# N18 Ennis Bypass
# and N85 Western Relief Road

## Site AR106, Barefield, Co. Clare

**Final Archaeological Excavation Report**

**for Clare County Council**

**Licence 04E0052**

**by Markus Casey**

**Job J04/01**

**(NGR 136644 182089)**

**1st August 2006**

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# Summary

**Site name:** N18 Ennis Bypass and N85 Western Relief Road, Site AR106, Barefield, Co. Clare

**Townland:** Barefield

**Parish:** Templemaly

**Barony:** Bunratty Upper

**County:** Clare

**SMR/RMP Number:** N/A

**Planning Ref. No:** N/A

**Client:** Clare County Council, New Road, Ennis, Co. Clare

**Landowner:** Clare County Council, New Road, Ennis, Co. Clare

**Grid reference:** 136644 182089 (OSI Discovery Series 1:50,000, Sheet 58. OS 6" Clare Sheet 34)

**Naturally occurring geology:** Carboniferous limestone bedrock with soil consisting of grey-brown podzols overlying the natural boulder clay.

**TVAS Ireland Job No:** J04/01

**Licence No:** 04E0052

**Licence Holder:** Markus Casey

**Report author:** Markus Casey

**Site activity:** Excavation

**Site area:** 356m$^2$

**Sample percentage:** 100%

**Date of fieldwork:** 2$^{nd}$ to 6$^{th}$ February 2004

**Date of report:** 1$^{st}$ August 2006

**Summary of results:** Excavation of an area of discoloured soil revealed during testing in September 2003 showed it to be the remains of a burnt area, possibly an accidental fire but more likely a purposely laid hearth, as two distinct phases of burning were noted. A radiocarbon date indicating that this burning took place in the medieval period was obtained. The pit may have been dug for the production of charcoal perhaps to be used in iron-making.

**Monuments identified:** Medieval, charcoal-rich pit



*Report edited/checked by: Graham Hull ✓01.08.2006*

# N18 Ennis Bypass and N85 Western Relief Road, Site AR106, Barefield, Co. Clare
# Final Archaeological Excavation Report

By Markus Casey

**Report J04/01s**

## Introduction

This report documents the final results of an archaeological excavation of a medieval charcoal-rich pit (Site AR106) on the route of the N18 Ennis Bypass and N85 Western Relief Road at Barefield, Co. Clare (NGR 136644 182089) (Fig. 1). The excavation forms part of the Ennis Bypass Archaeological Contract 6.

A preliminary archaeological report for this site was produced in June 2004 (Casey 2004).

The National Monuments Act 1930 (as amended) provides the legislative framework within which archaeological excavation can take place and the following government publications set out many of the procedures relating to planning/development and archaeology:

*Framework and Principles for the Protection of the Archaeological Heritage* (DAHGI 1999a)

*Policy and Guidelines on Archaeological Excavation* (DAHGI 1999b)

*Code of Practice between the National Roads Authority and the Minister for Arts, Heritage, Gaeltacht and the Islands* (NRA/MAHGI 2001)

## Project background

As part of the National Roads Authority scheme for upgrading the N18 Limerick to Galway Road, Clare County Council, in consultation with NRA Project Archaeologist Sébastien Joubert, requested a series of archaeological investigations along the route of the proposed Ennis Bypass and a Western Relief Road. The proposed scheme has an overall length of 21km and involves the construction of a 13.8km eastern bypass of Ennis from Latoon, north of Newmarket-on-Fergus, to Cragard, north of Barefield. The Western Relief Road is 7.1km long and is to link Killow and Claureen (Fig. 1).

A number of sites of archaeological interest were known to lie on the route of the new roads and the mitigation strategy agreed by the Project Archaeologist and the national licensing authorities for these sites was preservation by record, i.e. full archaeological excavation. Further sites, without surface expression, were located as the result of intensive test trenching along the course of the road (03E1291 Hull 2003 and 03E1293 Roger 2004). As preservation *in situ* was not a reasonable option, the resolution strategy for these new sites was also preservation by record.

The archaeological excavation and post excavation work were funded by Clare County Council through the National Roads Authority and part-financed by the European Union under the National Development Plan 2000-2006.

## Location, topography and geology

The site lies in the townland of Barefield, parish of Templemaly, barony of Bunratty Upper and is about 300m east of the N18 and 4km north of Ennis (Figs 1 and 2). The landscape is one of undulating relatively well-drained fertile pasture close to the western edge of the drumlin belt of the central lowlands. The local geology consists of drift covered bog free carboniferous limestone bedrock with

soil consisting of grey-brown podzolics overlying the natural boulderclay. Dry limestone walls mixed with sparse, overgrown hedgerows of thorn and ash divide the small to medium sized irregular fields. The land is largely under pasture, with cattle and sheep rearing predominating, although many areas show evidence of previous cultivation.

The field in which the site lies is overlooked by higher ground immediately to the west and north-west, while the railway forms the eastern field boundary and the by-road runs along the south. Substantial drystone walls surround the field, with regular 1.8m high walling along the railway to the east. A gate along the south-west gave access to the boreen between Barefield and Spancilhill. The lower areas of the field contain deposits of rounded pebbles purposely laid and covered with topsoil to aid drainage. Areas of outcropping rock can be seen intermittently throughout the higher sections of the field, with lower areas being more generously covered by 0.40m – 0.60m of topsoil.

