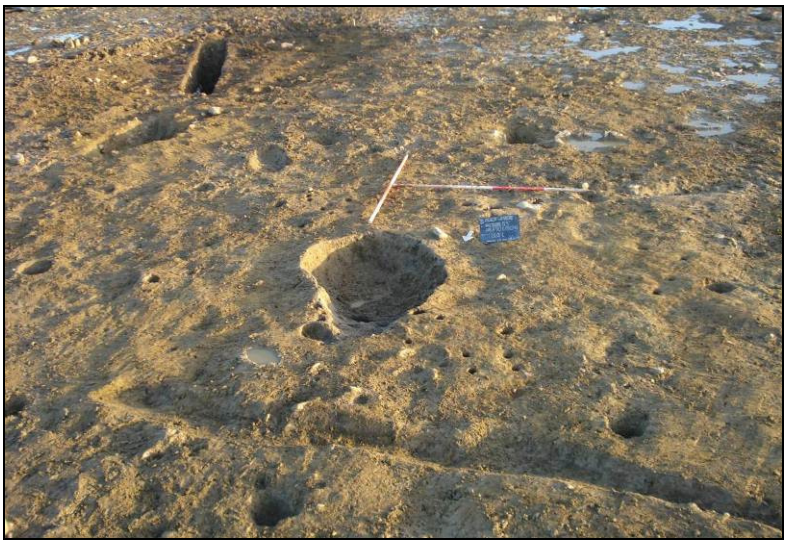
N9/N10 KILCULLEN TO WATERFORD SCHEME, PHASE 4 – KNOCKTOPHER TO POWERSTOWN



Ministerial Direction Scheme Reference No.	A032
Registration No.	E3864
Site Name	AR113, Ballyquirk 2
Townland	Ballyquirk
County	Kilkenny
Excavation Director	Ruth Elliott
NGR	261811 156508
Chainage	60225

FINAL REPORT

ON BEHALF OF KILKENNY COUNTY COUNCIL

NOVEMBER 2013

IAC Irish Archaeological Consultancy

PROJECT DETAILS

Project	N9/N10 Kilcullen to Waterford Scheme, Phase 4 – Knocktopher to Powerstown
Ministerial Direction Reference No.	A032
Excavation Registration Number	E3864
Excavation Director	Ruth Elliott
Senior Archaeologist	Tim Coughlan
Consultant	Irish Archaeological Consultancy Ltd, 120b Greenpark Road, Bray, Co. Wicklow
Client	Kilkenny County Council
Site Name	AR113, Ballyquirk 2
Site Type	Pits and postholes
Townland(s)	Ballyquirk
Parish	Gowran
County	Kilkenny
NGR (easting)	261811
NGR (northing)	156508
Chainage	60225
Height OD (m)	107.734
RMP No.	N/A
Excavation Dates	14 January–4 February 2008
Project Duration	20 March 2007–18 April 2008
Report Type	Final
Report Date	November 2013
Report By	Ruth Elliott and Tim Coughlan
Report Reference	Elliott, R. and Coughlan, T. 2013 E3864 Ballyquirk 2 Final Report. Unpublished Final Report. National Monuments Service. Department of Environment, Heritage and Local Government, Dublin.

ACKNOWLEDGEMENTS

This final report has been prepared by Irish Archaeological Consultancy Ltd in compliance with the directions issued to Kilkenny County Council by the Minister for Environment, Heritage and Local Government under Section 14A (2) of the National Monuments Acts 1930–2004 and the terms of the Contract between Kilkenny County Council and Irish Archaeological Consultancy Ltd.

CONSULTING ENGINEERS – N9/N10 KILKENNY CONSULT

James Eogan (NRA Senior Archaeologist), Ed Danaher (NRA Archaeologist) and Bernice Kelly (NRA Assistant Archaeologist)

Project Liaison Officer, Kilkenny Co. Council – Joe Gannon and Lisa Mulcahy

NATIONAL MONUMENTS, DOEHLG

Archaeologist – Martin Reid

IRISH ANTIQUITIES DIVISION, NATIONAL MUSEUM OF IRELAND

Assistant Keeper – Nessa O'Connor

ABSTRACT

Irish Archaeological Consultancy Ltd (IAC), funded by the National Roads Authority (NRA) through Kilkenny County Council, undertook an excavation at the site of AR113, Ballyquirk 2 along the proposed N9/N10 Kilcullen to Waterford Scheme, Phase 4 – Knocktopher to Powerstown (Figure 1). The following report describes the results of archaeological excavation at that site. The area was fully excavated by Ruth Elliott under Ministerial Direction A032 and Excavation Registration Number E3864 issued by the DoEHLG in consultation with the National Museum of Ireland for IAC. The fieldwork took place between the 14 January and 4 February 2008.

The site was located on a small hill with a commanding view of the surrounding landscape. Despite this prominent location the site was particularly waterlogged as was evidenced by a large peat deposit in the north of the site. The earliest features on the site were dated to the early Bronze Age and relate to isolated pits, both with associated stakehole clusters. The pits may represent activities associated with pyrolithic technology as both contained heat shattered stones and the surrounding landscape was marginal and wet.

Two roughly circular post-built structures, Houses 1 and 2, were identified on the site and may have represented early-middle Bronze Age roundhouses or less formal temporary huts or shelters. These were both between 5m and 6m in diameter and lay approximately 30m apart. Both had possible entrances in the south-east with possible evidence for a porch identified at House 1. House 1 consisted of an outer ring of postholes and an inner ring of smaller stakeholes with other clusters of stakeholes evidenced in the interior. Two pits, two postholes and a stakehole occurred within the interior of House 2. A number of features immediately external to the two houses may have been directly associated, such as a possible hearth pit to the east of House 2 and a cluster of pits and postholes to the east of House 1.

Probable associated domestic activity was evidenced to the south of the houses. This activity took the form of numerous features, such as pits, postholes and stakeholes, with no distinct spatial arrangement. A curvilinear feature in the south-west may have represented the remains of a slot-trench for a fence or boundary and appeared to delineate or partially enclose a concentration of activity in that area. This and other features may have been truncated by the extensive modern field clearance that took place in the location. Finds included two possible rubbing stones and two sherds of prehistoric pottery. To the north, the process of using hot stones to heat water was evidenced by rectangular troughs and features containing burnt stone. This activity, normally characteristic of burnt mound sites, was likely to have been associated with the apparent domestic activity that was taking place on the rest of the site.

Five features were radiocarbon dated, with all of the dates indicating early–middle Bronze Age activity at the site. The earliest date recorded was derived from ash charcoal from the pit fill C422 which yielded a 2 Sigma calibrated date of 2137–1965BC dating this feature to the early Bronze Age. The latest date was obtained from charcoal recovered from the fill of trough C455 which generated a 2 Sigma calibrated date of 1733–1535BC.

Modern field clearance is likely to have caused significant damage to archaeological features on the site and may have impacted on our ability to relate certain areas of activity. However, despite the impact of the clearance activities witnessed at the site, it is very important both locally and regionally. Locally it compliments a number of

other excavated sites along the N9/N10 Phase 4 scheme in presenting a well settled Bronze Age landscape in the absence of previous recorded monuments of the period. Regionally the nature of the findings from the site is of significance as it expands our knowledge and understanding of the distribution of early-middle Bronze Age settlement in this area of the Barrow Valley.

CONTENTS

List of Figures

List of Plates

1 INTRODUCTION

1.1 General

This report presents the results of the archaeological excavation of Ballyquirk 2, AR113 (Figures 1–3), in the townland of Ballyquirk undertaken by Ruth Elliott of IAC, on behalf of Kilkenny County Council and the NRA, in accordance with the Code of Practice between the NRA and the Minister for Arts, Heritage, Gaeltacht and the Islands. It was carried out as part of the archaeological mitigation programme of the N9/N10 Kilcullen to Waterford Road Scheme, Phase 4, which extends between Knocktopher in Co. Kilkenny to Powerstown in Co. Carlow. The excavation was undertaken to offset the adverse impact of road construction on known and potential subsoil archaeological remains in order to preserve the site by record.

The site was first identified during testing carried out in April 2007 by James Kyle (E3531) for IAC Ltd. on behalf of the National Roads Authority. Ballyquirk 2 was excavated between 14 January and 4 February 2008 under the direction of Ruth Elliot.

1.2 The Development

For the purposes of construction, the N9/N10 Kilcullen to Waterford Road Scheme has been divided into separate sections, known as Phases 1–4. Phase 2 of the scheme extends from the tie-in to the Waterford City Bypass at Dunkitt, to Knocktopher in Co. Kilkenny (Ch. 2+000–Ch. 25+400). Phase 4 continues from Knocktopher to Powerstown in Co. Carlow (Ch. 25+400–Ch. 76+000) and includes the Kilkenny Link Road.

The roadway of the entire scheme includes approximately 64km of mainline high quality dual carriageway and 6.2km of the Kilkenny Link Road, which will connect the road development to the Kilkenny Ring Road Extension. The road development requires the realignment and modification of existing national, regional and local roads where the mainline intersects them. It requires the acquisition of 305 hectares of land for its construction. A further link road will connect the scheme to Paulstown in County Kilkenny, while six new grade separated junctions and three roundabouts are part of the road development.

1.3 Archaeological Requirements

The archaeological requirements for the N9/N10 Kilcullen to Waterford Road Scheme, Phase 4: Knocktopher to Powerstown, are outlined in the Archaeological Directions issued to Kilkenny County Council by the Minister for Environment, Heritage and Local Government under Section 14A (2) of the National Monuments Acts 1930–2004 and in the terms of the contract between Kilkenny County Council and Irish Archaeological Consultancy Ltd. These instructions form the basis of all archaeological works undertaken for this development. The archaeological excavation works under this contract are located between the townlands of Knocktopher, Co. Kilkenny, and Powerstown, Co. Carlow.

The proposed N9/N10 was subjected to an Environmental Impact Assessment, the archaeology and cultural history section of which was carried out by Valerie J. Keeley Ltd and published in February 2005. The Record of Monuments and Places, the Site Monument Record, Topographical files, aerial photography, the Kilkenny and Carlow County Archaeological Urban Survey, and literary sources were all consulted. Two phases of geophysical survey were also conducted by Target (post-EIS geophysics carried out by ArchaeoPhysica) and an aerial survey was carried out by Margaret Gowen & Co. Ltd. As a result of the paper survey, field inspections and geophysical

survey, 35 sites were recorded in proximity to this section of the overall route alignment.

A previous archaeological assessment of Phase 2 of the scheme (test trenching conducted by Margaret Gowen & Co. Ltd. in 2006) extended into the lands acquired for Phase 4 to a point at Ch. 37+100 in the townland of Rathclogh, Co. Kilkenny. Thirty-four archaeological sites were identified within this area between Knocktopher and Rathclogh and subsequently excavated by Irish Archaeological Consultancy Ltd. as part of this archaeological contract.

Advance archaeological testing of the area between Rathclogh (Ch. 37+100) and Powerstown (Ch. 76+000) was completed by IAC during March–May 2007 and excavation of the sites identified during this process was also conducted by IAC between August 2007 and April 2008.

1.4 Methodology

The methodology adopted was in accordance with the approved Method Statement. The topsoil was removed to the interface between natural and topsoil using a 20 tonne mechanical excavator equipped with a flat toothless bucket under strict archaeological supervision. The remaining topsoil was removed by the archaeological team with the use of shovels, hoes and trowels in order to expose and identify the archaeological remains. A site grid was set up at 10m intervals and was subsequently calibrated to the national grid using GPS survey equipment.

All archaeological features were fully excavated by hand and recorded on *pro forma* record sheets using a single context recording system best suited to rural environment, with multi context plans and sections being recorded at a scale of 1:50, 1:20 or 1:10 as appropriate.

A complete photographic record was maintained throughout the excavation. Digital photographs were taken of all features and of work in progress.

An environmental strategy was devised at the beginning of the excavation based on IAC in-house post-excavation and site methodologies and guidelines. Features exhibiting large amounts of carbonised material were the primary targets.

All artefacts uncovered on site were dealt with in accordance with the guidelines as issued by the NMI and where warranted in consultation with the relevant specialists. All archive is currently stored in IAC's facility in Lismore, Co Waterford and will ultimately be deposited with the National Museum of Ireland.

All dating of samples from the site was carried out by means of AMS (Accelerator Mass Spectrometry) Radiocarbon Dating of identified and recommended wood charcoal samples. All calibrated radiocarbon dates in this report are quoted to two Sigma. Dating of the site also involved pottery analysis through typological study.

All excavation and post excavation works were carried out in accordance with the relevant approvals and in consultation and agreement with the National Roads Authority (NRA) Project Archaeologist, the National Monuments Section of the DoEHLG and the National Museum of Ireland. Where necessary licences to alter and export archaeological objects were sought from the National Museum of Ireland.

References to other sites excavated as part of the N9/N10 Phase 4: Knocktopher to Powerstown are referenced throughout this report only by their site name e.g.

Paulstown 1. A list of these sites and details including director's name and National Monuments Excavation Reference Number can be referenced in Appendix 4.

Final Report Date Ranges

The following date ranges for Irish prehistory and medieval periods are used for all final reports for the N9/N10 Phase 4: Knocktopher to Powerstown excavations.

Mesolithic: 7000–4000BC
Neolithic: 4000–2500BC
Early Bronze Age: 2500–1700BC
Middle Bronze Age: 1700–1200BC
Late Bronze Age: 1200–800BC
Iron Age: 800BC–AD500
Early medieval period: AD500–1100
Medieval period: AD1100–1600
Post-medieval: AD1600–1800

Source:
Carlin, N., Clarke, L. & Walsh, F. 2008 *The M4 Kinnegad-Enfield-Kilcock Motorway: The Archaeology of Life and Death on the Boyne Floodplain.* NRA Monograph Series No. 2, Wordwell, Bray.

2 EXCAVATION RESULTS

The site was located at the crest of a hill with views of the Blackstairs Mountains to the east and Slievenamon to the south. The hills of the Castlecomer plateau rise to the north-west. The land formed an undulating plateau which was pitted with boggy areas. With the exception of the modern field boundaries there was no evidence of post-medieval or modern attempts to drain the land and it remained highly prone to water-logging despite its somewhat elevated position. Indeed, the area had been largely occupied by vegetation and foliage up until recent times, when extensive field clearance is known to have been carried out. Both the existence of plant-life and the process of field clearance caused great disturbance to the surface of the subsoil and archaeological features, as encountered during excavation. Ballyquirk 1 is located *c.* 300m to the south-west and Ballyquirk 3 is located *c.* 50m to the north-east. There are no Recorded Monuments and Places located close-by.

The excavation revealed a large number of scattered pits and smaller probable postholes. Two clusters of postholes appeared to represent two definitive structures but the remaining scatters of features could not be definitively identified as structures. Five dates were recorded from the site suggesting a continuity of activity from the early to middle Bronze Age. The scattered nature of the features makes it difficult to identify a clear stratigraphic sequence, particularly as the majority of features remain undated. The presentation of the results (below) is based on the interpreted stratigraphic and dating sequence on the site, however in many cases features have been grouped together on the basis of location and/or type with no direct evidence that they represent contemporary activity.

2.1 PHASE 1 Natural Drift Geology

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
C2	N/A	N/A	N/A	N/A	Grey silt clay – Natural Subsoil	Subsoil
C99	N/A	N/A	N/A	N/A	Peaty deposits across subsoil	Natural peat

The poorly drained subsoil was overlain in a number of areas by natural peat formation.

2.2 PHASE 2 Early Bronze Age Activity

Two pits on the site were dated to the early Bronze Age. It is unclear if they are isolated features or if they relate directly to other activity on the site. Radiocarbon dating has shown them to be broadly contemporary and they were also similar in composition.

2.2.1 Pit C438 and Associated Stakeholes

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
C422	C438	1.01	0.64	0.26	Black sandy silt	Basal fill of pit
C437	C438	0.4	0.39	0.14	Light brown/red sandy silt	Fill of pit
C438	N/A	1	0.8	0.26	Sub-circular cut	Cut of pit
C505	C506	0.06	0.06	0.15	Light blackish grey silty clay	Fill of stakehole
C506	N/A	0.06	0.06	0.15	Circular cut	Cut of stakehole
C507	C508	0.08	0.08	0.1	Light blackish grey silty clay	Fill of stakehole
C508	N/A	0.08	0.08	0.1	Circular cut	Cut of stakehole
C509	C510	0.06	0.06	0.07	Light blackish grey silty clay	Fill of stakehole
C510	N/A	0.06	0.06	0.07	Circular cut	Cut of stakehole
C511	C512	0.08	0.08	0.08	Light blackish grey silty clay	Fill of stakehole

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
C512	N/A	0.08	0.08	0.08	Circular cut	Cut of stakehole
C513	C514	0.05	0.05	0.1	Light blackish grey silty clay	Fill of stakehole
C514	N/A	0.05	0.05	0.1	Circular cut	Cut of stakehole

Finds: None

Pit C438 was located in the northern corner of the site and had five stakeholes cut into its base (Figure 4; Plate 8). The stakeholes were clustered at the centre of the pit in an oval setting. There were frequent small burnt stones in the charcoal-rich fill of the pit and this was overlain by silt with a burnt clay content. The pit was adjacent to a deposit of natural peat, C99, suggesting that this location may have been wetter than the surrounding areas.

The burnt clay, burnt stones and charcoal-rich fills of the pit suggest that they may have been related to burnt mound activity. The large natural peat deposit adjacent to the pit to the east indicates that burnt mound type activity would have been possible. Waterlogging suggests a water source was located nearby and this is a necessary component of such activity. It is possible that an associated burnt mound spread may be located beyond the line of the road-take to the north-west. The pit may also have been a small cooking pit with the stakeholes supporting a small spit, although there was no evidence of *in situ* burning.

Charcoal was retrieved from pit fill C422 during post-excavation soil flotation. This was subsequently identified to species. Fragments of ash charcoal (*Fraxinus excelsior*), oak charcoal (*Quercus* sp.), hazel charcoal (*Corylus avellana*), willow charcoal (*Salix* sp.) and holly charcoal (Ilex aquifolium) were identified. This was a mixed wood assemblage and the charcoal counts were quite low. This, coupled with the absence of any obvious *in situ* burning deposit from this feature, suggests that the material was most probably re-depositedfrom one or more firing events at the site (Lyons, Appendix 2.3).

Stone retrieved from pit fill C422 was analysed and was found to be course grained, quartz-rich, red sandstone. Course grained sandstone is typical of *fulacht fiadh* material. The sample is clearly a shattered cobble, indicating a secondary source, such as in the glacial tills / river cobbles, it is therefore possible that these rocks were sourced locally (Mandal, Appendix 2.5).

A small fragment (1g) of ash (*Fraxinus excelsior*) charcoal from the pit fill C422 was chosen for AMS dating and returned a result of 3671±25 BP (UB 14120). The 2 Sigma calibrated date was 2137–1965BC (QUB, Appendix 2.6) dating this feature to the early Bronze Age.

2.2.2 Pit C60 and Associated Stakeholes

Pit Cut and Fills

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
C57	C60	0.75	0.8	0.08	Dark grey sandy clay	Fill of pit
C58	C60	0.4	0.16	0.02	Red (burnt clay) sandy clay	Fill of pit
C59	C60	1.74	0.63	0.32	Black (burnt clay) sandy clay	Fill of pit
C60	N/A	1.8	1.17	0.34	Pear shaped cut	Cut of pit

Internal Stakeholes

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
C121	C129	0.17	0.08	0.08	Light grey sandy clay	Fill of stakehole
C122	C130	0.1	0.08	0.07	Light grey sandy clay	Fill of stakehole

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
C123	C131	0.08	0.07	0.09	Light grey sandy clay	Fill of stakehole
C124	C132	0.06	0.05	0.05	Light grey sandy clay	Fill of stakehole
C125	C133	0.09	0.08	0.08	Light grey sandy clay	Fill of stakehole
C129	N/A	0.17	0.08	0.08	Oval cut	Cut of stakehole
C130	N/A	0.1	0.08	0.07	Oval cut	Cut of stakehole
C131	N/A	0.08	0.07	0.09	Oval cut	Cut of stakehole
C132	N/A	0.06	0.05	0.05	Oval cut	Cut of stakehole
C133	N/A	0.09	0.08	0.08	Oval cut	Cut of stakehole
C167	C60	0.3	0.1	0.02	Grey sandy clay	Fill of pit
C194	C195	0.1	0.09	0.04	Light grey sandy clay	Fill of stakehole
C195	N/A	0.1	0.09	0.04	Circular cut	Cut of stakehole
C196	C197	0.06	0.04	0.03	Light grey sandy clay	Fill of stakehole
C197	N/A	0.06	0.04	0.03	Sub-circular cut	Cut of stakehole
C198	C199	0.05	0.04	0.04	Light grey sandy clay	Fill of stakehole
C199	N/A	0.05	0.04	0.04	Circular cut	Cut of stakehole
C200	C201	0.08	0.07	0.11	Light grey sandy clay	Fill of stakehole
C201	N/A	0.08	0.07	0.11	Circular cut	Cut of stakehole
C202	C203	0.07	0.07	0.08	Light grey sandy clay	Fill of stakehole
C203	N/A	0.07	0.07	0.08	Circular cut	Cut of stakehole
C204	C205	0.08	0.08	0.1	Light grey sandy clay	Fill of stakehole
C205	N/A	0.08	0.08	0.1	Circular cut	Cut of stakehole

External Stakeholes

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
C63	C64	0.13	0.09	0.14	Dark grey sandy clay	Fill of stakehole
C64	N/A	0.13	0.09	0.14	Oval cut	Cut of stakehole
C65	C66	0.07	0.07	0.12	Grey sandy clay	Fill of stakehole
C66	N/A	0.07	0.07	0.12	Circular cut	Cut of stakehole
C101	C102	0.05	0.05	0.04	Grey sandy clay	Fill of stakehole
C102	N/A	0.05	0.05	0.04	Circular cut	Cut of stakehole
C126	C134	0.05	0.05	0.03	Light grey sandy clay	Fill of stakehole
C127	C135	0.05	0.05	0.04	Light grey sandy clay	Fill of stakehole
C128	C136	0.08	0.06	0.07	Light grey sandy clay	Fill of stakehole
C134	N/A	0.05	0.05	0.03	Oval cut	Cut of stakehole
C135	N/A	0.05	0.05	0.04	Oval cut	Cut of stakehole
C136	N/A	0.08	0.06	0.07	Oval cut	Cut of stakehole

Finds: None

Pit C60 was located in the north-west of the site. It was within an area occupied by a later structure – House 1 (Figures 4, 5 & 7; Plate 2). It was a large, gently sloped, oval-shaped pit that was noticeably shallower at the north-west end where 11 stakeholes were cut into its base. The stakes possibly supported an apparatus/structure that was used in conjunction with the pit. The function of the pit is unknown but it was filled with charcoal rich deposits with inclusions of heat shattered stone. This suggests that, like C438, the pit may have been associated with burnt mound related activity. There is evidence that the stakeholes silted up prior to the backfilling of the pit with possible burnt mound type deposits. Some burnt clay was noted within the fills of pit C60.

Six stakeholes were identified external to the pit, three (C134, C135 and C136) located at the very edge of the pit, north of the internal stakeholes and three (C64, C102 and C66) near the edge of the pit to the west of the internal stakehole cluster. It seems likely that these stakeholes were directly related to the pit and possibly represented part of the apparatus associated with it.

Charcoal was retrieved from pit fills C57 and C59 during post-excavation soil flotation. This was subsequently identified to species. Fragments of oak charcoal (*Quercus* sp.), willow charcoal (*Salix* sp.), hazel charcoal *(Corylus avellana)* and ash charcoal (*Fraxinus excelsior*) were identified from both pit fills C57 and C59. This was a mixed wood assemblage and the charcoal counts were quite low. This factor, coupled with the absence of any obvious *in situ* burning deposit from these features, suggests that this material was most probably re-deposited from one or more firing events at the site (Lyons, Appendix 2.3).

Burnt bone was recovered from a number of fills of pit C60. Two samples from fill C57 together contained 15 poorly preserved burnt bone fragments (3.25g) representing 12 possible skeletal elements including calcined unidentified trabecular bone. The species of sheep/goat (*caprinae*) was identified within the burnt bone material however; small fragment size combined with fragmentation and poor preservation meant it was not possible to identify the species of 14 calcined bone fragments. Burnt bone recovered from sandy-clay fill C59 was identified as two poorly preserved calcined fragments of vertebrae body from a small sized indeterminate vertebrate (McCarthy, Appendix 2.4).

Stone retrieved from pit fill C59 was analysed and was found to be course grained, quartz rich, red sandstone. Course grained sandstone is typical of *fulacht fiadh* material. The sample is clearly a shattered cobble, indicating a secondary source, such as in the glacial tills / river cobbles, it is therefore possible that these rocks were sourced locally (Mandal, Appendix 2.5).

It cannot be discounted that the pit was directly related to the later roundhouse structure (House 1), but a dated posthole from the structure suggests that they are not contemporary. Given the large number of scattered pits on the site it is entirely possible that the location of C60 and House 1 are a coincidence. The presence of the stakeholes, and the general similarity with pit C438, suggests that this may have been a cooking pit, but as with C438 there was no evidence of *in situ* burning.

A small fragment (0.05g) of ash (*Fraxinus excelsior*) charcoal from the pit fill C59 was chosen for AMS dating and returned a result of 3600±25 BP (UB 14118). The 2 Sigma calibrated date was 2024–1894BC (QUB, Appendix 2.6) dating this feature to the early Bronze Age.

2.3 PHASE 3 Early to Middle Bronze Age Activity

2.3.1 House 1

2.3.1.1 House 1 Outer Wall

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
C3	C4	0.3	0.22	0.22	Dark grey black sandy silt	Fill of posthole
C4	N/A	0.31	0.29	0.22	Sub-circular cut	Cut of posthole
C5	C6	0.31	0.26	0.03	Mid brown greyish hue silty clay	Fill of shallow posthole
C6	N/A	0.31	0.26	0.10	Circular cut	Cut of posthole
C7	C8	0.27	0.24	0.20	Dark grey silty clay	Fill of posthole
C8	N/A	0.27	0.24	0.20	Oval cut	Cut of posthole
C11	C6	0.31	0.26	0.05	Dark grey silty clay	Fill of shallow pit
C14	C15	0.23	0.21	0.15	Dark grey silty clay	Fill of posthole
C15	N/A	0.23	0.21	0.15	Circular cut	Cut of posthole
C16	C17	0.28	0.28	0.08	Dark grey sandy silt	Fill of posthole

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
C17	N/A	0.28	0.28	0.08	Circular cut	Cut of posthole
C18	C19	0.34	0.28	0.14	Dark brownish grey silty clay	Fill of shallow posthole
C19	N/A	0.34	0.28	0.14	Circular cut	Cut of shallow posthole
C22	C4	0.3	0.05	0.22	Dark grey sandy clay	Fill of posthole
C27	C28	0.26	0.24	0.05	Dark grey silty clay	Fill of posthole
C28	N/A	0.26	0.24	0.05	Circular cut	Cut of posthole
C37	C38	0.08	0.08	0.15	Dark grey sandy silt	Fill of stakehole
C38	N/A	0.08	0.08	0.15	Circular cut	Cut of stakehole
C45	C46	0.28	0.25	0.13	Brownish grey sandy clay	Fill of posthole
C46	N/A	0.28	0.25	0.13	Circular cut	Cut of posthole
C55	C56	0.24	0.2	0.13	Grey sandy clay	Fill of stakehole
C56	N/A	0.24	0.2	0.13	Circular cut	Cut of stakehole
C69	C70	0.1	0.1	0.08	Light brown sandy clay	Fill of stakehole
C70	N/A	0.1	0.1	0.08	Circular cut	Cut of stakehole
C141	C142	0.1	0.1	0.18	Mid brown sandy clay	Fill of stakehole
C142	N/A	0.1	0.1	0.18	Circular cut	Cut of stakehole
C147	C148	0.06	0.05	0.07	Grey sandy clay	Fill of stakehole
C148	N/A	0.06	0.05	0.07	Circular cut	Cut of stakehole
C149	C150	0.04	0.04	0.05	Grey sandy clay	Fill of stakehole
C150	N/A	0.04	0.04	0.05	Circular cut	Cut of stakehole
C151	C152	0.08	0.07	0.1	Grey sandy clay	Fill of stakehole
C152	N/A	0.08	0.07	0.1	Circular cut	Cut of stakehole

Finds: None

A group of nine postholes and four stakeholes were set in a roughly circular formation enclosing an area between 5.2m and 5.7m in diameter (Figures 4, 5 & 7; Plate 1). Spacing between the postholes was very regular, averaging between 1.7m and 1.9m. Postholes C19 and C28 in the south-east were only 0.60m apart and this may represent the location of an entrance. It was possible that the posts in postholes C4, C6 and C17 had burnt *in situ due to the density of charcoal inclusions*, although this was not certain. The remaining six posts had been removed from the ground after the abandonment of the structure allowing their cuts to fill. These fills were compact and charcoal rich and the process of natural silting was noted during excacvation.

Six stakeholes were identified within the circumference of the post circle, but notably all in the southern end. Three (C148, C150 and C152) were located immediately east of posthole C15 in the west of the structure and may represent a repair or auxiliary support. Two were located on either side of the possible entrance posts in the south-east of the structure (C70 and C142) and may have been deliberately placed here because of the possible entrance. The final stakehole (C38) was adjacent to posthole C17 in the south of the structure and may also have provided auxiliary structural support.

Charcoal was retrieved from posthole fill C7 during post-excavation soil flotation. This was subsequently identified to species. Fragments of hazel charcoal (*Corylus avellana)*, oak charcoal (*Quercus* sp.), ash charcoal (*Fraxinus excelsior*) and willow charcoal (*Salix* sp.) were identified. This was a mixed wood assemblage and the charcoal counts were quite low. This factor, coupled with the absence of any obvious *in situ* burning deposit from this feature suggests that this material was most probably re-deposited from one or more firing events at the site (Lyons, Appendix 2.3).

A small fragment (0.6g) of ash (*Fraxinus excelsior*) charcoal from the posthole fill C7 was chosen for AMS dating and returned a result of 3360±26 BP (UB 14117). The 2 Sigma calibrated date was 1739–1536BC (QUB, Appendix 2.6) dating this feature to the middle Bronze Age.

2.3.1.2 Possible Porch

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
C97	C98	0.9	0.4	0.16	Dark brown sandy clay	Fill of pit
C98	N/A	0.9	0.4	0.16	Irregular oval cut	Cut of pit
C161	C162	0.58	0.44	0.24	Dark brownish black silty clay	Fill of small pit
C162	N/A	0.58	0.44	0.24	Circular cut	Cut of small pit

Finds: None

Two pits (C98 and C162) may have been related to Structure 1 (Figure 4, 5 & 7). The pits were located on either side of the possible entrance in the south-east of House 1. Their location could be interpreted as being related to the entrance and they may represent the remains of shallow slot trenches or post-pits related to a possible porch feature located outside the entrance.

Charcoal was retrieved from pit fill C97 during post-excavation soil flotation. This was subsequently identified to species. Fragments of oak charcoal (*Quercus* sp) were identified. C97 was void of any conflagration deposits and so the oak recorded from here may represent a single dumping of charred debris from nearby burning activities (Lyons, Appendix 2.3). It may also be associated with remnants of a burnt structural post forming part of the porch

2.3.1.3 House 1 Inner Wall

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
C20	C21	0.07	0.07	0.11	Mid brownish grey sandy silt	Fill of stakehole
C21	N/A	0.07	0.07	0.11	Circular cut	Cut of stakehole
C25	C26	0.07	0.07	0.07	Greyish dark brown sandy silt	Fill of stakehole
C26	N/A	0.07	0.07	0.07	Circular cut	Cut of stakehole
C31	C32	0.1	0.1	0.12	Light grey/brown clayey silt	Fill of stakehole
C32	N/A	0.1	0.1	0.12	Circular cut	Cut of stakehole
C33	N/A	0.12	0.1	0.9	Circular cut	Cut of stakehole
C34	C33	0.12	0.1	0.09	Mid greyish brown silty sand	Fill of stakehole
C71	C72	0.11	0.11	0.09	Grey sandy clay	Fill of stakehole
C72	N/A	0.11	0.11	0.09	Circular cut	Cut of stakehole
C95	C96	0.14	0.1	0.16	Brownish silty sand	Fill of stakehole
C95	C96	0.14	0.1	0.16	Brownish silty sand	Fill of stakehole
C96	N/A	0.14	0.1	0.16	Circular cut	Cut of stakehole
C103	C104	0.06	0.06	0.08	Grey sandy clay	Fill of stakehole
C104	N/A	0.06	0.06	0.06	Circular cut	Cut of stakehole
C107	C108	0.11	0.11	0.05	Grey sandy clay	Fill of stakehole
C108	N/A	0.11	0.11	0.05	Oval cut	Cut of stakehole
C111	C112	0.06	0.06	0.08	Grey sandy clay	Fill of stakehole
C112	N/A	0.06	0.06	0.08	Circular cut	Cut of stakehole
C143	C144	0.08	0.08	0.07	Light brown to grey sandy clay	Fill of stakehole
C144	N/A	0.08	0.08	0.07	Circular cut	Cut of stakehole
C157	C158	0.07	0.07	0.13	Light brown sandy clay	Fill of stakehole
C158	N/A	0.07	0.07	0.13	Circular cut	Cut of stakehole

Finds: None

A series of 11 stakeholes was set in a roughly circular arrangement within House 1 (Figure 4, 5 & 7). The enclosed area had a diameter of *c.* 3.60m by 4.25m. It was open on its WSW side but this could be attributable to a lack of surviving evidence as it seems likely that the stakeholes would originally have fully enclosed the area. It is not clear if this represented an internal wall or division within the House 1 structure or whether it represents a separate structure that either replaced or was replaced by the identified House 1 outer walls. There was no definitive entrance, but this again could be due to the lack of identifiable surviving evidence.

2.3.1.4 Internal Pits C62 and C120

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
C61	C62	0.33	0.18	0.09	Dark grey sandy clay	Fill of small pit
C62	N/A	0.33	0.18	0.09	Sub-rectangular cut	Cut of small pit
C119	C120	0.3	0.17	0.09	Greyish brown sandy clay	Fill of shallow pit
C120	N/A	0.3	0.17	0.09	Oval cut	Cut of shallow pit

Finds: None

Two small pits, C62 and C120, and four stakeholes, C134–C136 and C35, lay immediately to the north of pit C60 within the circular structure (Figures 4, 5 & 7). One of the pits, C62, was of unknown function with a dark grey fill, C61. It was stratigraphically earlier than the backfill within pit C60 but its cut may have been contemporary and related. Pit C120 was of similar size to pit C62 and appeared to have silted up naturally, C119. The function of these two small pits is uncertain but they may have been the remains of post-pits from which the original posts had been removed.

2.3.1.5 Internal stakeholes

North-east and east cluster

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
C23	C24	0.11	0.11	0.30	Greyish black sandy silt	Fill of stakehole
C24	N/A	0.11	0.11	0.30	Circular cut	Cut of stakehole
C35	N/A	0.09	0.09	0.15	Circular cut	Cut of stakehole
C36	C35	0.09	0.09	0.15	Mid greyish brown clayey silt	Fill of stakehole
C47	C48	0.08	0.07	0.11	Grey sandy clay	Fill of stakehole
C48	N/A	0.08	0.07	0.11	Circular cut	Cut of stakehole
C49	C50	0.08	0.08	0.13	Grey sandy clay	Fill of stakehole
C50	N/A	0.08	0.08	0.08	Circular cut	Cut of stakehole
C51	C52	0.04	0.04	0.04	Grey clayey sand	Fill of stakehole
C52	N/A	0.04	0.04	0.04	Circular cut	Cut of stakehole
C53	C54	0.13	0.1	0.17	Grey sandy clay	Fill of stakehole
C54	N/A	0.13	0.1	0.17	Circular cut	Cut of stakehole

South-east cluster

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
C39	C40	0.06	0.06	0.11	Grey sandy clay	Fill of stakehole
C40	N/A	0.06	0.06	0.11	Circular cut	Cut of stakehole
C41	C42	0.08	0.08	0.14	Grey sandy clay	Fill of stakehole
C42	N/A	0.08	0.08	0.14	Circular cut	Cut of stakehole
C43	C44	0.07	0.07	0.07	Grey sandy clay	Fill of stakehole
C44	N/A	0.07	0.07	0.07	Circular cut	Cut of stakehole
C73	C74	0.08	0.08	0.09	Grey sandy clay	Fill of stakehole
C74	N/A	0.08	0.08	0.09	Circular cut	Cut of stakehole
C75	C76	0.05	0.05	0.07	Grey clayey sand	Fill of stakehole
C76	N/A	0.05	0.05	0.05	Circular cut	Cut of stakehole

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
C77	C78	0.06	0.06	0.05	Grey sandy clay	Fill of stakehole
C78	N/A	0.06	0.06	0.05	Circular cut	Cut of stakehole
C79	C80	0.06	0.06	0.08	Grey sandy clay	Fill of stakehole
C80	N/A	0.06	0.06	0.08	Circular cut	Cut of stakehole
C81	C82	0.03	0.03	0.05	Grey sandy clay	Fill of stakehole
C82	N/A	0.03	0.03	0.05	Circular cut	Cut of stakehole
C83	C84	0.04	0.04	0.08	Grey sandy clay	Fill of stakehole
C84	N/A	0.04	0.04	0.08	Circular cut	Cut of stakehole
C85	C86	0.06	0.06	0.05	Grey sandy clay	Fill of stakehole
C86	N/A	0.06	0.06	0.05	Circular cut	Cut of stakehole
C87	C88	0.09	0.09	0.1	Grey sandy clay	Fill of stakehole
C88	N/A	0.09	0.09	0.1	Circular cut	Cut of stakehole
C137	C138	0.05	0.05	0.1	Brown sandy clay	Fill of stakehole
C138	N/A	0.05	0.05	0.1	Circular cut	Cut of stakehole
C139	C140	0.07	0.07	0.1	Brown sandy clay	Fill of stakehole
C140	N/A	0.7	0.07	0.1	Circular cut	Cut of stakehole

South-west cluster

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
C89	C90	0.11	0.09	0.13	Brownish silty sand	Fill of stakehole
C90	N/A	0.11	0.09	0.13	Circular cut	Cut of stakehole
C91	C92	0.09	0.08	0.09	Brownish silty sand	Fill of stakehole
C92	N/A	0.09	0.08	0.09	Circular cut	Cut of stakehole
C93	C94	0.12	0.07	0.07	Brownish silty sand	Fill of stakehole
C94	N/A	0.12	0.07	0.07	Circular cut	Cut of stakehole

North-west cluster

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
C105	C106	0.06	0.05	0.07	Grey sandy clay	Fill of stakehole
C106	N/A	0.06	0.05	0.07	Circular cut	Cut of stakehole
C109	C110	0.07	0.07	0.11	Grey sandy clay	Fill of stakehole
C110	N/A	0.07	0.07	0.11	Circular cut	Cut of stakehole
C113	C114	0.07	0.07	0.14	Grey sandy clay	Fill of stakehole
C114	N/A	0.07	0.07	0.14	Circular cut	Cut of stakehole
C115	C116	0.06	0.06	0.05	Grey sandy clay	Fill of stakehole
C116	N/A	0.06	0.06	0.05	Circular cut	Cut of stakehole
C117	C118	0.08	0.07	0.1	Grey sandy clay	Fill of stakehole
C118	N/A	0.08	0.08	0.1	Circular cut	Cut of stakehole

Finds: None

Four clusters of stakeholes were identified internally within the area enclosed by the inner stakehole wall. It is unclear whether any of these had a structural function, were associated with internal divisions, or formed part of internal fixtures. They may also be associated with the pit C60, which, given the relative uncertainty of its relationship with the house, may mean that some or all of the stakeholes have no direct relationship with the structure as a whole.

A cluster of 10 stakeholes, C64, C66, C102, C110, C112, C114, C116, C104, C106, C118, lay immediately to the west of pit C60 within Structure 1 (Figure 7). The cluster as a whole had no definite formation but occupied a roughly oval-shaped area approximately 1m by 0.7m.

Stakehole C35 lay somewhat removed from the other features, to the north of Pit 60, and its precise function was uncertain.

Five stakeholes, C24, C54, C52, C50, and C48, lay in a northwest–southeast alignment, 1.6m in length, and situated within the eastern half of Structure 1.

Eleven stakeholes, C86, C88, C84, C44, C42, C76, C78, C82, C80, C74, and C40, lay to the east of pit C60 within Structure 1 (Figure 7). These stakeholes had no formal arrangement but occupied a roughly circular space *c*. 0.7m in diameter.

Five stakeholes, C90, C94, C92, C150, and C148, lay in the southern interior of Structure 1 (Figure 7). Three of these (C90, C94 and C92) were set in close proximity to each other and the other two (C150 and C148) were located somewhat to the west, near the edge of Structure 1's interior. No definite function could be assigned to these stakeholes.

