

CPAT Report No 1018

Excavations at Borrás Quarry, Wrexham, 2009

INTERIM REPORT



THE CLWYD-POWYS ARCHAEOLOGICAL TRUST

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Excavations at Borrás Quarry, Wrexham, 2009

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Report for Tarmac Ltd



CPAT

Tarmac 

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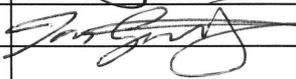
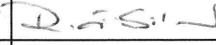
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SUMMARY

The discovery of a number of prehistoric features during the soil stripping operations associated with the first phase expansion of Borrás Quarry into the Holt Estate in the Spring of 2008 led to the detailed archaeological excavation of a large area in June and July 2008, revealing further significant remains. The excavations identified a range of features, many of which were associated with pottery, suggesting some form of settlement dating to the mid or late Neolithic, together with a later phase of activity during the Bronze Age, between 1490 and 1269 cal BC.

A second phase of topsoil stripping in an adjacent area during 2009 revealed further evidence for prehistoric activity, resulting in a second season of excavation during August and September of that year. The results have added new information on prehistoric settlement in the area, with the additional discovery of a human cremation.

An initial examination of the pottery has confirmed the presence of a number of distinctive vessels in a style known as Peterborough Ware, which is believed to be in use in the period between 3500 and 2500 BC. This has been confirmed by a radiocarbon date associated with some of the Peterborough Ware which indicates activity during the period 3638 to 3118 BC.

The exact nature of the settlement is uncertain, for no definite building plans were identified, although other evidence strongly suggests their presence. The characteristic feature of the site is the high number of pits which were filled with quantities of charcoal and fire-cracked stones, suggesting that they had been used for cooking.

The discoveries have made a significant contribution to our knowledge of human activity in north-east Wales during the Neolithic period. A number of Neolithic artefacts have been found in the past by chance in the Wrexham area, including seven polished stone axes within 10km of Borrás, while most of the evidence for Neolithic activity comes from scatters of worked flint, often uncovered after ploughing. However, the excavations at Borrás have provided the first evidence for actual Neolithic settlement in this region.

The recent excavations have clearly demonstrated that there is significant potential for buried archaeological features within the area of the Holt Estate, and there is every possibility that further discoveries will be made as soil stripping proceeds in the remaining areas.

1 INTRODUCTION

- 1.1 In June 2009 the Field Services section of the Clwyd-Powys Archaeological Trust (hereafter CPAT) was commissioned by Tarmac Ltd to undertake a watching brief during soil-stripping operations as part of the first phase extension (area H1) of the Borrás Quarry into the Holt Estate (Figs 1-2), near Wrexham (SJ 357533). This followed an initial period of expansion in 2008 during which significant evidence was revealed for prehistoric occupation, resulting in a programme of full excavation (Grant and Jones 2008). The most recent expansion involved two areas, one on either side of the 2008 excavation, as well as ancillary works further to the south.
- 1.2 Borrás Quarry and its immediate environs have been subject to a number of archaeological assessments relating to planning applications, firstly in 1995 to carry out mineral extraction at the Holt Estate (Hankinson 1995), and then in 2000 to extend the depth of workings and determine new conditions (Jones 2000a; 2000b) at the quarry. An assessment of a proposed quarry extension was carried out in 2003 (Jones and Hankinson 2003), which was subsequently updated owing to a revision of the proposals (Owen and Silvester 2005). The 2005 assessment then formed part of the Environmental Statement submitted by Tarmac Ltd to the local planning authority - Wrexham County Borough Council - in support of their application to extend the quarry. The subsequent grant of planning consent was subject to a number of conditions, one of which was that an archaeological watching brief was to be carried out during all soil stripping operations.



Fig. 1 General view of Area H1 and the site of excavations in 2008 and 2009.
Photo CPAT 08-c-0134

- 1.3 During the monitoring of soil stripping in June 2009 further archaeological features were revealed and rapidly investigated, leading to further excavation over a period of four weeks in August and September 2009. This report provides an interim statement on the results from the excavation and watching brief.

