

CPAT Report No 985

Pant Pipeline, Four Crosses to Arddleen

ARCHAEOLOGICAL WATCHING BRIEF



THE CLWYD-POWYS ARCHAEOLOGICAL TRUST

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ARCHAEOLOGICAL WATCHING BRIEF

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Report for Severn Trent Water

The Clwyd-Powys Archaeological Trust

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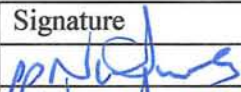

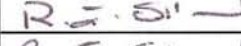

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1 INTRODUCTION

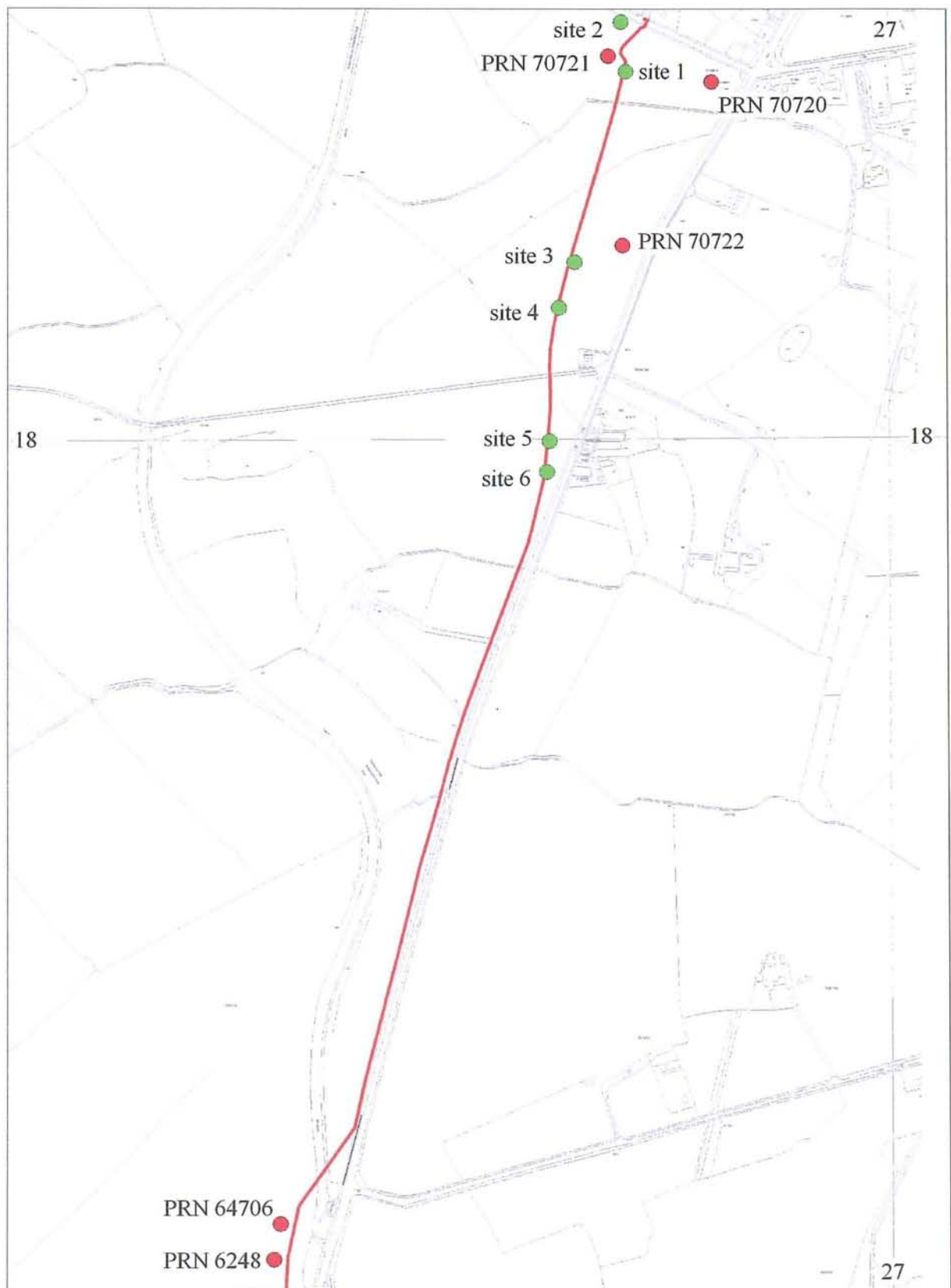
- 1.1 In November 2008 the Field Services Section of the Clwyd-Powys Archaeological Trust (henceforth CPAT) was invited by Dr Glyn Davies of ARCUS to produce a Written Scheme of Investigation (WSI) together with an indicative costing for a programme of archaeological mitigation works in connection with proposals by Severn Trent Water to install a new pipeline between Four Crosses and Arddleen in northern Powys. This formed part of a larger scheme known as the Pant Pipeline.
- 1.2 An archaeological desk-based assessment and field survey of the route had previously been undertaken by Birmingham Archaeology (Halstead 2008) which identified a number of areas of archaeological potential along the route, as well as proposing general mitigation in the form of an archaeological watching brief.

