Post Excavation Assessment

A30 Bodmin to Indian Queens Road Improvement Scheme

Post Excavation Assessment and up-dated project design

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SUMMARY

An extensive programme of archaeological investigations were carried out along the route of the 11.5 km long A30 Bodmin to Indian Queens road improvement scheme, between July and December 2005. A number of pre-defined Strip, Map and Sample (SMS) areas were excavated to the full width of the road corridor, targeting archaeological sites identified by desk-based assessment, including the vicinity of Castilly Henge at Innis Downs, the Saffron Park barrow cemetery and the Belowda field system. In addition, a 10m wide 'haul road' was also stripped under the Strip, Map and Sample (SMS) methodology along the full length of the scheme, areas of targeted and general watching brief were carried out, and a palaeoenvironmental sampling excercise was carried out in a stream valley to the west of Belowda Lane.

No significant remains were identified at any of the pre-defined SMS areas. Five significant sites (Sites A-E) were, however, identified in the course of the Haul Road SMS, which led to further topsoil stripping and open area excavation, which was completed in late December 2005.

The Royalton Hengiform (Site E) comprised a circular segmented ditch of ten pits, with an internal timber circle of ten postholes. There was an entranceway through both of these circles to the south. The segmented ditch had an external diameter of 10.6m, whilst the circle of postholes had an external diameter of 7.8m. The monument falls within the description of a 'hengiform monument' as defined in the MPP monument class descriptions. Hengiform monuments are generally dated to the late Neolithic period. Up to three further radiocarbon samples will be submitted from this monument as part of the full analysis.

The Lane End Timber/ Pit Circles (Site D) consisted of two pit circles, with the western pit circle comprising twelve pits and the eastern, thirteen. The western pit circle had a diameter of 19.3m, whilst the eastern had a diameter of 20.4m. No artefacts were recovered from the fills of any of the pits within the pit circles, although radiocarbon dates from a pit in each of the pit circles has placed them both within the Bronze Age. These initial dates suggest that the eastern pit circle (1880BC-1680BC (95.4% probability)) was probably earlier than the western one (1690BC-1520BC (95.4% probability)), although the dating of further samples by radiocarbon assay will be undertaken during the full analysis to examine this further.

The Belowda Pit and Hearth group (Site C), comprised a group of seven pits and a hearth bounded to the east by a semi-circular ditch. The pits and ditch all had very similar fills, containing a high proportion of charcoal and burnt stone. Bronze Age pottery was recovered from two features, the northern terminal of the semi-circular ditch, and one of the pits, which also contained a saddle quern. A radiocarbon sample from the southern terminal of the semi-circular ditch has been dated to the Bronze Age, to 1610BC-1420BC (95.4% probability).

The Belowda Roundhouse (Site B), comprised a roughly circular ditch, with an external diameter of c 14.7m, containing a number of internal features. The ditch, was a continuous enclosure, with one definite and one possible entrance. The definite entrance faced to the east

and there was a four-post structure to the west of the entrance, possibly forming an internal porch. No further recognisable structural patterns could be discerned from the arrangement of pits and postholes inside the roundhouse, although one of them did contain a flint blade. A radiocarbon determination from material within the ditch dated this site to 360BC-40BC (95.4% probability).

The Lower Trenoweth Roundhouse (Site A), comprised a pair of concentric ditches. The internal ditch was circular, with an external diameter of 11m, with an entranceway to the east. The external ditch was broadly parallel to the internal ditch for most of its length, being roughly circular with an external diameter of 14.6m, although to the north it bent markedly away from the internal ditch, forming an extended entranceway or small enclosure. A minimum of two phases were attributable to this feature, with a recut observed through the outer ditch, after both this and the internal ditch had undergone a fair degree of silting. It seems most likely that this site represents a roundhouse, with the internal ditch representing the foundation trench for the wall of the roundhouse and the external ditch representing an eaves-drip drainage ditch. The pottery recovered from this site has been dated to the late Iron Age/Romano-British transition period. Within the inner ditch a number of postholes were observed, including a group of four postholes, which formed a rectangular arrangement immediately to the west of the entrance through the inner ditch, probably supporting an internal porch structure.

A number of other features were revealed, including three groups of oval pits, interpreted as prospecting pits, one of which has been radiocarbon dated to the medieval period (AD1290-1430). Given the similarities between these pits, a broadly medieval to post-medieval date is considered likely for all of them. A significant concentration of medieval pottery was recovered from a shallow ditch within the Belowda field system, although it is impossible to know whether the sherds came from Belowda itself or a minor site in the close proximity to the ditch. Fifteen upstanding boundaries were recorded within the Belowda field system, in an attempt to characterise the boundaries and date the establishment of an enclosed landscape in the Belowda area. Twelve of the fifteen boundaries were Cornish hedges, although all of the boundaries examined were heavily disturbed by root action and animal burrowing. The stratigraphic evidence gained from the examination of the hedge sections was consequently very limited, and no other dating evidence was recovered.

This assessment summarises the results of the excavation, and assesses the potential for further analysis of each category of data, with regard to the project's research aims. The assessment has been prepared in accordance with guidance contained in Management of Archaeological Projects, 2nd edition (English Heritage 1991). An updated project design is presented, and an appropriate programme of analysis outlined. It is recommended that, after analysis, the results are published as a journal article in Cornish Archaeology.

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The fieldwork was undertaken by Paul Clark, Kathryn Blythe, Rebecca Peacock, Lucy Norman, Dave McNicol, Justin Wiles, Jennifer Marchant, Abigail Brown, Al Zochowski, Sharon Cook, Brian Dean, Jacek Gruszczynski, Mary Saunders, Susan Brown, Sharon Clough, Lucy Smith, Vickie Jamieson, Rowan McAlley and Adam Howard (OA). On-site environmental processing was carried out by Seren Griffiths and Marta Perez (OA). Public outreach activities were coordinated by Jane Baldwin for OA, by Alun Jones for Alfred McAlpine and by Wailim Wong for HA. The survey and GIS creation were undertaken by Marc Storey (OA). The Prehistoric and Romano-British pottery was assessed by Henrietta Quinnell (University of Exeter), and the medieval and post-medieval pottery by John Allan (Exeter Archaeology). Ruth Shaffrey (OA) undertook the worked stone assessment, whilst Kate Cramp (OA) assessed the worked flint. The charred plant remains and wood charcoal were assessed by Gill Thompson, Robert Francis and John Summers (Bradford University). The soil micromorphology assessment was undertaken by Richard Macphail (University College, London), whilst the pollen was assessed by Phill Allen and Tony Brown (University of Exeter). The palaeoenvironmental sampling at CH3000-3200 was undertaken by Carl Champness, Luke Howarth and Mary Nicholls (OA). An on-site assessment of historic mining-related features was carried out by Simon Roper (Ironbridge Archaeology). Mineral samples were identified by Roger Taylor (University of Exeter). The tin residue samples were assessed by Celine Nadal and Peter Bray of the Oxford Laboratory for Archaeology and the History of Art (RLAHA) under supervision of Mark Pollard. Radiocarbon dates were undertaken by Scottish Universities Environmental Research Centre (sediments), Rafter Radiocarbon Laboratory (New Zealand) (charred material) and the RLAHA (Oxford) (bone). The results were assessed by Seren Griffiths (OA). Rebecca Nicholson (OA) co-ordinated the paleoenvironmental assessment programme.

The Fieldwork Director was Paul Clark, who also prepared this assessment report. The project was managed by Stuart Foreman who edited this report.

1 INTRODUCTION

1.1 Project background

1.1.1 This report has been produced to inform funding and programming decisions for archaeological post-excavation analysis and reporting, associated with sites investigated along the route of the A30 Bodmin to Indian Queens Road Improvement Scheme. The Employer is the Highways Agency, and the contractor responsible for construction of the road is Alfred McAlpines Project Services, working in conjunction with their designer, Scott Wilson. Oxford Archaeology have provided cultural heritage advice and services since the Stage 3 Environmental Assessment, including all archaeological fieldwork. Prior to that, desk-based assessments and field surveys for the road scheme were carried out by Cornwall Archaeological Unit.

1.1.2 The first part of the document summarises the archaeological design development and methodology, and reviews the evidence recovered against original research objectives (the 'post-excavation assessment report'). The second part details the objectives, resources and timescales associated with post-excavation analysis and publication of the results (the 'up-dated project design'). The format and content of the report is in accordance with contract requirements and English Heritage (EH) guidance contained in 'Management of Archaeological Projects 2' (MAP2, EH 1991).

1.2 Project background

1.2.1 Archaeological assessment of the proposed A30 Bodmin to Indian Queens Improvement was undertaken by the Cornwall Archaeological Unit and comprised an initial desk-based assessment on behalf of Highways Agency (HA) (Hartgroves and Bayfield 1994), followed by geophysical and walkover surveys and further desk-based assessment (Nowakowski *et al* 1997).

1.2.2 The Stage 2 Assessment was undertaken by RPS Consulting on behalf of the Highways Agency (HA) (RPS 2000). A series of topographical surveys was also undertaken by RPS (RPS 2001b) in the Belowda area. In 2001 the Transport Minister announced the adoption of a Preferred Route. The Stage 3 Environmental Assessment, forming Chapter 7 of the Environmental Statement, was undertaken by Oxford Archaeology on behalf of Scott Wilson, in 2003, following appointment of the ECI Contractor Alfred McAlpine/ Scott Wilson. In addition, an Historic Landscape Assessment of the Belowda area was carried out to inform the Stage 3 Environmental Assessment and to consider the effect of alternative route options through the Belowda field system (Scott Wilson/ Alfred McAlpine 2003 a and b).

1.2.3 The scheme was presented to a public inquiry in January 2004. The Secretary of State for Transport announced his decision to approve the draft orders on 29 November 2004. The archaeological fieldwork was started in July 2005 and finished, with the exception of a small amount of watching brief work, in December 2005.

1.3 Scheme description

1.3.1 The scheme provides a new dual carriageway road 11.5 km long between the Indian Queens Bypass and Bodmin Bypass (NGR SW 1936 0601 to SX 2035 0631). The route starts near the bridge over the Par-Newquay railway line. It turns to the north and runs 400m to 500m from the existing A30, passing to the north of the candidate Special Area of Conservation (cSAC) at Goss Moor and Tregoss Moor. The scheme passes to the north of Victoria, and then continues to the south of the existing A30, apart from a short section near Roche Lane, before joining the Bodmin Bypass, east of Innis Downs. At Innis Downs, the existing roundabout is replaced by a new grade separated junction, which will connect the A30 Improvement with the A389 to Bodmin, and the A391 to St Austell. To the east of Victoria, another grade separated junction, of a similar type to that at Innis Downs, connects the A30 Improvement to the village. A number of bridges and underpasses are included in the scheme.

1.4 Geology and topography

1.4.1 The road corridor marks the transition between the gently undulating plateau of the Cornish Killas, which comprises much of central Cornwall, and the upland mass of Hensbarrow Down to the south The existing A30 threads its way between a sequence of valley systems, which cut into the Killas plateau. The underlying geology is made up of folded and faulted slate, siltstone and sandstone of the Devonian period known in Cornwall as 'Killas' (Nowakowski et al 1997; Scott Wilson/ Alfred MacAlpine 2003a; OA 2005a).

1.4.2 The upland mass of Hensbarrow Down including Fraddon Down and the two gentle upland beacons are igneous intrusions of granite thrusting through the softer Devonian rocks. These have subsequently been eroded away to expose the white china clay deposits which have, through the subsequent working for the clay mineral Kaolin, given this area its unique industrial character (Ibid).

1.4.3 From Victoria, the western section of the existing A30 corridor descends onto Goss Moor, the lowest part of the area at 125m Above Ordnance Datum (AOD). Numerous streams converge into the Goss Moor basin to form the River Fal, which flows out of the basin to the south-west. From Goss Moor, the land rises up to Fraddon Down (212m AOD) to the west, the A30 crossing this ridge at approximately 150m AOD. The Goss Moor area is, therefore, enclosed by the high ground at Fraddon Down to the west, Hensbarrow Down and the china clay workings to the south, the upland beacons of Castle-an-Dinas and Belowda Beacon to the north, and the settlement of Victoria to the east (Ibid.).

1.4.4 The eastern section of the A30, between Innis Downs and Victoria follows a flat ridge of relatively high ground, which reaches its highest point (180m AOD) at the settlement of Victoria. The land falls away immediately to the north of Victoria into the 'u' shaped Brynn valley. A number of small interlinking valleys with tree cover lie north and south of the existing A30 to the east of Victoria.

1.4.5 Land use in this area is predominantly agricultural, but with extensive areas of moorland. Agriculture is, at best, fairly marginal given over mainly to pasture use and enclosed with Cornish hedges. Moorland that has been enclosed and reclaimed for agricultural use is reverting back to moorland. This can be seen to the north of the A30 between Providence and Belowda.

1.4.6 Field patterns vary widely: Around the hamlets of Belowda and Tregoss are sinuous narrow strip fields characteristic of medieval open field agriculture. Around mining communities on the edges of the uplands are found intricate irregular fields which originated as tinners smallholdings in the 18th and 19th centuries. Large expanses of former open moorland were enclosed in the early to mid-19th century, forming rectilinear patterns of larger fields, found to the south of Castle Downs and along the ridge running from Roche, through Victoria to Innis Downs. The most typical boundary form, found all along the new route, is a simple earth bank formed from the upcast from a pair of shallow flanking ditches. More solidly built cornish hedges are found lining the lanes leading to Belowda hamlet, and within the strip fields. Hedges have grown up along many of the field banks and some banks contain loose bands of stone rubble, probably resulting from field clearance rather than deliberate stone-facing. Some of the more recent boundaries are enclosed with fences only (OA, this report).

1.4.7 The moorland areas, especially the Goss and Tregoss Moors, provide a sharp visual contrast with the adjoining farmlands, especially the pattern of small fields found at Tregoss, Belowda and St Dennis, and the St Austell china clay workings to the south. The moorlands vary in character and appearance from the wet heath and mire communities of Goss Moor and Criggan Moors, often accompanied by extensive areas of willow colonisation and associated oak woodland, to the drier heaths on the thin soil at Tregoss Moor, Tregonetha Downs, Belowda Beacon and the upper areas of Criggan Moors and Retire Common. The drier areas are being invaded by gorse and broom. Moorland areas are designated sites of Great Scientific Value and are all Cornwall Nature Conservation Sites; Goss/Tregoss Moor is an National Nature Reserve, a candidate Special Area of Conservation (sSAC) and a Site of Special Scientific Interest (SSSI). Tregonetha Downs, Retire Common and the River Camel Valley and Tributaries (the area to the north of Victoria) are all SSSIs. The River Camel Valley and tributaries is also a cSAC. All these areas are in transition due to the decline of, and changes in, traditional management practices of grazing, cutting and controlled burning. This has resulted in excessive colonisation by less desirable species including willow, gorse and broom (Scott Wilson/Alfred McAlpine, 2003a).

1.4.8 Settlements outside the main small communities of St Dennis, Indian Queens, Roche and Victoria are sparse and scattered with smaller groupings at Belowda, Tregoss, Providence/Royalton and Higher Town. They are linked by narrow winding lanes, which are contained by Cornish hedges. The older buildings are mostly built of granite with slate roofs. The Cornish hedges are also built of granite. Farmsteads and scattered cottages are a reminder of the small-holdings that grew up with mining industries in this area. Disused tin mines occupy the southern slopes of Belowda

Beacon. The extensive mining operations undertaken here have resulted in an unusual series of wetland habitats, comprising open ponds and marsh habitats between ridges of mine spoil. Recently abandoned mine workings also occur on Castle-an-Dinas (Scott Wilson/Alfred McAlpine, 2003a).

1.5 Historical and archaeological background

1.5.1 ***Palaeolithic (up to c.9000BC):*** There is no evidence of Palaeolithic activity in the vicinity of the road scheme, which is unsurprising given the scant evidence for Cornwall in this period, which has an obvious lack of Upper Palaeolithic remains (Berridge and Roberts 1986) and a mere eleven findspots from the Lower and Middle Palaeolithic (Wymer 1999).

1.5.2 ***Mesolithic (c.9000-c.4500BC):*** There is no evidence of Mesolithic activity in the immediate vicinity of the road scheme. During the course of the excavation of six barrows on the St Austell Granite, about 4km to the south of the scheme, evidence of Mesolithic activity was recorded from both buried ground surfaces beneath barrows and residual material incorporated into the mounds (Berridge and Roberts 1986).

1.5.3 ***Neolithic (c.4500 - c.2000BC):*** The Neolithic period is represented by the ritual complex at Castilly Henge, south of Innis Downs, one of only three henges in Cornwall (Mercer 1986). Excavation of the henge itself has provided little dating information, although it did show that only the northern causeway was original, with the southern probably added in the medieval period (Thomas 1964). Surrounding barrows, a ring cairn (Hooper 1976) and a possible Bronze Age cist burial (Irwin 1976) highlight Castilly Henge's importance in prehistory. Castle-an-Dinas, which lies on the edge of the study area, may have Neolithic origins and may have been a focal point for activity in the area throughout prehistory (Scott Wilson/Alfred McAlpine, 2003a).

1.5.4 ***Bronze Age (c.2000BC - c.700BC):*** The Bronze Age ritual landscape can be seen in the extant burial mounds at Saffron Park, and Innis Downs as well as the possible cist burial at Innis Downs. Further barrows are present to the north of the scheme, on the summit of Belowda Beacon and within the ramparts of Castle-an-Dinas (Nowakowski *et al* 1997). The remains of these barrows could possibly indicate that, as on Bodmin Moor, Bronze Age and possibly earlier settlement and ritual activity was intense, with extended phases of prehistoric clearance and upland colonisation (CAU 1994). There is a considerable weight of indirect evidence that cornish tin was being extracted from the early Bronze Age (including finds of artefacts, metallurgical studies and, by the late Iron Age, probable references by classical authors). The Goss Moor area, with its rich alluvial tin deposits, must be considered a likely area for early exploitation (Penhallurrick 1986). However there is no direct archaeological evidence for prehistoric tin extraction or working sites in Cornwall at present (Gerrard 2000).

1.5.5 ***Iron Age (c.700BC - c.AD50):*** There was no evidence of settlement or other Iron Age activities in the immediate vicinity of the road scheme prior to the present work. The origins of the multi-vallate hilltop enclosure at Castle-an-Dinas are unknown. It may

have been used as early as the late Neolithic and was certainly occupied during the Iron Age, as a possible roundhouse has been identified within the enclosure, associated with Iron Age pottery (Wailes 1963, 54). It may have had a substantial effect on landscape development in the area throughout later prehistory. The hill-fort clearly demonstrates substantial investment in the landscape by later prehistoric communities, but it has yet to be determined whether this site was primarily a remote refuge, a strategic fortification, a high status settlement, or combined a range of functions, perhaps changing over time (Scott Wilson/Alfred McAlpine, 2003a). Its location above Goss and Tregoss Moors, reputedly the most important Cornish moorland tin streams in prehistory (Penhallurick 1986, 158), perhaps hints at its involvement in tin extraction.

1.5.6 ***Romano-British (c.AD50 - c.AD410):*** Cornwall is notably lacking in extensive evidence for 'Romanisation'. There is an apparently short-lived, early fort at Nanstallon, on the south-west edge of Bodmin Moor, but evidence for villas or 'small towns' is almost non-existent, apart from a single possible villa site at Magor. Nevertheless, changes in rural settlement form do seem to occur in the early Roman period, 'Rounds' - enclosed settlements - being particularly characteristic of the period. There is slight evidence for increasing official involvement in the 3rd and 4th centuries AD, perhaps connected with tin production (Holbrook 2006). Prior to the excavations described in this report there was no direct evidence of Romano-British period activity in the immediate vicinity of the present scheme, although Castle-an-Dinas may have continued in occupation during this period. In the wider area, a settlement site was excavated by CAU at Penhale Round on the Indian Queens By-pass (Nowakowski 1994) and other 'round' sites are suspected on the basis of aerial photographic evidence (CAU Heritage Environment Record).

1.5.7 ***Medieval (c.AD410 - c.AD1530):*** There is no physical evidence for the early medieval period (c.AD410-1000), other than a 5th century brooch found in the Goss Moor area (Penhallurick 1986), although the place names Tregoss and Belowda suggest a pre-Norman origin to these settlements (Padel 1985). Tregoss includes the prefix Tre- which usually refers to a farming estate, whilst Belowda includes the prefix Bod- or Bos- which indicates a house or dwelling. Goss Moor is likely to have been grazing land, and although no field boundaries have been shown to date to the early medieval period, this is a possibility in the areas of Anciently Enclosed Land around Tregoss and Belowda. It is likely that the Castle-an-Dinas and St. Dennis hill-forts were occupied during this period (Nowakowski *et al* 1997).

1.5.8 In the later medieval period (c.AD1000 - c.AD1530) Belowda, Tregoss, Pendeen (now Pendine) Holywell, Colbiggan and Harros were established settlements, with an ancient chapel at Holywell. Earlier this century Charles Henderson noted the well-preserved holy well at this site and, in assessing the fragments of masonry lying around the farmyard, suggested that the former chapel (no remains of which have survived) was likely to have been at least 15th century in date (Henderson 1930, 427; (Nowakowski *et al* 1997).

1.5.9 There is currently no evidence to indicate whether the medieval settlement at Belowda was established on the line of an existing, defined routeway, or whether the preferred route for travellers over Goss Moor, in shifting over time, came eventually to follow a track through the settlement (Scott Wilson/Alfred McAlpine, 2003a). Strip field patterns are preserved at Belowda and Tregoss, dated to the medieval period on the basis of morphological comparisons with relict medieval settlements and their fields, recorded in upland areas such as Bodmin Moor (CAU 1994), and by analogy with well-documented examples of strip-cultivation elsewhere in England (Rackham 1986). The Cornish hedges, which now define the strips, represent the enclosure (between the late 14th and 17th century) of originally open fields. Other features which may date from the medieval period include possible medieval 'ridge and furrow' (the characteristic traces left by open field cultivation) surviving half way between the Iron Bridge and the House on the Common (Tregoss) (Nowakowski *et al* 1997).

1.5.10 Tinners' settlements on Tregoss Moor are historically attested, for the first time, in the 12th century, although the deposits were probably being exploited long before that (Penhallurick 1986). There is documentary evidence that tin-streaming was the major occupation of the community at Ruthvoes, on the western edge of Goss Moor, in 1309 (Henderson 1930, 9; Nowakowski *et al* 1997) and it is likely that the inhabitants of Belowda and Tregoss were also tinners first and farmers second (Scott Wilson/Alfred McAlpine, 2003a).

1.5.11 ***Post-medieval (c.AD1530 - present):*** In the post-medieval period, more small settlements sprang up, many associated with tin extraction, others with small agricultural holdings, some of which have subsequently become deserted. Several, dating from the late 18th to early 20th century, lie immediately alongside the scheme, including deserted settlements at Rosewin, East Griglands and North Griglands. The present line of the A30 was established as a Turnpike in the 1760s. The Par-Newquay railway line was originally a horse-drawn minerals tramway, built in the 1850s, and was converted to locomotive power in the 1870s, before being absorbed into the Great Western Railway in the 1880s (Nowakowski *et al* 1997; Scott Wilson/Alfred McAlpine, 2003a). The heyday of large-scale Cornish tin extraction was between 1840 and 1860, following which a slump in the world-wide price of tin led to a collapse in the Cornish market and the mass emigration of miners from Cornwall. In spite of short-lived resurgences in the late 19th and early 20th centuries, foreign competition and the exhaustion of the most readily accessible mineral deposits led to the almost complete collapse of the Cornish tin industry by the mid-20th century. The few mines that survived into the latter part of the century were increasingly reliant on other minerals found in association with the tin-bearing ores m(Nowakowski *et al* 1997; Scott Wilson/Alfred McAlpine, 2003a).

1.5.12 Deserted mining features of this latest and most intensive phase of tin extraction are very obvious in the landscape along the scheme, including the scars of large-scale eluvial streamworks around the headwaters of the Fal, and engine houses on the slopes of Belowda Beacon and Castle-an-Dinas. The Castle-an-Dinas Mine closed in

1958, its relatively late survival due to its importance as the main Cornish producer of Wolframite (Brooks 2001).

1.5.13 Bodmin Radio Station, established near Innis Downs in 1926, was part of the first short-wave radio communications network in the world. It became a listening station in World War II and, during the cold war, for a time serviced the hotline between Moscow and London. Features from those periods remain in the current British Telecom owned complex. The Scheme avoids direct impacts to the main historic buildings in this nationally important complex (Nowakowski *et al* 1997; Scott Wilson/Alfred McAlpine, 2003a).

1.5.14 ***Previous archaeological work:*** The CAU assessment of the road scheme (Nowakowski *et al* 1997) included geophysical surveys of the nationally important prehistoric sites at Innis Downs and Saffron Park. Magnetic anomalies in the vicinity of the Saffron Park Barrows indicated the likely presence of buried archaeological features, whilst the Innis Downs survey failed to clearly identify the known barrow sites, although the survey did indicate possible pits and linear features in the vicinity. Further geophysical surveys were carried out during Stage 2 of the assessment. At Deep Tye, towards the western end of the scheme, two geophysical surveys targeted fields whose names indicated the possible presence of barrows, although they produced negative results. In the vicinity of the Saffron Park Barrows three adjacent areas of geophysical survey were undertaken, identifying probable barrows and other anomalies. To the south of the site of Holywell Chapel, geophysical survey produced negative results (RPS 2001a).

1.5.15 Between October and December 2001, ground investigations for the A30 scheme were undertaken, comprising the excavation of 60 test pits, which were observed under archaeological watching brief conditions (CAU 2002). Archaeological features identified included an unidentified stone feature within the Belowda field system, a number of field boundaries, possible traces of medieval ridge and furrow, possible mining prospecting pits and a willow mining adit.

1.5.16 Topographical survey was also undertaken on earthworks and other standing remains at three locations as part of the assessment. A survey (RPS 2001b) of an area immediately to the south of the ruined house and farm of Rosewin, identified a trackway defined by stone walls with hedges running from Rosewin to Coarse Moor. A possible house platform was identified by topographical survey at East Griglands. A topographical survey of the Belowda field system was also undertaken (RPS 2001b). No significant earthworks were identified, beyond the extant boundaries. A separate Historic Landscape Assessment of the Belowda field system was also produced, which was complementary to the topographical survey. It included consideration of an alternative route option and recommendations for mitigation in this sensitive area (Scott Wilson/Alfred McAlpine 2003b).

1.5.17 Between May and September 2001 an archaeological evaluation and watching brief was undertaken by Network Archaeology during the construction, by Transco, of a new gas pipeline between Maudlin and Indian Queens. The middle part of this

pipeline, between Deep Tye and Mount Pleasant was on the same alignment as, and in close proximity to, the current scheme. This work has, so far, only been reported in an interim form (Network Archaeology 2002), making any assessment of the significance of the results somewhat difficult. A number of prehistoric sites were discovered by the scheme, one of which lay very close to the line of the current scheme. This site, located close to Mount Pleasant, comprised a 'possible turf-built barrow', associated with a pair of concentric rings of pits and postholes, described as being filled with peat (*op cit* 20). The remaining archaeological sites of prehistoric date excavated along the pipeline route comprised three post-built structures, a ringditch probably associated with a barrow mound, a pit alignment, a probable Bronze Age cremation, and a small number of pits and ditches containing prehistoric finds.

1.5.18 Other features uncovered along the route of the gas pipeline included a range of mining features, comprising prospecting pits, shafts, tunnels, surface mining and widespread dumps of mining waste, as well as numerous hearths. A number of concentrations of finds were also observed, predominantly of flint or medieval pottery.

1.6 Post-excavation assessment aims

1.6.1 The aim of this assessment is to evaluate all classes of archaeological data from the excavations undertaken in advance of the A30 Bodmin to Indian Queens improvement. This assessment will then form the basis for a programme of further analysis to achieve the stated archaeological objectives of the project. The assessments have been guided by the original fieldwork objectives, as defined in *Section 2*.

1.6.2 The general aims of assessment are defined *Appendix 4* of *Management of Archaeological Projects,* 2nd edition (English Heritage 1991). They are to:

- assess the quantity, provenance and condition of all classes of material: stratigraphical, artefactual and environmental;
- comment on the range and variety of that material;
- assess the potential of the material to address questions posed in the original project design for this project;
- formulate any further questions arising from the assessment of this material.

1.6.3 This assessment will present:

- a factual summary, characterising the quantity and perceived quality of the data contained within the site archive;
- a statement of the academic potential of the data;
- recommendations on further analysis to realise the academic potential
- recommendations on the storage and curation of the data.