2 LOCATION

- 2.1 Borrás Quarry lies 13km south of Chester and, in the more immediate locality, some 3.5km north-east of the centre of Wrexham and 2.5km south of Gresford. The quarry lies next to Borrás Road, a minor route which mirrors that of the A534 further south between Wrexham and the village of Holt.
- 2.2 The quarry is situated on a plateau, at a height of approximately 75m OD. Land to the north-west, lying between the quarry and Gresford, is primarily undulating, agricultural land (75-81m OD), containing a number of depressions, known as 'kettle holes'. Mineral extraction has already taken place nearby at Caia Farm which, until recently, formed part of Borrás Quarry, but this area has recently been reinstated following the completion of quarrying activity.

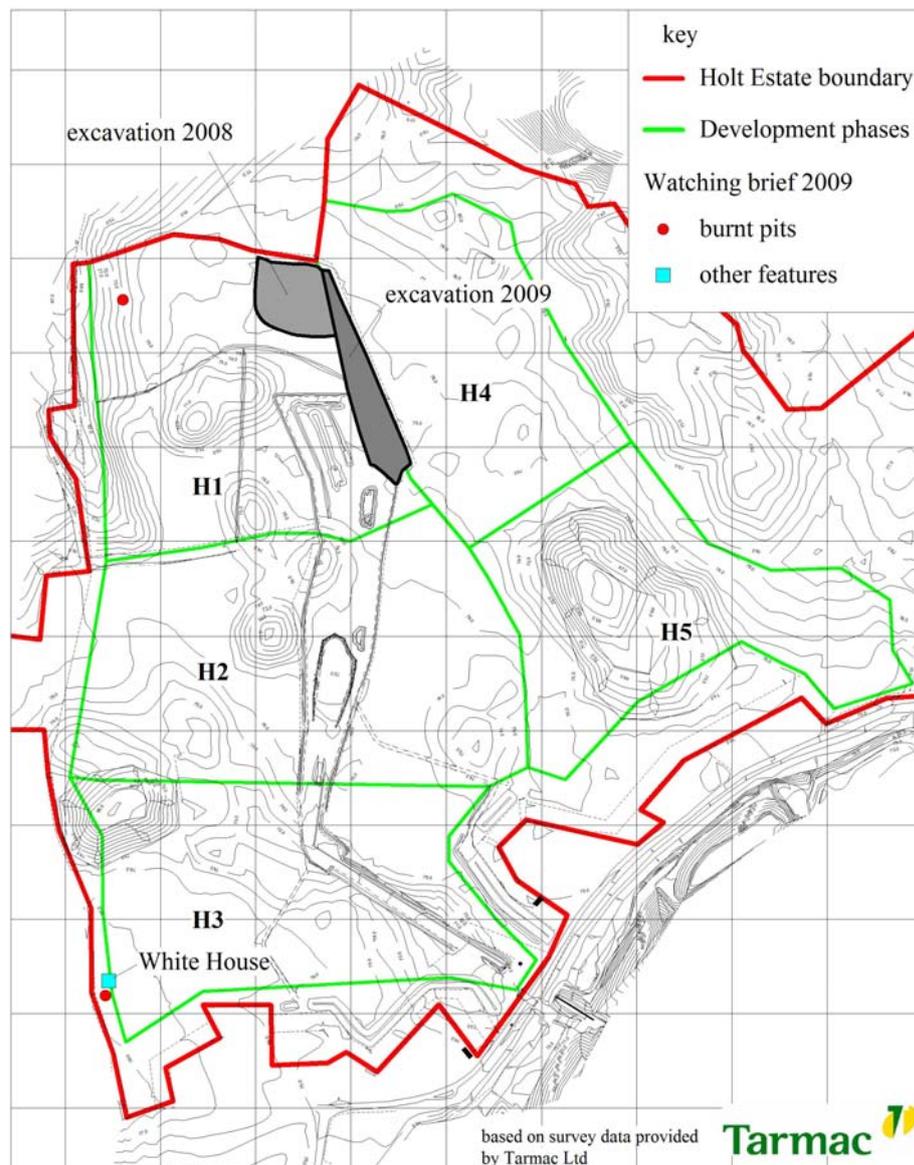


Fig. 2 Plan of the Holt Estate showing proposed development phases, watching brief locations and areas of excavation