**Archaeological background**

As part of the environmental assessment process for the road scheme, Clare County Council commissioned desk-based and walkover surveys that formed part of an Environmental Statement (Babtie Pettit 2000) and an archaeological study for the Environmental Impact Statement (Doyle 1999). A total of 36 sites of known or potential cultural heritage significance were identified along the entire route of the proposed Ennis Bypass and Western Relief Road.

Earthwork and geophysical survey were undertaken on potential archaeological sites and invasive testing and excavation took place in 2002 and 2003 on some of the above ground sites affected by the proposed road (Aegis 2002, IAC 2003, Geoquest 2002, Earthsound 2003).

A systematic programme of testing along the new road route, involving the mechanical excavation of a central linear trench with offsets, took place in Summer/Autumn 2003. Twenty-two previously unknown sites, including cremation cemeteries, burnt stone spreads, enclosures and brick clamps were found (03E1291 Hull 2003 and 03E1293 Roger 2004). Monuments dating from the Bronze Age to the modern period were found.

Earlier phases of archaeological intervention on newly constructed stretches of the N18 (Dromoland to Carrigoran), to the immediate south of this road project, have demonstrated that the locality has a rich range of prehistoric and later monuments (99E0350 Hull and Tarbett-Buckley 2001).

Recent archaeological work on the BGE Gas Pipeline to the West in the neighbourhood of the new road route has tended to support the picture of continuous human activity in Co. Clare from the Neolithic and even becoming intensive from the Bronze Age. A number of burnt stone spreads and burnt mounds were excavated near the route of the new road in the summer of 2002 (MGL 2002).

The area around site AR106 was severely affected by famine and depopulation in the early 19$^{th}$ century but the proximity of Ennis, the river and railway saved the area from inclusion in the Poor Law Unions and Congested Districts of the late 19$^{th}$ and early 20$^{th}$ centuries (Ó Murchadha 2000). The landscape supports a wide variety of archaeological monuments, with earthen ringforts predominating in the immediate area.

Site AR106 was located during centreline with offset trenching in 2003 (03E1293, Roger 2004).

**Excavation aims and methodology**

A licence to excavate was granted to Markus Casey by the National Monuments Section of the Department of the Environment, Heritage and Local Government, in consultation with the National Museum of Ireland, on behalf of the Minister for the Environment, Heritage and Local Government. The licence number is 04E0052.

The aims of the excavation were to:

1) Preserve by record all archaeological deposits and features within the excavation area
2) Produce a high quality report of the findings

The fieldwork took place between 2nd and 6th February 2004 and was directed by Markus Casey, supervised by Richard Oram and assisted by Frank Mulcahy.

The area under examination lay near the lowest section of the field, was sub-rectangular in plan and was extended in a north-westerly direction after initial soil stripping.

The area outlined for examination measured initially 9m north to south by 35m, with an extension for a further 9m to the north added later. The total area examined was 356m$^2$. The area sloped steeply down from the east, with the western half being almost level, coinciding with the lowest part of the field. This area becomes flooded in winter and stone deposits for drainage had been inserted along the lower parts of this and nearby fields. These had been covered with topsoil and were not visible on the surface before excavation.

A 15 tonne tracked digger, fitted with a toothless grading bucket, stripped between 0.15m and 0.40m of topsoil off the entire area, revealing two of the test trenches previously excavated and two of the stone drainage deposits. The limestone bedrock surfaced intermittently, mainly up-slope where the topsoil was shallowest, and the topsoil rested directly on the bedrock along the eastern half of the opened area. Approximately 0.40m of topsoil was removed from the remainder of the area, revealing the clearly visible outline of the previous two test trenches. A rectangular area 10m east west by 6m north south was cleaned off around the two earlier trenches and this area was later extended northwards for a further 7.2m to follow the 2003 test trenches. In the event, the features uncovered in 2003 were found some 3m north of the original area outlined. All excavation below the topsoil was done by hand.

The main oval pit uncovered (feature A) had already been partly excavated during testing, and the remainder was sectioned off into six areas, enabling two cross-sections and two-thirds of a long section to be drawn. The smaller less well-defined pit to the south-west (feature B) was also uncovered some 8m to the south-west. The water table lay 0.60m beneath the bottom of the trench.

**Excavation results** (Figs 3 to 10 and Plates 1 to 4)

A complete context list is given as Appendix 1.

The dark brown fertile topsoil (deposit 3) contained some modern pottery, glass and red brick fragments and averaged 0.15m in depth, being shallowest up-slope to the east and deepest towards the bottom of the hill. The modern artefacts were not retained.

*Feature A*

The shallow oval pit uncovered the previous year (also called feature A) was aligned almost exactly north to south, was 4m long and 1.6m wide and reached a maximum 0.28m deep in the centre. The flat base was 0.60m below present ground level. This feature was cut into the natural dark yellowish

brown sandy boulderclay (deposit 2) and was covered by 0.25m deposit of dark brown topsoil (3). A rabbit burrow (6) ran through the centre and a shallow plough mark skimmed the eastern edge close to the upper levels and beneath the topsoil. The lowest level consisted of a 0.02m thick layer of reddened compact sandy silt (11). This was simply the natural boulderclay discoloured by the heat of a fire. Immediately above this was a 0.06m – 0.08m thick layer of charcoal rich compact sandy soil, almost black in colour and containing flecks of charcoal (10). Both these layers were flat U-shaped in section.

Covering the entire layer of charcoal rich soil was a dark brown loose fill of ash mixed with sandy silt 0.10m in depth and extending to the sides of the pit (12 and 13). This material consisted of a mixture of the underlying burnt area and the natural boulderclay. It is likely that this was a purposely laid fill, possibly dumped on top of the embers to dampen the blaze when the original fire had served its purpose.