2.3.2 Features External to House 1

2.3.2.1 Pit C230 and Associated Postholes

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
C9	C10	0.36	0.3	0.14	Mid brown clayey sand	Packing fill of posthole
C10	N/A	0.36	0.3	0.14	Oval cut	Cut of posthole
C29	C10	0.13	0.09	0.26	Mid brown silty sand	Fill of post-pipe
C30	C10	0.13	0.09	0.26	Oval cut	Cut of post-pipe
C145	C146	0.08	0.08	0.1	Brown sandy clay	Fill of stakehole
C146	N/A	0.08	0.08	0.1	Circular cut	Cut of stakehole
C163	C166	0.17	0.16	0.19	Black sandy clay	Fill of postpipe
C164	C166	0.17	0.16	0.19	Circular cut	Cut of postpipe
C165	C166	0.3	0.26	0.21	Brown sandy clay	Packing fill of posthole
C166	N/A	0.3	0.26	0.21	Oval cut	Cut of posthole
C229	C230	1.7	0.15	0.13	Light brown grey silty clay, frequent pebbles	Basal fill of pit
C230	N/A	1.7	0.15	0.15	Sub-oval cut, rounded base	Cut of pit
C231	C230	1.7	0.7	0.15	Dark brown silty clay, charcoal rich, stones	Fill of pit
C282	C283	0.28	0.15	0.18	Brownish grey black silty clay	Fill of posthole
C283	N/A	0.28	0.15	0.18	Circular cut	Cut of posthole
C284	C285	0.15	0.16	0.33	Dark brown sandy clay	Fill of posthole
C285	N/A	0.15	0.16	0.33	Circular cut	Cut of posthole
C293	C294	0.25	0.15	0.17	Greyish brown sandy clay	Fill of posthole
C294	N/A	0.25	0.15	0.17	Circular cut	Cut of posthole
C406	C407	0.45	0.4	0.22	Mid brown silty clay	Fill of posthole
C407	N/A	0.45	0.4	0.22	Irregular oval cut	Cut of posthole
C418	C419	0.05	0.12	0.14	Light brown silty clay	Fill of post-pipe
C419	C407	0.05	0.12	0.14	Oval cut	Cut of post-pipe
C420	C421	0.06	0.08	0.07	Light brown silty clay	Fill of post-pipe
C421	C407	0.06	0.08	0.07	Oval cut	Cut of post-pipe

Finds: None

A large pit C230 lay less than 2m east of Structure 1 and this contained three small postholes, C283 C294 and C285, in the southern part of its base (Figures 4 & 5). The pit was backfilled with a dark, charcoal-rich soil, C229 (basal) and C331. A stakehole C146 lay adjacent to the pit and may have been associated with the post apparatus in the pit. The precise function of pit C230 is unknown. To the east lay two large postholes, C10 and C407, which had previously contained three posts, all of which had been burnt *in situ*. It is possible the posts may have also been related to pit C230. Posthole C166 however, the post of which was also burnt *in situ*, lay over 2m to the east and was unlikely to be directly related with the pit. Postholes C407 and C166 contained packing stones.

2.3.2.2 Linear Gully C68

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
C68	N/A	0.37	7.5	0.12	Linear curving cut	Cut of linear gully
C67	C68	0.37	7.5	0.12	Light brownish grey clay	Fill of linear gully

Finds: None

The linear feature C68 extended from the northern interior of the structure, continuing to the exterior in a northeast–southwest orientation and then turned sharply to the south. It may have served to drain away from the house area as the land sloped slightly towards the south.

2.3.2.3 Isolated Stakehole C13

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
C12	C13	0.09	0.06	0.17	Dark greyish brown clayey silt	Fill of stakehole
C13	N/A	0.09	0.06	0.17	Circular cut	Cut of stakehole

Finds: None
An isolated stakehole C13 was identified just outside the east side of House 1. It is unclear if it directly related to the house structure or had some other unknown function.

2.3.3 Possible Working Area 1

A cluster of features was identified to the south of House 1. No discernable pattern could be identified in the siting of these features but collectively they may relate to a working area possibly related to the house.

2.3.3.1 Slot Trench C251

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
C175	C176	0.14	0.12	0.12	Light grey silty sand	Fill of stakehole
C176	N/A	0.14	0.12	0.12	Circular cut	Cut of stakehole
C250	C251 /324	0.91	0.1	0.14	Mid grey silty clay	Fill of curvilinear feature
C251	N/A	0.91	0.1	0.14	Curvilinear cut	Cut of curvilinear feature
C323	C342	0.8	0.68	0.21	Greyish brown sandy silt	Fill of pit
C324	N/A	1.76	1.31	0.27	Sub-circular cut	Cut of pit
C342	N/A	0.8	0.68	0.21	Circular cut	Cut of pit
C360	C361	0.09	0.08	0.1	Mid greyish brown clayey silt	Fill of stakehole
C361	N/A	0.09	0.08	0.1	Oval cut	Cut of stakehole

Finds: None

The concentration of activity or working area to the south of the Structure 1 appeared to be delineated or partially enclosed by a curvilinear shallow slot C251, with an associated pit at its west end, C324 (Figure 5; Plate 4). The gully seemed to define the northern extent of activity and may have represented the remains of a slot-trench for a dismantled fence. It meandered with irregular edges for a distance of *c.* 8.5m with a slight curve to its line, but with a basic west-east orientation. Its eastern terminal was shallow with a very gentle slope, suggesting that the feature may have originally extended further but that it was later truncated by ploughing or field clearance. The western terminal was indistinguishable from a large oval pit C324. Indeed the fills of the pit and the gully were indistinguishable (C250). There was no evidence to suggest that the gully continued to the west of the pit and it is possible that the pit represented the terminal. Two small stakeholes were identified on the south side of the gully, one (C176) at the east end and the other (C361) in the

western half of the gully. They may be associated with a small fence that could have been located in the slot-trench/gully. At the west end of the gully, south-east of pit C324, there was a smaller sub-circular shallow pit with a charcoal rich fill – C342. The relationship between the gully and the pit was unclear, but their proximity could indicate that they were related.

2.3.3.2 Pit C292 and associated features

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
C173	C174	0.09	0.09	0.2	Brownish silty sand	Fill of stakehole
C174	N/A	0.09	0.09	0.2	Circular cut	Cut of stakehole
C237	C238	0.08	0.08	0.21	Light brown sandy clay	Fill of stakehole
C238	N/A	0.08	0.08	0.16	Circular cut	Cut of stakehole
C239	C240	0.05	0.05	0.11	Brown sandy clay	Fill of stakehole
C240	N/A	0.05	0.06	0.11	Circular cut	Cut of stakehole
C241	C242	0.06	0.06	0.12	Brownish grey sandy clay	Fill of stakehole
C242	N/A	0.06	0.06	0.1	Circular cut	Cut of stakehole
C243	C244	0.06	0.06	0.1	Light brown sandy clay	Fill of pit
C244	N/A	0.06	0.06	0.11	Circular cut	Cut of pit
C260	C261	0.19	0.19	0.12	Light brown silty clay	Fill of posthole
C261	N/A	0.19	0.19	0.12	Circular cut	Cut of posthole
C262	C263	0.16	0.16	0.21	Brown silty clay	Fill of posthole
C263	N/A	0.17	0.17	0.2	Circular cut	Cut of posthole
C288	C289	1.1	0.8	0.15	Dark brown clayey silt	Fill of pit
C289	N/A	1.1	0.85	0.15	Sub-oval cut	Cut of pit
C290	C292	2	1.6	0.22	Mid brown clayey silt	Fill of pit
C291	C292	1.5	1.3	0.08	Mid yellowish brown silty sand	Basal fill of pit
C292	N/A	2	1.65	0.2	Sub-oval cut	Cut of pit
C309	C310	0.08	0.08	0.14	Dark brown clayey silt	Fill of stakehole
C310	N/A	0.08	0.08	0.14	Circular cut	Cut of stakehole
C311	C312	0.06	0.06	0.09	Dark brown clayey silt	Fill of stakehole
C312	N/A	0.06	0.06	0.08	Circular cut	Cut of stakehole
C313	C314	0.2	0.17	0.25	Brownish black silty clay	Fill of posthole
C314	N/A	0.3	0.25	0.21	Circular cut	Cut of posthole
C384	C385	0.2	0.19	0.1	Mid brown clayey silt	Fill of posthole
C385	N/A	0.18	0.14	0.1	Circular cut	Cut of posthole
C386	C387	0.13	0.13	0.15	Mid greyish brown sandy silt	Fill of stakehole
C387	N/A	0.13	0.13	0.15	Circular cut	Cut of stakehole
C388	C389	0.04	0.04	0.09	Dark brown clayey silt	Fill of stakehole
C389	N/A	0.06	0.06	0.09	Circular cut	Cut of stakehole
C481	C292	2	0.4	0.18	Mottled mid greyish brown clayey silt	Fill of pit

Pit C292 (cut by a smaller pit C289) was the largest feature within the overall working area and contained occasional charcoal inclusions. Stakehole C389 appeared to have been cut into its edge, however it is more likely that the stakehole was actually truncated by the pit and relates to an earlier phase of activity. This is supported by the fact that the pit partially truncates two other stakeholes C261 and C244. Pit C289 comprised a sub-oval cut truncating the northern side of pit C292.

A number of stakeholes and postholes lay in close proximity to pit C292 (Figure 5). While some of these may have been directly related to the functioning of the pit, at least two (C261 and C244) appear to pre-date it. The features comprised five postholes (C263, C261, C314, C385 and C387) and eight stakeholes (C238, C312, C310, C240, C242, C244, C389, and C174). These did not form any definite shape but seemed to be concentrated around the western and southern sides of the pit.

2.3.3.3 Pit C328 and associated features

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
C303	C304	0.06	0.06	0.18	Brownish grey sandy clay	Fill of stakehole
C304	N/A	0.06	0.06	0.18	Circular cut	Cut of stakehole
C305	C306	0.06	0.06	0.11	Brownish grey sandy clay	Fill of stakehole
C306	N/A	0.06	0.06	0.11	Circular cut	Cut of stakehole
C327	C328	0.86	0.86	0.14	Black sandy clay, angular stone inclusions	Fill of pit
C328	N/A	0.86	0.86	0.14	Circular cut	Cut of pit
C376	C380	0.11	0.11	0.2	Greyish brown sandy clay	Fill of stakehole
C377	C381	0.08	0.08	0.09	Greyish brown sandy clay	Fill of stakehole
C378	C382	0.08	0.08	0.19	Greyish brown sandy clay	Fill of stakehole
C379	C383	0.12	0.12	0.17	Greyish brown sandy clay	Fill of stakehole
C380	N/A	0.11	0.11	0.2	Circular cut	Cut of stakehole
C381	N/A	0.08	0.08	0.09	Circular cut	Cut of stakehole
C382	N/A	0.08	0.08	0.19	Circular cut	Cut of stakehole
C383	N/A	0.12	0.1	0.17	Circular cut	Cut of stakehole

Finds: None

To the west of pit C292, lay a circular pit with charcoal-rich fills, C328. This pit contained a number of large angular stones in its fill and had four stakeholes cut into the base. One of these (C380) was located within a small niche in the northeastern side of the base and the other three (C381, C382 and C383) were in a close triangular formation to the south. Stakeholes C304 and C306 lay close to the south-west edge of pit C328 and were likely to have been associated (Figure 5). They may have formed part of the apparatus represented by the stakeholes cut into the base of the pit and had also been deliberately removed from the ground.

2.3.3.4 Cluster of Stakeholes South of Pits C292 and C328

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
C264	C265	0.2	0.18	0.1	Greyish black silty clay	Fill of posthole
C265	N/A	0.23	0.18	0.1	Oval cut	Cut of posthole
C266	C267	0.07	0.07	0.1	Brownish grey sandy clay	Fill of stakehole
C267	N/A	0.07	0.07	0.1	Circular cut	Cut of stakehole
C268	C269	0.05	0.05	0.1	Brownish grey sandy clay	Fill of stakehole
C269	N/A	0.05	0.05	0.1	Circular cut	Cut of stakehole
C270	C271	0.09	0.09	0.11	Brownish grey silty sand	Fill of stakehole
C271	N/A	0.1	0.09	0.14	Circular cut	Cut of stakehole
C272	C273	0.06	0.05	0.09	Brownish grey silty sand	Fill of stakehole
C273	N/A	0.07	0.06	0.1	Circular cut	Cut of stakehole
C274	C275	0.06	0.05	0.09	Brownish grey silty sand	Fill of stakehole
C275	N/A	0.06	0.05	0.09	Circular cut	Cut of stakehole
C276	C277	0.06	0.06	0.07	Brownish grey sandy clay	Fill of stakehole
C277	N/A	0.06	0.06	0.07	Circular cut	Cut of stakehole
C278	C279	0.07	0.06	0.1	Brownish grey sandy clay	Fill of stakehole
C279	N/A	0.07	0.06	0.1	Circular cut	Cut of stakehole
C280	C281	0.06	0.06	0.1	Brownish grey sandy clay	Fill of stakehole
C281	N/A	0.06	0.06	0.1	Circular cut	Cut of stakehole

Finds: None

A small cluster of features lay to the south of pit C328, south-west of Pit C292. These comprised a posthole, C265, and eight stakeholes. They formed a roughly triangular shape in plan, approximately 0.8m by 0.8m by 1m in dimensions. Their function is

unclear but their proximity to one another within a cluster suggests that they are related and possible supported a light structure.

2.3.3.5 Posthole alignment/structure

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
C177	C178	0.28	0.24	0.23	Brownish grey sandy clay	Fill of posthole
C178	N/A	0.28	0.24	0.23	Oval cut	Cut of posthole
C179	C180	0.36	0.26	0.21	Brown sandy clay	Fill of posthole
C180	N/A	0.36	0.26	0.22	Oval cut	Cut of posthole
C181	C184	0.22	0.18	0.18	Brown sandy clay	Fill of postpipe
C182	C184	0.22	0.18	0.18	Oval cut	Cut of postpipe
C183	C184	0.24	0.2	0.19	Light brown sandy clay	Posthole Packing fill
C184	N/A	0.46	0.28	0.2	Oval cut	Cut of posthole
C206	C207	0.2	0.18	0.19	Blackish brown sandy clay	Fill of posthole
C207	N/A	0.23	0.15	0.3	Oval cut	Cut of posthole
C208	C209	0.34	0.28	0.21	Brownish grey silty sand	Fill of posthole
C209	N/A	0.34	0.28	0.21	Circular cut	Cut of posthole
C213	C214	0.22	0.2	0.18	Brownish silty sand	Fill of posthole
C214	N/A	0.22	0.2	0.18	Irregular cut	Cut of posthole
C217	C207	0.2	0.14	0.3	Greyish brown clayey sand	Fill of posthole
C218	C221	0.24	0.24	0.27	Dark brown sandy clay	Fill of postpipe
C219	C221	0.24	0.25	0.27	Circular cut	Cut of postpipe
C220	C221	0.36	0.11	0.15	Greyish brown clayey sand	Posthole Packing fill
C221	N/A	0.38	0.37	0.15	Circular cut	Cut of posthole
C222	C223	0.25	0.17	0.19	Light brown clayey silt	Fill of posthole
C223	N/A	0.25	0.17	0.19	Irregular oval cut	Cut of posthole
C246	C247	0.16	0.12	0.11	Dark brown sandy clay	Fill of stakehole
C247	N/A	0.16	0.16	0.14	Oval cut	Cut of stakehole
C248	C249	0.2	0.19	0.23	Dark brown sandy clay	Fill of stakehole
C249	N/A	0.2	0.19	0.23	Oval cut	Cut of stakehole
C256	C257	0.14	0.14	0.18	Mid greyish brown clayey silt	Fill of stakehole
C257	N/A	0.14	0.14	0.18	Circular cut	Cut of stakehole
C258	C259	0.17	0.12	0.17	Brownish silty sand	Fill of stakehole
C259	N/A	0.17	0.12	0.17	Oval cut	Cut of stakehole

Finds: None

Two irregular groups of postholes and stakeholes lay parallel to one another, to the south-east of pit C292 and may represent the location of a small structure (Figure 5). The northern group formed an irregular east–west line of six postholes, 2.3m long. The second group had less spatial definition and was located approximately 1m south of the first group. It was composed of two conjoined postholes C207 and C221 at the west end and four stakeholes to the east. These features collectively may have represented some sort of structure related directly to the pits and other activity located south of the C251 gully. The southernmost features showed some evidence of *in situ* burning suggesting that this part of the structure may have burnt down.

A small fragment (0.05g) of alder (*Alnus*) charcoal from the postpipe fill C218 was chosen for AMS dating and returned a result of 3414±25 BP (UB 14119). The 2 Sigma calibrated date was 1862–1634BC (QUB, Appendix 2.6) dating this feature to the early/middle Bronze Age.

2.3.3.6 Isolated Features in Vicinity of Working Area

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
C172	N/A	0.84	0.84	0.06	Loose dark burnt clay	Spread
C185	C186	0.16	0.13	0.11	Light brown sandy clay	Fill of stakehole

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
C186	N/A	0.16	0.13	0.11	Circular cut	Cut of stakehole
C187	C188	0.12	0.1	0.1	Light brown sandy clay	Fill of stakehole
C188	N/A	0.12	0.1	0.1	Circular cut	Cut of stakehole
C189	C190	0.13	0.12	0.15	Mid brownish grey clayey silt	Fill of stakehole
C190	N/A	0.13	0.12	0.15	Oval cut	Cut of stakehole
C192	C193	0.84	0.64	0.2	Greyish brown silt	Fill of pit
C193	N/A	0.84	0.64	0.2	Oval cut	Cut of pit
C210	C212	0.67	0.27	0.13	Mid-dark grey with black hue silty clay	Fill of shallow pit
C211	C212	1.06	0.37	0.22	Mid-dark grey with black hue silty clay	Basal fill shallow pit
C212	N/A	1.06	0.37	0.22	Sub-oval cut	Cut of shallow pit
C215	C216	0.14	0.11	0.16	Brownish grey sandy clay	Fill of stakehole
C216	N/A	0.14	0.11	0.16	Circular cut	Cut of stakehole
C325	C326	0.21	0.16	0.19	Greyish brown silty clay	Fill of posthole
C326	N/A	0.25	0.2	0.34	Oval cut	Cut of posthole
C358	C359	0.06	0.06	0.12	Brown silty clay	Fill of stakehole
C359	N/A	0.06	0.06	0.08	Circular cut	Cut of stakehole
C423	C424	0.2	0.28	0.1	Grey sandy clay	Fill of posthole
C424	N/A	0.2	0.28	0.1	Oval cut	Cut of posthole
C425	C424	0.12	0.13	0.34	Grey sandy clay	Fill of postpipe
C426	C424	0.12	0.13	0.34	Circular cut	Cut of postpipe

Finds

Context	Find No	Material	Period	Description
C192	E3864:192:1-2	Pottery	Middle Bronze Age	2 sherds of a cordoned urn or the domestic variant

Two pits C193 and C212 lay to the east of the curvilinear gully C251 (Figure 5; Plate 5). A large amount of disturbance caused by modern field clearance was evident in this area and may have truncated further features in the location. The function of the pits is unclear but they may have been waste pits as evidenced by two sherds of pottery recovered from the fill of pit C193 and a high charcoal content within the fill. It is interesting that these were the only pottery sherds recovered from the site. Pit C212 had two layers of similarly charcoal-rich soil and the lower of these was very stony. A small spread, C172, lay between the two small pits and the curvilinear gully C251. This comprised a stony, charcoal-enriched soil with inclusions of burnt clay. It may have been derived from the same material that was used to fill the pits. There was no evidence of other diagnostic material within either pit.

Two postholes (C326, C424) and a stakehole (C359) were identified between gully C251 and pits C328 and C292. Their relationships are unclear. Four stakeholes, C190, C188, C186, and C216, were scattered among the features in the northeastern part of this concentration and no definite functions or associations could be assigned to them. Stakeholes C186 and C188 lay adjacent to one another to the west-southwest of pit C212 and may have had a related function.

Two sherds of middle Bronze Age pottery were recovered from pit fill C192. These are from a single vessel of compact brown-buff fabric. This is a fine walled vessel, probably a cordoned urn or the domestic variant, dating to the early part of the middle Bronze Age (Grogan & Roche, Appendix 2.1).

Charcoal was retrieved from pit fill C192 during post-excavation soil flotation. This was subsequently identified to species. Fragments of hazel charcoal (*Corylus avellana*), willow charcoal (*Salix* sp.), oak charcoal (*Quercus* sp.) and ash charcoal (*Fraxinus excelsior*) were identified. This was a mixed wood assemblage and the charcoal counts were quite low. This factor, coupled with the absence of any obvious

in situ burning deposit from this feature suggests that this was most probably re-deposited material from one or more firing events at the site (Lyons, Appendix 2.3).

2.3.4 House 2 (undated)

2.3.4.1 House 2 – Main wall

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
C524	C525	0.37	0.28	0.2	Dark brown sandy silt	Fill of posthole
C525	N/A	0.37	0.28	0.2	Oval cut	Cut of posthole
C530	C531	0.26	0.3	0.21	Mid brown clayey silt	Fill of posthole
C531	N/A	0.26	0.3	0.21	Oval cut	Cut of posthole
C538	C539	0.18	0.15	0.15	Mid brownish grey silty clay	Fill of posthole
C539	N/A	0.18	0.15	0.15	Circular cut	Cut of posthole
C540	C541	0.34	0.3	0.27	Brown sandy clay	Fill of posthole
C541	N/A	0.34	0.3	0.27	Circular cut	Cut of posthole
C546	C547	0.45	0.4	0.2	Brown silty sand	Fill of posthole
C547	N/A	0.45	0.4	0.2	Oval cut	Cut of posthole
C558	C559	0.3	0.27	0.2	Dark brown silty sand	Fill of posthole
C559	N/A	0.3	0.27	0.2	Oval cut	Cut of posthole
C565	C566	0.48	0.42	0.14	Dark brown clayey silt	Fill of posthole
C566	N/A	0.48	0.42	0.14	Oval cut	Cut of posthole
C568	C569	0.3	0.3	0.15	Brownish grey sandy clay	Packing fill of posthole
C569	N/A	0.3	0.3	0.15	Circular cut	Cut of posthole
C570	C569	0.06	0.06	0.2	Brown sandy clay	Fill of postpipe
C571	C569	0.06	0.06	0.2	Circular cut	Cut of postpipe
C578	N/A	0.11	0.11	0.15	Circular cut	Cut of stakehole
C577	C578	0.11	0.11	0.15	Mid brown silty clay	Fill of stakehole

Finds: None

Eight postholes and a stakehole formed the circumference of a roughly circular structure (House 2) which was *c.* 5.75m in diameter. House 2 was located 27.5m east of House 1 (Figures 4, 6 & 7). The spacing was not regular between the posts but this may be more related to a lack of surviving evidence rather than deliberately uneven spacing. The two largest postholes (C547 and C566) were located in the south-east of the structure and it is possible that they marked the location of an entrance. The possible entrance to House 1 was similarly located in the south-east. While House 2 is undated its outer wall dimensions are comparable to that of House 1, suggesting that the two structures are possibly broadly contemporary.

2.3.4.2 Internal features

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
C585	N/A	0.52	0.43	0.09	Oval cut	Cut of shallow pit
C584	C585	0.52	0.43	0.09	Dark brownish red silty clay	Fill of shallow pit
C562	N/A	1.25	0.42	0.32	Oval cut	Cut of pit
C561	C562	0.55	0.4	0.25	Dark brown silty clay	Fill of pit
C560	C562	0.71	0.42	0.32	Mid brown sandy clay	Fill of pit
C587	N/A	0.25	0.25	0.14	Circular cut	Cut of posthole
C586	C587	0.25	0.25	0.14	Dark brown silty clay	Fill of posthole
C581	N/A	0.1	0.12	0.18	Circular cut	Cut of stakehole
C580	C581	0.1	0.12	0.18	Mid brown silty clay	Fill of stakehole
C573	N/A	0.26	0.27	0.29	Circular cut	Cut of posthole
C572	C573	0.26	0.27	0.29	Mid brown silty clay	Fill of posthole

Finds: None

Two pits were identified in the north-west of House 2. The smaller pit C585 was truncated by a larger pit C562, which was in turn truncated by a posthole C587. Another posthole C573 lay 2.54m to the south and a stakehole C581 lay equidistant between the two postholes. The function of the pits is unclear and they may not be related to the house given the large number of scattered pits across the site. The postholes and stakehole may relate to an internal division or fixture.

2.3.4.3 External features

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
C516	N/A	0.25	0.22	0.13	Oval cut	Cut of posthole
C515	C516	0.25	0.22	0.13	Mid brown silty clay	Fill of posthole
C537	N/A	0.33	0.26	0.11	Oval cut	Cut of posthole
C536	C537	0.3	0.25	0.13	Brownish black silty clay	Fill of posthole
C535	N/A	0.59	0.59	0.21	Circular cut	Cut of pit
C534	C535	0.59	0.59	0.18	Grey with a yellow hue sandy clay	Fill of pit
C533	C535	0.59	0.29	0.12	Red clay	Fill of pit
C532	C535	0.59	0.59	0.17	Dark brown grey/black hue silty clay	Fill of pit

Finds: None

Two postholes, C516 and C537, lay immediately outside (north-east and east of) Structure 2 and may have provided additional support for it (Figure 4 & 6). A circular pit, C535 lay just to the east of posthole C537 and may have been associated with the house (Plate 3). It contained a relatively sterile basal deposit overlain by a thin layer of *in situ* burning and finally filled with charcoal-enriched soil, C532–C534, suggesting that it may have functioned as a small hearth.

2.3.5 Rectangular Troughs

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
C453	C486	2.5	1.1	0.18	Grey sandy clay	Fill of shallow pit
C454	C456	1.9	0.88	0.26	Grey clay	Fill of pit
C455	C456	1.9	0.65	0.08	Dark grey clay	Basal fill of pit
C456	N/A	1.9	0.88	0.3	Rectangular cut	Cut of pit
C486	N/A	1.95	1.1	0.18	Rectangular cut	Cut of pit

Finds: None

Two rectangular pits C486 and C456 were located to the north-east of House 1, one of which was contemporary with House 2, based on dating evidence. The troughs resembled those found typically on burnt mound sites (Figure 4; Plate 7). The two troughs lay adjacent (though perpendicular to one another) and both contained stony grey clay fills and it is possible they had been used to heat water.

Charcoal was retrieved from pit fill C455 during post-excavation soil flotation. This was subsequently identified to species. Fragments of oak charcoal (*Quercus* sp.), hazel charcoal (*Corylus avellana*), willow charcoal (*Salix* sp.), and ash charcoal (*Fraxinus excelsior*) were identified. This was a mixed wood assemblage and the charcoal counts were quite low. This factor, coupled with the absence of any obvious *in situ* burning deposit from the feature suggests that it was most probably re-deposited material from one or more firing events at the site (Lyons, Appendix 2.3).

A small fragment (0.4g) of ash (*Fraxinus excelsior*) charcoal from the pit fill C455 was chosen for AMS dating and returned a result of 3352±24 BP (UB 14121). The 2

Sigma calibrated date was 1733–1535BC (QUB, Appendix 2.6) dating this feature to the middle Bronze Age.

2.4 PHASE 4 Undated Activity

A large number of undated clusters and isolated scatters of activity were recorded across the site that could not be directly related to any of the dated features. It is unclear therefore whether this activity relates to or is contemporary with the houses or the early Bronze Age pits.

2.4.1 Features in the Centre of the site, south of House 2

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
C429	C430	0.4	0.35	0.21	Greyish brown sandy clay	Fill of posthole
C430	N/A	0.3	0.3	0.21	Circular cut	Cut of posthole
C431	C432	0.34	0.43	0.21	Mid greyish brown silty clay	Fill of posthole
C432	N/A	0.34	0.43	0.21	Oval cut	Cut of posthole
C433	C434	0.24	0.22	0.16	Light greyish brown silty clay	Fill of posthole
C434	N/A	0.24	0.22	0.16	Oval cut	Cut of posthole
C435	C436	1	0.2	0.21	Brown sandy clay	Fill of linear feature
C436	N/A	1	0.2	0.21	Linear cut	Cut of linear feature
C447	C448	0.39	0.34	0.19	Dark brown silty sand	Fill of posthole
C448	N/A	0.39	0.34	0.29	Circular cut	Cut of posthole
C449	C450	0.22	0.16	0.1	Dark brown silty sand	Fill of posthole
C450	N/A	0.21	0.16	0.1	Circular cut	Cut of posthole
C451	C452	0.4	0.35	0.2	Dark brown sandy clay	Fill of posthole
C452	N/A	0.41	0.36	0.2	Oval cut	Cut of posthole
C463	C464	0.35	0.17	0.15	Grey clayey sand	Fill of posthole
C464	N/A	0.35	0.21	0.15	Irregular cut	Cut of posthole
C476	C477	1.4	1.3	0.17	Dark brown silty clay	Fill of pit
C477	N/A	1.4	1.3	0.17	Oval cut	Cut of pit
C492	C493	0.24	0.24	0.2	Light brown silty clay	Fill of posthole
C493	N/A	0.28	0.24	0.2	Circular cut	Cut of posthole
C494	C495	0.4	0.38	0.1	Mid greyish brown silty clay	Fill of posthole
C495	N/A	0.4	0.38	0.1	Oval cut	Cut of posthole
C526	C527	0.65	0.36	0.15	Brown sandy clay	Fill of posthole
C527	N/A	0.65	0.32	0.15	Oval cut	Cut of posthole
C528	C529	0.4	0.22	0.13	Brown sandy clay	Fill of posthole
C529	N/A	0.4	0.22	0.13	Oval cut	Cut of posthole
C542	C543	0.2	0.18	0.15	Light brown sandy silt	Fill of posthole
C543	N/A	0.2	0.18	0.15	Circular cut	Cut of posthole
C544	C545	0.75	0.45	0.27	Dark brownish black silty clay	Fill of pit
C545	N/A	0.75	0.45	0.27	Sub-oval cut	Cut of pit
C548	C549	1.15	0.95	0.15	Dark brown silty clay	Fill of pit
C549	N/A	1.15	0.95	0.15	Oval cut	Cut of pit
C550	C549	0.36	0.46	0.2	Mid brown silty clay	Fill of pit
C552	C549	0.56	0.7	0.32	Dark brown silty clay	Fill of pit
C554	C557	0.3	0.35	0.16	Dark blackish grey silty clay	Fill of postpipe
C555	C557	0.3	0.35	0.16	Circular cut	Cut of postpipe
C556	C557	0.56	0.8	0.31	Mid brown silty clay	Packing fill of posthole
C557	N/A	0.56	0.8	0.31	Oval cut	Cut of posthole
C563	C564	0.1	0.1	0.16	Mid brown sandy clay	Fill of stakehole
C564	N/A	0.1	0.1	0.16	Circular cut	Cut of stakehole

Finds: None

Three pits, thirteen postholes, one stakehole and a small linear gully (C436) were identified in the area to the south of House 2. This cluster of features formed no definitive pattern—interrelationships proved difficult to determine and the significance of, features is unknown. Posthole C557 was cut through pit C549 and post-dated it. It is unclear if the short linear gully was of archaeological significance or related to modern clearance works. A tightly curved and quite deep curvilinear gully, C436, was found adjacent to pit C477. The northern terminal of this feature was clearly defined but as the feature curved around to the south, it had apparently been truncated by field clearance activities.

2.4.2 South Central Features

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
C295	C296	0.14	0.14	0.23	Light brownish silty sand	Fill of posthole
C296	N/A	0.14	0.14	0.23	Circular cut	Cut of posthole
C297	C298	0.13	0.1	0.24	Light brown sandy clay	Fill of posthole
C298	N/A	0.13	0.1	0.24	Sub-circular cut	Cut of posthole
C299	N/A	0.85	0.52	0.07	Dark brownish grey silty clay	Spread
C300	C301	0.7	0.5	0.14	Mid brown silty clay	Fill of pit
C301	N/A	0.7	0.5	0.14	Oval cut	Cut of pit
C302	N/A	0.6	0.5	0.06	Light brown silty clay	Spread
C316	C317	0.15	0.1	0.26	Mid brown silty clay	Fill of posthole
C317	N/A	0.15	0.1	0.26	Circular cut	Cut of posthole
C320	N/A	2.1	1.5	0.4	Sub-oval cut	Cut poss hearth pit
C336	C337	0.06	0.06	0.05	Light brownish silty sand	Fill of stakehole
C337	N/A	0.06	0.06	0.09	Circular cut	Cut of stakehole
C338	C339	0.14	0.14	0.09	Light brownish silty sand	Fill of posthole
C339	N/A	0.14	0.14	0.09	Oval cut	Cut of posthole
C340	C341	0.17	0.14	0.12	Light brownish silty sand	Fill of posthole
C341	N/A	0.17	0.14	0.12	Oval cut	Cut of posthole
C348	C320	2.1	1.5	0.36	Dark brown silt	Fill poss. hearth pit
C349	C320	0.8	1	0.3	Mid brown silt	Fill poss. Hearth pit
C354	C355	0.3	0.25	0.16	Dark brown silty clay	Fill of posthole
C355	N/A	0.3	0.25	0.16	Oval cut	Cut of posthole
C356	C357	0.1	0.13	0.16	Greyish brown silty sand	Fill of posthole
C357	N/A	0.1	0.13	0.16	Irregular cut	Cut of posthole
C370	C372	0.88	1.06	0.18	Darkish grey silty clay	Fill of pit
C371	C372	0.88	1.06	0.29	Whitish grey clay	Fill of pit
C372	N/A	0.88	1.06	0.4	Oval cut	Cut of pit
C373	C374	0.29	0.21	0.28	Brown sandy clay	Fill of two features
C374	N/A	0.18	0.2	0.28	Oval cut	Cut of posthole
C375	N/A	0.08	0.1	0.22	Oval cut	Cut of stakehole
C396	C397	0.19	0.19	0.17	Dark brown silty clay	Fill of posthole
C397	N/A	0.19	0.19	0.17	Circular cut	Cut of posthole
C402	C403	0.26	0.2	0.3	Mid brown silty clay	Fill of posthole
C403	N/A	0.26	0.2	0.3	Sub-circular cut	Cut of posthole
C427	C428	0.17	0.13	0.22	Brown sandy silt	Fill of stakehole
C428	N/A	0.17	0.13	0.22	Oval cut	Cut of stakehole
C439	C440	1.6	1	0.26	Dark brown silty clay	Fill of pit
C440	N/A	1.8	1.5	0.26	Irregular oval cut	Cut of pit
C441	C442	0.12	0.1	0.19	Mid brown sandy clay	Fill of posthole
C442	N/A	0.12	0.1	0.19	Circular cut	Cut of posthole
C443	C444	0.33	0.22	0.19	Mid brownish black silty clay	Fill of stakehole
C444	N/A	0.4	0.22	0.19	Oval cut	Cut of stakehole
C445	C446	0.47	0.3	0.19	Mid brown silty clay	Fill of posthole
C446	N/A	0.47	0.3	0.19	Oval cut	Cut of posthole
C478	C440	0.47	0.43	0.18	Dark brown silty clay	Fill of pit

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
C479	C480	1.16	0.56	0.14	Dark brown silty clay	Fill of linear
C480	N/A	1.16	0.56	0.14	Linear cut	Cut of linear
C500	C501	1.8	1.45	0.26	Dark brown silty clay	Fill of pit
C501	N/A	1.8	1.45	0.26	Oval cut	Cut of pit
C502	N/A	0.1	0.1	0.14	Circular cut	Cut of stakehole
C503	N/A	0.1	0.1	0.2	Circular cut	Cut of stakehole
C504	N/A	0.13	0.1	0.1	Circular cut	Cut of stakehole
C517	C518	0.1	0.1	0.18	Mid brown sandy clay	Fill of stakehole
C518	N/A	0.1	0.1	0.18	Circular cut	Cut of stakehole

Finds: None

This area of the site was heavily disturbed by modern field clearance and it is possible that further features originally existed here. The surviving features consisted of twelve postholes, four pits, eight stakeholes, two spreads and a short linear gully (Figures 4 & 6).

The pits, C301, C372, C440 and C501, were generally relatively small and no definite function could be assigned to them. However, three stakeholes in the base of pit C501 suggest that something was possibly supported within or above the pit. A large pit C320, to the south of C501, had a very stony basal layer with charcoal inclusions and this was overlain by a dark brown, charcoal-rich layer which was also quite stony. The homogenous brown fill of pit C301 (to the immediate north of C320) over-spilled from the edges to form spread C302 to the south. Spread C299 to the west was a stony deposit with charcoal inclusions which may even have resulted from the disturbance of archaeological features during modern field clearance, although this was uncertain.

The postholes and stakeholes had no apparent spatial arrangement. Three were located in the base of pit C501 and appeared to have been directly associated. There was a cluster of posts and stakes to the west of pits C440 and C372. These were roughly orientated northeast–southwest and occupied a space approximately 3m by 0.7m. The remainder appeared randomly dispersed however the seemingly random arrangement of these features could be owing to field clearance in the area. Stakeholes C374 and C375 lay side by side and were likely to have had a combined function. Postholes C296 and C298 were located to the east of spread C302. Stakehole C317 lay adjacent to spread C299 and may have been related.

A short linear feature, C480, was found further to the north-east of the stakehole 317 mentioned above and to the south-east of Pit 440. This was shallow and represented an earlier phase of activity as it was partially truncated by pit C440.

2.4.3 North Central Features

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
C368	C369	0.64	0.6	0.15	Black sandy clay	Fill of pit
C369	N/A	0.65	0.6	0.15	Sub-circular cut	Cut of pit
C410	C413	0.66	0.4	0.1	Dark brownish black sandy silt	Fill of pit
C412	C413	0.6	0.32	0.09	Light brownish grey sandy silt	Fill of shallow pit
C413	N/A	0.78	0.7	0.1	Circular cut	Cut of shallow pit
C416	C417	4.7	0.7	0.2	Reddish grey silty sand with clay	Fill of pit
C417	N/A	4.6	0.8	0.2	Linear cut	Cut of linear
C457	C458	0.2	0.14	0.36	Mid brown silt	Fill of posthole
C458	N/A	0.2	0.14	0.36	Oval cut	Cut of posthole
C459	C460	0.1	0.09	0.15	Light brownish silty sand	Fill of stakehole
C460	N/A	0.1	0.09	0.15	Circular cut	Cut of stakehole

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
C461	C462	0.07	0.08	0.21	Light brownish silty sand	Fill of stakehole
C462	N/A	0.07	0.08	0.21	Circular cut	Cut of stakehole
C482	C483	0.05	0.05	0.07	Brown sandy clay	Fill of stakehole
C483	N/A	0.05	0.05	0.07	Circular cut	Cut of stakehole
C484	C485	0.06	0.06	0.1	Brown sandy clay	Fill of stakehole
C485	N/A	0.06	0.06	0.1	Circular cut	Cut of stakehole
C496	C499	0.26	0.22	0.1	Brownish black silty sand	Fill of posthole
C497	C498	0.15	0.1	0.15	Mid brown silty clay	Fill of posthole
C498	N/A	0.15	0.1	0.15	Sub-circular cut	Cut of posthole
C499	N/A	0.28	0.25	0.12	Circular cut	Cut of posthole

Finds: None

A cluster of activity was identified to the south-west of the natural peat deposit C99 in the north-east corner of the site. This consisted of three pits, six stakeholes and a linear gully. The gully, C417, lay at the southern edge of the peat deposit, possibly the edge of the former water-line (Figures 4 & 6). The silty fill of this feature contained elements of burnt clay, burnt stone and charcoal. Two stakeholes, C460 and C462, lay within the south-east terminal suggesting that the linear gully may have supported a temporary structure or fence at the water's edge. The pits C499, C369 and C413, lay within approximately 3m of one another. The two smaller pits C499 and C369 had single charcoal-rich fills, the latter also containing frequent large angular burnt stones. Pit C413 also contained burnt stones in addition to lumps of burnt clay in its charcoal-rich fills. In addition, it had a stakehole C458 cut into the upper edge of its northern side. The original stake had been steeply inclined towards the centre of the pit and was directly associated. The burnt clay, burnt stones and charcoal-rich fills of the pits in this area suggest that they may have been related to the two rectangular troughs C456 and C486 to the east. The large natural peat deposit in this area indicates that the area was wet and marginal which would be typical of sites associated with burnt mound type activity. The remaining stakeholes were scattered with no obvious pattern identifiable.

Charcoal was retrieved from pit fill C422 during post-excavation soil flotation. This was subsequently identified to species. Fragments of ash charcoal (*Fraxinus excelsior*), oak charcoal (*Quercus* sp.), hazel charcoal (*Corylus avellana*), willow charcoal (*Salix* sp.) and holly charcoal (Ilex aquifolium) were identified. This was a mixed wood assemblage and the charcoal counts were quite low. This factor, coupled with the absence of any obvious *in situ* burning deposit from this feature suggests that this was most probably re-deposited material from one or more firing events at the site (Lyons, Appendix 2.3).

Stone retrieved from pit fills C410 and C422 was analysed and was found to be course grained, quartz rich, red sandstone. Course grained sandstone is typical of *fulacht fiadh* material. The sample is clearly a shattered cobble, indicating a secondary source, such as in the glacial tills / river cobbles, it is therefore possible that these rocks were sourced locally (Mandal, Appendix 2.5).

2.4.4. Remaining Isolated Features

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
C153	C154	0.21	0.19	0.3	Mid grey clayey silt	Fill of posthole
C154	N/A	0.21	0.19	0.3	Circular cut	Cut of posthole
C159	C154	0.17	0.15	0.09	Dark greyish brown clayey silt	Fill of postpipe
C160	C154	0.17	0.15	0.09	Circular cut	Cut of postpipe
C168	C169	0.12	0.12	0.21	Mid-dark grey silty clay	Fill of stakehole

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
C169	N/A	0.12	0.12	0.21	Circular cut	Cut of stakehole
C155	C156	0.28	0.2	0.11	Dark greyish brown silty clay	Fill of posthole
C156	N/A	0.28	0.2	0.11	Sub-oval cut	Cut of posthole
C234	C236	0.64	0.8	0.09	Light brownish grey silty clay	Fill of pit
C235	C236	0.83	0.86	0.4	Mid grey silty clay	Fill of pit
C236	N/A	0.9	0.86	0.46	Circular cut	Cut of pit
C252	C253	0.18	0.18	0.22	Mid grey silty sand	Fill of posthole
C253	N/A	0.19	0.19	0.22	Oval cut	Cut of posthole
C254	C255	0.19	0.1	0.3	Grey silty sand	Fill of posthole
C255	N/A	0.19	0.17	0.24	Oval cut	Cut of posthole
C286	C287	1.17	0.69	0.28	Greyish brown sandy clay	Fill of pit
C287	N/A	1.17	0.69	0.28	Semi-circular cut	Cut of pit
C307	C308	0.5	0.35	0.25	Dark brown silty sand	Fill of pit
C308	N/A	0.51	0.4	0.3	Oval cut	Cut of pit
C343	C344	0.2	0.2	0.32	Mid grey silty sand	Fill of posthole
C344	N/A	0.2	0.2	0.32	Oval cut	Cut of posthole
C350	C351	1.04	0.79	0.17	Mid brown silty clay	Fill of pit
C351	N/A	1.04	0.79	0.14	Sub-circular cut	Cut of pit
C362	C364	0.38	0.38	0.35	Mid brown mottled orange sandy clay	Fill of pit
C363	C364	0.59	0.29	0.28	Light brown orange silty sand	Fill of pit
C364	N/A	0.71	0.58	0.34	Sub-circular cut	Cut of pit
C408	C409	0.16	0.16	0.1	Light-mid brown silty clay	Fill of posthole
C409	N/A	0.16	0.16	0.11	Circular cut	Cut of posthole
C574	C576	1.3		0.36	Light yellowish grey silty clay	Deposit in trough
C575	C576	0.39		0.5	Dark brownish grey clayey silt	Fill of trough
C576	N/A	1.70	1.20+	0.60	Rectangular cut	Cut of trough
C582	C576	0.61		0.08	Yellowish orange sandy clay	Fill of trough
C583	C576	0.63		0.29	Dark blackish grey orange clayey silt	Fill of trough

Finds

Context	Find No	Material	Period	Description
C350	E3864:350:1	Limestone	Bronze Age	Rubbing stone (burnt)

A number of pits, postholes and stakeholes were evident across the site in relative isolation from the other more obvious clusters of activity. They may have originally been more closely associated with other activity but the evidence has not survived the modern land clearance disturbance. They may also represent small scale peripheral activity.