2 ORIGINAL RESEARCH AIMS

2.1 General objective

2.1.1 As stated in the in the Employers Requirements, Volume 2, Appendix M, the general objective of the archaeological work is to:

"minimise the impact of the Scheme through an appropriate response to any adverse effects on the cultural heritage, as a contribution to the Employers commitment to Heritage set out in the Highway's Agency's Environmental Strategic Plan. The aim of the archaeological work is to investigate and record the significant archaeological features, deposits and artefacts associated with prehistoric, Romano-British, early medieval, medieval and/or post-medieval activities that will be adversely affected by the A30 Bodmin to Indian Queens Improvement, and by so doing to contribute significantly to our understanding of past human activity within the project area, in the context of the historic landscape."

2.2 Research aims

2.2.1 A number of key research aims were identified in the Detailed Project Design (based on the Environmental Statement) prior to the start of fieldwork, which could hopefully be addressed by the results of the investigations (Oxford Archaeology 2005a). These aims were:

- to investigate and record patterns of prehistoric activity in the landscape, particularly in relation to the identified ritual monuments;
- to examine the chronology and evolution of the medieval and post-medieval settlement and field system at Belowda;
- to record the distribution and character of historic mining activity, with selective detailed recording of key features, focussing in particular on those features of medieval or earlier date;
- to investigate the changing environment and economy in all periods, through the recovery of palaeoenvironmental data.

3 METHODOLOGY

3.1 The archaeological design

3.1.1 The route of the new A30 was carefully selected to avoid, as far as possible, direct impacts on known ancient monuments and to minimise the indirect effects on the setting and integrity of the area's historic landscape. In the most sensitive sections of the route, alternative route options were considered and the most environmentally acceptable solution adopted, where necessary taking into consideration the conflicting demands of cultural heritage, landscape, ecology and engineering (Scott Wilson/Alfred McAlpine, 2003a).

3.1.2 Residual effects of the scheme on cultural heritage resources, as identified in the Stage 3 Environmental Statement (presented to the Public Inquiry in 2003) included potential effects on buried archaeology associated with prehistoric landscapes at Saffron Park and Innis Downs, and effects on the setting of the medieval strip-derived field patterns around Belowda, as well as uncertain impacts at other locations. The outline scheme design proposed mitigation measures within the construction process to deal with these, including an extensive programme of archaeological investigation and recording, as well as minor measures to improve appreciation of the historic landscape and protect known archaeological monuments during the construction (Ibid.) .

3.1.3 The extensive, dispersed nature of the archaeological remains potentially affected by the Scheme (prehistoric landscapes, multi-period field systems and tin workings) could not be addressed effectively by a narrow, site-based approach to archaeological recording. The strategy therefore focussed on recording and explaining the major developments that have affected the development of the landscape of the area from prehistoric times until the present. Efforts were focussed in particular on defining and dating major episodes of landscape development that were not well documented. The aim was to record all affected elements of the historic landscape to a basic level (digital survey plans incorporated into a project GIS). Excavation, sampling and more detailed recording would then be applied progressively to those landscape elements with greater potential to significantly increase our understanding of past human activity in the area (Ibid.).

3.1.4 The methods for assessing the potential effects of road schemes on archaeological remains and historic buildings are set out in the DMRB (Volume 11, Parts 2 and 3 respectively). Regional methodologies for historic landscape assessment were also used extensively (CAU 1997; Scott Wilson/Alfred McAlpine, 2003b). During the fieldwork and post-excavation assessment, judgements of archaeological significance were assessed with particular reference to the draft South-West Region Archaeological Research Framework (http://www.somerset.gov.uk/somerset/cultureheritage/heritage/swarf/index.cfm) and English Heritage criteria, as defined in the Monument Protection Programme Class Descriptions.

3.1.5 The Detailed Archaeological Design prepared before the start of fieldwork (Oxford Archaeology 2005a) was intended to provide a flexible framework for landscape investigation and recording, which avoided over-prescribing investigation areas on the basis of insufficient evidence, but provided a clear set of methods for dealing with broadly predictable archaeological remains. It included detailed methods for the treatment of different types of archaeology that could reasonably be predicted within the scheme land-take on the basis of evidence available at the time. In the event of the discovery of significant sites which were more complex, or better-preserved than anticipated, or did not fall into any of the predicted types, a Further Archaeological Design was to be produced, detailing the appropriate mitigation measures.

3.1.6 In order to target resources effectively and avoid unnecessary delays to the construction programme it was considered important not to over-state the potential of particular landscape elements to address research objectives. For many of the most common types of feature, such as field boundaries in areas of Recently Enclosed Land, sufficient information already existed from documentary and map research to place them in their historic landscape context. The expected poor preservation of post-medieval tin-streaming sites crossed by the scheme meant that detailed archaeological recording was unlikely to add significantly to existing knowledge. However, it was considered important to provide a minimum baseline survey record of any landscape features encountered during topsoil stripping that were not recorded on Ordnance Survey mapping (OA 2005a).

3.2 Pre-defined archaeological fieldwork

3.2.1 The pre-defined elements of the fieldwork, defined in the Detailed Archaeological Design (Oxford Archaeology 2005a), comprised a number of Strip Map and Sample (SMS) areas, Targeted Watching Brief (TWB) areas, the excavation of sample hedge sections in the Belowda field system, and a General Watching Brief (GWB) on significant areas not covered by any of the other methods.

3.2.2 Palaeoenvironmental boreholes were initially planned for the Holywell Valley, but the location proved unsuitable and was replaced by a hand auger survey and monolith sampling excercise, carried out during excavation of a new culvert in a stream valley to the west of Belowda Lane (ch. 3000-3200).

3.3 Extent of archaeological fieldwork

3.3.1 In total, 16.7 Ha were stripped and mapped under conditions of 'good' or 'very good' visibility, which represents *c* 25% of the total permanent land-take (see Figure 2). This figure includes *c* 13.4 Ha which were stripped and mapped to an archaeological specification (*ie*, with a toothless bucket under archaeological control, to a level at which features could be planned effectively). As a result of the flexible early topsoil stripping policy adopted by the contractor, there was no practical difference between SMS and TWB areas in terms of timing, archaeological control, visibility or mapping methods. A further 3.3 Ha was stripped and mapped, technically

under the GWB specification, but with 'good' or 'very good' visibility, and a high degree of control over the topsoil stripping method.

3.3.2 A key element of the archaeological risk management strategy was the early stripping of a 10m wide haul road, to the SMS specification, along the full length of the scheme (excluding areas of known modern disturbance). In addition, two SMS sites, Saffron Park and Innis Downs, were designated for early excavation of the full working width, because of their proximity to known prehistoric monument groups.

3.3.3 Provisional SMS areas were specified in the Belowda area and at Black Barrow Field, dependant upon the results of the inital 10m wide strip. At Black Barrow Field the absence of archaeological features in the initial 10m wide strip meant that further SMS work was only carried out on an opportunistic basis. In the Belowda area, following a series of significant discoveries in the course of the Haul Road strip, OA submitted a Further Archaeological Design proposing additional topsoil stripping, and detailed excavation and sampling, at four significant sites, designated Sites A to D (See Oxford Archaeology 2005b).

3.3.4 A fifth discovered site, the Hengiform at Royalton (Site E), was not covered by a Further Archaeological Design: In this case the full road scheme working width was subject to early topsoil stripping for construction reasons, so that the hengiform monument and immediately surrounding area were fully exposed at the initial SMS stage. Although recognised as highly significant, the features were small in number and ephemeral. A decision was therefore made to complete detailed excavation work immediately, to avoid erosion and damage to the exposed features, or delays to the construction programme. In this case the aims and methods defined in the Detailed Project Design for excavating prehistoric ritual monuments were considered appropriate to Site E without modification (See OA 2005a, Section 10.9).

3.3.5 Pre-defined Targeted Watching Brief (TWB) areas were undertaken at Rosewin and East Griglands (the vicinity of the Mount Pleasant main construction compound). Both areas lay adjacent to recorded post-medieval farmsteads. A circular monument of possible prehistoric date, recorded in the adjacent section of the Transco pipeline route, also lay close to the Mount Pleasant site (Network Archaeology 2001). No further stripping beyond the initial 10m wide strip was carried out at Rosewin, as no significant traces of the adjacent post-medieval farmstead were found. At the Mount Pleasant compound, extensive additonal areas (c 4 Ha), in addition to the 10m wide 'haul road', were stripped and mapped under the TWB and GWB specifications, to record a series of removed 19th century field boundaries in the vicinity of the East Griglands farmstead. No prehistoric remains were found.

Table 1: Total area stripped and mapped, broken down by method and route section

Chainage	*Route section*	*Area stripped and mapped to an archaeological specification (SMS and TWB) in m^2*	*Area stripped and mapped with good visibility under GWB conditions in m^2*
	10m wide Haul Road SMS		
150-800	Trewin Farm Haul Road SMS	1170	
1000 - 1390	Black Barrow Field Haul Road SMS	2120	380
1390 - 1750	Deep Tye Farm Haul Road SMS (See Site E below)	3900	2050
1750 - 2200	Royalton Underpass Haul Road SMS	3620	
2200 - 2720	Rosewin Haul Road SMS	See pre-defined TWB below	
2720 - 3180	W of Belowda Lane Haul Road SMS	1160	
3180 - 5080	Belowda Strip Fields Haul Road SMS	See pre-defined SMS below	
5080 - 5770	Saffron Park Haul Road SMS	See pre-defined SMS below	
5770 - 6000	Holywell Valley Haul Road SMS	650	
6000 - 6920	Victoria Haul Road SMS Areas 1-3	9990	
6920 - 7360	Victoria Junction West Haul Road SMS	4590	
7360 - 7710	Victoria Junction East Haul Road SMS	3800	
7710 - 8240	Mount Pleasant West Haul Road SMS	8210	
8240 - 8690	Mount Pleasant East Haul Road SMS	7360	
8690 - 9400	East Griglands Haul Road SMS	5243	13460
9400 - 10290	Bodmin Radio Station Haul Road SMS	6065	
10290 - 10730	Innis Downs Haul Road SMS Area 1	See pre-defined SMS below	
10730 - 10880	Innis Downs Haul Road SMS Area 2	See pre-defined SMS below	
	Pre-defined SMS/ TWB areas		
1050 - 1110	Black Barrow Field Main SMS	1030	
2200 - 2720	Rosewin TWB	3375	
3180 - 5080	Belowda Strip Fields Haul Road SMS	13365	5285
5080 - 5770	Saffron Park Main SMS	16440	11020
5900 - 6000	Holywell Valley (planned palaeenvironmental sampling was replaced by work at chainage 3000)	650	
7300 - 7600	Victoria Junction TWB	3000	
10400-10730	Innis Downs Main SMS Area 1	29110	
10730-10880	Innis downs Main SMS Area 2	750	
	Further Archaeological Works		
3480-3550	Site A Further Archaeological Works (Belowda)	2165	
4280-4350	Site B Further Archaeological Works (Belowda)	2950	
4560-4670	Site C Further Archaeological Works (Belowda)	2120	
4850-4950	Site D Further Archaeological Works (Belowda)	1940	
1700-1750	Site E Further Archaeological Works (Royalton)	No additional stripping required	
	Total area stripped and mapped	**134,773**	**32,195**

3.3.6 ***SMS and TWB methodology:*** The work undertaken in the SMS and TWB areas comprised a controlled mechanical topsoil strip, under close archaeological supervision, using a toothless ditching bucket. Each stripped area was then mapped using a Global Positioning System (GPS) or a Total Station Theodolite (TST) and finally sample excavation was carried out to characterise the identified archaeological remains. As a result of the flexible early topsoil stripping policy adopted by the contractor, there was no practical difference between SMS and TWB areas in terms of timing, archaeological control, visibility or mapping methods.

3.3.7 ***Palaeoenvironmental sampling:*** The originally proposed sampling location at Holywell Valley proved to be unsuitable for the purpose. Sampling was therefore carried out at an alternative location, just to the west of the Castle-an-Dinas road. A number of hand auger holes were sampled, establishing a lack of potential in a bog area between CH 3000-3200. However laminated silt and peaty palaeochannel deposits were noted where the route crosses the present stream. This sequence was recorded and monoliths taken.

3.3.8 ***Cornish hedges in the Belowda field system:*** All of the boundaries within the Belowda section were cut using mechanical plant. A sample section was hand cleaned and recorded in detail. Following recording of the sections, a 2m sample length was excavated by hand across two of the most promising hedges. The stratigraphic location of all finds and samples was noted on the section drawing. The location of the sample sections was recorded by the survey team.

3.3.9 ***GWB methodology:*** The GWB comprised a programme of observation, investigation and recording during construction activities in archaeologically sensitive areas, where remains were not identified by the initial phases of work but where there remained a significant risk of archaeological discoveries, particularly at new junctions, where the 10m wide haul road strip was not an adequate sample of the impact area. In this case the construction contractors preferred method of working was not modified for archaeological purposes, unless significant archaeological discoveries were found. All man-made landscape feature not marked on modern 1:2500 OS mapping were recorded in plan, in relation to OS grid. In addition the extent of areas of modern disturbance encountered was measured as well as the extent of areas in which visibility was poor due to construction methods or other factors. The extent of areas of good visibility was also noted.

3.3.10 ***Detailed excavation:***

3.3.11 Five sites required detailed excavation, designated sites A-E, four of which were concentrated in the Belowda area. The features were subject to additional topsoil stripping where necessary to fully expose the significant features within the scheme land-take. They were then subject to detailed excavation, soil sampling and recording, in accordance with the Detailed Archaeological Design (OA 2005a) and the Belowda Further Archaeological Design (OA 2005b).

3.3.12 ***Site A:*** This site was discovered during the Haul Road SMS exercise at CH 3520 and was initially revealed as a double penannular ditch, with a covering of dark, stony soil obscuring any internal detail. A further area was then stripped, measuring 0.36Ha, to reveal the full extent of the ditches and surrounding area.

3.3.13 ***Site B:*** This site was initially revealed in the Haul Road SMS, at CH 4315, as the northern half of a roughly circular ditch, with nine internal features visible in the initial strip. The ditch and discrete features were both sealed by a widespread dark soil, containing a high concentration of large stones within the area defined by the ditch. A further area, measuring 0.4Ha, was then stripped to reveal the full extent of the ditch and surrrounding area.

3.3.14 ***Site C:*** This site was initially revealed in the Haul Road SMS as a spread of large stones within a dark soil layer at the western end of the site, centred on CH 4620, and a group of pits at the eastern end of the site, one of which produced Bronze Age pottery and a saddle quern. A further area, measuring 0.52Ha, was stripped to reveal the full extent of the soil layer and the associated group of ditches.

3.3.15 ***Site D:*** This site was initially revealed as five pits, forming a semi-circle, centred on CH 4910. A further area, measuring 0.17Ha, was stripped to enable further investigation of the site, revealing the surviving remainder of a pit or timber circle, as well as a second, previously unrecognised circle. This area also included a group of disinctive sub-rectangular pits, interpreted as prospection pits.

3.3.16 ***Mechanical excavation:*** Stripping of all areas, except GWB, was carried out by 360 degree excavators fitted with toothless ditching buckets, under close archaeological supervision. The machining ceased either once the natural geology had been exposed, or when archaeologically significant deposits were encountered.

3.3.17 ***Context recording:*** A continuous unique numbering system for contexts was operated, with written descriptions recorded on proforma sheets comprising factual data and interpretative elements. Each 1km chainage block along the route was assigned a block of 1000 unique numbers, so that all numbers on the scheme are unique. Photographic, drawing, finds and environmental registers were assigned unique numbers in a similar manner.

3.3.18 ***Metal detecting survey:*** a survey with metal detectors was undertaken across the pre-defined SMS sites. The survey of the Haul Road SMS was undertaken by the machine supervisor.

3.3.19 ***Survey methods:*** The majority of the survey was undertaken using Global Positioning Systems (GPS), with a Total Station Theodolite (TST) also used. This equipment was used to set out site grids and to survey most features along the scheme. All information was logged initially in the GPS or TST, downloaded onto computer and then processed using CAD software (usually AutoCAD Map2004) or GIS software (usually ArcGIS 9) as appropriate. This resulted in a survey base drawing. All digital data were fully backed up in the field, with copies stored off site.

3.3.20 ***Planning:*** Pre-excavation plans were generated by either TST or GPS, with further planning by hand as appropriate. Plans were drawn at 1:20 or 1:50.

3.3.21 ***Sections and levelling:*** Levels were measured in relation to Ordnance Datum using dumpy level, GPS or TST. Sections were drawn at 1:10 or 1:20, as appropriate.

3.3.22 ***Photography:*** A monochrome, colour (35mm transparency) and digital photographic record was created, illustrating in detail and general context the principal features and finds discovered. Site condition and progress photographs were primarily digital. Digital photography was used to record features and sections to be geo-referenced.

3.3.23 ***Finds:*** All finds were exposed, lifted, cleaned, conserved, marked, bagged and boxed according to the United Kingdom Institute for ConservationGuidelines (UKIC 2001), the Council for British Archaeology's First Aid For Finds (Second Edition, 1987) and the Institute of Field Archaeologists' Guidelines for Finds Work (1992).

3.3.24 ***Palaeoenvironmental sampling:*** Bulk samples of 15 to 60 (normally 40) litres were taken for flotation for carbonized remains from secure contexts where there was indication of good potential for such material, or to recover environmental evidence and suitable radiocarbon samples from significant features. Samples were targeted following specialist advice and in accordance with pre-defined sampling strategies.

3.3.25 ***Monolith samples:*** Columns were recovered by hammering a monolith tin into the cleaned and recorded sections of selected significant features with potential for either palynology or soil micromorphology. An off-site palaeoenvironmental sampling excercise was also carried out durng excavation of a culvert in a stream valley at chainage 3000-3200. The columns were securely wrapped in cling film and labelled with sample number, context number and column top and bottom. The location, level OD and sample number were clearly marked on the section drawings.

3.4 Archive

3.4.1 The site archives (paper and photographic record, artefacts and environmental samples) have been prepared for long-term storage in accordance with Guidelines for the preparation of excavation archives for longterm storage (UKIC 2001) and Standards in the Museum Care of Archaeological Collections (Museums and Galleries Commission 1992). The digital archive has been prepared in accordance with Excavation and Fieldwork Archiving: Guidelines for Good Practise, issued by the Archaeology Data Service (ADS 2000), and in accordance with specific requirements of Cornwall County Council Heritage Environment Record.

3.4.2 OA will provide the fully indexed archive of the project to the Royal Cornwall Museum, Truro and will deposit a microfiche security copy with the National Monuments Record. Published reports of the results and suitable GIS datasets will be lodged with Cornwall Sites and Monuments Record. The digital archive will be lodged with the Archaeology Data Service (ADS). Permission to donate the finds to Truro Museum will be obtained in writing from the Highways Agency. A copy of the letter will be included in the site archive.

4 POST-EXCAVATION ASSESSMENT

4.1 Summary of the fieldwork results

4.1.1 In the following section the results of the investigations are extracted and arranged by archaeological period, in the likely order that they will appear in the publication report. Locations along the scheme are given with reference to the scheme chainage measurements, which run from CH 0 at the western end of the scheme, to CH 11000 at the eastern end.

4.2 Neolithic/Early Bronze Age

4.2.1 ***Innis Downs:*** The large open area topsoil strip at Innis Downs (CH 10400-10880) revealed a single feature (10010) Plate 1, that could potentially be contemporary with Castilly Henge and/or the associated barrow cemetery, comprising a pit containing a mass of burnt stone and charcoal. Should suitable material be found within the samples from this feature, it is intended to submit a single radiocarbon date to establish whether or not it is likely to be contemporary with the henge or barrow cemetery. The lack of any other possible features dating to this period was somewhat surprising given the high level of identified archaeological potential, although the very thin, clinker-rich topsoil across the site suggested that the whole area may have suffered significant truncation at some stage in the recent past, possibly during construction of the existing Innis Downs road junction.

4.2.2 ***Royalton Hengiform (Site E):*** This monument (CH 1700-1750, Fig 3, Plate 2) comprised a circular segmented ditch of ten pits (group 1112), with an internal circular arrangement of nine surviving postholes (group 1111). There was an entranceway through both of these circles to the south. The segmented ditch had an external diameter of 10.6m and an internal diameter of 8.5m; the circle of postholes had an external diameter of 7.8m and an internal diameter of 6.4m. The features were sealed by shallow topsoil. A missing posthole from the inner ring was probably removed by the excavation of a post-medieval field boundary, which cut directly through the monument on a NE-SW alignment. The boundary ditches also partly truncated several other features, although the majority of the pits and postholes were unaffected and survived to a significant depth. The pits and postholes were filled with a fairly uniform very dark brown or black humic soil. Some of the inner ring postholes showed signs of post-pipes, but there was no indication that any of the pits in the outer ring had contained posts. The interior of the post ring had no surviving indications of internal features, although three further undated pits or postholes lay on and between the inner and outer rings. The remainder of the excavated area, outside the monument, was also devoid of prehistoric features.

Table 2: Constituent features of the Royalton Hengiform (Site E)

Description	Group Number	Cut number within group
Segmented Ditch	1112	1063, 1064, 1086, 1089, 1128, 1135, 1154, 1156, 1179, 1183,
Timber circle	1111	1092, 1095, 1115, 1123, 1139, 1155, 1158, 1163, 1200

4.2.3 The monument falls within the description of a 'hengiform monument' as defined in the MPP monument class descriptions (http://www.eng-.gov.uk/mpp/mcd/hengi.htm). Recent work on timber circles and their relationship to henges have highlighted that timber circles were often located within henge monuments, as appears to be the case here (Gibson 2005). This class of feature would generally be enclosed by a modest earthwork, although no trace of one was observed in the area prior to topsoil stripping. It is possible it could have been levelled by ploughing. Hengiform monuments of this type are generally dated to the later Neolithic period, although a radiocarbon date in the early medieval period was recorded from a sheep/ goat's tooth recovered from Pit 1179. The pit was truncated by a post-medieval boundary ditch, and it seems likely that the tooth was intrusive. Up to three further radiocarbon samples will be submitted as part of the analysis programme, to clarify the date of the structure. Suitable charcoal samples have been identified from the pit circle in the course of assessment. Unfortunately no suitable charred material has been found in the inner post ring, although it may prove possible to date sediment from a monolith from one of the postholes.

4.2.4 ***Lane End Pit Circles (Site D):*** Two adjacent pit circles were revealed at this site (CH 4850-4950, Fig 4). The western pit circle (4022, Plate 3) comprised twelve surviving pits and the eastern (4234) thirteen. The western pit circle had a diameter of 19.3m, whilst the eastern had a diameter of 20.4m. It seems probable that a pit in the south-west quadrant of the western pit circle had been entirely removed by a later, larger, pit, whilst the eastern pit circle had been truncated by a drainage ditch to the north, losing either two or three pits in the process. No finds were recovered from the fills of any of the pits, all of which had an upper fill of soft dark organic-rich material. Radiocarbon dates from a pit in each of the pit circles has provisionally placed them both within the Early Bronze Age. The initial dates suggest that the eastern pit circle (1880BC-1680BC at 95.4% probability) may have been earlier than the western one (1690BC-1520BC at 95.4% probability), although the dating of further short-lived charcoal samples by radiocarbon methods will be undertaken during the full analysis to establish their absolute and relative chronology (suitable short-lived charcoal samples have been identified in the course of assessment).

Table 3: Constituent features of the Lane End Pit Circles (Site D)

Description	Group Number	Cut number within group
Western Lane End Timber/ Pit Circle (Site	4022	4010, 4013, 4016, 4019, 4021, 4238, 4240, 4243, 4246, 4249, 4252, 4255

Description	Group Number	Cut number within group
D)		
Eastern Lane End Timber/ Pit Circle (Site D)	4234	4005, 4235, 4236, 4256, 4267, 4268, 4272, 4276, 4283, 4298, 4303, 4309, 4462

4.2.5 ***Saffron Park:*** The topsoil strip (CH 5080-5770, Fig 2) revealed no features that could be dated to the prehistoric period, even though the stripped area lay immediately alongside a group of three barrow mounds which survive as slight earthworks. A number of probable medieval and post-medieval features were revealed, indicating a reasonable level of archaeological survival. It is likely that there were never any substantial cut prehistoric features within the area of the strip.

4.3 Middle Bronze Age

4.3.1 ***Belowda Pit and Hearth Group (Site C):*** This site (CH 4560-4670, Fig 5) comprised a group of seven pits and a hearth, bounded to the east by a semi-circular ditch (Plate 4). The pits and ditch all had very similar fills, containing a high proportion of charcoal and burnt stone. Bronze Age pottery was recovered from two features, the northern terminal of the semi-circular ditch, and pit 4136. Pit 4136 also contained a complete, finely made saddle quern. A radiocarbon sample from the southern terminal of the semi-circular ditch has been dated to the Bronze Age, to 1610BC-1420BC (95.4% probability). The hearth (4451, Plate 5) was stone-lined and was located immediately to the north of pit 4414. Pit 4436 may also have been a hearth, although it had no stone lining and the interpretation is uncertain

4.3.2 It is difficult to determine the function of this group of features on present evidence. It is noticeable that, although large quantities of charcoal were recovered from the environmental samples, there were no cereal remains, perhaps hinting at a non-domestic function for this site. The quernstone in pit 4136 was placed flat, face up within the upper fill of the pit, suggesting some significance to its positioning, which may hint at ritual deposition. A sample from the hearth was tested for tin residues, with negative results.

Table 4: Features forming the Belowda pit and hearth group (Site C)

Feature Type	Context Numbers
Pit	4136, 4158, 4172, 4414, 4421, 4428, 4436
Hearth	4451
Semi-circular ditch	4439=4446=4455

4.4 Iron Age/Romano-British

4.4.1 ***Belowda Roundhouse (Site B):*** This site was located c. 300m to the south-east of Belowda hamlet (CH 4280-4350, Fig 6). It comprised a roughly circular ditch, 4059,

with an external diameter of c 14.7m, containing a number of internal features. The ditch (Plate 6) was probably originally an enclosure, with one definite and one possible entrance. The definite entrance faced to the east, defined by ditch terminals packed with stone rubble, possibly deriving from demolition of the roundhouse. The entrance was also marked by a four post structure (postholes 4080, 4085, 4087, 4105) forming an internal porch. A hexagonal arrangement of posts, incorporating the two rearmost porch posts, was placed centrally within the ringditch, perhaps indicating the position of roof supports. The other possible entrance, located to the north-west, was far less convincing, as the ditch was extremely shallow in this area. It seems most likely that the ditch was truncated on the rear side of the roundhouse.

4.4.2 No further recognisable structural patterns could be discerned from the arrangement of pits and postholes inside the roundhouse, although one posthole (4157) did contain a flint blade. This was the only artefact recovered from either the ditch or the internal features. Cereal and other plant remains were recovered from the environmental samples in small quantities. A radiocarbon determination from material within the ditch provides a preliminary date of 360BC-40BC (95.4% probability).

4.4.3 A dark soil layer overlay the area of the ditch and the roundhouse and also extended to the south of the roundhouse. A small flint scatter and a whetstone were found within the black layer. However, the sequences of podzolisation across this site are somewhat complex, with the strong possibility that what appears to be a single homogeneous layer could well comprise a number of different layers or podzolisation events. Further study of soil samples will hopefully enable this issue to be resolved.

4.4.4 To the north-west of the roundhouse a pair of curvilinear ditches was recorded (4379 and 4373). The southern ditch, 4373, appeared to be the continuation of a substantial ditch, (4216=4217) located 12.5m to the south-west and they appear to form an entranceway, possibly to a droveway. The ditches are undated, but could represent traces of stock enclosures surrounding the site.

Table 5: Interventions excavated across Belowda roundhouse (Site B) ditch

Description	Group Number	Cut number
Northern half of ditch	4147	4092, 4145, 4150, 4152
Southern half of ditch	4382	4065, 4067, 4371, 4378

4.4.5 ***Lower Trenoweth Roundhouse (Site A):*** This site, which was located c. 800m west of Site B, at CH 3480-3550, comprised a pair of concentric ringditches and a series of internal features, mostly interpreted as postholes (Fig 7) (Plate 7). The internal ditch (3263) was circular, with an external diameter of 11m and a clearly defined entrance to the east. The external ditch (3237) closely followed the internal ditch for the most part, being roughly circular with an external diameter of 14.6m, but to the north it bent away, forming an extended entranceway or small enclosure. A minimum of two phases were attributable to this feature: A recut (3504) observed in the outer ditch, was made after both this and the internal ditch had undergone a fair degree of silting. It seems most likely that this site represents a roundhouse, with the internal ditch

representing the foundation trench for the wall of the roundhouse and the external ditch representing an eaves-drip drainage ditch.