Immediately above this fill was a second, later deposit of charcoal rich soil, also black in colour, this time averaging 0.10m in depth and also extending the length and breadth of the pit (7, 8 and 9). Samples of recognisable timber fragments were recovered from this level. The lack of scorched earth between the layer of ash and the burnt level above suggests that the second burning event occurred not long after the first fire had been extinguished, as no soil had accumulated in the interim. Immediately above this upper charcoal rich deposit was a second layer of fill, this time consisting of the natural soil but not mixed with ash (5). The entire pit was covered with topsoil (3).

*Feature B*

An irregular area 1.15m north to south by 1.45m east to west containing limestone pebbles (4) and a black fill (1 and 14) was uncovered close to the edge of one of the earlier test trenches. This fill extended to a depth of 0.22m and lay directly on the boulderclay and natural limestone pebbles. It was covered with topsoil. Several of the limestone pebbles may have been placed there when the nearby stone drainage dumps were inserted and it is possible that this fill consisted of redeposited material from elsewhere when the stone dumps were being covered over. The fill consists of a firm compact distinct layer of sandy silt, similar in texture to the local boulder clay.

Feature B was not archaeological.

## Finds

No finds were recovered.

## Samples

A sample was taken of the charcoal from deposit 7 from Feature A.

## **Charred plant macrofossils** by Val Fryer

*Introduction*

A single sample for the extraction of the plant macrofossil assemblage was taken from one of the fills (7) of a shallow oval pit (feature A).

*Methods*

The sample was hand collected charcoal and was not floated or wet sieved. The material was scanned under a binocular microscope at magnifications up to x 16, and the plant macrofossils noted are listed below on Table 1. All plant remains were charred. The density of material within the assemblage is expressed in the table as follows: xx = 10 – 100 specimens and xxx = 100+ specimens.

*Results*

The assemblage was solely composed of charcoal fragments, with pieces larger than 5mm being moderately common.

**Table 1: Charred plant macrofossils**

| | |
|---|---|
| Sample No | 1 |
| Deposit No. | 7 |
| Charcoal <2mm | xxx |
| Charcoal >2mm | xxx |
| Charcoal >5mm | xx |
| Sample volume (litres) | 0.9 |
| Volume of flot (litres) | 0.9 |
| % flot sorted | 12.5% |

*Conclusions*

Assuming that the recovered assemblage is entirely derived from refuse from the hearth, wood and/or charcoal would appear to have been the principal fuels being utilised.

**Charcoal** by Simon Gannon

*Introduction*

A single sample of charcoal fragments was retrieved from a single context from the site, a pit fill. Identification of taxa of the retrieved charcoal may assist in the reconstruction of the local, contemporary woodland-environment and the use of the woodland resources by the people responsible for the archaeological features.

*Methodology*

In sorting fragments suitable for identification a guide size of at least 2mm in radial cross-section was used. From this sort 100% of fragments were analysed.

Initially the grain direction of the fragments was identified before fracturing across their transverse plains. Identifications were made under microscopic examination, in most cases. Further fractures were made to reveal radial and/or tangential plains in cases where identification was more difficult. Magnification of between x10 (hand lens) to x400 was used. Structural elements of the fragments were examined to allow for identification of roundwood, heartwood, and sapwood features.

Reference material comprised a reference collection of charred samples of taxa and reference publications, *Microscopic Wood Anatomy* (Schweingruber 1990) and *The Identification of the Northern European Woods* (Hather 2000).

*Analysis Results*

The results are summarized in Table 3. Classification follows that of *Flora Europae* (Tutin *et al* 1964-80). Certain related taxa cannot be securely differentiated on the basis of their anatomical characteristics and are assigned to their respective family groups as with the genera *Salix* and *Populus,* and the genera *Craetaegus, Malus* and *Sorbus.* Provisional identifications have been given in cases where the condition of the charcoal was degraded.

The various identifications of wood taxa were consistent with taxa from the following groups:

Broadleaf taxa
Fagaceae. *Quercus* sp., oak
Salicaceae. *Salix* sp., willow; *Populus* sp. poplar.
Ulmaceae. *Ulmus* sp., elm.

*Discussion*

Anatomical characteristics from charcoal fragments do not allow for identification of individual species in every case. Several species belong to groups of species, species of genera, of sub-families and of families that cannot be separated anatomically (Schweingruber 1990 and Hather 2000). It is possible that a narrow range of species and, occasionally, one or two species can be indicated with a degree of confidence due to established factors, principally their native status and history of introduction by people (Huntley and Birks 1983, Peterken 1996 and Scannell and Synott 1987) The following section places the given charcoal based taxa identifications in the context of defined tree species allowing for implications related to their environmental characteristics and possible use by ancient peoples to be drawn. Reference works consulted include Goldstein *et al* 1984, Huntley and Birks 1983, Kelly 1998, Mitchell 1978, O'Sullivan 1996, Rackham 1976-90, Raftery 1996, Scannell and Synott 1987 and Tutin 1964-80.

Taxa descriptions

Oak

There are two native species, pedunculate oak, *Quercus robur*, dair ghallda and sessile oak, *Quercus petraea*, dair ghaelach. (Family - Fagaceae).
Environmental indications. Broadly soil tolerant. *Q. robur* preferring alkaline or neutral soils rich in minerals, particularly damp clay soils and usually found in mixed woodland. *Q. petraea* preferring acid and lighter well drained soils, often in pure stands. Both species are naturally distributed throughout Ireland.
Uses in antiquity. Both species produce a hard wood resistant to abrasion and water degradation, particularly useful for structural timber and implements, poles and fencing. Woodland trees can be coppiced to produce stakes, straight poles etc.

