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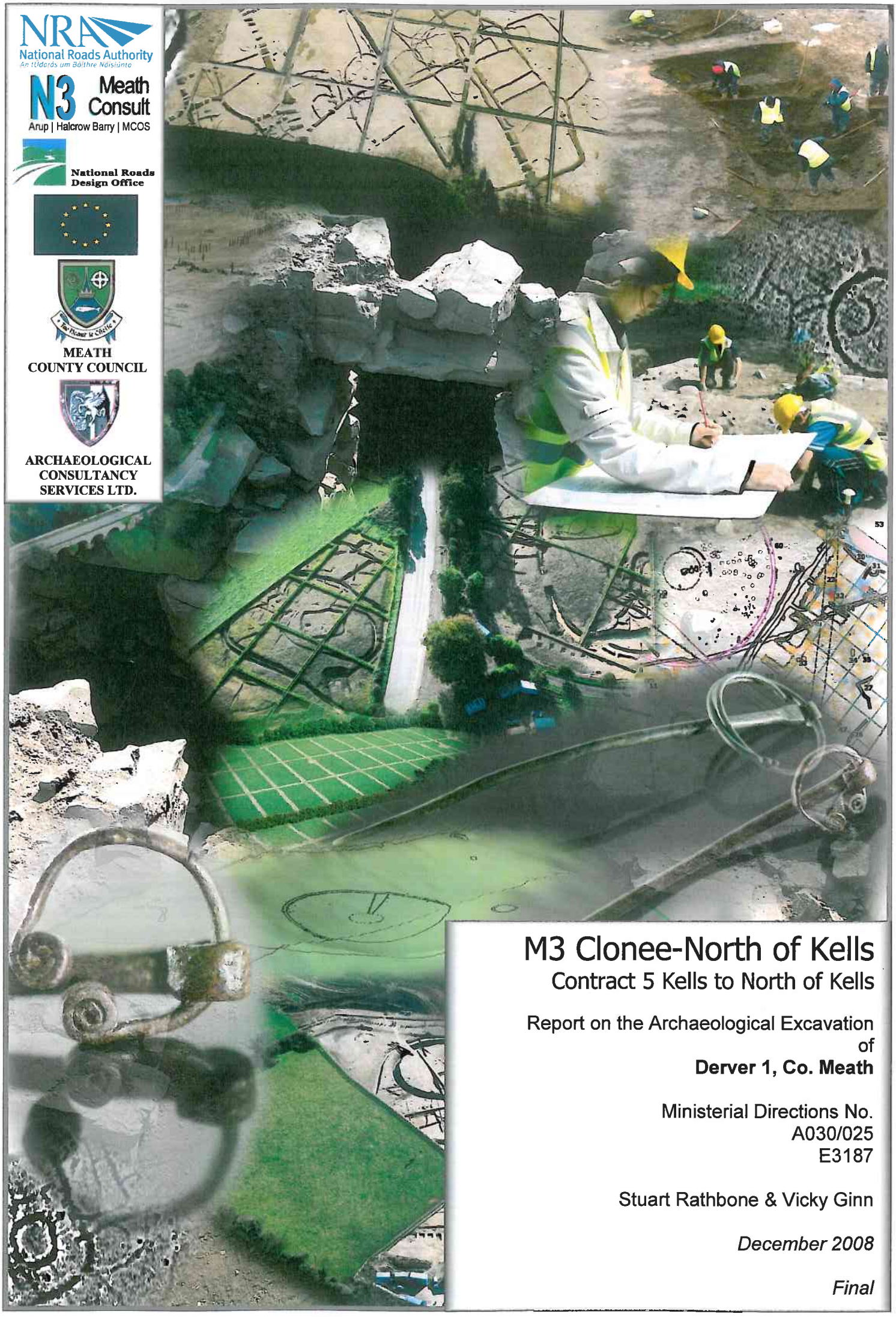
MEATH COUNTY COUNCIL

ARCHAEOLOGICAL CONSULTANCY SERVICES LTD.



M3 Clonee-North of Kells

Contract 5 Kells to North of Kells

Report on the Archaeological Excavation of
Derver 1, Co. Meath

Ministerial Directions No.
A030/025
E3187

Stuart Rathbone & Vicky Ginn

December 2008

Final

PROJECT DETAILS

Project	M3 Clonee–Kells Motorway
Site Name	Derver 1
Ministerial Direction Number	A030/025
Registration Number	E3187
Senior Archaeological Consultant	Donald Murphy
Site Director	Stuart Rathbone
Excavated	08–17 January 2007
Client	Meath County Council, National Roads Design Office, Navan Enterprise Centre, Navan, County Meath
Townland	Derver
Parish	Loughan or Castlekeeran
County	Meath
National Grid Reference	266339 280411
Chainage	89550
Height	102.11m OD
Report Type	Final
Report Status	Submitted
Date of Report	December 2008
Report by	Stuart Rathbone and Vicky Ginn

ACKNOWLEDGEMENTS

This report has been prepared by Archaeological Consultancy Services Ltd on behalf of Meath County Council National Roads Design Office (NRDO) and the National Roads Authority (NRA). The excavation was carried out under Ministerial Direction Number issued by the Department of the Environment, Heritage and Local Government (DOEHLG) in consultation with the National Museum of Ireland (NMI).

Consulting Engineers - N3 Meath Consult

Engineer – Peter Thorne and Thomas Meagher

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National Monuments, Department of the Environment, Heritage and Local Government

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NON-TECHNICAL SUMMARY

This site at Derver 1 was excavated by Archaeological Consultancy Services Ltd (ACS) as part of the M3 Clonee–North of Kells Motorway Scheme on behalf of Meath County Council NRDO and the NRA. The excavation was carried from 8–17 January 2007 under Ministerial Direction Number A030/025 issued by DOEHLG in consultation with the NMI. The excavation registration number was E3187.

Derver 1 consisted of a medium-sized pit, possibly a hearth, and four smaller pits, one of which contained a partial lamb skeleton and may have been of recent date. 33 sherds of Middle or Late Bronze Age pottery were recovered from a shallow hollow situated to the northwest of two of the pits. The sherds may have been ploughed out from one of the pits or another feature now removed.

CONTENTS

FIGURE LIST

PLATE LIST

ILLUSTRATION LIST

1 INTRODUCTION

The site at Derver 1 (Figures 1–6) was identified during advance testing carried out by David Bayley of Irish Archaeological Consultancy Ltd during 2004, under licence number 04E1060 (Bayley 2005). Testing revealed two pits (0.85m x 0.50m x 0.07m and 0.70m x 0.43m x 0.06m) containing stony fills and animal bone. A white, powdery substance, possibly lime, was discovered in the fill of one. A WNW–ESE cultivation furrow was also noted (Bayley 2005). Only one of these pits was re-located during the full resolution of the site in 2007; the other most likely destroyed by the impact of agricultural activities in the intervening period.

The site was situated close to the top of the steeply sloping side of the Blackwater Valley, which was a very exposed position but afforded views along the valley for several miles in both directions.

1.1 Development

Meath County Council and the National Roads Authority are constructing 49km of two-lane, dual-carriageway motorway between Clonee and Kells and 10km of single carriageway from Kells to Carnaross, north of Kells, along with additional road upgrades, realignments and associated ancillary works. For the purposes of the Environmental Impact Assessment and the subsequent archaeological investigations the scheme was subdivided into five separate sections as follows: Clonee to Dunshaughlin (Contract 1), Dunshaughlin–Navan (Contract 2), the Navan Bypass (Contract 3) Navan to Kells (Contract 4) and and Kells to North of Kells (Contract 5). This section of the scheme (Contract 5) will commence at the N52 Mullingar Road situated to the southwest of Kells in the townland of Calliaghstown (NGR 272828 274647) and runs to the northwest, crosses the River Blackwater at Balgree and terminates in the townland of Derver at the existing border between counties Meath and Cavan (NGR 266012 280943).

The archaeological components of the Environmental Impact Statement published in 2002 where carried out by Valerie J. Keeley Ltd (VJK) and Margaret Gowen and Co. Ltd (MGL) in 2000–2001. This included desk-based studies and field surveys of each section (VJK Sections 1 & 3 and MGL Sections 2, 4 & 5). Additionally on behalf of MGL geophysical survey was undertaken on the Dunshaughlin–Navan section and at Nugentstown on the Navan–Kells section by GSB Prospection (2000 & 2001). These studies carried out as part of the Environmental Impact Assessment were augmented by further geophysical survey conducted by Bartlett-Clark Consultancy on the remainder of the scheme (2002). Archaeological testing was completed by ACS and Irish Archaeological Consultancy Ltd (IAC) in 2004 (ACS Sections 1–3 and IAC Sections 4–5). Excavation of the sites identified

during testing was conducted by ACS and IAC between 2005 and 2008 (ACS Sections 1–3 & 5 and IAC Section 4).

2 EXCAVATION

Excavation occurred between 08–17 January 2007 under Ministerial Direction Number A030/025 issued to Meath County Council NRDO. The work was carried out by Stuart Rathbone on behalf of ACS. The topsoil (F4: 0.35m: loose, orange-brown, sandy clay with occasional small stones) was removed by a machine equipped with a toothless grading bucket under strict archaeological supervision. A stony, orange-brown, sandy clay comprised the subsoil (F5).

All archaeological features exposed were recorded and excavated by hand using the single context method. Each feature was assigned a context number. Where appropriate, samples were retrieved in an attempt to obtain evidence for the date and function of these features (Appendix 3). Unless otherwise stated, the features have been measured length-width-depth. All measurements are in metres. All finds were numbered according to the requirements of the National Museum of Ireland from 1 onwards consistent with licence and feature number. The artefacts recovered from the site underwent an initial archaeological assessment and where deemed appropriate further specialist analysis was carried out on each artefact type.

2.1 Results

Thirteen contexts of archaeological interest were identified within the excavation area. Full details of all these contexts are located in Appendix 1.

Pits

Three oval and sub-circular pits (F14, F18, and F20), were noted. Sub-circular, north–south F14 (2.65m x 1.18m x 0.38m) displayed evidence for two stone layers (F15 and F22) in which charcoal flecks were observed in the upper fill (F22) (Plate 2). Charcoal flecks and stones were also noted in the fill (F19) of pit F18 (0.34m x 0.22m x 0.14m). F20 (0.42m x 0.40m x 0.08m) contained a sterile stony fill (F21).