A possible rectangular trough, C576, which continued beyond the road-take to the north-west, was located in the northwestern part of the site. The trough was in a relatively isolated location although it was only 7.5m north-west of House 1. It was filled with a sequence of layers of which the basal layer was a dark black silt that may have derived from heating of water in a burnt mound trough. This was overlain by a combination of backfills and further layers of silt.

A small pit C287 lay almost 10m north of House 1 and was probably unrelated to it (Figure 4). There were two nearby stakeholes, C255 and C253, and combined, these features may have represented ephemeral activity. To the east of House 1 there was a similar small group of features (Figure 5) consisting of a stakehole (C169) and two postholes (C156 and C160), the second of which showed evidence for a post-pipe (C154). It was not possible to link these to the house or to any other structural activity on the site.

In the south-west of the site two isolated pits (C236 and C308) and a small posthole (C344) were recorded. Pit C236 contained a great many stones in its charcoal-rich basal layer but the remainder of the pit silted up naturally. Two pits (C351 and C364) were recorded in the south-east of the site. The proximity of the two pits in the southeast suggests they may have been related. A single lithic artefact was retrieved from pit fill C350. The lithic, E3864:350:1, is an incomplete utilised stone made from limestone which may have been used as a rubbing stone. This find most likely dates to the Bronze Age (Sternke, Appendix 2.2).

Posthole C409 was located to the south of the peat deposit C99 but was otherwise almost completely isolated being approximately 5m north of House 2.

2.5 PHASE 5 Topsoil and Ploughsoil

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
C1	N/A				Topsoil	Topsoil

Finds

Context	Find No	Material	Period	Description
C1	E3864:001:1	Limestone	Bronze Age	Utilised stone? (weathered)

Topsoil overlay areas of natural peat formation in a number of places within the excavation area, an indication of the extremely waterlogged nature of the site. Perhaps it was due to this waterlogging, and the lack of any earlier attempts to drain the land, that it was overgrown until recent times and relatively unutilised for agriculture. Foliage and overgrowth were removed during extensive field clearance within the last few years, as conversations with the land-owner during testing revealed, and this was confirmed by the evidence on the ground during excavation.

A single lithic artefact was retrieved from topsoil. E3864:001:1 is a weathered, utilised stone made from limestone and is possibly smoothened on all sides. This may have been used as a rubbing stone and most likely dates to the Bronze Age (Sternke, Appendix 2.2).

3 SYNTHESIS

The synthesis presents the combined results of all of the archaeological analysis carried out at Ballyquirk 2. This includes the analysis of the physical and archaeological landscape, the compilation of information gathered during research into the site type, date, and function, and the results of the excavation and specialist analysis of samples taken during the course of on-site works.

3.1 Landscape Setting – compiled by Michelle Brick

3.1.1 The General Landscape

The topography of the region through which the route passes is generally flat with an average height of 70m O.D. The southern periphery of the route is bordered by Kilmacoliver (261m) and Carricktriss Gorse (314m), with Slievenamon (721m) further west. The Slieveardagh hills (340m) are visible on the western horizon in the south of the route and with the exception of Knockadrina Hill (140m), the enclosed landscape is made up of minor undulations. In the centre of the route Freestone Hill (130m) and Knocknagappoge (334m) further north are the significant uplands. A number of hills and mountains are visible in the distance to the east and west of this area of the landscape but the topography remains generally flat. To the north the Castlecomer Plateau influences a rise in the overall topography of the region. This expanse of terrain stretches along the north-east margins of Kilkenny, crosses the county border into Carlow and stretches northwards into Laois. This plateau consists of a variety of hills and peaks including Mountnugent Upper (334m), Baunreagh (310m), Knockbaun (296m), Brennan's Hill (326m) and Fossy Mountain (330m). These hills contain seams of anthracite coal as a result of millions of years of compression, and consequently Shales and Sandstones were formed which are evident throughout the plateau. Mining in the region began in the 17th century, continued for over 300 years and it is for what Castlecomer is best known. According to the Environmental Protection Agency soil maps of Ireland, the underlying bedrock of the entire region primarily consists of Carboniferous Limestone. However there is also a small amount of surface bedrock, sands, gravels, shales and sandstone Tills present along the route. The soil cover of the region is primarily composed of Grey Brown Podzolics, Renzinas and Lithosols. Additional soil types also present along the route include Brown Earths, surface Water Gleys and Ground Water Gleys.

The prevailing water courses within the landscape of the N9/N10 Phase 4 are the Rivers Nore and Barrow. The River Nore rises on the east slopes of the Devil's Bit in Co. Tipperary and flows eastwards through Borris-in-Ossory and then south through Co. Kilkenny, passing through the towns of Durrow (Laois), Ballyragget, Kilkenny, Bennettsbridge and Thomastown to join the River Barrow upstream of New Ross, Co. Wexford. It is 140km long and drains a total catchment of 1572 square kilometers and runs through the central and southern sections of the route. In the south of the route three main tributaries of the River Nore are evident. The Kings River flows east through Callan and Kells. It is joined by the River Glory which meanders on a north-south axis towards the western margins of the route landscape and the Little Arrigle River flows along the southern fringes. These rivers are flanked by low-lying valleys that are characterised by wet, marshy land. The condition of the soil improves further north beyond the King's River where the influence of these waterways declines. In the northern area of the route the River Dinin is a tributary of the River Nore flowing south-west from Brennan's Hill through the Castlecomer Plateau. The Plateau is the tableland that is the watershed between the Rivers Nore and Barrow (Lyng 1984). The River Barrow is the second longest river (193km) in Ireland after the River Shannon. It rises in the Slieve Bloom Mountains in Co Laois and flows east across bogs and lowlands and then turns south into the lowland immediately east of the Castlecomer Plateau. It passes through Portarlington, Athy, Carlow, and

Graiguenamanagh and runs through northern section of the route. It is joined by the River Nore at New Ross. The Madlin River is the notable tributary of the River Barrow within the landscape of the route and flows east from Old Leighlin, with minor tributaries of it flowing through Bannagagole. There are also streams and minor watercourses present throughout the entire landscape and these waterways would have been a valuable resource to past communities and would also have had a major influence on settlement and the surrounding land use.

The physical landscape through which the N9/N10 Phase 4 passes can be divided into three principal areas defined by the main rivers and their catchments. The southern area is located in the undulating landscape on the western flanks of the Nore Valley. The central area is dominated by the fertile watershed between the Barrow and Nore systems in the hinterland of Kilkenny City. The northern area is located on the western flanks of the Barrow Valley overlooked by uplands to the north and west. Ballyquirk 2 is located in the northern landscape area.

3.1.2 The Northern Landscape

The northern landscape of the N9/N10 crosses the border from Kilkenny into Carlow and traverses the western side of the River Barrow; the Blackstairs Mountains, which are of granite formation, are located to the east of the Barrow. It includes 50 sites discovered during the Phase 4 excavations stretching from Rathcash 1 northwards to Tomard Lower 1. This northern landscape is overlooked to the west by the Castlecomer Plateau, and the excavated sites are all situated on contours of 50–100m OD. From the south-west of the Barrow, and encroaching into the northern landscape, the underlying limestone is dolomitized and consequently the permeability has been increased. The glacial drift comprises slightly sandy (20–60%) slightly gravely clays with a moisture content of 10–20%. There is therefore significantly less sand but higher moisture content than in the southern and central landscapes. This moisture occurs in the wetter deposits in the top 1–2m before ground level in localised areas with silty sand and gravel lenses indicating a high water table. To the east of the River Barrow, localised silty, laminated clays and peat occur. Soft ground was noted in the river's floodplain. The area is also classified as a minor aquifer in the Kilkenny Groundwater Protection Scheme (Buckley & Fitzsimmons, 2002) due to these thick sand and gravel deposits. Progressing northwards, the views become more expansive, and the rising high ground of the Castlecomer Plateau (50–300m OD) bounds the distant landscape. This plateau consists of a variety of hills and peaks, which contain seams of anthracite, the focus of coal mining in the region from the 17th century. The Blackstairs Mountains (735m) are visible on the horizon to the southeast, and most obvious of these is the peak of Mount Leinster (795m). There are impressive views from these plateaus and hills especially to the south, east and west over the Barrow and Nore Valleys.

The prevailing watercourse of this region is the River Barrow which travels north–south through the landscape. The Madlin River is a tributary of the River Barrow and flows from the west through Old Leighlin; minor tributaries of this river flow through Bannagagole, directly north of Moanmore, and the River Dinin is a tributary of the River Nore which travels south-west from Brennan's Hill through the Castlecomer Plateau. The suffix 'comer' signifies a meeting of the rivers; it also signifies any deep gripe, such, for instance, as the channel formed by a mountain stream (Carrigan 1905). From the hinterland of Kilkenny and the confluence of the Nore and Barrow the Monefelim River contributes to the occurrence of wet grassland and broadleaf woodland. The narrow tributaries of the River Barrow, including the Monefelim River, as well as the Madlin River, flow from the higher, steep, escarpment located to the west. Subsoils in this area consist of undifferentiated alluvium and soils of mineral alluvium. The route crosses into County Carlow where at Moanmore (meaning 'great

bog') a variety of archaeological features have been recorded. At the most northerly point of the N9/N10 the land is again characterised by its views; here they include the Barrow Valley, Mount Leinster, Brandon Hill, and the Blackstairs Mountains.

3.1.3 Site Specific Landscape

The site was located at the crest of a hill with panoramic views of the Blackstairs Mountains to the east and Slievenamon to the south. The hills of the Castlecomer plateau continued to rise to the north-west. The land formed a plateau which undulated across its surface and was pitted with boggy areas. With the exception of the modern field boundaries there was no evidence of post-medieval or modern attempts to drain the land and it remained highly prone to waterlogging despite its elevated position. Indeed, the area appeared to have been largely occupied by vegetation and foliage up until recent times, when extensive field clearance is known to have been carried out. Both the existence of plant-life and the process of field clearance caused great disturbance to the surface of the subsoil and archaeological features as encountered during excavation. Ballyquirk 1 is located *c*. 300m to the south-west and Ballyquirk 3 is located *c*. 50m to the north-east. There are no Recorded Monuments and Places located close-by.

3.2 The Archaeological Landscape

As part of the general research relating to sites along the scheme and the specific research relating to Ballyquirk 2, the known archaeology within the surrounding landscape was assessed in order to establish the level and type of activity in the surrounding area in the past. This included a review of information from the Record of Monuments and Places, previous excavations and other relevant documentary sources including mapping and other sites excavated as part of the N9/N10 Phase 4 scheme. The excavated archaeology at Ballyquirk 2 has been identified as being Bronze Age in date.

3.2.1 The General Bronze Age Landscape of the Scheme

The archaeological record implies that the Irish Bronze Age (2500–800BC) population dramatically increased from that of the Neolithic and the evidence for permanent settlements with considerable longevity becomes much more substantial. In addition, a wide range of ritual and funerary activity associated with this settlement is apparent. The overall environmental record for Ireland suggests that there was a general climatic deterioration in the Bronze Age, bringing wetter, colder conditions; during this period there was also accelerated forest clearance with more intensive habitation in the drier lowlands. As a result of extensive development-led projects across the country, understanding of settlement and burial patterns from the early Bronze Age has greatly developed. The distribution of the prehistoric evidence shows that the Rivers Nore and Barrow provided a focus for settlement. In the central part of the current portion of the N9/N10 Phase 4 the fertile Kilkenny lowlands have produced some Bronze Age archaeology, particularly in Danesfort and Ennisnag townlands. In the northern part of the scheme intense settlement is indicated by both burnt mounds and barrows existing on the uplands of the Castlecomer Plateau and the flanking valleys of the Nore and Suir. Hillforts appear to be positioned to overlook the settlement activity, as well as the route of the Nore, the lower saddle to the north of the Slieveardagh Hills, and to the south of the spur surmounted by Clonmantagh. A considerable number of ringditches, cremation and inhumation burials (single and grouped), burnt mound sites, structures and domestic settlement evidence, have been recorded as part of the Bronze Age on the N9/N10 Phase 4.

In the southern landscape the exposure of domestic Bronze Age settlement was less forthcoming than that of the northern landscape. There was little direct evidence for

structures in the southern and central landscapes with the exception of a cluster of structures in the Danesfort area. Instead most of the settlement activity that fell within the roadtake was noted in the northern landscape, further to the north of Kilkenny and in Carlow. Ritual and burial is a dominant feature of the Bronze Age in Kilkenny and Carlow as indicated by the presence of flat cemeteries, burial cairns, ringditches, mounds, barrows and hillforts throughout these counties. Freestone Hill situated in Coolgrange, Co. Kilkenny, in the centre of the present landscape is just one example of these sites. Along the lower part of the Nore Valley, and concentrated in the Foulksrath and Jenkinstown areas, the landscape is dominated by barrows (in this case more specifically ringditches). The contrasting locations of these site types most probably relate to differential landscape exploitation by the same communities with some activities, possibly associated with the seasonal use of upland pasture, confined to higher terrain and settlement and funerary activity taking place in the more sheltered lowlands.

The significant number of burnt mound sites discovered due to the N9/N10 excavations, combined with the previously known examples in the RMP reinforces the concept that Bronze Age activity in Kilkenny and Carlow was considerable. A total of 36 sites with evidence for burnt mound activity were uncovered during the N9/N10 excavations, with an additional example discovered, and preserved outside, the roadtake. The burnt mounds are focussed in the upland area, especially along the river and stream valleys, such as at Clashduff, Coan West and Muckalee on the Dinin and Douglas Rivers, and in the upland hinterland of Freestone Hill.

The distribution of the prehistoric evidence shows that the Rivers Nore and Barrow provided a focus for Bronze Age settlement. The patterning of human activity in the region indicates that these were also the principal route-ways in prehistory; both were navigable by small craft but they, and the major tributaries of the Nore - the Dinin and King's Rivers - were also conspicuous landscape features that facilitated accurate navigation through this landscape. The Barrow and Nore also provided access to wider networks beyond the region.

The Northern Landscape: Domestic Settlement

The domestic settlement evidence from the landscape along the northern sections of Kilkenny and the border with Carlow can be characterised by multi-period sites, such as at Moanduff 2–3, and by clusters of activity represented by multiple burnt mound sites and several, possibly associated, structures. This part of the Barrow is overlooked by the hillforts at Freestone Hill (KK020-018002) (Coolgrange), Ballinkillin (CW019-027) and Killoughternane (CW019-065). However, the distinct clustering of the Paulstown area sites suggests the existence of a community separate to that in the immediate vicinity of Freestone Hill although it is probable that the hillforts reflect a wider landscape control system involving co-operation or alliance between a number of communities in the Kilkenny region. In addition to the indirect evidence in the form of burnt mounds and cultural deposits in pits, several structures, of typical Bronze Age morphology, were recovered. At Garryduff 1 an external ring of 37 postholes and stakeholes was positioned in a shallow, curving slot-trench and enclosed an area 11m in diameter with an inner ring of 10 larger postholes (7m diameter). This structure was located on the edge of a break of slope, which led down to an adjacent river. Other features on site may represent a possible grain stand and pits for food storage/rubbish. In the south-western corner of the site a curving arc (12m long) of 18 postholes and stakeholes was identified which may continue beyond the site. Six kilometres to the north of Garryduff 1 was an oval-shaped structure at Shankill 4. This was most likely a hut (4m x 3m) and consisted of postholes, stakeholes, an internal hearth, and outlying pits. An arc of stakeholes measuring 3m by 2.5m on its north side might have formed an entrance porch.

Sherds from at least one domestic cordoned urn came from the site. A roundhouse at Moanmore 2 consisted of 14 postholes, a central hearth, and up to 50 associated stakeholes and postholes.

As well as two rectangular Neolithic structures at Moanduff 2–3 there were four, or possibly five, separate areas of Bronze Age activity identified. As the features representing this activity were heavily truncated it is impossible to identify their exact function however some may represent Bronze Age structures. A middle-late Bronze Age enclosure (180m x 160m) and late Bronze Age activity in the form of troughs with burnt clay and stone were also excavated on site. At Coneykeare 1 two very tentative structures were identified by the director and a fifth concentration of activity, incorporating burnt mounds and settlement activity; was noted at Coolnakisha 1. A five post, L-shaped possible temporary structure at Coolnakisha 1 was identified along with two pits containing burnt bone and a moderate amount of charcoal and flint. A spread, also containing a moderate amount of charcoal, burnt bone, flint and heat-shattered stones was located to the north-west of the possible structure. It is most likely that the burnt bone deposits within the features on this site are domestic in nature.

The Northern Landscape; Funerary and Ritual activity

Funerary evidence is represented by ringditches at Kellymount 5 and Paulstown 1 and simple pit cremations also at Paulstown 1. Evidence of the Bronze Age is present at Croan (Aghaviller Parish); where a food vessel was discovered, and also at Cruttenclough; where artefacts of amber, gold and bronze were found; there were 14 gold beads discovered with varying decoration together with graduated amber beads (Lyng 1984). The find circumstances of these artefacts is unknown however similar artefacts in the form of a necklace were discovered at Tara, around the neck of an adolescent male, buried in a pit (Herity and Eogan 1977) and it is likely that the Cruttenclough finds came from a similar burial context. They indicate trading links with Europe and a bronze sunflower pin was also discovered in this townland, which is of late Bronze Age type (Lyng 1984; Eogan 1974a, 87) and originally had a gold foil covering. Other material demonstrating a late Bronze Age presence in the area includes the large hoard from Ballytegan, Co. Laois (Eogan 1983); this contained three sunflower (two covered in gold foil) and one disc-headed pin, two socketed axes, a bracelet of twisted strands and a variety of both solid and hollow bronze rings. The rings are characteristic of Eogan's (1974b; 1993) midland province and this hoard demonstrates ritual activity in the region. Early Bronze Age activity is also evident in the adjacent area of Co. Carlow on the east side of the River Barrow. A cist burial at Killinane contained cremated bone and an upright tripartite bowl food vessel (Moore 1984). Similar discoveries were also found close by in Sliguff and Wells; both townlands are located in west Carlow along the Kilkenny border close to the landscape of the present scheme. The Sliguff cist contained a crouched inhumation that was accompanied by a bowl while the pit cemetery at Baunogenasraid was inserted into the mound of the earlier Linkardstown tomb (Raftery 1974). A large cemetery mound at Ballon Hill was discovered in the 19th century, which revealed a large assemblage of vases and collared urns in both pit and cist burials (Waddell 1990, 51–53).

Six of the sites in this northern landscape of the N9/N10 Phase 4 had evidence for prehistoric funerary activity which was represented by barrows, ringditches, cists and cremation deposits at Rathcash East 1, Garryduff 1, Paulstown 1–2, Kellymount 5, and Coolnakisha 1–2. This evidence broadens the funerary landscape of the Bronze Age in this region. A possible ringditch was recorded at Rathcash East 1. It was formed by two very shallow curvilinear cuts creating a circle with a diameter of 6m and potential openings or entrances (1.45m wide) mirroring one another on the

south-east and north-west sides. Nearby activity included a hearth and possible refuse pit. It is possible that this domestic activity was related to funerary practices associated with the ringditch; however, it is perhaps more plausible that, given the lack of associated burial activity (although the enclosed area had been truncated) and the occurrence of two entrances, the ringditch in fact represents a domestic structure.

At Garryduff 1 two unroofed structures, both comprising arcs of post- and stakeholes, may have been associated with a large, northwest–southeast pit (2m x 1.3m x 0.16m) located close to Structure 1. This pit contained a charcoal-rich deposit with burnt bone, heat-cracked stones and charred hazelnuts which had been deliberately deposited. Three postholes also containing similar material in their fills were arranged around the pit and a definite concentration of burnt bone was noted in this area of the site. It is possible that this pit and the adjacent postholes represent the remains of a draught pit for a pyre with the postholes at either side being used to stabilise the pyre structure for the duration of the process. Two cremation pits were located outside the enclosure which contained quite large chunks of human bone and possible pyre material.

The cemetery complex at Paulstown 1 consisted of both pit and cist burials. Three small cists (averaging 0.6m by 0.32m by 0.16m internally) were made expediently with slabs and blocks of local stone. Three other pits were less formally lined with stone. Each contained cremations but one cist produced two discrete deposits. Three other grave pits formed part of the cemetery. In one of these pits an unburnt human skull was placed on top of a washed cremation deposit. Several burials were accompanied by ceramic gravegoods. These gravegoods included burnt sherds from bipartite vases, a miniature cordoned urn and a miniature vase; a burnt flint scraper as well as charred seeds and hazelnuts also came from one of the cists. The largest grave at Paulstown consisted of a large pit or pits. This contained a complex sequence of deposition which appears to have begun with a circular pit which contained an inverted vase; this was disturbed by the insertion of Vessel 1, another inverted vase which survived intact. A miniature vase (No. 6) may have accompanied one of these burials. Subsequently, a second larger pit extended the grave to the south. The fragmentary remains of three pots (No.s 3–5) were deposited on the base of this pit and a large cremation deposit was placed over them. This deposit contained sherds from Vessels 5 and 6 as did a final silty fill. The evidence suggests that the grave was extended to accommodate burials disturbed from other graves. A large circular pit occurred on the edge of the cemetery (1.55m by 1.48m by 0.80m deep). This had originally been maintained as an open feature that filled naturally with water. Subsequently, a complex sequence of layers containing charcoal, burnt and unburnt bone, charred hazelnut shells and seeds, antler and flint (including flakes, blades and debitage), developed or was deposited in the pit. The proximity of this feature, which appears to have been a well, suggests that it was associated with the funerary activity on the site.

A double ringditch was identified at Kellymount 5. The external ringditch (12m diameter x 1.04m deep) was lined with a spread of burnt mound material, possibly relating to the earlier use of the site as a burnt mound complex. The only artefacts in this external ringditch consisted of three Bronze Age pottery sherds. The internal ringditch (5.6m diameter x 0.2m deep) was situated centrally within the external ringditch and also contained heat-shattered stones in its fills. A central pit had burnt bone inclusions. A further two pits were located to the south of the ringditches and both contained burnt bone inclusions. A substantial part of a vase urn came from one of the troughs associated with the burnt mound complex; while this may be derived

from the funerary activity it is evident that the vessel had been used in a domestic context and may have been a deliberate deposit in the base of the trough.

Evidence for funerary activity was also excavated at Coolnakisha 2, where one pit (0.33m x 0.26m x 0.13m) contained 25.5g of charcoal, 0.1g of charred seeds and 390.3g of burnt bone. Other pits and possible pits and spreads also contained burnt bone inclusions, although in much smaller quantities. Both sites produced small quantities of probably middle Bronze Age while residual Neolithic material in the form of three flint scrapers came from Coolnakisha 1.

It is therefore apparent that the central, northern part of Kilkenny contained the most varied evidence for burial and funerary activity. As the N9/N10 progresses northwards sites with a probable continuity of function and chronology emerge: from the Danesfort complex near the King's River to the varied ringditches and cremations at Templemartin 5 and the amalgamation of ritual and burial at Paulstown 1–2.

The Northern Landscape; Burnt Mound Activity

The evidence from the northern landscape, was dominated by clusters of burnt mounds and reinforces the patterning already indicated by the previously known archaeological record. Several previously identified burnt mounds were recorded in Cloghoge (KK020-039, KK020-075–76), Rathcash West (KK020-077–78), Shankill (KK016-003, KK016-010) and at Moanmore (meaning 'great bog') (CW015-007, CW015-014). Twenty seven sites with evidence of burnt mound activity were uncovered as part of the N9/N10 Phase 4 excavations within the northern landscape. The underlying limestone geology/glacial drift consisted of sandy/gravel-clays which have a higher moisture content than the southern and central landscapes resulting in a high water table in localised areas. This helps explain the presence of the considerably sized waterholes at these burnt mound sites, notably within the Jordanstown and Kellymount cluster (Jordanstown 2&3 and Kellymount 1-3, 5&6). Other clusters of burnt mound activity in the northern landscape occurred at Ballyquirk 1,2&4, Moanmore 1&3, Moanduff 1,2&3, Rathcash 1&2, Blanchvillespark 2,3&4 and Cranavonane 1&2. Other sites exhibiting burnt mound activity include Shankill 6, Bannagagole 1, Rathcash East 2, Tomard Lower 1 and Ballinvally 1. Due to the poor on-site conditions the sites at Cranavonane 2 and Blanchvillespark 2 were not fully resolved but were identified as burnt mounds. Burnt mounds were not excavated at Kellymount 1, Moanduff 2&3, Ballyquirk 1 and Ballinvally 1; however features associated with burnt mound activity were recovered and excavated at these sites indicating a clear association with this type of activity.

The Northern Landscape; Route-ways and communications

While it is clear that the rivers and streams are a major feature of the settlement networks the distribution of prehistoric activity, for example on the lowland fringes to the south of the Castlecomer Plateau, shows that other route-ways were functioning at both a local and regional scale. Within these network systems it is possible to identify particular concentrations of human activity. Some of these were already important in the early Neolithic while others became prominent only in the Bronze Age. Among the most significant of these are those in the area around Carlow, on the upper Barrow and its tributary the Burren River, which the archaeological work on the Carlow Bypass has highlighted (Dunne 2007). To the south of this, the eastern side of the Barrow in the Goresbridge area formed the core of a settlement zone that in the Bronze Age extended westwards across the river into the Paulstown area of Co. Kilkenny. The immediate environs of Kilkenny City also appear in the Bronze Age as a settlement focus, underlined as a result of the N9/N10 excavations, while the southern end of the Castlecomer Plateau, with the major focal site on Freestone Hill,

has been highlighted by the discovery of new sites on the lowlands immediately to the south around Rathcash.

The Northern Landscape; Conclusions
In the northern part of the region, focussed on the uplands of the Castlecomer Plateau and the flanking valleys of the Nore and Suir, intense settlement is indicated by both burnt mounds and barrows. The burnt mounds are focussed in the upland area and especially along the river and stream valleys, such as at Clashduff, Coan West and Muckalee on the Dinin and Douglas Rivers, and in the upland hinterland of Freestone Hill. Along the lower part of the Nore Valley, and concentrated in the Foulksrath and Jenkinstown areas, the landscape is dominated by barrows (in this case more specifically ring-ditches). The contrasting locations of these site types most probably relate to differential landscape exploitation by the same communities with some activities, possibly associated with the seasonal use of upland pasture, confined to higher terrain and settlement and funerary activity taking place in the more sheltered lowlands. The large number of burnt mounds discovered on the lowland fringe to the east of the plateau, along the Barrow Valley, shows the development of intensive settlement throughout the northern part of the region. In this area the hillforts appear to be positioned to overlook the settlement landscape.

3.2.2 The Site Specific Archaeological Landscape of Ballyquirk 2

There are no recorded monuments in the immediate vicinity of Ballyquirk 2. A church and graveyard (KK020-025) are recorded *c*. 1.2km to the south-west, however there are no other recorded monuments recorded close-by.

At Ballyquirk 2, an early Bronze Age settlement was identified. A wide range of features including circular arrangements of posts and stakes indicate that this site was the focus of a semi-permanent domestic settlement in the early Bronze Age. A number of sites were excavated to the north-east of Ballyquirk 2, as part of the N9/N10 Phase 4: Knocktopher to Powerstown works. At Ballyquirk 3, located *c*. 30m away, a sub-rectangular- or oval-shaped stakehole structure was excavated. A post-built structure which replaced its earlier stakehole counterpart was also excavated and dated to the middle Bronze Age. A number of pits and small features clustered near this structural evidence were also excavated. Further to the north-east, a complex of up to five burnt mounds and associated features were excavated at Ballyquirk 4, *c*. 900m away. Actibity at the site has been dated to the middle Bronze Age period, and at Ballinvally 1, located *c*. 1.7km to the north-east of Ballyquirk 2, two deposits and a pit dating to the early Bronze Age were excavated as well as a possible cremation pit which has returned a middle Iron Age date.

A number of sites were also excavated to the south-west of Ballyquirk 2, as part of the N9/N10 Phase 4: Knocktopher to Powerstown works. At Ballyquirk 1, located *c*. 250m away, small scale, localized burnt mound activity in the form of pits was excavated and these have been dated to the early Bronze Age period, and at Blanchvillespark/Ballyquirk 1, located *c*. 300m away, late Neolithic and early-middle Bronze Age pits were recorded. There was no discernable pattern or function to the pits however it is possible that they are in part related to the early Bronze Age settlement activity at Ballyquirk 2. Blanchvillespark 4 was located *c*. 400m to the south-west of Ballyquirk 2. It consisted of a burnt mound complex with at least five troughs as well as multiple pits. Various spreads of burnt mound material were also recorded and three samples were sent for radiocarbon dating. The results indicate that there was activity on site in the early and late Bronze Age, although it is interpreted that the site would have been occupied at other times in prehistory based on the stratigraphic complexity of the site.

3.3 Typological Backgrounds

3.3.1 Typological Background of Bronze Age Structures

Interpretation of Irish Bronze Age houses has relied considerably on the British evidence. The re-interpretation in the 1970s of several sites such as Itford Hill and Black Patch, both in Sussex, proved seminal in advancing understanding of how these structures functioned (Musson 1970; Drewett 1979). Further excavations in the South Downs facilitated Guilbert to describe a typical Bronze Age roundhouse of post construction, the posts of which were regularly spaced, apart from towards the back of the structure where there was a tendency toward tight spaced posts (Guilbert 1982). The Sussex region is particularly rich in such Bronze Age settlement remains and the interpretations derived from the evidence have since proven enduring and archetypal. It would not be until 2000 that such discussions were taking place within the published domain in Ireland when Doody summarised and categorised the structure features associated with Bronze Age roundhouses and noted their axis of symmetry, as observed by Guilbert in the 1980s, and their similarity in appearance across Ireland (Doody 2000). Doody identified three basic ground-plans: circular (83%), oval, and rectilinear (ibid.); however, these have been recently expanded upon by Ó Néill (forthcoming). The circular roundhouses are generally between 3m and 15m in diameter, use locally available materials for construction and have a broadly eastern entrance (Doody 2000). The roof is predominantly supported by at least one ring of posts (often set in a gully or slot-trench) and occasionally a central post. In general, the walls are non-load bearing; the entrance is often emphasised by elaborate door sills or, more commonly, the addition of a porch. Internal features include stakeholes representing divisions, storage pits, waste pits, stone paving, and, more infrequently, hearths; it is therefore particularly interesting that the houses on the N9/N10 do have evidence for internal, off-centre hearths. Interpretations regarding the exact lifespan of a typical roundhouse have been wide-ranging and extend from 15–25 years (e.g. Drewett 1982, 343) to 30–75 years (Brück 1999, 149). A widespread paucity or limitation of chronologically diagnostic artefacts associated with roundhouses further complicates such interpretations. Frequently, roundhouses show signs of repair and rebuild, as was extensively evident at the nucleated site of Corrstown, Co. Londonderry (Ginn & Rathbone, 2012) where 74 roundhouse platforms were excavated. This nucleated site represents the highest concentration of contemporary Bronze Age houses known to date throughout Ireland and Britain. Most excavated examples do occur in isolation or in pairs or small groups of buildings, as along the N9/N10, indicating that the majority of the Irish Bronze Age population lived in small settlement groups.

3.3.2 Typological Background of Burnt Mounds

Burnt mound sites (also commonly referred to as *Fulacht Fiadh*) are one of the most common field monuments found in the Irish landscape. The last published survey (Power *et al*. 1997), carried out over a decade ago, recorded over 7,000 burnt mound sites and in excess of 1,000 sites have been excavated in recent years through development led archaeological investigations. In spite of this no clear understanding of the precise function of these sites has been forthcoming.

Burnt mound sites are typically located in areas where there is a readily available water source, often in proximity to a river or stream or in places with a high water table. In the field burnt mounds may be identified as charcoal-rich mounds or spreads of heat shattered stones, however, in many cases the sites have been disturbed by later agricultural activity and are no longer visible on the field surface. Nevertheless even disturbed spreads of burnt mound material often preserves the underlying associated features, such as troughs, pits and gullies, intact.

Ó Néill (2003–2004, 82) has aptly identified these sites as the apparatus and by-product of pyrolithic technology. This technology involved the heating or boiling of water by placing fire-heated stones into troughs of water. Small shallow round-bottomed pits, generally referred to as pot boiler pits or roasting pits, are often associated with burnt mound sites. The purpose of these pits remains unclear. Occasionally large pits are also identified and may have acted as wells or cisterns. Linear gullies may extend across the site, often linked to troughs and pits, and demonstrate a concern with onsite water management. Post and stakeholes are often found on burnt mound sites and these may represent the remains of small structures or wind breakers.

Burnt mound sites are principally Bronze Age monuments and reach their pinnacle of use in the middle/late Bronze Age (Brindley *et al*. 1989−90; Corlett 1997). Earlier sites, such as Enniscoffey Co. Westmeath (Grogan *et al*. 2007, 96), have been dated to the Neolithic and later sites, such as Peter Street, Co. Waterford (Walsh 1990, 47), have been dated to the medieval period. Thus although burnt mound sites generally form a component of the Bronze Age landscape, the use of pyrolithic technology has a long history in Ireland.

Although there is a general consensus that burnt mound sites are the result of pyrolithic technology for the heating or boiling of water, the precise function of these sites has, to date, not been agreed upon. Several theories have been proposed but no single theory has received unanimous support. The most enduring theory is that burnt mounds sites were used as cooking sites. O'Kelly (1954) and Lawless (1990) have demonstrated how joints of meat could be efficiently cooked in trough of boiling water. The use of burnt mound sites for bathing or as saunas has been suggested as an alternative function (Lucas 1965, Barfield and Hodder 1987, O' Drisceoil 1988). This proposal is largely influenced by references in the early Irish literature to sites of a similar character and is very difficult to prove, or disprove. Others, such as Jeffrey (1991), argue that they may have been centres of textile production for the fulling or dyeing of cloth. More recent demonstrations by Quinn and Moore (2007) have shown that troughs could have been used for brewing, however, this theory has been criticised by leading Irish environmentalists due to the absence of cereal remains from most burnt mound sites (McClatchie *et al*. 2007).

3.3.3 Typological Background of Isolated Pits and Postholes

It can be difficult to get in to the prehistoric 'mind set' when interpreting archaeological remains, none more so than in the case of apparently isolated pits and postholes, sometimes containing 'ritually' deposited items.

Usually large postholes/pits are interpreted as load bearing or structural elements of a building however when these features are identified in relatively isolated contexts away from obvious structures that explanation is not plausible. What then was their function? Were they excavated purely as rubbish pits to deposit pottery or finds or did they have more significance? Were they a 'closing deposit' when a structure was being abandoned/dismantled? Even if the deposition was attributable to such actions what was the posthole/pit excavated for, what did it support? Totem poles or marker posts have been suggested for such anomalies in the past. Indeed it has been noted that the evidence for such a feature in the archaeological record is a seemingly unremarkable, large posthole (Barker1993, 25).

It is possible that some isolated pits/postholes represent simple refuse pits associated with temporary settlement but may also have been excavated and backfilled as part of a ritual associated with the transient nature of people at the time. Edmonds suggests that pits were dug and filled as people left a place for a season,

like the planting of crops, offering “the hope of renewal and return” (Edmonds 1999). Pollard also suggests that abandoning a settlement and moving on was an act of social transition, and a potential threat to social order. The digging and filling of pits may have been a way to counter this threat (Pollard 2001).

Cremation pits are a common form of burial in the Bronze Age in which the dead would have been burnt on a wooden pyre and the ashes placed in a small pit. Burials can be found in isolation, or grouped together in cemeteries. Recent excavations along the many linear infrastructure projects have revealed hundreds of these pit burials and analysis indicates that these pits may indeed not be ‘isolated’ features as such and may be part of the wider landscape of Bronze Age burial rites in Ireland (Grogan, O Donnell & Johnston 2007, 115). In the middle and later Bronze Age the quantity of cremated bone deposited was represented by small token deposits rather than the full cremated body.

3.4 Summary of the Excavation Results

The earliest features on the site were dated to the early Bronze Age and relate to isolated pits, both with associated stakehole clusters. The pits may relate to burnt mound type activities as both had evidence of heat shattered stones and the sounding landscape was marginal and wet.

Two roughly circular post-built structures, Houses 1 and 2, were identified on the site and may have represented early-middle Bronze Age roundhouses or less formal temporary huts or shelters. These were both between 5m and 6m in diameter and lay approximately 30m apart. Both had possible entrances in the south-east with possible evidence for a porch identified at House 1. House 1 consisted of an outer ring of postholes and an inner ring of smaller stakeholes with other clusters of stakeholes evidence in the interior. House 2 also had two internal pits and three postholes. A number of features immediately external to the two houses may have been directly associated, such as a possible hearth pit to the east of House 2 and a cluster of pits and postholes to the east of House 1.

Probable associated domestic activity was evidenced to the south of the houses by numerous features such as pits, postholes and stakeholes with no distinct spatial arrangement. A curvilinear feature in the south-west may have represented the remains of a slot-trench for a fence or boundary and appeared to delineate or partially enclose a concentration of activity in the south-west. This and other features may have been truncated by the extensive modern field clearance that took place in the location. Finds included two possible rubbing stones and two sherds of prehistoric pottery. To the north, the process of using hot stones to heat water was evidenced by rectangular troughs and features containing burnt stone. This activity, normally characteristic of burnt mound sites, was likely to have been associated with the apparent domestic activity that was taking place on the rest of the site.

3.5 Summary of the Specialist Analysis

A number of specialists provided analysis of samples and artefacts recovered from the site as part of the post-excavation works. This work in part formed the basis for the dating evidence for the site. The detailed reports on the results of all analysis are in Appendix 2.

Prehistoric pottery analysis

The excavation yielded two sherds representing a Bronze Age cordoned urn or related domestic vessel.

Lithics analysis
The lithic finds from the archaeological investigations at Ballyquirk 2 are a possible utilised stone, perhaps a rubbing stone, and a possible rubbing stone. Both are made of limestone and most likely date to the Bronze Age.

Charcoal and Wood Species identification
The charcoal fragments from C7, C57 and C59, C97, C159, C192, C422 and C455 recorded at Ballyquirk 2were chosen for charcoal identification and analysis. Since it was difficult to ascertain whether all three features were associated with each other, the interpretations are localised to each feature, rather than the site as a whole. Oak, ash, hazel and willow were recorded from C7, C57, C59, C192, C422 and C455 and this material is likely to be the re-deposited charred debris from nearby firing events. C422 was the only feature to contain holly charcoal, albeit in very low quantities. Oak was recorded in high concentrations from C97 and C159. While the oak from C97 may be a dumping deposit, the charcoal from C159 is likely to be the remains of structural wood.

Animal Bone Analysis
A total of 17 burnt bone fragments recovered from C57 and C59 on Ballyquirk 2 were submitted for examination. A single calcined bone fragment was identified to the species of *caprinae*. Due to size, poor preservation and fragmented nature of the individual bone pieces it was not possible to identify the remaining burnt bone fragments to species.

Petrographical analysis
A total of five samples of sandstone were submitted for analysis. Whilst it is not possible to determine a definitive source for these stone samples based on macroscopic examination alone, it can be stated that these rock types are available locally in outcrop and within the glacial tills / sub-soils. It is therefore probable that the material in these samples were sourced in the vicinity of the site.

Radiocarbon Dating
A total of five samples were sent for AMS radiocarbon dating.

The results of the analysis dated ash charcoal from the fill C7 of a posthole. The 2 sigma calibrated date was 1739–1536BC (UB 14117).

The results of the analysis dated ash charcoal from the fill C59 of a pit. The 2 sigma calibrated date was 2024–1894BC (UB 14118).

The results of the analysis dated alder charcoal from the fill C218 of a postpipe. The 2 sigma calibrated date was 1862–1634BC (UB 14119).

The results of the analysis dated ash charcoal from the fill C422 of a pit. The 2 sigma calibrated date was 2137–1965BC (UB 14120).

The results of the analysis dated ash charcoal from the fill C455 of a pit. The 2 sigma calibrated date was 1733–1535BC (UB 14121).

4 DISCUSSION AND CONCLUSIONS

4.1 Discussion

4.1.1 Physical Setting

The excavation at Ballyquirk 2 has identified activity dating from the early and middle Bronze Age in the form of two probable roundhouse structures, troughs and pits associated with burnt mound type activity, and other clusters and scatters of pits, postholes and gullies, at least one of which could be a "working" area, although diagnostic material from the site was limited. The site was located on a small undulating plateau at the top of a small hill. Despite its elevated position the site was very poorly drained and highly prone to waterlogging, and the topsoil had a peaty content in many areas of the site. The landowner indicated that the field had been subject to clearance and reclamation in the past as it had been overgrown with gorse and other species, which were still evident in some of the more upland fields to the west. The subsoil showed evidence of disturbance throughout the excavation, probably caused by the reclamation and clearance works. The identification of a settlement site in an area with commanding views of the surrounding landscape, particularly where there is a noticeable level plateau, could perhaps have been anticipated, although the wet nature of the ground would not usually be attractive for Bronze Age settlement other than burnt mound activity using hot stone technology. In this regard, the presence of possible troughs and pits that may have been related to hot stone technology in such a wet, marginal landscape could be expected, although no definitive burnt mound was recorded.