2 LOCATION AND GEOLOGY

- 2.1 The proposals relate to the construction of a new 1.3km-long pipeline across land to the north-east and east of Four Crosses, between SJ 27681842 and SJ 27331969, within a 10m-wide working width (Figs 1-2).
- 2.2 Four Crosses is situated on an outwash plain between the Rivers Severn and Vyrnwy which is composed of glacial or fluvioglacial deposits that form shallow depressions and low ridges overlying glacio-lacustrine alluvium. The ridges support well-drained brown earths, favourable to arable, dairy farming and beef farming. The soils to the north and south are unsuitable for arable production: to the north there is alluvium on the Vyrnwy floodplain and to the south are poorly drained stagnogleys (Owen and Britnell 1989, 27).

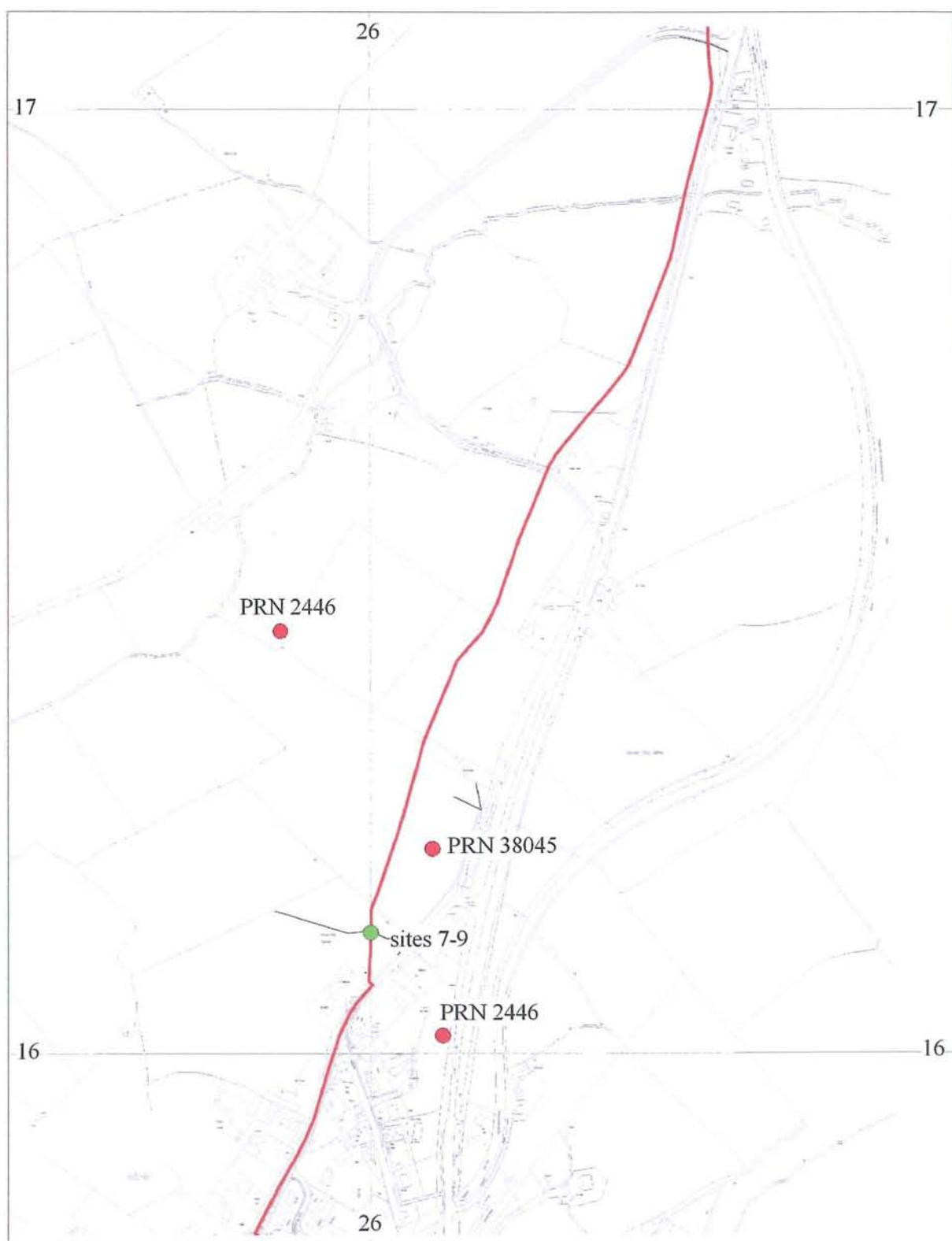
3 ARCHAEOLOGICAL BACKGROUND

- 3.1 The original archaeological assessment identified a number of known archaeological monuments within the immediate vicinity of the pipeline route and the following description presents a summary of those which it was thought might be impacted on by the pipeline.
- 3.2 There is a significant concentration of Late Neolithic and Bronze Age burial mounds within the Four Crosses area, beyond the northern end of the pipeline, together with a series of pit alignments, all of which were initially recognized as cropmarks seen from the air. Although none of the known sites is in close proximity to the pipeline their distribution reflects the underlying gravels which are favourable to cropmark formation, it was thought possible that similar features could be present elsewhere in areas where the subsoil is less conducive to the production of cropmarks.
- 3.3 At the northern end of the pipeline previous geophysical survey had identified two clusters of pits which it was thought might be prehistoric in date (PRNs 70720 and 70722), together with a possible trackway (PRN 70721) (Frost 1997).
- 3.4 At the point where the pipeline crosses the Montgomery Canal there is a field name recorded as 'Cae Kiln' (Kiln Field) (PRN 64706), which it was thought might suggest the former existence of brick or lime kilns, although the name could also suggest an association with the extant limekilns nearby, to the east of the A483. A Roman coin dated to between AD 317-326 was found in the same field (PRN 6248).