F10 (0.70m x 0.12m) and F12 (0.47m x 0.42m x 0.12m) were two shallow pits containing burnt stone, charcoal (hazel/alder (*Corylus avellana*/*Alnus glutinosa*); see Appendix 5) and animal bone. The remains of a lamb were recovered from F11, the fill of pit F10 and are probably modern (see Appendix 6).

Remaining features

To the northwest of these pits was an irregular cut F16 (0.61m x 0.48m x 0.15m) from which 33 fragments of Late Neolithic/Early Bronze Age (i.e. Beaker) pottery were recovered (Grogan and Roche; Appendix 4; (A030/025:6:1–33; Plate 1; Illustration 1).

2.2 Finds

Thirty-three sherds of Beaker pottery were recovered from context F6, fill of pit F16 (A030/025:6:1-33) (see Appendices 2 & 4; Illustration 1).

3 DISCUSSION

3.1 Form and function (after O'Hara 2008 with additions)

The irregular and shallow nature of the features at Derver 1 does not allow a complete or definitive interpretation of the site. The small, shallow pits are difficult to assign a definite function too, due to their shallow and irregular nature. It is likely that they had been heavily truncated by agricultural activities. Analysis of the pottery from the fill of F16 (F6) concluded it was Beaker pottery.

Beaker pottery is one aspect of a material culture that also included copper daggers, stone wristguards, arrowheads, V-perforated buttons, and a distinctive burial rite that rapidly spread throughout Europe (Carlin 2005, 2006). The distinctive Beaker burial rite, a crouched inhumation within a cist or pit grave that is accompanied by Beaker pottery and various other objects, was not widely adopted in Ireland although it eventually developed (with pottery of the bowl tradition) from the late third millennium (approximately 2300–1950 BC; Waddell 1998 118–9, 140–4). In Ireland, the infiltration of Beaker material culture was contemporary with the introduction and adoption of metallurgy, in particular copper working, which may have spread along established trade networks between social elites in different areas (Cooney & Grogan 1994, 84). County Meath had a particularly rich Late Neolithic culture, with Beaker material excavated at Knowth and Newgrange (hereafter Brugh na Bóinne; Eogan 1984; Eogan & Roche 1997), Monknewtown (Sweetman 1976), Carranstown (O'Carroll 2004), Rathmullan 10 and 12 (Bolger 2001), Sheephouse (Nelis 2002), Harlockstown (O'Connor 2004), and Cookstown (Clutterbuck 2004) and also along the proposed M3 motorway at Berrilstown 1 (A008/009); Ardsallagh 4 (E3090; Clarke 2008); Dunboyne 3 (E3035; O'Hara 2008), Johnstown 3 (E3043; Elder 2008) and Skreen 3 (E3073; O'Neill 2008). In north County Dublin, Beakers have been found at Broomfield (O'Brien 1988), Lusk (Roche 2004) and Beaverstown (Hagen forthcoming 1) and there was a suggestion of Beaker material (an archers bracer and a tanged arrowhead) at Fourknocks (King 1999).

The Brugh na Bóinne Beaker complex could be among the earliest Beaker settlements in eastern Ireland, perhaps under influence from western Britain, while western Ireland may have received Beaker influence directly from the Breton region (Eogan & Roche 1997, 257). A potential relationship between Dunboyne 3 (A017/013) and this larger complex was suggested by the shape of the Derver vessel being rather similar to examples from concentration A at Knowth, Co. Meath (see Appendix 4). The Derver vessel, with its generally S-shaped profile, most probably dates to *c*. 2450–2300 BC. Derver is on the western edge of a growing distribution of Beaker sites in the north Leinster area. The principal complex in Co. Meath appears to have been centred on the Brugh na Bóinne complex, however how outlying areas containing evidence for Beaker culture interacted with this complex is not understood.

3.2 Date and sequence

The samples taken from this site did not provide enough material to obtain a radiocarbon date. As noted above, there is a lack of understanding regarding the dating and duration of Beaker culture in Ireland, but most experts agree on an introduction date around 2500 BC (Brindley 2005), Beaker pottery at Dunboyne 3 was deposited in a pit between 2576–2341 BC (Beta 241273; O'Hara 2008).

4 CONCLUSIONS

Derver 1 (A030/025), excavated 8–17 January 2007 by Stuart Rathbone (ACS) as part of the M3 Clonee–North of Kells Motorway Scheme on behalf of Meath County Council NRDO and the NRA, represents a small group of archaeological features possibly dating to the Late Neolithic/Early Bronze Age. The pits and hearth may be the remains of a small campsite or activity area belonging to either a mobile group, or to members of a permanent settlement in a different and presently unknown location in the landscape**.**

5 REFERENCES

Bayley, D 2005 *Report on Archaeological Assessment at Testing Area 9, Derver, Co. Meath, Licence Number: 04E1060*. Unpublished report prepared for Irish Archaeological Consultancy Ltd.

Brindley, AL 2005 'The Prehistoric Mine: Specialist Studies', *in* W O'Brien, *Ross Island. Mining, Metal and Society in Early Ireland*. Bronze Age Studies 6, 331–338. Dept of Archaeology, NUIG.

Bolger, T 2001 'Three Sites on the Northern Motorway at Rathmullan, Co. Meath', *Riocht Na Midhe,* Vol. VII, 8–17.

Carlin, N 2005 *A Study of Beaker Settlement in Leinster*. Unpublished Masters Thesis. Queens University of Belfast.

Carlin, N 2006 *M3 Research Report on The Beaker Complex In Ireland*. Unpublished report prepared by Archaeological Consultancy Services Ltd.

Clarke, L 2008 *Interim Report on Archaeological Excavations at Ardsallagh 4 (A008/037) Co. Meath, E3090*. Unpublished report prepared for The Department of the Environment, Heritage and Local Government on behalf of Archaeological Consultancy Services Ltd.

Clutterbuck, R 2004 *Preliminary Report on the Archaeological Excavation at Sites 24 and 25, Cookstown, Co. Meath.* Unpublished report prepared by CRDS.

Cooney, G & Grogan, E 1994 *Irish Prehistory: A Social Perspective*. Wordwell, Dublin

Elder, S 2008 *Interim Report on Archaeological Excavations at Johnstown 3 (A017/021) Co. Meath, E3043*. Unpublished report prepared for The Department of the Environment, Heritage and Local Government on behalf of Archaeological Consultancy Services Ltd.

Eogan, G 1984 *Excavations at Knowth, 1*. Dublin. Royal Irish Academy

Eogan, G & Roche, H 1997 *Excavations at Knowth, 2.* Dublin. Royal Irish Academy

King, H 1999 'Excavations at Fourknocks Ridge, Co. Meath; in *Proceedings of the Royal Irish Academy* 99C, 157–198.

Hagen, I forthcoming 1 *Excavations at Beaverstown, Co. Dublin*

Nelis, D 2002 *Excavations at Site 9, Rathmullan, Co. Louth*. Unpublished Report prepared for Irish Archaeological Consultancy Ltd.

O'Brien, E 1988 'A Find of Beaker Pottery from Broomfield, Ballyboghil, Co. Dublin', *Journal of the Royal Society of Antiquaries of Ireland*, 118, 118–23.

O'Carroll, E 2004 *Non-technical Summary Report of Excavations at Carranstown, Co. Meath.* Unpublished Report prepared by The Archaeology Company.

O'Connor, D 2004 *Preliminary Report on the Archaeological Excavation at Site 19, Harlockstown, Co. Meath.* Unpublished report prepared by CRDS.

O'Hara R 2008 *Final Report on Archaeological Excavations at Dunboyne 3 (A017/013) Co. Meath, E3035*. Unpublished report prepared for The Department of the Environment, Heritage and Local Government on behalf of Archaeological Consultancy Services Ltd.

O'Neill T 2008 *Interim Report on Archaeological Excavations at Skreen 3 (A008/020) Co. Meath, E3073*. Unpublished report prepared for The Department of the Environment, Heritage and Local Government on behalf of Archaeological Consultancy Services Ltd.

Roche, H 2004 *The Prehistoric Pottery Assemblage from Lusk, Co. Dublin*. Unpublished Report prepared for Arch-Tech Ltd.

Sweetman, PD 1976 'An earthen enclosure at Monknewtown, Slane, Co. Meath', *Proceedings of the Royal Irish Academy*, 76C, 25–72.

Waddell, J 1998 *The Prehistoric Archaeology of Ireland.* Dublin, Wordwell.

Signed:

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Stuart Rathbone

December 2008

APPENDIX 1 *Context Details*

Derver 1: A030/025											
No	**Type**	**Fill of/ Filled with**	**Strat above**	**Strat below**	**Description**	**Interpretation**	**Group**	**Artefacts**	**Animal bone**	**Cremated bone**	**Samples**
1-3					Used previously during topsoil assessment						
4	Topsoil	N/A	5	N/A	Loose, orange-brown sandy clay	Topsoil					
5	Subsoil	N/A	N/A	4	Stony, orange-brown sandy clay	Subsoil					
6	Fill	16	16	4	Soft, brownish-grey, sandy clay with moderate (30%) stones. 0.14m depth	Fill of pit 16		Pottery			
7-9	Not assigned										
10	Cut	11	5	11	Circular pit 0.70m diameter x 0.10m deep. Concave sides and base.	Pit					
11	Fill	10	10	4	Soft grey brown sandy clay. 20% angular stones (<0.08m) and animal bone	Fill of pit F10					
12	Cut	13	5	13	Oval pit (0.47m north-south x 0.40m east-west). U-shaped profile and flat base. 0.12m deep.	Pit					
13	Fill	12	12	4	Soft blackish grey sandy clay. 10% angular stones (some heat fractured) <0.02m. Animal bone also present.	Fill of pit F12					
14	Cut	15, 22	5	15	Sub-circular, north-south cut (2.65m x 1.18m x 0.38m) with a gradual break of slope, moderately sloping sides and a gradual break of slope leading to a concave, stony base	Pit					
15	Fill	14	14	22	Soft, greyish-brown, sandy clay with 90% large and small stones	Stone fill of pit 14					
16	Cut	17	5	17	Sub-oval, west-east cut (0.64m x 0.48m x 0.15m) with a sharp break of slope, moderately sloping sides and a sharp break of slope leading to a concave base	Pit					
17	Same as F6										
18	Cut	19	5	19	Oval, west-east cut (0.34m x 0.22m x 0.14m) with a sharp break of slope, steep sides and a sharp break of slope leading to a pointed base	Pit					