Willow /poplar

The Salicaceae family provides various possible individual species, native to Ireland, including ten or more from the genera of willows and one from the genera of poplars.

Willow
There are ten or more willow species native to Ireland, though some having restricted range. Examples of the more widespread species being eared willow (*Salix aurita*), crann sníofa; goat willow (*Salix caprea*), sailchearnach; and grey willow (*Salix cinerea*), saileach liath.
Environmental indications. Extremely hardy and tolerant of a wide range of soils and habitats, often growing in, though not restricted to, wet places. Not tolerant of drought. *S. cinerea* and *S. purpurea*

are not particularly shade tolerant, *S. caprea* is reputably more tolerant of shade. These are 'pioneer' species and can move into areas where the soil has been disturbed such as cleared woodland.
Uses in antiquity. Very tough and flexible wood useful for woven structures. Brittle branchwood not suitable as timber breaks violently when burnt. The stems are very flexible. Coppiceable, it can produce stout poles.

Poplar
Aspen, *Populus tremula*, crann creathach.
Environmental indications. Tolerant of poor soils growing on scrub, frequent on damp sites on hillsides, in rocky valley bottoms. A woodland tree where not under canopy. Moderately tolerant of drought as mature tree, not at all as a seedling. A short-lived pioneer tree. Native to Ireland.
Uses in antiquity. Wood is very soft with limited usefulness, of low flammability but making good charcoal.

Elm

The sole native species is *Ulmus glabra*, wych elm, leamhán sléibhe (family-Ulmaceae).
Environmental indications. Generally requiring non-calcareous top soil, can grow in heavy clay soil, needing moist but not waterlogged ground. Distribution throughout Ireland. Moderately shade tolerant.
Uses in antiquity. A hard, elastic, wood which is durable under water. Useful as structural timber, implements etcetera. Responds well to coppicing. The inner bark fibre can be used for ropes, mats etc

The total range of taxa from AR106, Barefield, comprises oak (*Quercus*), willow/ poplar (Salicaceae) and elm (*Ulmus*). These taxa belong to the groups of species represented in the native Irish flora.

Generally, there are various, largely unquantifiable, factors that effect the representation of species in charcoal samples including bias in contemporary collection, inclusive of social and economic factors, and various factors of taphonomy and conservation (Théry-Parisot 2002). As is seen in Table 3 oak (*Quercus*) is the most numerous of the identified charcoal fragments, taxa generally common as fire debris and the most represented from the total of Ennis Bypass sites. Elm (*Ulmus*) is present in few fragments and in generally low numbers than from other Bypass sites AR100, AR121, AR126 and AR127, willow/ poplar (Salicaceae) being more common.

*Conclusion*

This is a single sample site which is reflected in the limited range of taxa represented. Oak (*Quercus*), is particularly numerous in the single sample and as such may fit within the overall demonstrated preference for this taxon as a fire fuel from the Ennis Bypass sites.

**Table 3**: **Number of identified charcoal fragments per sample**

| **Sample** | **Cut** | **Deposit** | **Context type** | ***Alnus*** | ***Betula*** | ***Corylus*** | ***Fraxinus*** | **Pomoideae** | ***Prunus*** | ***Quercus*** | **Salicaceae** | ***Taxus*** | ***Ulmus*** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | A | 7 | Pit | - | - | - | - | - | - | 87 | 27 | - | 2 |

## Radiocarbon date

A radiocarbon determination from the fill of the pit was made by Beta Analytic Inc, Miami, Florida (Table 4).

**Table 4: Radiocarbon determinations**

| Sample material | Cut | Deposit | Sample | Lab code | Radiometric age | Calendrical calibrations |
|---|---|---|---|---|---|---|
| Charcoal Ulmus | - | 7 | 1 | Beta-211577 | 950±40 BP | 2 sigma (95%) Cal AD 1010 to 1180<br>1 sigma (68%) Cal AD 1020 to 1160 |

The charcoal sample was from elm, a tree species that can live for 400 years. The radiocarbon date may, then, indicate activity taking place a few centuries after the quoted determination. The pit was probably dug and backfilled after the 11th century AD and could have been used as late as the 16th century AD.

## Discussion

The single archaeological feature at Site AR106, Barefield, Co. Clare shows that a small fire was lit twice in quick succession, in the medieval period, in a sheltered area close to the bottom of a natural slope. The predominant fuel for this fire was oak.

There are clear parallels between the form, fill and date of the pit at Barefield and a cluster of similar features excavated on the banks of the River Feale to the south of Abbeyfeale, Co. Limerick (Taylor 2005).

The excavation of that site at Kilmaniheen West, Co. Kerry (*ibid.*) produced evidence of nineteen near identical pits that indicated semi-industrial charcoal making dating to the early medieval period. It is very possible that the Kilmaniheen West pits were dug for the production of charcoal as a fuel for iron smelting. The small amount of iron slag recovered from that site was not however well stratified and could not be directly associated with the features. The radiocarbon determinations indicate that this charcoal making was taking place in the later-10th to 12th centuries. The predominance of oak charcoal in the pits is not unexpected as hardwoods, when burnt, make a product that will not easily crumble and will survive cartage (transportation) (Thomas 1993, 103).