- 3.5 The southern end of the pipeline passes within 100m of two Romano-British double-ditched enclosures (PRNs 2446 and 4627), and crosses the line of a trackway (PRN 38045).



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Fig. 1 Northern section of the pipeline showing location of archaeological features



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Fig. 2 Southern section of the pipeline showing location of archaeological features

4 WATCHING BRIEF

- 4.1 The watching brief was conducted between 1 December 2008 and 17 February 2009, with site visits being dependent on the contractor's programme of work. A tabulated summary of the watching brief daily visits is provided in Appendix 1.
- 4.2 The nature of the watching brief was restricted at times by both the weather and the contractor's working methods, such that unfortunately there was little opportunity to investigate thoroughly some of the archaeological features along the route. This was largely due to a change in working practice during periods of severe frost, when the width of topsoil stripping was much reduced, and was immediately followed by the installation of the pipe, allowing only a brief time for any archaeological investigations.
- 4.3 Despite these limitations, a number of potentially significant archaeological features were revealed which are identified by individual site numbers in the following text and on Figs 1-2. Minor features, such as 18th- or 19th-century field drains and similarly dated pottery have not been included in the following discussion.

Site 1 (SJ 2671918395; Fig 3)

- 4.4 A broad linear ditch aligned west-north-west by east-south-east was observed cutting into the natural subsoil. The feature was rapidly recorded following the excavation of the pipe trench, which revealed it to be 6m wide and c. 0.8m deep. The uppermost fill, which was 0.1m thick, contained 19th-century pottery and glass, sealing a deposit of grey clay with iron panning, which overlay a thin layer of blue-grey clay containing preserved organic material. The ditch had been cut by a 19th-century field drain. Although the ditch is not the same feature that was identified by geophysical survey, which was thought at the time to represent a trackway (Frost 1997; PRN 70721), the two linear features may be contemporary and could form part of a broader complex.