Table 6: Interventions excavated across Lower Trenoweth roundhouse (Site A) ditches

Description	Group Number	Cut Number
Outer Ditch	3237	3189, 3248, 3252, 3269, 3448, 3452, 11012, 11024, 11034
Inner Ditch	3263	3240, 3254, 3445, 3446, 3469, 3489, 3505, 11000, 11004, 11011, 11028
Ditch recut	3504	3435, 3478, 3483, 3484, 11018, 11019, 11031,
Dog-leg extension to the north of outer ditch	3514	3439, 3479, 11016

4.4.6 The small pottery assemblage recovered from the excavation has been dated to the late Iron Age/Romano-British transition period. The environmental samples from this site revealed cereal grains, seeds from wild plants and a diverse range of wood charcoal. There was a large amount of stone spread across the whole area defined by the ditches, which was notably absent outside the ditches. It seems likely that stone was originally used as building material, probably as foundations or facing for the walls of the roundhouse. Within the inner ditch a number of postholes were observed, including a group of four (3457, 3461, 3498 and 3511) which formed a probable internal porch structure. A number of further probable postholes, were observed in the interior of the roundhouse. Some of them were far from convincing as archaeological features, but there are suggestions of a hexagonal arrangement of roof supports, comparable to that seen at Site B. No features were observed outside the roundhouse.

4.4.7 Given the similarities between the Lower Trenoweth (Site A) and Belowda (Site B) roundhouses in terms of size, shape and internal porch and roof structures, it seems reasonable to suggest that they are similar in function and date. This is broadly supported by the available dating evidence, although the single radiocarbon date from Site B suggests that this structure may be slightly earlier in date than the pottery from Site A. Further radiocarbon dates are required to establish the absolute and relative chronology of these two sites. The sites lie c. 800m apart, within the Belowda strip field system, which may have contributed to their survival.

4.4.8 ***Possible Roman ditch at chainage 4000:*** A large ditch (3355) located in the Belowda field system, but on a different alignment to the hedges of the strip field system, contained a single sherd of abraded Samian, suggesting possible evidence for Romano-British activity in the area. If the ditch is of Roman date it would hint at a phase of enclosure in the area preceding the medieval strip fields. The dating evidence is limited to a single sherd of pottery, however, which is not sufficient to date the feature. A radiocarbon date on charcoal from the primary ditch fill is proposed.

4.5 Early medieval

4.5.1 No features which can firmly be dated to the early medieval period were identified in the course of the work. However, a single sheep/ goats tooth recovered from the Royalton Hengiform was radiocarbon dated to 780AD-980AD (95.4% probability). It seems probable that the tooth was intrusive, but the result hints at some level of pastoral activity during the early medieval period. Two residual sherds of pottery from this period were recovered from sites within the Belowda field system.

4.6 Medieval/ post-medieval

4.6.1 ***Possible prospecting pits in the Belowda Beacon area:*** Three distinct groups of broadly similiar pits (Pit groups 1-3) were recorded in the strip, map and sample areas, widely distributed around the lower slopes of Belowda Beacon. There is little intrinsic evidence for the date or function of these features, although their size and shape broadly matches 16th and 17th century descriptions of tin prospecting pits (Gerrard 2000, 26-28). This seems to be their most likely function, given the rich tin deposits known to have been exploited in the surrounding area, from at least the 13th century AD.

4.6.2 ***Pit group 1:*** In the vicinity of the Lane End Timber/ Pit Circles, between CH 4850 and 5030 a loose group of 22 oval pits was recorded. All were broadly similar in shape, being roughly oval, although with a distinct squaring of the ends. They varied in size between 2 m and 3 m in length and between 1 m and 1.5 m in width. Several were excavated, revealing steep sides onto a flat base, with an average depth of c. 1 m. No artefacts were recovered from any of the features, although one produced a radiocarbon date of 1290-1430AD. Given the morphological similarities between these pits it seems reasonable to assume a similar date for all of them.

4.6.3 ***Pit group 2:*** To the east of the B3274 eight further pits were revealed, centred on CH 5200, of broadly similar size and shape to those in pit group 1. They exhibited a very similiar pattern of fills, comprising alternating fills of redeposited natural and dark organic-rich material. All of the pits appear to have been finally deliberately backfilled with redeposited natural at some stage, presumably to level the area. The pits were concentrated in two distinct groups, with three of them intercutting. This final detail potentially argues against their use as prospecting pits, although it is difficult to ascribe to them a more plausible function. Although no dating evidence has been recovered from these pits, it seems reasonable, on current evidence, to provisionally date them to the medieval or early post-medieval period on the basis of their similarity with the dated example in pit group 1. A single radiocarbon date is proposed to test this theory.

4.6.4 ***Pit group 3:*** A further loose group of ten oval pits was identified, centred on CH 5600, broadly similar in size and shape (Plate 8) to those in pit groups 1 and 2, although their fills did not follow the pattern of in-filling seen in the others in all cases. A further group of three pits, two of them intercutting, was located a further 90m east at CH 5690. These pits were significantly larger than the others in pit group

3, being 3.3m x 3.0m in plan and up to 1.0m in depth, perhaps hinting at a different function, although none is immediately obvious. None of these pits produced dating evidence. A single radiocarbon date is proposed to test the theory that they are medieval/ early post-medieval prospecting pits.

4.6.5 ***Medieval pottery find spot:*** The only significant concentration of medieval finds from the scheme came from a shallow ditch (4179) at CH 4175, which lay in an area characterised by a build up of silts, suggesting it had previously been marshy. The ditch was located within the Belowda field system, although it is impossible to know whether the unweathered sherds came from the hamlet of Belowda itself (c.250m to the north) or an unknown farmstead site closer to the ditch.

4.6.6 ***Belowda strip field system investigation:*** Fifteen upstanding boundaries were recorded within the Belowda field system (CH 3180 - 5080, Fig 2), the enclosure of which is thought to date to the early post-medieval period, in an attempt to uncover evidence of their creation and subsequent usage. It was hoped that buried banks or soil horizons might provide dating evidence for establishment of the strip fields. Twelve of the fifteen boundaries were 'Cornish hedges' (Plate 9) whilst the remaining three comprised stony banks. All of the boundaries examined were heavily disturbed (Plate 10) by both animal burrowing and root action. It is possible that the boundaries identified as stony banks may originally have been Cornish hedges, but have eroded and collapsed into their present form. The stratigraphic evidence gained from the examination of the cut sections was very limited, primarily on account of the very high degree of bioturbation. Two of the boundaries (3280 and 3283) exhibit possible evidence for earlier banks, although the case for the former was far more convincing than for the latter. All of the boundaries examined in the Belowda field system were flanked by a pair of parallel ditches.

4.6.7 A linear spread of large stones sealing a dark soil layer was revealed around chainage 4575, within the Belowda field system (Plate 11). This linear arrangement ran parallel to an existing field boundary c. 10m to the south, and it seems likely that it represents the northern boundary of a former east-west aligned droveway within the Belowda strip field system. It appears that the dark soil (4454) represents a buried soil horizon, preserved beneath the stones of the dismantled field boundary, which could pre-date establishment of the Cornish hedges in this area. The sequence currently lacks artefactual or radiocarbon dating evidence. Unfortunately the degree of disturbance observed in the hedge banks suggests that there is a high risk of residual or intrusive material being present. One radiocarbon date is currently proposed, if suitable sample material can be identified from a secure context.

4.6.8 ***Enclosure period boundaries:*** A large number of straight, double-ditched boundaries were uncovered at various other points along the scheme. These were identical in form, alignment and construction to the surviving hedge banks characteristic of 19th century enclosures in the area. The vast majority are marked on 1st edition Ordnance Survey mapping and were not investigated in detail. Sample sections rarely produced artefacts, but those that did confirmed a post-medieval/ modern date. The boundaries serve to illustrate the organised enclosure of large areas of Upland Rough Ground

during the 19th century, and the subsquent removal of many of the boundaries to create larger fields, mostly in the course of the 20th century.

4.7 Undated features

4.7.1 Two further oval pits (Plate 12) were identified at Victoria, approximately 100m west of the area of the crossing of the current A30 by the new scheme, around CH 6700. These pits appeared very similar in size and shape to the others interpreted as prospecting pits along the scheme, although the character of their fills was markedly different. These two examples contained a very high proportion of stone, which appeared to be deliberately placed, with one of them also containing a flint end scraper.

4.7.2 A curved double ditch was identified at CH 1450, although it only survived to a depth of 0.05m, and no finds were recovered from its fills.

4.7.3 In the fields immediately to the east of the Castle-an-Dinas road a loose group of approximately 90 shallow pits was revealed, centred on CH 3325. A large proportion of these were excavated. All but one produced no artefacts. Pit 3047, produced a retouched flint blade. There were no discernible structural arrangements and they are not sufficiently large or deep to be prospecting pits. Many were irregular in shape, so a natural origin for some or all of the features is possible.

4.8 Field assessment of tin extraction features

by Simon Roper

4.8.1 ***Introduction:*** In November 2005 a site visit was undertaken to examine a number of features possibly relating to tin extraction, namely the Lower Trenoweth Roundhouse (Site A), the Belowda Pit and Hearth Group (Site C) and the possible prospecting pits located in the immediate vicinity of the eastern Lane End Timber/ Pit Circle (Site D).

4.8.2 ***Lower Trenoweth Roundhouse (Site A):*** This site has provided no obvious evidence of an association with tin extraction or working. There is a large body of work dealing with the tin trade of this period, and clearly tin extraction and smelting was taking place. The proximity to the headwaters of the river Fal make it likely that tin extraction took place here. Dressing of the alluvial tin would have taken place by or near the river with either washing in pans for small amounts or the use of sluices for larger quantities (Atkinson 1985, 25). Smelting of the tin would not have been very complicated since these deposits were so pure that the reduction of the oxide was the only process required (ibid 9). This may have been carried out on a small scale, possibly close to the area of extraction, or the tin oxide may have been traded without being processed, the smelting taking place further along the chain of traders. If only small quantities were being extracted then this could be quite likely and would explain why no evidence of the process was found at the site of the roundhouses, or elsewhere on the scheme.

4.8.3 ***Belowda Pit and Hearth Group (Site C):*** A hearth and group of middle Bronze Age pits filled with burnt stone produced a saddle quern (c.0.7m in length). The suggestion that the quern may have been used for grinding tin ore by hand, and that the burnt stones are the result of an early smelting process is considered unlikely on present evidence. In prehistory tin ore was probably largely excavated from alluvial deposits (stream tin) (Gerrard 1989, 9). This required little preliminary dressing and could be sent straight to smelting (Palmer & Neaverson 1989, 21), therefore not requiring grinding on a quern beforehand. In 1907 several stone querns were recovered from a site at Vorvas, Lelant (Atkinson 1985, 21) which were identified as 'ancient'. However this site is in the west of the county, which was dominated by deep cassiterite lodes which would have required more processing, whereas the east of the county is rich in alluvial deposits. This is demonstrated by the distribution of mineshaft workings and open-works in the post-medieval period, with the former far more common in the west and the latter in the east of the county (Gerrard 1989, 11-12). Alluvial deposits were easier to process and produced a superior product with fewer impurities. With such large alluvial deposits available in the locality of the site it is very unlikely they would have chosen to process tin in this way. Earl (1994, 118-9) describes crushing stones from two sites in Cornwall, and the similarity these have with stones from Anatolia. At least one of these Cornish stones is from Crift Farm, a site dating to the 13th century (Malham et al. 2002, 84), by which time lodes requiring more processing had been brought into production. The form these crushing stones took is also different from the flat surfaced quern discovered on site, comprising a small hand held pestle and a larger dimpled stone mortar (Earl 1994, 118-9). In addition the frequent occurrence of deposits of burnt stones on Bronze Age sites in other parts of the country, which have no association with mining or smelting activities, suggests that an alternative interpretation is more likely.

4.8.4 ***Prospecting Pits at Site D:*** A group of pits was observed at this site, mostly oval at one end and sub-rectangular at the other. These were approximately 1m x 2m in plan and less than 1m in depth. The fill of the pits was dark bands of organic material interspersed with redeposited natural. This suggests the pits were left open, partially refilled, left for another period and then refilled again. The initial suggestion that these may have been prospecting pits has some evidence to support it. Early tin miners would search riverbeds for heavy pebbles of Cassiterite (Atkinson 1985, 19), and make judgements based on their knowledge of the local geography for suitable places in which to dig test pits. Carew describes these pits in his Survey of Cornwall (1602, 15), and their dimensions in plan are very similar to those described above, namely:

4.8.5 '*There they sincke a Shaft, or pit of five or six foote in length, two or three foote in breadth, and seuen or eight foote in depth, to proue whether they may so meete with the Load.*'.

4.8.6 Prospecting pits would normally have been lined with timber to prevent collapse (Atkinson 1985, 19). However these, if they are such pits, were clearly not deep enough to require it. The location of the pits in proximity to the river Fal and various

known streamworks, and down slope from the Royalton mine of Belowda Beacon, also support the idea of their function as prospecting pits. This explanation does not however provide understanding of the post-excavation sequence of refilling - and an agricultural or similar function cannot be ruled out altogether.

4.8.7 ***Statement of potential:*** The Lower Trenoweth Roundhouse site (Site A) provided no evidence of tin extraction or processing. As discussed above this may be due to these processes being carried out either near to the point of extraction or another area altogether. However a third possibility is that processing did take place at the roundhouse site but no trace of it remains. Both Earl (1994, 119) and Timberlake (1994, 122) refer to there having been no tin-smelting furnace remains found in Britain. One reason for this is the lack of waste material, virtually all the slag produced having been crushed and reworked (Earl 1994, 119). In addition the most likely form that these furnaces would have taken is that of a bowl furnace constructed in the top of a compressed mound of earth, and lined with clay, as used in an experiment carried out by Timberlake (1994, 122-7) at Flag Fen. These are unlikely to have been used more than once as the clay lining, being partially baked and broken up by the firing, breaks down quickly. In the Flag Fen experiment within 18 months hardly any trace remained. Therefore any such features in proximity to the roundhouse are unlikely to remain.

4.8.8 The material recovered from the Bronze Age Belowda Pit and Hearth Group (Site C) seems unlikely to be the result of Bronze Age tin smelting. If tin ore from a lode rather than an alluvial deposit was used then the material would have been crushed and then washed, probably in pans, to concentrate the ore (Michell 1969, 4). Therefore most of the additional unwanted mineral material (gangue) would have been removed prior to firing. Tin smelting slag recovered from both an experimental smelting (Earl 1985, 160) and a 13th century site (Malham et al., 2002, 86), appears as dark, often brown, glassy slag. The burnt stone could be examined for any material similar to this or to unprocessed cassiterite, however their presence is very unlikely. Tin slag was frequently reprocessed to extract the maximum quantity of tin, with the slag being crushed up with stone pestle and mortar. This could explain the presence of the quern stone, however as discussed above its form does not match those previously recovered from Cornwall.

4.8.9 The possible prospecting pits offer relatively little potential for further analysis. The samples of the bands of black organic material may provide a date range for the period in which they were open. If this appears consistent with a late medieval/ early post-medieval date for their creation then the prospecting pit interpretation remains the best explanation.

4.8.10 ***Recommendations for further work:*** No further fieldwork was recommended on the basis of the tin extraction fieldwork, although this did confirm as plausible the identification of the prospecting pits. It is proposed that two radiocarbon dates will be obtained on the 'prospecting pits', in addition to the medieval date already obtained, including one from each of the main pit groups. It is also proposed to test the Bronze Age quernstone for Cassiterite residues. No other work is recommended

4.9 Stratigraphic data

4.9.1 ***Quantification:*** the site archive from the excavations conducted in 2005 comprises the following:

Boundary record sheets	68
Context records	1635
CAD drawings	41
A1 plans	13
A4 plans	45
Sections	519
Digital photographs	1153
Photographic indices	38
Monochrome films	19
Colour slide films	19
Bulk soil samples	258
Monolith samples	21
Grab samples	16
Burnt stone samples	4

4.9.2 ***Assessment of potential:*** a number of phases have been identified across the scheme, dated by a number of methods, including monument morphology (Site E), radiocarbon dating (Sites B, C and D) and pottery typology (Site A). The majority of the features revealed during the course of the site works were stratigraphically simple, truncating the natural geology and sealed by subsoil. At some of the sites, however, particularly Sites A and B, the stratigraphy was more complex. The potential for further refinement of the identified phases is thus variable across the scheme, but on at least some of the sites, further refinement through analysis of the stratigraphy will be possible.

4.9.3 ***Recommendations for further work:*** Further stratigraphic analysis should be undertaken for Sites A, B and D, in conjunction with specialist soil studies and radiocarbon dating, to attempt to further refine the site phasing.

5 ARTEFACTUAL AND ENVIRONMENTAL RESULTS

5.1 Pottery

by Henrietta Quinnell and John Allan

5.1.1 *Prehistoric and Romano-British pottery:*

5.1.2 The assemblage consists of 54 sherds weighing 543g.

Context	1	2	3	4	5
Site C: 4137 fill of pit 4136	12/80				
Site C: 4444 upper fill gully terminus 4439		1/18			
Site A: 11001/11026 fill of inner ringditch 3263			34/397		
Site A: 3438 in fill of recut inner ditch 3435.				5/31	
Site B: 4060 topsoil				1/6	
CH 4000: 3358 in fill of boundary ditch 3555					1/12
Totals	12/80	1/18	34/397	6/37	1/12

5.1.3 ***Fabrics:*** Fabrics 1 and 2 have been examined microscopically, the remainder macroscopically.

1. Local fabric - Moderate medium to very coarse inclusions. Quartz, feldspar, limonite, mica, tourmaline and fragments of angular micaceous tabular slate identified. A range of granite-derived inclusions indicate a source some distance from the granite and, probably, a local, self tempered, clay. The vicinity of Tregoss would provide appropriate clay deriving from extensive local alluvial deposits. No direct comparanda for use of this clay in the Bronze Age have yet been identified (Parker-Pearson 1990).
2. Gabbroic admixture fabric Moderate medium to very coarse inclusions. Quartz, feldspar, amphibole, magnetite and rock fragments probably of dolerite identified. The fabric can be confidently identified as of Lizard gabbroic clay and is described as 'admixture' because of the inclusion of dolerite fragments which probably derive from the Lizard but which have been added to the gabbroic suite of minerals. Gabbroic admixture fabric is the usual fabric found in Trevisker assemblages in Cornwall (Parker-Pearson 1990).
3. Well-made gabbroic fabric Contains moderate inclusions >1mm, well mixed and fired with exterior burnish. The inclusions indicate gabbroic clays on the Lizard (cf DF Williams in Quinnell 2004, 108) and the good quality manufacture indicates a date from the Middle Iron Age until the mid 2nd century AD (Quinnell 2004, 5.6.2).
4. Standard gabbroic fabric Contains moderate to common inclusions generally >1mm but occasionally >4mm, poorly worked with exterior smoothed. The inclusions indication Lizard gabbroic clays and this fabric occurs through the Iron Age until around the 5th century AD (Quinnell 2004, 5.6.2).
5. Samian

5.1.4 ***Details of sherds:***

5.1.5 ***Site C:***

5.1.6 *Fill 4137 fill of pit 4136. Local fabric, moderately abraded, smoothed exterior:* Those sherds with form come from a clumsily modelled base angle, with a few body sherds sufficiently different to suggest a second vessel. The character of the fabric and manufacture suggests a date within the Early to Middle Bronze Age. The find of a neat muller or quern from this context strongly suggests a Middle Bronze Age date as such items of cereal processing are regularly found in association with Middle Bronze Age material. Middle Bronze Age assemblages in Cornwall always belong to the Trevisker style (Woodward & Cane 1991). The radiocarbon determination 1610 BC - 1420BC (95.4% probability) from a ditch on Site C is a little earlier than most determinations from domestic sites with Trevisker ceramics.

5.1.7 *Context 4444; upper fill of terminus of gully 4439 <4115>; Rimsherd, abraded but with a fresh recent break. Gabbroic admixture fabric:* The shape of the flat-topped rim with external expansion is entirely characteristic of Trevisker ceramics as is the cord impressed decoration on the exterior. This has been badly affected by abrasion but consists of impressions of a double line of cord with alternate twist, the so-called plaited cord. There is a horizontal line below the rim with traces of a chevron design below. The sherd comes from a vessel of large diameter, in excess of 35 cm and is typical of Middle Bronze Age Trevisker assemblages (see Woodward & Cane 1991); the size of the vessel indicates a storage jar of Parker-Pearson's (1990, 9) Style 1.

5.1.8 ***Site A:***

5.1.9 *Context 11001/11026 in fill of inner ringditch 3263 (to be illustrated for publication):* Well-made gabbroic fabric, fresh, smoothed exterior with burnish and black coating on the upper part, internal residue.

5.1.10 All sherds appear to have come from a single vessel with many conjoins and to derive from one segment of the excavated ditch. A Cordoned Ware Type D/E cooking pot (Threipland 1956) and belonging to the first or second phases of Cordoned Ware, with a possible date range of first century BC through to mid-second century AD (Quinnell 2004, 110).

5.1.11 3438 in fill of recut inner ditch 3435. Standard gabbroic fabric, moderately abraded, smoothed exterior. Some residue on interior. Probably all from one vessel, a larger and coarser version of the form present on 11001 and with the same likely date range.

5.1.12 ***Site B:***

5.1.13 *Context 4060 - topsoi:* Standard gabbroic fabric, abraded, dating where from the Middle Iron Age to the fifth century AD.

5.1.14 *Context 3358 in fill of boundary ditch 3555:* Samian, highly abraded. probably from thick example of Dr 37 bowl, all surfaces and detail eroded. A late 2nd to early 3rd century date is likely for the original vessel but in Cornwall samian may be curated as sherds as late as the 4th, sometimes even the 6th, century AD (Quinnell 2004, 5.3.1). The abrasion is caused by local acid soil conditions and is frequent in Cornwall (cf Trethurgy, Quinnell 2004, 98).

5.1.15 ***Statement of potential:*** The principal feature of the assemblage is the scarcity of ceramics compared to the generally large size of assemblages on Cornish sites of both Bronze Age and Later Iron Age to Roman dates.

5.1.16 *Bronze Age:* The scarcity of pottery from Site C might indicate a ceremonial site, as domestic assemblages are usually sizeable (cf Trethellan Farm - Woodward & Cane 1991). The presence of a local fabric fits better in the Early Bronze Age than in the Middle Bronze Age, when gabbroic admixture fabrics are almost universal (Parker-Pearson 1990). Trevisker pottery can date from *c* 1600 BC to *c* 1000 BC.

5.1.17 *Late Iron Age and Roman:* Gabbroic fabrics are almost ubiquitous in Cornwall in the Later Iron Ages and Roman period, and occur in some quantity on settlement sites (cf St Mawgan-in-Pydar – Threipland 1956). Two explanations are possible for the scarcity of ceramics on Sites A and B: Either that the structures involved were extremely short-lived, or they were not used as permanent dwellings for a mixed farming community.

5.1.18 ***Recommendations for further work:*** This report will need emendation when the vessel from 11001 has been drawn and when all C14 dates are available.

5.1.19 ***Medieval and post-medieval pottery:*** A total of 417 sherds of medieval and post-medieval pottery was recovered during the course of the excavations. The assemblage contained two sherds of grass-marked pottery, consisting of a sooted base from a silty layer, 4176, and a sherd in the same fabric from the topsoil at Site B (4060). These sherds could date anywhere between AD 500 and AD1100. These are the only pieces dating before c.1300, but are potentially significant as indicators of early medieval settlement in the general vicinity of Belowda. There were 243 sherds of late medieval pottery, almost entirely of Lostwithiel type with typical muscovite inclusions, with just a single North Devon medieval coarseware sherd (Barnstaple/Bideford kilns). The assemblage from context 4181, a fill of ditch 4179, (located c. 250m due south of Belowda hamlet) was notable for containing numerous unweathered sherds, suggesting proximity to a settlement. The dating of this pottery is somewhat imprecise, due to a lack of diagnostic features, but it broadly dates from the late 14th - 15th century. Lostwithiel type pottery continues to dominate the assemblage in the few 16th to early 17th century groups (4355 and 4357, both fills of pit 4358, located *c*. 25m west of ditch 4179). 98 sherds of pottery dating to later than 1780 were also identified.

5.1.20 ***Assessment of potential:*** The limited size of the assemblage means that the potential for further analysis is somewhat limited. Petrological examination of key sherds is carried out on Cornish pottery from archaeological sites wherever possible, to provide

evidence of its provenance and add to the knowledge of its distribution. Because of the very small quantity of the material involved, petrological work has been completed on the medieval pottery as an early analysis task. A pottery publication report has also been prepared in draft, so that no further work is necessary, beyond checking and up-dating the report, if necessary, in light of further analysis.

5.1.21 ***Recommendations for further work:*** A single prehistoric vessel, from 11001, merits illustration, whilst work on the petrology has yet to be undertaken on the Bronze Age pot from Site C, from 4444 and 4137. Petrological identification has been undertaken for the three early medieval grass-marked sherds (from 4176 and 4060), nine of the Lostwithiel-type pieces (a single sherd from both 3252 and 4357, with the remaining seven from 4181) and a piece of daub from 4200. Two pieces of medieval pottery warrant illustration.

5.2 Worked stone assessment

by Ruth Shaffrey

5.2.1 ***Quantification:*** A total of 5 pieces of stone were retained during the excavation. These include a whetstone and a saddle quern.

5.2.2 ***Methodology:*** The stone was examined with the aid of a x10 magnification hand lens.

5.2.3 ***Description:*** A single whetstone was recovered from a layer overlying and outside outside the ditch of the probable roundhouse (4381) at Site A. This is a naturally flat pebble but has been utilised as a whetstone along one edge. A complete saddle quern was recovered from the base of the uppermost fill of pit 4136 (4137) at Site C, where it had been positioned parallel to the ground surface and grinding surface upwards. It is of an unusually oblong shape and is very narrow. It has not been well used (the grinding surface is almost flat), but it is sufficiently worn for any peck marks to be removed, and it is very well worn around all the edges. This sort of wear pattern is typical on saddle querns but not usually on ones that are otherwise so little worn. It could be that the quern was not pecked right to the edges and has therefore worn smooth much quicker. It is also possible that this was not used to grind grain - it is on the narrow side for a saddle quern suggesting it was intended for processing small quantities of material. It appears to be made from an extremely micaceous sandstone, possibly Devonian, but this will need to be further investigated. Well-finished saddle querns such as this (as opposed to those with rough bases and only tooled grinding surfaces) tend to be later prehistoric in date (Bronze or Iron Age). This is supported by the pottery dating (Early/ Middle Bronze Age) and a Middle Bronze Age radiocarbon date obtained on maloidae charcoal from an adjacent gully (1610-1420 calBC @95.4% probability).

5.2.4 ***Assessment of potential***: the saddle quern is of particular interest since it is of a slightly unusual shape, is extremely well made and little used and was recovered from a pit with little else. It seems highly likely that this is part of a placed deposit, especially given that it was positioned at the base of the uppermost fill, perfectly horizontal and grinding surface upwards. There needs to be some discussion of this in the publication.

5.2.5 ***Recommendations for further work:*** The deliberate placement of this quern needs to be discussed, as does its likely function. Some research would also be required to pin down the lithology of the stone, and a likely provenance more closely. This will probably have to be done without the aid of a thin section as the quern is complete. The quern will be tested for tin residues and also needs to be illustrated. A radiocarbon date is proposed to provide an absolute date for the artefacts and charred remains from Pit 4136.

5.3 Worked flint assessment

by Kate Cramp

5.3.1 ***Introduction:*** A total of 28 struck flints and one piece (1 g) of burnt unworked flint was recovered in the course of the excavations (Table 6). Most of this material, a total of 19 struck flints, came from a layer of dark soil (context 4381) that sealed a ringditch on Site B. On the basis of internal structural evidence, comparison with the Site A roundhouse, and a single radiocarbon date, the ringditch is interpreted as a late Iron Age roundhouse. The technological and morphological appearance of this small collection suggests a Mesolithic or perhaps early Neolithic date, although no closely datable tools were recovered to confirm this. The stratigraphic position of the flints above an Iron Age ditch indicates that the assemblage is redeposited.

5.3.2 The remainder of the material was widely distributed along the scheme and residual in later contexts. Overall the quantity of flint recovered seems remarkably small, given the scale of investigation. No worked flint was recovered from the Neolithic/ early Bronze Age monuments at Sites D and E, or from the middle Bronze Age pit and hearth group at Site C, in spite of intensive sievng of soil from component features.