19	Fill	18	18	4	Soft, brownish-black, sandy clay with occasional small stones and frequent charcoal inclusions. 0.12 m depth	Fill of pit 18					
20	Cut	21	5	21	Sub-circular cut (0.42m x 0.40m x 0.08m) with a gradual break of slope, steep sides and a gradual break of slope leading to a flat base	Pit					
21	Fill	20	20	4	Soft, brownish-grey, sandy clay with occasional (10%) stones	Fill of pit 20					
22	Fill	14	15	4	Soft, greyish-black, sandy clay with frequent charcoal flecks and (90%) stones. 0.13m depth	Upper fill of pit 14					

APPENDIX 2 *Finds List*

Find Number	Description
A030/025:6:1	Beaker pottery fragment – necksherd
A030/025:6:2	Beaker pottery sherd/fragment
A030/025:6:3	Beaker pottery fragment – body sherd
A030/025:6:4	Beaker pottery fragment - necksherd
A030/025:6:5	Beaker pottery fragment – body sherd
A030/025:6:6	Beaker pottery fragment – shoulder/bellysherd
A030/025:6:7	Beaker pottery fragment – shoulder/bellysherd
A030/025:6:8	Beaker pottery fragment - necksherd
A030/025:6:9	Beaker pottery sherd/fragment
A030/025:6:10	Beaker pottery fragment – shoulder/bellysherd
A030/025:6:11	Beaker pottery sherd/fragment
A030/025:6:12	Beaker pottery fragment - necksherd
A030/025:6:13	Beaker pottery fragment – shoulder/bellysherd
A030/025:6:14	Beaker pottery fragment – shoulder/bellysherd
A030/025:6:15	Beaker pottery fragment – shoulder/bellysherd
A030/025:6:16	Beaker pottery sherd/fragment
A030/025:6:17	Beaker pottery fragment - necksherd
A030/025:6:18	Beaker pottery fragment – body sherd
A030/025:6:19	Beaker pottery sherd/fragment
A030/025:6:20	Beaker pottery fragment - necksherd
A030/025:6:21	Beaker pottery fragment - rimsherd
A030/025:6:22	Beaker pottery fragment – shoulder/bellysherd
A030/025:6:23	Beaker pottery sherd/fragment
A030/025:6:24	Beaker pottery fragment – body sherd
A030/025:6:25	Beaker pottery sherd/fragment
A030/025:6:26	Beaker pottery sherd/fragment
A030/025:6:27	Beaker pottery sherd/fragment
A030/025:6:28	Beaker pottery sherd/fragment
A030/025:6:29	Beaker pottery sherd/fragment
A030/025:6:30	Beaker pottery fragment - rimsherd
A030/025:6:31	Beaker pottery sherd/fragment
A030/025:6:32	Beaker pottery sherd/fragment
A030/025:6:33	Beaker pottery sherd/fragment

Note: See Appendix 4

APPENDIX 3 *Sample List*

Sample No	Context No	Results
1	11	4g bone fragments

APPENDIX 4 *Prehistoric pottery by Eoin Grogan and Helen Roche*

Summary

The site produced a small assemblage of 19 sherds (plus 13 fragments; total weight: 261g) representing a single final Neolithic/early Bronze Age domestic Beaker.

Context

The pottery at Derver came from the fill (**F6**) of a slight hollow immediately northwest of two pits from which the material may have been derived.

The pottery

There are 19 sherds (two rim-, six neck-, seven shoulder/belly- and four body sherds; plus 13 fragments: weight: 261g) from a final Neolithic/ early Bronze Age domestic Beaker[1]. This appears to have been a large pot although there was insufficient evidence on which to base a more precise estimate. The vessel had a broad flat-topped rim with a slight outwardly protruding lip; an upright neck and a distinct stepped and rounded shoulder. The lower body profile appears to have been gently curved. Although carefully finished (both the inner and outer surfaces of the upper portion were burnished) the vessel was poorly made and vertical splits in the fabric suggest that the clay was not sufficiently kneaded or compresses prior to manufacture and firing. Patches of sooting on the internal surface indicate that the vessel had been used in a domestic context.

The shape of the Derver vessel is very similar to an example from concentration A at Knowth, Co. Meath (Eogan 1984, 256–59, fig. 90). The expanded rim form occurs on a particular type of domestic Beaker referred to by Case (1961, 198–99) as 'Rockbarton' pots after the eponymous site in Co. Limerick (Mitchell and Ó Ríordáin 1942, 264, fig. 6: II.I): these form part of Beaker assemblages in north Leinster including examples from Kilgobbin (Grogan 2004) and Site 2 and 5 at Dalkey Island (Liversage 1968, 72, 107, pl. 7: p54 [diameter *c*. 27cm], fig. 6.p170, fig. 7.p48 [rim diameter *c*. 23cm]), Co. Dublin, Knowth, Co. Meath (Eogan 1984, 305, fig. 116: 3728), and Mell, Co. Louth (Roche and Grogan 2005). Within these assemblages the style of Beaker has generally been assigned to Clarke's European Bell Beaker, or his Wessex/Middle Rhine types (1970). More recently, following reviews by, for example, Lanting and van der Waals (1972), there has been a greater recognition of the regional development of Beaker. Case's (1993) simpler threefold scheme, and its specific

[1] Other terms, such as 'coarse' Beaker or 'rusticated' ware have also been used to refer to this material. Often, as at Derver, these vessels, while larger and heavier, are not appreciably 'coarser' than the so-called 'fine' wares. Rustication refers specifically to decoration with fingernail, or sometimes bird bone, impressions frequently arranged haphazardly over part of or the entire vessel.

application to the Irish material, provides a straightforward medium for insular comparison (Case 1995). The Derver vessel, with its generally S-shaped profile, most probably conforms to his style 3 and is dated to *c*. 2450–2300 BC.

Derver is on the western edge of a growing distribution of Beaker sites in the north Leinster area. The closest examples are in the Boyne Valley (20km to the east) and at Ardsallgh 4 (20km to the southeast; Grogan and Roche 2007).

Bibliography

Case, H. 1961 Irish Neolithic Pottery: Distribution and Sequence, *Proceedings of the Prehistoric Society* **9**, 174–233.

Case, H. 1993 Beakers: Deconstruction and After, *Proceedings of the Prehistoric Society* **59**, 241–68.

Case, H. 1995 Irish Beakers in their European Context. In J. Waddell and E. Shee Twohig (eds), *Ireland in the Bronze Age*, 14–29. Stationery Office, Dublin.

Clarke, D.L. 1970 *Beaker Pottery of Great Britain and Ireland*. Gulbenkian Archaeological Series, Cambridge University Press, Cambridge.

Eogan, G. 1984 *Excavations at Knowth* **1**. Royal Irish Academy Monographs in Archaeology, Dublin.

Grogan, E. 2004 The prehistoric pottery assemblage from Kilgobbin, Co. Dublin. Unpublished Report for Margaret Gowen and Co. Ltd.

Grogan, E. and Roche, H. 2007 The prehistoric pottery assemblages from the M3 Clonee – North of Kells, Co. Meath. Ardsallagh 1, Ardsallagh 2, Ardsallagh 4, Johnstown 3, Pace 1 and Dunboyne 4. Unpublished Report for Archaeological Consultancy Services Ltd.

Lanting, J. and van der Waals, D. 1972 British Beakers as seen from the Continent, *Helenium* **12**, 20–46.

Liversage, G.D. 1968 Excavations at Dalkey Island, Co. Dublin, 1956–1959, *Proceedings of the Royal Irish Academy* **66**C, 53–233.

Mitchell, G.F. and Ó Ríordáin, Seán P. 1942 Early Bronze Age Pottery from Rockbarton, Co. Limerick, *Proceedings of the Royal Irish Academy* **48**, 255–72.

Roche, H. and Grogan, E. 2005 Appendix A. The prehistoric pottery from Mell, County Louth. In M. McQuade Archaeological Excavation of a Multi-Period Prehistoric Settlement at Waterunder, Mell, Co. Louth, *County Louth Archaeological and Historical Journal* **26**, 54–63.

CATALOGUE

The excavation number E3187 is omitted throughout: only the context number, in **bold**, followed by the find number is included (*e.g.* **9**:49). Numbers in square brackets (*e.g.* **9**:[3, 11]) indicate that the sherds are conjoined. The thickness refers to an average dimension; where relevant a thickness range is indicated. Vessel numbers have been allocated to pottery where some estimation of the form of the pot is possible, or where the detailed evidence of featured sherds (*e.g.* rims, shoulders), decoration or fabric indicates separate pots. The inclusions were examined using simple magnification and in some cases attribution reflects probable, rather than certain, identification.

Fill 6 of cut 16

Vessel 1. This is represented by 19 sherds (2 rim sherds: **6**:[21, 30]; 6 neck sherds: **6**:1, 4, 8, 12, 17, 20; 7 shoulder/belly sherds: **6**: 6, 7, 10, 13□15, 22; 4 body sherds: **6**:3, 5, 18, 24, 26; 13 fragments: **6**:2, 9, 11, 16, 19, 23, 25, 27, 28–29, 31–33). The broad (*c.* 16.78mm) flat-topped rim has an outwardly protruding lip. The neck is upright and there is a well-defined rounded shoulder; the lower body profile appears to be gently curved. The fabric is compact and well fired with a soft texture but in some places there are vertical splits suggesting that the clay was not sufficiently kneaded. The brown buff outer surface is worn and occasionally abraded but where preserved is smooth and appears to have been burnished. The inner surface, which is well-preserved, is buff to dark grey and the upper portion, including the neck, is also burnished. There are patches of internal sooting. The core is grey-buff to dark grey. There is a medium to high content of crushed shale (up to 9 x 4mm) and occasional uncrushed quartzite inclusions (up to 9 x 6.3mm). Weight: 261g; neck thickness: 14.1mm; body: 14.15mm.

Decoration A single scored horizontal line occurs in the junction between the neck and the rim protrusion. Although the outer surface is worn there are occasional marks on the body that may be stab marks or fingernail impressions (*e.g.* **6**:6, 14 and 24).