4.1.2 Archaeological Landscape

The surrounding archaeological landscape shows no previously recorded monuments within a radius of 1km, which is not unexpected given the relatively barren and upland nature of the physical landscape. A number of sites were excavated as part of the N9/N10 Phase 4 in the general vicinity of the site. To the north Ballyquirk 3 was adjacent to Ballyquirk 2, being only 50m away, and some of the dating of features from Ballyquirk 2 indicates an overlap with the earliest features from Ballyquirk 3, so a direct inter-relationship between these two sites cannot be ruled out. Ballyquirk 3 probably represents transient and temporal activity on the northern periphery of an area of Bronze Age settlement, possibly focussed on Ballyquirk 2. Other activity can be seen to the north-west at Ballyquirk 4 where a complex of burnt mound activity was recorded which yielded broadly contemporary dates with that for the early-middle Bronze Age activity recorded at Ballyquirk 2. It is difficult, however, to link the sites given the distance between them although it is possible that they represent activity related to the same community. A number of sites were also excavated to the south of Ballyquirk 2 as part of the N9/N10 Phase 4 and while only some show evidence of contemporary activity (a burnt mound trough at Blanchvillespark 4; two pits at Blanchvillespark/Ballyquirk 1), collectively they show a landscape that was settled from the Neolithic period and throughout the Bronze Age. The cluster of sites extending from Blanchvillespark 3 in the south to Ballyquirk 2 and 3 in the north indicate that this area was attractive for a range of activities including temporary settlement, burnt mound activity and more permanent domestic settlement as evidenced at Ballyquirk 2.

4.1.3 The significance of the site in the wider Bronze Age landscape

This site contributes greatly to the emerging Bronze Age landscape of the northern landscape of the scheme. In addition to this site, Bronze Age settlement activity in the form of structures was recorded at Moanduff 2–3, Garyduff 1 and Shankill 4. A roundhouse was also excavated at Moanmore 2 and at Dunbell Big 1 to the south in the central landscape zone. The burnt mound activity excavated at Ballyquirk 2 also

belongs to a cluster of burnt mound activity in the region. Burnt mound activity was recorded at Ballyquirk 1 located *c*. 300m to the south-west and Ballyquirk 4 located to the north-east beyond Ballyquirk 3. These sites belong to a large cluster of similar activity in the locality indicating a strong Bronze Age community in the region.

4.1.4 The Roundhouses

Two structures were identified which probably represent roundhouses. House 1 was roughly circular and appeared to have an outer wall of postholes and an inner wall of smaller stakeholes (Figure 7). The house had a maximum diameter of 5.2–5.7m with a possible entrance in the south-east and a possible porch marked by two external pits. It is unclear if the inner wall is contemporary or represents a second structure in this location. One of the outer postholes of House 1 yielded an early-middle Bronze Age date 1739–1536BC (UB 14117) although a pit in the interior of the returned an earlier Bronze Age date 2024–1894BC (UB 14118). It is interpreted that, given the large number of scattered pits on the site, it is possible that Pit C60 and House 1 are co-eval and represent distinctly separate activities.

House 2 consisted of a roughly circular, post-built structure in the eastern part of the site (Figure 7). The house had a diameter of approximately 5.7–5.8m in diameter which is comparable to House 1, and also had a probable entrance at the south-east. House 2 also contained two internal pits, one overlying the other. It is uncertain which, if any, of the internal features were directly associated with the house, again given the large number of pits scattered across the site. A circular pit, possibly used as a hearth, lay immediately outside the structure to the east and may have been associated.

On the basis of the typological background of houses of this period (Section 3.3), the site conforms with many of the identified elements. As circular roundhouses with diameters of 5.2–5.8m, they comfortable fit within the 3–15m diameter range associated with these houses. They also contain internal and external possible waste pits which are commonplace and have no definitive hearth.

4.1.5 Pits and Other Features

The curvilinear gully, C251, may have represented the remains of a slot-trench possibly associated with a fence or boundary and appeared to delineate or partially enclose a concentration of activity in the south-western part of the site. Extensive field clearance may have truncated some parts of this feature. Five pits and a large number of stake- and postholes represented the predominant archaeological activity in the location. The precise function of most of the pits is unknown, although two of them, C292 and C328, had associated stakeholes that could have formed an associated structural apparatus. Two distinct groups of support features (south-east of pit C292 and south of pit C328) were also likely to have represented a structural apparatus of some kind. While it is uncertain exactly what activity was being carried out, there appeared to be two phases of activity (possibly broadly contemporary). This suggests temporary, although possibly recurring, occupation of the area probably directly related to House 1. Two sherds of domestic pottery (cordoned urn) were retrieved from pit C193. Other finds included two possible rubbing stones, again indicating probable domestic activity.

It is unclear how the many scatters of pits across the site related to the two houses. Some of the clusters may represent defined working areas as outlined above in the south-west of the site. Many of the other pits are possibly simple waste pits associated with domestic activity. However, as outlined in section 3.3, it is difficult to get in to the prehistoric ‘mind set’ when interpreting archaeological remains none more so than in the case of “isolated” pits, sometimes containing ‘ritually’ deposited

items. It must be considered that the pottery recovered from one of the pits on the site was deliberately placed within this pit and that it was not simply an act of dumping of domestic waste and that it is associated with the abandonment of the site.

Two possible troughs filled with heat shattered stone in the east of the site indicate activities similar to those associated with burnt mound sites. One of these troughs is broadly contemporary with House 1 so it seems likely that much of the activity related to the domestic settlement occupation of the site. The burnt mound activity in the two troughs is located adjacent to a large area of natural peat, possibly representative of a waterlogged area in antiquity so it is likely that the occupiers of the site were utilising the natural wet and marginal environment for burnt mound activity immediately adjacent their domestic settlement. A third probable trough was located in relative isolation to the west. A series of dispersed pits, most on the periphery of the peat deposit, contained charcoal-rich fills with inclusions of burnt stone and burnt clay. A number of stakeholes in the area were directly associated with the pits and others were less clearly associated. The type of activity observed at the northern extent of the site is typical of burnt mound sites and it is possible that further activity of this kind existed beyond the road-take to the immediate north-west.

4.2 Conclusions

The site was located at the crest of a small hill with good views of the surrounding landscape but was none-the-less extremely prone to water-logging and natural peat formation had occurred in wetter pockets. Two roughly circular post-built structures probably mark the location of roundhouses. Probable associated domestic activity was evidenced to the south of these structures by numerous features such as pits, postholes and stakeholes with no distinct spatial arrangement although many of the pits were clustered. In the north of the site, burnt mound related activity, utilising naturally wet pools, was likely to have been carried out in conjunction with the domestic settlement. Modern field clearance is likely to have caused significant damage to archaeological features on the site and may have impacted on our ability to relate certain areas of activity. However, despite the impact of the clearance activities the site is very important both locally and regionally. Locally it compliments a number of other excavated sites along the N9/N10 Phase 4 in presenting a well settled Bronze Age landscape in the absence of previous recorded monuments of the period. Regionally, the nature of the findings from the site is of significance as it expands our knowledge and understanding of the distribution of early-middle Bronze Age settlement in this area of the Barrow Valley.

5 BIBLIOGRAPHY

5.1 References

Barfield, L. and Hodder, M. 1987 Burnt mounds as saunas, and the prehistory of bathing. *Antiquity* **61**, 370–9.

Barker, P. 1993 *Techniques of Archaeological Excavation*. Third Edition, Batsford.

Brindley, A. L. 1989–90 Radiocarbon dates from Irish *fulachta fiadh* and other burnt mounds. *Journal of Irish Archaeology* **5**, 25–33.

Brück J. 1999 Houses, Lifestyles and Deposition on Middle Bronze Age Settlements in Southern England. *Proceedings of the Prehistoric Society,* 65, 145–66.

Buckley, R. and Fitzsimmons, V. 2002 *Kilkenny Co Co Groundwater Protection Scheme*. Unpublished report for Kilkenny County Council.

Carlin, N., Clarke, L. & Walsh, F. 2008 *The M4 Kinnegad-Enfield-Kilcock Motorway: The Archaeology of Life and Death on the Boyne Floodplain*. NRA Monograph Series No. 2. Wordwell, Bray.

Carrigan, W. 1905 Parish of Castlecomer. *The History and Antiquities of the diocese of Ossary* ,Vol. II. Dublin: Sealy, Bryers & Walker, 156–159.

Corlett, C. 1997 A *fulacht fiadh* site at Moynagh Lough, County Meath. *Ríocht na Mídhe* **9**(3), 46–9.

Doody, M. 2000 Bronze Age houses in Ireland. In A. Desmond, G. Johnson, M. McCarthy, J. Sheehan & E. Shee Twohig (eds), *New agendas in Irish Prehistory*, 135–60. Wordwell, Bray.

Dunne, N. 2007 An exciting array of finds from the Carlow Bypass. *Seanda* **2**, 64–66.

Drewett, P. 1979 New Evidence for the Structure and Function of Middle Bronze Age Round Houses in Sussex. *Archaeological Journal*, **136**, 3–11.

Drewett, P. 1982 Later Bronze Age Downland Economy and Excavations at Black Patch, East Sussex. *Proceedings of the Prehistoric Society* **48**, 321–400.

Edmonds, M. 1999 *Ancestral geographies: Landscape Monuments and Memory.* London. Routledge.

Eogan, G. 1974a Regionale gruppierungen in der Spätbronzeit Irland, *Archaeologisches Korrespondenzblatt* **4**, 319–27.

Eogan, G. 1974b Regionale Gruppierungen in der Spätbronzezeit Irlands. *Archäologisches Korrespondenzblatt* **4**, 319–27.

Eogan, G. 1983 *Hoards of the Irish Later Bronze Age*. University College, Dublin.

Eogan, G. 1993 The Late Bronze Age. Customs, Crafts and Cults. In E. Shee Twohig and M. Ronayne (eds), *Past Perceptions: The Prehistoric Archaeology of South-West Ireland*, 121–33. University College, Cork.

Ginn, V. and Rathbone, S. 2012 *Corrstown: A Coastal Community*. Oxbow, Oxford.

Grogan, E., O' Donnell, L. and Johnstown, P. 2007 *The Bronze Age Landscapes of the Pipeline to the West*. Wordwell, Bray.

GSB Prospection Ltd 2003 *Geophysical Survey Report 2003/39, N9/N10 Kilcullen to Waterford – South: Powerstown to Waterford*.

Guilbert, G 1982 A 'Sussex-style' of post-ring layout in Bronze-Age roundhouses. *Sussex Archaeological Collections*, **120**, 209–13.

Hamond, F. 1990 *An Industrial Archaeological Survey of County Kilkenny*. Kilkenny County Council Planning and Environment Section.

Herity, M. and Eogan, G. 1989 *Ireland in Prehistory*. Routeledge, 158.

Jeffrey, S. 1991 Burnt mounds, fulling and early textiles? In M. Hodder and L. Barfield (eds), *Burnt Mounds and Hot Stone Technology*, 97–102. Sandwell Metropolitan Borough Council.

Keeley, V. J. Ltd 2005 *N9/N10 Kilcullen to Waterford Scheme: Waterford to Powerstown. Environmental Impact Statement.* Chapter 17: Archaeology and Cultural Heritage, Chapter 18: Architectural Heritage.

Kyle, J. 2007 *Report on Test Area 6, N9/N10 Kilcullen to Waterford Scheme, Phase 4B: Knocktopher to Powerstown*. Unpublished report prepared for Irish Archaeological Consultancy Ltd.

Lawless, C. 1990 A Fulact Fiadh Bronze Age cooking experiment at Turlough, Castlebar. *Cathair na Mart* **10**, 1–10.

Lucas, A. T. 1965 Washing and bathing in ancient Ireland. *Journal of the Royal Society of Antiquaries Ireland,* **96**, 65–114.

Lyng, T. 1984 *Castlecomer Connections: Exploring History, Geography and Social Evolution in North Kilkenny Environs* 217, 387, 410–413.

McClatchie, M., Brewer, A., Dillion, M., Johnston, P., Lyons, S., Monk, M., Stewart, K. and Timpany, S. 2007 Brewing and *fulachta fiadh*. *Archaeology Ireland* **21**(4), 46.

Moore, F. 1984 A Bronze Age burial at Killinane, near Bagenalstown, Co. Carlow. *Old Kilkenny Review,* **3**(1), 64–8.

Musson, C. 1970 House-plans and prehistory. *Current Archaeology*, **2** (10), 267–75.

O' Drisceoil, D. A. 1988 Burnt mounds: cooking or bathing. *Antiquity* **62**, 671–80.

O' Kelly, M. J. 1954 Excavations and experiments in ancient Irish cooking-places. *Journal of the Royal Society of Antiquaries Ireland* **84**, 105–55.

Ó Néill, J. 2003–2004 Lapidibus in igne calefactis coquebatur: The historical burnt mound 'tradition''. *The Journal of Irish Archaeology* **12–13**, 79–85.

Ó Néill , J. forthcoming *Inventory of Bronze Age Structures*. British Archaeology Reports. Archaeopress, Oxford.

Pollard, J. 2001 The Nature of Archaeological Deposits and Finds Assemblages. In A. Woodward & J D Hill (eds), *Prehistoric Britain: The Ceramic Basis*, 22–33. Oxbow Books, Oxford.

Power, D., Byren, E., Egan, U., Lane, S., and Sleeman, M. 1997 *Archaeological inventory of County Cork. Volume 3: Mid Cork,* The Office of Public Works, Dublin.

Quinn, B. and Moore, D. 2007 Ale, brewing and *fulachta fiadh*. *Archaeology Ireland* **83**, 8–10.

Raftery, B. 1974 A prehistoric burial mound at Baunogenasraid, Co. Carlow. *Proceedings of the Royal Irish Academy* **74**, 12–14.

Roseveare, M. and Roseveare, A. (ArchaeoPhysica Ltd) 2005 *N9/N10 Kilcullen to Waterford Scheme: Waterford to Powerstown Geophysical Survey Report*.

Waddell, J. 1990 *The Bronze Age Burials of Ireland*. Galway University Press, Galway, 51–53.

Walsh, C. 1990 A Medieval Cooking Trough from Peter Street, Waterford. In V. Buckley (ed.), *Burnt Offerings: International Contributions to Burnt Mound Archaeology*, 47–8. Dublin, Wordwell.

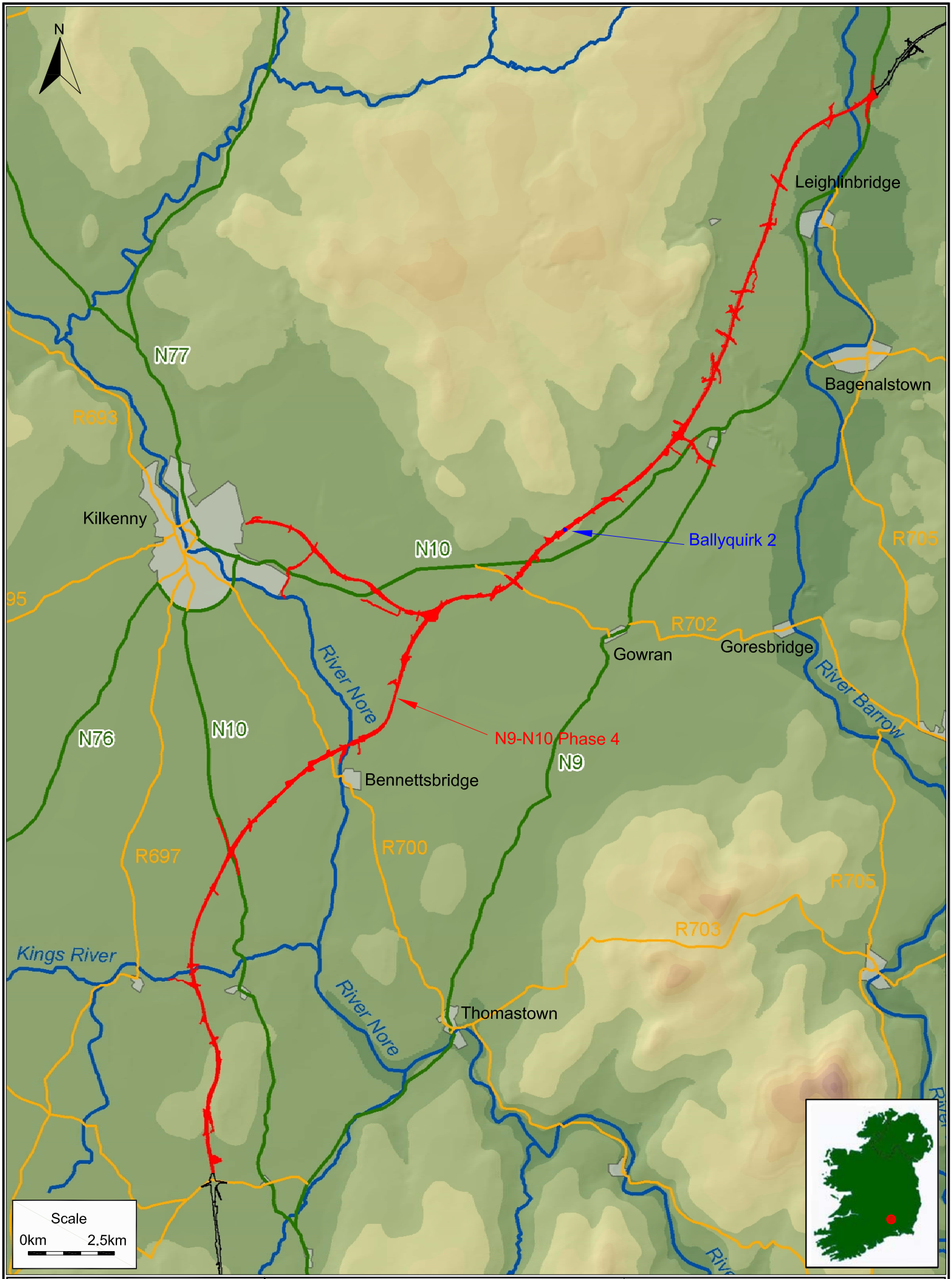
5.2 Other Sources

Record of Monuments and Places (RMP), The Department of the Environment, Heritage and Local Government, 7 Ely Place Upper, Dublin 2.

Topographical Files of the National Museum of Ireland, Kildare Street, Dublin 2.

Electronic references

ENVision; *Environmental Protection Agency* Soil maps of Ireland
http://www.epa.ie/InternetMapViewer/mapviewer.aspx

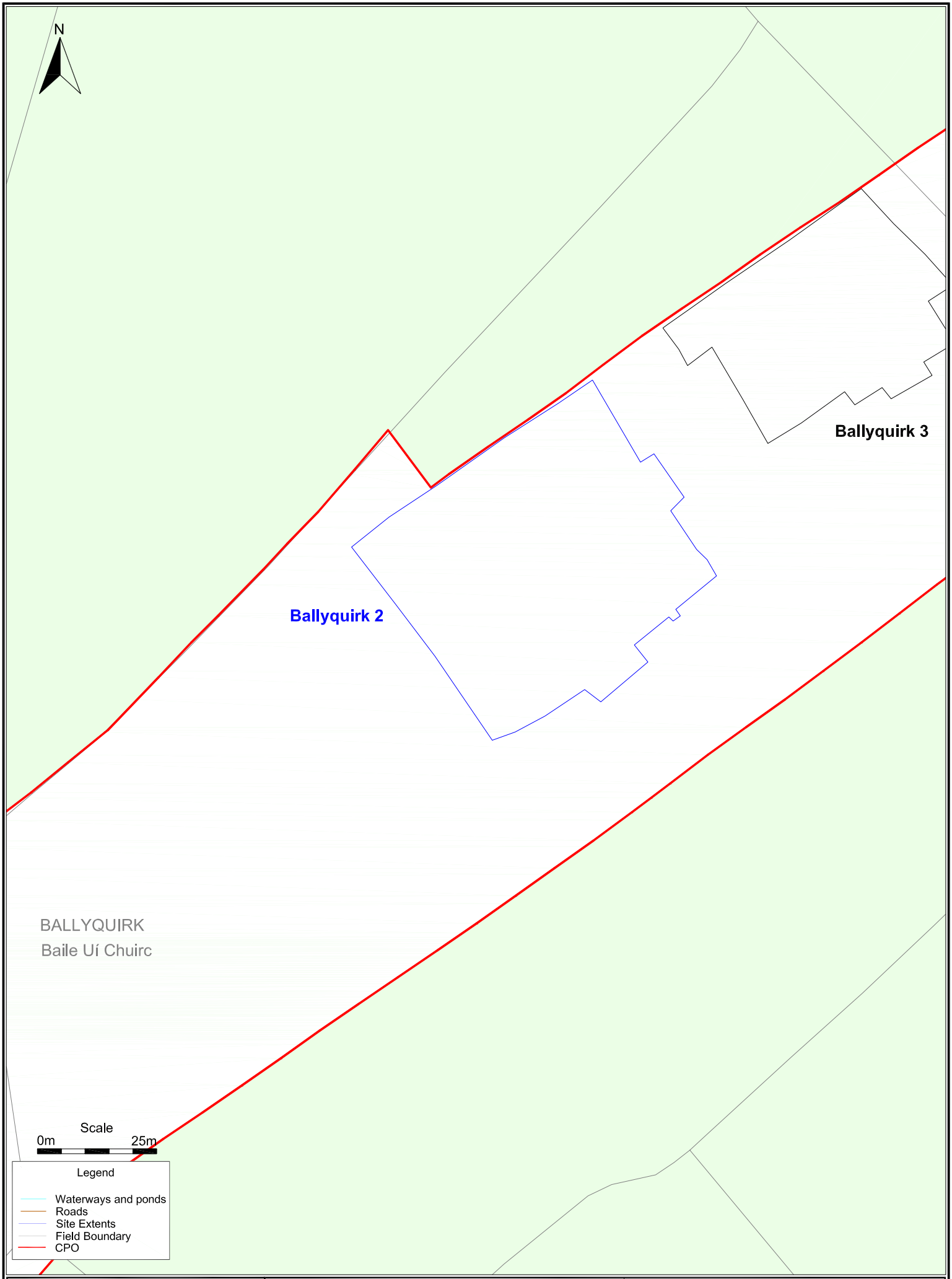


IAC Irish Archaeological Consultancy	Title:	Ballyquirk 2 - General Site Location	Scale: As Shown
	Project:	N9-N10 Phase 4: Knocktopher to Powerstown	Date: 31/05/10
	Client:	Kilkenny County Council	Produced by: P Higgins
			Job No: J2432
			Figure No: 1

IAC Irish Archaeological Consultancy

Title:	Ballyquirk 2 - Location of site showing RMPs
Project:	N9-N10 Phase 4: Knocktopher to Powerstown
Client:	Kilkenny County Council

Scale:	1:10000 @ A4
Date:	17/05/10
Produced by:	P Higgins
Job No:	J2432
Figure No:	2



IAC Irish Archaeological Consultancy

Title:	Ballyquirk 2 - Location of site within development
Project:	N9-N10 Phase 4: Knocktopher to Powerstown
Client:	Kilkenny County Council

Scale:	1:1000 @ A4
Date:	10/05/10
Produced by:	P Higgins
Job No:	J2432.1
Figure No:	3

N

261790E
156535N

C510
C506
C512
C508
C514
Pit
C438
2137-1965 BC

C99

Pit
C287
C253
C255

C458
Pit
C413
C460
C462
C417

C409

Trough
C456
C486
Trough
1733-1535 BC

106.312

Pit
C499
C498
C483
C485

Pit
C369

106.017
C576

1739 - 1536 BC
House 1
106.513
2024 - 1894 BC

House 2

Possible
"working"
area

1862 - 1634 BC

Pit
C308

C344

C375
C374
C229
Pit
C301
C317
C302
C298
C296
Pit
C320

106.099
106.073

Pit
C236

106.171
Pit
C364
Pit
C351

106.069

261835E
156505N

261790E
156495N

Limit of Excavation

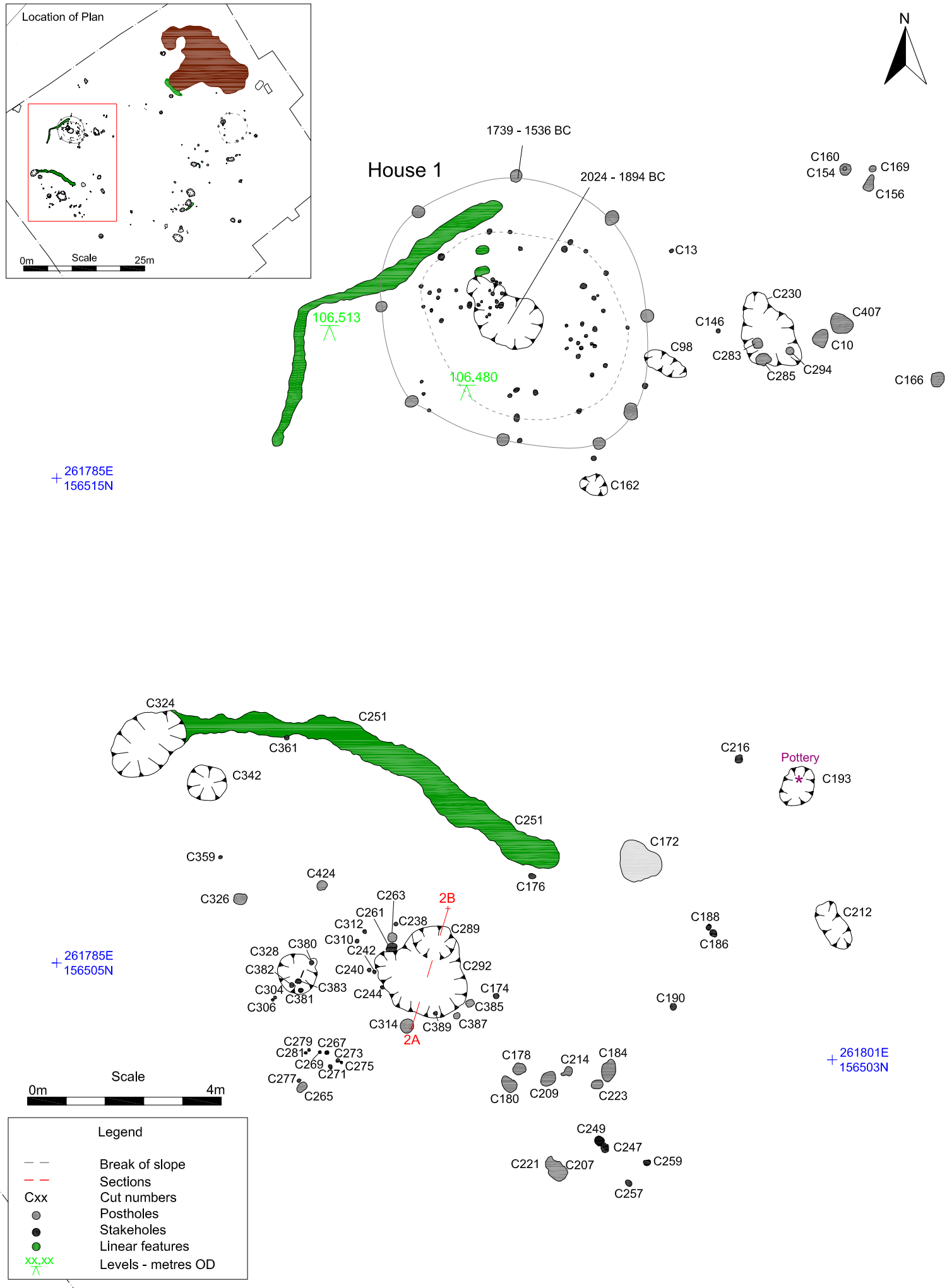
Scale
0m 10m

Legend

- Break of slope
- Sections
- Cxx — Cut numbers
- Burnt mound deposits
- Stakeholes
- Stone
- xx.xx — Levels - metres OD

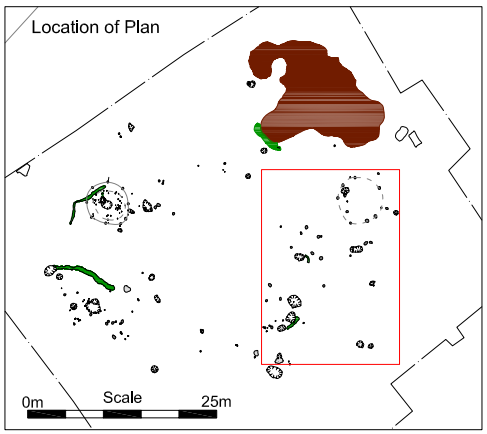
Title:	Ballyquirk 2 - Plan of site		
Project:	N9/N10 Phase 4: Knocktopher to Powerstown		
Client:	Kilkenny County Council		
Scale:	1:200 @A3	Job No:	J2432
Date:	23/01/11	Figure No:	4
Produced by:	G Kearney		

IAC Irish Archaeological Consultancy



IAC Irish Archaeological Consultancy

Title:	Ballyquirk 2 post excavation plan - western part
Project:	N9/N10 Phase 4: Knocktopher to Powerstown
Client:	Kilkenny County Council
Scale:	1:100 @ A4
Date:	29/11/2013
Produced by:	G Kearney P Higgins
Job No:	J2432.1
Figure No:	5



N

House 2

C516

C537

C434

C452

C464

C448

C450

261814E
156514N

C527

C529

C557

C549

C543

C493

C495

C477

C436

C432

C446

C430

C545

C564

C403

C444

C501

C504

C503

C502

261814E
156504N

C440

C518

C442

C428

C337

C397

C341

C339

C355

C357

C480

C372

261830E
156502N

Scale
0m
4m

106.171

Legend

- Break of slope
- Sections
- Cxx — Cut numbers
- Postholes
- Stakeholes
- Linear features
- xx.xx — Levels - metres OD

C299

C317

Pit
C301

C302

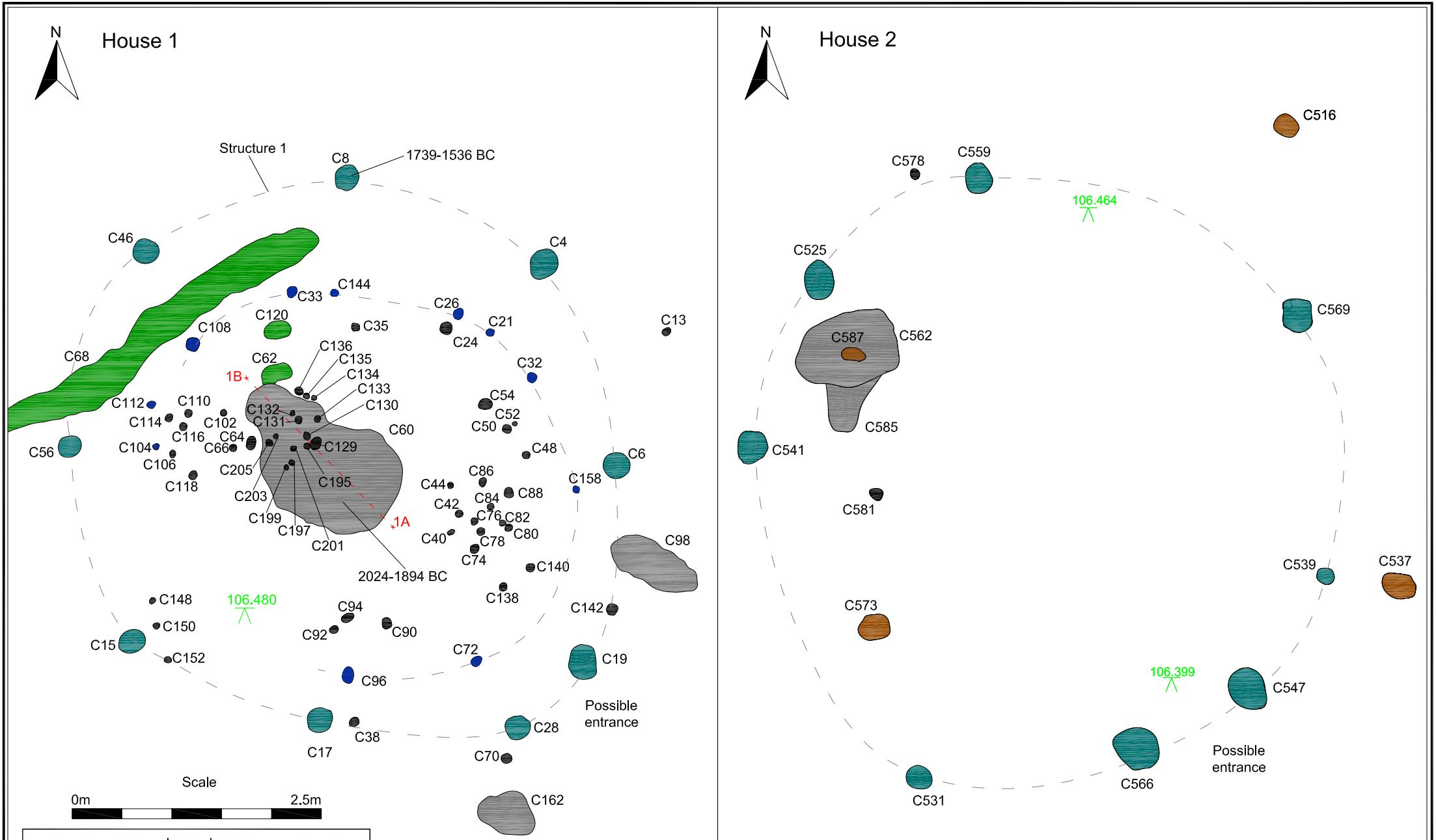
C298

C296

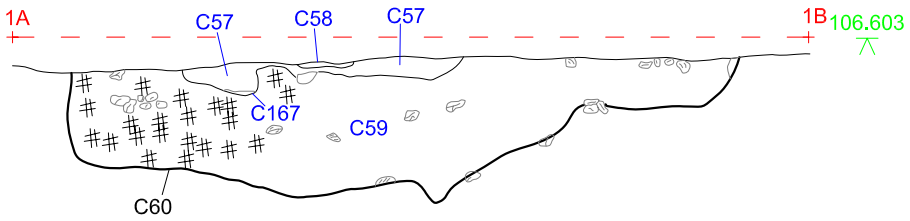
.073

IAC Irish Archaeological Consultancy

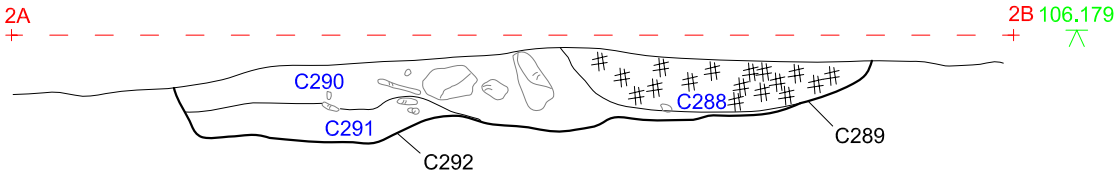
Title:	Ballyquirk 2 post excavation plan - eastern part
Project:	N9/N10 Phase 4: Knocktopher to Powerstown
Client:	Kilkenny County Council
Scale:	1:100 @ A4
Date:	05/01/12
Produced by:	G Kearney P Higgins
Job No:	J2432.1
Figure No:	6


N
House 1
Structure 1
C8
1739-1536 BC
C46
C4
C144
C33
C26
C120
C21
C13
C108
C35
C24
C136
C135
C134
C133
C130
C68
C62
C32
1B
C112
C110
C54
C114
C102
C131
C132
C52
C50
C116
C64
C60
C56
C104
C66
C129
C48
C6
C106
C205
C86
C158
C118
C195
C44
C88
C203
C84
C42
C199
C76
C82
C197
1A
C40
C78
C80
C201
C98
C74
2024-1894 BC
C140
C148
106.480
C138
C94
C142
C150
C92
C90
C15
C72
C19
C152
C96
Possible
entrance
C17
C38
C28
C70
C162
Scale
0m
2.5m
Legend
Sections
C##
Cut numbers
xx.xx
Levels
Pits
Postholes
Stakeholes
Linear Features
Outer Wall
Inner Wall
N
House 2
C516
C578
C559
106.464
C525
C569
C587
C562
C585
C541
C581
C539
C537
C573
106.399
C547
Possible
entrance
C566
C531
IAC
Irish Archaeological
Consultancy
Title:
Ballyquirk 2 Detail plan of Houses 1 and 2
Project:
N9/N10 Phase 4: Knocktopher to Powerstown
Client:
Kilkenny County Council
Scale:
1:50 @ A4
Date:
29/11/2013
Produced by:
P Higgins
Job No:
J2432.1
Figure No:
7

Northeast- facing section of C58, C57, C59, C67, C60



Southeast- facing section of C202, C89



Legend

C##	Cut numbers
C##	Fill Numbers
	Stone
#	Charcoal
###.##	Levels - metres OD

Scale

0m 1m

IAC Irish Archaeological Consultancy

Title:	Ballyquirk 2 - Sections
Project:	N9/N10 Phase 4: Knocktopher to Powerstown
Client:	Kilkenny County Council

Scale:	1:20 @ A4
Date:	05/01/12
Produced by:	P Higgins
Job No:	J2432
Figure No:	8

PLATES

Plate 1: Structure 1, post-excavation, facing south-east

Plate 2: Pit C60, mid-excavation, facing south-west

Plate 3: Pit C535 with layer of *in situ* burning, mid-excavation, facing east

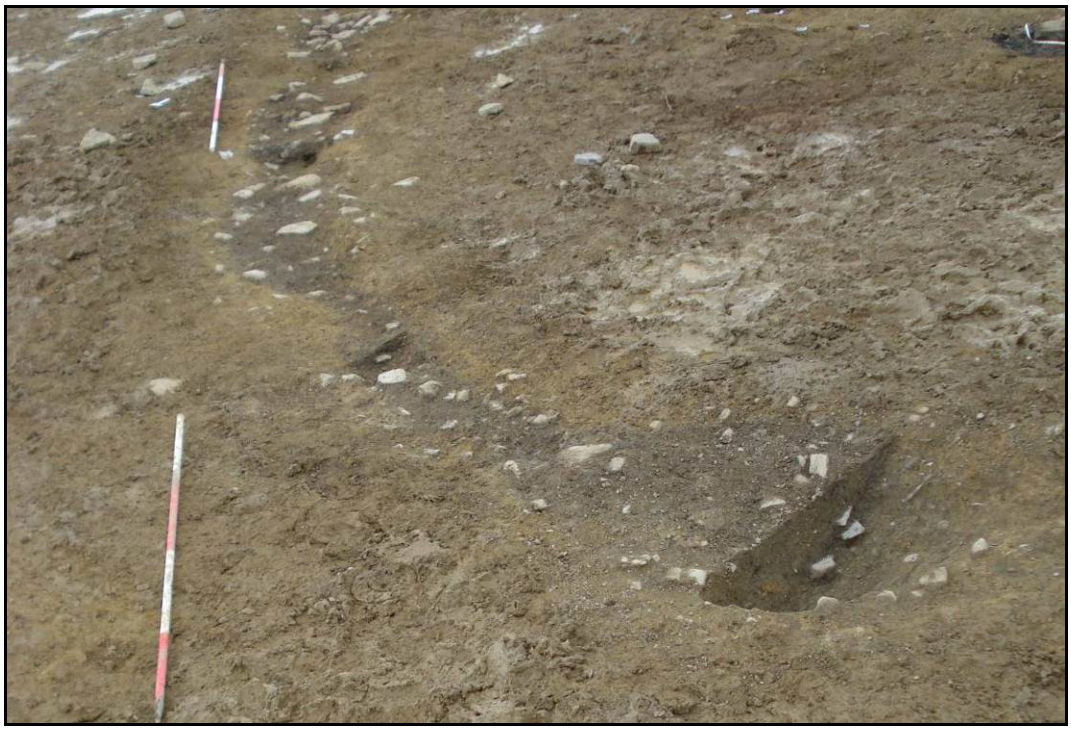


Plate 4: Curvilinear C251 with rounded pit terminal, mid-excavation, facing south-east