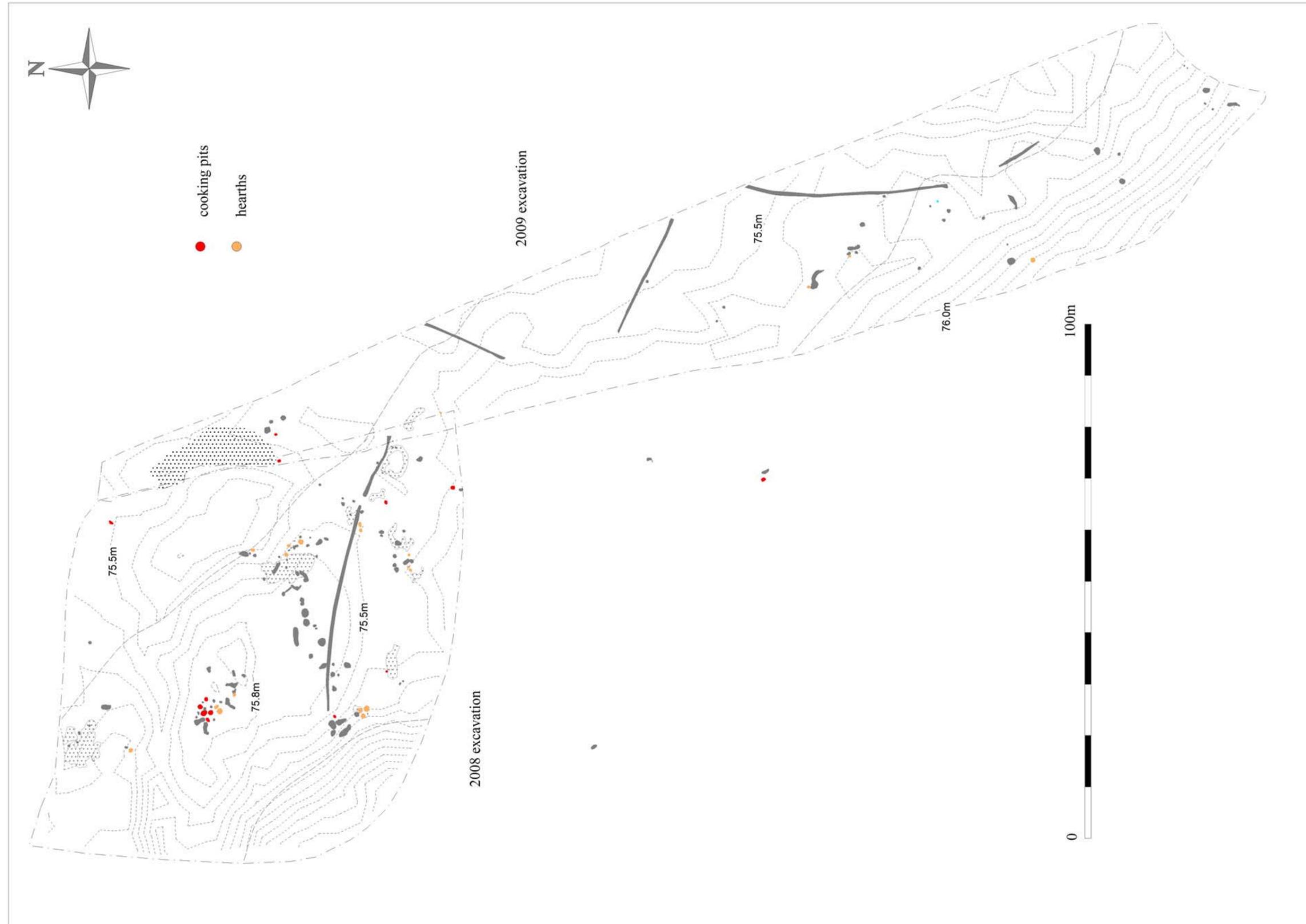


Fig. 3 Overall plan of the 2008 and 2009 excavations. Contours at 10cm intervals.

3 WATCHING BRIEF

- 3.1 The watching brief was conducted between 15 June and 9 July 2009 during the removal topsoil in two areas, one to either side of the area excavated in 2008 (see Fig. 2). Little significant archaeological material was revealed in the preliminary topsoil removal, although one sherd of medieval pottery was recovered from the eastern area at SJ 35712 53521.
- 3.2 The stripping of the eastern area revealed a number of features similar to those excavated in 2008. A preliminary examination was undertaken at this time to confirm the nature of the features, recovering several sherds of prehistoric pottery from two pits.
- 3.3 Unlike the eastern area, little evidence of archaeological features was revealed in the western area. The only feature observed was a shallow scoop (1199) at SJ 35460 53656, measuring some 2.25m north-west/south-east by 1.15m and 0.20m deep. This was highlighted by the presence in the upper fill (1200) of large amounts of charcoal, some of which could be readily identified as oak and from which samples were taken for possible further analysis.
- 3.4 In addition to the two areas of soil stripping some ancillary works were carried out to enable soil stripped from the eastern and western areas to be used in creating a bund around the boundary of the site. Monitoring of these operations revealed a single pit (1176) at SJ 35446 52934. Work on the route was halted until the feature could be thoroughly investigated. The pit proved to be somewhat irregular and relatively large, measuring some 2.6m north-north-east/south-south-west by 2.12m and 0.51m deep. The main fill, a dark grey to black charcoal-rich soil (1177), also contained fire-cracked stones indicating that this feature was associated with cooking activities similar to some features excavated in 2008.
- 3.5 As well as further prehistoric discoveries, the watching brief also revealed the scant remains of a post-medieval house which had been noted during the original archaeological assessment (Hankinson, 1995). The building, which was known as the White House (PRN 86940; SJ 3544 5292), is depicted on the 1839 Tithe map for Borrás Hovah township and on the 1st edition Ordnance Survey map surveyed in 1872, but was not on the 2nd edition map of 1898, indicating that by this date it had been abandoned.
- 3.6 The remains consisted of a small, square hearth (1184), constructed of stone and brick, and measuring about 0.7m across. No evidence was revealed for the main walls of the house which may suggest that it was of timber-frame construction, with no foundations. It is possible that the structure was taken down when it became disused and the materials removed. With the exception of a few small pieces of window glass, the only significant structural material was a number of brick fragments, these evidently being of local manufacture and of likely 18th-century date. It may be significant that the 1995 assessment revealed an area of clay extraction and brick making dating to at least as early as 1767 less than 1km distant (PRN 86938; SJ 3620 5330). Other finds recovered from the site and its surroundings suggested occupation in the 18th and 19th centuries. On completion of the excavation the site was covered with a protective layer of soil over which the bund was then created.