Vessel No.	Context/feature	Number of sherds	Rimsherds	Base-, baseangle	Necksherds	Shoulder/belly	Bodysherds	Fragments	Inclusions	Vessel size	Weight (g)	Pottery type
1	**006**	19	2	0	6	7	4	13	Sh Q	L	261	Beaker domestic

Sh shale Q quartzite L large vessel

Table 1. Details of pottery including individual vessels from Derver 1, Co. Meath.

Vessel	Context	Sherds to draw	Section only	Photograph
1	**006**	R. **6**:[21, 30], S. **6**:6, 14, B. **6**:24		

R rim S shoulder B body

Table 2. Suggestions for illustration: Derver 1, Co. Meath.

APPENDIX 5 *Plant macrofossil, charcoal and faunal remains by Durham University*

Archaeological Services
University of Durham

Derver 1, M3 Motorway Project, Co Meath, Ireland

plant macrofossil, charcoal and faunal remains analysis

on behalf of
Archaeological Consultancy Services Ltd

Report 2088
October 2008

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1. Summary

The project

1.1 An excavation was undertaken by Archaeological Consultancy Services Ltd at Derver 1, Co Meath, Ireland. This report presents the results of plant macrofossil, charcoal and bone analysis of the fill of a Bronze Age pit.

Results

1.2 The analysis can provide little information about the site or the use of the pit, due to the absence of charred plant macrofossils. The only charcoal present was a fragment of hazel/alder.

1.3 The small bone assemblage comprised unburnt fragments of vertebrae and ribs of a young animal, probably a calf.

2. Project background

Location and background

2.1 An excavation was undertaken by Archaeological Consultancy Services Ltd at Derver 1, Co Meath, Ireland (NGR 266339 280411). Features on the site included a medium-sized pit which may have been a hearth, and four smaller pits. Sherds of middle or late Bronze Age pottery were recovered from a slight hollow immediately northeast of two of the pits. This report presents results of plant macrofossil, charcoal and bone analysis of the fill of pit C10.

Objective

2.2 The objective was to analyse the plant macrofossils, charcoal and bone from the pit, in order to provide information about the use of the pit.

Dates

2.3 Samples were received by Archaeological Services Durham University in April 2008. Analysis and report preparation was conducted between April – October 2008.

Personnel

2.4 Sample processing was undertaken by Archaeological Consultancy Services Ltd. The residue was sorted by Dr Charlotte Henderson and charcoal, and seed identifications were carried out by Mr Lorne Elliott. Faunal remains were identified by Ms Louisa Gidney, and report preparation was by Dr Charlotte O'Brien.

Archive

2.5 The licence number is A030/025. The charcoal, flot and bone are currently held at the Environmental Laboratory at Archaeological Services Durham University awaiting collection or return.

3. Plant macrofossil and charcoal analysis

Methods

3.1 The residue was examined for plant remains, shells, bones, pottery sherds and metalworking debris. The dry flot was scanned at up to x60 magnification using a Leica MZ7.5 stereomicroscope for charred and waterlogged plant remains. Identification of these was undertaken by comparison with modern reference material held in the Environmental Laboratory at Archaeological Services Durham University. Plant taxonomic nomenclature follows Stace (1997).

3.2 The residue and flot were scanned for charcoal. This was identified by examining the transverse, radial and tangential sections at up to x600 magnification using a Leica DMLM microscope. Identifications were assisted by the descriptions of Hather (2000), and modern reference material held in the Environmental Laboratory at Archaeological Services Durham University.

Results

3.3 The residue contained a small number of possible fire-cracked stones. Modern roots, insects, uncharred plant remains, a fleck of calcined bone and a fragment of charcoal were recorded in the flot. The results are presented in Table 3.1.

Table 3.1: Plant macrofossils and charcoal from Derver 1

Context		11
Sample		1
Feature		Pit
Volume of flot (ml)		2
Residue matrix (relative abundance)		
Cracked/angular stones		1
Flot matrix (relative abundance)		
Bone (calcined)		1
Charcoal		1
Insect		1
Roots (modern)		1
Charcoal (number of fragments)		
Corylus avellana/*Alnus glutinosa* (Hazel/Alder)		1
Uncharred remains (relative abundance)		
(t) *Fraxinus excelsior* (Ash)	fruit	2
(t) *Rubus fruticosus* agg. (Bramble)	fruitstone	2
(w) *Carex* spp (Sedges)	biconvex nutlet	1
(x) *Ranunculus* subgenus *Ranunculus* (Buttercup)	achene	1

[t-tree; w-wetland; x-wide niche]. Relative abundance is based on a scale from 1 (lowest) to 5 (highest)

Discussion

3.4 The analysis can provide little information about the site or the use of the pit, due to the absence of charred plant macrofossils and the small amount of charcoal. The presence of possible heat-cracked stones may support the interpretation of the feature as a hearth. The single fragment of hazel/alder charcoal may therefore represent fuel waste, but could also derive from activities elsewhere on the site. The non-waterlogged nature of the site suggests that the uncharred remains of ash, bramble, sedges and buttercups, in addition to the modern roots and insect fragments, are later intrusive material.

4. Faunal remains analysis

4.1 A small bag (3.6g) of unburnt bone was provided for analysis. Identification was undertaken by comparison with modern reference material held in the Archaeology Department, Durham University. The small bone assemblage was from a young animal, possibly a calf, and comprised fragments of two thoracic vertebrae and the proximal epiphyses of three ribs. This small section of thorax was probably articulated prior to excavation, and suggests burial *in situ*.

5. Sources

Hather, J G, 2000 *The identification of the Northern European Woods: a guide for archaeologists and conservators*, London

Stace, C, 1997 *New Flora of the British Isles*, 2nd Edition, Cambridge

APPENDIX 6 *Animal bone report by Rachael Sloane*

1. Introduction

Resolution phase archaeological excavation was carried out at the site of Derver 1, Co. Meath from 8th-17th January 2007 (Ginn pers. comm.). This work took place in advance of the proposed M3 Clonee to North of Kells Road Scheme. One medium- sized pit and four small pits were revealed. Two of the smaller pits yielded mammalian bone remains and in one case consisted of the partial skeletal remains of what was recorded at the time of excavation as a lamb or kid and was suspected of being of recent date (*ibid*). A significant find in the form of 34 sherds of Bronze Age pottery was recovered from a slight hollow northeast of two of the pits. It is believed that these may have been ploughed out of one of the pits or perhaps from another feature that was since removed (*ibid*).

Table 1 provides descriptions of the features that produced mammalian bone remains. The partial skeletal remains were retrieved from F11, the fill of pit F10. These two samples were the only faunal bone remains presented for analysis. Following inspection the specimens from both features were confirmed as sheep (*Ovis aries*) and a total of six elements were classified as recordable. In addition to the recordable elements cervical, thoracic and lumbar vertebrae as well as some rib specimens and one cranium fragment were present for F11 and one rib specimen from F13. None of these latter specimens classify as recordable under the applied methodology. However, due to their fairly in tact nature they were all retained and stored along with the recordable elements.

Feature Number	Feature Description
F11	Fill of circular pit F10. Soft greyish brown sandy clay containing approximately 20% angular stones.
F13	Fill of pit F12. Soft blackish grey sandy clay with frequent charcoal.

Table 1 Derver 1: Archaeological features from which mammalian bone remains were retrieved.

2. Methodology

The methodology adopted for analysis of this collection is based on that used for Knowth by McCormick and Murray (2007). A detailed description of the applied methodology has been outlined by the current author in the analysis report for Roestown 2 mammalian bone remains, recovered from archaeological excavation carried out as part of the M3 Clonee-North of Kells Road Scheme. The quantification method applied is a modified version of that used by

Albarella and Davis (1996). It entails a selective approach which, rather than counting every fragment of bone, results in the production of NISP values i.e. number of identifiable specimens. The method involves examination of all mammalian bone remains but specimens found to be of low-grade information value are not recorded. Consequently the recording of a narrower range of clearly defined bone elements is ensured. Selected elements are recorded provided at least 50% of the diagnostic zone survives. This procedure avoids multiple counting of very fragmented elements (*Ibid*). The MNI i.e. minimum number of individuals was calculated for all species. This estimates the minimum number of animals that the recorded mammalian remains could have come from (Chaplin 1971, 70). It is calculated through dividing the recorded value of each element for a species by its frequency in the skeleton. The resulting highest value is the MNI for that particular species. While both sides and proximal or distal were taken into account for MNI calculations, ageing data was not.

3. Results of Analysis

3.1 Summary of Findings

The recordable elements of sheep present in the Derver 1 assemblage are detailed in Tables 2 and 3. For F11, the cranium specimen consists of the left zygommatic arch, while the mandible specimen comprises the coronoid process, condyle and part of the ramus. As none of the mandibular tooth row is present there is no tooth eruption/wear data that could provide evidence of the age of the animal. In terms of state of preservation all four elements and the other vertebrae, rib and cranium specimens were observed as being in 'good' condition while the F13 material was found to be in 'excellent' condition. NISP values of four and two mean this is an unquestionably minute assemblage. The minimum number of individuals represented for each feature is one animal. Such a small collection is of limited zooarchaeological value however, it was possible to record some ageing data for both features by observing the states of epiphyseal fusion.

Element	Sheep	Total
Cranium	1	1
Mandible	1	1
VC2	1	1
Scapula	1	1
NISP	4	4
MNI	1	1

Table 2 Derver 1: F11 Number of identifiable specimens (NISP) by element and species.

Element	Sheep	Total
Pelvis	1	1
Femur	1	1
NISP	2	2
MNI	1	1

Table 3 Derver 1: F13 Number of identifiable specimens (NISP) by element and species.

3.2 Ageing Data

In analysing mammalian bone remains, two ageing methods are generally used. These include recording the state of tooth eruption and wear, which is recognised as the more reliable ageing method. As previously stated, this method was not applicable for Derver 1 as no mandibular teeth were present. Age related data was restricted to what is considered the more problematic ageing method (Watson 1978, 97-101) of recording state of epiphyseal fusion for appropriate elements. This involves examining the rate of development the metaphysis or epiphysis has reached. The metaphysis is the growing end of the shaft of a developing long bone while the epiphysis is a part of a bone that develops from a separate ossification centre but later fuses with the bone (Davis 1987, 16).