Plate 5: Pit C193, mid-excavation, facing east

Plate 6: Pit C236, mid-excavation, facing west

Plate 7: Trough C456, mid-excavation, facing north

Plate 8: Pit C438, mid-excavation, facing west

APPENDIX 1 CATALOGUE OF PRIMARY DATA

Appendix 1.1 Context Register

Context	Fill of	L (m)	W (m)	D (m)	Interpretation	Description	Finds	Context Above	Context Below
C1	N/A				Topsoil	Topsoil		N/A	C2
C2	N/A				Natural			C1	
C3	C4	0.3	0.22	0.22	Fill of posthole	Loosely compacted dark grey black sandy silt with frequent flecks of charcoal.	Charcoal	C1	C4
C4	N/A	0.31	0.29	0.22	Cut of posthole	Sub-circular cut with a sharp top break of slope, concave sides, gentle basal break of slope and flat base.		C3	C2
C5	C6	0.31	0.26	0.03	Fill of shallow posthole	Easily moulded soft mid brown with a greyish hue silty clay with occasional charcoal flecks.	Charcoal	C11	C6
C6	N/A	0.31	0.26	0.10	Cut of posthole	Circular cut with a gentle top break of slope, concave sides, gentle basal break of slope and bowl shaped base. Associated with C17 and C19.		C5	C2
C7	C8	0.27	0.24	0.20	Fill of posthole	Loosely compacted dark grey silty clay that is charcoal rich and with very occasional small sub-angular stones.	Charcoal	C1	C8
C8	N/A	0.27	0.24	0.20	Cut of posthole	Oval cut with rounded corners, sharp top break of slope, steep sides, sharp basal break of slope and a U-shaped base. Associated with postholes C4, C6 and C19.		C7	C2
C9	C10	0.36	0.3	0.14	Packing fill of posthole	Loosely compacted mid brown clayey sand with 12% sub-rounded to sub-angular coarse pebbles, 2% occasional small stones and 1% occasional flecks of charcoal.	Charcoal	C1	C10
C10	N/A	0.36	0.3	0.14	Cut of posthole	Oval cut with sharp top break of slope, steep sides, gentle basal break of slope and a concave base. Backfilled pit with burnt material. Cutting C30		C9	C29
C11	C6	0.31	0.26	0.05	Fill of shallow pit	Soft, easily moulded, loosely compacted dark grey silty clay with frequent charcoal flecks throughout fill.	Charcoal	C1	C6
C12	C13	0.09	0.06	0.17	Fill of stakehole	Loosely compacted dark greyish brown clayey silt with infrequent small stones.		C1	C13
C13	N/A	0.09	0.06	0.17	Cut of stakehole	Circular cut with sharp top break, steep sides, imperceptible basal break of slope and tapered blunt base. Associated with C13, C24, C26 and C21. Stakehole naturally backfilled.		C12	C2
C14	C15	0.23	0.21	0.15	Fill of posthole	Loosely compacted dark grey (greyish brown) silty clay with moderate amounts of charcoal and occasional small stones.	Charcoal	C1	C15
C15	N/A	0.23	0.21	0.15	Cut of posthole	Circular cut with a sharp top break of slope, vertical sides, gradual basal break of slope and rounded tapered point base. Associated with C17.		C14	C1
C16	C17	0.28	0.28	0.08	Fill of posthole	Loosely compacted dark grey sandy clay with charcoal and	Charcoal	C1	C17

Context	Fill of	L (m)	W (m)	D (m)	Interpretation	Description	Finds	Context Above	Context Below
						small stones.			
C17	N/A	0.28	0.28	0.08	Cut of posthole	Circular cut with a gentle top break of slope, gently sloping sides, imperceptible basal break of slope and concave base. Backfilled posthole associated with structure in 90E/130N.		C16	C2
C18	C19	0.34	0.28	0.14	Fill of shallow posthole	Moderately loosely compacted dark brownish grey silty clay with occasional small sub-angular decayed stones and occasional charcoal inclusions.	Charcoal	C1	C19
C19	N/A	0.34	0.28	0.14	Cut of shallow posthole	Circular cut with sharp top break of slope, gently sloping sides, gentle basal break of slope and bowl shaped base. Associated with C6 and C17		C18	C2
C20	C21	0.07	0.07	0.11	Fill of stakehole	Soft mid brownish grey sandy silt with occasional small stones and occasional charcoal flecks.	Charcoal	C1	C21
C21	N/A	0.07	0.07	0.11	Cut of stakehole	Circular cut with a sharp top break of slope, steep sides, sharp basal break of slope and tapered, pointed base. Associated with other stakeholes in 90E/130N.		C21	C2
C22	C4	0.3	0.05	0.22	Fill of posthole	Loosely compacted dark grey sandy clay with occasional charcoal inclusions.	Charcoal	C1	C4
C23	C24	0.11	0.11	0.30	Fill of stakehole	Loosely compacted greyish black sandy silt with no stone inclusions.		C1	C24
C24	N/A	0.11	0.11	0.30	Cut of stakehole	Circular cut with sharp top break, vertical sides, sharp basal break of slope and pointed base. Associated with other stakeholes in 90E/130N	Charcoal	C23	C2
C25	C26	0.07	0.07	0.07	Fill of stakehole	Moderately soft greyish dark brown sandy silt with moderate inclusions of charcoal	Charcoal	C1	C26
C26	N/A	0.07	0.07	0.07	Cut of stakehole	Circular cut with sharp top break of slope, vertical sides, sharp basal break of slope and flat base. Associated with other stakeholes in 90E/130N.		C25	C2
C27	C28	0.26	0.24	0.05	Fill of posthole	Friable dark grey silty clay with moderate charcoal inclusions.	Charcoal	C1	C28
C28	N/A	0.26	0.24	0.05	Cut of posthole	Circular cut with sharp top break of slope, gently sloping sides, imperceptible basal break of slope and concave base. Associated with other postholes in 90E/130N.Posthole very shallow due to truncation. Posthole has been backfilled,		C27	C2
C29	C10	0.13	0.09	0.26	Fill of post-pipe	Soft mid brown silty sand with 2% small stones		C10	C30
C30	C10	0.13	0.09	0.26	Cut of post-pipe	Oval cut with sharp top break of slope, vertical sides, gentle basal break of slope and a tapered point base. Stakehole cut by C10.		C29	C2
C31	C32	0.1	0.1	0.12	Fill of stakehole	Loosely compacted light grey/brown clayey silt with infrequent inclusions of small stones.		C1	C32
C32	N/A	0.1	0.1	0.12	Cut of stakehole	Circular cut with sharp break of slope, steep sides, imperceptible break of slope and concave base. Stakehole		C31	C2

Context	Fill of	L (m)	W (m)	D (m)	Interpretation	Description	Finds	Context Above	Context Below
						silted up naturally. Associated with other stakeholes in 90E/130N.			
C33	N/A	0.12	0.1	0.9	Cut of stakehole	Circular cut with sharp top break of slope, steep sides, sharp basal break of slope and U-shaped base. Associated with other stakeholes in 90E/130N.		C34	C2
C34	C33	0.12	0.1	0.09	Fill of stakehole	Loosely compacted mid greyish brown silty sand with frequent flecks of charcoal. Amount of charcoal indicates fill formed by *in situ* burning.	Charcoal	C1	C33
C35	N/A	0.09	0.09	0.15	Cut of stakehole	Circular cut with sharp top break of slope, steep sides, sharp basal break of slope and U-shaped base. Associated with other stakeholes in 90E/130N.		C36	C2
C36	C35	0.09	0.09	0.15	Fill of stakehole	Crumbly mid greyish brown clayey silt with occasional charcoal flecks and occasional sand inclusions.	Charcoal	C1	C35
C37	C38	0.08	0.08	0.15	Fill of stakehole	Loosely compacted dark grey sandy clay with occasional charcoal and stone inclusions. Fill formed by siltation or backfilling.	Charcoal	C1	C38
C38	N/A	0.08	0.08	0.15	Cut of stakehole	Circular cut with sharp top break, vertical sides, sharp basal break of slope and tapered base. Associated with other stakeholes in 90E/130N		C37	C2
C39	C40	0.06	0.06	0.11	Fill of stakehole	Loosely compacted grey sandy clay. Fill formed by backfilling or siltation.		C1	C40
C40	N/A	0.06	0.06	0.11	Cut of stakehole	Circular cut with sharp top break of slope, vertical sides, sharp basal break of slope and tapered rounded point base. Associated with other stakeholes in 90E/130N.		C39	C2
C41	C42	0.08	0.08	0.14	Fill of stakehole	Loosely compacted grey sandy clay. Fill formed by backfilling or siltation.		C1	C42
C42	N/A	0.08	0.08	0.14	Cut of stakehole	Circular cut with sharp top break of slope, vertical slope, gentle basal break of slope and concave base. Associated with other stakeholes in 90E/130N		C41	C2
C43	C44	0.07	0.07	0.07	Fill of stakehole	Loosely compacted grey sandy clay. Fill formed by backfilling or siltation.		C1	C44
C44	N/A	0.07	0.07	0.07	Cut of stakehole	Circular cut sharp top break of slope, vertical sides, sharp basal break of slope and tapered rounded point. Associated with other stakeholes in 90E/130N.		C44	C2
C45	C46	0.28	0.25	0.13	Fill of posthole	Loosely compacted brownish grey sandy clay with charcoal and burnt stones. Fill formed by backfilling.	Charcoal	C1	C46
C46	N/A	0.28	0.25	0.13	Cut of posthole	Circular cut with sharp top break of slope, vertical sides, gentle basal break of slope and a concave base. Part of structure around C60.		C45	C2
C47	C48	0.08	0.07	0.11	Fill of stakehole	Loosely compacted grey sandy clay. Fill formed by backfilling or siltation.		C1	C48

Context	Fill of	L (m)	W (m)	D (m)	Interpretation	Description	Finds	Context Above	Context Below
C48	N/A	0.08	0.07	0.11	Cut of stakehole	Circular cut with sharp top break of slope, stepped side, sharp basal break of slope and tapered rounded point. Part of structure east of the structure around C60		C47	C2
C49	C50	0.08	0.08	0.13	Fill of stakehole	Loosely compacted grey sandy clay. Fill formed by backfilling.		C1	C50
C50	N/A	0.08	0.08	0.08	Cut of stakehole	Circular cut with sharp top break of slope, vertical sides, sharp basal break of slope and tapered rounded point base. Associated with the structure around C60.		C49	C2
C51	C52	0.04	0.04	0.04	Fill of stakehole	Loosely compacted grey clayey sand with occasional charcoal. Fill formed by backfilling or siltation.	Charcoal	C1	C52
C52	N/A	0.04	0.04	0.04	Cut of stakehole	Circular cut with sharp top break of slope, vertical sides, gradual basal break of slope and tapered rounded point. Formed by backfilling or siltation.		C51	C2
C53	C54	0.13	0.1	0.17	Fill of stakehole	Loosely compacted grey sandy clay. Formed by backfilling or siltation.		C1	C52
C54	N/A	0.13	0.1	0.17	Cut of stakehole	Circular cut with sharp top break of slope, vertical sides, sharp basal break of slope and tapered rounded point. Associated with structure around C60.		C53	C2
C55	C56	0.24	0.2	0.13	Fill of stakehole	Loosely compacted grey sandy clay with charcoal and occasional stones. Fill formed by backfilling.	Charcoal	C1	C56
C56	N/A	0.24	0.2	0.13	Cut of stakehole	Circular cut with sharp top break of slope, vertical sides, gradual basal break of slope and concave point. Part of structure surrounding C60.		C55	C2
C57	C60	0.75	0.8	0.08	Fill of pit	Loosely compacted dark grey sandy clay with 5% stones, frequent flecks of charcoal, burnt clay and a small piece of cremated bone in the top SE part of the fill. Second layer in pit.	Charcoal and burnt bone.	C58	C59
C58	C60	0.4	0.16	0.02	Fill of pit	Friable red (burnt clay) sandy clay with no inclusions. Top layer of pit, very shallow.		C1	C57
C59	C60	1.74	0.63	0.32	Fill of pit	Loosely compacted basal black (burnt clay) sandy clay with 90% small, angular and well sorted stones and frequent flecks of charcoal.	Charcoal	C57	C60
C60	N/A	1.8	1.17	0.34	Cut of pit	Pear shaped NW-SE cut with sharp in SE part+ gentle in NW part top break of slope, gently sloping sides and gentle basal break of slope. Base is stepped from NW to SE to the middle of cut, in SE part base is flat. Pit cuts C62. Min width 0.04 and min depth 0.25		C59	C61
C61	C62	0.33	0.18	0.09	Fill of small pit	Loosely compacted dark grey sandy clay		C60	C62
C62	N/A	0.33	0.18	0.09	Cut of small pit	Sub-rectangular cut with gentle top break of slope, gently sloping sides, gentle basal break of slope and a flat base. Cut by C60.		C61	C2

Context	Fill of	L (m)	W (m)	D (m)	Interpretation	Description	Finds	Context Above	Context Below
C63	C64	0.13	0.09	0.14	Fill of stakehole	Loosely compacted dark grey sandy clay with charcoal and occasional stones. Fill formed by backfilling or siltation.	Charcoal	C1	C64
C64	N/A	0.13	0.09	0.14	Cut of stakehole	Oval cut with sharp top break of slope, vertical sides, sharp basal break of slope and a tapered blunt base.		C63	C2
C65	C66	0.07	0.07	0.12	Fill of stakehole	Loosely compacted grey sandy clay with occasional charcoal and small stones. Fill formed by backfilling or siltation.	Charcoal	C1	C66
C66	N/A	0.07	0.07	0.12	Cut of stakehole	Circular cut with sharp top break of slope, vertical sides, sharp basal break of slope and tapered blunt point. Part of structure surrounding C60.		C65	C2
C67	C68	0.37	7.5	0.12	Fill of linear	Very soft light brownish grey clay with 2% small stones. Mainly orientated east to west.		C1	C68
C68	N/A	0.37	7.5	0.12	Cut of linear	Linear curving cut with gentle break of slope, imperceptible in the S side, moderate sides, gentle base of slope and concave base. Associated with structure around C60. Mainly orientated east to west.		C67	C2
C69	C70	0.1	0.1	0.08	Fill of stakehole	Loosely compacted light brown sandy clay. Fill formed by backfilling or siltation.		C1	C70
C70	N/A	0.1	0.1	0.08	Cut of stakehole	Circular cut with sharp top break of slope, very steep sides, gentle basal break of slope and rounded point base. Associated with structure surrounding C60.		C69	C2
C71	C72	0.11	0.11	0.09	Fill of stakehole	Loosely compacted grey sandy clay. Fill formed by backfilling or siltation.		C1	C72
C72	N/A	0.11	0.11	0.09	Cut of stakehole	Circular cut with sharp top break of slope, steep sides, sharp basal break of slope and pointed base. Located within the outer postholes east of C60.		C71	C2
C73	C74	0.08	0.08	0.09	Fill of stakehole	Loosely compacted grey sandy clay with occasional flecks of charcoal. Fill formed by backfilling or siltation.	Charcoal	C1	C74
C74	N/A	0.08	0.08	0.09	Cut of stakehole	Circular cut with sharp top break of slope, steep sides with a gradual slope on SW side, gentle basal break of slope and a rounded point. Part of structure group east of C60 within the outer postholes.		C73	C2
C75	C76	0.05	0.05	0.07	Fill of stakehole	Loosely compacted grey clayey sand with occasional charcoal. Fill formed by backfilling or siltation.	Charcoal	C1	C76
C76	N/A	0.05	0.05	0.05	Cut of stakehole	Circular cut with sharp top break of slope, vertical sides, sharp to gentle basal break of slope and tapered rounded point. Part of structure group east of C60 with the outer postholes.		C75	C2
C77	C78	0.06	0.06	0.05	Fill of stakehole	Loosely compacted grey sandy clay with occasional flecks of charcoal. Fill formed by backfilling or siltation.	Charcoal	C1	C78
C78	N/A	0.06	0.06	0.05	Cut of stakehole	Circular cut with sharp top break of slope, vertical sides, sharp to gentle basal break of slope and tapered rounded point. Associated with the structure surrounding C60. Part of		C77	C2

Context	Fill of	L (m)	W (m)	D (m)	Interpretation	Description	Finds	Context Above	Context Below
						the structure group east of C60 within the outer postholes.			
C79	C80	0.06	0.06	0.08	Fill of stakehole	Loosely compacted grey sandy clay. Fill formed by backfilling or siltation.		C1	C80
C80	N/A	0.06	0.06	0.08	Cut of stakehole	Circular cut with sharp top break of slope, very steep sides, gentle basal break of slope and tapered rounded base. Associated with structure surrounding C60,part of structure group east of C60 within the outer postholes.		C79	C2
C81	C82	0.03	0.03	0.05	Fill of stakehole	Loosely compacted grey sandy clay. Fill formed by backfilling or siltation.		C1	C82
C82	N/A	0.03	0.03	0.05	Cut of stakehole	Circular cut with sharp top break of slope, very steep sides, sharp basal break of slope and tapered rounded point. Associated with structure surrounding C60,part of structure group east of C60 within the outer postholes.		C81	C2
C83	C84	0.04	0.04	0.08	Fill of stakehole	Loosely compacted grey sandy clay. Fill formed by backfilling or siltation.		C1	C84
C84	N/A	0.04	0.04	0.08	Cut of stakehole	Circular cut with sharp top break of slope, vertical sides, sharp basal break of slope and tapered rounded point. Associated with structure around C60,part of structure group east of C60 within the outer postholes.		C83	C2
C85	C86	0.06	0.06	0.05	Fill of stakehole	Loosely compacted grey sandy clay. Fill formed by backfilling or siltation.		C1	C86
C86	N/A	0.06	0.06	0.05	Cut of stakehole	Circular cut with sharp top break of slope, very steep sides, sharp to gentle basal break of slope and a tapered rounded point base. Part of structure group east of C60 within the outer postholes.		C85	C2
C87	C88	0.09	0.09	0.1	Fill of stakehole	Loosely compacted grey sandy clay. Fill formed by backfilling or siltation.		C1	C88
C88	N/A	0.09	0.09	0.1	Cut of stakehole	Circular cut with sharp top break of slope, very steep sides, sharp basal break of slope and tapered rounded point. Associated with structure surrounding C60, part of structure group east of C60 within the outer postholes.		C87	C2
C89	C90	0.11	0.09	0.13	Fill of stakehole	Loosely compacted brownish silty sand. Fill formed by backfilling or siltation.		C1	C90
C90	N/A	0.11	0.09	0.13	Cut of stakehole	Circular cut with sharp top break of slope, moderately steep sides, sharp basal break of slope and concave base. Associated with the structure surrounding C60. Located on the south side of C60.		C89	C2
C91	C92	0.09	0.08	0.09	Fill of stakehole	Loosely compacted brownish silty sand. Fill formed by backfilling or siltation.		C1	C92
C92	N/A	0.09	0.08	0.09	Cut of stakehole	Circular cut with sharp top break of slope, moderately steep sides, gradual basal break of slope and concave base.		C91	C2

Context	Fill of	L (m)	W (m)	D (m)	Interpretation	Description	Finds	Context Above	Context Below
						Associated with the structure surrounding C60. Located on the south side of C60.			
C93	C94	0.12	0.07	0.07	Fill of stakehole	Loosely compacted brownish silty sand. Fill formed by backfilling or siltation.		C1	C94
C94	N/A	0.12	0.07	0.07	Cut of stakehole	Circular cut with sharp top break of slope, moderately steep sides, gradual basal break of slope and concave base. Associated with the structure surrounding C60. Located on the south side of C60.		C93	C2
C95	C96	0.14	0.1	0.16	Fill of stakehole	Loosely compacted brownish silty sand. Fill formed by backfilling or siltation.		C1	C96
C96	N/A	0.14	0.1	0.16	Cut of stakehole	Circular cut with sharp top break of slope, moderately steep sides, gentle basal break of slope and a concave base. Associated with the structure surrounding C60. Located south of C60.Close to stone assemblage, could be just a stone socket.		C95	C2
C97	C98	0.9	0.4	0.16	Fill of pit	Soft dark brown sandy clay with 10% charcoal and 0.1%stones.Fill formed by backfilling.	Charcoal	C1	C98
C98	N/A	0.9	0.4	0.16	Cut of pit	Irregular oval cut with gentle top break of slope, moderately sloping sides, gentle basal break of slope and flat base. Purpose of pit unknown. Associated with structure surrounding C60. Is in line with supposed outer postholes.		C97	C2
C99	N/A	N/A	N/A	N/A	Natural peat	Peaty Deposit interspersed across the natural subsoil		C1	C2
C100					Cancelled				
C101	C102	0.05	0.05	0.04	Fill of stakehole	Loosely compacted grey sandy clay with occasional charcoal. Fill formed by backfilling or siltation.	Charcoal	C1	C102
C102	N/A	0.05	0.05	0.04	Cut of stakehole	Circular cut with sharp top break of slope, very steep sides, gentle basal break of slope and tapered rounded point. Associated with the driven stake structure surrounding C60. Located between C60 and C68.		C101	C2
C103	C104	0.06	0.06	0.08	Fill of stakehole	Loosely compacted grey sandy clay with occasional charcoal. Fill formed by backfilling or siltation.	Charcoal	C1	C104
C104	N/A	0.06	0.06	0.06	Cut of stakehole	Circular cut with sharp top break of slope, vertical sides, sharp basal break of slope and tapered blunt base. Associated with the structure surrounding C60. Located between C60 and C68.		C103	C2
C105	C106	0.06	0.05	0.07	Fill of stakehole	Loosely compacted grey sandy clay with occasional charcoal and small stones. Fill formed by backfilling or siltation.	Charcoal	C1	C106
C106	N/A	0.06	0.05	0.07	Cut of stakehole	Circular cut with sharp top break of slope, vertical sides, sharp basal break of slope and a tapered blunt point. Associated with the structure surrounding C60. Located between C60 and C68.		C105	C2

Context	Fill of	L (m)	W (m)	D (m)	Interpretation	Description	Finds	Context Above	Context Below
C107	C108	0.11	0.11	0.05	Fill of stakehole	Loosely compacted grey sandy clay with occasional flecks of charcoal. Fill formed by backfilling or siltation.	Charcoal	C1	C108
C108	N/A	0.11	0.11	0.05	Cut of stakehole	Oval cut with sharp top break of slope, steep sides, sharp basal break of slope and tapered rounded point base. Associated with the structure surrounding C60. Located between C60 and C68.		C107	C2
C109	C110	0.07	0.07	0.11	Fill of stakehole	Loosely compacted grey sandy clay. Fill formed by backfilling or siltation.		C1	C110
C110	N/A	0.07	0.07	0.11	Cut of stakehole	Circular cut with sharp top break of slope, vertical sides, gentle basal break of slope and tapered rounded base. Associated with structure around C60. Located between C60 and C68.		C109	C2
C111	C112	0.06	0.06	0.08	Fill of stakehole	Loosely compacted grey sandy clay. Fill formed by backfilling or siltation.		C1	C112
C112	N/A	0.06	0.06	0.08	Cut of stakehole	Circular cut with sharp top break of slope, vertical sides, gentle basal break of slope and tapered rounded base. Associated with structure around C60. Located between C60 and C68.		C111	C2
C113	C114	0.07	0.07	0.14	Fill of stakehole	Loosely compacted grey sandy clay. Fill formed by backfilling or siltation.		C1	C114
C114	N/A	0.07	0.07	0.14	Cut of stakehole	Circular cut with sharp top break of slope, vertical sides, gradual basal break of slope and tapered rounded point. Associated with the structure surrounding C60. Located between C60 and C68.		C113	C2
C115	C116	0.06	0.06	0.05	Fill of stakehole	Loosely compacted grey sandy clay. Fill formed by backfilling or siltation.		C1	C116
C116	N/A	0.06	0.06	0.05	Cut of stakehole	Circular cut with sharp top break of slope, vertical sides, gentle basal break of slope and tapered rounded base. Associated with structure around C60. Located between C60 and C68.		C115	C2
C117	C18	0.08	0.07	0.1	Fill of stakehole	Loosely compacted grey sandy clay with occasional charcoal. Fill formed by backfilling or siltation.	Charcoal	C1	C118
C118	N/A	0.08	0.08	0.1	Cut of stakehole	Circular cut with sharp top break of slope, vertical sides, sharp basal break of slope and tapered blunt point. Associated with structure surrounding C60. Located between C60 and C68		C117	C2
C119	C120	0.3	0.17	0.09	Fill of shallow pit	Loosely compacted greyish brown sandy clay with 1% charcoal and 1% stones. Fill formed by backfilling	Charcoal	C1	C120
C120	N/A	0.3	0.17	0.09	Cut of shallow pit	Oval cut with gentle top break of slope, gently sloping sides, gentle basal break of slope and concave base. Located between C60 and C68.		C119	C2

Context	Fill of	L (m)	W (m)	D (m)	Interpretation	Description	Finds	Context Above	Context Below
C121	C129	0.17	0.08	0.08	Fill of stakehole	Loosely compacted light grey sandy clay with occasional flecks of charcoal. Fill formed by siltation.	Charcoal	C59	C129
C122	C130	0.1	0.08	0.07	Fill of stakehole	Loosely compacted light grey sandy clay with occasional flecks of charcoal. Fill formed by siltation.	Charcoal	C59	C130
C123	C131	0.08	0.07	0.09	Fill of stakehole	Loosely compacted light grey sandy clay with occasional flecks of charcoal. Fill formed by siltation.	Charcoal	C59	C131
C124	C132	0.06	0.05	0.05	Fill of stakehole	Loosely compacted light grey sandy clay with occasional flecks of charcoal. Fill formed by siltation.	Charcoal	C59	C132
C125	C133	0.09	0.08	0.08	Fill of stakehole	Loosely compacted light grey sandy clay with occasional flecks of charcoal. Fill formed by siltation.	Charcoal	C59	C133
C126	C134	0.05	0.05	0.03	Fill of stakehole	Loosely compacted light grey sandy clay with occasional flecks of charcoal. Fill formed by siltation.	Charcoal	C59	C134
C127	C135	0.05	0.05	0.04	Fill of stakehole	Loosely compacted light grey sandy clay with occasional flecks of charcoal. Fill formed by siltation.	Charcoal	C59	C135
C128	C136	0.08	0.06	0.07	Fill of stakehole	Loosely compacted light grey sandy clay with occasional flecks of charcoal. Fill formed by siltation.	Charcoal	C59	C136
C129	N/A	0.17	0.08	0.08	Cut of stakehole	Oval cut with sharp top break of slope, very steep sides, gentle basal base of slope and rounded point base. Driven stakehole at the bottom of C60.		C121	C60
C130	N/A	0.1	0.08	0.07	Cut of stakehole	Oval cut with gentle top break of slope, very steep sides, gentle basal base of slope and rounded point base. Driven stakehole at the bottom of C60.		C122	C60
C131	N/A	0.08	0.07	0.09	Cut of stakehole	Oval cut with sharp top break of slope, very steep sides, gentle basal break of slope and rounded point base. Driven stakehole at the bottom of C60.		C123	C60
C132	N/A	0.06	0.05	0.05	Cut of stakehole	Oval cut with gentle top break of slope, very steep sides, gentle basal base of slope and rounded point base. Driven stakehole at the bottom of C60.		C124	C60
C133	N/A	0.09	0.08	0.08	Cut of stakehole	Oval cut with sharp top break of slope, very steep sides, gentle basal base of slope and rounded point base. Driven stakehole at the bottom of C60.		C125	C60
C134	N/A	0.05	0.05	0.03	Cut of stakehole	Oval cut with gentle top break of slope, very steep sides, gentle basal base of slope and rounded point base. Driven stakehole at the bottom of C60.		C126	C60
C135	N/A	0.05	0.05	0.04	Cut of stakehole	Oval cut with gentle top break of slope, very steep sides, gentle basal base of slope and rounded point base. Driven stakehole at the bottom of C60.		C127	C60
C136	N/A	0.08	0.06	0.07	Cut of stakehole	Oval cut with sharp top break of slope, very steep sides, gentle basal break of slope and rounded point base. Driven stakehole at the bottom of C60.		C128	C160
C137	C138	0.05	0.05	0.1	Fill of stakehole	Loosely compacted brown sandy clay. Fill formed by backfilling or siltation.		C1	C138

Context	Fill of	L (m)	W (m)	D (m)	Interpretation	Description	Finds	Context Above	Context Below
C138	N/A	0.05	0.05	0.1	Cut of stakehole	Circular cut with sharp top break of slope, very steep sides, gentle basal break of slope and concave base. Associated with structure surrounding C60. Located ESE of C60. Could be part of larger outer structure.		C137	C2
C139	C140	0.07	0.07	0.1	Fill of stakehole	Loosely compacted brown sandy clay. Fill formed by backfilling or siltation.		C1	C140
C140	N/A	0.7	0.07	0.1	Cut of stakehole	Circular cut with sharp top break of slope, very steep sides, gentle basal break of slope and concave base. Fill formed by backfilling or siltation.		C139	C2
C141	C142	0.1	0.1	0.18	Fill of stakehole	Soft mid brown sandy clay with occasional charcoal. Fill formed by backfilling or siltation.	Charcoal	C1	C142
C142	N/A	0.1	0.1	0.18	Cut of stakehole	Circular cut with sharp top break of slope, vertical sides, gentle basal break of slope and tapered blunt point. Associated with structure surrounding C60. Possibly part of wider outer structure.		C141	C2
C143	C144	0.08	0.08	0.07	Fill of stakehole	Moderately soft light brown to grey sandy clay with occasional flecks of charcoal and pebbles. Fill formed by backfilling or siltation.	Charcoal	C2	C144
C144	N/A	0.08	0.08	0.07	Cut of stakehole	Circular cut with sharp top break of slope, gradual to steep sides, gentle basal break of slope with rounded point. Associated with the structure surrounding C60. Located between C60 and C68.		C143	C2
C145	C146	0.08	0.08	0.1	Fill of stakehole	Loosely compacted brown sandy clay. Fill formed by backfilling or siltation.		C1	C146
C146	N/A	0.08	0.08	0.1	Cut of stakehole	Circular cut wit sharp top break of slope, steep sides, sharp basal break of slope and concave base. Associated with the structure surrounding C60, most part of wider, outer structure.		C145	C2
C147	C148	0.06	0.05	0.07	Fill of stakehole	Loosely compacted grey sandy clay with occasional charcoal.	Charcoal	C1	C148
C148	N/A	0.06	0.05	0.07	Cut of stakehole	Circular cut with sharp top break of base, vertical sides, sharp basal break of base and tapered blunt point base.		C147	C2
C149	C150	0.04	0.04	0.05	Fill of stakehole	Loosely compacted grey sandy clay with occasional charcoal.	Charcoal	C1	C150
C150	N/A	0.04	0.04	0.05	Cut of stakehole	Circular cut with sharp top break of slope, vertical sides, sharp basal break of slope and tapered blunt point base.		C149	C2
C151	C152	0.08	0.07	0.1	Fill of stakehole	Loosely compacted grey sandy clay with occasional charcoal.	Charcoal	C1	C152
C152	N/A	0.08	0.07	0.1	Cut of stakehole	Circular cut with sharp top break of slope, vertical sides, sharp basal break of slope and tapered blunt point base.		C151	C2
C153	C154	0.21	0.19	0.3	Fill of posthole	Firmly soft mid grey clayey silt basal fill with small stones at top of fill. Represents the sediment which was packed in		C160	C154

Context	Fill of	L (m)	W (m)	D (m)	Interpretation	Description	Finds	Context Above	Context Below
						around the post to keep it stable.			
C154	N/A	0.21	0.19	0.3	Cut of posthole	Circular cut with sharp top break of slope, steep sides, gentle basal break of slope and tapered rounded base. Cut by C160.		C153	C2
C155	C156	0.28	0.2	0.11	Fill of posthole	Soft dark greyish brown silty clay with frequent charcoal. Fill similar to C158.	Charcoal	C1	C156
C156	N/A	0.28	0.2	0.11	Cut of posthole	Sub-oval cut with gentle top break of slope, moderately sloping sides, gentle basal break of slope and concave base. Associated with C169.		C155	C2
C157	C158	0.07	0.07	0.13	Fill of stakehole	Loosely compacted light brown sandy clay. Fill formed by backfilling or siltation.		C1	C158
C158	N/A	0.07	0.07	0.13	Cut of stakehole	Circular cut with sharp top break of slope, steep sides, sharp basal break of slope and pointed base.		C157	C2
C159	C154	0.17	0.15	0.09	Fill of postpipe	Soft dark greyish brown silty clay with 30% flecks of charcoal. Fill shows evidence of burning.	Charcoal	C1	C160
C160	C154	0.17	0.15	0.09	Cut of postpipe	Circular cut with gentle top break of slope, moderately sloping sides, gentle basal break of slope and concave base. Possibly associated with C169 and C156.Cutting C154.		C159	C153
C161	C162	0.58	0.44	0.24	Fill of small pit	Almost cemented dark brownish black silty clay with moderate charcoal and occasional stones.	Charcoal	C1	C162
C162	N/A	0.58	0.44	0.24	Cut of small pit	Circular cut with gentle top break of slope, gently sloping sides, gentle basal break of slope and concave base. Possibly associated with C169 and C156. Function of pit unknown.		C161	C2
C163	C166	0.17	0.16	0.19	Fill of postpipe	Loosely compacted black sandy clay with 1% charcoal.	Charcoal	C1	C164
C164	C166	0.17	0.16	0.19	Cut of postpipe	Circular cut with sharp top break of slope, steep sides, gentle basal break of slope and concave base. Cut by C166.		C163	C165
C165	C166	0.3	0.26	0.21	Packing fill of posthole	Loosely compacted brown sandy clay with 1% stones.		C164	C166
C166	N/A	0.3	0.26	0.21	Cut of posthole	Oval cut with sharp (S) to gentle (N) top break of slope, vertical (S) to gently sloping (N) sides, sharp (S) to gently sloping (N) basal break of slope with concave base. Cutting C164.		C165	C2
C167	C60	0.3	0.1	0.02	Fill of pit	Loosely compacted grey sandy clay located in south-eastern part of pit. Possibly formed from backfilling.		C57	C60
C168	C169	0.12	0.12	0.21	Fill of stakehole	Soft mid-dark grey silty clay with frequent charcoal.	Charcoal	C1	C169
C169	N/A	0.12	0.12	0.21	Cut of stakehole	Circular cut with gentle top break of slope, steep sides, gentle basal break of slope and tapered rounded point base. Possibly associated with C160 and C156.		C168	C2
C170	N/A				N/A	N/A			

Context	Fill of	L (m)	W (m)	D (m)	Interpretation	Description	Finds	Context Above	Context Below
C171	N/A				N/A	N/A			
C172	N/A	0.84	0.84	0.06	Spread	Loosely compacted dark burnt clay with 40% charcoal and 25% semi angular stones located mainly at the base. Accumulated due to human activity in the area.	Charcoal	C1	C2
C173	C174	0.09	0.09	0.2	Fill of stakehole	Loosely compacted brownish silty sand.		C1	C174
C174	N/A	0.09	0.09	0.2	Cut of stakehole	Circular cut with sharp top break of slope, steep sides, gentle basal break of slope and concave base.		C173	C2
C175	C176	0.14	0.12	0.12	Fill of stakehole	Compact light grey silty sand with small stones and small pieces of charcoal.	Charcoal	C1	C176
C176	N/A	0.14	0.12	0.12	Cut of stakehole	Circular cut with sharp top break of slope, vertical sides, gentle basal break of slope and concave base. Possible association with C174		C175	C2
C177	C178	0.28	0.24	0.23	Fill of posthole	Loosely compacted brownish grey sandy clay.		C1	C176
C178	N/A	0.28	0.24	0.23	Cut of posthole	Oval cut with gentle top break of slope, vertical sides, gentle basal break of slope and tapered rounded point.		C177	C2
C179	C180	0.36	0.26	0.21	Fill of posthole	Loosely compacted brown sandy clay with occasional charcoal.	Charcoal	C1	C180
C180	N/A	0.36	0.26	0.22	Cut of posthole	Oval cut with gentle top break of slope, stepped sides, gentle basal break of slope and tapered rounded point.		C179	C2
C181	C184	0.22	0.18	0.18	Fill of postpipe	Loosely compacted brown sandy clay with occasional charcoal and stones.	Charcoal	C1	C182
C182	C184	0.22	0.18	0.18	Cut of postpipe	Oval cut with sharp top break of slope, vertical sides, gentle basal break of slope and concave base. Cut by C184.		C181	C183
C183	C184	0.24	0.2	0.19	Packing fill of posthole	Loosely compacted light brown sandy clay with occasional charcoal and stones.	Charcoal	C182	C184
C184	N/A	0.46	0.28	0.2	Cut of posthole	Oval cut with sharp top break of slope, vertical sides, gentle basal break of slope and concave base. Cutting C182.		C183	C2
C185	C186	0.16	0.13	0.11	Fill of stakehole	Soft light brown sandy clay with stones		C1	C186
C186	N/A	0.16	0.13	0.11	Cut of stakehole	Circular cut with sharp top break of slope, steep sides, sharp basal break of slope and pointed base.		C185	C2
C187	C188	0.12	0.1	0.1	Fill of stakehole	Soft light brown sandy clay.		C1	C188
C188	N/A	0.12	0.1	0.1	Cut of stakehole	Circular cut with sharp top break of slope, steep sides, sharp basal break of slope and pointed base.		C187	C2
C189	C190	0.13	0.12	0.15	Fill of stakehole	Soft mid brownish grey clayey silt.		C1	C190
C190	N/A	0.13	0.12	0.15	Cut of stakehole	Oval cut with sharp(NW) to gentle(SE) top break of slope, steep(NW) to moderate(SE) sides, sharp basal break of slope and tapered blunt point base.		C189	C2
C191					Cancelled				

Context	Fill of	L (m)	W (m)	D (m)	Interpretation	Description	Finds	Context Above	Context Below
C192	C193	0.84	0.64	0.2	Fill of pit	Soft greyish brown silt with burnt clay, frequent charcoal and stones.	Two pieces of pottery and charcoal	C1	C193
C193	N/A	0.84	0.64	0.2	Cut of pit	Oval cut with imperceptible top break of slope, gently sloping sides, imperceptible basal break of slope and uneven base.		C192	C2
C194	C195	0.1	0.09	0.04	Fill of stakehole	Loosely compacted light grey sandy clay with occasional flecks of charcoal. Fill formed by siltation.	Charcoal	C59	C195
C195	N/A	0.1	0.09	0.04	Cut of stakehole	Circular cut with gentle(NE) to sharp(SW) top break of slope, vertical sides, gentle basal break of slope and rounded base.		C194	C60
C196	C197	0.06	0.04	0.03	Fill of stakehole	Loosely compacted light grey sandy clay with occasional flecks of charcoal. Fill formed by siltation.	Charcoal	C59	C197
C197	N/A	0.06	0.04	0.03	Cut of stakehole	Sub-circular cut with a gentle top break of slope, vertical sides, gentle basal break of slope and rounded/flat base.		C196	C60
C198	C199	0.05	0.04	0.04	Fill of stakehole	Loosely compacted light grey sandy clay with occasional flecks of charcoal. Fill formed by siltation.	Charcoal	C59	C199
C199	N/A	0.05	0.04	0.04	Cut of stakehole	Circular cut with sharp top break of slope, vertical sides, gentle basal break of slope and rounded base.		C198	C60
C200	C201	0.08	0.07	0.11	Fill of stakehole	Loosely compacted light grey sandy clay with occasional flecks of charcoal. Fill formed by siltation.	Charcoal	C59	C201
C201	N/A	0.08	0.07	0.11	Cut of stakehole	Circular cut with sharp top break of slope, vertical sides, gentle basal break of slope and rounded base.		C200	C60
C202	C203	0.07	0.07	0.08	Fill of stakehole	Loosely compacted light grey sandy clay with occasional flecks of charcoal. Fill formed by siltation.	Charcoal	C59	C203
C203	N/A	0.07	0.07	0.08	Cut of stakehole	Circular cut with sharp top break of slope, vertical sides, gentle basal break of slope and rounded base.		C202	C60
C204	C205	0.08	0.08	0.1	Fill of stakehole	Loosely compacted light grey sandy clay with occasional flecks of charcoal. Fill formed by siltation.	Charcoal	C59	C203
C205	N/A	0.08	0.08	0.1	Cut of stakehole	Circular cut with sharp top break of slope, vertical sides, gentle basal break of slope and rounded base.		C204	C60
C206	C207	0.2	0.18	0.19	Fill of posthole	Soft blackish brown sandy clay with 10% charcoal and 2% stones	Charcoal	C1	C207
C207	N/A	0.23	0.15	0.3	Cut of posthole	Oval cut with sharp top break of slope, steep sides, gentle basal break of slope and tapered rounded point. Cut by C219 and C221.		C217	C218
C208	C209	0.34	0.28	0.21	Fill of posthole	Loosely compacted brownish grey silty sand with occasional charcoal.	Charcoal	C1	C209
C209	N/A	0.34	0.28	0.21	Cut of posthole	Circular cut with gentle top break of slope, moderately sloping sides, gentle basal break of slope and concave base.		C208	C2
C210	C212	0.67	0.27	0.13	Fill of shallow pit	Soft mid-dark grey with black hue silty clay with moderate to frequent charcoal and burnt stone. Fill formed by backfilling.	Charcoal	C1	C211
C211	C212	1.06	0.37	0.22	Basal fill of shallow pit	Soft mid-dark grey with black hue silty clay with moderate to	Charcoal	C210	C212

Context	Fill of	L (m)	W (m)	D (m)	Interpretation	Description	Finds	Context Above	Context Below
						frequent charcoal and moderate burnt stone. Fill formed by backfilling.			
C212	N/A	1.06	0.37	0.22	Cut of shallow pit	Sub-oval cut with sharp top break of slope, steep sides, gentle basal break of slope and flat, sub-oval base.		C211	C2
C213	C214	0.22	0.2	0.18	Fill of posthole	Compact brownish silty sand with charcoal and stones.	Charcoal	C1	C214
C214	N/A	0.22	0.2	0.18	Cut of posthole	Irregular cut with gentle top break of slope, steep sides, gentle basal break of slope and concave base. Possibly associated with C209, C223, C181 and C182.		C213	C2
C215	C216	0.14	0.11	0.16	Fill of stakehole	Loosely compacted brownish grey sandy clay with occasional charcoal and stones.	Charcoal	C1	C216
C216	N/A	0.14	0.11	0.16	Cut of stakehole	Circular cut with sharp top break of slope, vertical sides, gentle basal; break of slops and tapered rounded point base.		C215	C2
C217	C207	0.2	0.14	0.3	Fill of posthole	Soft greyish brown clayey sand with 1% small stones.		C206	C207
C218	C221	0.24	0.24	0.27	Fill of postpipe	Soft dark brown sandy clay with 5% charcoal and 1%stones.	Charcoal	C207	C219
C219	C221	0.24	0.25	0.27	Cut of postpipe	Circular cut with sharp top break of slope, steep sides(SW), gentle top break of slope and concave base. Cut by C221		C218	C220
C220	C221	0.36	0.11	0.15	Packing fill of posthole	Soft greyish brown clayey sand with 1% small stones.		C219	C221
C221	N/A	0.38	0.37	0.15	Cut of posthole	Circular cut with sharp top break of slope, steep sides, gentle basal break of slope and concave base. Cutting C219		C220	C2
C222	C223	0.25	0.17	0.19	Fill of posthole	Soft light brown clayey silt with 20% charcoal and 5% small stones. Small stones mainly located at the bottom of posthole.	Charcoal	C1	C223
C223	N/A	0.25	0.17	0.19	Cut of posthole	Irregular oval cut with sharp top break of slope, steep sides but moderate at the west, gentle basal break of slope and concave base. Associated with postholes C214, C209, C182, C178 and C180.		C222	C2
C224					Cancelled				
C225					Cancelled				
C226					Cancelled				
C227					Cancelled				
C228					Cancelled				
C229	C230	1.7	0.15	0.13	Fill of pit	Indurated light brownish grey silty clay with frequent pebbles.		C2	C230
C230	N/A	1.7	0.15	0.15	Cut of pit	Sub-oval cut with gentle top break of slope, stepped sides, gentle basal break of slope and rounded base. Cutting C283 and C294.		C229	C282
C231	C230	1.7	0.7	0.15	Fill of pit	Spongy dark brownish black silty clay with frequent pebbles and charcoal and occasional stones.	Charcoal	C1	C231