Fig. 4 The hearth associated with the White House

4 EXCAVATIONS

- 4.1 Following the initial discoveries, an area of around 6,100m² was mechanically stripped down to the surface of the natural subsoil under close archaeological supervision. Within most of this area the underlying drift consisted of glacial sands and gravels. Thereafter, all excavation was conducted by hand. Numbers in brackets in the following text refer to individual contexts whether features, layers or deposits, which are recorded in the site archive.
- 4.2 A site grid was established and located using total station surveying equipment, the base stations for which were located in relation to the Ordnance Survey national grid by surveyors from Tarmac Ltd. On-site recording was undertaken by a combination of total station survey and hand-drawn planning, with all levels related to Ordnance Datum. Site photography was in digital format.
- 4.3 Those features which were identified and investigated during the earlier stages of the watching brief were located by means of a hand-held global positioning system (GPS).
- 4.4 The extent of the excavation was defined at a site meeting between Mark Walters, the archaeological curator for the region, Nigel Jones, CPAT Field Services Section and Ian Thomas, the manager at Borrás Quarry. It was accepted that parts of the stripped area had been disturbed by vehicle movement during the watching brief and as a result were unlikely to produce significant archaeology. The excavation therefore focused on an area of around 3,000m², excluding the eastern edge of the stripped area as well as part of the central section.
- 4.5 Following careful hand cleaning of the area a number of obviously archaeological features were identified, together with several concentrations of possible features, the investigation of which incurred a significant investment in man-power before most were attributed a natural origin.
- 4.6 The majority of archaeological features revealed were pits, a minority of which contained evidence for in-situ burning, together with several shallow, linear gullies. There was limited evidence of structures, comprising several obvious post-holes, although no definite building plans were identified. The distribution of features does, however, seem to be significant, with activity concentrating in three main areas.
- Structural evidence**
- 4.7 The excavations revealed a number of small pits or hearths with evidence for burning which were similar in nature to those revealed in 2008 and may be associated with other adjacent features. Although no obvious building plans could be identified, these features suggest the presence of several prehistoric structures. Three definite postholes were identified (1054, 1094 and 1117), together with a further seven possible postholes (1096, 1138, 1140, 1152, 1164, 1172, and 1188). The best preserved of these, 1094, contained a post-pipe around 0.3m across.
- Evidence for cooking activities**
- 4.8 In total six pits were identified which contained evidence for either in-situ burning and/or quantities of charcoal and fire-cracked stones. These were distributed across the site, and while some were close to other features, some were not. Bulk soil samples were retained from each feature for possible analysis. The results from the excavation suggest that the pits are similar to those excavated in 2008, which were categorised into two main types; cooking pits and hearths.

- 4.9 The cooking pits, of which only two were identified (1009 and 1010), were characterised by the presence of fire-cracked stones, although unlike those features excavated in 2008 they lacked the distinctive layers of dense charcoal.



Fig. 5 Cooking pit 1010 before excavation



Fig. 6 Cooking pit 1010 after excavation

- 4.10 Four features have been identified as possible hearths (1067, 1071, 1079 and 1134), of varying size. Generally, these consisted of shallow pits with evidence for in-situ burning, but did not contain the heat-fractured stone, typical of the cooking pits.

Miscellaneous features

- 4.11 Perhaps the most significant feature revealed by the current season's excavation was a small pit (1170) containing a cremation. The pit measured 0.43m by 0.37m and up to 0.18m deep, and was filled by an orangey-brown sandy silt (1171). The bulk of the cremation was carefully excavated and separated from the main fill, although it is likely that further fragments will be recovered from the bulk soil samples. Both the cremation and the soil samples will require specialist processing and reporting.



Fig. 7 Cremation pit 1170 with cremated bone visible in the section

- 4.12 The excavation revealed a further three shallow, linear gullies, similar to those identified in 2008. As before, none of these features produced any evidence for dating. Gully 1149, which was 0.43-0.52m wide and up to 0.15m deep, was aligned north-east to south-west and extended for around 17m. Further to the south, gully 1090 followed a slight curve, extending for around 40m. Gully 1162 is likely to be a continuation of this feature, the intervening section having



Fig. 8 Gully 1162 viewed from the south

been lost during machining. A fourth gully (1150) was slightly different in character and ran parallel to a former field boundary, suggesting that it may have been associated with a more recent field system.