3.2.1 Epiphyseal Fusion

It was possible to record the state of epiphyseal fusion for the sheep scapula from F11 and the F13 pelvis and femur. Interpretation of this data and assignment of age ranges follows Reitz and Wing (1999, 76). The details are displayed in Tables 4 and 5. The "Age in months" section indicates the age range at which fusion of the given elements takes place. For the F11 scapula, the fusion zone was found to be in an unfused state. Consequently it can be established that the animal it belonged to had died before reaching the age range of 6-8 months (*Ibid*). Therefore, the excavator's initial interpretation of these remains being of a young animal, are confirmed. The F13 data indicates a much more mature animal. All three fusion zones were recorded as fully fused. The presence of a fully fused distal femur signifies an animal that had at least lived to an age of 36-42 months before death (*Ibid*).

SHEEP		Age in months
Early Fusing	scapula	6-8

Table 4 Derver 1: F11 unfused sheep specimen present, classified as early, middle or late fusing after Reitz and Wing (1999, 76).

SHEEP		Age in months
Early Fusing	acetabulum	6-10
Late Fusing	femur p.	30-42
	femur d.	36-42

Table 5 Derver 1: F13 fused (fused and fusing) sheep specimens present, classified as early, middle or late fusing after Reitz and Wing (1999, 76).

3.3 Metrical Data

Metrical data was recorded for both F13 specimens following the specifications of von den Driesch (1976). As it was possible to record a greatest lateral length (GLl) for the complete femur an estimated shoulder height was calculated. This followed the multiplication factors of Teichert as detailed in von den Driesch and Boessneck (1974, 339). An estimated shoulder height of 64.2cm was calculated for the Derver 1 sheep femur (Table 6).

Element	GLl (mm)	ESH (cm)
Femur	181.8	64.2

Table 6 Derver 1: Estimated shoulder height calculated for F13 sheep femur after Teichert as detailed in von den Driesch and Boessneck (1974, 339).

While a date has not been established for F13 a comparison of the estimated shoulder height was made with data for Knowth Stage 9 (10^{th}-11^{th} century) and other data for Early Medieval rural sites (McCormick and Murray 2007, 90-92 and 185). The estimated shoulder heights of sheep for Knowth, Co. Meath, indicate a range from 50-62cm and an average of 54cm (*Ibid*). Maximum heights of 65.5cm for Moynagh, Co. Meath and 63.9cm for Lagore, Co. Meath have also been calculated (*ibid*, 185). Therefore the estimated shoulder height calculated for the Derver 1 specimen is not out of place with data of Early Medieval rural context. However, until dating of the site is established it cannot be confirmed if this comparison is compatible.

3.4 Burning

The distal end of the femur displayed three minor areas of blackened patches as if small areas of the element may have been singed. If this was the case, it was extremely minor as the majority of the element survives unaffected and in excellent condition.

No further zooarchaeological evidence was observed for this assemblage.

4. Conclusion

The animal bone from Derver 1 represents the partial remains of a lamb below the age range of 6-8 months and a more mature animal that had lived to a minimum age of 36-42 months. Metrical data for the F13 femur facilitated establishing that the animal it belonged to had an estimated shoulder height of 64.2cm. This same element also appears to have been subjected to a minor level of burning. Beyond this, no further zooarchaeological information was evident.

5. Recommendations

As the remains discussed in this report have all been identified to species and element level, it is worth considering storage of the recordable elements along with the vertebrae, rib and cranium specimens for permanent storage at National Museum of Ireland. This is bearing in mind the fact that it forms part of a much greater body of mammalian bone assemblages, retrieved from other archaeological excavations along the route of the M3 Road Scheme. However, if the excavation director reaches the conclusion that these remains are of modern date, then permanent storage is unnecessary. At the time of writing this report no radiocarbon dating results had been obtained.

Bibliography

Albarella, U. and Davis, S.J. 1996. 'Mammals and birds from Launceston Castle, Cornwall: decline in status and the rise of agriculture', *Circaea* 12 (1), 1-156.

Chaplin, R.E. 1971. *The Study of Animal Bones from Archaeological Sites*. London and New York: Seminar Press.

Davis, S.J. 1987. *The Archaeology of Animals*. New Haven and London: Yale University Press.

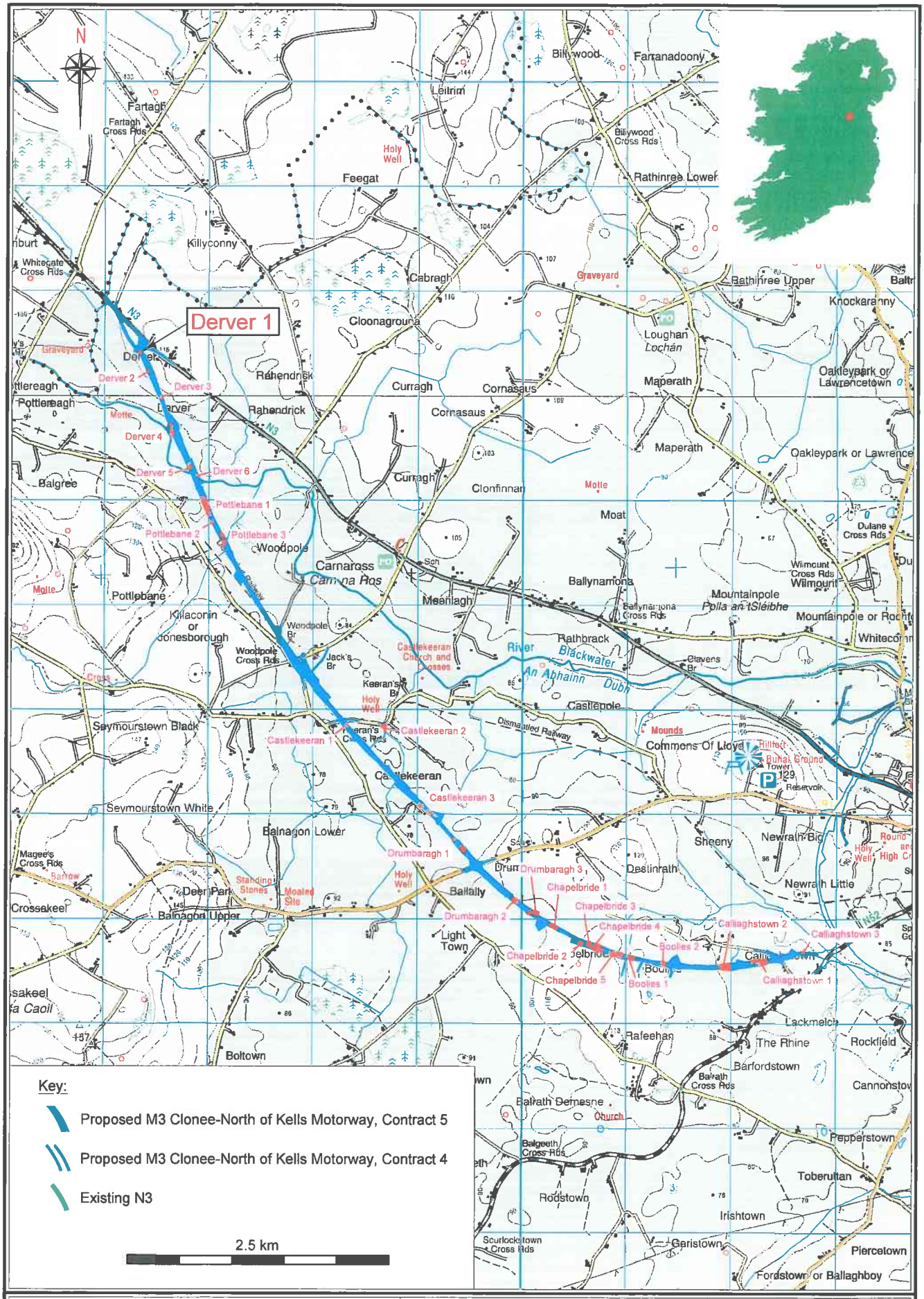
Driesch, A. von den. 1976. *A guide to the measurement of animal bones from archaeological sites*. Cambridge, Massachusetts: Peabody Museum of Archaeology and Ethnology, Harvard University.

Driesch, A. von den and Boessneck, J. 1974. 'Kritische Anmerkungen zur Widerristhohenberechnung aus Langenmassen vor- und fruhgeschichtlicher Tierknochen', *Saugetierkundliche Mitteilungen* 22, 325-348.

McCormick, F. and Murray E. 2007. *Knowth and the zooarchaeology of Early Christian Ireland.* Dublin: Royal Irish Academy.

Reitz, E.J. and Wing, E.S. 1999. *Zooarchaeology*. (Cambridge Manuals in Archaeology). Cambridge: Cambridge University Press.

Watson, J.P.N. 1978. 'The interpretation of epiphyseal fusion data', in D.R. Brothwell, K.D. Thomas, J. Clutton-Brock (eds.), *Research problems in zooarchaeology*, 97-101. (Occasional Publication No. 3). London: Institute of Archaeology.



