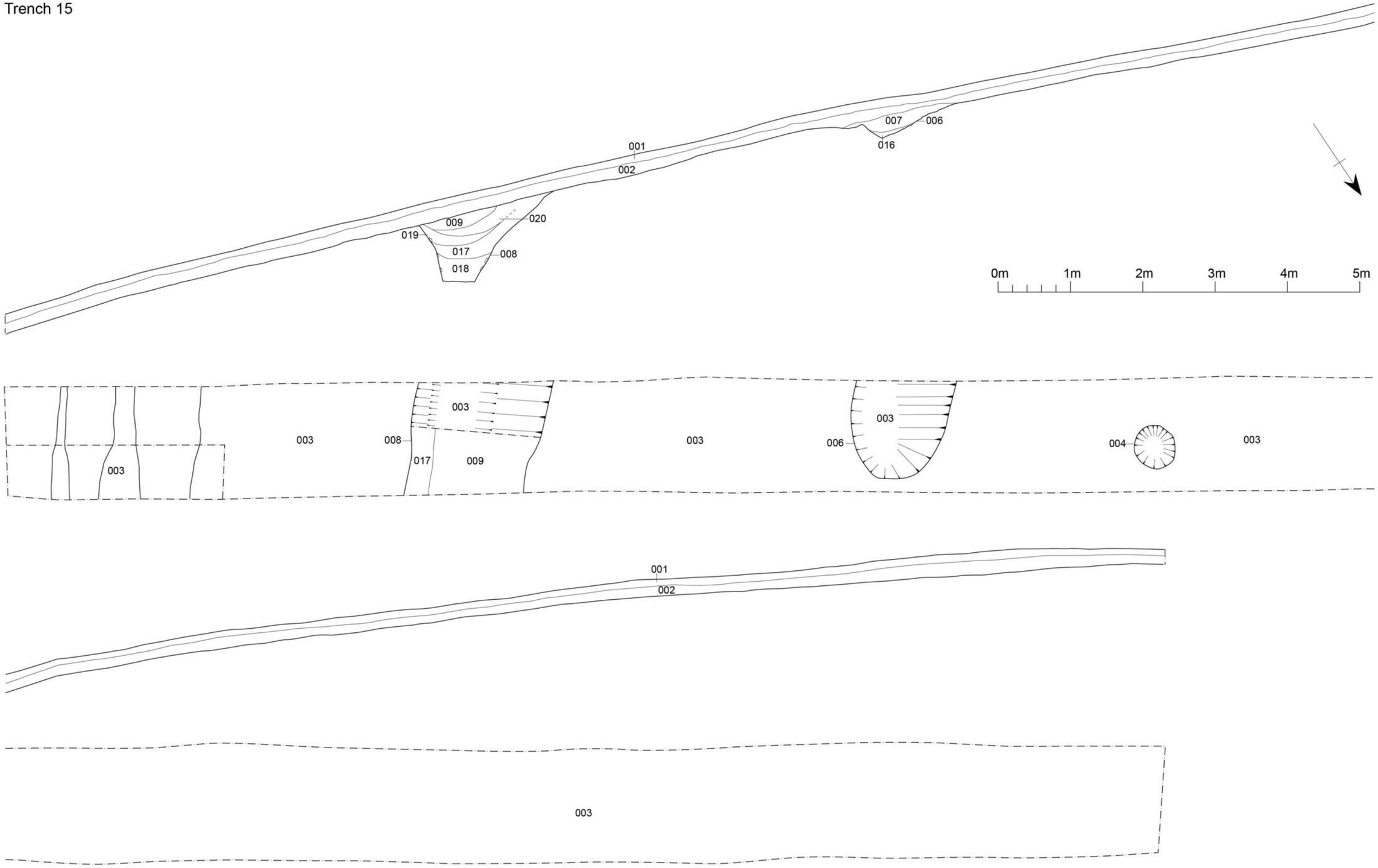

Fig. 46 Plan and section of Trench 15

Trench 18

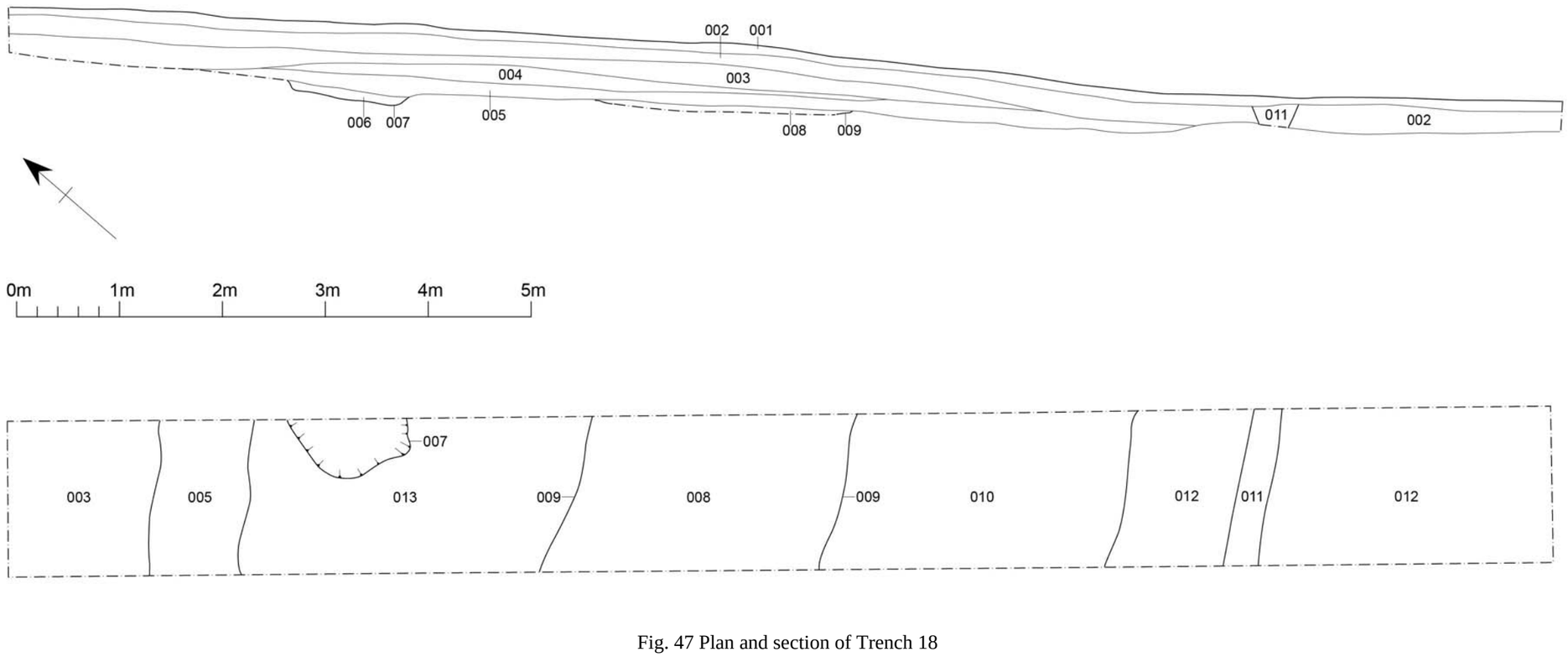