4.13 Three pits (1114, 1115, 1116) were identified at the northern end of the excavation, each of which was filled with a similar and distinctive pink sandy clay. The pits were between 10.68m and 1.2m in width and 0.65m to 0.78m deep. The only dating evidence came from pit 1116, which produced a single sherd of prehistoric pottery.

4.14 At the northern end of the site a remnant soil layer (1011) was identified, which survived to a thickness of up to 0.2m. No dating evidence was recovered from the layer, although a single, small pit (1132) was identified beneath it in one of the sondages which were excavated to investigate the deposit.



Fig. 9 North-facing section of pit 1114

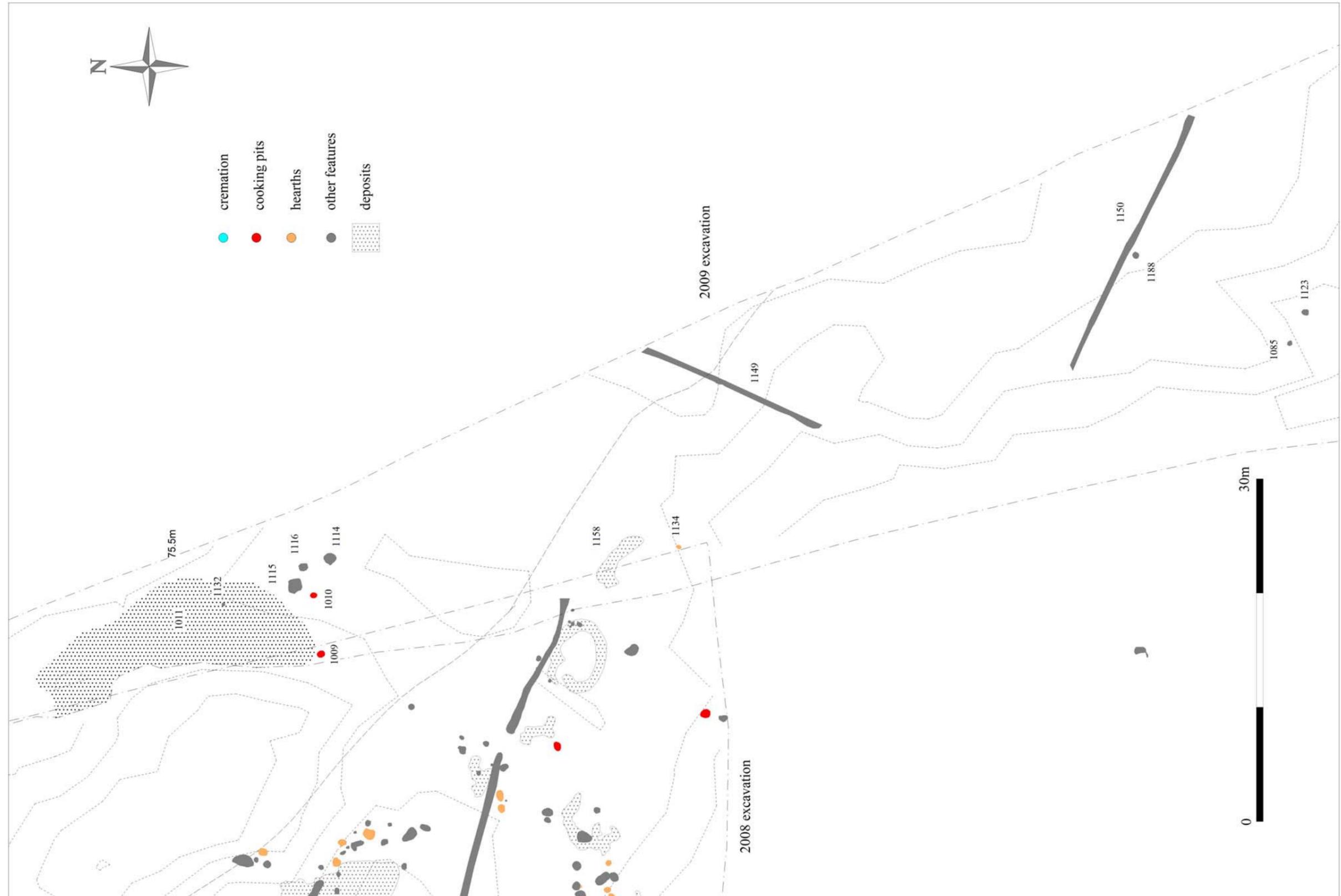


Fig. 10 Plan of the northern end of the 2009 excavations

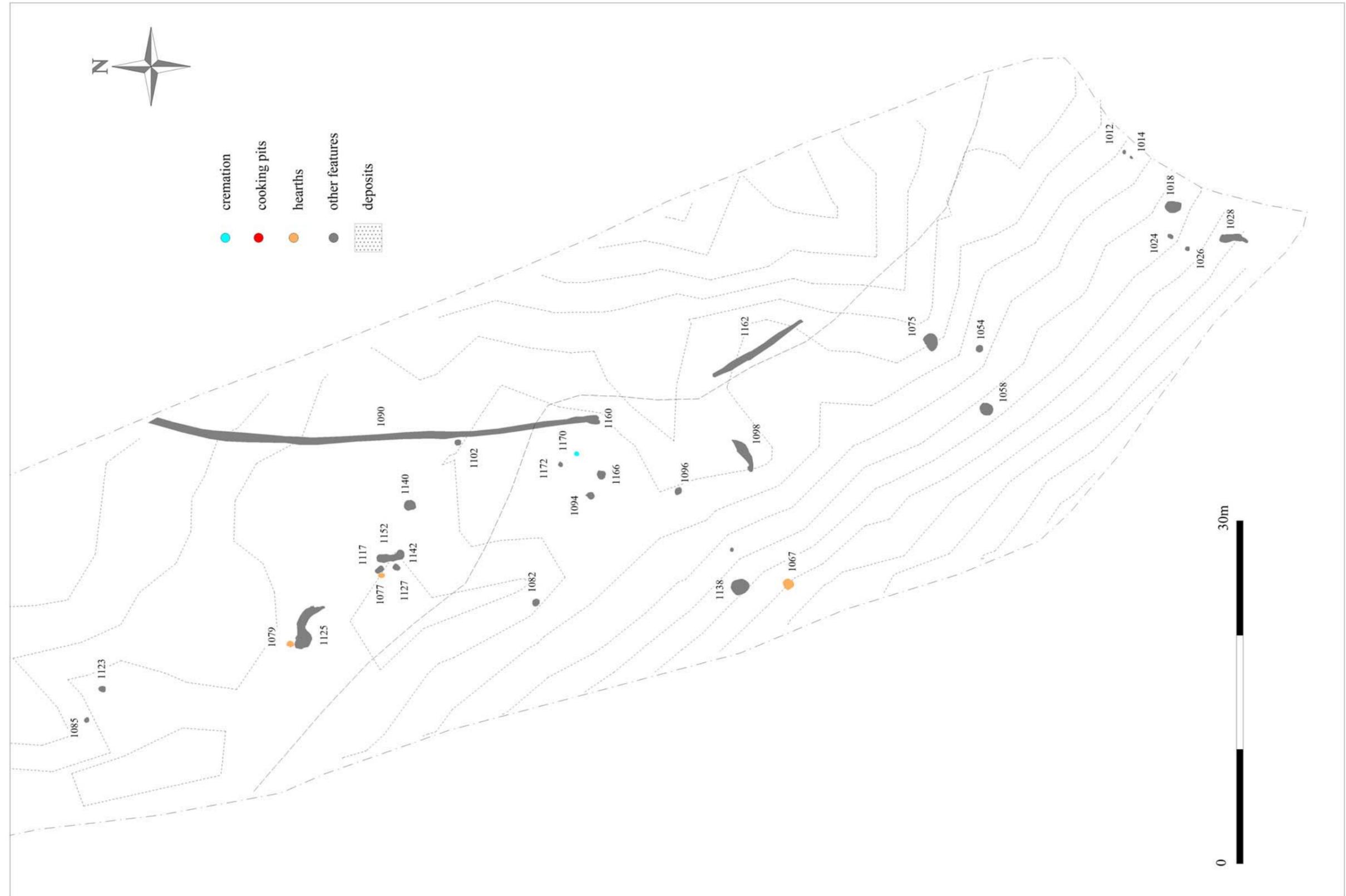


Fig. 11 Plan of the southern end of the 2009 excavations

5 PREHISTORIC POTTERY

- 5.1 In contrast to the 2008 excavations very little prehistoric pottery was recovered from the site, amounting to only eight sherds (58g). The fabric of the pottery was generally similar to that from the previous year.

Find No. 2016, context 1119, fill of pit/posthole 1117. Single, undecorated body sherd (4g).

Find No. 2022, context 1128, fill of pit 1127. Single sherd (1g) of poorly fired pottery, or fired clay.

Find No. 2034, context 1095, fill of posthole 1094. Single body sherd (8g) with stabbed decoration.

Find No. 2035, context 1135, fill of posthole 1094. Single body sherd (16g) with incised chevron decoration.

Find No. 2050, context 1007, fill of pit 1116. Single, undecorated body sherd (19g).