Fig. 3 Site 1 viewed from the north-east. Photo CPAT 2818-015

- Site 2 (SJ 26711845)**
- 4.5 The site of a previously unrecorded World War II searchlight battery was brought to the authors attention by the landowner during the watching brief. The location has been generalised to the field at the northern end of the route. It appears that until relatively recently the battery retained its original shelters, although these have now been demolished and all that remains are a series low undulating mounds in the approximate area. The pipeline did not extend into this area.
- Site 3 (SJ 2666118184 to SJ 2666818209)**
- 4.6 A potentially significant change in the soil profile was noted in the area adjacent to one of the clusters of pits identified by an earlier geophysical survey (PRN 70722). The topsoil, which was around 0.2m thick, overlay a thin deposit of dark silt which was interspersed with white, silty clay, lying above the natural clay. Trial excavation of the deposit failed to reveal any artefactual evidence.
- Site 4 (SJ 2664918141)**
- 4.7 In the field to the north of Rhysnant Lodge the natural river gravels appeared to have been cut by a broad, shallow linear feature up to 5m wide, aligned north-west to south-east. Unfortunately, there was no opportunity to investigate the feature, which could represent a silted trackway, or perhaps a feature of natural origin.
- Site 5 (SJ 2663917998)**
- 4.8 A 3m-wide ditch was identified, aligned north-west to south-east, which had been cut by a 19th-century field drain. Although unexcavated, the ditch could be associated with a former field boundary, or might possibly be a silted trackway.
- Site 6 (SJ 2663617965)**
- 4.9 The stripping of topsoil in the general area revealed a layer of grey clay with iron panning, some of which remained in situ after stripping. However, the excavation of the pipe trench showed the layer to be up to 0.2m thick, sealing what appeared to be a broad linear feature, 11m wide and at least 1.3m deep, which was aligned east to west. Although the trench was not deep enough to exposed the base of the feature it was apparent that the basal fill comprised a 0.1m-thick deposit of dark brown, organic-rich silty clay, overlain by a peaty layer which also had good organic preservation.
- Sites 7-9 (SJ 26001611)**
- 4.10 The pasture field at the southern end of the pipeline is rather undulating with traces of remnant ridge and furrow as well as broad hollows. The removal of between 0.1m and 0.2m of topsoil revealed several archaeological features cut into the natural clay subsoil, the most prominent of which was a broad holloway (Site 7; Fig. 4) aligned east-north-east to west-south-west. The holloway was seen in section following the excavation of the pipe trench, which revealed it to be around 4.5m wide and up to 0.5m deep. The basal fill consisted on a mottled grey-brown silt 0.1-0.15m thick. The upper fills of the holloway were cut by a shallow stone-lined drain containing 18th-century finds, as well as a later, deeper, field drain.
- 4.11 Immediately to the north of the holloway was a shallow, butt-ended gully (Site 8; Fig. 5), 0.37m wide and 0.12m deep, extending beyond the stripped area. Excavation revealed the feature to have a flat base and the light grey silty clay fill produced two sherds of medieval pottery. It is possible that this was a drainage gully running into the holloway to remove surface water away from an area of activity beyond the pipeline easement.
- 4.12 To the south of the holloway the ground rises slightly to a level area where light grey silt was identified overlying the natural clay subsoil. A single sherd of medieval pottery was recovered demonstrating that the deposit is possibly of medieval origin.



Fig. 4 The extent of the hollowway, Site 7. Photo CPAT 2818-064



Fig. 5 The shallow gully (Site 8) north of the hollowway. Photo CPAT 2818-057

5 CONCLUSIONS

- 5.1 The watching brief monitored all relevant groundworks along the 1.3km-long pipeline between Four Crosses and Arddleen, revealing a number of previously unrecorded archaeological features, as well as adding new information on some known sites.
- 5.2 At the northern end of the pipeline a broad, undated ditch was identified which may be associated with a feature that has been identified as a possible trackway in an earlier geophysical survey. Further to the south, in the area around Rhysnant Lodge, two further linear ditches were also identified, both of which also remain undated.
- 5.3 On the outskirts of Arddleen the watching brief revealed potentially significant evidence for medieval activity in the form of a broad holloway with a probable drainage gully on one side, the excavation of which produced sherds of medieval pottery. Further pottery was recovered from a silty deposit a short distance to the south. The results from the watching brief suggest the presence of further medieval activity in the immediate area.