Table 7: Quantification by context of the flint assemblage

Category:	Context:										Total:
	3046	*3438*	*3444*	*4060*	*4156*	*4380*	*4381*	*4454*	*4481*	*6014*	
Flake				1			9		1		11
Blade		1	1				5				7
Bladelike flake							3				3
Chip						1	2				3
Single platform blade core								1			1
Retouched blade	1										1
End scraper										1	1
Serrated flake					1						1
Total:	1	1	1	1	1	1	19	1	1	1	28
No. of burnt unworked flints:							1				1
Weight (g) of burnt unworked flints							1				1

5.3.3 ***Condition:*** The flintwork is generally in a fresh condition and, while mostly residual, is unlikely to have been subjected to significant post-depositional movement. The occasional piece (e.g. the flake from context 4060) is slightly more heavily rolled and damaged, suggesting that it may been repeatedly redeposited. Most flints are uncorticated or display a light incipient cortication. A number of flakes may have been deliberately snapped, presumably to create a fresh edge.

5.3.4 ***Raw material:*** At least three types of raw material are represented (in varying proportions) by the flint assemblage. The most abundant type consists of small flint

cobbles with a thin chattered cortex. Gravel or beach deposits may have provided a convenient supply of these nodules. Other flint types are present in much smaller quantities. Chalk flint, characterised by a thick unweathered cortex, is represented by an end scraper from context 6014. A single blade manufactured from chert was recovered from context 3438.

5.3.5 ***Provenance:*** Most of the flintwork (19 pieces) came from deposit 4381, a layer of black soil that extended across Site B. The remaining flints (nine pieces) were more thinly scattered along the scheme, with isolated examples occurring in a range of features including pits, postholes and layers.

5.3.6 ***Technology and dating:*** While the assemblage is dominated by unretouched flakes (11 pieces), blades and bladelike flakes are well represented by a combined total of ten pieces and might suggest a broadly Mesolithic or perhaps early Neolithic date for the collection from layer 4381 in particular. The shift from the production of blades in the Mesolithic period to the production of flakes in the later Neolithic and Bronze Age has been well documented elsewhere (e.g. Pitts 1978, Ford 1987). The blade-based character of the assemblage is evident not only in the number of blades and bladelike flakes it contains, but also in the presence of dorsal blade scars on flakes that are not strictly of bladelike proportions. The majority show careful preparation and removal, involving the use of platform edge abrasion and soft-hammer percussion, which is consistent with an industry of Mesolithic date. Several display use-wear on their edges.

5.3.7 A limited amount of knapping waste, including one core and three chips, is present in the assemblage and testifies to some on-site production. The core (24 g) has been manufactured on a small cobble of slightly cherty flint; a series of bladelet removals have been taken down one side from a simple platform with an abraded edge.

5.3.8 There are three tools in the assemblage: one retouched blade (3046), one end scraper (6014) and one serrated flake (4156). The retouched blade (sf. 3000) exhibits a short length of semi-abrupt retouch on the right-hand shoulder; a broad Mesolithic date is tentatively suggested for this piece. The serrated flake (sf. 4001) has also been made on a blade and displays a series of worn serrations on the left-hand edge. The end scraper, broken proximally, has been made on a side-trimming flake with neat abrupt retouch to the distal end and an area of invasive inverse retouch on the right-hand edge. It was burnt some time before it was broken, but is not closely datable.

5.3.9 ***Statement of potential:*** The assemblage is remarkably small given the scale of excavation, and the quantity of soil sieved from prehistoric features. The probable Neolithic/ early Bronze Age ritual monuments, the hengiform at Site E and two pit circles at Site D, produced no worked flint at all. The middle BronzeAge pit and hearth group at Site C produced burnt flint in significant quantity, but no worked pieces.The only concentration was a small scatter underlying the roundhouse at Site B, which is dated on radiocarbon and morphological grounds to the late Iron Age or early Roman period. This group, and the few other pieces, all appear to be residual in

later contexts. The assemblage has no intrinsic potential for further analysis, but the scarcity of worked flint from the scheme is striking.

5.3.10 ***Recommendations for further work:*** no further work is recommended on the flint assemblage. A publication text of c. 500 words and one or two tables should be prepared, using this assessment report as a basis.

5.4 Tin ore residue assessment

by Celine Nadal and Peter Bray

5.4.1 ***Introduction:*** Three bulk samples were selected for examination to determine whether any tin ore (cassiterite) was present. The samples were taken from the probable Bronze Age hearth at Site C (context 4453, hearth 4451, sample <4130>), and two background samples from a probable medieval buried soil (layer 4454, sample <4134>), also at Site C, and one of the pits (context 4015, pit 4016, sample <4027>) in the western timber/ pit circle at Site D (Early Bronze Age).

5.4.2 ***Methodology:*** The samples were initially wet sieved to three fractions, of greater than 500 micrometres, between 500 and 63 micrometres and between 63 and 53 micrometres fractions. Heavy liquid density separation was then undertaken, using sodium polytungstate, to split the size fraction into heavy (greater than 3g/cm3) and light (less than 3g/cm3) parts.

5.4.3 Each fraction was then inspected by X-ray Florescence (XRF) for each of the three different grain sized samples (>500, >63, >53 micrometers), and to investigate the origins of the tin. Reflected light microscopy was used to identify grains of cassiterite.

5.4.4 ***Results:*** Tin was found in samples <4027> and <4134>, but not in the lowest part of the probably Bronze Age Hearth (sample <4130>). In both the >500 and > 63 fractions the grains of cassiterite were possibly water-borne as they had a rounded appearance compared to a freshly crushed lab specimen of cassiterite.

Table 8: Quantification of tin presence in samples analysed

Sample	X-Ray Fluoresence Spectroscopy			Reflected Light Microscopy		
	>500 µm	>63 µm	>53 µm	>500 µm	>63 µm	>53 µm
4130	No tin peak	No tin peak	No tin peak	No grains of cassiterite	No grains of cassiterite	No grains of cassiterite
4027	No tin peak	Tin peak present	No tin peak	N/A	N/A	N/A
4134	Tin peak present	Relatively high level of tin	No tin	Grains of cassiterite	Grains of cassiterite	No Cassiterite

5.4.5 ***Statement of potential:*** The immediate subject of the assessment, the Bronze Age hearth deposits, did not contain identifiable traces of cassiterite ore, while both background samples did. Nevertheless, it is intriguing that this small project using a novel approach to detecting traces of cassiterite has produced some positive results. It suggests that further work might enable light to be cast on one of the major enigmas of British archaeology – why, despite the abundance of tin in Cornwall, and the weight of circumstantial evidence which suggests that it must have been exploited, is

there no direct archaeological evidence for tin working in Cornwall prior to the medieval period.

5.4.6 ***Recommendations for further work***: As an extension to this project it is proposed that further samples are examined, particularly from the Bronze Age pit fills at Site C (Pit 4136). The saddle quern found in the same pit will also be tested for residues.

5.5 Mineral samples assessment

by Roger Taylor

5.5.1 ***Introduction:*** During the sieving of bulk samples from all sites (mainly for recovery of charred plant remains , wood charcoal and artefacts) processing staff were briefed to scan the coarse residues for cassiterite pebbles, these having a distinctly darker appearance and heavier weight than the granite-derived gravel characteristic of the area. The intention was to assess the general frequency of surface deposits of tin ore in various periods by scanning all sieved residues in the course of normal bulk sample processing. No Cassiterite was found, but five fragments of uncertain origin were picked out for specialist identification, and to determine their archaeological significance, if any. See Section 5.6, the charred plant remains assessment, for details of samples processed, and the sieving method.

Table 9: Mineral samples identified

Sample Number	Context Number	Description	Discussion
1033	1198	2 fragments of irregular sub-angular aggregates of limonite (hydrated iron oxide) and white vein-quartz.	An association of natural formation in a wet soil profile.
4095	4391	A sub-rounded greenish grey rock fragment composed of a felted aggregate of very fine pale greenish acicular crystals, probably amphibole. There is also some black tourmaline associated with quartz.	The fragment is of calc silicate hornfels. Rocks of this type, referred to as calc flintas on the Geological Survey map, are common round the northern side of the St Austell Granite.
1042	1178	An irregular aggregate of tourmaline crystals and quartz.	
4066	4260	A fragment of vein quartz darkened by a content of dark green chlorite (a micaceous mineral). The quartz has been brecciated with the fragments subsequently enclosed by fine-grained hematite.	A mineral association and process of common occurrence in the metal lodes of Cornwall and of local origin.

5.5.2 ***Conclusions:*** None of the fragments are ore minerals or of metallurgical origin. All are characteristic of the general area in which they were found.

5.5.3 ***Statement of potential:*** As these minerals are all naturally occurring they have no archaeological potential.

5.5.4 ***Recommendations for further work:*** No further work is recommended.

5.6 Charred plant remains and wood charcoal assessment

by Gill Thompson, Robert Francis and John Summers

5.6.1 Introduction: During the excavations 258 bulk sediment samples were taken. These ranged in size from 10-60 litres and were processed using a Siraf-type flotation tank, with the flot collected on a 250µ sieve and the residue retained on a 500µ mesh. Samples were scanned for charred plant remains, wood charcoal, artefacts and potentially significant mineral residues (see Section 5.5, mineral samples assessment). 177 samples of flot which contained charred plant remains were submitted for assessment. The majority of the contexts represented are pits, post-holes and ditch fills.

5.6.2 ***Methodology:*** The flots were sieved on a 2mm sieve with the <2mm material assessed for charred plant remains and the >2mm material assessed for identifiable wood charcoal. Large samples were sub-divided using a riffle box and 1/8 or 1/16 was examined under the microscope. The light fractions from flotation were assessed for plant macro-remains by rapidly scanning the material under a binocular microscope at x10 to x20 magnification. Any cereal grain, chaff and seeds observed were provisionally identified and an estimate of abundance was made on a four-point scale: 1 present (up to 5 items); 2 common (5-25 items); 3 abundant (25-100 items); and 4 very abundant (>100 items). Charcoal retained on a 2mm sieve is generally considered to be identifiable, and the relative abundance of this fraction was recorded on the four-point scale outlined above. Each sample was examined for recent fractures and surfaces where the transverse section was visible, and the presence of ring-porous fragments (mostly *Quercus* sp., oak), and diffuse porous or semi-ring porous charcoal types were noted. Where supplied, material sorted from the heavy fractions was also scanned and included in the assessment.

5.6.3 ***Results:*** Most of the flots comprised primarily wood charcoal. Many of the samples were of highly comminuted material which would not be identifiable, but there were also some very substantial samples of large, well-preserved charcoal fragments probably containing more than a thousand fragments. In general, the quantities of charred plant remains other than wood charcoal were limited. Few samples produced cereal grains or chaff and the remains of seeds from wild plant taxa and other charred material of interest were not very common either. Among the charcoals, the range of taxa provisionally identified included *Quercus* sp. (oak), by far the dominant taxon across the assemblage, *Corylus/Alnus* (hazel/alder), Maloideae (hawthorn, apple, pear, etc), and fragments of twiggy material which may be *Calluna* (heather), as well as examples of possible *Ulmus* (elm) and *Fraxinus* (ash). Only the oak could be confidently recognised at low magnification and the other types are tentatively noted, and to be investigated further and confirmed in a detailed analysis using high power microscopy.

5.6.4 ***Charred plant remains, Site A (Lower Trenoweth Late Iron Age/Romano-British roundhouse):*** Twelve contexts from Site A produced cereal remains (3262, 3268, 3270, 3360, 3361, 3442, 3443, 3447, 3449, 3453, 3467, 3468), predominantly in the form of grains. These include wheat, most probably the free-threshing form (*Triticum aestivum/durum*), barley (*Hordeum* sp.), possibly a hulled variety, although it is unclear whether this was a 2-row or 6-row form, and oats (*Avena* sp.), although the absence of floret bases makes it impossible to distinguish wild or domesticated forms. Free-threshing wheat was also identified from rachis fragments found in context 3268. Barley rachis were found in context 3270, although it was not possible to distinguish 2- or 6-row varieties due to damage. Other cereal chaff was in the form of cereal-sized straw fragments in contexts 3268, 3360 and 3443. These samples have the highest concentration of cereal remains from any of the five sites examined. Most samples also produced seeds from wild plant taxa. These include plants from rough and disturbed ground (*Ranunculus* sp.; *Urtica* sp.; *Chenopodium* sp.; *Silene* sp.; *Polygonum* sp.; *Rumex* sp.; *Brassica/Sinapis* sp.), plants from wet areas (*Carex* sp. and cf *Juncus* sp.), heathland plants (*Danthonia decumbens*) and interestingly, a few seeds from brambles (*Rubus* sp.). Other material observed included fragments of stems from grasses (below cereal size), including culm nodes and bases, stems from dicotyledonous plants and rhizome fragments.

5.6.5 ***Charred plant remains, Site B (Belowda Late Iron Age roundhouse):*** Three contexts from Site B produced cereal remains: Context 4143 included grains and rachis fragments of possible free-threshing wheat (*Triticum* cf *aestivum/durum*), context 4144 produced grains of free-threshing wheat and oat (*Avena* sp.) and context 4377 produced wheat grains, although they were not identifiable to variety. Contexts 4143 and 4144 also included wild plant taxa characteristic of rough and disturbed ground (*Ranunculus* spp.; *Polygonum* cf *aviculare*; *Fallopia convolvulus*; *Chenopodium* sp.; *Stellaria media*; *Spergula arvensis*; *Galium* sp.) and sedges (*Carex spp.*) in quite high densities. Other material included grass culm nodes and culm bases, stems from dicotyledonous plants and fuel ash slag.

5.6.6 ***Charred plant remains, Site C (Belowda Bronze Age pit and hearth group):*** No cereal remains were recovered from Site C. Some seeds of wild plant taxa were observed, including plants from rough and disturbed ground (*Brassica/Sinapis* sp.) and sedges (*Carex* sp.), which are typical of wet areas. Other material included fragments of stems from grasses (below cereal size), including culm nodes and bases, stems from dicotyledonous plants and rhizome fragments.

5.6.7 ***Charred plant remains, Site D (Lane End Bronze Age timber/ pit circles):*** No cereal remains were recovered from Site D. Some seeds of wild plant taxa were observed, including plants from rough and disturbed ground (cf *Spergula arvensis*; *Silene* sp.; *Fallopia convolvulus*; *Polygonum* sp.; *Brassica/Sinapis* sp.) and plants from wet areas (*Montia fontana*; *Carex* sp.). Other material included fragments of stems from grasses (below cereal size), including culm nodes and bases, stems from dicotyledonous plants and rhizome fragments. Two contexts (4247 and 4241)

contained oblong items with no distinct surface characteristics. These have been provisionally interpreted as the faeces of mice/small mammals.

5.6.8 ***Charred plant remains, Site E (Royalton Neolithic/ Bronze Age? hengiform):*** No cereal remains were recovered from Site E. Some seeds of wild plant taxa were observed, including plants from rough and disturbed ground (*Fallopia convolvulus*; *Polygonum* cf *aviculare*; cf *Spergula arvensis*; *Silene* sp.; *Brassica/Sinapis* sp.), plants from wet ground (*Carex* sp. and cf *Juncus* sp.) and a few seeds from brambles (*Rubus* sp.). Other material included fragments of stems from grasses (below cereal size), including culm nodes and bases, stems from dicotyledonous plants and rhizome fragments. Context 1094 contained oblong items with no distinct surface characteristics. These have been provisionally interpreted as the faeces of mice/small mammals.

5.6.9 ***Discussion of the charred plant remains:*** The majority of the contexts that contained charred plant remains that are potentially of interest are from ditch fills. It is interesting that most of the cereals were found in these contexts, perhaps representing areas of refuse disposal or simply that these features are traps for waste material around the site. The greatest concentrations of charred plant remains, on Sites A and B, are probably a result of their likely domestic function. The indication from these assemblages is that wheat, barley and oats were used at the sites, although the small quantities present may present difficulties for detailed analysis. The absence of cereals and the limited quantities of other charred plant remains from sites C, D and E is striking. This may indicate non-domestic functions, although this interpretation would need to be tested using several other lines of archaeological evidence.

Table 10: Summary table showing the number of samples assessed in terms of the abundance of charcoal

	Number of charcoal samples					
	0 absent	**1 present** (up to 5 fragments)	**2 common** (5-25 fragments)	**3 abundant** (25-100 fragments)	**4 very abundant** (>100 fragments)	**Total no of samples assessed**
Site A	8	1	9	3	6	27
Site B	0	11	2	1	0	14
Site C	1	0	3	4	20	28
Site D (other than pit circles)	5	1	2	0	0	8
Site D (Western pit circle)	3	0	2	3	2	10
Site D (Eastern pit circle)	8	2	3	7	2	22
Site E	15	5	20	12	5	57

5.6.10 ***Wood charcoals, Site A (Lower Trenoweth Late Iron Age/Romano-British roundhouse):*** 27 samples were assessed, eight of which had no identifiable charcoal. This site's assemblage is possibly the most taxonomically diverse, although the dominant charcoal type is oak (*Quercus*) with several samples containing well over 100 fragments. Other ring porous taxa (e.g. *Fraxinus* and *Ulmus*) were also tentatively noted, along with diffuse porous woods (e.g. *Alnus*/*Corylus*/*Salix*, Maloideae and *Calluna*). Contexts 3270, 3360, 3361, 3443 and 3454 included some possible diffuse-porous roundwood.

5.6.11 ***Wood charcoals, Site B (Belowda Late Iron Age roundhouse):*** Site B produced the charcoal assemblage with the worst preservation. This site produced 14 samples with charcoal in the identifiable size range, but many contained fewer than five fragments, and most material here is unidentified. *Quercus* and *Corylus*/*Alnus* have been recorded. Context 4143 produced the largest sample from this site, and this contained several fragments of diffuse-porous roundwood.

5.6.12 ***Wood charcoals, Site C (Belowda Bronze Age pit and hearth group):*** Site C produced the most abundant charcoal assemblage. All except one of the 28 samples assessed contained charred wood in the identifiable size range, and 20 of these are classed as having over 100 fragments. The majority of the charcoal appears to be *Quercus* but there is also *Corylus*/*Alnus* and possibly Maloideae including some apparent roundwood fragments within samples <4019>, <4106>, <4107>, <4108>, <4114>, <4130>, <4136>, and <4143> (contexts 4140, 4433, 4437, 4426, 4426, 4453, 4452 and 4453).

5.6.13 ***Wood charcoals, Site D (Lane End Bronze Age timber/ pit circles):*** 40 samples were assessed, including 22 from the eastern pit circle (4324) and 10 from the western pit circle (4022). Overall, charcoal was not abundant at Site D but there are 14 samples from the pit circles which each contained more than 25 fragments. *Quercus* appears to be the most common taxon with certain fragments showing possible tyloses, suggesting the wood came from more mature trees. Diffuse to semi ring porous (possibly Maloideae) wood also appears to be present. Sample <4074> from context 4330 contains, uniquely, twig-like material. This is similar in shape to charred *Calluna* but will need to be confirmed through high powered microscopy.

5.6.14 ***Wood charcoals, Site E (Royalton Neolithic/ Bronze Age? hengiform):*** A total of 57 samples was assessed from site E, and 15 of these contained no identifiable charcoal. The remaining samples were dominated by *Quercus* charcoal in quantities ranging from a few to well over 100 fragments. Some of the *Quercus* appeared to have tyloses present in the vessels, suggesting the wood came from more mature trees. Also present but in apparently much smaller quantities were diffuse to semi ring porous charcoal, possibly *Calluna* and *Corylus*. Much of the material from this site was encrusted with sediment or contained iron-rich inclusions which obscured the surfaces and had contaminated the wood anatomy.

5.6.15 ***Statement of potential:*** further analysis of selected flot samples could provide evidence into the patterns of prehistoric plant resource use for fuel, construction and

food and the changing environments around the sites and the use of agricultural land and woodland. The precise selection of samples should be undertaken once the assessments of the plant assemblages have been linked to the full stratigraphic records for the sites. These may then contribute to the interpretation of specific features and activity areas at the sites.

5.6.16 ***Recommendations for further work:*** contexts 3270, 3360, 3361, 3443 and 3454 from Site A included some possible diffuse-porous roundwood charcoal and should be included in future analysis to investigate the use of woods within the roundhouse and indicate the use of locally available woodland products. Charred plant remains from contexts 4143, 4144 and 4377 at Site B would also merit further analysis. Most of the contexts at Site C produced significant quantities of charred wood and the material from this site offers good opportunities to investigate aspects of local ecology and wood use. Detailed analysis is recommended for the hearth (4453), the charcoal-rich middle fill (4139) of Bronze Age pit 4136, as well as its primary fill, 4140. The fill, 4448, of the western terminus of the ditch, 4446, enclosing the pit group at Site C, should also be further analysed as should one of contexts 4426, 4433, 4437 and 4443 which each contain oak, some roundwood, and possibly some diffuse porous wood. It would be interesting to compare the charcoal deposits from the eastern and the western pit circles at Site D, to which end a number of contexts from each could be considered, 4239, 4241 and 4247 from the western and 4237, 4263, 4270 and 4315 from the eastern. Further analysis of charcoal from Site E offers the opportunity to gather evidence for the timber material used in the hengiform. Thus, it is recommended that material from two post pipes (1113 and 1120) and three pit fills (1085, 1178 and 1131) is analysed in detail.

5.7 Palaeoenvironmental sampling at CH 3000-3200

by Carl Champness

5.7.1 ***Introduction:*** In pursuit of the palaeoenvironmental objectives of the project, an investigation was carried out in a stream valley to the south-west of Belowda Lane (chainage 3000-3200) (this work replaced the originally proposed sampling excercise in the Holywell Valley, that location proving unsuitable for the purpose). The sampling was carried out in the gently sloping stream valley that separates Castle-an-Dinas and Belowda Beacon, at 131 m and 135 m above OD. The stream drains into a tributary of the River Fal, which crosses the valley bottom running north-south and enters the main river 1 km to the south-west. The solid geology of the area is mapped as fine granite in the base of the valley and Hornfelsed slate on the slopes, with overlying superficial deposits of alluvium and peat (BGS, 347; Cranfield University digital soils mapping).

5.7.2 ***Aims:*** The main aims of the palaeoenvironmental sampling exercise can be summarised as follows:

- To characterise the sediment sequence and patterns of accumulation across the valley, including the depth and lateral extent of major stratigraphic units, and to identify any basal land surface that may have been buried.
- To identify the archaeological and palaeoenvironmental potential of the sequence, highlighting deposits and parts of the sequence that could potentially provide an environmental context for the area.
- To locate suitable deposits and material that have the potential for dating, by using either radiocarbon dating or other dating techniques.
- To provide information relating to the best preserved sedimentary sequence and palaeoenvironmental potential, to aid in the decision making process of selecting one of the sample locations for further sampling if necessary.

5.7.3 ***Methodology:*** The initial sampling exercise consisted of 11 auger holes set out at 20 metre intervals along a 200 metre transect following the southern edge of the proposed scheme, between CH3000 and CH3200. A watching brief was also maintained during the excavation of a stream culvert in the base of the valley in order to assess whether suitable deposits for palaeoenvironmental assessment could be located. Where possible, relevant sections of the culvert and associated works were recorded. Samples were taken where appropriate and practical.

5.7.4 ***Augering methodology:*** Each location was sampled using a standard hand operated soil auger fitted with a screw head. All locations were sampled to a maximum depth of 3.5 metres or until the underlying natural was proven. The sediment profiles recovered at each location was recorded according to standard sedimentary terminology (colour, texture, compaction and inclusion) and was laid out according to depth. Care was taken as to minimise contamination of samples through soil sloughing into hole upon re-inserting the auger or from collapse of the edges of the auger hole.

5.7.5 ***Environmental sampling:*** A small number of bulk samples were taken from the palaeochannel section investigated as part of the auger survey, to assess the presence and absence of key environmental indicators (pollen, waterlogged plant remains, and insects). One sequence from the palaeochannel was chosen for palaeoenvironmental investigation based on the availability of suitable deposits and the perceived character of the sequence. Two monolith samples and associated incremental samples were obtained from the edge of the channel in the culvert trench (OS NGR 195620E, 61565N). Their positions were located on the section drawing, highlighting the context and boundaries contained within the monolith. Two 10g sub-samples were taken for radiocarbon dating from a lower and upper bedded peat (2005), deposits recorded within monolith 1. In addition samples were taken to assess the potential for waterlogged plant remains and insects. Environmental sampling procedures and processing were carried out in accordance with the OA Environmental Sampling Guidelines and Instruction Manual (OA, July 2002) which are based on guidelines prepared by English Heritage (2002).

5.7.6 ***Soils and ground conditions:*** The auger survey typically revealed humic soils that had peaty surface horizons and peats (laploydsoil association). These were formed due to processes of seasonal waterlogging in the bottom of the valley through rising ground-water levels and impeded drainage on the slopes. The accumulation of peat on the slopes could reflect differences in geology and drainage, but the impact of peat cutting could have also had a significant effect. The natural vegetation in the area was tall grass that had developed into hummocks, many of which were approximately between 0.10 m-0.30 m in height. These were more developed in the base of the valley and likely reflect seasonal waterlogging during the winter months through raised ground-water levels.

5.7.7 ***Auger survey results:*** The auger survey revealed a limited sequence of peaty/silty loam topsoils that were between 0.04 m – 0.40 m in depth overlying either sandy gravels near the west, or weathered bedrock towards the east. No deep sediment sequences were identified in the base of the valley and most of the peats were concentrated on the eastern slope rather than at the base. The eastern slope, represented by auger holes 5-11, consisted of dark brownish black silt peats that were between 0.04 - 0.2 m in thickness. These were overlying red gritty silt bedrock, which probably impeded drainage and was responsible for the peat growth on the slope. Auger holes 1-4, located at the base of the slope, consisted of dark brown silt loam topsoil with occasional grit-sized inclusions. These soils were between 0.04 m - 0.40 m, and were overlain by poorly sorted angular to sub-angular sandy gravels. In places these were found to overly thin deposits of colluvium that derived from the erosion of the slopes. The gravels appeared to be free draining and could offer an explanation of why the topsoil appeared to be less peaty in nature at the base of the valley. The auger survey indicates that this valley is likely to have been disturbed by peat cutting in the past, although no direct evidence for this was found, and that some of the soils of the valley could have been improved in the past for use as pasture or arable land.

5.7.8 ***Palaeochannel section results:*** During the watching brief on the stream culvert, two palaeochannels were identified in the base of the valley running from north to south

along the line of the present stream. Three sections within the route corridor were recorded and their position plotted. In each location former channel deposits were observed that had the potential for dating and preservation of environmental evidence. The upper channel, approximately 6 metres across and 0.70m in depth, consisted of silt clay deposits with rare well-sorted rounded pebble inclusions. The lower broader channel, approximately 10m wide and 0.5 m in depth, consisted of finely, horizontally bedded sandy silts and peats (context 2005) overlying natural sandy gravel. These peats were concentrated at the edges of the channel, which was probably subject to slower flow conditions. The horizontally bedded sandy silts and peats probably represent seasonal changes in flow. The sandy silt represents higher flow conditions during the winter months, while peat would have accumulating during the dryer months with the reduction in flow at the edges of the channel. They probably reflect a relatively stable period when the patterns of sedimentation and flow dynamics remained constant. Incremental 10L samples and monolith samples 1 and 2 were taken through these deposits for more detailed assessment and to provide samples for palaeoenvironmental assessment. All of the 10L samples were floated by hand but, although waterlogged seeds and insects were observed in sample <20004>, the frequency of both of these palaeoenvironmental indicators was low. Logging of the monolith samples taken from section 2 revealed a greater level of detail of the sequence than was possible in the field. Context 2005 was found to consist of two phases of finely bedded silty sand/peat accumulations, divided by a thin layer of silty sand 0.06 m thick. This represents a partial break in the sequence, when the flow of the stream was of a sufficient strength and depth to inhibit peat growth at its edges. It could also represent a truncation horizon and a time gap in the sequence. The upper and lower parts of deposit 2005 may therefore be separated by an unspecified period of time. A lower clayey silt deposit was also identified in the base of the sequence overlying the natural gravels.

5.7.9 ***Statement of potential:*** The culvert watching brief revealed several sections through two former channels of the stream, which have the potential for palaeoenvironmental interpretation. The deposits were sampled for a range of different environmental indicators. The palaeoenvironmental sampling was useful for identifying suitable sites for pollen samples to be taken, and also in providing samples for dating the pollen monoliths. The samples taken from the palaeochannel provide an 'off-site' environmental sequence, potentially spanning the mid/late Bronze Age to the modern period (see radiocarbon dating assessment below). The sequence is sufficiently close to Castle-an-Dinas (700m to the north-west) and the Site A roundhouse (300m to the east) to provide directly relevant information on contemporary vegetation and land-use in the later prehistoric and Roman periods.