Find No. 2051, context 137, fill of pit 138. Single body sherd (1g).

Find No. 2052, context 1194, fill of pit 1192. Single body sherd (6g).

6 LITHICS

- 6.1 The excavations produced only ten worked, or possibly worked fragments of flint and chert, eight of which were unstratified, having been recovered during the initial cleaning of the site. The small collection will need to be examined by a specialist in order provide definitive identifications.

7 CONCLUSIONS

- 7.1 The discovery of a number of prehistoric features during soil stripping operations associated with the first phase of the expansion of Borrás Quarry into the Holt Estate has led to two seasons of detailed archaeological excavation in adjacent areas, revealing important evidence for Neolithic and Bronze Age activity. The 2008 excavations identified a significant number of features, many of which were associated with pottery, suggesting some form of settlement dating to the mid or late Neolithic. This was reinforced by radiocarbon dates which confirmed activity between around 3600 and 3100 BC, while a single date has indicated a later phase of activity during the Bronze Age, around 1500-1200 BC.

- 7.2 The excavations in 2009 investigated an area along the eastern side of the previous excavations, revealing further pits, postholes and evidence for cooking activities. While the density of features was sparser than the previous season, and the number of finds significantly less, the excavations have uncovered important new evidence in the form of a single cremation. This had been placed in a pit, with no evidence for any containing vessel or associated finds. The presence of burial activity, as well as occupation, enhances the significance of the site, although at this stage there is no indication of the date for the cremation. Specialist analysis will be required to determine the age and sex of the individual, while radiocarbon dating will provide a date.

- 7.3 The precise nature of the settlement still remains uncertain, and although further structural evidence was identified, no definite buildings have yet been recognised. The discoveries from both excavations have made an important contribution to our knowledge of human activity in north-east Wales during the Neolithic and Bronze Age period, and it is likely that further discoveries will be forthcoming as soil stripping proceeds in the remaining areas of the Holt Estate.
- 7.4 The discovery during the watching brief of a further pit with evidence of in-situ burning along the western edge of area H3 has important implications for further potential discoveries once the quarry extends into this area.
- 7.5 The excavations in 2008 and 2009 have produced a wealth of information and further, more detailed research will be required to realise the potential of the site archive. The two excavations are being treated as a single site a post-excavation research design is in preparation which will outline the work and specialist services which will be required to complete the post-excavation analysis and prepare a report for publication.

8 ACKNOWLEDGEMENTS

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