Context	Fill of	L (m)	W (m)	D (m)	Interpretation	Description	Finds	Context Above	Context Below
C232					Cancelled				
C233					Cancelled				
C234	C236	0.64	0.8	0.09	Fill of pit	Soft light brownish grey silty clay upper fill with moderate flecks of charcoal. Possible this deposit was washed in, looks like a natural deposit. Is very similar to C245.	Charcoal	C1	C235
C235	C236	0.83	0.86	0.4	Fill of pit	Soft mid grey silty clay with frequent large angular stones and charcoal. Majority of stones located at base of pit.	Charcoal	C234	C236
C236	N/A	0.9	0.86	0.46	Cut of pit	Circular cut with gentle top break of slope, moderately sloping sides, gentle basal break of slope and concave base. Possibly a storage pit.		C235	C2
C237	C238	0.08	0.08	0.21	Fill of stakehole	Loosely compacted light brown sandy clay with 1% charcoal.	Charcoal	C1	C238
C238	N/A	0.08	0.08	0.16	Cut of stakehole	Circular cut with sharp top break of slope, vertical sides, sharp basal break of slope and tapered point. Associated with C240, C242 and C244.		C237	C2
C239	C240	0.05	0.05	0.11	Fill of stakehole	Loosely compacted brown sandy clay with occasional charcoal and small stones.	Charcoal	C1	C240
C240	N/A	0.05	0.06	0.11	Cut of stakehole	Circular cut with sharp top break of slope, vertical sides, sharp basal break of slope and tapered point.		C239	C2
C241	C242	0.06	0.06	0.12	Fill of stakehole	Loosely compacted brownish grey sandy clay with occasional charcoal and stones.	Charcoal	C1	C242
C242	N/A	0.06	0.06	0.1	Cut of stakehole	Circular cut with sharp top break of slope, vertical sides, sharp basal break of slope and tapered point base.		C241	C2
C243	C244	0.06	0.06	0.1	Fill of pit	Loosely compacted light brown sandy clay.		C1	C244
C244	N/A	0.06	0.06	0.11	Cut of pit	Circular cut with sharp top break of slope, vertical sides, sharp basal break of slope and tapered point. Cut by C292		C243	C2
C245					Cancelled				
C246	C247	0.16	0.12	0.11	Fill of stakehole	Loosely compacted dark brown sandy clay with charcoal.	Charcoal	C1	C247
C247	N/A	0.16	0.16	0.14	Cut of stakehole	Oval cut with sharp top break of slope, vertical sides, gentle basal break of slope and tapered rounded point.		C246	C2
C248	C249	0.2	0.19	0.23	Fill of stakehole	Loosely compacted dark brown sandy clay with infrequent charcoal.	Charcoal	C1	C249
C249	N/A	0.2	0.19	0.23	Cut of stakehole	Oval cut with sharp top break of slope, vertical sides, gradual basal break of slope and concave base.		C248	C2
C250	C251/324	0.91	0.1	0.14	Fill of curvilinear feature & pit	Soft mid grey silty clay with frequent stones and moderate charcoal. Min. width 0.27 and min. depth 0.06	Charcoal	C1	C251
C251	N/A	0.91	0.1	0.14	Cut of curvilinear feature	Curvilinear cut with gentle top break of slope, gently sloping sides, imperceptible basal break of slope and flat, curvilinear base. Possible structural feature. Ploughed out at SE end. Associated with C324, C342, C328 and C292. Min. width		C250	C2

Context	Fill of	L (m)	W (m)	D (m)	Interpretation	Description	Finds	Context Above	Context Below
						0.27 and min. depth 0.06.			
C252	C253	0.18	0.18	0.22	Fill of posthole	Soft mid grey silty sand with small stones and small pieces of charcoal.	Charcoal	C1	C253
C253	N/A	0.19	0.19	0.22	Cut of posthole	Oval cut with sharp top break of slope, steep sides, sharp basal break of slope and concave base. Associated with C255.		C252	C2
C254	C255	0.19	0.1	0.3	Fill of posthole	Firm grey silty sand with burnt clay and charcoal.	Charcoal	C1	C255
C255	N/A	0.19	0.17	0.24	Cut of posthole	Oval cut with gentle (E) to sharp top break of slope, moderate (E) to steep sides and gradual (E) to sharp basal break of slope and pointed base.		C254	C2
C256	C257	0.14	0.14	0.18	Fill of stakehole	Soft mid greyish brown clayey silt with 10% charcoal and 3% very small stones.	Charcoal	C1	C257
C257	N/A	0.14	0.14	0.18	Cut of stakehole	Circular cut with sharp top break of slope, vertical(S) to moderate (W) sides and gentle basal break of slope and tapered rounded point. Associated with C259, C247 and C249.		C256	C2
C258	C259	0.17	0.12	0.17	Fill of stakehole	Compact brownish silty sand with charcoal and stones. Min. length 0.07	Charcoal	C1	C259
C259	N/A	0.17	0.12	0.17	Cut of stakehole	Oval cut with gentle top break of slope, moderately sloping sides, gentle basal break of slope and concave base. Associated with C257 and C247. Min length 0.07.		C258	C2
C260	C261	0.19	0.19	0.12	Fill of posthole	Loosely compacted light brown silty clay with 1% charcoal. Fill formed by backfilling.	Charcoal	C1	C261
C261	N/A	0.19	0.19	0.12	Cut of posthole	Circular cut with sharp top break of slope, steep sides, gentle basal break of slope and concave base. Cut by pit C292.Associated with C292 and C328.		C260	C2
C262	C263	0.16	0.16	0.21	Fill of posthole	Loosely compacted brown silty clay with 1% charcoal. Fill formed by backfilling.	Charcoal	C1	C263
C263	N/A	0.17	0.17	0.2	Cut of posthole	Circular cut with sharp top break of slope, vertical sides, gentle basal break of slope and concave base. Associated with C292 and C328.		C262	C2
C264	C265	0.2	0.18	0.1	Fill of posthole	Loosely compacted greyish black silty clay with stones and charcoal. Fill formed by backfilling.	Charcoal	C1	C265
C265	N/A	0.23	0.18	0.1	Cut of posthole	Oval cut with sharp top break of slope, vertical sides, gentle basal break of slope and concave base. Associated with C292 and C328.		C264	C2
C266	C267	0.07	0.07	0.1	Fill of stakehole	Loosely compacted brownish grey sandy clay with occasional charcoal.	Charcoal	C1	C267
C267	N/A	0.07	0.07	0.1	Cut of stakehole	Circular cut with sharp top break of slope, vertical sides, sharp basal break of slope and tapered blunt point.		C266	C2

Context	Fill of	L (m)	W (m)	D (m)	Interpretation	Description	Finds	Context Above	Context Below
C268	C269	0.05	0.05	0.1	Fill of stakehole	Loosely compacted brownish grey sandy clay with occasional charcoal.	Charcoal	C1	C269
C269	N/A	0.05	0.05	0.1	Cut of stakehole	Circular cut with sharp top break of slope, vertical sides, sharp basal break of slope and tapered blunt point base.		C268	C2
C270	C271	0.09	0.09	0.11	Fill of stakehole	Loosely compacted brownish grey silty sand.		C1	C271
C271	N/A	0.1	0.09	0.14	Cut of stakehole	Circular cut with sharp top break of slope, steep sides, gentle basal break of slope and concave base.		C270	C2
C272	C273	0.06	0.05	0.09	Fill of stakehole	Loosely compacted brownish grey silty sand.		C1	C273
C273	N/A	0.07	0.06	0.1	Cut of stakehole	Circular cut with sharp top break of slope, steep sides, gentle basal break of slope and concave base.		C272	C2
C274	C275	0.06	0.05	0.09	Fill of stakehole	Loosely compacted brownish grey silty sand.		C1	C275
C275	N/A	0.06	0.05	0.09	Cut of stakehole	Circular cut with sharp top break of slope, steep sides, gentle basal break of slope and concave base.		C274	C2
C276	C277	0.06	0.06	0.07	Fill of stakehole	Loosely compacted brownish grey sandy clay with occasional charcoal.	Charcoal	C1	C277
C277	N/A	0.06	0.06	0.07	Cut of stakehole	Circular cut with sharp top break of slope, vertical sides, sharp basal break of slope and tapered blunt point.		C276	C2
C278	C279	0.07	0.06	0.1	Fill of stakehole	Loosely compacted brownish grey sandy clay.		C1	C279
C279	N/A	0.07	0.06	0.1	Cut of stakehole	Circular cut with sharp top break of slope, vertical sides, sharp basal break of slope and tapered blunt point.		C278	C2
C280	C281	0.06	0.06	0.1	Fill of stakehole	Loosely compacted brownish grey sandy clay with occasional charcoal.	Charcoal	C1	C281
C281	N/A	0.06	0.06	0.1	Cut of stakehole	Circular cut with sharp top break of slope, vertical sides, sharp basal break of slope and tapered point base.		C280	C2
C282	C283	0.28	0.15	0.18	Fill of posthole	Loosely compacted brownish grey black silty clay with 50% charcoal.	Charcoal	C1	C283
C283	N/A	0.28	0.15	0.18	Cut of posthole	Circular cut with imperceptible top break of slope, steep sides, gentle basal break of slope and tapered rounded point. Associated with C230.Cut by C230		C282	C2
C284	C285	0.15	0.16	0.33	Fill of posthole	Moderately compacted dark brown sandy clay.		C1	C285
C285	N/A	0.15	0.16	0.33	Cut of posthole	Circular cut with sharp top break of slope, steep sides, gentle basal break of slope and rounded base.		C284	C2
C286	C287	1.17	0.69	0.28	Fill of pit	Loosely compacted greyish brown sandy clay with 30% semi-rounded stones mainly located at bottom of pit,7% sandstones and 10% charcoal.	Charcoal	C1	C287
C287	N/A	1.17	0.69	0.28	Cut of pit	Semi-circular cut with sharp top break of slope, concave (E) to steep sides, gentle (E) to sharp and irregular basal break of slope and concave base.		C286	C2
C288	C289	1.1	0.8	0.15	Fill of pit	Soft dark brown clayey silt with 30% charcoal flecks.	Charcoal	C1	C289

Context	Fill of	L (m)	W (m)	D (m)	Interpretation	Description	Finds	Context Above	Context Below
C289	N/A	1.1	0.85	0.15	Cut of pit	Sub-oval cut with gentle (E) to sharp top break of slope, gently sloping sides, gentle basal break of slope and flat base. Cutting C292.		C288	C290
C290	C292	2	1.6	0.22	Fill of pit	Soft mid brown clayey silt upper fill with occasional flecks of charcoal and large sub-angular stones situated in the middle of layer.	Charcoal	C289	C291
C291	C292	1.5	1.3	0.08	Basal fill of pit	Very soft mid yellowish brown silty sand basal fill.		C290	C292
C292	N/A	2	1.65	0.2	Cut of pit	Sub-oval cut with sharp top break of slope, gently sloping sides, gentle basal break of slope and flat, sub-oval base. Cut by C289.Cutting C261 and C244.Associated with pit C328 and postholes C261, C263, C265, C314 and C326.		C291	C260
C293	C294	0.25	0.15	0.17	Fill of posthole	Moderately compacted greyish brown sandy clay.		C1	C294
C294	N/A	0.25	0.15	0.17	Cut of posthole	Circular cut with gentle top break of slope, steep sides, gentle basal break of slope and rounded base. Possibly associated with C160 and C156. Cut by C230.		C293	C2
C295	C296	0.14	0.14	0.23	Fill of posthole	Compact light brownish silty sand with small pieces of charcoal. Min. length 0.02.	Charcoal	C1	C296
C296	N/A	0.14	0.14	0.23	Cut of posthole	Circular cut with sharp top break of slope, steep sides, sharp basal break of base and tapered blunt point base. Similar to C298. Min. length 0.02.		C295	C2
C297	C298	0.13	0.1	0.24	Fill of posthole	Soft light brown sandy clay.		C1	C298
C298	N/A	0.13	0.1	0.24	Cut of posthole	Sub-circular cut with sharp top break of slope, vertical (NE) to steep sides, gentle basal break of slope and tapered blunt point base.		C297	C2
C299	N/A	0.85	0.52	0.07	Spread	Soft dark brownish grey silty clay with moderate flecks of charcoal and frequent angular stones. Deposit is in natural depression.	Charcoal	C1	C2
C300	C301	0.7	0.5	0.14	Fill of pit	Soft mid brown silty clay with 10% medium size stones and 2% charcoal.	Charcoal	C1	C301
C301	N/A	0.7	0.5	0.14	Cut of pit	Oval cut with imperceptible top break of slope, gently (N) to moderately(S) sloping sides, imperceptible basal break of slope and concave base.		C300	C2
C302	N/A	0.6	0.5	0.06	Spread	Soft light brown silty clay with 5% medium size stones and 1% charcoal. Irregular shape. Possibly associated with C301.	Charcoal	C1	C2
C303	C304	0.06	0.06	0.18	Fill of stakehole	Loosely compacted brownish grey sandy clay with occasional charcoal. Fill formed by backfilling or siltation.	Charcoal	C1	C304
C304	N/A	0.06	0.06	0.18	Cut of stakehole	Circular cut with sharp top break of slope, very steep sides, sharp basal break of slope and tapered point base. Associated with C328.		C303	C2

Context	Fill of	L (m)	W (m)	D (m)	Interpretation	Description	Finds	Context Above	Context Below
C305	C306	0.06	0.06	0.11	Fill of stakehole	Loosely compacted brownish grey sandy clay with occasional charcoal. Fill formed by backfilling or siltation.	Charcoal	C1	C306
C306	N/A	0.06	0.06	0.11	Cut of stakehole	Circular cut with sharp top break of slope, very steep sides, sharp basal break of slope and tapered blunt point base. Associated with C328.		C305	C2
C307	C308	0.5	0.35	0.25	Fill of pit	Soft dark brown silty sand with small stones. Fill formed by backfilling.		C1	C308
C308	N/A	0.51	0.4	0.3	Cut of pit	Circular cut with sharp top break of slope, steep sides, sharp basal break of slope and irregular base.		C307	C2
C309	C310	0.08	0.08	0.14	Fill of stakehole	Loosely compacted dark brown clayey silt with occasional charcoal. Fill formed by backfilling or siltation.	Charcoal	C1	C310
C310	N/A	0.08	0.08	0.14	Cut of stakehole	Circular cut with sharp top break of slope, vertical sides, gentle basal break of slope and tapered rounded point base. Possibly part of a structure. Possibly associated with C312.Cut formed by driven stake.		C309	C2
C311	C312	0.06	0.06	0.09	Fill of stakehole	Loosely compacted dark brown clayey silt with occasional charcoal. Fill formed by backfilling or siltation.	Charcoal	C1	C312
C312	N/A	0.06	0.06	0.08	Cut of stakehole	Circular cut with sharp top break of slope, vertical sides, gentle basal break of slope and tapered rounded point base. Possibly part of a structure. Possibly associated with C310.Cut formed by driven stake.		C311	C2
C313	C314	0.2	0.17	0.25	Fill of posthole	Loosely compacted brownish black silty clay with small stones.		C1	C314
C314	N/A	0.3	0.25	0.21	Cut of posthole	Circular cut with sharp top break of slope, steep sides, gentle basal break of slope and a concave base. Associated with C292 and C328.		C313	C2
C315					Cancelled				
C316	C317	0.15	0.1	0.26	Fill of posthole	Soft mid brown silty clay. Fill formed by backfilling.		C1	C317
C317	N/A	0.15	0.1	0.26	Cut of posthole	Circular cut wit sharp top break of slope, very steep sides, sharp basal break of slope and tapered blunt point base. Associated with C301,C320.		C316	C1
C318					Cancelled				
C319					Cancelled				
C320	N/A	2.1	1.5	0.4	Cut of poss. hearth	Sub-oval cut with sharp top break of slope, stepped sides, gentle basal break of slope and irregular concave base. Associated with C301, C299 and postholes C298, C296, and C317.		C349	C2
C321					Cancelled				
C322					Cancelled				

Context	Fill of	L (m)	W (m)	D (m)	Interpretation	Description	Finds	Context Above	Context Below
C323	C342	0.75	0.68	0.21	Fill of pit	Soft greyish brown sandy silt with frequent stones and charcoal. Fill formed by backfilling.	Charcoal	C1	C342
C324	N/A	1.76	1.31	0.27	Cut of pit	Sub-circular cut with gentle top break of slope, gently sloping sides, gentle basal break of slope and flat base. Same fill as C251.		C250	C2
C325	C326	0.21	0.16	0.19	Fill of posthole	Loosely compacted greyish brown silty clay with stones. Fill formed by backfilling.		C1	C326
C326	N/A	0.25	0.2	0.34	Cut of posthole	Oval cut with sharp top break of slope, vertical sides, gentle basal break of slope and concave base. Associated with C292, C328.		C325	C2
C327	C328	0.86	0.86	0.14	Fill of pit	Loosely compacted black sandy clay with charcoal and burnt stones and burnt clay. Fill formed by backfilling.	Charcoal	C1	C328
C328	N/A	0.86	0.86	0.14	Cut of pit	Circular pit with sharp top break of slope, steep (N) to gently sloping(S) sides, gentle basal break of slope and irregular base. Associated with C261, C263, C265, C314 and C326.		C327	C2
C329					Cancelled				
C330					Cancelled				
C331					Cancelled				
C332					Cancelled				
C333					Cancelled				
C334					Cancelled				
C335					Cancelled				
C336	C337	0.06	0.06	0.05	Fill of stakehole	Loosely compacted light brownish silty sand with small stones and small pieces of charcoal.	Charcoal	C1	C337
C337	N/A	0.06	0.06	0.09	Cut of stakehole	Circular cut sharp top break of slope, vertical sides, gentle basal break of slope and concave base. Possible association with C339 and C341.		C336	C2
C338	C339	0.14	0.14	0.09	Fill of posthole	Loosely compacted light brownish silty sand with small stones and small pieces of charcoal.	Charcoal	C1	C339
C339	N/A	0.14	0.14	0.09	Cut of posthole	Oval cut wit gentle top break of slope, steep sides, gentle basal break of slope and flat base. Possible association with C337 and C341.		C338	C2
C340	C341	0.17	0.14	0.12	Fill of posthole	Loosely compacted light brownish silty sand with small stones and small pieces of charcoal.	Charcoal	C1	C341
C341	N/A	0.17	0.14	0.12	Cut of posthole	Oval cut with sharp top break of slope, vertical sides, gentle basal break of slope and concave base. Possible association with C337 and C339.		C340	C2
C342	N/A	0.8	0.68	0.21	Cut of pit	Circular cut pit with imperceptible top break of slope, gently sloping sides, imperceptible basal break of slope and		C323	C2

Context	Fill of	L (m)	W (m)	D (m)	Interpretation	Description	Finds	Context Above	Context Below
						irregular base. In isolation with unknown purpose.			
C343	C344	0.2	0.2	0.32	Fill of posthole	Soft mid grey silty sand with moderate stones. Fill formed by backfilling.		C1	C344
C344	N/A	0.2	0.2	0.32	Cut of posthole	Oval cut with sharp top break of slope, steep sides, sharp basal break of slope and irregular base.		C343	C2
C345					Cancelled				
C346					Cancelled				
C347					Cancelled				
C348	C320	2.1	1.5	0.36	Fill of poss. hearth	Soft dark brown silt upper fill with very frequent charcoal and stones.	Charcoal	C1	C349
C349	C320	0.8	1	0.3	Fill of poss. hearth	Soft mid brown silt basal fill with occasional charcoal and stones. Fill formed by backfilling.	Charcoal	C348	C320
C350	C351	1.04	0.79	0.17	Fill of pit	Moderately compacted mid brown silty clay with very occasional charcoal and occasional stone. Fill possibly formed by natural siltation.	Possible rubbing stone Charcoal	C1	C351
C351	N/A	1.04	0.79	0.14	Cut of pit	Sub-circular cut with gentle top break of slope, gently sloping sides, imperceptible basal break of slope and sub-circular, flat base.		C350	C2
C352					Cancelled				
C353					Cancelled				
C354	C355	0.3	0.25	0.16	Fill of posthole	Loosely compacted dark brown silty clay with frequent stones and pebbles and occasional charcoal.	Charcoal	C1	C355
C355	N/A	0.3	0.25	0.16	Cut of posthole	Oval cut with sharp top break of slope, gently sloping sides, gentle basal break of slope and concave base. Possible association with C337, C339 and C341.		C354	C2
C356	C357	0.1	0.13	0.16	Fill of posthole	Friable greyish brown silty sand with charcoal and small stones. Min. width 0.06m	Charcoal	C1	C357
C357	N/A	0.1	0.13	0.16	Cut of posthole	Irregular cut with sharp top break of slope, steep sides, gentle basal break of slope and concave base. Possibly associated with C337, C339 and C341. Min width 0.06m.		C357	C2
C358	C359	0.06	0.06	0.12	Fill of stakehole	Loosely compacted brown silty clay. Fill formed by backfilling or siltation.		C1	C359
C359	N/A	0.06	0.06	0.08	Cut of stakehole	Circular cut with sharp top break of slope, steep sides, gentle basal break of slope and rounded point base. Associated with C292 and C328.		C358	C2
C360	C361	0.09	0.08	0.1	Fill of stakehole	Soft mid greyish brown clayey silt with 1% charcoal and 1% small stones at the top of the fill. Fill formed by backfilling.	Charcoal	C1	C361
C361	N/A	0.09	0.08	0.1	Cut of stakehole	Oval cut with sharp top break of slope, vertical sides, gentle basal break of slope and tapered rounded point. Associated		C360	C2

Context	Fill of	L (m)	W (m)	D (m)	Interpretation	Description	Finds	Context Above	Context Below
						with C292 and C328.			
C362	C364	0.38	0.38	0.35	Fill of pit	Compressible mid brown mottled orange sandy clay upper fill with two large angular stones and occasional charcoal. Fill formed from clay being backfilled into pit.	Charcoal	C1	C363
C363	C364	0.59	0.29	0.28	Fill of pit	Loosely compacted light brown orange silty sand basal fill with moderate small and medium size stones. Fill formed by siltation.		C362	C364
C364	N/A	0.71	0.58	0.34	Cut of pit	Sub-circular cut with sharp top break of slope, steep sides, steep basal break of slope and irregular base. Pit possibly used to deposit clay.		C363	C2
C365					Cancelled				
C366					Cancelled				
C367					Cancelled				
C368	C369	0.64	0.6	0.15	Fill of pit	Loosely compacted black sandy clay with 20% burnt stones and 20% charcoal.	Charcoal	C1	C369
C369	N/A	0.65	0.6	0.15	Cut of pit	Sub-circular cut with sharp top break of slope, steep sides, steep basal break of slope and irregular base. Pit truncated by digger so impossible to tell real depth.		C368	C2
C370	C372	0.88	1.06	0.18	Fill of pit	Loosely compacted darkish grey silty clay upper fill with 30% charcoal and 20% large semi angular stones.	Charcoal	C1	C371
C371	C372	0.88	1.06	0.29	Fill of pit	Loosely compacted whitish grey clay basal fill with frequent large semi angular stones and occasional charcoal. Fill possibly a geological formation.	Charcoal	C370	C372
C372	N/A	0.88	1.06	0.4	Cut of pit	Oval cut with gentle(SW) to sharp top break of slope, steep sides, sharp basal break of slope and concave base.		C371	C2
C373	C374	0.29	0.21	0.28	Fill of two features	Loosely compacted brown sandy clay with occasional charcoal. Fill formed by backfilling. Also the fill of a stakehole C375.	Charcoal	C1	C374
C374	N/A	0.18	0.2	0.28	Cut of posthole	Oval cut with sharp top break of slope, vertical sides, gentle basal break of slope and tapered blunt point base.		C373	C2
C375	N/A	0.08	0.1	0.22	Cut of stakehole	Oval cut with sharp top break of slope, vertical sides, gentle basal break of slope and tapered blunt point base.		C373	C2
C376	C380	0.11	0.11	0.2	Fill of stakehole	Loosely compacted greyish brown sandy clay with 1% charcoal.	Charcoal	C1	C380
C377	C381	0.08	0.08	0.09	Fill of stakehole	Loosely compacted greyish brown sandy clay with 1% charcoal.	Charcoal	C1	C381
C378	C382	0.08	0.08	0.19	Fill of stakehole	Loosely compacted greyish brown sandy clay with occasional charcoal.	Charcoal	C1	C382
C379	C383	0.12	0.12	0.17	Fill of stakehole	Loosely compacted greyish brown sandy clay with 1% charcoal.	Charcoal	C1	C383

Context	Fill of	L (m)	W (m)	D (m)	Interpretation	Description	Finds	Context Above	Context Below
C380	N/A	0.11	0.11	0.2	Cut of stakehole	Circular cut with sharp top break of slope, steep sides, sharp basal break of slope and concave base. Possible association with C381, C382 and C383.		C376	C2
C381	N/A	0.08	0.08	0.09	Cut of stakehole	Circular cut with sharp top break of slope, steep sides, sharp basal break of slope and concave base. Possible association with C380, C38 and C383.		C377	C2
C382	N/A	0.08	0.08	0.19	Cut of stakehole	Circular cut with sharp top break of slope, steep sides, sharp basal break of slope and concave base. Possible association with C380, C381 and C383.		C378	C2
C383	N/A	0.12	0.1	0.17	Cut of stakehole	Circular cut with sharp top break of slope, steep sides, sharp basal break of slope and concave base. Possible association with C380, C381 and C382.		C379	C2
C384	C385	0.2	0.19	0.1	Fill of posthole	Soft mid brown clayey silt with 5% charcoal and 5% small pebbles.	Charcoal	C1	C385
C385	N/A	0.18	0.14	0.1	Cut of posthole	Circular cut with sharp top break of slope, steep sides, gentle basal break of slope and tapered rounded point base. Possible association with C292 and C289.		C384	C2
C386	C387	0.13	0.13	0.15	Fill of stakehole	Very soft mid greyish brown sandy silt with 2% charcoal.	Charcoal	C1	C387
C387	N/A	0.13	0.13	0.15	Cut of stakehole	Circular cut with sharp top break of slope, slightly steeped and vertical sides, gentle basal break of slope and tapered rounded point base. Possible association with C292 and C289.		C386	C2
C388	C389	0.04	0.04	0.09	Fill of stakehole	Soft dark brown clayey silt with 30% charcoal flecks.	Charcoal	C292	C389
C389	N/A	0.06	0.06	0.09	Cut of stakehole	Circular cut with sharp top break of slope, vertical sides, gentle basal break of slope and tapered blunt point base. Cutting C292.		C388	C2
C390					Cancelled				
C391					Cancelled				
C392					Cancelled				
C393					Cancelled				
C394					Cancelled				
C395					Cancelled				
C396	C397	0.19	0.19	0.17	Fill of posthole	Loosely compacted dark brown silty clay with moderate pebbles.		C1	C397
C397	N/A	0.19	0.19	0.17	Cut of posthole	Circular cut with sharp top break of slope, vertical sides, gentle basal break of slope and concave base. Possible association with C355, C357, C337, C339, C341 and C372.		C396	C2
C398					Cancelled				

Context	Fill of	L (m)	W (m)	D (m)	Interpretation	Description	Finds	Context Above	Context Below
C399					Cancelled				
C400					Cancelled				
C401					Cancelled				
C402	C403	0.26	0.2	0.3	Fill of posthole	Soft mid brown silty clay with occasional charcoal. Fill formed by backfilling.	Charcoal	C1	C403
C403	N/A	0.26	0.2	0.3	Cut of posthole	Sub-circular cut with sharp top break of slope, steep sides, sharp basal break of slope and tapered blunt point base.		C402	C2
C404					Cancelled				
C405					Cancelled				
C406	C407	0.45	0.4	0.22	Fill of posthole	Soft mid brown silty clay with 15% charcoal,3% small stones and 2% medium stones.	Charcoal	C1	C407
C407	N/A	0.45	0.4	0.22	Cut of posthole	Irregular oval cut with sharp top break of slope, gently sloping(S) to vertical sides, imperceptible basal break of slope and uneven disturbed base. Cutting C419 and C421.		C406	C419
C408	C409	0.16	0.16	0.1	Fill of posthole	Soft light-mid brown silty clay with occasional to moderate charcoal. Fill formed by backfilling.	Charcoal	C1	C409
C409	N/A	0.16	0.16	0.11	Cut of posthole	Circular cut with sharp top break of slope, steep sides, sharp basal break of slope and circular flat base.		C408	C2
C410	C413	0.66	0.4	0.1	Fill of pit	Loosely compacted dark brownish black sandy silt with charcoal and heat affected shattered stones and occasional lumps of burnt clay.	Charcoal	C412	C413
C411					Cancelled				
C412	C413	0.6	0.32	0.09	Fill of shallow pit	Loosely compacted light brownish grey sandy silt with heat affected stones and frequent charcoal.	Charcoal	C1	C410
C413	N/A	0.78	0.7	0.1	Cut of shallow pit	Circular cut with gentle top break of slope, steep sides, gentle basal break of slope and uneven base. Cutting C458.		C410	C457
C414					Cancelled				
C415					Cancelled				
C416	C417	4.7	0.7	0.2	Fill of pit	Compact reddish grey silty sand with burnt clay, burnt stones and charcoal. Min. width 0.4.	Charcoal	C1	C417
C417	N/A	4.6	0.8	0.2	Cut of linear	Linear cut with sharp top break of slope, gently sloping sides, gentle basal break of slope and concave base. Orientated NW-SE.		C416	C2
C418	C419	0.05	0.12	0.14	Fill of post-pipe	Soft light brown silty clay with 30% gravel and 1% charcoal.	Charcoal	C407	C419
C419	C407	0.05	0.12	0.14	Cut of post-pipe	Oval cut with sharp top break of slope, vertical sides, gentle basal break of slope and concave base. Cut by C407.		C418	C2
C420	C421	0.06	0.08	0.07	Fill of post-pipe	Soft light brown silty clay with 20% small stones and 2% charcoal.	Charcoal	C407	C421

Context	Fill of	L (m)	W (m)	D (m)	Interpretation	Description	Finds	Context Above	Context Below
C421	C407	0.06	0.08	0.07	Cut of post-pipe	Oval cut with gentle top break of slope, vertical sides, gentle basal break of slope and tapered rounded point base. Cut by C407.		C420	C2
C422	C438	1.01	0.64	0.26	Basal fill of pit	Loosely compacted black sandy silt with frequent small burnt stone. Material deposited into pit.		C427	C438
C423	C424	0.2	0.28	0.1	Fill of posthole	Loosely compacted grey sandy clay with occasional charcoal. Packing fill of posthole.	Charcoal	C425	C424
C424	N/A	0.2	0.28	0.1	Cut of posthole	Oval cut with sharp top break of slope, steep sides, gentle basal break of slope and concave base. Cut by C426.		C423	C2
C425	C424	0.12	0.13	0.34	Fill of postpipe	Loosely compacted grey sandy clay with occasional charcoal and stones.	Charcoal	C1	C426
C426	C424	0.12	0.13	0.34	Cut of postpipe	Circular cut with sharp top break of slope, vertical sides, gentle basal break of slope and concave base. Cutting C424.		C425	C423
C427	C428	0.17	0.13	0.22	Fill of stakehole	Soft brown sandy silt with moderate charcoal and stones.	Charcoal	C1	C428
C428	N/A	0.17	0.13	0.22	Cut of stakehole	Oval cut with imperceptible top break of slope, moderately sloping sides, imperceptible basal break of slope and rounded pointed base		C427	C2
C429	C430	0.4	0.35	0.21	Fill of posthole	Loosely compacted greyish brown sandy clay with stones.		C1	C430
C430	N/A	0.3	0.3	0.21	Cut of posthole	Circular cut with sharp top break of slope, steep sides, gentle basal break of slope and concave base.		C429	C2
C431	C432	0.34	0.43	0.21	Fill of posthole	Soft mid greyish brown silty clay with 1% small pieces of charcoal and 3%small and medium size stones.	Charcoal	C1	C432
C432	N/A	0.34	0.43	0.21	Cut of posthole	Oval cut with sharp top break of slope, vertical sides, gentle basal break of slope and uneven base. Associated with C430.		C431	C2
C433	C434	0.24	0.22	0.16	Fill of posthole	Soft light greyish brown silty clay with occasional charcoal and small stones.	Charcoal	C1	C434
C434	N/A	0.24	0.22	0.16	Cut of posthole	Oval cut with gradual top break of slope, moderately sloping sides, gentle basal break of slope and concave base.		C433	C2
C435	C436	1	0.2	0.21	Fill of linear	Soft brown sandy clay with stones. Stones mainly at the bottom of feature.		C1	C436
C436	N/A	1	0.2	0.21	Cut of linear	Linear cut with sharp top break of slope, steep sides, gentle basal break of slope and tapered rounded point base.		C435	C2
C437	C438	0.4	0.39	0.14	Fill of pit	Loosely compacted light brown/red sandy silt with moderate pebbles. Fill formed by siltation.		C422	C438
C438	N/A	1	0.8	0.26	Cut of pit	Sub-circular cut with sharp top break of slope, steep sides, gentle basal break of slope and flat base.		C437	C2
C439	C440	1.6	1	0.26	Fill of pit	Loosely compacted dark brown silty clay with moderate stones and pebbles.		C1	C478

Context	Fill of	L (m)	W (m)	D (m)	Interpretation	Description	Finds	Context Above	Context Below
C440	N/A	1.8	1.5	0.26	Cut of pit	Irregular oval cut with gentle top break of slope, moderately sloping sides, gentle basal break of slope and irregular concave base. Cutting C480.Associated with C480.		C478	C479
C441	C442	0.12	0.1	0.19	Fill of posthole	Soft mid brown sandy clay with moderate charcoal.	Charcoal	C1	C442
C442	N/A	0.12	0.1	0.19	Cut of posthole	Circular cut with imperceptible top break of slope, steep sides, gentle basal break of slope and tapered rounded point base. Possible association with C440.		C441	C2
C443	C444	0.33	0.22	0.19	Fill of stakehole	Soft mid brownish black silty clay with moderate flecks of charcoal and occasional angular stones. Similar to C445	Charcoal	C1	C444
C444	N/A	0.4	0.22	0.19	Cut of stakehole	Oval cut with sharp top break of slope, steep sides, gentle basal break of slope and tapered rounded point base.		C443	C2
C445	C446	0.47	0.3	0.19	Fill of posthole	Soft mid brown silty clay with frequent sub-angular stones and occasional flecks of charcoal. Stones possibly used as packing stones.	Charcoal	C1	C446
C446	N/A	0.47	0.3	0.19	Cut of posthole	Oval cut with sharp top break of slope, steep sides, gentle basal break of slope and tapered rounded point base. Associated with C403 and C444.		C445	C2
C447	C448	0.39	0.34	0.19	Fill of posthole	Loosely compacted dark brown silty sand with 40% stones.		C1	C448
C448	N/A	0.39	0.34	0.29	Cut of posthole	Circular cut with gentle top break of slope, vertical and steeped sides, gentle basal break of slope and concave base.		C447	C2
C449	C450	0.22	0.16	0.1	Fill of posthole	Loosely compacted dark brown silty sand with 15% stones.		C1	C450
C450	N/A	0.21	0.16	0.1	Cut of posthole	Circular cut with gentle top break of slope, vertical and stepped sides, gentle basal break of slope and concave base. Associated with C448, C432 and C452.		C449	C2
C451	C452	0.4	0.35	0.2	Fill of posthole	Loosely compacted dark brown sandy clay with 1% charcoal and 2% coarse pebbles. Fill formed by backfilling.	Charcoal	C1	C452
C452	N/A	0.41	0.36	0.2	Cut of posthole	Oval cut with sharp top break of slope, steep sides, gentle basal break of slope and concave base.		C451	C2
C453	C486	2.5	1.1	0.18	Fill of shallow pit	Compact grey sandy clay with burnt stones		C1	C486
C454	C456	1.9	0.88	0.26	Fill of pit	Loosely compacted grey clay upper fill with 80% stones.		C1	C455
C455	C456	1.9	0.65	0.08	Basal fill of pit	Compact dark grey clay basal fill with small stones and charcoal and burnt stones,	Charcoal	C454	C456
C456	N/A	1.9	0.88	0.3	Cut of pit	Rectangular cut with square corners, sharp top break of slope, vertical sides, sharp basal break of slope and flat base.		C455	C2
C457	C458	0.2	0.14	0.36	Fill of posthole	Loosely compacted mid brown silt with frequent pieces of charcoal	Charcoal	C413	C458
C458	N/A	0.2	0.14	0.36	Cut of posthole	Oval cut with sharp top break of slope, steep sides, gentle basal break of slope and tapered rounded point base. Cut by		C457	C2

Context	Fill of	L (m)	W (m)	D (m)	Interpretation	Description	Finds	Context Above	Context Below
						C413			
C459	C460	0.1	0.09	0.15	Fill of stakehole	Loosely compacted light brownish silty sand with stones and of charcoal.	Charcoal	C1	C460
C460	N/A	0.1	0.09	0.15	Cut of stakehole	Circular cut with sharp top break of slope, vertical sides, gentle basal break of slope and concave base. Possible association with C462.		C459	C2
C461	C462	0.07	0.08	0.21	Fill of stakehole	Loosely compacted light brownish silty sand with charcoal. Min. length 0.04	Charcoal	C1	C462
C462	N/A	0.07	0.08	0.21	Cut of stakehole	Circular cut with gentle top break of slope, vertical sides, gentle basal break of slope and concave base. Possible association with C460. Min. length 0.04		C461	C2
C463	C464	0.35	0.17	0.15	Fill of posthole	Loosely compacted grey clayey sand with charcoal and stone.	Charcoal	C1	C464
C464	N/A	0.35	0.21	0.15	Cut of posthole	Irregular cut with sharp top break of slope, steep sides, gentle basal break of slope and uneven base.		C463	C2
C465					Cancelled				
C466					Cancelled				
C467					Cancelled				
C468					Cancelled				
C469					Cancelled				
C470					Cancelled				
C471					Cancelled				
C472					Cancelled				
C473					Cancelled				
C474					Cancelled				
C475					Cancelled				
C476	C427	1.4	1.3	0.17	Fill of pit	Soft dark brown silty clay with occasional charcoal and well sorted sub-angular stones.	Charcoal	C1	C477
C477	N/A	1.4	1.3	0.17	Cut of pit	Oval cut with gentle top break of slope, gently sloping sides, imperceptible basal break of slope and flat, sub-circular base.		C476	C2
C478	C440	0.47	0.43	0.18	Fill of pit	Loosely compacted dark brown silty clay with moderate stones and pebbles.		C439	C440
C479	C480	1.16	0.56	0.14	Fill of linear	Loosely compacted dark brown silty clay with moderate stones and pebbles.		C440	C480
C480	N/A	1.16	0.56	0.14	Cut of linear	Linear cut with gentle top break of slope, gently sides, very gentle basal break of slope and concave and flat base. Cut		C479	C2

Context	Fill of	L (m)	W (m)	D (m)	Interpretation	Description	Finds	Context Above	Context Below
						by C440.			
C481	C292	2	0.4	0.18	Fill of pit	Soft mottled mid greyish brown clayey/sandy silt with 10% small pebbles. Min. width 0.2 and min. depth 0.1		C389	C292
C482	C483	0.05	0.05	0.07	Fill of stakehole	Loosely compacted brown sandy clay with 1% charcoal.	Charcoal	C1	C483
C483	N/A	0.05	0.05	0.07	Cut of stakehole	Circular cut with sharp top break of slope, steep sides, sharp basal break of slope and concave base. Associated with C485.		C482	C2
C484	C485	0.06	0.06	0.1	Fill of stakehole	Loosely compacted brown sandy clay with 1% charcoal. Fill formed by backfilling.	Charcoal	C1	C485
C485	N/A	0.06	0.06	0.1	Cut of stakehole	Circular cut with sharp top break of slope, steep sides, sharp basal break of slope and concave base. Associated with C483.		C484	C2
C486	N/A	1.95	1.1	0.18	Cut of pit	Rectangular cut with rounded corners, gentle top break of slope, gently sloping sides, imperceptible basal break of slope and flat base. Similar to pit C456.		C453	C2
C487					Cancelled				
C488					Cancelled				
C489					Cancelled				
C490					Cancelled				
C491					Cancelled				
C492	C493	0.24	0.24	0.2	Fill of posthole	Soft light brown silty clay with occasional charcoal.	Charcoal	C1	C493
C493	N/A	0.28	0.24	0.2	Cut of posthole	Circular cut with gentle top break of slope, steep sides, gentle basal break of slope and tapered rounded point base.		C492	C2
C494	C495	0.4	0.38	0.1	Fill of posthole	Soft mid greyish brown silty clay with 5% medium size stones.		C1	C495
C495	N/A	0.4	0.38	0.1	Cut of posthole	Oval cut with sharp top break of slope, vertical (S) to moderate (N) sides, gentle basal break of slope and concave base. Associated with C432, C436 and C452.		C494	C2
C496	C499	0.26	0.22	0.1	Fill of posthole	Loosely compacted brownish black silty sand with occasional charcoal and small stones.	Charcoal	C1	C499
C497	C498	0.15	0.1	0.15	Fill of posthole	Soft mid brown silty clay occasional charcoal.	Charcoal	C1	C498
C498	N/A	0.15	0.1	0.15	Cut of posthole	Sub-circular cut with sharp top break of slope, steep sides, gentle basal break of slope and tapered blunt point base.		C497	C2
C499	N/A	0.28	0.25	0.12	Cut of posthole	Circular cut with gentle top break of slope, moderately sloping sides, gentle basal break of slope and concave base.		C496	C2
C500	C501	1.8	1.45	0.26	Fill of pit	Loosely compacted dark brown silty clay with frequent large and medium stones and pebbles and moderate charcoal and occasional sandstones. Fill formed by backfilling. Same fill in	Charcoal	C1	C502