5.7.10 ***Recommendations for further work:*** Sufficient stratigraphic work has been undertaken to place the sampled sequence in context. The pollen from the sequence has been assessed, indicating good preservation, and should be taken forward for full analysis (See pollen assessment below). Two radiocarbon dates have so far been obtained, on the top and bottom of the monolith sequence respectively, and up to four

more are likely to be required, to date significant change horizons in the pollen sequence (See radiocarbon dating assessment below).

5.8 Pollen assessment

by P Allen and A Brown

5.7.11 ***Introduction:*** Staff at the University of Exeter were contracted to undertake the palaeoenvironmental assessment of sediments sampled during the excavations. This included the stratigraphic description of selected sediments and the assessment of their potential for pollen analysis. The purpose of any pollen analysis is to assist in palaeoenvironmental reconstruction, in both the immediate vicinity of archaeological features and the wider landscape.

5.7.12 ***Site details*** : A total of 10 monoliths were assessed for their pollen potential, from the following locations:

- Site A (Lower Trenoweth Late Iron Age/ Romano-British roundhouse) - monoliths 3062, 3068, 3069 and 3080
- Site B (Belowda Late Iron Age roundhouse) - monolith 4137
- Site C (Belowda Bronze Age pit and hearth group and medieval? buried soil) monoliths 4129 (middle Bronze Age) and 4131 (?medieval)
- Site E (Royalton hengiform) - monolith 1053 (Neolithic/ early Bronze Age?)
- Belowda Lane palaeochannel - monoliths 20005 and 20006 (middle Bronze Age to post-medieval).

5.7.13 The monoliths from Site A were taken from ditch features associated with an Iron Age/Romano British roundhouse, where sample 3062 was taken through the deposits of an inner enclosure ditch, and overlapping sample 3069 from the deposits sealing the ditch. Monoliths 3068 and 3080 are overlapping samples taken from the outer ditch, where the former represents the lower deposits. The single monolith 4137 from Site B was taken through the basal deposits of a roundhouse ditch, and 4131 from Site C was taken through an undated buried soil, 4454, underlying a stone field bank of probably later medieval date. The other sample from Site C, 4129, was taken through the fills of a Bronze Age pit. The single monolith 1053 from Site E was taken through the fills of one of the pits from the segmented ditch of a hengiform monument (Neolithic or Bronze Age?). Part of the pit fill consisted of black soil, which may represent redeposited turf.

5.7.14 ***The palaeochannel samples:*** Samples 20005 (Monolith1) and 20006 (Monolith 2) came from the lower deposits of a palaeochannel sequence. The samples overlapped by c. 0.50m, where Sample 2005 encompassed the basal fill of horizontally bedded sand/peat. Two radiocarbon samples were taken from this monolith, which provided dates of 1500-1290 cal BC (95.4% probability) for the base (at 0.42-0.43m depth), and cal AD 1510-1960 cal BC (95.4% probability) for the top (at 0.03-0.04m depth).

5.7.15 ***Methods:*** On arrival at the laboratory the monoliths were cleaned to allow clear visual inspection of the sediment. The cleaned monoliths were then logged and stratigraphic descriptions were recorded. They were then placed on a mechanical

stage, underneath a fixed position digital camera where they were advanced at 0.08m intervals, and high-resolution images were then taken. The images were combined using ArcSoft Panorama 3.0 software, producing a continuous digital image of each monolith. The monoliths were cleaned and prepared for pollen analysis in the laboratory. The sampling interval was not uniform but varied throughout the sedimentary sequence with a sample thickness of 5mm employed. At each selected level, between 1.5g – 4g (wet weight) of sediment were removed, and 1g used per sample. Two *Lycopodium* (batch number 483216) tablets were added to each sample prior to chemical preparation for the purposes of calculating pollen and charcoal concentrations as described by Stockmarr (1971). The chemical preparation of the samples followed the University of Exeter Palaeoenvironmental Laboratory Hydrofluoric acid digestion based on the procedure as described by Barber (1976). All counts were undertaken using a Nikon Optiphot microscope at a magnification of x400, and x1000 when needed. A target of 300 grains of pollen per level was set, excluding exotic grains, spores and aquatics to give a total land pollen (TLP) sum. However, quite often the concentration of pollen was far too sparse to count 300 palynomorphs, and in these cases one slide (22x22mm) was completely counted for the assessment. Identification of pollen grains and spores was aided with the use of published identification keys, including Faegri & Iversen (1989) and Moore, Webb & Collinson (1991) and by comparison with modern pollen reference material (type slides) held in the Department of Geography, University of Exeter.

5.7.16 ***Results and interpretation:*** From the stratigraphy of the monoliths, 32 levels were identified as potential organic rich layers that were sub-sampled for pollen assessment. The monolith numbers and depth that the material came from is presented below.

Table 11: Assessed pollen levels from Bodmin-Indian Queens road scheme.

Site and Monolith	Depth of sample (m)
Site A 3062	0.095-0.10 0.21-0.215 0.365-0.37
Site A 3068	0.08-0.085 0.15-0.155
Site A 3069	0.20-0.205 0.305-0.31
Site A 3080	0.03-0.035 0.22-0.225 0.325-0.33
Site B 4137	0.09-0.095 0.255-0.26 0.375-0.38
Site C 4131	0.09-0.095 0.23-0.235 0.34-0.345

Site and Monolith	Depth of sample (m)
Site C 4129	0.065-0.07 0.23-0.235 0.425-0.43
Site E 1053	0.10-0.105 0.205-0.21
Palaeochannel 20005	0.065-0.07 0.12-0.125 0.20-0.205 0.28-0.285 0.39-0.395 0.41-0.415 0.455-0.46
Palaeochannel 20006	0.15-0.155 0.24-0.245 0.315-0.32 0.345-0.35

5.7.17 The counted pollen has not been placed into a zoned pollen diagram (TGView) as the number of levels is too few, and the curves would be misleading. Instead, the results are presented as either actual counts or, where applicable (ie where at least 100 grains were counted), percentages, in Appendix 1. The results of the pollen assessment and associated interpretations from each site are summarised below.

5.7.18 ***Site A, samples 3062 and 3069 from the Late Iron Age/Romano-British roundhouse inner ditch deposit:*** All three slides from Monolith 3062 contained fine degraded organic material, although the presence of this material did not impede counting. The range of the recorded pollen from the lower two levels (0.21-0.215m and 0.365-0.37m) was very limited, with only one hazel-type (*Corylus avellana*-type) pollen grain in each. Both samples were dominated by herbaceous taxa of primarily grasses (Poaceae) and dandelion-type (Lactuceae) pollen. The high frequency of the latter, being recognisable even when highly degraded, suggest that the lower deposits in this feature may have been subjected to processes that have degraded and eroded the pollen, and therefore it is unsuitable for a full count (500 grains). The pollen count at a depth of 0.095-0.10m sample 3062 contained limited arboreal pollen of alder (*Alnus)* and hazel-type (*Corylus avellana*-type), whilst shrubs were represented by heather (*Calluna vulgaris*), heaths (Ericaceaous), and bog myrtle (*Myrica gale*) pollen. The herbs were the dominant pollen group of this level, with grasses (Poaceae) being recorded the most frequently. Additional herbs include meadowsweet (*Filipendula*), sedges (Cyperaceae) and cow parsley family (Apiaceae). The presence of ribwort plantain (*Plantago lanceolata*) may be indicative of anthropogenic activity. The pollen preservation was acceptable and this level would be suitable for a full count.

5.7.19 Both slides from sample 3069 contained degraded organic material, however the quality of the recorded pollen was acceptable. Both samples contained very limited arboreal pollen of hazel (*Corylus avellana*-type) and limited shrubs. Herbaceous pollen was the most frequently recorded group, however these were still limited in the lower sample (0.305-0.31m). Grasses (Poaceae) dominated the herbaceous assemblage in the latter, however the high presence of dandelion-type (Lactuceae) is notable and may be indicative of degradation and poor preservation of a wider range of pollen types. Other herbaceous pollen includes sedges (Cyperaceae) and ribwort plantain (*Plantago lanceolata*), plus the aquatic alternate water-milfoil (*Myriophyllum alterniflorum*) was also recorded. A full count of this level, would produce a detailed understanding of the pollen representation, and determine if the absence of arboreal and relatively limited range of herbaceous pollen was significant, or a result of a change in pollen preservation and post deposition processes. Therefore a full count is a practical option for this level. However, the pollen count in the lower sample (taken at 0.305-0.31m depth) is extremely sparse, and not suitable for a full count.

5.7.20 *Summary of the pollen assessment from Site A, Monoliths 3062 and 3069:* The range of pollen from monolith 3062 was relatively limited. The preservation condition of the palynomorphs was almost equal between "good" and "crumpled" indicating many grains have been damaged or degraded. The consistently high presence of dandelion-type (Lactuceae) suggests that the site had been subjected to processes that erode and destroy pollen, and thus make a confident interpretation difficult. However, the pollen counts from the uppermost sample (0.095-0.10m depth) were slightly better. Arboreal type pollen was very limited, however the presence of heather (*Calluna vulgaris*), heaths (Ericaceaous), and bog myrtle (*Myrica gale*) suggests some element of heathland in the area. In addition, the assemblages were dominated by grass (Poaceae) pollen, indicating a primarily open landscape, and the presence of meadowsweet (*Filipendula*) and sedges (Cyperaceae) suggest that conditions during the deposition of the upper deposits were damp, although meadosweet also occurs in dry conditions. The presence of ribwort plantain (*Plantago lanceolata*) may indicate human activity at the site, but this is a single grain identification and should not be over interpreted. It is suggested that this sequence is not submitted for further analysis.

5.7.21 The range of pollen from monolith 3069 was relatively limited and the dominant pollen types are indicative of an open grassland or heath e.g. grasses (Poaceae), heather (*Calluna vulgaris*) and sedges (Cyperaceae). The preservation condition of the pollen was "good" closely followed by "crumpled" indicating that many of the grains have been damaged (corroded and ruptured), possibly due to post deposition processes or deposition in highly oxygenated environments. The high frequency of dandelion-type (Lactuceae) may suggest a poor or reduced preservation potential, as this pollen type is more resistant to decay. The presence of ribwort plantain (*Plantago lanceolata*) may represent anthropogenically induced disturbed ground, however this is a tentative interpretation as the frequency that these types were recorded was notably low. The presence of alternate water-milfoil (*Myriophyllum*

alterniflorum) indicates acidic conditions within areas of still or slow flowing water, such as a drainage ditch, ponds, pools or slow streams. The pollen evidence when considered with the stratigraphy from monolith 3069 indicates a disturbed area, possibly topsoil or an area prone to damp/waterlogged conditions. It is suggested that this sequence is not submitted for further analysis.

5.7.22 ***Site A, samples 3068 and 3080 from the Late Iron Age/Romano-British roundhouse outer ditch deposits:*** Both slides from Monolith 3068 contained a high amount of degraded organic material, however the quality of the recorded pollen was acceptable. Arboreal pollen was dominated by hazel (*Corylus avellana*-type), and shrub pollen, including heather (*Calluna vulgaris*), heaths (Ericaceae) and bog myrtle (*Myrica gale*) were also present. Herbaceous pollen was the most frequently recorded group and was dominated by grasses (Poaceae). Other herbaceous taxa included sedges (Cyperaceae), bedstraws (*Galium*), dandelion-type *(Taraxacum*) and cinquefoils (*Potentilla*). The high presence of dandelion-type (Lactuceae) pollen is notable and may be indicative of degradation and poor preservation of a wider range of pollen types. Evidence for potential human activity was present in the form of ribwort plantain (*Plantago lanceolata*) in the sample at a depth of 0.8-0.85m. This sample also contained pollen from the aquatic alternate water-milfoil (*Myriophyllum alterniflorum*) and spores are represented by the bog moss (*Sphagnum*). The pollen count for both samples was reasonable, however, a full count may not be practical for the lowermost deposits.

5.7.23 All three slides from Monolith 3080 contained degraded organic material. However, the quality of the recorded pollen was acceptable. Arboreal types were very limited at all levels, and included pollen of hazel-type (*Corylus avellana*-type), alder (*Alnus*), birch (*Betula*) and oak (*Quercus*). Bog myrtle (*Myrica gale*) pollen was also consistently present. The range of herbaceous pollen was relatively limited, with grasses (Poaceae) being most frequently recorded, followed by dandelion-type (Lactuceae) and sedges (Cyperaceae). Common knapweed (*Centaurea nigra*) and dandelion (*Taraxacum*) pollen were present at 0.03-0.035m depth. The aquatic pollen of alternate water-milfoil (*Myriophyllum alterniflorum*) and bog moss (*Sphagnum*) spores were present in the lower two samples (0.22-0.225m and 0.325-0.33m depth). The high frequency of dandelion-type (Lactuceae) and the limited range of herbaceous pollen is notable and may be indicative of degradation and poor preservation at the site. A full pollen count of all levels would produce a detailed understanding of the pollen representation, and determine if the absence of human indicator types and the relatively limited range of herbaceous pollen were significant or a result of a change in pollen preservation and post deposition processes. A full count is a practical option for all levels from Monolith 3080.

5.7.24 *Summary of the pollen assessment from Site A, Monoliths 3068 and 3080:* The range of pollen from Monolith 3068 was relatively limited, with arboreal species represented by hazel (*Corylus avellana*-type) pollen. The dominant pollen types for the monolith are indicative of an open grassland or heath e.g. grasses (Poaceae), heather (*Calluna vulgaris*) and sedges (Cyperaceae). The preservation condition of

the pollen was "good" and "crumpled" indicating that many of the grains have been damaged (corroded and ruptured), possibly due to post deposition processes or deposition in highly oxygenated environments. The potential human activity represented disturbed ground, in the form of ribwort plantain (*Plantago lanceolata*), however, this is a tentative interpretation as the frequency these types were recorded at was notably low. The presence of alternate water-milfoil (*Myriophyllum alterniflorum*) indicates acidic conditions within areas of still or slow flowing water, such as a drainage ditch, ponds, pools or slow streams. The pollen evidence when considered with the stratigraphy from monolith 3068 indicates a disturbed environment, possibly a small stream or drainage ditch.

5.7.25 The range of pollen from Monolith 3080 was relatively limited, with notable low frequencies of arboreal species. The dominant pollen types for the monolith are indicative of open grassland or heath e.g. grasses (Poaceae), heather (*Calluna vulgaris*) and sedges (Cyperaceae). The preservation condition of the pollen was "good" distantly followed by "crumpled" indicating that many of the grains have been damaged (corroded and ruptured), possibly due to post deposition processes or deposition in highly oxygenated environments. The high frequency of dandelion-type (Lactuceae) pollen may also suggest a poor or reduced preservation potential, as this pollen type is more resistant to decay. The presence of alternate water-milfoil (*Myriophyllum alterniflorum*) indicates acidic conditions within areas of still or slow flowing water, such as a drainage ditch, ponds, pools or slow streams. The pollen types from monolith 3080 and the stratigraphy indicate a damp disturbed ground environment.

5.7.26 Given that the two monoliths overlap within the sequence, it will be interesting to find out through further analyses if the reduction in arboreal pollen shown in the upper monolith, 3080, is an actual reflection of conditions surrounding the site, or is a consequence of preferential preservation.

5.7.27 ***Site B sample 4137, from the basal fills of a Late Iron Age roundhouse ringditch:*** All three slides from Monolith 4137 contained degraded organic material. However, the quality of the recorded pollen was acceptable. The pollen counts from two of the samples were limited, however that for the intermediate level, at 0.255-0.26m was relatively high. Arboreal pollen represented a fairly high proportion in the pollen assemblage, with hazel (*Corylus avellana*-type) the most dominant, with limited alder (*Alnus*), oak (*Quercus*) and birch (*Betula*). Shrubs were represented by the presence of heather (*Calluna vulgaris*), heaths (Ericaceae) and bog myrtle (*Myrica gale*) pollen. The range of herbaceous pollen was relatively diverse, with grasses (Poaceae) recording the highest frequency. Other herbaceous types include daisy and thistle family (Asteraceae), cow parsley family (Apiaceae), meadowsweet (*Filipendula*), and devil's bit scabious (*Succisa pratensis*). Evidence for potential human activity was present in the form of ribwort plantain (*Plantago lanceolata*). The high frequency of dandelion-type (Lactuceae) and limited range of herbaceous pollen is notable in sample 0.09-0.095m depth and may be indicative of degradation and poor preservation at this level. A full count from all levels would produce a detailed

understanding of the pollen representation and determine whether differences in the assemblages from the profile reflected 'actual' landscape changes or were as a result of preferential pollen preservation; therefore a full count is a practical option for all levels.

5.7.28 *Summary of the pollen assessment from Site B, Monolith 4137:* The range of pollen from Monolith 4137 varied notably between levels. Overall there was a relatively limited range of pollen types, with prominent low frequencies of arboreal pollen types at certain levels. The dominant pollen types for the monolith indicate an open grassland or heath e.g. grasses (Poaceae), heather (*Calluna vulgaris*) and sedges (Cyperaceae). However, the presence of arboreal pollen such as hazel (*Corylus-avellana*-type), oak (*Quercus*), birch (*Betula*) and alder (*Alnus*) in combination with spores such as ferns (Filicales), suggest small stands or isolated presence of woodlands within the area. The preservation condition of the pollen was "good" distantly followed by "crumpled" indicating that some of the grains had been damaged (corroded and ruptured) either due to post deposition processes or because they were deposited in highly oxygenated environments. The high frequency of dandelion-type (Lactuceae) pollen may also suggest poor or reduced preservation potential, as this pollen type is more resistant to decay. Human activity is hinted at by pollen from plants typical of disturbed ground, in particular ribwort plantain *Plantago lanceolata*, which may indicate pastoral activity was taking place close by. The pollen types and the monolith stratigraphy indicate a damp disturbed ground environment.

5.7.29 ***Site C, sample 4131 from a buried soil underlying a (medieval?) stone bank:*** All three slides from Monolith 4131 contained degraded organic material however the quality of the recorded pollen was acceptable. Limited arboreal pollen of hazel (*Corylus avellana*-type) and oak (*Quercus*) was present in the lower two samples (0.23-0.235 and 0.34-0.345m depth), with one pollen grain each of rose family (Rosaceae) at a depth 0.23-0.235m, and heather (*Calluna vulgaris*) at a depth of 0.09-0.095 m. The range of herbaceous pollen was very limited, with grasses (Poaceae) being most frequently recorded, followed by dandelion-type (Lactuceae) and sedges (Cyperaceae). In addition alternate water-milfoil (*Myriophyllum alterniflorum*) pollen was recorded at 0.34-0.345m depth, and bog moss (*Sphagnum*) spores were present at all levels; the latter being most marked in the uppermost sample (0.09-0.095m depth). The high frequency of dandelion-type (Lactuceae) and limited range of herbaceous pollen, especially in the uppermost sample (0.09-0.095m depth) is notable and may be indicative of degradation and poor preservation at the site. A full count from the lower two levels would produce a detailed understanding of the pollen representation, and determine if the absence of human indicator types and the relatively limited range of herbaceous pollen were significant. However the concentration of pollen at the uppermost level was exceptionally low, with 21 palynomorphs being recorded for 279 exotics, therefore a full count would be impracticable.

5.7.30 *Summary of the pollen assessment from Site C, Monolith 4131*: The range of pollen from Monolith 4131 varied notably between the three levels. Overall there was a

relatively limited range of pollen types, with prominent low frequencies of arboreal pollen. The dominant presence of grasses (Poaceae), heather (*Calluna vulgaris*) and sedges (Cyperaceae) indicate open grassland and/or a heather/heath environment. However, the presence of arboreal pollen such as oak (*Quercus*) in combination with spores such as ferns (Filicales), may suggest very small stands of woodlands within the area. The preservation condition of the pollen was "good" very closely followed by "crumpled" indicating that many of the grains have been damaged (corroded and ruptured), possibly due to post deposition processes or deposition in highly oxygenated environments. The high frequency of dandelion-type (Lactuceae) pollen may also indicate a poor or reduced preservation potential, as this pollen type is more resistant to decay. The presence of alternate water-milfoil (*Myriophyllum alterniflorum*) pollen indicates acidic conditions within areas of still or slow flowing water, such as a drainage ditch, ponds, pools or slow streams. The pollen types and monolith stratigraphy indicate a damp open ground environment.

5.7.31 Further work on this monolith would only be justified if the sequence was dated. Before radiocarbon dates are obtained, the monolith needs to be examined by a soil micromorphologist to determine the degree of bioturbation and assess the risk of contaminated/ redeposited sample material. The high degree of bioturbation (root action and animal burrowing) recorded in extant hedge banks along the scheme casts doubt on their suitability for sampling.

5.7.32 ***Site C, sample 4129 from a probable Bronze Age Pit:*** Three slides from all three levels within Monolith 4129 were completely counted for the assessment; however the concentration of pollen was so sparse that the highest count of pollen was 3 grains, concurrent with a total count for *Lycopodium* of 153. At best, 5 palynomorphs were recorded for 145 exotics at 0.065-0.07m depth. The material from this monolith is therefore unsuitable for a full count.

5.7.33 ***Site E, single sample 1053 from a pit associated with the hengiform monument:*** Both samples from Monolith 1053 contained degraded organic material, however, the quality of the recorded pollen was very good although some of the grains had been damaged (crumpled, corroded and ruptured), possibly due to deposition in highly oxygenated environments. Counts for arboreal pollen were relatively high, and included pollen of hazel (*Corylus avellana*-type), alder (*Alnus*) and oak (*Quercus*). In addition, limited pollen of heather (*Calluna vulgaris*) and bog myrtle (*Myrica gale*) represented the shrubs. The most diverse range of pollen types recorded was herbaceous, dominated by grasses (Poaceae) with some dandelion-type (Lactuceae) and sedges (Cyperaceae) pollen; the latter being better represented in the lower sample (0.205-0.21m depth). This sample also contained the disturbance indicator ribwort plantain (*Plantago lanceolata*) Aquatic pollen is represented by alternate water-milfoil (*Myriophyllum alterniflorum*), whilst bog moss (*Sphagnum*) and ferns (Filicales) were represented by spores. The varied range of herbaceous pollen is notable, and in very good condition. A full count of both levels would produce a detailed understanding of the pollen representation, and determine if the absence of

human indicator types in the upper sample were significant; therefore a full count is recommended.

5.7.34 *Summary of the pollen assessment from Monolith 1053:* The range of pollen from Monolith 1053 was relatively varied. The dominant arboreal type for the core was hazel (*Corylus avellana*-type), whilst the presence of alder (*Alnus*) indicates damp or wet conditions in the pollen catchment area. In addition, the presence of oak (*Quercus*) and birch (*Betula*) in combination with spores such as ferns (*Filicales*), suggest small stands or isolated presence of woodlands within the area. The herbs were dominated by pollen from grasses (Poaceae), which may indicate expansive grassland or clearings within in a woodland context. Plus the presence of heather (*Calluna vulgaris*) indicates some element of heather/heathland. Potential human activity is represented by disturbed ground, in the form of ribwort plantain (*Plantago lanceolata*). The presence of alternate water-mylfoil (*Myriophyllum alterniflorum*) indicates acidic conditions within areas of still or slow flowing water, such as a drainage ditch, ponds, pools or slow streams. The pollen types and core stratigraphy from Monolith 1053 indicates a damp open ground environment. Therefore a full count is a practical option for this monolith.

5.7.35 ***The Palaeochannel Sequence, Samples 20005 and 20006:*** All seven slides from Sample 20005 contained degraded organic material, however the quality of the recorded pollen was very good. Arboreal pollen was generally well represented in the lower four samples (encompassing 0.28-0.46m depth) and was dominated by hazel (*Corylus avellana*-type), alder (*Alnus*) and birch (*Betula*). The percentage of oak (*Quercus*) pollen is slightly higher at 0.41-0.415m depth and other, rare types (<1% of the TLP), including ash (*Fraxinus*), willow (*Salix*) and pine (*Pinus*). Levels of arboreal pollen are significantly lower in the upper three samples (0.065-0.07, 0.12-0.125 and 0.20-0.205m depth), however shrub pollen, including bog myrtle (*Myrica gale*), heather (*Calluna vulgaris*),and heaths (Ericaceae), which are present at all levels, increase slightly. The most diverse range of pollen types recorded was herbaceous, of which the most dominant were grasses (Poaceae) and sedges (Cyperaceae). Other herbaceous taxa included dandelion-type (Lactuceae), cow parsely family (Apiaceae), meadowsweet (*Filipendula*), and rose family (Rosaceae). Potential human activity was evident in the top four samples by the presence of ribwort plantain (*Plantago lanceolata*) and cereal pollen in the form of barley (*Hordeum*-type) was recorded at 0.12-0.125m depth. Aquatic pollen is represented by the water milfoils (*Myriophyllum alterniflorum /spicatum/ verticullatum*) whilst bog moss (*Sphagnum*), polyploid ferns (*Polypodium*) and ferns (Filicales) represent spores. The wide range of herbaceous pollen is notable, and in very good preservational condition. A full count of all levels would produce a detailed understanding of the pollen representation, and determine if the range of human indicator types and significant decline in arboreal pollen were significant; therefore a full count is a practical option at all levels.

5.7.36 All four slides from Sample 20006 contained degraded organic material, however, the quality of the recorded pollen was very good. Arboreal pollen dominated by alder

(*Alnus*) and hazel (*Corylus avellana*-type) was fairly abundant at all levels, and other arboreal pollen included oak (*Quercus*), birch (*Betula*) and willow (*Salix*). Pine (*Pinus*), both ruptured and complete, was also present in the lowermost sample (0.345-0.35m depth). In addition, some shrub taxa were identified in the form of heather (*Calluna vulgaris*), heaths (Ericaceae) and bog myrtle (*Myrica gale*) pollen. The most diverse range of pollen types recorded was herbaceous, dominated by grasses (Poaceae), and including sedges (Cyperaceae), cinquefoils (*Potentilla*) and buttercups (Ranunculaceae). Potential human activity was evident at all levels by the presence of ribwort plantain (*Plantago lanceolata*). Further evidence of human activity was also recorded by the presence of the cereal pollen barley (*Hordeum*-type) in two of the samples (0.24-0.245 and 0.345-0.35m depth). Aquatic pollen is represented by relatively high counts of whorled water-milfoil (*Myriophyllum verticillatum*), plus bog moss (*Sphagnum*) and ferns (Filicales) and an additional number of identified types were also recorded. The varied range of herbaceous pollen is notable, and in very good preservation condition. A full count of this level would produce a detailed understanding of the pollen representation, and determine if the range of human indicator types were significant and if arable cultivation was close to the site. Therefore a full count is a practical option for this level.

5.7.37 *Summary of the pollen assessment from Sample 20005 and 20006:* The range of pollen from Sample 20005 was fairly diverse, with many pollen types indicative of wet or damp conditions e.g. willow (*Salix*), alder (*Alnus*), sedges (Cyperaceae) and meadowsweet (*Filipendula*), the latter two may also grow in wet or dry conditions. The preservation condition of the pollen was predominantly "good", however, many of the grains have been damaged (crumpled, corroded and ruptured), possibly due to being transported in a fluvial setting, or deposited in highly oxygenated environments. Values of arboreal pollen, of primarily hazel (*Corylus avellana*-type) and alder (*Alnus*) are higher in the lower four samples. Grass (Poaceae) pollen, indicating either expansive grassland or open areas within in a woodland context dominated the herbs. The presence of heather (*Calluna vulgaris*) and bog myrtle (*Myrica gale*) pollen indicate some element of heather/heathland. Potential human activity, representing disturbed ground is indicated by the presence of ribworth plantain (*Plantago lanceolata*) in the top four samples. Additional evidence for human activity was recorded at 0.12-0.125m depth in the form of cereal pollen, suggesting that some arable cultivation was occurring. The good condition of the cereal pollen indicates short transport distances and rapid deposition in anaerobic conditions. The pollen types indicate a damp disturbed ground environment and when the environmental data is considered with the monolith stratigraphy, indicate a palaeochannel or a fluvial influenced area, where frequent inundation of water would occur. Therefore a full count is a practical option for this monolith.