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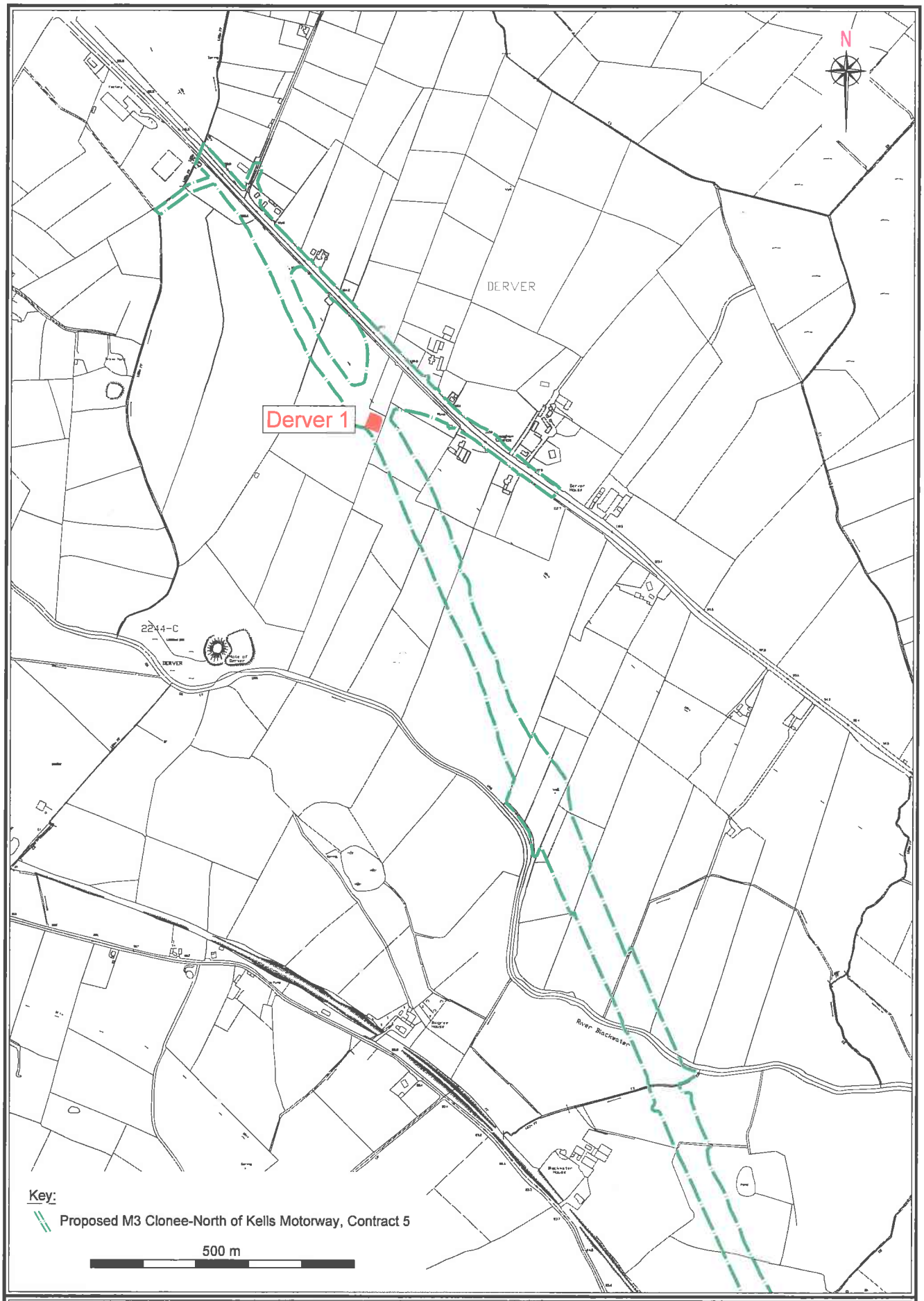
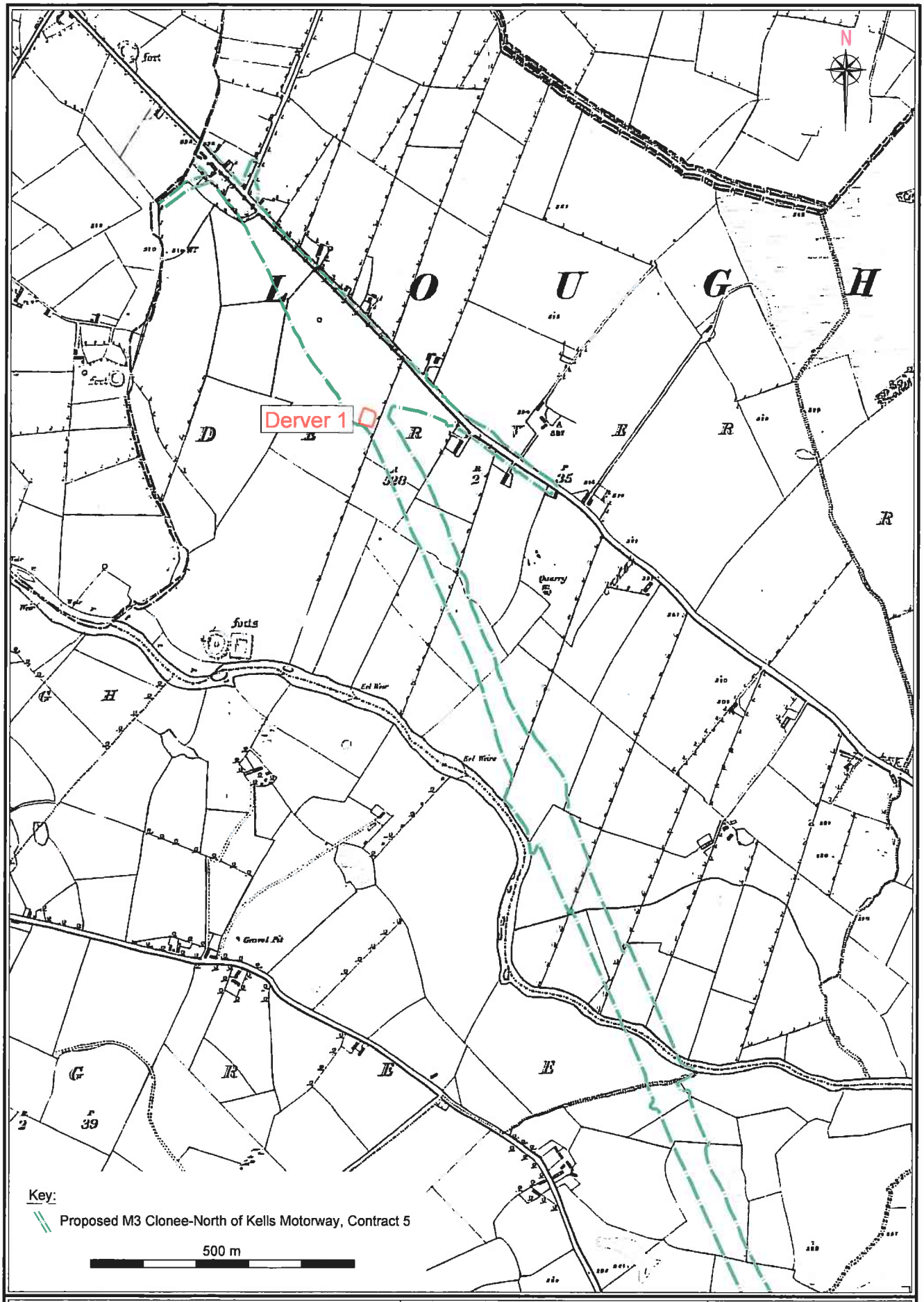
	Issued for: Excavation Report	Date: Jul '08
	Client: Meath County Council	Origin: OSi Discovery Series
		Drawing no.: 04_01_C75031i

Figure 1: Location of Derver 1



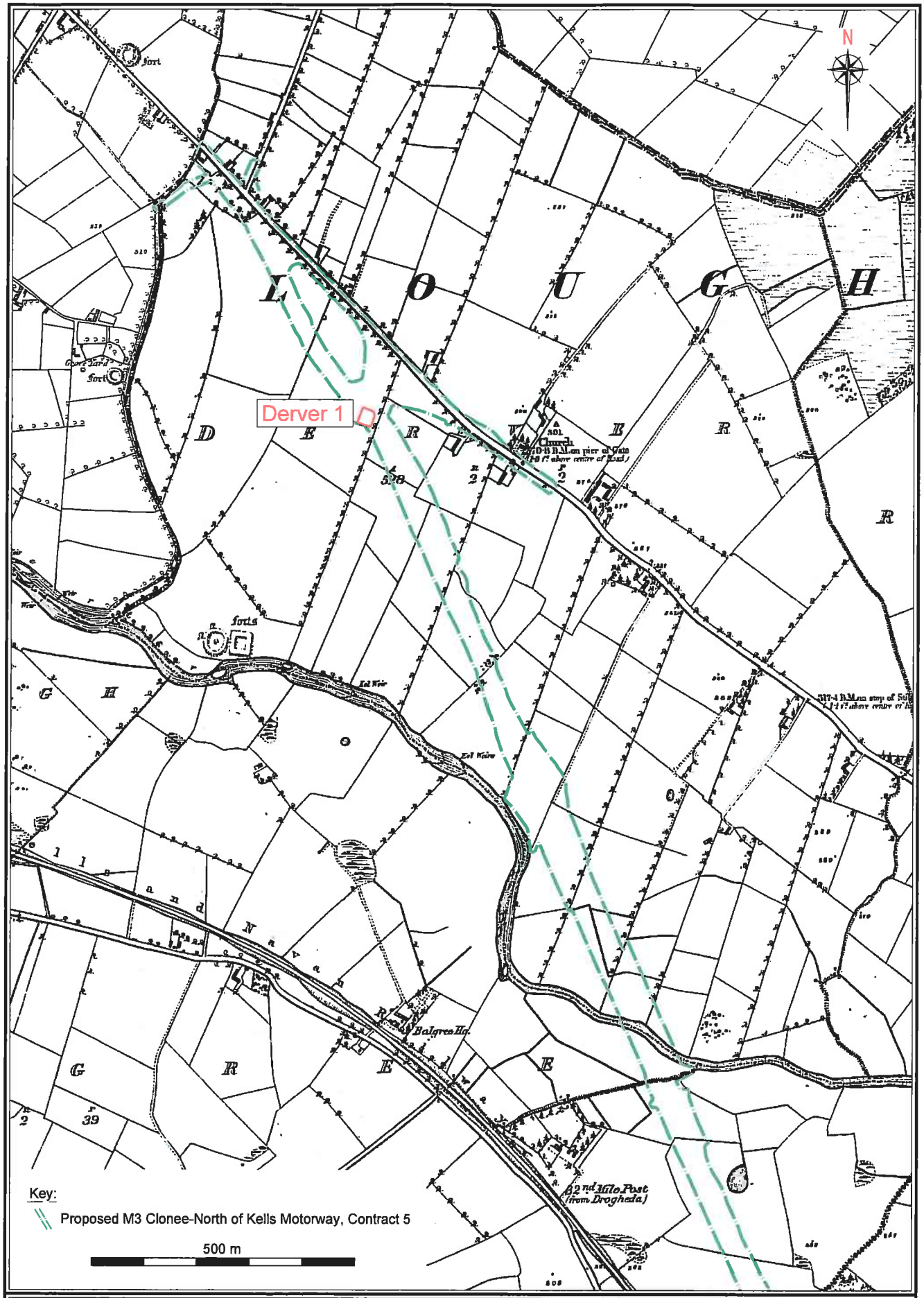
Archaeological Consultancy Services Ltd. Unit 21, Boyne Business Park, Greenhills, Drogheda, Co. Louth	Site: M3 Clonee-North of Kells PPP Scheme Contract 5, Derver 1	Scale: 1:10,000 A4
		Date: Jul '08
	Issued for: Excavation Report	Origin: Client/ACS Ltd.
	Client: Meath County Council	Drawing no.: 04_01_C75032i