Other similar charcoal pits have been excavated in both Britain and Ireland, although little is known about the making of charcoal in early periods (Tylecote 1990, 225 and for a possible Co. Clare example see Hull 2005). These features have variously been described as ‘charring hearths’, ‘pit-steads’ and charring pits’ (*ibid.*) and similar pits are described by Biringuccio in a 16th century treatise on metals and metallurgy (Smith and Gnudi 1990, 173-9). Biringuccio details two methods of charcoal-making. The first is in clay-covered piles of stacked wood and the second is in pits. The pit is filled with wood, lit at both ends and sealed with earth to slow the fire.

It is therefore possible that the pit excavated at Barefield was dug to produce oak charcoal for medieval iron production. The oak rich woods of Western Ireland were regarded as a valuable economic resource by incomers, from the at least the Anglo-Norman period onwards, and industrial iron (and glass) working is known to have nearly exhausted the native woodland by the 17th century in Munster (Mitchell and Ryan 1998, 322, Scott 1990).

**Archaeological potential off the road CPO**

The potential archaeological deposits found at Site AR106 during testing were fully resolved within the road CPO. No evidence of archaeological deposits immediately off the road CPO was apparent at the time of excavation.

**Publication plan**

A summary of the findings of the excavation has been submitted to *Excavations 2004*.

Copies of this final excavation report will be deposited with the Clare County Museum and the Local Studies Library, Ennis, Co. Clare

A summary article, describing the findings of this road project has been published in the local journal *The Other Clare* (Hull and Taylor 2005).

An illustrated information brochure describing the findings of this road project has been published by Clare County Council.

The stated aim of the National Roads Authority with regard to archaeological publication is clear, (O'Sullivan 2003) and it is anticipated that the results of this excavation will be disseminated as a component of a monograph dedicated to the archaeology of the Ennis Bypass. Publication is expected to take place in 2006/7 at the latest.

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Markus Casey
For TVAS Ireland Ltd
1st August 2006

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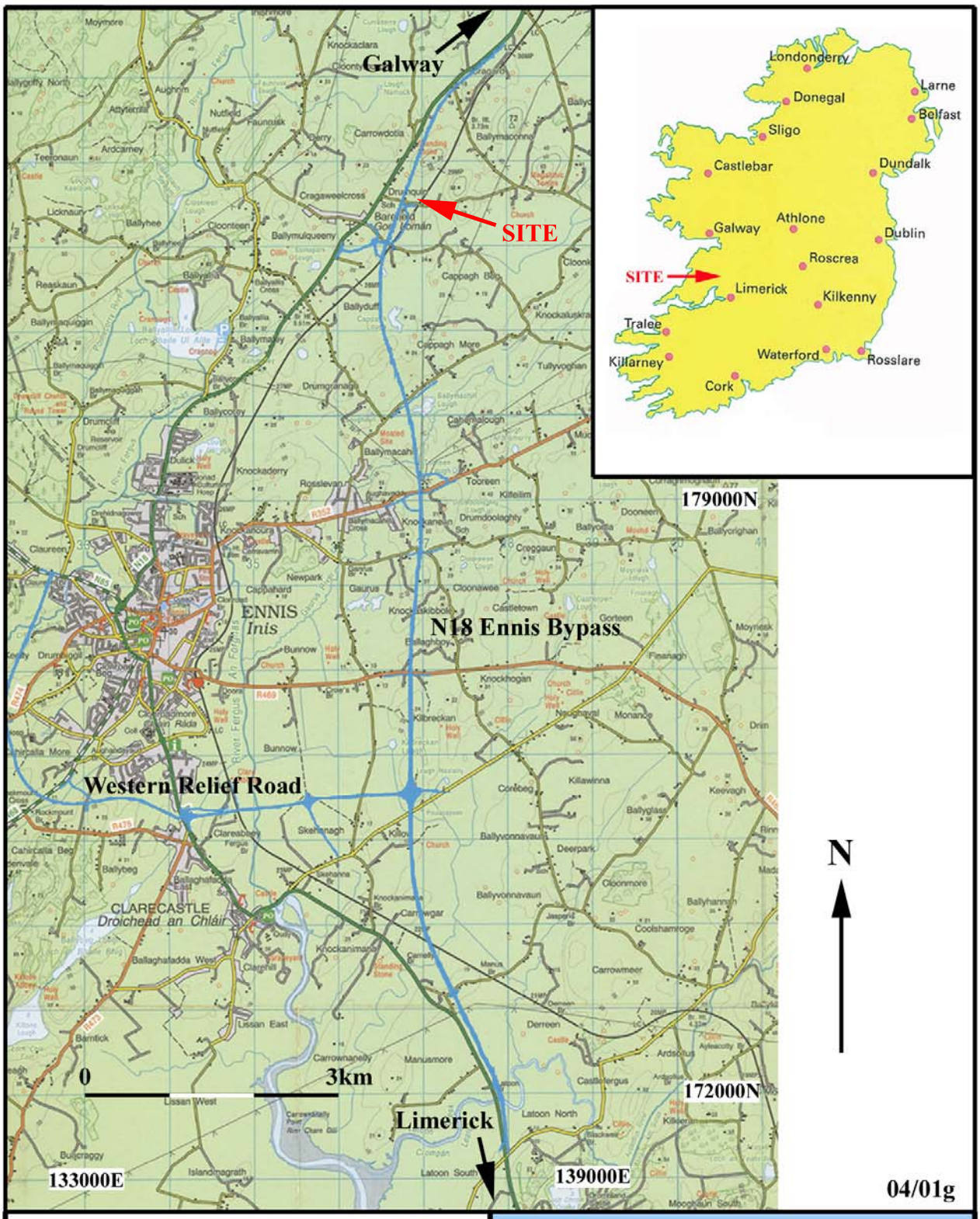
## Appendix 1: Catalogue of Deposits