5.7.38 The range of pollen from Sample 20006 is varied, with many pollen types indicative of wet or damp conditions e.g. willow (*Salix*), alder (*Alnus*) and meadowsweet (*Filipendula*). The preservation condition of the pollen, was dominantly "good", however, many of the grains have been damaged (crumpled, corroded and ruptured), possibly due to being transported in a fluvial setting, or deposited in highly

oxygenated environments. The dominant arboreal types for the core were hazel (*Corylus avellana*-type) and alder (*Alnus*), the latter along with willow (*Salix*) providing evidence of a wet or damp environment, possibly where inundation of water was frequent. Grasses (Poaceae), indicating open ground of either expansive grassland or open areas within in a woodland context, dominated the herbs. The presence of heather (*Calluna vulgaris*) and bog myrtle (*Myrica gale*) indicate some element of heather/heathland environment. Potential human activity represented by disturbed ground is indicated in the form of ribwort plantain (*Plantago lanceolata*), and further evidence for human activity was recorded in the form of cereal pollen, suggesting that some arable cultivation was occurring. The good preservation of the cereal pollen indicates short transport distances and rapid deposition in anaerobic conditions. The pollen types indicate a damp disturbed ground environment and when the environmental data is considered with the monolith stratigraphy, indicate a palaeochannel or a fluvial influenced area where frequent inundation of water would occur. Therefore a full count is a practical option for this monolith.

5.7.39 ***Statement of potential:*** The range of pollen identified in the assessment indicates that is a complex group of sites, and for this reason some of the monoliths are particularly interesting and valuable. However, the lack of high-resolution sampling at this stage makes it difficult to interpret. In addition, as the levels counted for this assessment are not from a continuous sampling context they represent a coarse resolution vegetation indicator from different sections of the monoliths. Pollen diagrams from two sites, Dozmary Pool and Rough Tor, located relatively close (*c.* 20-25km to the east of the current scheme) to the sites from this assessment were consulted for comparison. The sampling resolution for these, by current standards, was coarse and produced a generalised regional description of the pollen spectra however the pollen data are still comparable. The pollen data from Dozmary Pool and Rough Tor record types such as alder (*Alnus*), oak (*Quercus*), willow (*Salix*), grasses (Poaceae), plantains (*Plantago*), cow parsley family (Apiaceae), dandelion-type (Lactuceae), and barley (*Hordeum*-type) signifying that the pollen from this assessment are consistent with findings of Brown (1977) and Charman *et al* (1998). The pollen diagram from Dozmary Pool has a basal date of 8650-7800 BC (95.4% probability) and represents an almost complete Holocene vegetation sequence. The interpretation of the Dozmary Pool pollen describes expansive woodland environments that change to an open environment encompassing scrub, heath and grasslands. However, low volume woodland stands are present. The pollen data from Dozmary Pool record a major vegetation change attributed to the early Bronze Age, where the woodlands were opened and cleared and then replaced by pasture. From the mid to late Bronze Age there is some evidence for arable land-use (Brown, 1977; Roberts 1998). The Rough Tor pollen sequence covers the period from *ca* 6000 BP and clearly shows the transition from a densely wooded environment (base of zone RTS1) to an essentially open habitat (Charman *et al 1998*).

5.7.40 The pollen evidence from Dozmary Pool and Rough Tor has produced a long vegetation history, with a robust chronology, which both predate the radiocarbon date from Sample 20005 (Monolith 1) of 1500-1290 cal BC (3115± 35 BP; SUERC-

10873) (Oxford Archaeology Pers comm.) and may explain why evidence for woodland clearances are not recorded in the assessment levels for this report. The area around Dozmary Pool was impacted by human activity from the late Neolithic, with short-lived and spatially diverse forest clearances for small-scale pastoralism. The interpretation of the pollen from this assessment is consistent with those from Dozmary Pool and Rough Tor where the increases in grassland and increased representation of alder (*Alnus*) are prevalent. The pollen evidence from this assessment indicates that open grassland and/or heath environments were widespread, whilst woodlands were present, but not extensive. There is evidence of alder carr environments along with additional indications of damp or wet ground conditions. The monoliths post-date the major periods of woodland clearances, and the open landscape appears to be well established. After the beginning of the Bronze Age, arable cultivation appears, however the frequency of cereal pollen recorded is low, and supports the view of Brown (1977) that cereal cultivation was limited and possibly secondary to pastoralism.

5.7.41 The range of human indicator pollen types from this evaluation indicates almost continuous human activity within the sample site context. The pollen types of ribwort plantain (*Platago lanceolata*), cinquefoils (*Potentilla*) and buttercups (Ranunculaceae) are all indicators of pastoralism, and were recorded frequently during the evaluation. The stratigraphy of the monoliths displays frequent occurrences of small clastic, fine sand, silt and clay material indicative of slow moving to standing water. It is very possible that the area was frequently inundated by water, which caused the build up of silty sediments to produce the "damp" conditions acceptable to the plants represented by the pollen types recorded. The radiocarbon age from the organic sediments within Sample 20005 (monolith 1, from the palaeochannel sequence) dates from the mid-late Bronze Age. The pollen spectra from this assessment are consistent with it being deposited during the mid-late Bronze Age period on the basis of comparison with the Dozmary Pool and Rough Tor pollen diagrams.

5.7.42 ***Recommendations for further work:*** Within the assessment levels for Sites A, B, E and the palaeochannel, the pollen concentrations varied. This is thought to reflect variable palynomorph preservation, due either to a change in the deposition environment or post depositional processes, producing conditions where sediments are exposed to highly oxygenated conditions. The pollen preserved in the monolith from Site C (sample 4129) was very sparse, so further analysis is not recommended. There is pollen in acceptable quantities and preservation, to undertake a detailed pollen count, from Sites A, B, E and the palaeochannel. However it is recommended that of the monoliths from Sites A and B, only the deeper ditch sequence from Site A (samples 3068 and 3080) are taken to further analysis. Samples 20005 (Monolith 1) and 20006 (Monolith 2), from the palaeochannel have the greatest potential. A higher-resolution full count of the earlier part of the palaeochannel sequence (monolith 1) is strongly recommended as this would provide better insight into the environmental history of the area around the Bodmin to Indian Queens road scheme, to complement the archaeology. Full counts will be made on the assessment samples

and from this data a preliminary pollen diagram will be drawn up, identifying the major changes in the sequence. These changes will be targetted for further analysis at closer sampling intervals. This may suggest when the environment was first exploited by human activity for cereal cultivation. It is recommended that additional samples from the palaeochannel sequence will be submitted for radiocarbon dating to relate the environmental data with archaeological activity. For all monoliths, the quality and frequency of the pollen was used as a guide for suggesting further counting to be undertaken. It is recommended that all pollen levels assessed as suitable for further work should be analysed to a count of 500 pollen grains, if this is possible. Additional sub-samples will be taken below and/or above these levels from sites A, and E and palaeochannel monolith 1.

5.7.43 It is also recommended that a maximum of four additional samples from the palaeochannel sequence should be submitted to the Scottish Universities Environmental Research Centre (SUERC) for radiocarbon dating.

5.8 Soil micromorphology

by Richard Macphail

5.8.1 ***Introduction:*** Four excavated site areas (A, B, C and D) along the A30 Bodmin to Indian Queens Improvement scheme were visited and discussed with Oxford Archaeology staff (Stuart Foreman, Paul Clark and Seren Griffiths) on the 2nd of December 2005. A further area, Site E was subsequently excavated. A number of soil questions had been identified on the sites during excavation (Rebecca Nicholson, Environmental Manager, Oxford Archaeology, pers. comm.). Chief amongst these were the origin and character of dark 'fills' and staining features. These were investigated along the routeway, together with other features of interest, employing field observation, regional soil and archaeological soil information (Findlay *et al.*, 1984; Hodgson, 1997; Smith *et al.*, 1996). Soil monoliths were collected by Seren Griffiths and Carl Champness. Radiocarbon dates, pollen assessments (Allen and Brown, May 2006, University of Exeter) and archaeological assessments (Oxford Archaeology) were made available to this author to suggest soil investigations employing these soil monoliths.

5.8.2 ***Local mapped soils:*** The chief soils mapped along the routeway belong to the Hafren and Manod soil associations (Findlay *et al.*, 1983). Near the present A30 for example the soils are Cambic stagnohumic gley soils (Wilcocks soil series) and the Hafren soil association. The latter is composed of mainly Ferric stagnopodzols (Hiraethog soil series) and is probably associated with rough grazing that includes *Juncus* (Avery, 1990). The term 'stagno' indicates poor drainage through drainage impedance, whereas 'gley' indicates both general waterlogging and the effects of groundwater (high water tables associated with flushes). On the slopes, where parts of the new routeway is located (sites A, B, C, D and E) better drained Typical brown podzolic soils are mapped (Manod soil association), which include the Moretonhampstead soil series in Cornwall (Avery, 1990; Findlay *et al.*, 1983). On some low ground nearby Typical humic gley soils occur that can have peaty surface horizons and peats (Laployd soil association).

5.8.3 ***Results:*** Observation of the soil profiles exposed along the new routeway and in archaeological features indicated that the Soil Survey of England and Wales map (scale: 1:250,000) is by necessity, a generalisation. A number of soil variants were noted (dealt with individually below), that relate to differences in drainage, original soil character and to degree of burial/preservation. One important aspect of the Manod soil association here (and many other upland edge areas of England and Wales) is the effect on the soils of moderately recent 'improvement', carried out through ploughing and some forms of manuring. This soil improvement homogenised the original podzolic horizons to form 'brown soils' that can sustain better grassland. That is, soils that were probably podzols have been converted into brown soils, in some cases this also may have led to erosion, and colluviation. An example of this Typical podzolic brown soil (Moretonhampstead soil series) from Bodmin Moor, which had been improved by ploughing but that still retains remnant

features of podzolisation (traces of the humic Bh and relict sesquioxide-enriched Bs horizon) is described by Avery (Avery, 1990), 236 and 239-240). Some upslope and plateau areas still retain their ironpan character indicative of not being improved, as probable analogues of the soil cover along the routeway as it was during later prehistory and medieval times. Along the routeway it was also noticed that some improved soils were already beginning to redevelop ironpan features because of gleying. This drainage impedance partly reflects the geology and the effect of late Pleistocene periglacial activity forming fragipans in subsoils – called *growan* on the granites of the region.

5.8.4 A number of over-thickened soils/buried soils were identified along the routeway, especially at Site C, but also in evidence at Sites A and B. These can be partly explained by field boundaries, and possibly as medieval/post medieval field systems. There may also be a 'colluvial' component, resulting from upslope erosion after the ploughing and soil improvements, as noted above (Avery, 1990).

5.8.5 ***Lower Trenoweth Late Iron Age/ Romano-British Roundhouse (Site A):*** At Site A, an Iron Age/Romano-British roundhouse, comprising a double ringditch feature (3236 and 3237), was examined. Here the old land surface has become affected by podzolic illuviation (podzolisation) forming a now-buried bBhs horizon. Burial of the site (by possible colluviation) and soil improvement have produced a modern brown earth topsoil. The junction with the relict bBhs is burrowed by earthworms. It is likely that the old ground surface soil (broadly the bBhs horizon), will have retained soil phosphate and even concentrated phosphate associated with occupation (Goldberg and Macphail, 2006). Any bulk sampling for soil chemistry should be focused on the remains of this bBhs horizon. Equally, undisturbed samples for soil micromorphology should be taken from the subsoil bB(s), upwards through the bBhs into the lower part of the newly formed modern topsoil.

5.8.6 ***Belowda Roundhouse (Site B):*** At the Iron Age Site B, which is characterised by stony roundhouse ditch (4059) fill, the soil history of the area is complicated, and still somewhat unclear. In general, the site's old land surface (OLS) appears to be picked out by the bBhs horizon, as at Site A. A humic topsoil, a possible buried Ah horizon (bAh), is also possibly present immediately overlying the bBhs horizon. This humic topsoil (bAh) also extends across the top of the ditches. At this site, therefore – in addition to podzolisation affecting the soil – the 'abandoned' site seems to have possibly formed an *in situ* humic topsoil (bAh) both across the site's OLS and across the ditch fill itself. On the northern side of the baulk the ditch seems to be infilled with humic soil (in addition to stones). Again, these have also been influenced by podzolisation forming a Bhs horizon, as across the site generally.

5.8.7 Again, any phosphate signal is likely to coincide with the OLS and bBhs. The origins of the humic ditch fill and buried turfline? (bAh) are probably different. It is possible that the humic ditch fills (and stones) originate from turf used in the construction and use of the roundhouse ditch. On the other hand, it seems more likely that the 'turfline' formed over the site (including over the ditchfills) after abandonment. The

whole site was subsequently sealed beneath brown soil colluvium dating to probably recent erosion and soil improvement.

5.8.8 ***Belowda Pit and Hearth Group (Site C):*** It is likely that the Bronze Age pit fills, which are charcoal-rich, may have enhanced phosphate and magnetic susceptibility characteristics because of the inclusion of burned material – possibly including ashes and bone – now transformed by leaching. Some characteristics, however, may be retained by the bulk chemistry and soil micromorphology of the fills.

5.8.9 There appears to have been a stone bank or roadway, probably associated with a boundary/hedgeline, to the west of the pits at CH 4575 and this has protected a land surface. Again, the OLS seems to have been buried by brown earth soils that date to later soil improvement. The date of this is unknown, but whereas this is soil improvement is understood to be a mainly recent phenomenon, it is possible here that this relates to late medieval/post-medieval field features. The character of the buried soil shows that it is a Typical humic gley, with a peaty topsoil (Ah), leached and gleyed Eag, and gleyed B(s)g subsoil. This site gives evidence of the wet soils that characterise low ground and flushes. The soil micromorphological character of the soil may include indications of its development, while the pollen from this soil will provide information into the vegetation cover prior to soil improvement. It is also possible that an earlier landuse – animal passage/cultivation – produced soil compaction that contributed to waterlogging here.

5.8.10 ***Lane End Timber/ Pit Circles (Site D):*** In addition to the circular pits of the pit circles, this site also contained a number of rectangular pits, interpreted as prospecting pits. The prospecting pits have a very clean fill of natural (deep subsoil and parent material) deposits ('fill'), and enigmatically have a dark fill boundary or edge ('E') between it and the natural subsoil. Dark layers are also reported to characterise the fills themselves. The exact origins of this dark soil are difficult to understand as simply soil staining/infiltration – mainly because the fill itself is so clean. Another possibility, however, is that this dark layer is a lining to the pit.

5.8.11 ***Royalton Hengiform (Site E):*** This area was unexcavated when the December 2005 soil evaluation was carried out. Here a series of pits have been described as belonging to a likely Neolithic hengiform monument, surrounding a timber circle. A radiocarbon date on an upper fill of one pit, however, recorded an early medieval date. Nevertheless, the possibility of having Neolithic soils to study is an important one, because the only soil micromorphology and chemical record of a Cornish Neolithic soil (known to this author) is at Carn Brea, near Camborne on granite (Courty *et al.*, 1989; Macphail, 1990; Mercer, 1981). On Bodmin Moor and its environs (on a different geology – Devonian sediments; Oxford Archaeology assessment 2006) the original brown soils that developed into podzols after clearance have been studied from Colliford (Maltby and Caseldine, 1982)(Macphail, unpublished)(see below). It would therefore be important to see what soil conditions were like during the Neolithic, and possibly identify any soil deterioration features that were caused by Neolithic land use, as at Carn Brea and as also found in Brittany, France (Gebhardt, 1993).

5.8.12 ***Statement of Potential:*** Reviews of archaeological soil development (and some environmental changes) on the moorlands and moorland edge of Cornwall were carried out by Macphail (1987, 349-350; 1990; Smith *et al.*, 1996, 198-203). Both Neolithic and secondary Bronze Age clearances are recorded on Shaugh Moor (Dartmoor), with Ferric stagnopodzols being developed by the Iron Age, and these poorest soils were associated with low intensity landuse (i.e., no cultivation evidence), Bronze Age animal management and reave constructions (Smith *et al.*, 1981; Balaam *et al.*, 1982). At Carn Brea (near Redruth), podzolisation developed in earlier-formed brown soils during the Neolithic (Macphail, 1990). To the East of the A30 sites, at Colliford, Bodmin Moor, brown soils were beginning to be converted into podzols during the Bronze Age itself after clearance activities (Maltby and Caseldine, 1982). A similar situation was found at Chysauster (near Penzance), with the Bronze Age cairn site being located in open woodland (nearby/on-site cultivation?) on acidifying brown soils (Smith *et al.*, 1996). Subsequent podzolisation superimposed leaching and illuvial podzolic horizons. A nearby mire produced a pollen sequence that recorded the original wooded nature of the landscape, and such correlations as raised water tables and anthropogenic activities, and a developing more open landscape (Smith *et al.*, 1996, 203-209).

5.8.13 Soil micromorphology and chemistry were carried out at the key sites of Carn Brea, Colliford and Chysauster, in order to understand better soil and environmental changes taking place. Such approaches along the A30 routeway may also prove fruitful, when combined with palynology (as at Colliford and Chysauster). Questions that could be addressed are:

- Establishing the soil history from Sites A, B, C and E.
- Did Neolithic activities initiate any early changes to the brown soil cover?
- Were brown soils (and woodland) present here during the Bronze Age?
- When did podzolisation take place?
- Were clearances responsible for both podzolisation and increases in waterlogging (rising water tables)?
- Did soil improvements begin during the medieval periods?
- Understanding the land use of the sites and local area through time.
- Was clearance initiated during the Neolithic; can any other activities be recognised?
- Is there any evidence of cultivation and/or animal management during and after the Neolithic?
- Can any activities be identified with the Iron Age structures?
- Is the medieval(?) roadway associated with animal passage or can another land use be identified?
- Can the construction and function of the rectangular pits at Site D be identified?
- Was tin being collected/exploited as part of the economy of this marginal area?

5.8.14 The sites along the A30 routeway occur within a moderately well understood regional context, and it should be possible through soil and other environmental techniques (e.g., palynology) to see in what kinds of landscapes, possibly different human

activities (during Neolithic, Bronze Age, Iron Age and medieval times) took place at Sites A, B, C and E. It may well be possible to elucidate enigmatic features associated with rectangular pits at Site D, which may possibly have 'industrial' functions before infilling.

5.8.15 Soil monoliths will have to be examined prior to subsampling to choose the best locations for thin sections and associated bulk samples. Post-depositional effects of podzolic leaching and illuviation, and gleying need to be considered; but as shown at sites such as Chysauster physical features of trampling, organic inclusions and charcoal are unaffected; equally, tin analysis will be carried out using aqua regia as an extractant in order to be able to measure tin locked up by organic complexes (Crowther, pers. comm.).

5.8.16 ***Recommendations for further work:*** It is suggested that 4 thin sections and 8 bulk samples be employed to examine the buried soil associated with the Belowda roundhouse (Site A) and the fills of the associated ditches. Bulk control analyses are advised for the colluvium and natural deposits. Equally, the junction between the colluvium and the buried soil needs to be examined, in order to recognise any effects of this colluviation on the buried soil. The buried soil and ditch fills may contain evidence of the constructional materials, and use of the roundhouse; domestic versus stabling (Macphail et al., 2004); equally bulk analyses will be able to test for the presence of tin, in case this was being exploited.

5.8.17 At the Belowda Roundhouse (Site B), sampling for bulk chemistry and soil micromorphology will usefully examine the humic ditchfills and across the 'OLS' (bBhs) into the putative turfline, in order to understand better the soil history of the site and use. Two thin section samples and 3 bulk analyses are recommended here, again to test for tin as well as to fully identify the use of the feature.

5.8.18 Bronze Age Pit 4428, at the Belowda Pit and Hearth Group (Site C), contains a number of pit fill contexts which could be examined through two thin sections and two associated bulk analyses in order to investigate the soils and activities contemporary with the pit. For the buried soil to the west, at CH4575, one thin section and associated bulk sample will help characterise the possible medieval soil, identify the presence of a drove-way and the intensity of its use and juxtaposition of settlement activities (tracked-in material and phosphate concentration)(Macphail, 2003; Macphail and Crowther, 2005).

5.8.19 At the site of the Lane End Timber/ Pit Circles (Site D), a thin section and bulk analysis chosen from the monolith may help to understand prospecting pit 4388. Prospecting pit 4310, dated by radiocarbon assay to the medieval period, may have had an 'industrial' use, and was possible organic/wood(?) lined. If so this lining could have been contaminated (Bulk analysis and possibly microprobe). Two thin sections and associated bulk samples are recommended to aid the understanding of this feature, possibly when two pits at this site are compared.

5.8.20 At the Royalton Hengiform, it is suggested that two thin sections and associated bulk samples be analysed from each of the pit and posthole features sampled by monolith (1064 and 1123, respectively).

5.9 Radiocarbon dating

by Seren Griffiths

5.9.1 ***Methodology:*** Eight radiocarbon determinations were made as part of the initial assessment of a number of sites on the A30 Bodmin to Indian Queens route. All modelling was undertaken in OxCal V3.10.

5.9.2 ***The palaeochannels at CH 3000-3200:*** Two soil samples were selected from the sequence of the palaeochannels at CH 3000-3200. The humic acid fraction of the soil was isolated by standard acid/base precipitation pre-treatment. The determinations were modelled in a sequence.

5.9.3 The sequence produced zero distributions, as a result of the apparent longevity of the sequence and the calibration curve at this point. The lower sample produced a determination of 3115±35bp. This places the lower part of the sequence of the palaeochannel fill within the Middle Bronze Age. The upper sample produces a much later range: spanning the Middle Ages to the modern period. While there are issues with the taphonomy of the humic acid in soils there is nothing to suggest that these determinations are unreliable. The dates suggest that the palaeochannel was open for a considerable period of time. Its infilling has implications for land management and the hydrology of the area.

5.9.4 ***Site B:*** A piece of *Corylus Avellana* roundwood charcoal from the roundhouse ditch at Site B produced a determination of 2131 ± 35 bp. The Site B roundhouse is therefore placed in the Late Iron Age.

5.9.5 ***Site C:*** Maloideae charcoal was selected from the semi-circular ditch to the east of the pit and hearth group at Site C. The feature group is thought, on the basis of artefactual evidence from one of the pits, to be of Bronze Age date. The Maloideae charcoal produced a determination of 3226±35bp. The curvi-linear feature at Site C thus appears to have been backfilled in the Middle Bronze Age, making it contemporary with at least one of the pits.

5.9.6 ***Site D:*** Three charcoal samples were selected from the pit circles and the possible prospecting pit at Site D. The material was subjected to standard acid/base/acid pre-treatment. Very little material culture evidence, and no datable artefacts, were recovered from these features during their excavation. While the morphology of the pit circles was regarded as prehistoric, and the prospecting pits more recent, radiometric dates were needed to test these assumptions. The stratigraphic relationships between the pit circles and the possible prospecting pit allowed them to be modelled in OxCal V3.10.

5.9.7 A sample of *Corylus* sp wood charcoal was selected from a fill of the eastern pit circle, which produced a determination of 3460±30bp. A sample of *Corylus* sp wood charcoal was selected from a fill from the western pit circle, which produced a determination of 3328±30bp. The pit circles both date, therefore, within the early Bronze Age. The date ranges could indicate that one of the pit circle groups

supersedes the other, which would have important implications for the discussion of the site. Further determinations, however, would be needed to resolve any phasing of the site. A sample from the basal fill of one of the prospecting pits was selected, comprising multiple items of young twiggy material that could not be identified to species level, but clearly excluded the prospect of an 'old wood' effect. A determination of 580±40bp was produced for this sample. Modelled in this manner, the backfill of the basal layer of the prospecting pit dates to the thirteenth to fifteenth centuries.

5.9.8 ***Site E:*** A sample of sheep/goat tooth was recovered from sieving from the hengiform monument. The deposit from which the sample originated was truncated by a later feature. There was therefore some potential for reworking of material. At that stage however, no charred plant material suitable for radiocarbon dating had been recovered. The sample was subject to standard acid/base/acid and ultrafiltration pre-treatment. The sample produced a determination of 1142±25bp.

5.9.9 The determination dates the tooth to the early medieval period, which is clearly surprising given the morphology of the monument, which would suggest a Neolithic date. The sample produced a yield marginally below the usually acceptable level for ultra-filtered samples, though proportionally the sample appears well preserved in terms of weight % collagen. While there is potential therefore that the sample has been subject to post-depositional diagenesis, it seems most likely that the tooth results from later disturbance to the monument. Clearly further determinations and modelling will be needed to resolve this (suitable short-lived charcoal samples have been identified in the course of assessment, but not yet submitted for dating). The prospect of early medieval activity in the area is in itself interesting, as this period is under-represented in the archaeological record.

Table 12: Radiocarbon samples assessed

Sample ID	**Material**	**Lab. No.**	**Result (BP)**	**δ13C**	**Calibration (95.4% probability)**
<1042> (***1178***)	Sheep/goat tooth	OxA-16125	1142±25	-22.0‰	780AD-980AD
<20005> (***25003***) s3-4cm	Humic acid	SUERC-10872	250±35	-29.1‰	1510AD-1960AD
<20005> (***25004***) 42-43cm	Humic acid	SUERC-10873	3115±35	-29.0‰	1500BC-1290BC
<4038> (***4247***)	*Corylus* sp. Charcoal	NZA 26253	3460 ± 30	-28 ‰	1880BC-1680BC

Sample ID	Material	Lab. No.	Result (BP)	δ13C	Calibration (95.4% probability)
<4070> (*4284*)	*Corylus* sp. Charcoal	NZA 26254	3328 ± 30	-26.9 ‰	1690BC-1520BC
<4074> (*4330*)	Twiggy wood charcoal	NZA 26255	580 ± 40 BP	-26.6 ‰	1290AD-1430AD
<4014> (*4143*)	*Corulus Avellana* roundwood charcoal	NZA 25410	2131 ± 35 BP	-25.4‰	360BC-40BC
<4126> (*4448*)	Maloideae charcoal	NZA 25411	3226 ± 35 BP	-25.6‰	1610BC-1420BC

5.9.10 ***Statement of potential:*** The assessment has highlighted the potential for radiocarbon dating to absolutely date the majority of the significant sites revealed along the scheme. Further radiocarbon determinations would refine the dating evidence already available, as well as providing dates for those sites currently undated by this method.

5.9.11 ***Recommendations for further work:*** It is recommended that two radiocarbon dates are undertaken for the Lower Trenoweth roundhouse (Site A), to confirm the ceramic dating and to test whether this site is contemporary with the Belowda roundhouse (Site B). Ideally the samples selected would be from contexts in a clear stratigraphic relationship with a context containing pottery, to maximise the modelling potential. A single further date is recommended for the Belowda roundhouse (Site B), to confirm the initial dating and to test this site's contemporaneity with the Lower Trenoweth roundhouse (Site A). The sample selected should be from a context with a clear stratigraphic relationship with the first date from this site.

5.9.12 A sample from the pit containing the quernstone and pottery at the Belowda pit and hearth group (Site C) should also be dated.

5.9.13 A single further date from both of the Lane End timber/ pit circles should be undertaken, preferably second samples from the previously dated pits, to maximise the modelling potential. Two pits and a posthole from the Royalton Hengiform (Site E) should be dated, to both date the monument and to check the contemporaneity of the hengiform and the internal timber circle.

5.9.14 A maximum of four dates should be undertaken on the palaeochannel monoliths, to date any vegetation changes identified during the full analysis.

5.9.15 One additional spot date from each of the remaining undated prospecting pit groups should be attempted to see whether they are contemporary with the one prospecting pit already dated to the medieval period. The rectangular pit at CH6700 that contained a piece of worked flint could be dated, as could the burnt stone filled pit at Innis Downs, which represents the only possible prehistoric feature to be found in the general vicinity of Castilly Henge. The possible Romano-British ditch near CH4000, in the Belowda area, should also possibly be dated, to ascertain whether this is genuinely a Romano-British feature, or whether it merely contains a residual sherd of Samian pottery. The two bulk samples from a possible bank sealed beneath a Cornish hedge in the Belowda field system should also be assessed for viable material for a single radiocarbon date, although given the heavily bioturbated nature of these boundaries, any date gained would not be the most secure.

6 CURATION AND CONSERVATION

6.1 Recipient Museum

6.1.1 The finds, paper and electronic archive will be deposited with the Royal Cornwall Museum, Truro. The museum issued an accession code prior to the start of fieldwork, which was used as the project code throughout and was marked on all aspects of the archive. The accession code is A30BOD.05.3.

Royal Cornwall Museum
River Street
Truro
Cornwall
TR1 2SJ
Tel 01872 272205

6.2 Digital Archive

6.2.1 Components from the digital archive will be lodged with the Archaeology Data Service and Cornwall County Council Heritage Environment Record. The components that will be lodged are likely to include digital mapping from the project, the context database and specialist databases and reports.