Figure 2: Location of Derver 1 on current OS background



Archaeological Consultancy Services Ltd. Unit 21, Boyne Business Park, Greenhills, Drogheda, Co. Louth	Site: M3 Clonee-North of Kells PPP Scheme Contract 5, Derver 1	Scale: 1:10,000 A4
		Date: Jul '08
	Issued for: Excavation Report	Origin: OSi (1836)
	Client: Meath County Council	Drawing no.: 04_01_C75033i

Figure 3: Derver 1, extract from 1st edition OS map, Meath sheet 10



Archaeological Consultancy Services Ltd. Unit 21, Boyne Business Park, Greenhills, Drogheda, Co. Louth	Site: M3 Clonee-North of Kells PPP Scheme Contract 5, Derver 1	Scale: 1:10,000 A4
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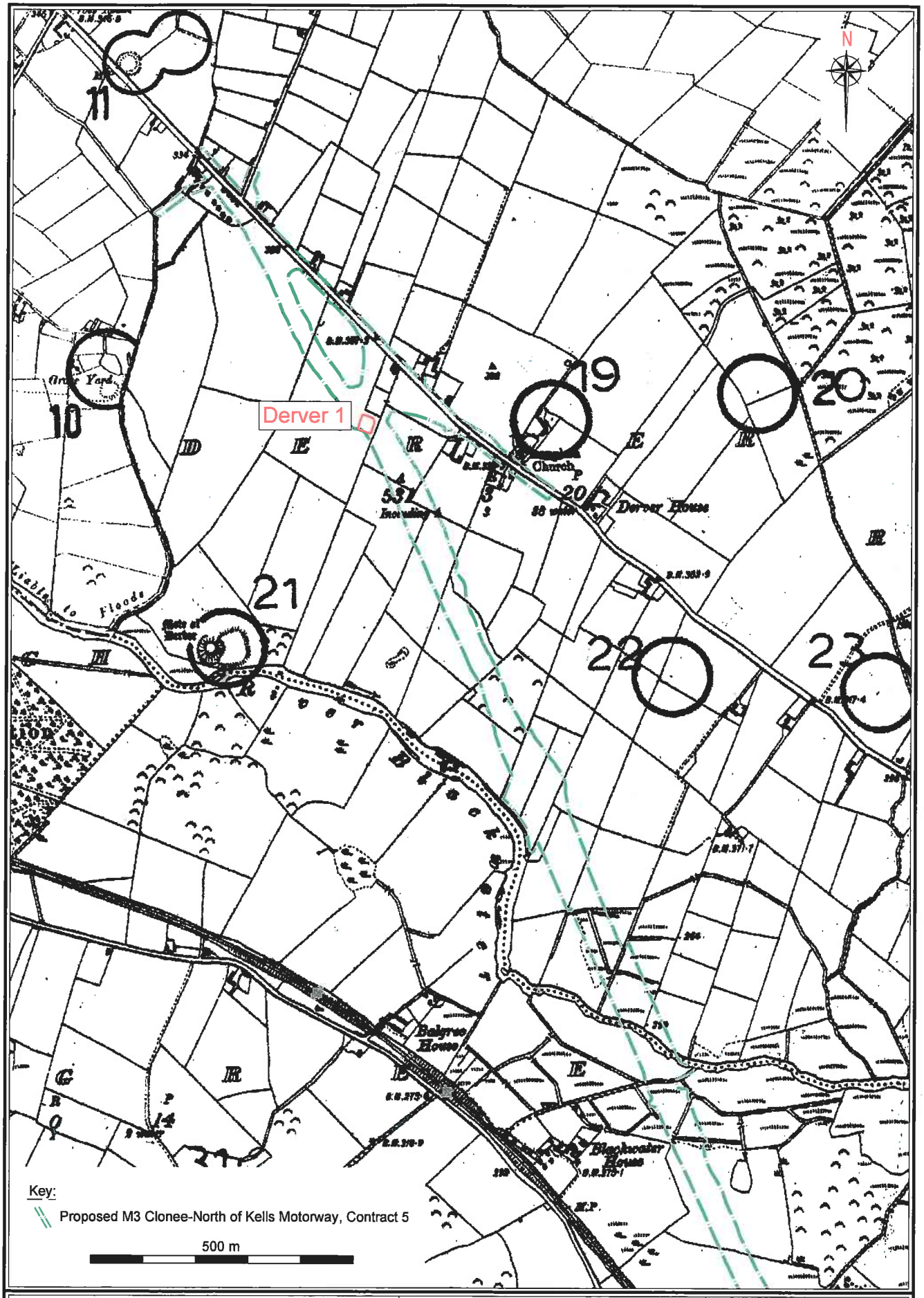
	Client: Meath County Council	Drawing no.: 04_01_C75034i

Figure 4: Derver 1, extract from 2nd edition OS map, Meath sheet 10



Archaeological Consultancy Services Ltd. Unit 21, Boyne Business Park, Greenhills, Drogheda, Co. Louth	Site: M3 Clonee-North of Kells PPP Scheme Contract 5, Derver 1	Scale: 1:10,000 A4
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	Client: Meath County Council	Drawing no.: 04_01_C75035i

Figure 5: Derver 1, extract from 3rd edition OS map, Meath sheet 10

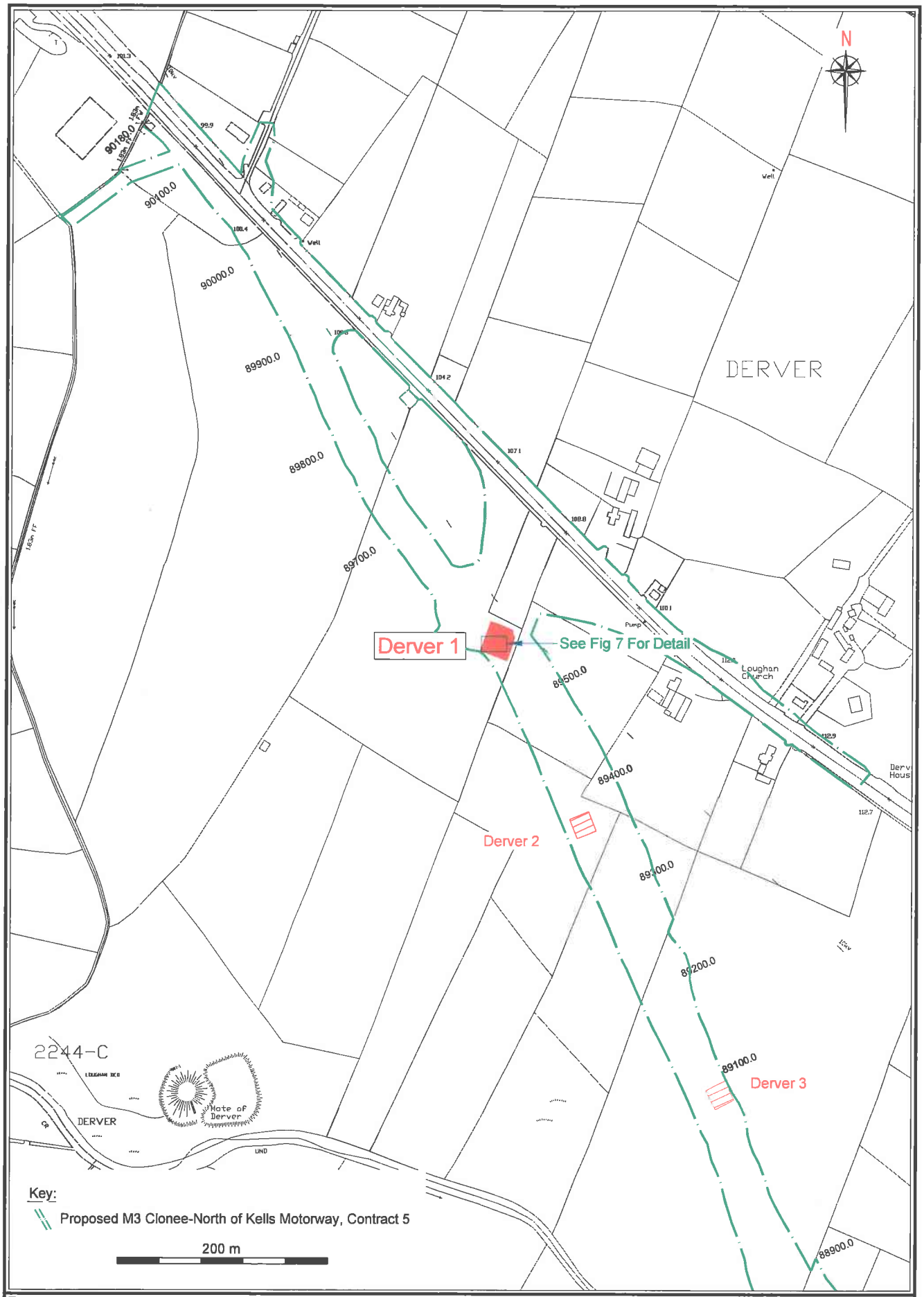

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Figure 6: Detailed location of Derver 1