| Context No. | Type | Description |
|---|---|---|
| 1 | Fill of feature B | Black stained (10YR 2/1) firm, compact well-sorted sandy fill. Same as 14. |
| 2 | Natural geological deposit | Natural dark yellowish brown (10YR 4/6) sandy silt with natural limestone pebble inclusions (boulderclay). |
| 3 | Topsoil | Dark-brown (10YR 3/3) firm topsoil with roots and some inclusions – all modern fragments. |
| 4 | Fill of feature B | Loose dump of limestone pebbles averaging 100mmø. |
| 5 | Fill of pit A | Dark olive–brown (2.5Y 3/3) compact well-sorted fill. Roots extend into this level. |
| 6 | Fill of burrow | Redeposited fill (similar to 3) within collapsed rabbit burrow |
| 7 | Fill of pit A | Black (2.5Y 3/3) charcoal-rich compact damp deposit of sandy well-sorted silt (sampled). |
| 8 | Fill of pit A | As 7 |
| 9 | Fill of pit A | As 7 & 8 |
| 10 | Fill of pit A | Black (2.5Y3/3) firm compact sandy silt with frequent charcoal flecks |
| 11 | Burning in base of pit A | Red-orange discoloured sandy silt (boulderclay material). |
| 12 | Fill of pit A | Redeposited boulder clay and ash mix – (10YR4/6). Compact and well sorted. No inclusions. |
| 13 | Fill of pit A | Compact grey brown ash material (10YR3/3) between the layers of charcoal rich levels |
| 14 | Fill of feature B | Firm and compact black (10YR 2/1) slightly sandy silt with no inclusions. Same as 1. |




04/01g

**N18 Ennis Bypass, Site AR106,**
**Barefield, Co. Clare**
**04E0052**

**Figure 1: Site location**

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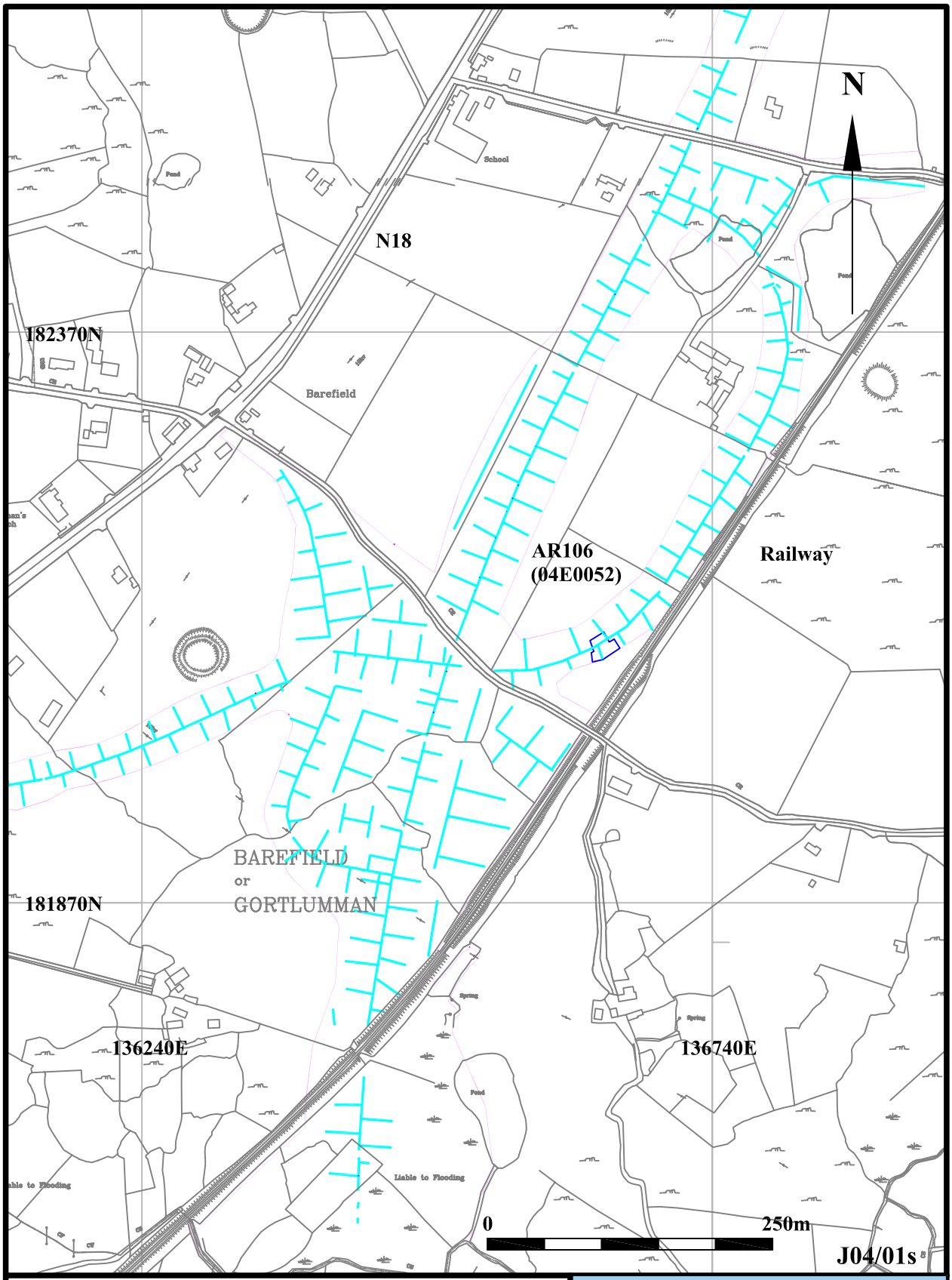