Context	Fill of	L (m)	W (m)	D (m)	Interpretation	Description	Finds	Context Above	Context Below
						stakeholes C502,C503,C504.			
C501	N/A	1.8	1.45	0.26	Cut of pit	Oval cut with gentle top break of slope, gently sloping sides, gentle basal break of slope and irregular base. Cut by C502, C503 and C504.		C500	C2
C502	N/A	0.1	0.1	0.14	Cut of stakehole	Circular cut with sharp top break of slope, steep sides, sharp basal break of slope and rounded point base. Filled with C500.Cutting C501.		C500	C501
C503	N/A	0.1	0.1	0.2	Cut of stakehole	Circular cut with sharp top break of slope, steep sides, sharp basal break of slope and rounded point base. Filled with C500.Cutting C501.		C500	C501
C504	N/A	0.13	0.1	0.1	Cut of stakehole	Circular cut with sharp top break of slope, steep sides, sharp basal break of slope and rounded point base. Filled with C500.Cutting C501.		C500	C501
C505	C506	0.06	0.06	0.15	Fill of stakehole	Compressible light blackish grey silty clay with moderate charcoal. Fill formed by stake being burned *in situ*.	Charcoal	C422	C506
C506	N/A	0.06	0.06	0.15	Cut of stakehole	Circular cut with sharp top break of slope, steep sides, sharp basal break of slope and pointed base. Cutting C438.		C505	C438
C507	C508	0.08	0.08	0.1	Fill of stakehole	Compressible light blackish grey silty clay with moderate charcoal. Fill formed by stake being burned *in situ*.	Charcoal	C422	C508
C508	N/A	0.08	0.08	0.1	Cut of stakehole	Circular cut with sharp top break of slope, steep sides, sharp basal break of slope and pointed base. Cutting C438.		C507	C438
C509	C510	0.06	0.06	0.07	Fill of stakehole	Compressible light blackish grey silty clay with moderate charcoal. Fill formed by stake being burned *in situ*.	Charcoal	C422	C510
C510	N/A	0.06	0.06	0.07	Cut of stakehole	Circular cut with sharp top break of slope, steep sides, sharp basal break of slope and pointed base. Cutting C438.		C509	C438
C511	C512	0.08	0.08	0.08	Fill of stakehole	Compressible light blackish grey silty clay with moderate charcoal. Fill formed by stake being burned *in situ*.	Charcoal	C422	C512
C512	N/A	0.08	0.08	0.08	Cut of stakehole	Circular cut with sharp top break of slope, steep sides, sharp basal break of slope and pointed base. Cutting C438.		C511	C438
C513	C514	0.05	0.05	0.1	Fill of stakehole	Compressible light blackish grey silty clay with moderate charcoal. Fill formed by stake being burned *in situ*.	Charcoal	C422	C514
C514	N/A	0.05	0.05	0.1	Cut of stakehole	Circular cut with sharp top break of slope, steep sides, sharp basal break of slope and pointed base. Cutting C438.		C513	C438
C515	C516	0.25	0.22	0.13	Fill of posthole	Soft mid brown silty clay with occasional flecks of charcoal.	Charcoal	C1	C516
C516	N/A	0.25	0.22	0.13	Cut of posthole	Oval cut with gentle top break of slope, moderately sloping sides, gentle basal break of slope and tapered point base. Part of circular structure surrounding C562.		C515	C2
C517	C518	0.1	0.1	0.18	Fill of stakehole	Soft mid brown sandy clay with 15% stone.		C1	C518
C518	N/A	0.1	0.1	0.18	Cut of stakehole	Circular cut with sharp top break of slope, steep sides, gentle basal break of slope and flat base.		C517	C2

Context	Fill of	L (m)	W (m)	D (m)	Interpretation	Description	Finds	Context Above	Context Below
C519					Cancelled				
C520					Cancelled				
C521					Cancelled				
C522					Cancelled				
C523					Cancelled				
C524	C525	0.37	0.28	0.2	Fill of posthole	Soft dark brown sandy silt with frequent stones and charcoal.	Charcoal	C1	C525
C525	N/A	0.37	0.28	0.2	Cut of posthole	Oval cut with sharp top break of slope, vertical sloping turning to steep sides, gentle basal break of slope and flat base. Part of circular structure surrounding pit C562.		C524	C2
C526	C527	0.65	0.36	0.15	Fill of pit	Loosely compacted brown sandy clay with occasional charcoal and stones.	Charcoal	C1	C527
C527	N/A	0.65	0.32	0.15	Cut of pit	Oval cut with gentle top break of slope, moderately sloping sides, gentle basal break of slope and concave base.		C526	C2
C528	C529	0.4	0.22	0.13	Fill of posthole	Loosely compacted brown sandy clay with occasional charcoal and stones.	Charcoal	C1	C529
C529	N/A	0.4	0.22	0.13	Cut of posthole	Oval cut with gentle top break of slope, moderately sloping sides, imperceptible basal break of slope and concave base. Close to C527 and C549.		C528	C2
C530	C531	0.26	0.3	0.21	Fill of posthole	Soft mid brown clayey silt with 3% charcoal and 1% stones.	Charcoal	C1	C531
C531	N/A	0.26	0.3	0.21	Cut of posthole	Oval cut with gentle top break of slope, moderately sloping sides, gentle basal break of slope and tapered rounded point base. Part of circular structure surrounding pit C562.		C530	C2
C532	C535	0.59	0.59	0.17	Fill of pit	Soft dark brown grey/black hue silty clay with moderate charcoal and occasional well sorted sub-angular stones. Open pit used as fire then burnt material taken out and pit backfilled.	Charcoal	C1	C533
C533	C535	0.59	0.29	0.12	Fill of pit	Soft red clay fill formed by *in situ* burning.		C532	C534
C534	C535	0.59	0.59	0.18	Fill of pit	Soft grey with a yellow hue sandy clay with occasional to moderate well sorted, sub-angular stone.		C533	C535
C535	N/A	0.59	0.59	0.21	Cut of pit	Circular cut with sharp top break of slope, steep to vertical sides, gentle to sharp basal break of slope and circular flat base. Open pit used as fire then burnt material taken out and pit backfilled.		C534	C2
C536	C537	0.3	0.25	0.13	Fill of posthole	Loosely compacted brownish black silty clay.		C1	C537
C537	N/A	0.33	0.26	0.11	Cut of posthole	Oval cut with gentle top break of slope, moderately sloping sides, gentle basal break of slope and concave base. Part of circular structure surrounding pit C562.		C536	C2
C538	C539	0.18	0.15	0.15	Fill of posthole	Soft mid brownish grey silty clay with occasional flecks of	Charcoal	C1	C539

Context	Fill of	L (m)	W (m)	D (m)	Interpretation	Description	Finds	Context Above	Context Below
						charcoal and small stones. Fill formed by backfilling.			
C539	N/A	0.18	0.15	0.15	Cut of posthole	Circular cut with gentle top break of slope, moderately sloping sides, gentle basal break of slope and tapered point base. Part of circular structure surrounding pit C562.		C538	C2
C540	C541	0.34	0.3	0.27	Fill of posthole	Loosely compacted brown sandy clay with stones.		C1	C541
C541	N/A	0.34	0.3	0.27	Cut of posthole	Circular cut with sharp top break of slope, vertical sides, gentle basal break of slope and flat base. Part of circular structure surrounding pit C562.		C540	C2
C542	C543	0.2	0.18	0.15	Fill of posthole	Loosely compacted light brown sandy silt.		C1	C543
C543	N/A	0.2	0.18	0.15	Cut of posthole	Circular cut with sharp top break of slope, vertical sides, gentle basal break of slope and flat base. Possible association with C549.		C542	C2
C544	C545	0.75	0.45	0.27	Fill of pit	Moderately compacted dark brownish black silty clay with frequent angular stones and occasional charcoal.	Charcoal	C1	C545
C545	N/A	0.75	0.45	0.27	Cut of pit	Sub-oval cut with gentle top break of slope, steep sides, imperceptible basal break of slope and flat base. Possible association with C564.		C544	C2
C546	C547	0.45	0.4	0.2	Fill of posthole	Loosely compacted brown silty sand.		C1	C547
C547	N/A	0.45	0.4	0.2	Cut of posthole	Oval cut with gentle top break of slope, moderately sloping sides, gentle basal break of slope and concave base. Part of circular structure surrounding pit C562.		C546	C2
C548	C549	1.15	0.95	0.15	Fill of pit	Soft dark brown silty clay with occasional charcoal and 1% stones.	Charcoal	C1	C549
C549	N/A	1.15	0.95	0.15	Cut of pit	Oval cut with imperceptible top break of slope, gently sloping sides, imperceptible basal break of slope and concave base. Cut by C557.		C548	C2
C550	C549	0.36	0.46	0.2	Fill of pit	Soft mid brown silty clay with occasional charcoal and small and medium size stones.	Charcoal	C1	C2
C551					Cancelled				
C552	C549	0.56	0.7	0.32	Fill of pit	Soft dark brown silty clay packing fill with occasional charcoal and small and medium size stones.	Charcoal	C1	C2
C553					Cancelled				
C554	C557	0.3	0.35	0.16	Fill of postpipe	Soft dark blackish grey silty clay with occasional charcoal and small stones.	Charcoal	C1	C555
C555	C557	0.3	0.35	0.16	Cut of postpipe	Circular cut with sharp top break of slope, steep sides, gentle basal break of slope and concave base. Cutting C557 and C549.		C554	C556
C556	C557	0.56	0.8	0.31	Packing fill of posthole	Soft mid brown silty clay with occasional charcoal and small and medium size stones.	Charcoal	C555	C557

Context	Fill of	L (m)	W (m)	D (m)	Interpretation	Description	Finds	Context Above	Context Below
C557	N/A	0.56	0.8	0.31	Cut of posthole	Oval cut with sharp top break of slope, steep (W) to moderately sloping (E) sides, gentle basal break of slope and tapered rounded point base. Cut by C555 and cutting C549.		C556	C548
C558	C559	0.3	0.27	0.2	Fill of posthole	Loosely compacted dark brown silty sand with charcoal and angular stones.	Charcoal	C1	C559
C559	N/A	0.3	0.27	0.2	Cut of posthole	Oval cut with sharp top break of slope, steep sides, gentle basal break of slope and concave base. Part of structure surrounding C562.		C558	C2
C560	C562	0.71	0.42	0.32	Fill of pit	Loosely compacted mid brown sandy clay upper fill with 1% charcoal.	Charcoal	C1	C561
C561	C562	0.55	0.4	0.25	Fill of pit	Loosely compacted dark brown silty clay basal fill with 15% large stones and 1% charcoal.	Charcoal	C561	C562
C562	N/A	1.25	0.42	0.32	Cut of pit	Oval cut with gentle top break of slope, gently sloping sides, gentle basal break of slope and concave base. Cut by C587.		C562	C586
C563	C564	0.1	0.1	0.16	Fill of stakehole	Loosely compacted mid brown sandy clay.		C1	C564
C564	N/A	0.1	0.1	0.16	Cut of stakehole	Circular cut with imperceptible top break of slope, steep sides, imperceptible basal break of slope and concave base. Possible association with C545.		C563	C2
C565	C566	0.48	0.42	0.14	Fill of posthole	Soft dark brown clayey silt with large stones.		C1	C566
C566	N/A	0.48	0.42	0.14	Cut of posthole	Oval cut with gentle top break of slope, gently sloping sides, imperceptible basal break of slope and concave base. Part of structure surrounding C562.		C565	C2
C567					Cancelled				
C568	C569	0.3	0.3	0.15	Packing fill of posthole	Loosely compacted brownish grey sandy clay with frequent stones and occasional charcoal.	Charcoal	C1	C569
C569	N/A	0.3	0.3	0.15	Cut of posthole	Circular cut with imperceptible top break of slope, gently sloping sides, imperceptible basal break of slope and concave base. Cutting C571.		C568	C570
C570	C569	0.06	0.06	0.2	Fill of postpipe	Loosely compacted brown sandy clay with charcoal.	Charcoal	C569	C571
C571	C569	0.06	0.06	0.2	Cut of postpipe	Circular cut with sharp top break of slope, steep sides, sharp basal break of slope and tapered rounded point base. Cut by C569.		C570	C2
C572	C573	0.26	0.27	0.29	Fill of posthole	Soft mid brown silty clay with occasional stones.		C1	C573
C573	N/A	0.26	0.27	0.29	Cut of posthole	Circular cut with gentle top break of slope, steep sides, gentle basal break of slope and tapered rounded point base. Part of structure surrounding C562,		C572	C2
C574	C576	1.3		0.36	Deposit in trough	Hard light yellowish grey silty clay with occasional large sub-angular cut. Deposit formed by natural siltation.		C1	C575

Context	Fill of	L (m)	W (m)	D (m)	Interpretation	Description	Finds	Context Above	Context Below
C575	C576	0.39		0.5	Fill of trough	Firm dark brownish grey clayey silt with occasional medium size sub-angular stones. Fill formed by natural siltation.		C574	C582
C576	N/A				Cut of trough	Rectangular or possibly oval cut with sharp top break of slope, steep and irregular sides, gentle to non-perceptible basal break of slope and possibly concave irregular base. Trough deliberately cut and designed to hold water. Width for feature and all fills cannot be determined as feature runs under CPO.		C583	C2
C577	C578	0.11	0.11	0.15	Fill of stakehole	Soft mid brown silty clay. Fill formed by backfilling.		C1	C578
C578	N/A	0.11	0.11	0.15	Cut of stakehole	Circular cut with sharp top break of slope, moderately sloping sides, gentle basal break of slope and tapered point base. Part of structure surrounding C562.		C577	C2
C579					Cancelled				
C580	C581	0.1	0.12	0.18	Fill of stakehole	Soft mid brown silty clay. Fill formed by backfilling.		C1	C581
C581	N/A	0.1	0.12	0.18	Cut of stakehole	Circular cut with sharp top break of slope, moderately sloping sides, gentle basal break of slope and tapered point base. Part of structure surrounding C562.		C580	C2
C582	C576	0.61		0.08	Fill of trough	Friable yellowish orange sandy clay with occasional small rounded stones. Fill is redeposited natural and was deliberately backfilled into pit.		C575	C576
C583	C576	0.63		0.29	Fill of trough	Soft dark blackish grey with orange mottling silty clay basal fill with frequent charcoal and occasional medium sub-angular stones.	Charcoal	C582	C576
C584	C585	0.52	0.43	0.09	Fill of shallow pit	Loosely compacted dark brownish red silty clay with occasional big pieces of charcoal.	Charcoal	C1	C585
C585	N/A	0.52	0.43	0.09	Cut of shallow pit	Oval cut with gentle top break of slope, very gently sloping sides, gentle basal break of slope and rounded base. Cut by C562.		C584	C2
C586	C587	0.25	0.25	0.14	Fill of posthole	Soft dark brown silty clay with moderate charcoal and packing stones.	Charcoal	C1	C587
C587	N/A	0.25	0.25	0.14	Cut of posthole	Circular cut with sharp top break of slope, steep sides, gentle basal break of slope and flat concave base. Cutting C562.		C586	C562
C588					Cancelled				
C589					Cancelled				
C590					Cancelled				
C591					Cancelled				

Appendix 1.2 Catalogue of Artefacts

Registration Number	Context	Item No.	Simple Name	Full Name	Material	Description	No. of Parts
E3864:001:1	1	1	Rubbing stone	Limestone utilised stone	Limestone	A utilised stone which is possibly smoothened on all sides. It may have been used as a rubbing stone.	N/A
E3864:192:1-2	192	1-2	Urn	Sherd of Bronze Age pottery	Ceramic	Bodysherd of Bronze Age pottery, part of a a cordoned urn or related domestic variant	N/A
E3864:350:1	350	1	Rubbing stone	Limestone utilised stone	Limestone	A burnt utilised stone. It is possibly smoothened on all sides and may have been used as a rubbing stone.	N/A

Appendix 1.3 Catalogue of Ecofacts

During post excavation works specific samples were processed with a view to further analysis. A total of 19 soil samples were taken from features at Ballyquirk 2 and were processed by flotation and sieving through a 250µm mesh. The following are the ecofacts recovered from these samples

Context #	Sample #	Feature type i.e. Structure A, hearth C45	charcoal	Seeds & Hazelnut	Animal bone	Burnt bone	human bone	Burnt clay	Heat-affected Stone
C7	4	Posthole	18.7g						
C14	2	Posthole	3.7g						
C57	10	Pit	0.2g			3.3g			
C57	11	Pit				0.2g			
C57	20	Pit	1.7g						
C58	12	Pit						3.2g	
C59	14	Pit	8.1g						0.02l
C59	16	Pit	6.5g			0.3g			0.03l
C59	17	Pit	5.3g						0.05l
C97	15	Pit	80.5g						
C159	19	Postpipe	43.2g						
C192	23	Pit						6.5g	
C192	26	Pit	10.9g						
C218	30	Postpipe	1.1g						
C352	39	Pit	0.5g						
C410	44	Pit	4.8g						0.03l
C422	51	Pit	58.8g						0.1l
C455	52	Pit	126.1g						
C522	55	Pit	125.7g						

Appendix 1.4 Archive Index

Project: N9/N10 Phase 4 Knocktopher to Powerstown		
Site Name: AR113 Ballyquirk 2		
Excavation Registration Number: E3864		
Site director:Ruth Elliott		
Date: 18.01.08		
Field Records	**Items (quantity)**	**Comments**
Site drawings (plans)	31 plans	11 pre-ex, 33 sections, 4 mid-ex and 16 post-ex
Site sections, profiles, elevations	33 section sheets	
Other plans, sketches, etc.	0	
Timber drawings	0	
Stone structural drawings	0	
Site diary/note books	1	
Site registers (folders)	1	
Survey/levels data (origin information)	578	
Context sheets	591	
Wood Sheets	0	
Skeleton Sheets	0	
Worked stone sheets	0	
Digital photographs	378	
Photographs (print)	0	
Photographs (slide)	0	
Security copy of archive	Yes	Digital copy

APPENDIX 2 SPECIALIST REPORTS

Appendix 2.1 Prehistoric Pottery Report – Eoin Grogan and Helen Roche

Appendix 2.2 Lithics Report – Farina Sternke

Appendix 2.3 Charcoal and Wood Report – Susan Lyons

Appendix 2.4 Burnt Bone Report – Aoife McCarthy

Appendix 2.5 Petrographical Report – Stephen Mandal

Appendix 2.6 Radiocarbon Dating Results – QUB Laboratory

Appendix 2.1 Prehistoric Pottery Report – Eoin Grogan and Helen Roche

N9/N10 Knocktopher to Powerstown
The prehistoric pottery from Ballyquirk 2,
Co. Kilkenny
(AR113, E3864)
Eoin Grogan and Helen Roche

May 2009

Summary
The site produced two sherds (weight: 20g) representing a Bronze Age cordoned urn or related domestic vessel.

The Bronze Age pottery
The site produced two sherds from the fill (**192**) of a pit (**193**) (Elliot 2008). These are from a single vessel of compact brown-buff fabric. The external surface is very smooth and a there is a medium to high content of dolerite inclusions. This is a fine walled vessel, probably a cordoned urn or the domestic variant dating to the early part of the middle Bronze Age.

References
Elliot, R. 2008 E3864 Ballyquirk Stratigraphic Report. Unpublished Stratigraphic Report. National Monuments Service. Department of the Environment, Heritage and Local Government, Dublin.

CATALOGUE
The excavation number E3864 is omitted throughout: only the context number, in **bold**, followed by the find number is included and numbers in square brackets indicate that the sherds are conjoined (e.g. **192**:[1–2]). 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. Group numbers (Roman numerals) refer to sherds from a vessel where the overall form is not identifiable principally due to the absence of sufficient feature (rim/ neck/ shoulder) sherds. While this generally indicates separate pots due to the nature of the material is it possible that some Vessel Groups may represent portions of vessels otherwise identified by Vessel Numbers. Individual sherds that could not be definitely ascribed to either category are described separately; these may come from further pots that are not, however, included in the calculations of minimum and maximum numbers of vessels. The inclusions were examined using simple magnification and in some cases attribution reflects probable, rather than certain, identification.

Worn: some wear damage to surfaces and edge breaks much worn: considerable wear damage

Bronze Age pottery

*Fill **192** of pit **193***
Group I. This is represented by 2 bodysherds (**192**:[1–2]) of smooth, compact, brown-buff fabric with a dark grey core. There is a medium to high content of dolerite inclusions (occasionally up to 7.24 x 5.72mm). Body thickness: 9.71mm; weight: 20g.

Comment These are probably from a cordoned urn or related domestic variant.

Appendix 2.2 Lithics Report – Farina Sternke

LITHICS FINDS REPORT FOR E3864,
BALLYQUIRK 2 (A032/144),
CO. KILKENNY
N9/N10 ROAD SCHEME – PHASE 4B
FARINA STERNKE MA, PHD

Contents

List of Tables

Introduction

Two lithic finds from the archaeological investigations of a prehistoric site at Ballyquirk 2, Co. Kilkenny were presented for analysis (Table 1). The finds are associated with troughs, pits, postholes and circular stake-built structure representing parts of the possible remains of a *fulacht fiadh*.

Find Number	Context	Material	Type	Condition	Cortex	Length (mm)	Width (mm)	Thickness (mm)	Complete	Retouch
E3864:001:1	1	Limestone	Utilised Stone?	Weathered		66	36	30	Yes	No
E3864:350:1	350	Limestone	Rubbing Stone?	Burnt		36	27	16	No	No

Table 1 Composition of the Lithic Assemblage from Ballyquirk 2 (E3864)

Methodology

All lithic artefacts are examined visually and catalogued using Microsoft Excel. The following details are recorded for each artefact which measures at least 20mm in length or width: context information, raw material type, artefact type, the presence of cortex, artefact condition, length, with and thickness measurements, fragmentation and the type of retouch (where applicable). The technological criteria recorded are based on the terminology and technology presented in Inizan *et al.* 1999. The general typological and morphological classifications are based on Woodman *et al.* 2006. Struck lithics smaller than 20mm are classed as debitage and not analysed further, unless they represent pieces of technological or typological significance, e.g. cores etc. The same is done with natural chunks.

Quantification

The artefacts are two modified pieces of limestone which are larger than 20mm in length and width and were therefore recorded in detail.

Provenance

One find was recovered from the topsoil (E3864:001:1) and the other from context 350 (E3864:350:1).

Condition:

The lithics survive in weathered (E3864:001:1) and burnt (E3864:350:1) condition. Find E3864:350:1 is incomplete.

Technology/Morphology:

The lithics are two possible macro tools: a utilised stone (E3864:001:1) and a rubbing stone (E3864:350:1). The utilised stone measures 66mm in length, 36mm in width and 30mm in thickness and is possibly smoothened on all sides. It may have been used as a rubbing stone.

The second macro tool measures 36mm long, 27mm wide and 16mm thick. is possibly smoothened on all sides. It may have been used as a rubbing stone.

Dating:

The two possible macro tools typologically undiagnostic, but they most likely date to the Bronze Age.

Conservation
Lithics do not require specific conservation, but should be stored in a dry, stable environment. Preferably, each lithic should be bagged separately and contact with other lithics should be avoided, so as to prevent damage and breakage, in particular edge damage which could later be misinterpreted as retouch. Larger and heavier items are best kept in individual boxes to avoid crushing of smaller assemblage pieces.

Discussion
The size and composition of the flaked assemblage is typical for Irish burnt mounds. Recent excavations in the south-east of Ireland revealed a similar pattern of very small assemblages found in associated *fulachta fiadh*, e.g. the N25 Waterford By-Pass (Woodman 2006). These assemblages are dominated by the use of local remanié or imported nodules of beach pebble flint which is often worked using the bipolar method (see also O'Hare 2005).

Conclusion
The lithic finds from the archaeological investigations at Ballyquirk 2, Co. Kilkenny are a possible utilised stone, perhaps a rubbing stone, and a possible rubbing stone. Both are made of limestone and most likely date to the Bronze Age.

This site makes a minor contribution to the evidence for prehistoric settlement in Co. Kilkenny.

References
Inizan, M-L, Reduron-Ballinger, M. Roche, H. and Tixier, J. 1999 *Technology and Terminology of Knapped Stone* **5**. CREP, Nanterre.

O'Hare, M. B. 2005 The Bronze Age Lithics of Ireland. Unpublished PhD Thesis. Queen's University of Belfast.

Woodman, P. C. 2006 The significance of the lithic assemblages from the archaeological excavations on the Waterford By-Pass. Unpublished Report for Headland.

Woodman, P. C., Finlay, N. and Anderson, E. 2006 *The Archaeology of a Collection: The Keiller-Knowles Collection of the National Museum of Ireland*. National Museum of Ireland Monograph Series 2. Wordwell, Bray.

Appendix 2.3 Charcoal and Wood Report – Susan Lyons

Site Name- Ballyquirk 2
Excavation number –E3864 AR113
County – Kilkenny
Author- Susan Lyons

Date –23/10/09
CHARCOAL IDENTIFICATION SUMMARY REPORT

Illustrations

Figures

Tables

Introduction
Eight charcoal samples were identified and analysed from excavations associated with features of potentially prehistoric date at Ballyquirk 2, Co. Kilkenny as part of the resolution of the N9/N10 Kilcullen to Waterford Scheme, Phase 4B – Rathclogh to Powerstown. Two roughly circular, post-built structures were revealed during excavation along with other features representing the remains of probable domestic activity. The remnants of burnt mound activity were located in the northern extent of the site. Finds from the site comprised two possible rubbing stones and two sherds of prehistoric pottery. Modern field clearance is likely to have caused significant damage to archaeological features in the location (Elliott, 2009).

It is generally considered that the principle reason for charcoal analysis is the hypothesis that wood used as firewood will be collected from as close to a site as possible and as such can help to reflect the local wooded environment in the area. It is also likely that abandoned structural timbers or wood brought to the site for uses in construction works or other activities are also reused as firewood. The charcoal identified can also go some way to interpreting the local woodland that grew in the vicinity of the site and possible changes to that woodland over time. This charcoal report serves as a summary report only for Ballyquirk 2 and will later form part of an overall scheme-wide charcoal study for the N9/N10 (Lyons, *et al, forthcoming).*

1 Methodology (after IAC Ltd)

2.1 Processing

- A mechanical flotation tank using a pump and water recycling system is used for soil flotation
- The soil is washed using a 1mm mesh in the flotation tank and a 300 micron and 1mm sieve is used to catch floated material.
- The volume of all soil samples are recorded in litres using a measuring jug.
- The sample is then placed into the 1mm mesh in the flotation tank, the tank is then filled with water and the sample washed. Any large lumps of soil can be carefully broken down by hand, but the jets of water in the flotation tank gently clean the rest of the sample.
- Once the sample is clean (just stones, charcoal, artefacts remaining in the mesh) the tank is fill up with water and at this stage any floating material (charcoal, seeds etc) should flow over the spout and into the sieves.
- The retent is then gently poured into a labelled tray (containing site code, site name, sample number and context number) and place on a shelf to dry.
- The flots are securely packaged in tissue, labelled and hung up to dry. This prevents any loss of light material (seeds) which could result once the flots are dry and being moved (if they are dried on trays).
- Before washing a new sample all equipment used (measuring jugs, 1mm mesh, sieves etc) are thoroughly washed using clean water.
- The large black settling tanks (and water) are cleaned between every site, or if a large site is being processed, every 1-2 weeks.
- Any samples containing high clay content will be soaked in water for 1-2 days to aid the sieving process.

2.2 Charcoal identifications

Eight charcoal samples from **C7**, (fill of posthole **C8**), **C57** and **C59** (fills of pit **C60**), **C97** (fill of pit **C98**), **C159** (fill of postpipe **C154**), **C192** (fill of pit **C193**), **C422** (fill of pit **C438**) and **C455** (fill of pit **C456**) were selected for charcoal analysis.

The larger sized charcoal fragments (>3mm in width) are fractured to view the three planes [transverse, radial and tangential sections] necessary for microscopic wood

identification. The wood species identifications are conducted under a binocular microscope using a trancident light and viewed at magnifications of 100x, 200x and 400x where applicable. Where possible the age and growth pattern of the wood fragments is also recorded by studying the transverse section at a magnification of up to 40x.

Wood species identifications are made using wood reference slides and wood keys devised by Franklin and Brazier (1961), Schweingruber (1978), Hather (2000) and the International Association of Wood Anatomists (IAWA) wood identification manuals and (www.lib.ncsu/edu/insidewood) by Wheeler, Bass and Gasson (1989).

Quantifying charcoal samples can be difficult as many wood species can be affected by heat is different ways and hence become fragmented into an arbitrary number of fragments. Due to the potential for a very high number of charcoal fragments from the samples, a representative sample of 50 charcoal fragments (Keepax, 1988) are randomly chosen from larger samples for identification and analysis. In the case of smaller samples all charcoal fragments within are identified. The charcoal fragments of each species identified are counted, weighted (grams) and bagged according to species.

2.3 Details of charcoal recording

The general age group of each taxa per sample is recorded, and the growth rates are classified as slow, medium, fast or mixed. It was not within the scope of this project to measure all the ring widths from the charcoal, however, some measurements are taken with a graticule in the microscope in order to make the scale of slow, medium and fast growth less subjective. Slow growth within the charcoal from this site is considered to be approximately 0.4mm per annum, medium approximately 1mm per annum and fast approximately 2.2mm per annum.

The ring curvature is also noted where applicable from each charcoal fragment. Weakly curved annual rings suggest the use of trunks or larger branches, while strongly curved annual rings indicate the burning of smaller branches or twigs **Fig. 1.** Tyloses within the vessels of species such as oak can denote the presence of heartwood. These are balloon-like outgrowths of adjacent parenchyma cells of xylem vessels (vascular tissue used to transport water and minerals). When the plant is subjected to stressful conditions, tyloses will develop and block the vascular tissue to prevent further damage to the plant.

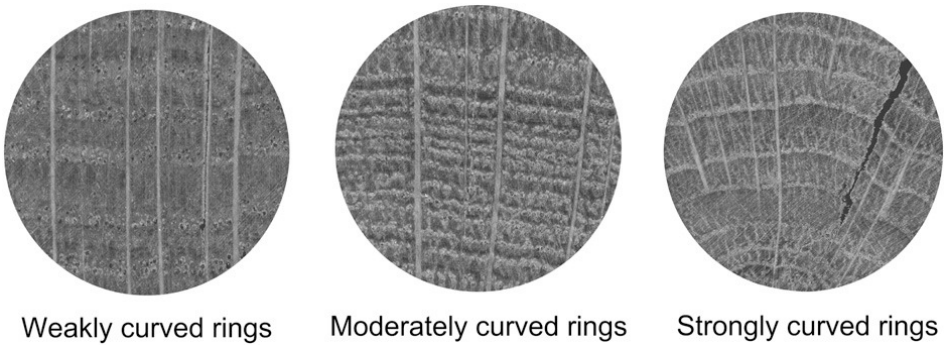


Fig. 1. Ring curvature (after Marguerie and Hunot 2007 1421, Fig. 3)

2 Results

The results of the charcoal identifications are summarized in **Table 1**

Five wood species totaling 357 identifications were recorded from the samples associated with Ballyquirk 2. *Quercus* sp. (oak) was the dominant species identified, especially from **C97** and **C159.** *Corylus avellana* (hazel) was the second most common species recorded, most notable from **C192.** Lower incidences of *Salix* sp. (willow) and *Fraxinus excelsior* (ash) were also identified, with just one occurrence of *Ilex aquifolium* (holly) recorded from **C422 (Fig. 2)**.

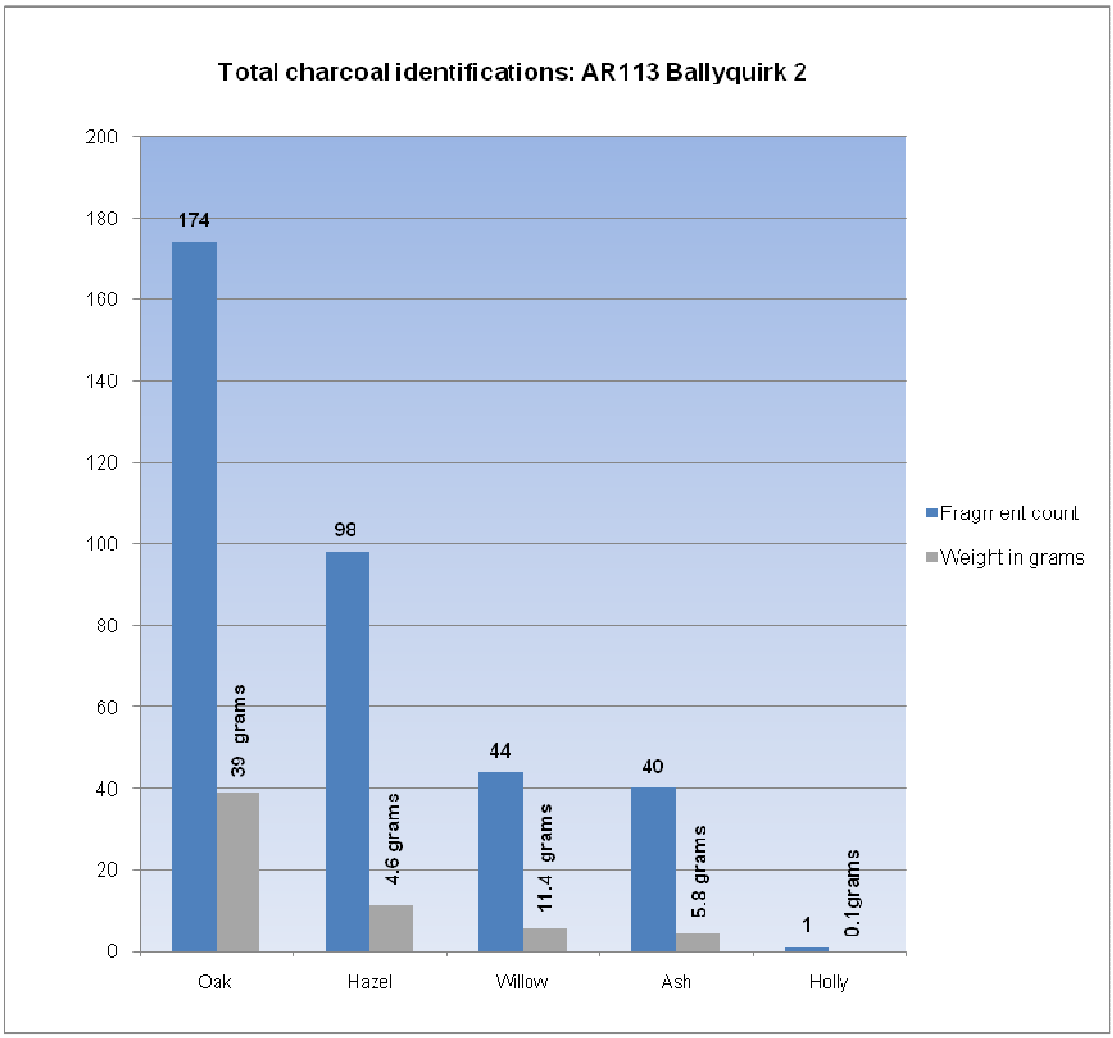


Fig. 2

3 Discussion

4.1 Background and origin of wood species

Quercus sp. (oak)
Oak is a tall deciduous woodland tree, often growing in association with hazel and ash. Most species prefer damp, non-calcareous soils on lowland or montane sites. Of the 27 European species, pedunculate oak (*Quercus robur)* and sessile oak (*Quercus petraea)* are native to Ireland. Pedunculate oak is common on heavy clay lowland soils whereas sessile oak thrives on the lighter loams characteristic of higher ground (Culter & Gale, 2000). The wood is easy to cleave both radially and tangentially and has provided one of the most important building materials since the prehistoric period (Gale & Culter, 2000). The heartwood timber is renowned for its durability but the paler sapwood is susceptible to beetle and fungal attack. The

strength of the timber depends on the species and is influenced by climatic and edaphic factors (Edlin, 1951). When burnt, oak charcoal, particularly the dense heartwood, has higher calorific values than most European woods and this can make for good long-lasting fuel (Culter & Gale, 2000).

Corylus avellana L. (hazel)
Hazel woodlands replaced birch in the early post-glacial forests and remains on some shallow limestone soils to the present day (Pilcher & Hall, 2001). The species can tolerate most soil types, but not waterlogged conditions and forms a small deciduous tree or shrub. It commonly occurs in understorey of oak and/or ash woodlands, where it may grow to a height of 10m or more. In open areas or woodland glades hazel grows as a shrub. Hazel is a common species recorded from Irish archaeological sites and its widespread presence is highlighted in pollen diagrams from the Neolithic to the medieval period (Caseldine, 1996). It produces good firewood and is a suitable wood for kindling. The wood is soft enough to be split yet flexible and strong enough to be used in rope making and basketry. It has also proved a useful resource in the construction of hurdles, wattling, palisades and trackways from prehistoric times (Pilcher & Hall, 2001).

Salix spp. (willows).
There are a number of different species of willow which cannot be differentiated through wood anatomy. They grow rapidly, and can be easily propagated from cuttings. General comments only about the genus can be made, as there are different varieties of it. They are not naturally a woodland species, although shrubby growth may occur under light woodland cover. All willows appear to favour wet conditions, and it may be a pioneer species on wet soils. The use of willow depends on the species concerned, for some grow as shrubs and others as trees, and a species may be particularly suited to some purpose. In general, the flexibility of willow shoots has led to coppicing or pollarding to produce the raw materials for baskets, frames, hurdling etc. (Orme & Coles, 1985). The main Irish native willows are grey willow (*Salix cinera*), goat willow (*Salix caprea*) and eared willow (*Salix aurita*).

Fraxinus excelsior (ash)
Ash thrives well on nutrient-rich soils but is also a common woodland species and grows in mixed woodland with oak on damp, slightly acidic soils (Gale & Culter, 2000). Pollen analysis indicates that ash became more common in the pollen record from the Neolithic period onwards (Mitchell, 1953/4). This could be as a result of more clearance due to agricultural practices at the time, where ash was able to germinate and grow more vigorously as secondary woodland and in marginal areas and hedges (Kelly, 1976). Ash is also abundant in native hedgerows and was quite common in the later historic period.

Ilex aquifolium L. (holly)
Holly is an evergreen tree which grows on almost any soil type and can tolerate heavy shade, sometimes growing as understorey in oak or beech woodlands. It dislikes very wet soils and can thrive well in abandoned agricultural clearings (Cutler and Gale, 2000, 139). Holly produces good firewood. The fine-grained nature of the wood makes it suitable for carving and turning (Orme and Coles, 1985). It can distort when drying and as such is usually used in small pieces and is not suited for outdoor use. It is traditionally used for walking sticks and can be easily coppiced and pollarded (Orme and Coles, 1985). Holly was seen to have held magical and protective powers with some cultures from prehistoric times and was therefore held in high esteem (Culter and Gale, 2000, 139). With many others it is also reputed to bring bad luck (Rackham, 1980). Holly artefacts are generally rare, perhaps reflecting

the superstitions attached to the tree or the difficulty with working the wood (Culter and Gale, 2000, 139).

4.2 Distribution of charcoal from Ballyquirk 2

The number of identifiable charcoal fragments recovered from Ballyquirk 2 were localised to just seven features; posthole **C8 (C7),** pit **C60** (**C57** and **C59**), pit **C98 (C97),** postpipe **C154 (159),** pit **C193 (192),** pit **C438 (422)** and pit **C456 (455).**

Despite the spatial difference between some of these features, the composition of wood species recorded from each feature was very similar. Ash, oak, hazel and willow were identified from all contexts, the only exception being holly, which was identified from **C422.** A mixed wood assemblage from **C7, C57, C59, C192, C422** and **C455** was recorded and the charcoal counts from each were quite low. This coupled with the absence of any obvious *in situ* burning deposits from these features suggests that this was most probably re-deposited material from one or more firing events at the site.

The only features to contain exclusively oak charcoal in relatively high quantities were **C97** (fill of pit **C98**) and **C159** (fill of postpipe **C154**). **C97** was also void of any conflagration deposits and so the oak recorded from here may represent a single dumping of charred debris from nearby burning activities. The oak identified from posthole fill **C159** may reflect the remains of structural wood, perhaps a structure or part of which had burnt down. It must also be noted that charcoal from such deposits may also be the result of construction methods such as a) the charring of post bases to prevent the timbers from rotting b) a way of re-sizing posts of c) the method by which the timbers were felled.

5 Summary

The charcoal fragments from **C7**, (fill of posthole **C8**), **C57** and **C59** (fills of pit **C60**), **C97** (fill of pit **C98**), **C159** (fill of postpipe **C154**), **C192** (fill of pit **C193**), **C422** (fill of pit **C438**) and **C455** (fill of pit **C456**) recorded at Ballyquirk 1 were chosen for charcoal identification and analysis. Since it was difficult to ascertain whether all three features were associated with each other, the interpretations are localised to each feature, rather than the site as a whole. Oak, ash, hazel and willow were recorded from **C7, C57, C59, C192, C422** and **C455** and this material is likely to be the re-deposited charred debris from nearby firing events. **C422** was the only feature to contain holly charcoal, albeit in very low quantities. Oak was recorded in high concentrations from **C97** and **C159.** While the oak from **C97** may be a dumping deposit, the charcoal from **C159** is likely to be the remains of structural wood

6 References

Brazier, J. D. and Franklin, G. L. 1961 *Identification of hardwoods: a microscopic key.* London: H.M Stationary Office

Caseldine, C. J. & Hatton, J. M. 1996 Early land clearance and wooden trackway construction in the third and fourth millennium BC at Corlea, C. Longford. *Proceedings of the Royal Irish Academy* **95B**, 1–9

Elliott, R 2009 E3864 Ballyquirk 2 Stratigraphic Report. Unpublished Stratigraphic Report. National Monuments Service. Department of the Environment, Heritage and Local Government, Dublin.