6.3 Conservation

6.3.1 There are no specific requirements for stabilisation or investigative conservation work.

6.4 Storage

6.4.1 The complete project archive, which will include records, plans, black and white and colour photographs, artefacts, ecofacts and sieved residues, will be prepared following the guidelines set out in *Environmental standards for the permanent storage of excavated material from archaeological sites* (UKIC 1984, Conservation Guidelines 3) and *Guidelines for the preparation of excavation archive for long-term storage* (Walker 1990).

6.4.2 All finds will be packaged according to the Museum's specifications, in either acid-free cardboard boxes, or in airtight plastic boxes for unstable material.

6.5 Packaging

6.5.1 The assemblage is currently well packed and thus requires no further work. Finds databases have been created and will be fully updated following the analysis stage.

7 STATEMENT OF POTENTIAL FOR POST-EXCAVATION ANALYSIS.

7.1 Regional Research Priorities

7.1.1 A regional research agenda for South West England is currently being compiled as part of the development of the South West Archaeological Research Framework (SWARF). To date, the SWARF comprises

- draft versions of the 'resource assessment' which assesses the current state of knowledge and understanding, and
- a description of the historic environment resource and the research agenda, which identifies gaps in current knowledge, the potential of the resource and research topics.

7.1.2 Although both documents are currently at the draft stage and must be treated with due care, they are a useful reference. In particular, where gaps in knowledge and research topics can be addressed by the evidence from current excavations, these are listed below, by period. (the draft SWARF documents are available online at: http://www.somerset.gov.uk/somerset/cultureheritage/heritage/swarf/index.cfm).

7.2 Neolithic/Early Bronze Age

7.2.1 ***Chronology:*** the research agenda highlights the need for better absolute chronologies in this period, and a requirement for more radiocarbon dates on high quality samples. The hengiform monument at Site E is considered on morphological grounds to be later Neolithic or early Bronze Age, despite the early medieval radiocarbon date from a sheep/ goat tooth, which is assumed to be intrusive. Provided these assumptions are correct, then radiocarbon dates from this feature have the potential to add to the record for Neolithic features. The timber/ pit circles at Site D have both been dated to the Early Bronze Age. The initial results suggest that one may have succeeded the other. There is potential to obtain further dates from these features to firmly establish their chronology. The date range from the Site C pit and hearth group places it within the Early or Middle Bronze Age, so potentially adding to the corpus of absolute dates within the Early Bronze Age.

7.2.2 ***Later Neolithic/Early Bronze Age transition:*** The research agenda suggests that it will be useful to establish what evidence of change in construction and use of monuments is observable across the Late Neolithic/ Early Bronze Age transition, and whether these changes are consistent across the region. Further study of the Royalton hengiform (Site E) and Lane End timber/ pit circles (Site D) will contribute to this aim.

7.2.3 ***Material culture:*** The lack of knowledge of early metal extraction and production is highlighted in the SWARF. No clear evidence of prehistoric or Roman metal extraction was discovered on the A30 sites. The importance of tin from the south-west in Bronze Age metalwork has been noted (Northover 1982) and the suggestion that the saddle quern from an early Bronze Age pit at Site C, may have been used in

the preparation of tin ore is one that should be pursued further by examining it for chemical traces of Cassiterite. A pilot study looking for tin residues in deposits from the associated hearth, produced no indication of tin ore, although two background samples from the area both did. This suggests that tin residues may be common in the environment. Nevertheless the positive results suggest that this method has some potential for further development.

7.2.4 With regard to pottery '*greater use should be made of ceramic petrology ... in order to track pottery production and use*'. Pottery from Site C has been dated to either the Early or Middle Bronze Age, probably the former, on typological grounds, and should be subject to petrological analysis.

7.2.5 ***Subsistence and agriculture:*** The use of plants, and in particular woodland resources, is noted as an area which would benefit from further work. The pollen assessment for one of the pits in the hengiform noted sufficient potential to undertake a full count, which will provide information on the Neolithic environment. Good potential for looking into the presence and use of various tree species was noted during the assessment of the charcoal from Sites C, D and E. Further investigation of the palaeochannel sequence, including radiocarbon dating, has the potential to identify the introduction of pastoralism and cereal cultivation to this landscape.

7.2.6 ***Monumentality:*** The rarity of henges in the south-west peninsula is noted in the SWARF, which adds to the intrinsic value of further work on the hengiform and timber/ pit circles.

7.2.7 The timber circle within the hengiform is one of c.40 recognised in Britain and Ireland (Gibson 1994, 191) and the further analysis of this monument will significantly add to the knowledge of this monument class. A close parallel to this feature was excavated at Conygar Hill, during work ahead of the construction of the Dorchester bypass (Smith et al 1997). This feature (Pit-ring *52100*) comprised a continuous timber circle of eight postholes, within a segmented ditch, comprising eight pits. The postholes were located opposite the gaps between pits, as at the Royalton Hengiform, although the Conygar Hill monument had no entrance. No dating evidence for the construction of this feature was forthcoming, although it was provisionally dated to the later Neolithic by comparison with another feature (Pit-ring *52118*) identified nearby. A number of other timber circles, including Arminghall (Clark 1936), Bleasdale (Varley 1938) and North Mains (Barclay 1983) provide evidence for timber circles within ditches or henges, which appears to be paralleled at the Royalton Hengiform, albeit within a segmented, rather than a continuous ditch.

7.2.8 The two Lane End timber/ pit circles (Site D) also have the potential to add to the study of monuments in the region. These pit circles appear broadly similar to the concentric pit circles revealed during the works for the Transco pipeline (Network Archaeology 2002). The Interim Report refers to 'peat-filled' (*op cit* 20) pits, which could well be similar to the organic-rich upper fills noted at Lane End. It should be noted, however, that the dimensions of both the individual pits and the pit circles themselves are significantly smaller that the Lane End pit circles. The concentric pit

circles recorded at Victoria have diameters of 11.2m and 15.3m respectively, as opposed to 19.3m and 20.4m for the Lane End pit circles.

7.3 Later Bronze Age and Iron Age

7.3.1 ***Chronology:*** the SWARF notes that '*at a detailed level, chronology is still weakly developed*', which is particularly a problem for the Late Bronze Age, but also of the Early/Late Iron Age transition. The radiocarbon dating evidence from Site B will at least add to the resource, even if it does not particularly contribute to the refining of chronology.

7.3.2 ***Subsistence and agriculture:*** '*The environmental evidence for agriculture, whether charred plant remains or animal ones, remains poorly studied in comparison to buildings or pots.*'. It is also noted that '*radiocarbon dating ... should be integral, not optional*', when dealing with the remains relating to farming. Sites A and B both produced a good range of cereal remains, although it must be noted that Site A may date to the early Romano-British period, rather than the Iron Age. Site B has already been radiocarbon dated and it is recommended that Site A will be radiocarbon dated during the next phase of work. The off-site paleoenvironmental sequence near Belowda Lane includes sediments of this period and has good potential for shedding light on land-use in the vicinity of Castle-an-Dinas and the Lower Trenoweth roundhouse (Site A) in the late prehistoric period.

7.3.3 ***Material culture:*** There is very little potential for artefact-based studies in this period. Site A produced a small assemblage of transitional Late Iron Age/ early Roman date. The scarcity of artefacts from the roundhouse sites is interesting in itself and requires comparison with contemporary settlement sites in the region to understand its significance. The structure of the roundhouses at Sites A and B requires comparison with other sites in the region and further afield.

7.3.4 ***Environment:*** A fairly limited number of pollen cores have been examined and interpreted for Cornwall and these are concentrated on Bodmin Moor (Charman *et al* 1998, Gearey *et al* 2000, Brown 1977). Radiocarbon dates so far obtained indicate that the palaeochannel sequence from chainage 3000-3200, ranges in date from the later Bronze Age to the modern period. It lies in a shallow stream valley between Castle-an-Dinas hillfort and Belowda Beacon, within 300m of the Lower Trenoweth roundhouse (Site A) and 700m of the hillfort. There is therefore excellent potential for examining changes in environment and land-use in the vicinity of these sites in the later prehistoric period.

7.4 Early medieval

7.4.1 ***Environmental history:*** the SWARF notes that '*Environmental studies have the potential to provide an independent witness to activities in the period which are currently obscured by the lack of site-based evidence*', a function which the pollen analysis will hopefully fulfil, as well as providing environmental context for later medieval settlement in the Belowda area.

7.4.2 A single sheep/ goat tooth, which was found in a truncated pit in the Royalton hengiform and radiocarbon dated to the early medieval period, is interesting in itself, as it may suggest some level of pastoral activity in this period, although there is no potential for further study of this period..

7.5 Medieval/post-medieval

7.5.1 ***Industry:*** the three groups of prospecting pits have the potential to provide scientific dating evidence for the exploitation of the mineral resources of Goss and Tregoss Moor.

8 UPDATED RESEARCH AIMS AND OBJECTIVES

8.1 Updated research aims

8.1.1 This section follows the guidance of English Heritage regarding the formulation of updated research aims (English Heritage 1991, 2-3). This recommends that it is useful to treat *aims* as major themes or goals to which specific *objectives* contribute, and think of these aims and objectives as questions.

8.1.2 ***Updated research aim 1: How has environment and land-use in the Goss Moor area changed since the Neolithic period? Are the changes observed a cause or effect of human activity?***

Objective 1: Characterise the natural and man-made environmental in all periods for which there is available evidence from the scheme. Identify evidence for environmental change and its likely causes. Compare and contrast the A30 evidence with more complete regional environmental sequences, for example Dozmary Pool and Rough Tor on Bodmin Moor.

Objective 2: Is it possible to identify evidence for primary woodland clearance in the environmental evidence from the scheme, through examination of pollen from potential Neolithic features at Site E?

Objective 3: At what dates do evidence for pastoralism and cereal cultivation first appear in the pollen and other environmental records?

8.1.3 ***Updated research aim 2: What were the date and function of the hengiform monument at Site E and the timber/ pit circles at Site D?***

Objective 1: Provide absolute dates for each the monuments, using radiocarbon methods, and model them statistically to achieve the closest possible date estimates.

Objective 2: Examine the contemporeneity of monuments discovered on the A30 scheme (and the Transco Pipeline): Were the pit and posthole circles at Site E parts of a single phase monument or constructed sequentially? Were the monuments at sites D and E contemporary with each other, and with the double pit circle found at Victoria during construction of the Transco pipeline? If not, can they be placed in a sequence based on radiocarbon dating methods?

Objective 3: How does the dating evidence compare with other prehistoric monuments in the region?

Objective 4: Characterise the local environment at the time of the occupation of the monuments. Can any changes in the environment over time be identified?

Objective 5: Examine the topographical context of the hengiform and pit circles. Are there any similarities or contrasts with other types of monument in the immediate area?

Objective 6: Is it possible to reconstruct the form of the monuments, for example by identifying the species and age of wood used in their construction, and the identification of post-pipes?

Objective 7: What can comparative research on other monuments of similiar type and date tell us about the way in which they were used?

8.1.3 ***Updated research aim 3: How do the hengiform and pit circles relate to other types of later Neolithic and Bronze Age ritual monuments in the area, such as large scale henge monuments (eg Castilly Henge), stone circles and barrow cemeteries, and to evidence for prehistoric settlement, both spatially and chronologically?***

Objective 1: Review the archaeological literature to gain an understanding of the chronology and typology of pit circles and henges.

Objective 2: Review the dating evidence associated with other types of prehistoric ritual monument, in particular in the South-West Region. Compare existing chronological data with the radiocarbon and limited artefactual evidence from the A30 sites.

Objective 3: Examine the topography and environment surrounding the hengiform and pit circles. How do they compare with other kinds of prehistoric ritual monuments in the area, such as Castilly Henge and the barrow groups at Innis Downs, Castle-an-Dinas and Saffron Park?

Objective 4: Why was so little prehistoric evidence found in the vicinity of the monument complexes at Innis Downs and Saffron Park?

Objective 5: Are their any indications of prehistoric settlement in the surrounding area that can be used to model the wider organisation of the landscape, and the place of ritual/ burial monuments within it?

Objective 6: What can these monuments tell us about the scale, organisation and economic basis of the societies that built them? What can they tell us about their cosmological concerns?

8.1.4 ***Updated research aim 4: What was the nature of the activity undertaken during the Bronze Age at Site C?***

Objective 1: What types of wood and wood products are present in the burnt fills of the features at Site C? Why is there no evidence for charred cereals in the charred plant remains assemblage from this site, in spite of an abundant charcoal assemblage and the discovery of a complete saddle quern in one of the pits?

Objective 2: Is it possible to determine the provenance of the prehistoric pottery from Site C?

Objective 3: What was the function of the hearth at Site C? Can parallels be found for the arrangement of hearths, pits and a ditch at Site C, which might throw light upon its function?

Objective 4: Can a function for the saddle quern be determined, and can this be related to its final deposition within a pit?

Objective 5: Characterise the local environment at the time of the occupation of Site C. Can any changes in the environment over time be identified?

8.1.5 ***Updated research aim 5: When were the roundhouses at Sites A and B constructed and used, and what types of activity were carried out there?***

Objective 1: Establish the lifespan of the two roundhouses by radiocarbon methods. Were Sites A and B they occupied at the same time, or sequentially?

Objective 2: Determine the nature of any agricultural and other economic activity undertaken in the vicinity of the sites. The finds and charred plant remains assemblages are sparse, in spite of comparatively good preservation conditions. How

do they compare with assemblages from contemporary sites in the region? What implications does this have for the social and economic status of the inhabitants? Were these sites occupied/ used all year round or just at specific seasons, or were they short-lived?

Objective 3: Is it possible to elucidate the sequence of construction, maintenance and eventual demolition of each roundhouse? Are the deposits sealing the ditches and postholes at each site demolition deposits, or the result of complex soil formation processes? If the former, what can their detailed examination tell us about the construction materials and appearance of the roundhouses, and the economic activities carried out there. What types of wood were used within the roundhouses?

Objective 4: Are Sites A and B 'typical' of late Iron Age/Romano-British settlements in the South-West?

Objective 5: What is the relationship of Sites A and B to other late prehistoric sites in the locality, in particular Castle-an-Dinas hillfort and 'round' sites in the wider area, such as Penhale Round?

Objective 6: Characterise the local environment at the time of the occupation of the roundhouses. Can any changes over time be identified?

8.1.6 ***Updated research aim 6: How has understanding of the role of tin extraction in shaping the landscape of Goss Moor and surrounding areas, been altered by the A30 excavations?***

Objective 1: Is it possible to establish the date and function of the three groups of possible prospecting pits? Are there any other excavated parallels for the pits, or documentary evidence to confirm or disprove their interpretation as prospecting pits? Is it possible to date any of the groups by radiocarbon methods? One date so far obtained indicates a medieval date for at least one pit.

Objective 2: Re-examine existing aerial photographic interpretations of tin workings along the line of the scheme. Can the interpretations be justified, in view of the largely negative excavation results?

8.1.5 ***Updated research aim 7: How has understanding of the development of the medieval and post-medieval landscape been altered by the A30 excavations, with particular reference to the Belowda area?***

Objective 1: Does the concentration of prehistoric sites found in the Belowda area reflect real patterns of prehistoric settlement, or is it the result of unusually good preservation conditions within the Belowda field system?

Objective 2: Has the Belowda area been continuously settled since the Bronze Age, or has it been subject to periodic abandonment? What implications does this have for our understanding of settlement fluctuation in the region.

Objective 3: Is there evidence for early medieval settlement in the Belowda area?

Objective 4: What light has the project shed on the origins and development of the strip field system at Belowda?

Objective 5: Is there any new evidence for the enclosure of upland rough ground in the 18th and 19th century, and subsequent erosion of those field systems in the 20th century?

Objective 6: How has understanding of the role of tin extraction in shaping the landscape of Goss Moor and surrounding areas, from the medieval to moderm periods, been altered by the A30 excavations?

Objective 7: How has understanding of the role of communication routes in shaping the landscape of Goss Moor and surrounding areas, been altered by the A30 excavations?

9 METHOD STATEMENT

9.1 Introduction

9.1.1 The following methodology is required to fulfil the revised research aims outlined in *Section 8*. This will require a programme of analysis, followed by the preparation of an appropriate text for publication.

9.2 Programme structure

9.2.1 The post-excavation programme will be divided into the following stages:

- analysis
- synthesis
- preparation of draft text and illustrative material
- publication
- archive deposition.

9.3 Information and review

9.3.1 It is proposed that review meetings will be held at key stages, to monitor the progress of the analysis, and to keep all parties informed.

9.4 Phasing and stratigraphy

9.4.1 Further detailed stratigraphic analysis will be undertaken for three of the sites (A, B and D) to refine the current scheme wide phasing. Any further dates obtained during the full analysis stage will also be fed into the site phasing, to refine it as far as possible.

9.5 Artefacts

9.5.1 The saddle quern from Site C will be illustrated and further work will be undertaken on its likely lithology and provenance. In addition, the grinding surface will be analysed for tin residue.

9.5.2 As the quantities involved are very small, but the material is all of clear significance, specialists were asked to prepare short reports suitable for publication at the assessment stage. 1 day is allowed for checking and up-dating each of the artefact reports for publication, in light of C14 dating and other detailed analytical results. 1 sherd of Late Iron Age/ Roman date, and 2 sherds of medieval date require illustration.

9.6 Environmental evidence

9.6.1 Charcoal from contexts 3270, 3360, 3361, 3443 and 3454 from Site A will be further analysed to investigate the use of woods within the roundhouse and the use of locally available woodland products. Charred plant remains from contexts 4143, 4144 and

4377 at Site B will also be further analysed. Detailed analysis will be undertaken on a number of contexts at Site C, comprising the hearth (4453), the charcoal-rich middle fill (4139) of Bronze Age pit 4136, as well as its primary fill, 4140. The fill, 4448, of the western terminus of the ditch, 4446, enclosing the pit group at Site C, will also be further analysed as will one of contexts 4426, 4433, 4437 and 4443. Comparison between charcoal deposits from the eastern and the western pit circles at Site D, will also be undertaken using 4239, 4241 and 4247 from the western and 4237, 4263, 4270 and 4315 from the eastern. Further analysis of charcoal from Site E offers the opportunity to gather evidence for the timber material used in the hengiform and material from two post pipes (1113 and 1120) and three pit fills (1085, 1178 and 1131) will be analysed in detail, to this end.

9.6.2 Pollen samples will be analysed from the following samples, with additional sub-samples taken below and/or above these levels from sites A, and E and palaeochannel monolith 1.

Table 13: Details of pollen analysis to be undertaken

SITE AND MONOLITH	Depth of sample (m)	Practical for a full count	Recommended for a full count
Site A 3068	0.08-0.085	Yes	Yes
	0.15-0.155	Yes	Yes
Site A 3080	0.03-0.035	Yes	Yes
	0.22-0.225	Yes	Yes
	0.325-0.33	Yes	Yes
Site C 4131	0.09-	No	No
	0.09.5	Yes	Yes if dated
	0.23-0.235	Yes	Yes if dated
	0.34-0.345		
Site E 1053	0.10-0.105	Yes	Yes
	0.205-0.21	Yes	Yes
Palaeochannel 20005 (monolith 1)	0.065-0.07	Yes	Yes
	0.12-0.125	Yes	Yes
	0.20-0.205	Yes	Yes
	0.28-0.285	Yes	Yes
	0.39-0.395	Yes	Yes
	0.41-0.415	Yes	Yes
	0.455-0.46	Yes	Yes

9.6.3 Further soil micromorphology will be undertaken on a number of samples, detailed below, by both thin section and bulk sample analysis.

Table 14: Details of soil micromorphology analysis to be undertaken

Site and available samples	Period/Context	Suggested analysis (TS=thin section)
Site A **Ditches 3237 and 3263** Monoliths 3062, 3068, 3069, 3076, 3080	**Iron Age roundhouse**	
	3000 - topsoil	
	3225 – subsoil (colluvium?)	TS 1, bulk 1
	3441 – soil sealing roundhouse	Overlapping TS 1, bulk 2
	3447 – upper fill of ditch 3263	TS 2, bulk 3
	3458 – lower fill of ditch 3263	Overlapping TS 2, bulk 4
	3450 – fill of recut ditch 3237	TS 3, bulk 5
	3458 – fill of recut ditch 3237	Overlapping TS 3, bulk 6
	3471 – fill of ditch 3237	TS 4, bulk 7
	3472 – primary fill of ditch 3237	Bulk 8
Site B **Ditch 4059** Monoliths 4124, 4137, 4140	**Iron Age roundhouse**	
	4060 – colluvial soil	
	4061 – colluvial soil over feature	
	4381 – feature soil?	TS 4, bulk 9
	4375 – fill of ditch 4059	TS 5, bulk 10
	4070 – natural	Bulk 11
Site C **Soil 4454** Monoliths 4131, 4132, 4133	**Medieval boundary/droveway**	
	4000 – topsoil	
	4111 – subsoil/colluvium	
	4454 – medieval soil	TS 5, bulk 12
	4002 - natural	
Site C **Pit 4428** Monolith 4129	**Bronze Age pit**	
	4429 – uppermost fill	TS 6 and 7, bulks 12-14
	4430 – fill	Ditto
	4431 – fill	Ditto
	4432 – fill	Ditto
	4433 – lowermost fill	Ditto
Site D **Pit 4388** Monolith 4142	**Prospecting Pit**	
	4385 – fill	
	4392 – fill	TS 8, bulk 15
	4393 - fill	
Site D **Pit 4310**	**Prospecting Pit**	

Site and available samples	Period/Context	Suggested analysis (TS=thin section)
Monoliths 4158, 4160	4318 – redeposited natural	
	4328 – fill	
	4329 – fill	
	4330 – organic (?) fill	TS 9, bulk 16
	4319 – dark fill	TS 10, bulk 17
Site E **Pit 1064** Monolith 1053	**Neolithic pit in hengiform monument** 1075 – dark grey fill	
	1074 – fill	TS 11-12, bulks 18-19
	1073 –fill	Ditto
	1071 – fill	Ditto
	1069 – dark fill	Ditto
	1065 – basal fill	Ditto
Site E **Post hole 1123** Monolith 1054	**Postholes within hengiform monument** 1120 – post pipe fill	TS 13, bulk 20
	1122 – primary fill	TS 14, bulk 21

9.7 Dating

9.7.1 A maximum of 19 samples will be submitted for radiocarbon dating, although this figure is likely to be slightly lower, as certain samples may not contain any viable material. The samples to be further examined are discussed below.

Table 15: Radiocarbon dating - Details of further radiocarbon dating

Site	Feature	Work required	Samples to be dated
Lower Trenoweth Roundhouse Site A	Roundhouse ditches	Site A - Suitable (shortlived) charcoal samples to be selected. Several samples are available with suitable material.	Two samples to be dated, preferably from contexts in a known stratigraphic relationship with the pottery recovered.
Belowda Roundhouse Site B	Roundhouse ditch	Site B - Suitable (shortlived) charcoal samples will need to be selected. One sample has suitable material.	Single sample to be dated - Provisionally, sample 4015, context 4144 contains charred grain.
Belowda Pit and Hearth Group Site C	Pit 4136, which contained Bronze Age pottery and a saddle quern	Site C - Suitable (shortlived) charcoal samples will need to be selected. One sample certainly has suitable material.	Single sample to be dated, from the same context as the BA pottery and saddle quern. Provisionally, sample 4016, context 4137 contains suitable Corylus charcoal.
Lane End Timber Circles Site D	Timber Circles	Suitable (shortlived) charcoal samples to be selected. The targeted	Second sample from both the pits previously dated to be submitted,

Site	Feature	Work required	Samples to be dated
		samples contain suitable material. Most is oak heartwood, but diffuse porous roundwood and twiggy material are present.	comprising <4038> from (4247) and <4070> from 4284 respectively.
Royalton Hengiform Site E	Hengiform and internal timber circle	Two samples from outer ring pits to be dated (suitable material has been identified). The inner ring posthole samples have been examined for shortlived charred material and none has been found. However, it may be possible to date sediment.	Samples <1022> (from 1173) and <1050> (from 1131) from the hengiform pits to be dated. A sample from an internal posthole should also be dated, if viable material can be identified.
Prospecting Pit groups at CH 5200 and CH 5600	Prospecting Pits	Samples <5003> and <5005> produced no suitable material. Samples <5001> and <5002> to be processed to recover suitable short-lived charcoal.	A sample from both of the remaining undated prospecting pit groups.
Pit at CH 6700	Pit 6012, which contained worked flint	Select short-lived material for dating - Suitable material has been identified as present.	A single date will be obtained on material from sample <6000>. Suitable Calluna charcoal is present.
Innis Downs SMS	Pit 10010, the only possible prehistoric feature recorded at Innis Downs	Material from sample <10000> to be fully assessed for suitable material. Abundant charcoal is present but appears to be all oak.	A single date, should any viable material be found
Ditch at CH4000	Ditch 3355	Material from samples <3018> and <3019> include several tiny grains. The material from <3018> may be insufficient. As the context is a hedge bank, burrowing and root disturbance may be an issue. Check context records and photos.	A single date will be obtained, should material be considered viable.
Cornish hedge at CH 3550	Possible earlier bank buried beneath current boundary	Material from samples <3022> and <3023> to be processed and fully assessed for viable material	A single date, should any viable material be found

Site	Feature	Work required	Samples to be dated
Palaeochannel at CH 3000-3200	Pollen Monoliths	Further dates on sediment may be required to date any significant change horizons identified in the pollen sequence.	A maximum of four additional dates, should they be deemed necessary (the top and bottom of the sequence have been dated so far)

9.8 Further research

9.8.1 Further research will be undertaken to find local and regional parallels for the arrangement of pits, hearth and ditch at Site C, the timber/ pit circles at Site D and the hengiform at Site E. Further research will also be undertaken into roundhouses in the region as comparisons for Sites A and B. Further research into prospecting pits will also be undertaken, to attempt to ascertain whether the features revealed along the scheme are prospecting pits.

9.9 Presentation of results

9.9.1 In accordance with the guidelines outlined in the English Heritage document MAP 2 (English Heritage 1991), it is proposed that the results of the project should be presented in the following stages:

9.9.2 ***Publication text:*** following the completion of the programmed analysis proposed above, a text will be prepared suitable for publication as an article in *Cornish Archaeology*. This will be in the format described in Section 10, and will incorporate as necessary any information from comparable excavations. This text will be submitted for internal revision, undergo academic editing and submitted to all specialists for their comments. The edited text will be submitted to an external referee for formal academic review. Following incorporation of the referee's and other comments, the text will be copy edited, ready for publication.

9.9.3 ***Project archive:*** the completion of the project will result in an integrated project archive, which will be deposited with Royal Cornwall Museum, Truro.

9.9.4 ***Digital archive:*** components of the digital archive will be lodged with the Archaeology Data Service and Cornwall County Council Heritage Environment Record.

10 PUBLICATION

10.1 Introduction

10.1.1 Following the analysis and interpretation of the results, a text will be prepared suitable for publication as a journal article in *Cornish Archaeology*. The full text and graphics will also be deposited with the ADS digital archive and Cornwall County Council Heritage Environment Record.

10.1.2 It is also proposed to submit a short note on the prehistoric monuments and their associated dates to *The Proceedings of the Prehistoric Society, and/ or the Annual Newsletter of the society.*

10.1.3 Public outreach and popular publication material has been/ will be produced, to disseminate the excavation results to a wider, non-specialist, audience. To date, outreach activities have included:

- Press releases, before and during fieldwork, which have attracted considerable local press and television interest, most interest being generated by the hengiform monument.
- Guided tours. During the fieldwork a series of tours was organised, comprising an introductory talk and a visit to Site A. To limit numbers, for health and safety and logistical reasons, the tours were invitation only, targeted at heritage groups, parish councils and other relevant local interest groups. In total c. 80 people visited the sites.
- A one-week training excavation was organised for Archaeology Foundation Course students at Truro College, hosted by Oxford Archaeology staff.

10.1.4 Further planned outreach activities include:

- A popular publication booklet (in draft at the time of writing) is intended to be circulated at the time of the road launch. It will have an initial print-run of 3000 copies, for distribution to local museums, schools, parish councils and the Eden Project. The design consists of 20 double-page spreads, covering various archaeological, palaeoenvironmental and ecological themes. The page layouts are intended to be multi-purpose, for potential re-use on the HA and OA websites, or re-formatted for use as exhibition posters.
- Lectures to local heritage groups are proposed on completion of the academic publication report, to present and publicise the academic results to a regional audience.

10.2 Academic publication report synopsis

10.2.1 The following section represents a likely breakdown of the proposed publication. This is a draft, based on current understanding of the evidence, and is liable to be modified in light of analysis results and changing interpretations.