Fig. 47 Plan and section of Trench 18

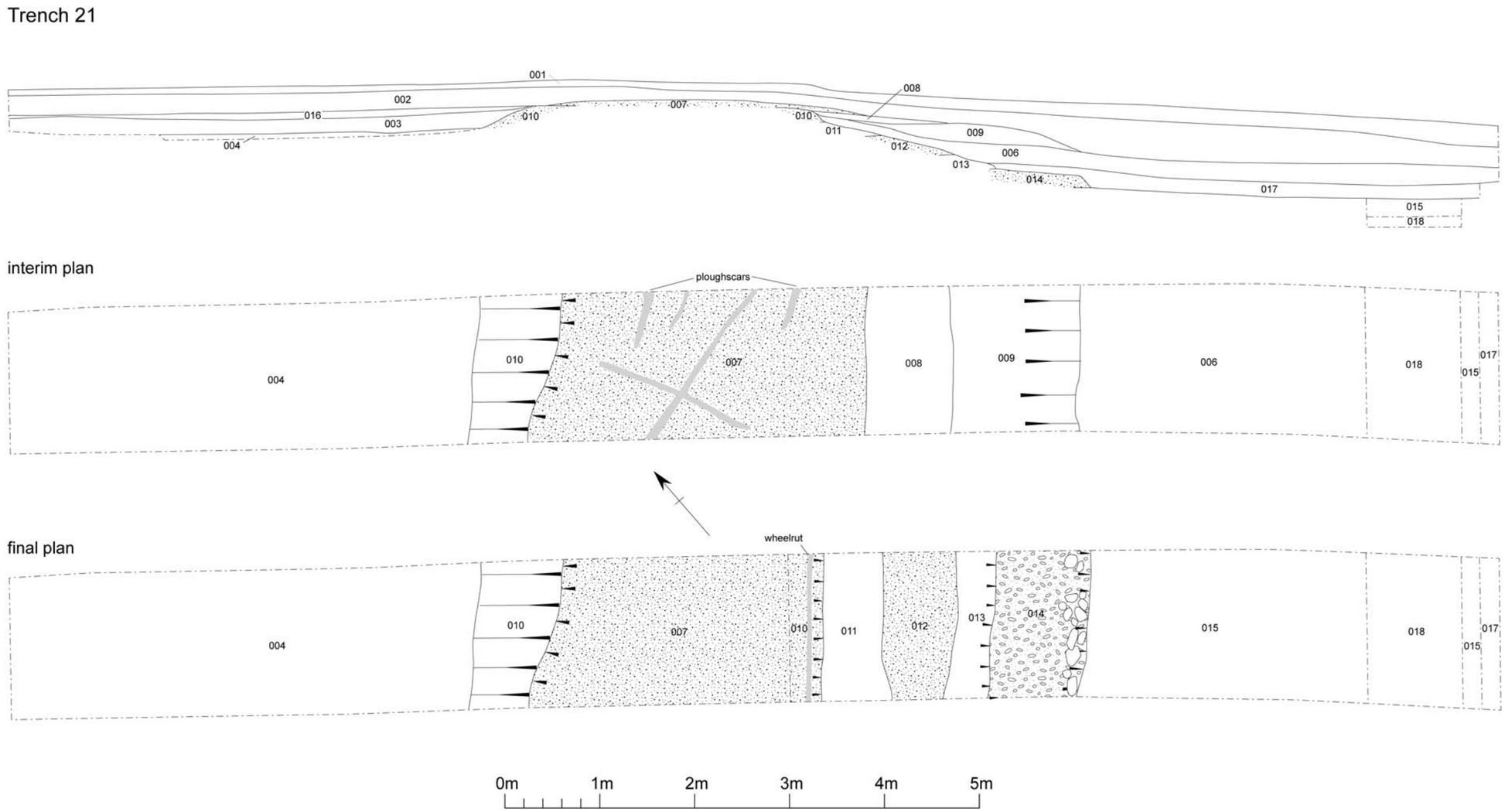

Fig. 48 Plan and section of Trench 21