6 ACKNOWLEDGEMENTS

- 6.1 The writers would like to thank the following for the cooperation and assistance during the project: Dr Glyn Davies, ARCUS, Ben Sands, Grontmij; and the staff of Land and Marine.

7 REFERENCES

- Frost, P, 1997. *A483 Swansea to Manchester Trunk Road, Improvement at Four Crosses, Powys, Stage 3: Geophysical Evaluation*. CPAT Report No. 239.
- Halstead, J, 2008. *Proposed Pant Pipeline Scheme, Powys: a desk-based assessment*. Birmingham Archaeology Report No. 1670.
- Owen, G, & Britnell, W, 1989. Pit alignments at Four Crosses, Llandysilio, Powys. *Montgomeryshire Collections* 77, 27-40.
- Warrilow, W, Owen, G & Britnell, W, 1986. Eight ring-ditches at Four Crosses, Llandysilio, Powys, 1981-85. *Proceedings of the Prehistoric Society* 52, 53-87

**APPENDIX 1
WATCHING BRIEF SUMMARY**

Date	Staff	Time on site	Works monitored	Archaeology
01/12/08	Eleri Farley	8.00-16.45	Soil strip in Cae Kiln	None
02/12/08	Eleri Farley	8.00-16.15	Soil strip for compound and in Cae Kiln	None
03/12/08	Eleri Farley	7.30-10.00 13.00-16.20	Soil strip in Cae Kiln	None
04/12/08	Eleri Farley	7.45-16.00	Soil strip in Cae Kiln and adjacent field	None
05/12/08	Eleri Farley	14.00-16.00	Soil strip in field N of canal	None
09/12/08	Eleri Farley	14.30-16.45	Check area N of canal after soil strip	None
11/12/08	Eleri Farley	13.00-16.30	Soil strip for access in Four Crosses	None
12/12/08	Eleri Farley	7.30-9.30	Intended trenching eventually postponed due to lack of method statement	
15/12/08	Eleri Farley	7.30-11.30	Trenching to E of canal	None
16/12/08	Eleri Farley	7.30-11.30	Trenching to E of canal	19 th -century field drain
18/12/08	Eleri Farley	7.30-8.30	Change in programme – no further trenching until New Year	
05/01/09	Ian Grant	11.15-16.30	Soil strip and trenching N of Rhysnant Lodge	None
06/01/09	Ian Grant	15.45-17.00	Soil strip Field 41	
07/01/09	Ian Grant	9.15-16.30	Soil strip and trenching Field 41	Broad undated linear 11m wide and at least 1.3m deep, orientated E/W.
08/01/09	Ian Grant	10.15-12.15 / 15.45-16.00	Soil strip and trenching Field 40	Charcoal stained/leached white clay soil deposition (at least 15m band), undated, and several field drains
09/01/09	Ian Grant	9.30-16.00	Soil strip and trenching Field 39	Broad linear 6m wide and c. 0.8m deep, orientated WNW/ESE. East of geophysics anomaly, possible trackway (PRN 70721). More likely a ditch than a trackway. Undated. Also, several field drains.
14/01/09	Ian Grant	10.30-14.00	Soil strip and trenching Fields 48-9	None
15/01/09	Ian Grant	9.40-10.30	Soil strip and trenching Field 48	None
19/01/09	Ian Grant	9.00-9.40 / 14.45-17.00	Soil strip and trenching Field 53	None
20/01/09	Ian Grant	9.45-14.00 / 15.00-16.30	Soil strip in Field 54	Network of ceramic field drains
21/01/09	Ian Grant	9.30-13.30	Soil strip in Field 54	Network of ceramic field drains
22/01/09	Ian Grant	9.15-16.30	Soil strip in Field 55	Network of field drains
23/01/09	Ian Grant	9.00-9.15	Brief monitoring visit to confirm completion of stripping	None
11/02/09	Ian Grant	14.30-17.30	Soil strip in field 56	Possible Holloway, linear feature,

				medieval gully and other medieval activity in general area
12/02/09	Ian Grant	10.00-18.15	Investigation of features in field 56	Holloway recorded in plan, and gully excavated and recorded
13/02/09	Ian Grant	9.45-17.45	Investigation of features in field 56	Holloway and field drain
17/02/09	Ian Davies	8.30-16.00	Monitoring trenching in field 56	Recorded section of holloway