Gale, R.. & Cutler, D.. 2000 *Plants in Archaeology: Identification manual of artefact of plant origin from Europe and the Mediterranean.* Westbury and the Royal Botanic Gardens Kew

Hather, J.G. 2000 *The Identification of the Northern European Woods. A guide for archaeologists and conservators*. London: Archetype Publications Ltd

Keepax, C.A. 1988 Charcoal Analysis with Particular Reference to Archaeological Sites in Britain. Unpublished PhD thesis, University of London

Kelly, F. 1998 *Early Irish Farming*. Dublin: Institute for Advanced Studies

Lyons, S., O'Carroll, E. and O'Donnell, L. forthcoming. 'Charcoal analysis from the N9/N10- overall integrated report', Unpublished report for IAC Ltd

Marguerie, D. and Hunot, J.Y. 2007 Charcoal analysis and dendrology: data from archaeological sites in north-western France. *Journal of Archaeological Science* **34** 1417–1433

Mitchell, G F, 1953/4 A Pollen Diagram from Lough Gur, Co. Limerick'. *Proceedings of the Royal Irish Academy* **56C**, 481–488

Orme, B. J. and Coles, J. M. 1985 'Prehistoric woodworking from the Somerset levels: 2: Species selection and prehistoric woodlands'. *Somerset Levels papers,* **11**, 7–24

Pilcher, J. & Hall, V. 2001 *Flora Hibernica: The wild flowers, plants and tress of Ireland.* The Collins Press

Rackham, O. 1980 *Ancient woodland: its history, vegetation and uses in England.* London: Arnold

Schweingruber, F. H. 1978 *Microscopic wood anatomy*. Birmensdorf: Swiss Federal Institute for Forest, Snow and Landscape Research

Wheeler, E. A., Bass, P. & Gasson, P. E. 1989 *IAWA list of microscopic features for hardwood identification* IAWA Bulletin nos. **10** (3): 219–332. Rijksherbarium: Leiden

Table 1 Charcoal identification results from Ballyquirk 2 (E3864)

Context number	Sample number	Flot volume (grams)	Context description	Wood Species Identifications	No. of fragments	Charcoal weights (grams)	Size of fragments (mm)	No. of growth rings	Growth ring curvature	Comments
7	4	18.7 grams	Fill of posthole C8	Corylus avellana (hazel)	24	2.6 grams	3mm - 20mm	3 - 6 rings	weak	ring width (1mm - 3mm)
				Quercus sp. (oak)	14	1.1 grams	4mm - 8mm	3 - 4 rings	weak	
				Fraxinus excelsior (ash)	7	0.9 grams	4mm - 7mm	4 rings		
				Salix sp. (willow)	5	0.7 grams	5mm	3 - 4 rings		
57	20	1.7 grams	Fill of pit C60	Quercus sp. (oak)	8	0.9 grams	4 - 8mm	3 - 5 rings		
				Salix sp. (willow)	5	0.4 grams	4 - 6mm	2 rings		
				Corylus avellana (hazel)	3	0.6 grams	<5mm	3 rings		
				Fraxinus excelsior (ash)	1	0.2 grams	<5mm	3 rings		
59	14	8.1 grams	Fill of pit C60	Corylus avellana (hazel)	13	0.9 grams	3mm - 10mm	3 - 5 rings		
				Fraxinus excelsior (ash)	11	0.9 grams	4mm - 8mm	2 - 4 rings		
				Quercus sp. (oak)	8	0.8 grams	4mm - 7mm	3 rings		
				Salix sp. (willow)	6	0.8 grams	5mm - 10mm	3 - 4 rings		
97	15	80.5 grams	Fill of pit C98	Quercus sp. (oak)	50	11.4 grams	4mm - 45mm	3 - 6 rings	weak	ring width (1mm - 3mm)
159	19	43.2 grams	Fill of postpipe C154	Quercus sp. (oak)	50	10 grams	5mm - 50mm	3 - 7 rings	weak	ring width (1mm - 3mm)
192	26	10.9 grams		Corylus avellana (hazel)	33	2.7 grams	4mm - 10mm	3 - 5 rings	weak	ring width (1mm - 2mm)
				Salix sp. (willow)	13	1.3 grams	3mm - 8mm	3 - 4 rings		
				Quercus sp. (oak)	2	0.2 grams	5mm	3 rings		
				Fraxinus excelsior (ash)	2	0.2 grams	4mm	4 rings		
422	51	58.8 grams	Fill of pit C438	Fraxinus excelsior (ash)	15	1.4 grams	3mm - 6mm	2 - 5 rings	weak	
				Quercus sp. (oak)	14	2 grams	4mm - 5mm	2 - 3 rings	weak	
				Corylus avellana (hazel)	12	1.6 grams	5mm - 10mm	2 - 6 rings	weak	

Context number	Sample number	Flot volume (grams)	Context description	Wood Species Identifications	No. of fragments	Charcoal weights (grams)	Size of fragments (mm)	No. of growth rings	Growth ring curvature	Comments
				Salix sp. (willow)	10	1.4 grams	3mm - 8mm	3 - 5 rings		
				Ilex aquifolium (Iholly)	1	0.1 grams	5mm	3 rings		
455	52	126.1 grams	Fill of pit C456	Quercus sp. (oak)	28	12.6 grams	5mm - 65mm	3 - 7 rings	20% strong	ring width (1mm - 3mm)
				Corylus avellana (hazel)	13	3 grams	4mm - 20mm	3 - 6 rings		
				Salix sp. (willow)	5	1 gram	5mm - 8mm	3 - 4 rings		
				Fraxinus excelsior (ash)	4	1 gram	3mm - 10mm	3 - 5 rings		

Appendix 2.4 Burnt Bone Report – Aoife McCarthy

Osteoarchaeological Report of Burnt Bone from
E3864 A032/: Ballyquirk 2 AR113 Co. Kilkenny
N9/N10 Kilcullen to Waterford Scheme
Phase 4b: Knocktopher to Powerstown
Aoife McCarthy MA BA
April 2010

1. Introduction

This report details the osteological analysis of burnt bone samples recovered during excavations at Ballyquirk 2 in the townland of Ballyquirk, Co. Kilkenny as part of the archaeological mitigation programme of the N9/N10 Kilcullen to Waterford Road Scheme. Aoife McCarthy MA (Osteoarchaeology University of Southampton 2006) undertook the analysis on behalf of Irish Archaeological Consultancy Ltd in April 2010. At the time of writing this report, background archaeological information was obtained from a draft interim excavation report (Elliott, R. 2009) and from consulting the original site register documents.

General Osteological Information

The osteological analysis of burnt bone fragments recovered during sieving of bulk soil samples was undertaken to provide an overview of the osteoarchaeological aspect of the site and determine if the material could provide further interpretation of site activity.

A total of 17 fragments from 13 possible skeletal elements weighing 3.59g were recorded within the assemblage. The degree of preservation of the burnt bone material recovered was poor. A modest rate of fragmentation was noted within the combined assemblage.

A large portion of the burnt bone material recovered at Ballyquirk 2 originated from C57 the sandy clay fill of pit feature C60 which accounted for 14 fragments or 82.4% of the total.

A series of five charcoal samples retrieved from archaeological contexts C7, C59, C218, C422 & C455 were classified to species and issued for AMS dating. A sample of ash charcoal from posthole fill C7 returned a two sigma calibrated date of Cal. 1739–1536BC; whilst ash charcoal identified within pit fill C59 returned a two sigma calibrated date of Cal. 2024–1894BC. A further sample of alder charcoal recovered from postpipe fill C218 was issued for AMS dating and returned a two sigma calibrated date of Cal. 1862–1634BC; whilst a sample of ash charcoal identified within pit fill C422 returned a two sigma calibrated date of Cal. 2137–1965BC. A final sample of ash charcoal retrieved from pit fill C455 returned a two sigma calibrated date of Cal. 1733–1535BC. The sequence of five calibrated AMS dates provided for charcoal samples place activity within the early and middle Bronze Age period.

A single burnt bone fragment (5.9%) was classified to species. Due to fragmentation combined with poor preservation and small size of the individual bone fragments it was not possible to identify 16 fragments (94.1%) these were classed as indeterminate vertebrate of small, medium or large size. Bone elements were identified where possible. The burnt remains recovered from Ballyquirk 2 contained bones from a single species of *caprinae*.

2. Methodology

Species Identification: Identification of the bones involved reference to Schmid (1972) and Hillson (1992) as well as comparison with the author's own reference material. The closely related taxa of sheep and goat are difficult to distinguish and where grouped under the term '*caprinae*'

NISP: Number of Identified Specimens Indicates the total number of fragments found.

MNI: Minimum Number of Individuals. Indicates the minimum number of individuals from every species that were present in the material. Estimating MNI is calculated on

the specimen of the most abundant skeletal element present; whilst taking age, sex, size and archaeological context into account.

In order to calculate accurate MNI and MNE figures for each species, bird as well as mammal, a method of zoning was implemented when recording (Serjeantson, 2000). This method was used so as to compensate for any possible biases due to fragmentation; siding was also taken into account at this point.

MNE: Minimum Number of Elements. Indicates the minimum number of anatomical units that are present and what side they are from. To avoid getting a higher MNE all loose epiphyses have to be paired with all un-fused diaphysis.

Ageing: Two main methods are used to determine the age of faunal remains; tooth eruption and degree of Epiphysial fusion (a less reliable method). Tooth eruption and wear stages were recorded for the following teeth where possible; dP4 (deciduous fourth premolar), P4 (fourth premolar), M1 (first molar), M2 (second molar) and M3 (third molar) of cattle, sheep/goat and pig (Grant 1982). The analysis of tooth wear patterns refers to the alteration of the enamel surface and exposure of inner dentine through use.

Biometrical Data: Due to fragmentation and small size of the burnt bone remains recovered measurements and biometrical data analysis were not possible.

Sex Determination: Sex determination of animal remains is possible by analysis of certain sexually dimorphic elements. For example goat horncores may be classified as male or female based on their morphology and cattle metacarpals can be defined as male or female through calculation of the slenderness index (McCormick 1992). Sexual determination of species was not possible due to the high degree of fragmentation and the nature of the animal bone material recovered from Ballyquirk 2.

Butchery/Gnawing/Burning: Evidence for butchery was recorded under the categories of cut, chopped, chopped and cut. All specimens were analysed for evidence of rodent or carnivorous gnawing as well as evidence of burning. Burnt bones were recorded in accordance with colour changes resulting from differing heat levels e.g. calcined bones acquire a bluish-whitish hue through exposure to high temperatures.

Pathology: The discovery of any injury and/or pathology was recorded for all specimens, where present.

3. Results

Context 57 Sample 11
A single poorly preserved small fragment (0.17g) of calcined unidentified trabecular bone was recovered within pit fill C57. The fragment displayed evidence of calcination with visible colour change to white/grey and cracking of the bone surface. Contact of bone with heat diminishes its moisture content and results in the combustion of the organic or collagen component; the remaining structure of the bone after this process is mineral. Such distortion to the bone structure reduces its size and as detailed alters bone colour (Luff R. & Pearce J. 1994).

Context 57 Sample 10
A total of 14 poorly preserved calcined bone fragments (3.25g) representing 11 possible skeletal elements were identified within sandy-clay fill C57 of pit feature

C60. The species of sheep/goat (*caprinae*) was identified within the burnt bone material. However, small fragment size combined with fragmentation and poor preservation meant it was not possible to identify the species of 13 calcined bone fragments.

Sheep/Goat (Caprinae)
A single poorly preserved fragment of distal diaphysis of *caprinae* metacarpal/metatarsal (0.23g) was recovered within pit fill C57. The distal auricular surface did not survive and a degree of trabecular bone was exposed. The bone fragment displayed evidence of exposure to a high level of heat resulting in calcination of the bone. Calcination of the bone fragment manifested as surface colour change to white combined with bone surface cracking. A white or pale grey colour indicates exposure of bone to temperatures in excess of *c.* 600°C combined with a ready oxygen supply (McKinley, 2004). Such distortion to the bone structure reduces its size and as detailed above alters bone colour (Luff R. & Pearce J. 1994).

Indeterminate Vertebrate
Fragmentation combined with poor preservation and tiny fragment size meant that the vertebrae, long bone and unidentifiable burnt bone fragments recovered from pit fill C57 were unidentifiable to species. The largest calcined long bone diaphysis fragment retrieved of a small-medium sized vertebrate measured 15mm long by 11mm wide and 5mm thick. All 13 bone fragments displayed evidence of exposure to a high level of heat resulting in calcination of the bone visible as bone surface colour change to grey-white, combined with bone surface cracking. As Devlin J.P. & Herrmann N. P (2008, 109) state "*increasing exposure to heat bone progresses through a sequence of colours from unburned tan, to shades of dark brown to black, progressing to blue and grey and finally to white*." A quantity of 8 burnt bone fragments of indeterminate vertebrate recovered from pit fill C57 comprised tiny unidentifiable fragments of trabecular bone.

Context 59 Sample 16
Two poorly preserved calcined fragments of vertebrae body from a small sized indeterminate vertebrate were recovered within sandy-clay fill C59 of pit feature C60. Each vertebrae fragment displayed evidence of exposure to a high level of heat and resulting calcination. A white or pale grey colour indicates exposure of bone to temperatures in excess of *c.* 600°C combined with a ready oxygen supply (McKinley, 2004). Such distortion to the bone structure reduces its size and as detailed above alters bone colour (Luff R. & Pearce J. 1994).

4. Summary
Seventeen burnt bone fragments recovered from archaeological contexts C57 and C59 on Ballyquirk 2 were submitted for examination. The bone samples were assessed and identified to species where possible; a single calcined bone fragment was identified to the species of *caprinae*. Due to size, poor preservation and fragmented nature of the individual bone pieces it was not possible to identify the remaining 13 burnt bone fragments to species. No definite or statistically detailed conclusions could be drawn from the calcined bone assemblage retrieved from AR113 Ballyquirk 2 due to its limited size and poor degree of preservation. No finds were retrieved within possible pit features C60 at Ballyquirk 2.

Bone Database:

Spec	C	S	Taxa	Anat	Side	Prox	Dist	1	2	3	4	5	6	7	8	But	Bu	G	Q	W (g)	Comments
1	C57	11	Unid Sm Size	Rib													G W		1	0.17	Poorly preserved small fragment, trabecular bone exposed. Surface cracked.
2	C59	16	Unid Sm Size	Vert						1							W		2	0.17	Poorly preserved vertebrae body fragments. Trabecular bone exposed.
3	C57	10	Unid	Unid													G W		4	0.07	Poorly preserved calcined fragments of trabecular bone
4	C57	10	Shp/Gt	MC/MT											1		W		1	0.23	Poorly preserved distal fragment, trabecular bone exposed.
5	C57	10	Unid Sm-Med Size	Vert					1								G W		4	0.79	Calcined poorly preserved fragments, trabecular bone exposed & surface shows minor cracking.
6	C57	10	Unid Sm-Med Size	Long Bone													G W	R	5	2.16	Series of poorly preserved diaphysis fragments. Bone surface on all fragments shows splitting & cracking. Largest fragment Length 15mm, Width 11mm, Thickness 5mm

Key:

C= Context
S=Sample
Anat=Anatomical Element
Prox=Proximal
Dist=Distal

But=Butchery
Bu=Burnt
G=Gnaw
Q=Quantity of Pieces
G=Grey

N=No
Unid=Unidentifiable
Taxa=Taxon
B=Black

W=White
R=Rodent
Cn=Carnivore

5. References:

Binford, L & Howell, F.C. 1981 *Bones, Ancient Men and Modern Myths.* Florida Academic Press Inc.

Boessneck, J. 1969 'Osteological Differences between Sheep and Goat' in D. Brothwell and E. Higgs (eds.), *Science in Archaeology*, 331–358, Thames & Hudson, London.

Crabtree, P. 1990 Subsistence and ritual: the faunal remains from Dún Ailinne, Co. Kildare, Ireland. *Emania* **7,** 22–5.

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

Elliott, R 2009 E3864 Ballyquirk 2 Stratigraphic Report. Unpublished Stratigraphic Report. National Monuments Service. Department of the Environment, Heritage and Local Government, Dublin.

Fisher J.W. 1995 Bone Surface Modifications in Zooarcheology. *Journal of Archaeological Method and Theory* **2**(1), Springer, Netherlands.

Grant, A. 1982 'The use of tooth wear as a guide to the age of domestic ungulates' in B. Wilson, C. Grigson and S. Payne (eds.) *Ageing and sexing animal bones from Archaeological Sites*, 91–108, BAR 109, Oxford.

Haynes G. 1978 Morphological Damage and Alteration to Bone: Laboratory experiments, field studies and zoo studies. *American Quaternary Association 210*, Edmonton Alberta.

Hillson, S. 1992 *Mammal Bones and Teeth: An Introductory Guide to Methods and Identification*. London Institute of Archaeology: UCL, London.

Lauwerier, R. C. G. M. 1988 *Animals in Roman Times in the Dutch Eastern River Area*. ROB Neaderrlandse Oudheden **12**

Luff R. & Pearce J. 1994 'The Taphonomy of Cooked Bone' in *Whither Environmental Archaeology*, Oxbow Books Ltd, Oxford.

Lyman R.L. 1994 *Vertebrae Taphonomy*. Cambridge University Press

McCormick, F. 1992 Early Faunal Evidence for Dairying. *Oxford Journal of Archaeology* **11** (2), 201–209.

McCormick, F. 1997 The animal bones from site B in Waterman, D.M. Excavations at Navan Fort 1961–71, 117–20. *Northern Ireland Archaeological Monographs No. 3*, Belfast Stationary Office.

McCormick, F. 2002 The animal bones from Tara. *Discovery Programme Reports 6*, 103–16, Royal Irish Academy/Discovery Programme, Dublin.

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

McKinley, J.I. 2004 Compiling a Skeletal Inventory: Cremated Human Bone in Brickley, M. & McKinley J. I. (eds) *Guidelines to the Standards for Recording Human Remains*, 9–13, Southampton.

O'Connor T.P. 2000 *The Archaeology of Animal Bones*. Sutton.

Olsen P.S. 1988 Surface Modification on Bone: Trampling versus Butchery. *Journal of Archaeological Science* **15**, 535–559.

Reitz, E.J. and Wing, E.S. 2008 *Zooarchaeolgoy Second Edition*. Cambridge Manuals in Archaeology. Cambridge University Press.

Schmid, E. 1972 *Atlas of Animal Bones for Prehistorians, Archaeologists and Quaternary Geologists*. Amerstadam, London, New York, Elsevier Publishing.

Serjeanston, D. 2000 'Good to Eat and Good to Think With: Classifying Animals from Complex Sites, in P. Rowley-Conwy (Ed.), *Animal Bones, Human Societie*s, 179–89. Oxford: Oxbow Books,

Shaffer, B.S. & Sanchez, J.L.J 1994 Comparison of 1/8" and 1/4" mesh recovery of controlled samples of small-to-medium-sized mammals. *American Antiquity* **59** (3), 525–30.

Silver, I.A. 1969 'The Ageing of Domestic Animals' in D.R. Brothwell and E. Higgs (eds.) *Science in Archaeology*, 283–302, London.

GLOSSARY OF TERMS:

BOS: Latin term for Cow
SUS: Latin term for Pig
CERVUS: Latin term for Deer
EQUUS: Latin term for Horse
OVIS: Latin term for Sheep
CAPRINAE: Latin term for Sheep/Goat
CANIS: Latin term for Dog
LEPUS: Latin term for Hare
AVES: Latin term for Bird
TAPHONOMY: The study of the processes affecting an organism after death from the time of burial until collection.
TRABECULAR BONE: Osseous tissues that fill the interior cavity of bones and resemble a sponge or honeycomb.
DIAPHYSIS: Bone shaft
CORPUS COSTAE: Body of Rib Bone

Appendix 2.5 Petrographical Report – Stephen Mandal

PETROGRAPHICAL REPORT ON STONE SAMPLES TAKEN DURING
ARCHAEOLOGICAL EXCAVATIONS AT
BALLYQUIRK 2 (E3864)
EURGEOL DR STEPHEN MANDAL MIAI PGEO

1. Introduction

This report is based on the macroscopic (hand specimen) examination of stone samples taken during archaeological excavations in advance of the N9/N10 Phase 4b Knocktopher to Powerstown Road Scheme. The purpose of the study was to identify the rock types from which the stone objects were made, to highlight potential sources for them, and to comment on their possible function. It is important to note that macroscopic petrographical studies have been considered of limited value in comparison to microscopic (thin section and geochemical analysis) studies. On the other hand, macroscopic studies provide an excellent preliminary assessment tool and have proven to be of considerable value in petrographical studies (e.g. see Mandal 1997; Cooney and Mandal 1998).

2. Solid Geology and Soils of the Site (see Figure 1; McConnell 1994)

The bedrock under the site consists of crinoidal wackestone/ packstone limestone belonging to the Ballyadams Formation (shown on Figure 1 as BM).

The stratigraphical sequence in the area consists of the following. Gaps in the stratigraphically sequence are represented by line breaks.

Carboniferous (Silesian)

Coolbaun Formation (CQ) – Shale and mudstone with this coals

Moyadd Coal Formation (MC) – Shale, siltstone and minor sandstone
Bregaun Flagstone Formation (BE) – Thick flaggy sandstone and siltstone
Killeshin Silstone Formation (KN) – Muddy siltstone and silty mudstone
Luggacurren Shale Formation (LS) – Mudstone and shale with chert and limestone

Carboniferous (Dinantian)

Clogrenan Formation (CL) – Cherty, muddy calcarenite limestone
Ballyadams Formation (BM) – Crinoidal wackestone/ packstone limestone
Milford Formation (MI) – Peloidal calcarenite limestone
Butlersgrove Formation (BU) – Very dark grey argillaceous limestones

Ballysteen Formation (BA) – Fossiliferous dark-grey muddy limestone
Ballymartin Formation (BT) – Limestone and dark grey calcareous shales
Quinagh Formation (QU) – Lenticular mudstone and coarse siltstone

Porter's Gate Formation (PG) – Sandstones, shales and thin limestones

Devonian

Kiltorean Formation (KT) – Yellow and red sandstones, green mudstones
Carrigmaclea Formation (CI) – Red, brown conglomerates and sandstones

Ordovician

Oaklands Formation (OA) – Green, red-purple, buff shale, siltstone
Maulin Formation (MN) – Dark blue-grey slate, phyllite, schist

Igneous Intrusions

The Tullow Pluton (Tw) – Fine to coarse granites dating to c. 405Ma

The geology of the area is generally dominated by Lower Carboniferous Age rocks, principally limestones. These rocks, which also make up much of the Midlands of Ireland, represent the northward return of the sea at the end of the Devonian, c. 360

million years ago, owing to the opening of a new ocean to the south called the Palaeo-Tethys in what is now central Europe.

To the south of the study area occur Ordovician-Devonian Age rocks. The Devonian Age rocks consist of coarse sandstone and conglomerates representing terrestrial sediments resulting from a period of tectonic uplift.

The older, Ordovician Age rocks represent tectonic activity, relating to the closure of the Iaepetus Ocean, a major ocean which at its widest was probably greater than 3000km across. These rocks have been metamorphosed to slates, phyllites and schists by the intrusion of the Tullow granite pluton c. 405 million years ago.

Bedrock is not exposed at surface at the site; instead the overburden consists of boulder clay; surface drift from early glaciations. The area is part of a physical region known as the Caledonian province of the south-east. The soils of the area consist of acid brown earths (Aalen et al. 1997).

3. Results

Site	Ministerial Direction		NMS Reg.	Sample	Context	Notes		
Ballyquirk 2	A032/144	AR113	E3864	14	59	Burnt;	Angular;	Sandstone, very coarse grained, quartz rich, red
Ballyquirk 2	A032/144	AR113	E3864	16	59	Burnt;	Angular;	Sandstone, very coarse grained, quartz rich, red
Ballyquirk 2	A032/144	AR113	E3864	17	59	Burnt;	Angular;	Sandstone, very coarse grained, quartz rich, red
Ballyquirk 2	A032/144	AR113	E3864	44	410	Burnt;	Angular;	Sandstone, coarse to medium grained, quartz rich, red
Ballyquirk 2	A032/144	AR113	E3864	51	422	Burnt;	Angular to sub-rounded;	Sandstone, very coarse grained, quartz rich, red

4. Potential Sources

Coarse grained sandstone does not occur in bedrock in the immediate vicinity of the site. The dominant rock type in the area is limestone. Whilst there are minor sandstones within some of the limestone formations, the closest bedrock source for coarse grained yellow / red sandstone is within the Devonian Age Kiltorean Formation (yellow and red sandstones, green mudstones) and Carrigmaclea Formation (red, brown conglomerates and sandstones) (see Figure 1, shown as KT and CI respectively). It is important to note that these rock types were not necessarily sourced from bedrock. The sample is clearly a shattered cobble, indicating a secondary source, such as in the glacial tills / river cobbles. It is therefore possible that these rocks were sourced locally.

5. Discussion

Whilst it is not possible to determine a definitive source for these stone samples based on macroscopic examination alone, it can be stated that these rock types are available locally in outcrop and within the glacial tills / sub-soils. It is therefore probable that the material in these samples were sourced in the vicinity of the site.

A total of 159 samples were examined from the scheme across 33 sites (see Table 2). The samples showed a remarkable consistency across the scheme in terms of the principal rock type utilised; very coarse to medium grained sandstone, typically red to yellow in colour. All samples contained a variation of this type of rock as their principal component. Just under half (73) of the samples are clearly burnt / altered, but this does not rule out the possibility that the stone from other samples had been burnt. All bar one (a sample from Kellymount 5 (E3858:43:156)) contained angular

pieces of stone, and 122 (77%) also contained sub-rounded to rounded pieces. A total of 63 of the samples contained pebbles and / or cobbles, in most cases broken. Five of the samples contained minor amounts of limestone as a secondary rock type to sandstone.

Site	Licence			No.	Burnt	Angular	Rounded	Pebbles	Limestone
Kilree 1	A032/107	AR091	E3728	1	0	1	0	0	0
Dunbell Big 2	A032/130	AR095	E3853	1	1	1	1	0	0
Holdenstown 4	A032/101	AR100	E3682	7	7	7	7	0	0
Rathcash 1	A032/133	AR102	E3859	3	0	3	3	3	0
Rathcash 2	A032/134	AR103	E3860	12	12	12	12	12	0
Rathcash East 2	A032/136	AR105	E3893	3	0	3	3	0	0
Blanchvillespark 3	A032/140	AR109	E3913	3	0	3	3	3	0
Blanchvillespark 4	A032/141	AR110	E3914	3	3	3	0	0	0
Ballyquirk 1	A032/143	AR112	E3863	1	1	1	1	0	0
Ballyquirk 2	A032/144	AR113	E3864	5	5	5	1	0	0
Ballinvally 1	A032/146	AR115	E3836	1	0	1	1	0	0
Garryduff 1	A032/147	AR116	E3852	4	0	4	0	0	0
Jordanstown 2	A032/151	AR120	E3851	4	4	4	0	0	0
Kellymount 6	A032/122	AR121	E3758	3	3	3	3	0	0
Jordanstown 3	A032/152	AR122	E3916	2	2	2	2	2	0
Kellymount 2	A032/111	AR124	E3757	11	4	11	11	9	1
Kellymount 3	A032/112	AR125	E3856	13	2	13	2	0	1
Kellymount 5	A032/114	AR127	E3858	27	10	26	24	21	3
Shankill 4	A032/153	AR130	E3838	5	1	5	4	0	0
Shankill 5	A032/154	AR131	E3850	2	1	2	1	0	0
Moanmore 1	A032/156	AR133	E3835	6	1	6	1	0	0
Moanmore 2	A032/157	AR134	E3843	2	0	2	2	0	0
Bannagagole 1	A032/159	AR136	E3844	3	2	3	3	3	0
Moanduff 1	A032/160	AR137	E3839	7	1	7	7	3	0
Coolnakisha 1	A032/128	AR139	E3768	1	0	1	1	1	0
Cranavonane 1	A032/164	AR141	E3842	2	2	2	2	2	0
Tomard Lower 1	A032/117	AR144	E3733	1	0	1	1	1	0
Paulstown 1	A032/093	AR145	E3642	3	1	3	3	2	0
Rathgarvan or Clifden 1	A032/125	AR147	E3760	1	0	1	1	0	0
Maddockstown 1	A032/126	AR148	E3759	3	3	3	3	0	0
Leggetsrath East 1	A032/118	AR154	E3734	1	1	1	1	0	0
Moanduff 3	A032/120	AR156	E3736	1	0	1	1	1	0
Ballyquirk 4	A032/167	AR157	E3848	17	6	17	17	0	0
Grand Total :				**159**	**73**	**158**	**122**	**63**	**5**

Table 2. Results of petrographical analysis of stone samples from the N9/N10 Phase 4b Road Scheme

Coarse grained sandstone is typical of *fulacht fiadh* material (e.g. see Mandal 2004). The use of angular and rounded pieces is interesting. Rounded pieces and / or the use of pebbles / cobbles is clear evidence of the use of secondary sources. Angular pieces are more indicative of the use of bedrock sources, but it is important to note that they could also represent angular blocks occurring in tills.

It is significant that sandstone is the predominant rock type given that, due to the differing underlying bedrock, it would not be the most abundant rock type available, either in outcrop or in the overlying tills. This indicates that sandstones were deliberately being selected for use in preference to the more abundant finer grained rock types in the area.

6. References

Aalen, F. H. A., Whelan, K. and Stout, M. 1997 *Atlas of the Irish Rural Landscape*. Cork University Press: Cork.

Cooney, G. and Mandal, S. 1998 *The Irish Stone Axe Project: Monograph I*. Wordwell: Wicklow.

Mandal, S. 1997 Striking the balance: the roles of petrography and geochemistry in stone axe studies in Ireland. *Archaeometry* **39**(2), 289–308.

Mandal, S. 2004 Petrographical Report on Stone Samples found during Archaeological Investigations relating to the Sligo Inner Relief Road (Licence No. 03E0535). Unpublished report commissioned by ACS Ltd for the NRA.

McConnell, B. (ed.), 1994 *Geology of Carlow-Wexford: A Geological Description to Accompany the Bedrock Geology 1:100,000 Map Series, Sheet 19, Carlow-Wexford*. Geological Survey of Ireland Publications. Westprint: Sligo.

Appendix 2.6 Radiocarbon Dating Results – QUB Laboratory

The "Measured radiocarbon age" is quoted in conventional years BP (before AD 1950). The error is expressed at the one-sigma level of confidence.

The "Calibrated date range" is equivalent to the probable calendrical age of the sample material and is expressed at the two-sigma (95.4% probability) level of confidence

Calibration data set: intcal09.14c

Context	Sample No	Material	Species id/ Weight	Lab	Lab Code	Date Type	Calibrated date ranges	Measured radiocarbon age (BP)	13C/12C Ratio ‰
C7, Fill of a posthole	4	Charcoal	*Fraxinus excelsior*/ 0.6g	QUB	UB 14117	AMS (Std)	1687–1623BC (1 sigma), 1739–1536BC (2 sigma)	3360±26	-23.7
C59, fill of pit	16	Charcoal	*Fraxinus excelsior*/ 0.05g	QUB	UB 14118	AMS (Std)	2013–1920BC (1 sigma), 2024–1894BC (2 sigma)	3600±25	-31.2
C218, fill of postpipe	30	Charcoal	*Alnus*/ 0.05g	QUB	UB 14119	AMS (Std)	1744–1688BC (1 sigma), 1862–1634BC (2 sigma)	3414±25	-20.4
C422, fill of pit	51	Charcoal	*Fraxinus excelsior*/ 1g	QUB	UB 14120	AMS (Std)	2131–1982BC (1 sigma), 2137–1965BC (2 sigma)	3671±25	-27.0
C455, fill of pit	52	Charcoal	*Fraxinus excelsior*/ 0.4g	QUB	UB 14121	AMS (Std)	1683–1619BC (1 sigma), 1733–1535BC (2 sigma)	3352±24	-22.4

References for calibration datasets:
PJ Reimer, MGL Baillie, E Bard, A Bayliss, JW Beck, PG Blackwell, C Bronk Ramsey, CE Buck, GS Burr, RL Edwards, M Friedrich, PM Grootes, TP Guilderson, I Hajdas, TJ Heaton, AG Hogg, KA Hughen, KF Kaiser, B Kromer, FG McCormac, SW Manning, RW Reimer, DA Richards, JR Southon, S Talamo, CSM Turney, J van der Plicht, CE Weyhenmeyer (2009) Radiocarbon 51:1111–1150.

Comments:
* This standard deviation (error) includes a lab error multiplier.
** 1 sigma = square root of (sample std. dev.^2 + curve std. dev.^2)
** 2 sigma = 2 x square root of (sample std. dev.^2 + curve std. dev.^2)
where ^2 = quantity squared.
[ ] = calibrated range impinges on end of calibration data set
0* represents a "negative" age BP
1955* or 1960* denote influence of nuclear testing C-14
NOTE: Cal ages and ranges are rounded to the nearest year which may be too precise in many instances. Users are advised to round results to the nearest 10 yr for samples with standard deviation in the radiocarbon age greater than 50 yr.

APPENDIX 3 LIST OF RMP IN AREA

There were no RMPs in the area of Ballyquirk 2 (see Figure 2).

APPENDIX 4 LIST OF SITE NAMES

Site Name	Site Code	E Number	Director	NGR
Baysrath 2	AR055	E3627	Fintan Walsh	251593/137855
Baysrath 3	AR056	E3628	Fintan Walsh	251672/138000
Baysrath 4	AR057	E3629	Fintan Walsh	251515/138280
Danganbeg 1	AR058	E3606	Emma Devine	251462/138754
Danganbeg 2	AR059	E3607	Emma Devine	251397/138939
Danganbeg 3	AR060	E3671	Emma Devine	251430/139245
Danganbeg 4	AR061	E3676	Emma Devine	251401/139372
Knockadrina 1	AR062	E3677	Ed Lyne	251422/139420
Tinvaun 1	AR063	E3678	Ed Lyne	251482/139625
Tinvaun 2	AR064	E3680	James Kyle	251445/139736
Tinvaun 3	AR065	E3608	James Kyle	251501/139832
Tinvaun 4	AR066	E3609	James Kyle	251508/139917
Stonecarthy West 1	AR067	E3610	James Kyle	251538/140023
Knockadrina 1	AR068	E3611	James Kyle	251647/140237
Rathduff 1	AR069	E3612	Ed Lyne	251286/142167
Rathduff Upper 1	AR070	E3613	Ed Lyne	251280/142559
Kellsgrange 1	AR071	E3575	James Kyle	250911/143732
Kellsgrange 2	AR072	E3577	James Kyle	250967/143861
Kellsgrange 3	AR073	E3576	James Kyle	250948/144003
Ennisnag 1	AR074	E3614	Richard Jennings	251416/145690
Ennisnag 2	AR075	E3615	Richard Jennings	251638/146068
Danesfort 12	AR076	E3616	Richard Jennings	251669/146186
Danesfort 13	AR077	E3617	Richard Jennings	251765/146384
Danesfort 2	AR078	E3540	Richard Jennings	251953/146745
Danesfort 4	AR079	E3539	Richard Jennings	251880/147579
Danesfort 3	AR080A	E3542	Richard Jennings	252221/146845
Danesfort 1	AR080B	E3541	Richard Jennings	252267/146707
Croan 1	AR081	E3543	Emma Devine	252280/147332
Danesfort 5	AR082	E3456	Emma Devine	252567/147767
Danesfort 6	AR083	E3538	Emma Devine	252764/147995
Danesfort 7	AR084	E3537	Emma Devine	252878/148099
Danesfort 8	AR085	E3461	Richard Jennings	253020/148246
Danesfort 9	AR086	E3458	Richard Jennings	253089/148345
Danesfort 10	AR087	E3459	Richard Jennings	253229/148414
Danesfort 11	AR088	E3460	Richard Jennings	253245/148462
Rathclogh 1	AR089	E3726	Patricia Lynch	253365/145515
Rathclogh 2	AR090	E3727	Patricia Lynch	253650/148848
Kilree 1	AR091	E3728	Patricia Lynch	254088/149310
Kilree 2	AR092	E3729	Patricia Lynch	254320/149500
Kilree 3	AR093	E3643	Patricia Lynch	254449, 149639
Kilree 4	AR094	E3730	Patricia Lynch	255330/150084
Dunbell Big 2	AR095	E3853	Yvonne Whitty	256684/151066
Holdenstown 1	AR096	E3681	Yvonne Whitty	256737/151253
Holdenstown 2	AR097/98	E3630	Yvonne Whitty	256891/151781
Holdenstown 3	AR099	E3854	Yvonne Whitty	256990/152085
Holdenstown 4	AR100	E3682	Yvonne Whitty	256828/152048
Dunbell Big 1	AR101	E3855	Yvonne Whitty	257034/152315
Rathcash 1	AR102	E3859	Tim Coughlan	258178/154199
Rathcash 2	AR103	E3860	Tim Coughlan	258294/154293
Rathcash East 1	AR104	E3892	Tim Coughlan	259419/154546
Rathcash East 2	AR105	E3893	Tim Coughlan	259555/154566
Rathcash East 3	AR106	E3861	Tim Coughlan	259821/154653
Blanchvillespark 1	AR107	E3894	Richard Jennings	260535/155212
Blanchvillespark 2	AR108	E3895	Tim Coughlan	260637/155449

Site Name	Site Code	E Number	Director	NGR
Blanchvillespark 3	AR109	E3913	Tim Coughlan	260785/155653
Blanchvillespark 4	AR110	E3914	Tim Coughlan	261442/156269
Blanchvillespark / Ballyquirk 1	AR111	E3862	Ruth Elliott	261531/156323
Ballyquirk 1	AR112	E3863	Ruth Elliott	261531/156323
Ballyquirk 2	AR113	E3864	Ruth Elliott	261811/156508
Ballyquirk 3	AR114	E3865	Ruth Elliott	261875/156559
Ballinvally 1	AR115	E3836	Emma Devine	263258/157521
Garryduff 1	AR116	E3852	Emma Devine	263933/157991
Kilmacahill 1	AR117	E3915	Tim Coughlan	264267/158369
Kilmacahill 2	AR118	E3833	Tim Coughlan	264380/158453
Jordanstown 1	AR119	E3834	James Kyle	264546/158643
Jordanstown 2	AR120	E3851	James Kyle	264893/159038
Kellymount 6	AR121	E3758	Przemaslaw Wierbicki	265130,159277
Jordanstown 3	AR122	E3916	Przemaslaw Wierbicki	265103/159227
Kellymount 1	AR123	E3756	Przemaslaw Wierbicki	265250/159397
Kellymount 2	AR124	E3757	Przemaslaw Wierbicki	265164/159463
Kellymount 3	AR125	E3856	Przemaslaw Wierbicki	265338/159597
Kellymount 4	AR126	E3857	Przemaslaw Wierbicki	265412/159803
Kellymount 5	AR127	E3858	Przemaslaw Wierbicki	265530,159977
Shankill 2	AR128	E3738	Richard Jennings	265924/160651.
Shankill 3	AR129	E3737	Richard Jennings	266052/161141
Shankill 4	AR130	E3838	Richard Jennings	266286/161526
Shankill 5	AR131	E3850	Richard Jennings	266374/161730
Shankill 6	AR132	E3840	Richard Jennings	266403/161836
Moanmore 1	AR133	E3835	Richard Jennings	266476/162016
Moanmore 2	AR134	E3843	Sinead Phelan	266756/162866
Moanmore 3	AR135	E3837	Sinead Phelan	266856/163259
Bannagagole 1	AR136	E3844	Sinead Phelan	266942/163569
Moanduff 1	AR137	E3839	Robert Lynch	267261/164397
Coneykeare 1	AR138	E3683	Sinead Phelan	267836/166209
Coolnakisha 1	AR139	E3768	Ellen O'Carroll	268175/167274
Coolnakisha 2	AR140	E3767	Ellen O'Carroll	268306/167559
Cranavonane 1	AR141	E3842	Tim Coughlan	268554/167895
Cranavonane 2	AR142	E3732	Ellen O'Carroll	268830/168154
Cranavonane 3	AR143	E3731	Ellen O'Carroll	269123/168362
Tomard Lower 1	AR144	E3733	Ellen O'Carroll	269349/168496
Paulstown 1	AR145	E3642	Ruth Elliot	265889/158499
Paulstown 2	AR146	E3632	Ruth Elliot	265664/158651
Rathgarvan or Clifden 1	AR147	E3760	Przemaslaw Wierbicki	257026/154123
Maddockstown 1	AR148	E3759	Przemaslaw Wierbicki	256886/154199
Templemartin 3	AR149	E3845	Emma Devine	255095/155200
Templemartin 4	AR150	E3841	Emma Devine	254920/155427
Templemartin 5	AR151	E3846	Emma Devine	254706/155636
Templemartin 1	AR152	E3849	Emma Devine	254504/155826
Templemartin 2	AR153	E3847	Emma Devine	254173/156236
Leggetsrath East 1	AR154	E3734	Emma Devine	253793/156484
Moanduff 2	AR155	E3735	Sinead Phelan	267470/164887
Moanduff 3	AR156	E3736	Sinead Phelan	267515/164979
Ballyquirk 4	AR157	E3848	Richard Jennings	262596/157025
Shankill 1	AR158	E3766	Przemaslaw Wierbicki	265707/160269
Rathgarvan or Clifden 2	AR159	E3921	Tim Coughlan	257095/154119
Ballynolan 1	AR160	E3755	Sinead Phelan	267714/165597
Stonecarthy West 2	UA2	E3974	Tim Coughlan	251372/142037
Rathduff Bayley 1	UA4	E4011	Tim Coughlan	251005/143564