**N18 Ennis Bypass, Site AR106, Barefield, Co. Clare**

**04E0052**

**Figure 2: Location of site within local landscape, showing test trenches (03E1293)**

**Scale 1:5000 OSI Licence: AR0049406**



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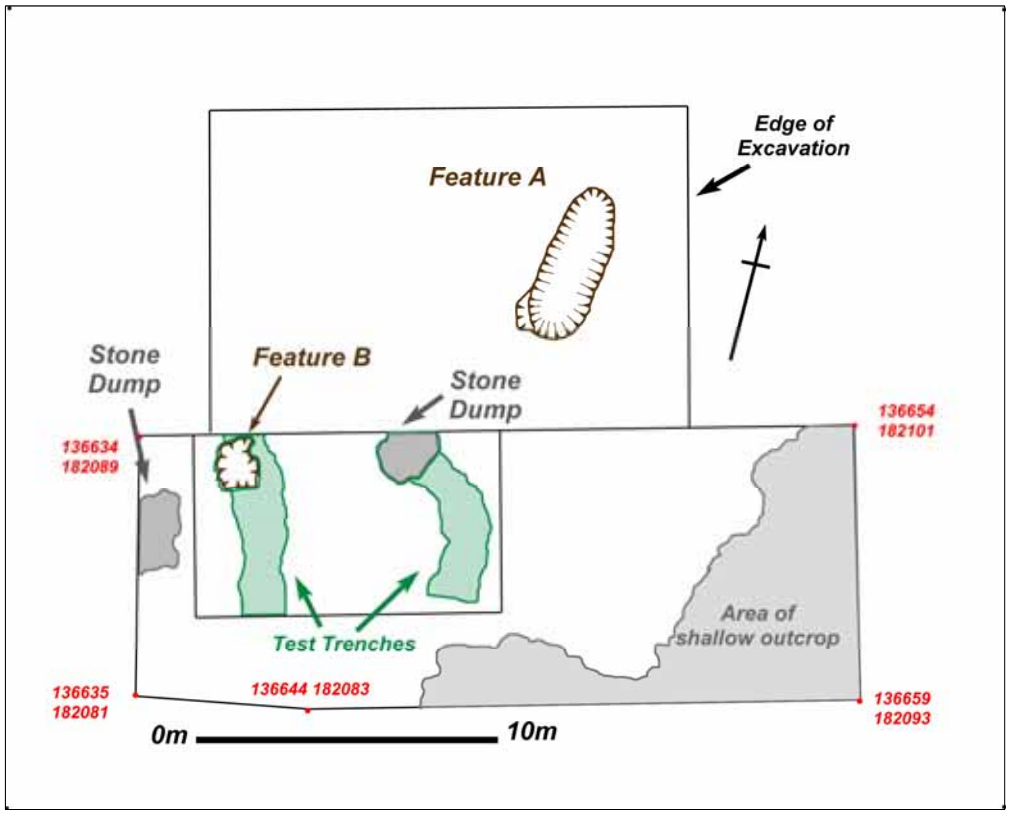