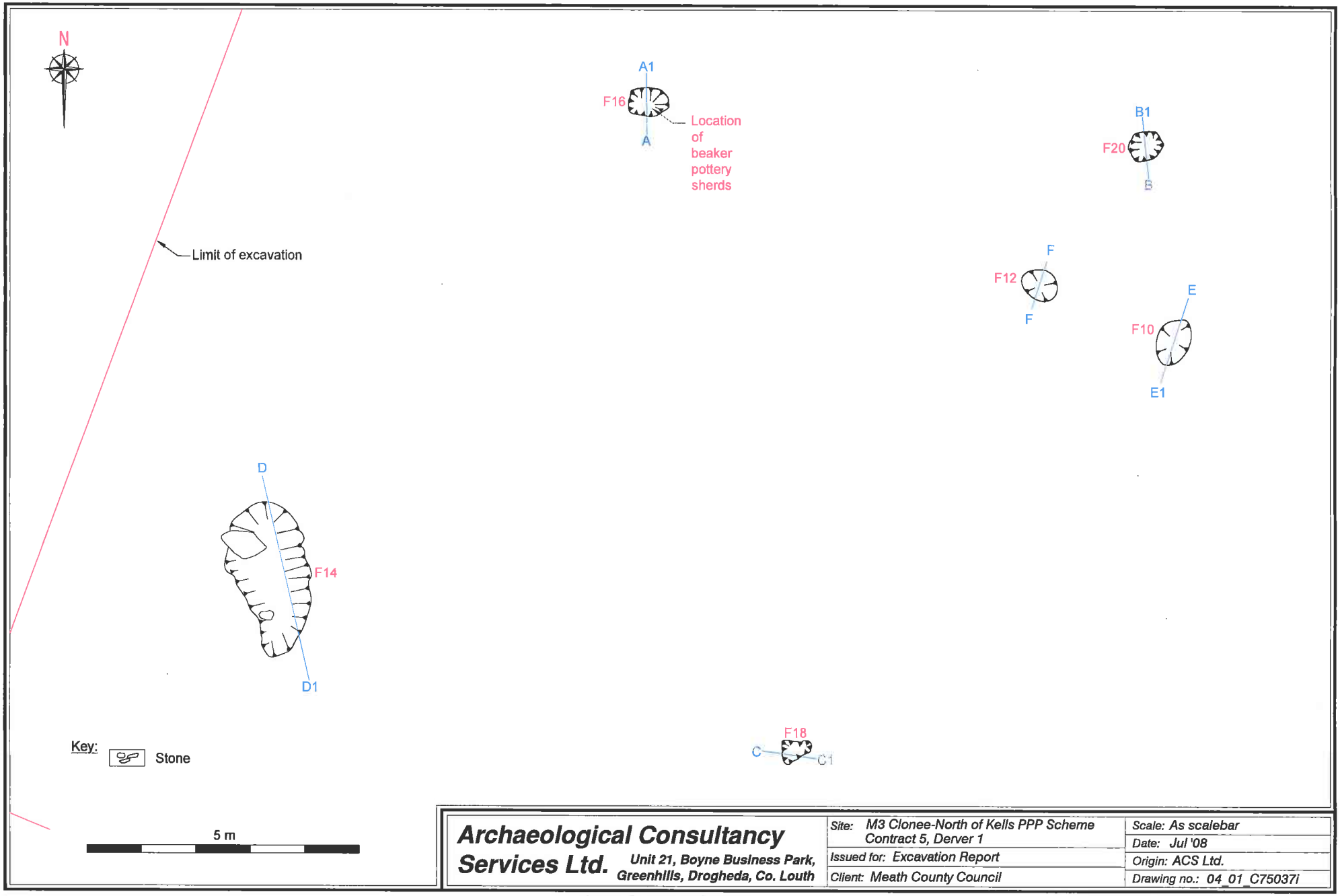

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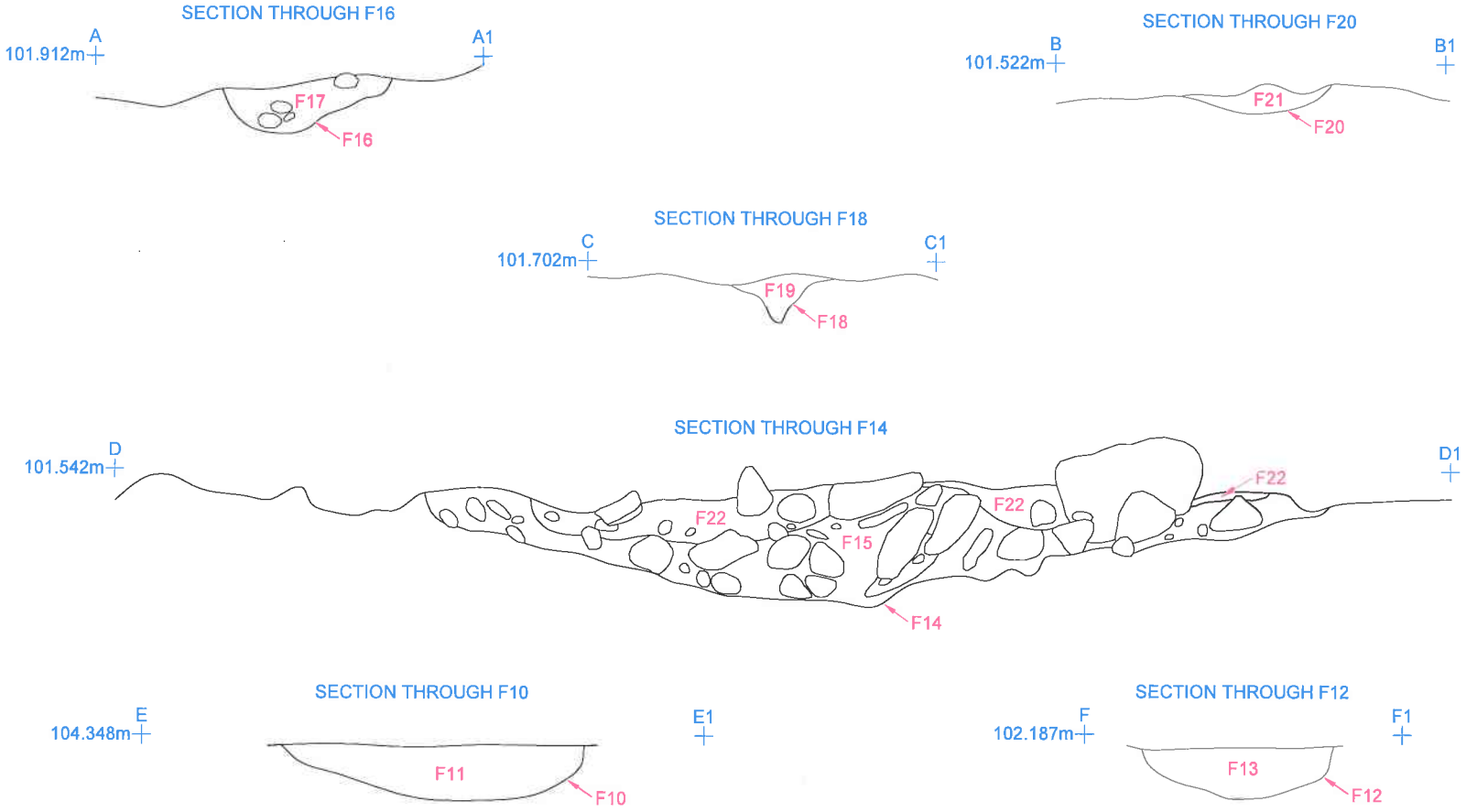
Figure 7: Plan of features



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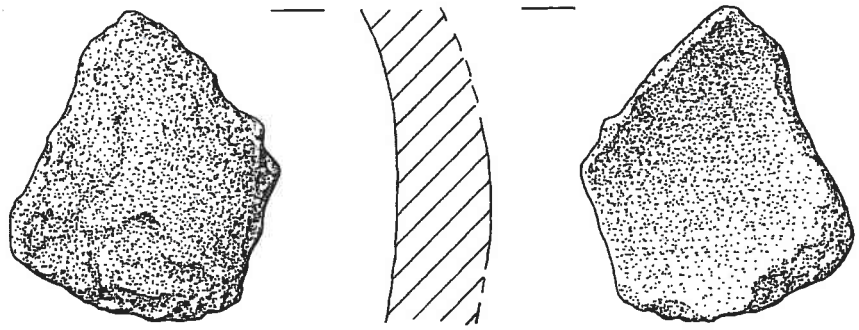
		Date: Jul '08
	Issued for: Excavation Report	Origin: ACS Ltd.
	Client: Meath County Council	Drawing no.: 04_01_C75038i

Figure 8: Sections of features

Plate 1: Spread of Bronze Age Pot Sherds from the south (04_01_ Derver 1_CP01_02)

Plate 2: Section of F14 from the south-west (04_01_ Derver 1_CP01_14)



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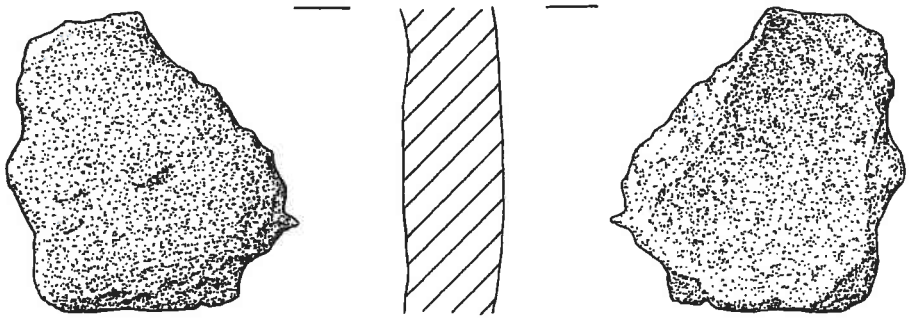

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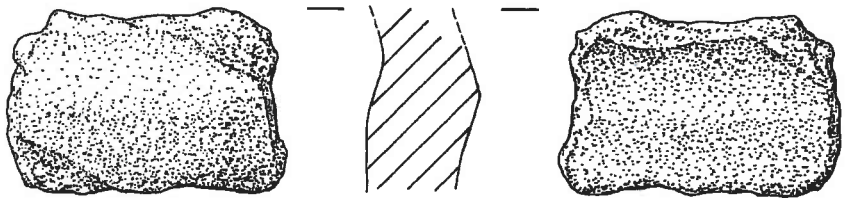

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5 cm

Archaeological Consultancy Services Ltd. Unit 21, Boyne Business Park, Greenhills, Drogheda, Co. Louth	Site: M3 Clonee-North of Kells PPP Scheme Contract 5, Derver 1	Scale: 1:1 A4
		Date: Sep '08
	Issued for: Excavation Report	Origin: Client/ACS Ltd.
	Client: Meath County Council	Drawing no.: 04_01_C75039

Illustration 1: Pottery recovered from F6 (Fill of F16)