Figure 3: Plan of excavated area

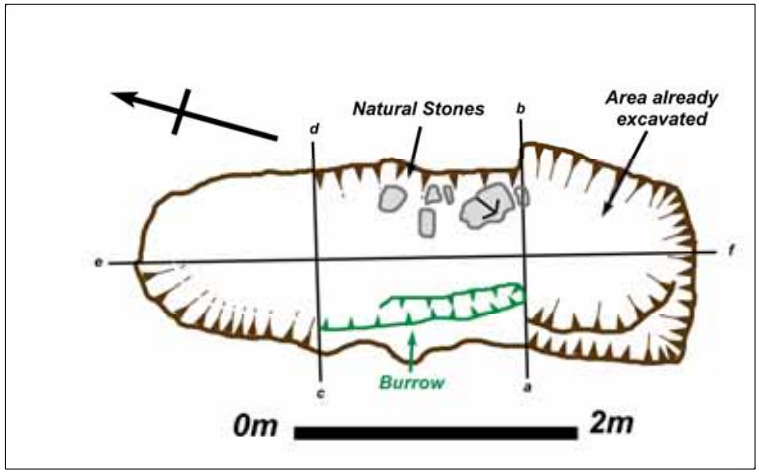


Figure 4: Plan of Feature A, showing sections illustrated

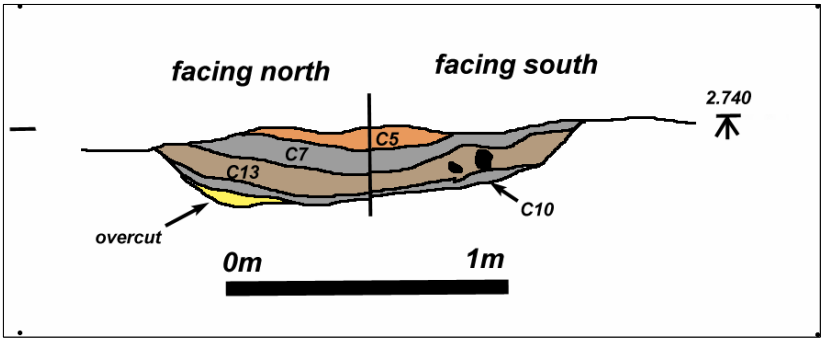


Figure 5: Feature A, Section c-d

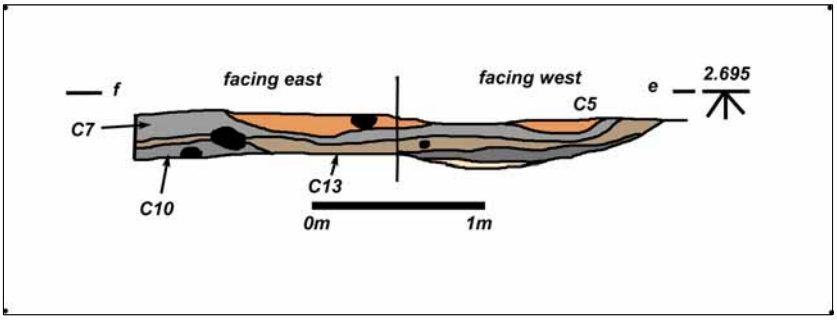


Figure 6: Feature A, Section e-f

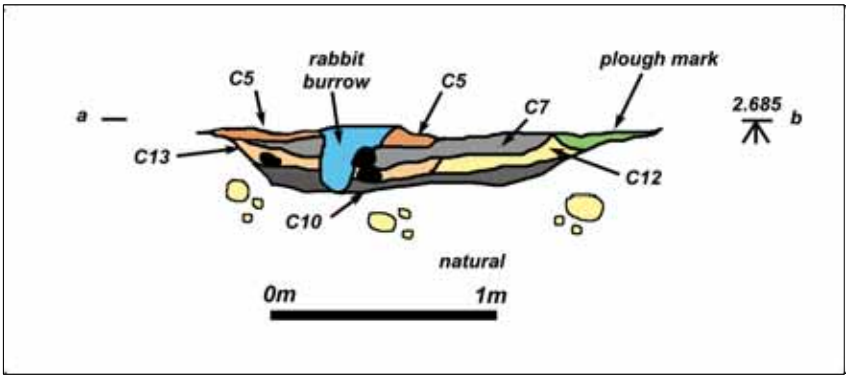


Figure 7: Feature A, Section a-b

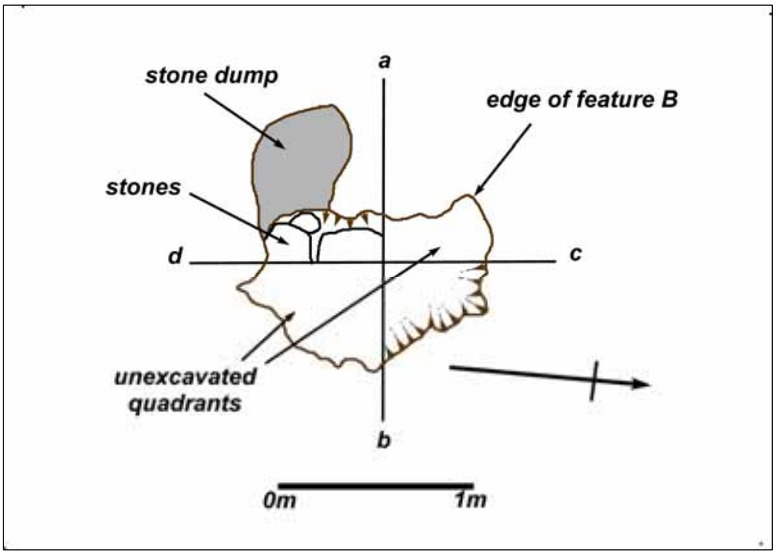


Figure 8: Plan of Feature B, showing sections illustrated

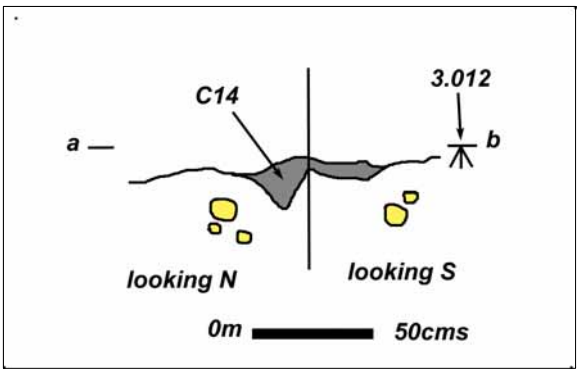


Figure 9: Feature B, Section a-b

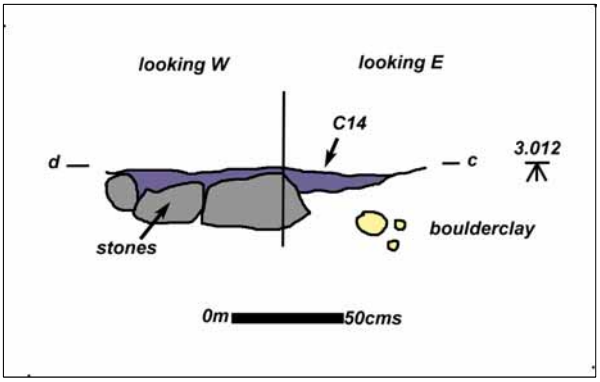


Figure 10: Feature B, Section c-d

**Plate 1: Aerial view of the environs of AR106, showing nearby ringfort CL026-079 (top right)**

**Plate 2: Aerial view of the site after backfilling**

**Plate 3: Close up of Feature B (dark stain in the centre)**

**Plate 4: Feature A from the south. Scales 0.5m and 0.3m**