10.2.2 The text will be supported by graphics, comprising drawings and photographs to illustrate the evidence and with tables to summarise data. The main author will work closely with the specialists to present all categories of evidence in an integrated site narrative. Full specialist analytical reports will generally be made available as part of the digital archive.

10.3 Outline synopsis

Abstract	750 words
Acknowledgements	500 words
Introduction	
Circumstances of the project, location and geology	1500 words
Archaeological and historical background	1500 words
Aims	500 words
Methodology	500 words
Results	
Phase summary	500 words
The Late Mesolithic/ early Neolithic evidence	
The flint assemblage, particularly from Site B	250 words
The Neolithic/Early Bronze Age monuments	
Overview	500 words
The environment	1000 words
The Royalton hengiform monument and timber circle	1500 words
The Lane End pit/timber circles	1500 words
The Innis Downs pit	250 words
Radiocarbon dates	1000 words
Discussion	2000 words
The Middle Bronze Age	
Overview	250 words
The environment	500 words
Pits, hearth and ditch at Site C	1000 words
Chronology	500 words
Charcoal and charred plant remains at Site C	500 words

The pottery	250 words
The saddle quern	500 words
Cassiterite residues	500 words
Discussion	1000 words

The Late Iron Age and early Roman period

Overview	500 words
The environment	500 words
Lower Trenoweth Roundhouse (Site A)	1000 words
Belowda Roundhouse (Site B)	1000 words
Pottery (Site A)	250 words
Chronology	1000 words
Discussion, including thoughts on reconstruction	1000 words

The early medieval period

Overview/ Discussion of landscape	250 words
Environmental evidence	250 words

The later medieval and post-medieval period

Overview	250 words
Environment	250 words
Pottery	250 words
Prospecting pits and other mining/ streaming evidence (incl negative evidence)	1000 words
Settlement pattern	500 words
Field systems	1000 words
Discussion	500 words

Appendices/Archive guide 250 words

References

Proposed publication figure list

Figure 1: Plan of scheme with main site locations (Cornwall location and geology maps inset)
Figure 2: Plot of Prehistoric HER sites in the study area (on a base map with elevation and watercourses shown - Also mark location of palaeochannel sequence)
Figure 3: Annotated section showing palaeochannel stratigraphy and sample locations (detailed location plan inset)
Figure 4: Palaeochannel pollen diagram
Figure 5: Top: Plan of Castilly Henge and associated monuments - showing stripped areas and location of prehistoric (?) burnt stone filled pit. Bottom: Plan of Saffron Park barrow cemetery - showing stripped areas
Figure 6: Royalton hengiform and timber circle site plan

Figure 7: Royalton hengiform - Pit and posthole sections
Figure 8: Royalton hengiform reconstruction? (comparative site plans inset)
Figure 9: Lane End timber/ pit circles site plan (Plan of Victoria concentric pit circles inset?)
Figure 10: Lane End timber/ pit circles - pit sections
Figure 11: Belowda pit and hearth group, site plan (sections inset)
Figure 12: Belowda pit and hearth group - Illustrations of saddle quern and pottery
Figure 13: Belowda roundhouse site plan (sections inset)
Figure 14: Lower Trenoweth roundhouse site plan, with sections and pottery illustration inset
Figure 15: Reconstruction of one of the roundhouses?
Figure 16: Annotated map of Belowda field system, based on 1st ed Ordnance Survey base map (or Tithe map) - showing stripped areas and locating Belowda hedge sections and medieval pottery finds.
Figure 17: Photos and sections of recorded hedge banks.
Figure 18: Medieval pottery illustrations.
Figure 19: Map showing the three main groups of 'prospecting pits', with sample sections and photo inset.

Proposed publication plate list

Plate 1: Hengiform monument, Site E.
Plate 2: Site B, as uncovered during the Haul Road SMS
Plate 3: Double ditches at Site A
Plate 4: Aerial View of Site A

10.4 Named Project Team

10.4.1 The team consists of both internal OA staff (Oxford and Lancaster offices) and external specialists. The main author will be Paul Clark and the project will be managed by Stuart Foreman.

Table 16: Named project team for analysis and publication phase

Name	Organisation	Tasks
Stuart Foreman	OA	Project management
Chris Hayden	OA	Academic editing
Paul Clark	OA North	Stratigraphic analyis, research and writing of publication text
Henrietta Quinnell	University of Exeter	Prehistoric pottery analysis/report
John Allan	Exeter Archaeology	Medieval pottery analysis/report
Kate Cramp	OA	Flint analysis/ report
Ruth Shaffrey	OA	Worked stone analysis/ report
Roger Taylor	Freelance	Petrology
Illustrator	OA	Finds illustrator
Radiocarbon lab	RLAHA (Oxford)	Radiocarbon dates (sediments)
Radiocarbon lab	SUERC	Radiocarbon dates (bone)
Radiocarbon lab	Rafter Radiocarbon Laboratory (New Zealand)	Radiocarbon dates (charred material)
Seren Griffiths	OA	Radiocarbon modelling
Richard Macphail	UCL	Geoarchaeology
Wendy Smith	OA	Charred plant remains
Dana Challinor	Freelance	Charcoal
Elizabeth Huckerby	OA North	Pollen analysis

10.5 Health and Safety

10.5.1 All OA post-excavation work will be carried out under relevant Health and Safety Legislation, including the Health and Safety at Work Act (1974). A copy of the Oxford Archaeology Health and Safety Policy can be supplied on request.

10.6 Task list

10.6.1 The project has been broken down into a series of tasks, which are set out in Appendix 2.

10.7 Programme

10.7.1 The programme is illustrated as a Gantt chart in Appendix 3.

10.8 Project costs

10.8.1 The total costs for the project are attached as Appendix 4.

11 BIBLIOGRAPHY

11.1 Cartographic Sources

Plan of Estates in the Parish of Roche in the County of Cornwall the Property of the Rt Hon Lord Vis Falmouth 1826

Ordnance Survey First Edition (1880) 6" to 1 mile map

Ordnance Survey 2nd edition (1907)

11.2 Secondary Sources

Allan, JP, forthcoming, The pottery from Quay Street and its wider context, in Excavations in Quay Street, Lostwithiel, *Cornish Archaeol.*

Allan, JP, and Langman, G, 1998–9, The pottery, in Stead, P, Investigations at Nos 4–6 Pydar Street, Truro, *Cornish Archaeol* 37–8, 180–6

Archaeology Data Service, 2000, *Digital Archives from Excavation and Fieldwork: Guide to Good Practice*, Second Edition

Atkinson, RL, 1985, Tin and Tin Mining, Shire Publications Ltd. (Album 139)

Avery, BW, 1990, *Soils of the British Isles*: Wallingford, CAB International

Balaam, N, Smith, K. and Wainwright, G.J. 1982, The Shaugh Moor Project: Fourth Report - Environment, context and conclusion. *Proceedings of the Prehistoric Society*, 48: 203-278

Barber, KE, 1976, 'History of Vegetation' in *Methods in Plant Ecology* (ed SB, Chapman), 5–83, Oxford

Berridge, P, and Roberts, A, 1986, 'The Mesolithic period in Cornwall' *Cornish Archaeology* 25, 7-34

Brown, AP, 1977, 'Late Devensian & Flandrian vegetational history of Bodmin Moor, Cornwall' *Philosophical transactions of the Royal Society, London, Series B* V276, 251-320

Brooks, T, 2001, *Castle-an-Dinas 1916-1957: Cornwall's Premier Wolfram Mine*

Carew, R, 1602, The Survey of Cornwall, online at: http://www.classic-literature.co.uk/british-authors/16th-century/richard-carew/the-survey-of- cornwall

Charman, DJ, Gearey, BR, and West, S, 1998, 'New perspectives on prehistoric human impact on the uplands of Devon and Cornwall' In Blacksell M, Matthews J and Sims P (eds.), *Environmental management and change in Plymouth and the South-West*, Plymouth, 1-19

Clark, G, 1936, 'The timber monument at Arminghall and its affinities', *Proceedings of the Prehistoric Society* 2, 1-51

CAU 1994, *Bodmin Moor, An Archaeological Survey*, Cornwall Archaeological Unit, The Royal Commission on Historic Monuments and English Heritage

CAU 2002, 'A30 Bodmin to Indian Queens, An Archaeological Watching Brief', by Cornwall Archaeological Unit, on behalf of Highways Agency

Courty, MA, Goldberg, P, and Macphail, RI., 1989, Soils and Micromorphology in Archaeology, Cambridge

Earl, B, 1985, ''Melting tin' in the West of England: A study of an old art' Journal of the Historical Metallurgy Society, 19(2) 153-161

Earl, B, 1994, 'Tin from the Bronze Age smelting viewpoint' Journal of the Historical Metallurgy Society, 28(2) 117-120

English Heritage, 1991, *The Management of Archaeological Projects,* 2nd edn, London

Faegri, K, and Iversen, J, 1989, *Textbook of pollen analysis*, 4th edition Wiley

Findlay, DC, Colbourne, GJN, Cope, DW, Harrod, TR, Hogan, DV, and Staines, SJ, 1983, *Soils of England and Wales. Sheet 5, South West England*: Southampton, Ordnance Survey

Findlay, DC, Colborne, GJN, Cope, DW, Harrod, TR, Hogan, DV, and Staines, SJ, 1984, *Soils and their use in South West England*: Harpenden, Lawes Agricultural Trust, Soil Survey of England and Wales

Gearey BR, Charman DJ and Kent M, 2000, 'The Palaeoecological Evidence for the Prehistoric Settlement of Bodmin Moor, Cornwall, southwest England. Part II: Land Use Changes from the Neolithic to the Present', *Journal of Archaeological Science* 27, 493-508

Gebhardt, A, 1993, Micromorphological evidence of soil deterioration since the mid-Holocene at archaeological sites in Brittany, France: The Holocene, v. 3, p. 331-341

Gerrard, S, 1989, 'The Medieval and Early Modern Cornish Stamping Mill' Industrial Archaeology Review, XII, vol. 1

Gerrard S, 2000, *The Early British Tin Industry*, Tempus Publishing, Stroud

Gibson A, 1994, 'Excavations at the Sarn-y-bryn-Caled Cursus Complex, Welshpool, Powys, and the timber circles of Great Britain and Ireland', *Proceedings of the Prehistoric Society* 60, 143-224

Gibson A, 2005, *Stonehenge and Timber Circles*, Tempus Publishing, Stroud

Goldberg, P, and Macphail, RI, 2006, *Practical and Theoretical Geoarchaeology*: Oxford, Blackwell Science

Hartgroves S and Bayfield T, 1994, *A Report to County Highways: Archaeological Assessment of the Bodmin Bypass - Indian Queens (A39) Trunk Road Corridor,* unpubl CAU report

Henderson, C, 1930, *St Columb Major: church and parish*, Shipston-on-Stour: King's Stone Press

Highways Agency, Design Manual for Roads and Bridges Volume 11 Environmental Assessment

Hodgson, JM, 1997, *Soil Survey Field Handbook*: Silsoe, Soil Survey and Land Research Centre

Holbrook, N, 2005, 'Part 6, Roman', in Webster, C, 'A research agenda for archaeology in South-West England, Draft resource assessment', English Heritage

Hooper, S, 1976, 'Excavation of a Ring Cairn at Castle Hill, Innis Downs, Luxulyan', *Cornish Archaeology* 15, 86-89

Irwin, MM 1976, 'The Bodmin Bypass', *Cornish Archaeology* 15, 77-86

Macphail, RI, 1987, *A review of soil science in archaeology in England. In: Environmental Archaeology: A Regional Review Vol. II* (Ed H.C.M. Keeley), Occasional paper No. 1, pp. 332-379, Historic Buildings & Monuments Commission for England, London

Macphail, RI, 1990, *Soil report on Carn Brea, Redruth, Cornwall, with some reference to similar sites in Brittany, France.* 55/90, Ancient Monuments Laboratory, English Heritage, London

Macphail, RI, 2003, Scanian Road profiles (A1316 and A1317): Soil Micromorphology (with reference to chemistry): Umeå, Department of Archaeology and Sami Studies, Umeå University

Macphail, RI, and Crowther, J, 2005, Stanstead Airport (Long Stay Car Park and Mid Stay car Park - BAACPOO and BAAMPOO): Soil Micromorphology, Chemistry and Magnetic Susceptibility: Oxford, Oxford Archaeology

Macphail, RI, Cruise, GM, Allen, MJ, Linderholm, J, and Reynolds, P, 2004, Archaeological soil and pollen analysis of experimental floor deposits; with special reference to Butser Ancient Farm, Hampshire, UK: Journal of Archaeological Science, v. 31, p. 175-191

Malham, A, Aylett, J, Higgs, E, & McDonnell, G, 2002, 'Tin smelting slags from Crift Farm, Cornwall, and the effect of changing technology on slag composition' Journal of the Historical Metallurgy Society, 36(2) 84-93

Maltby, E, and Caseldine, CJ, 1982, Prehistoric soil and vegetation development on Bodmin Moor, Southwestern England. *Nature*, 297: 397-400

Mercer, RJ, 1981, 'Excavations at Carn Brea', *Cornish Archaeology*, 20, 259-263

Mercer, RJ, 1986, 'The Neolithic in Cornwall', *Cornish Archaeology* 25, 35-80

Miles, TJ, 1976, Late medieval potters' waste from Lostwithiel, *Cornish Archaeology* 15, 115–17

Miles, TJ, 1979, Late medieval potters' waste from Lostwithiel, *Cornish Archaeology* 18, 103–4

Mitchell, FB, 1969, 'The history of mineral processing in Cornwall' Journal of the Historical Metallurgy Society, 4(1) 4-6

Moore, PD, Webb, JA, and Collinson, ME, 1991, *Pollen Analysis.* (2nd Edition) London

Museums and Galleries Commission, 1992, *Standards in the Museum Care of Archaeological Collections*

Network Archaeology, 2002, 'Maudlin to Indian Queens Proposed Gas Pipeline: Archaeological Watching Brief Interim Report', prepared by Network Archaeology Ltd on behalf of Mouchel for Transco

Northover, JP, 1982, 'The Exploration of the Long-distance Movement of Bronze in Bronze and Early Iron Age Europe', *Bulletin of the Institute of Archaeology*, 45-72

Nowakowski, JA, 1994, By-passing Indian Queens - Archaeological Investigations along the A30, 1992-1994, Cornwall Archaeological Unit, Truro

Nowakowski, JA, 1997, 'A30 Project - Archaeological Investigations along the route of the Indian Queens By-pass 1992-1993'. Cornwall Archaeological Unit on behalf of Highways Agency and English Heritage

Nowakowski, JA, Sharpe, A, and Young, A, 1997 *A30 Bodmin By-pass to Indian Queens Improvement: Archaeological Evaluation and Assessment of the By-pass Corridor*, unpubl CAU rep, on behalf of the Highways Agency

Oxford Archaeology, 2002, Oxford Archaeology Environmental Sampling Guidelines

Oxford Archaeology, 2005a, A30 Bodmin to Indian Queens, Archaeological Design Report, Working Paper PD0030/5/5

Oxford Archaeology, 2005b, A30 Bodmin to Indian Queens, Further Archaeological Design, Belowda archaeological sites

Padel, OJ, 1985, 'Cornish Place-name Elements', English Place-name Society, 56 and 57, Nottingham

Palmer, M & Neaverson, P, 1989, 'Nineteenth Century Tin and Lead Dressing: A Comparitive Study of the Field Evidence' Industrial Archaeology Review, XII, vol. 1.

Parker-Pearson, M, 1990 The production and distribution of Bronze Age pottery in south-west Britain, *Cornish Archaeol* 29, 5-32

Parkman, September 2001, 'A30 Bodmin to Indian Queens Improvement, Working Paper, Alternative Alignment at Belowda', by Parkman in association with RPS Consultants, on behalf of Highways Agency

Penhallurick RD, 1986, *Tin in Antiquity*, London

Quinnell, H, 2004a, *Trethurgy. Excavations at Trethurgy Round, St Austell: Community and Status in Roman and Post-Roman Cornwall*. Cornwall County Council

RPS 2000, 'A30 Bodmin to Indian Queens Improvement, Stage 2 Assessment Report, Cultural Heritage', by RPS in association with Parkman, on behalf of Highways Agency

RPS 2001a, 'A30 Bodmin to Indian Queens Improvement: Geophysical Surveys at Sites G4 - G6 (Deep Tye, Saffron Park Barrows and South of Holywell Chapel)' Report R3834B/197, June 2001

RPS 2001b, 'A30 Bodmin to Indian Queens Improvement, Archaeologial Topographical Surveys at Sites TS1 (Rosewin Farm), TS2 (Belowda Field System)', and TS3 (East Griglands) by RPS Consultants in association with Parkman, on behalf of Highways Agency RPS Report R3834/196/18, July 2001

Roberts, N, 1998, *The Holocene: an environmental history*. Second Edition Oxford

Scott Wilson/Alfred McAlpine, 2003a, *A30 Bodmin to Indian Queens Improvement. Environmental Statement Volumes 1, 2 and 3*, prepared by Scott Wilson/Alfred McAlpine on behalf of Highways Agency, May 2003

Scott Wilson/Alfred McAlpine, 2003b, 'An Historic Landscape Assessment of the Belowda Field System, A30 Bodmin to Indian Queens Road Improvement.' Report prepared by Oxford Archaeology, on behalf of Highways Agency and Scott Wilson/ Alfred McAlpine Working Paper No: D100326/5/5

Smith, G, Macphail, RI, Mays, SA, Nowakowski, J, Rose, P, Scaife, RG, Sharpe, A, Tomalin, DJ, and Williams, DF, 1996, Archaeology and environment of a Bronze Age Cairn and Romano-British field system at Chysauster, Gulval, near Penzance, Cornwall: *Proceedings of the Prehistoric Society*, 62, p. 167-219

Smith, K, Coppen, J, Wainwright, GJ, and Beckett, S, 1981, The Shaugh Moor Project: Third Report - Settlement and environmental investigations. *Proceedings of the Prehistoric Society*, 47: 205-273

Smith, RJC, Healy, FMA, Allen, MJ, Morris, EL, Barnes, I, and Woodward, PJ, 1997 *Excavations Along the Route of the Dorchester By-pass, Dorset, 1986-8*, Wessex Archaeology Report Series 11

Stead, P, 1998–9, Investigations at Nos 4–6 Pydar Street, Truro, *Cornish Archaeol*. 37–8, 178–89

Stockmarr, J, 1971, Tablets with spores used in absolute pollen analysis. *Pollen and Spores* 13: 615-621

Taylor, RT, and Allan, JP, 1998–9, Addendum: A note on the petrology of Cornish potteries, in Allan and Langman 1998–9, 186–9

Thomas, AC, 1964, 'The society's 1962 excavations: the Henge of Castilly, Lanivet', *Cornish Archaeology* 3, 3-14

Threipland, LM, 1956 An Excavation at St Mawgan-in-Pydar, North Cornwall, *Archaeol J* 113, 33-81

Timberlake, S, 1994, 'An experimental tin smelt at Flag Fen' Journal of the Historical Metallurgy Society, 28(2) 121-128

Varley, WJ, 1938 'The Bleasdale circle', *Antiquaries Journal* 18, 154-171

Wailes, B, 1963, 'Excavations at Castle-an-Dinas, St. Columb Major: interim report', *Cornish Archaeology* 2, 51-55

Walker, K, 1990, *Guidelines for the preparation of excavation archives for long term storage*, United Kingdom Institute for Conservation, London

Woodward, A, & Cane, C, 1991, The Bronze Age Pottery in Nowakowski, JA, 1991, Trethellan Farm, Newquay: the excavation of a lowland Bronze Age settlement and Iron Age cemetery, *Cornish Archaeol* 30, 5-242

Wymer, JJ, 1999, *The Lower Palaeolithic Occupation of Britain*, London

APPENDIX 1: CATALOGUES OF ARTEFACTUAL AND ENVIRONMENTAL REMAINS

CATALOGUE OF MEDIEVAL AND POST-MEDIEVAL POTTERY

This list presents the number of sherds, minimum number of vessels (MNV) and forms and comments on each fabric type in each context excavated. The following pottery types are represented:

- Grass-marked ware: gabbroic fabric, 8-11C as described in Taylor and Allan 1998-9
- Gabbroic ware: gabbroic fabric, 8-11C
- LMC: Lostwithiel-type Medieval Coarseware: unglazed, handmade, mainly oxidised fabric as described in Allan forthcoming; Miles 1976; Miles 1979.
- LPMC: Lostwithiel-type Post-Medieval Coarseware fabric as LMC but thicker wheel-thrown, often with internal glaze.
- CPMC: Cornish Post-Medieval Coarseware, 16C-18C
- NDMC: North Devon Medieval Coarseware, 13C - mid 15C, handmade, unglazed.
- NDGT: North Devon Gravel Tempered Ware, 17C-19C

Table 17: Catalogue of medieval and post-medieval pottery

Context	Date	Pottery	Sherds	Vessels	Comments
3000	14-15C, 1 x 19C	LMC	11	3	2 sooted 2 jugs
		CPMC	1	1	
	19C	Bowl rim	1	1	
3001	After 1200	LMC	1	1	sooted
3021	After 1750 – probably 19C	Pantile	1	1	?Bridgewater tile, 19C
3064	After 1840	Staffs cream earthenware	1	1	
3224	After 1770	Transfer print	1	1	Probably 19C
3267	14-15C	LMC	1	1	Jug rim
3414	after 1200	LMC	1	1	Handmade base
3426	after 1200	NDMC	1	1	Handmade
3441	1200-1500	LMC	6	2	Sooted base
4060	18C	Bristol-Staffs yellow slipware	2	1	
	L19-E20C	Transfer-print	2	1	
	residual	LMC	4	1	body
4061	1200-1500	LMC	2	1	
4071	1250-1450	LMC	6	2	1 sooted base, 1 sooted jug

Context	Date	Pottery	Sherds	Vessels	Comments
					handle
4108	after 1200	LMC	1	1	
4121	"	LMC	1	1	
4122	"	LMC	1	1	
4175	"	LMC	1	1	sooted
4176	8-11C	Grass-marked	2	1	?Gabbroic
		LMC	1	1	
4181	?L14/E15C – 15C	North Devon Cal			
		LMC			
		LMC	3	2	1 flat jug handle, 1 sooted
4200	1200-1500	LMC	4	3	
	I suspect this is pre-13C	?Daub	1	1	
4292	after 1200	LMC	1	1	
		LMC glazed	1	1	jug
4342	18C or later	Bristol-Staffs yellow slipware	1	1	18C cup sherd
4350	17-18C	NDGT	5	3	1 sooted bowl
4350	16C	LMC	11	5+	1 unglazed bowl rim, sooted exterior, traces of internal slip band, 1 glazed sherd
4355	16-17C	LMC	2	2	1 glazed
4357	L15-L16C	LMC	13	6+	1 glazed
4466	After 1770	Painted pearlware	1	1	after 1770
		LMC	2	2	
4476	after 1200	LMC	4	2	
4480	after 1200	LMC	1	1	
5001	After c.1780	Transfer-print	1	1	Cup base, c.1800
5121	After c.1780	Transfer-print	1	1	Scrap
5139	After 1770	NDGT	1	1	
		Staffs white earthenware	1	1	
7003	1870-1920		32		Including boot black jars, no details
7008	M-L19C	CPMC	5	3	

Context	Date	Pottery	Sherds	Vessels	Comments
		Staffs transfer-print white earthenware	43	?15+	
		Staffs cream earthenware	4	1	
7015	L18-19C	CPMC	13	2	
7018	M-L19C	CPMC	10	2	1 bowl
		Staffs white earthenware transfer-print	3	2	
7034	After 1780	Transfer-print	1	1	
7064	After 1800	Black basalts	1	1	Probably Bristol
8036	After 1800	Painted pearlware	1	1	c.1800-30
8057	After 1800	Painted pearlware	1	1	c.1900-30
8062	After 1770	Staffs transfer-print	1	1	
10,009	After 1850	Staffs white ware	3	1	Probably 20C

CATALOGUE OF WORKED STONE

Table 18: Worked stone by context

Context	Description	Notes	Size	Lithology	Lithology Notes
4137	Complete formed saddle quern	Complete extremely well made saddle quern. Unusually oblong in shape, almost rectangular. Grinding surface is only very slightly concave along its length and flat across its width. The whole grinding surface is lightly worn but all around the edges it is extremely smooth, may even be polished although need to see it in direct sunlight to determine this. It has a gently curved base and steep slightly curved sides and the whole thing is very neatly pecked. It looks almost too narrow to have been much use for grinding grain and it suspiciously flat given the amount of wear around the edges. May well have been used to process something other than grain	Measures 160-165mm wide x 312mm long x 80mm thick	Possibly a Devonian sandstone	Fine to medium grained extremely micaceous (muscovite) probable sandstone. Has inclusions of a dark mineral
4381	Whetstone, natural	Probably a naturally elongate and flat pebble although it has been used along one edge as a whetstone. The rest of the stone is naturally smooth and unused.	Measures 139 x 35 x 8mm		

CATALOGUE OF FLINT

Table 19: Worked flint by context

Context	Sf. no.	Category	Total no.	Burnt no.	Broken no.	Weight (g)	Use-wear?	Spot date	Condition	Cortication	Comments
3046	3000	Retouched blade	1				Yes	Mesolithic	Fresh	Uncorticated	Plunging blade with short length of semi-abrupt retouch on right-hand shoulder.
3438		Blade	1		1		Yes	Mesolithic/early Neolithic	Fresh	Uncorticated	Broad, fine, tertiary blade with proximal break. Chert.
3444		Blade	1				No	Mesolithic/early Neolithic	Fresh	Moderate Cortication	Plunging tertiary blade, soft-hammer, platform edge abrasion, dorsal blade scars. <3024>
4060		Flake	1		1		No		Moderate post depositional damage	Light Cortication	Lightly rolled condition.
4156	4001	Serrated flake	1				Yes		Fresh	Light Cortication	Tertiary bladelike flake with worn serrations on left-hand edge. Platform edge abrasion.
4380		Chip	1		1		No		Slight post depositional damage	Uncorticated	<4086>
4381		Blade	1		1		Yes	Mesolithic	Fresh	Light Cortication	Soft-hammer tertiary blade, distal snap. Dubious notch on inverse left-hand edge - microburin?
4381		Blade	1		1		Yes	Mesolithic	Fresh	Light Cortication	Narrow, parallel-sided, tertiary blade. Both lateral edges with heavy scraping use-wear. Deliberately snapped, with notch?
4381	4003	Blade	1				Yes	Mesolithic?	Slight post depositional damage	Light Cortication	Broad plunging tertiary blade with dorsal blade scars and platform edge abrasion. Heavy use-wear to both edges.
4381		Blade	1				Yes	Mesolithic	Fresh	Uncorticated	Long, narrow tertiary blade with heavy use-wear. Notch on proximal left-hand edge?? <4103>
4381		Blade	1		1		Possibly	Mesolithic	Fresh	Moderate Cortication	Cherty flint. With distal break. Possible use-wear/light retouch on right-hand edge. <4103>
4381		Bladelike flake	1		1		Possibly	Mesolithic/early Neolithic	Fresh	Light Cortication	Medial section of ?deliberately snapped tertiary blade. <4103>
4381		Bladelike flake	1				Possibly	Mesolithic/early Neolithic	Fresh	Light Cortication	Soft-hammer tertiary bladelike flake. <4103>
4381		Bladelike flake	1		1		No		Fresh	Uncorticated	
4381		Burnt unworked flint	1	1	1	1	No				<4103>

Context	Sf. no.	Category	Total no.	Burnt no.	Broken no.	Weight (g)	Use-wear?	Spot date	Condition	Cortication	Comments
4381		Chip	2		1		No		Slight post depositional damage	Light Cortication	Both with platform edge abrasion. <4103>
4381		Flake	1				Possibly		Slight post depositional damage	Uncorticated	Angular distal-trimming flake. Spur at right distal corner possibly used for piercing.
4381		Flake	1				No		Slight post depositional damage	Light Cortication	Trimming flake. Gravel flint?
4381		Flake	1		1		No		Slight post depositional damage	Heavy Cortication	Preparatory flake.
4381		Flake	1		1		No		Fresh	Uncorticated	Deliberately snapped secondary flake.
4381		Flake	1		1		No		Slight post depositional damage	Light Cortication	Side-trimming flake.
4381		Flake	1	1	1		No		Slight post depositional damage	Light Cortication	Snapped secondary flake, possibly burnt.
4381		Flake	1				No		Fresh	Uncorticated	<4103>
4381		Flake	1	1	1		No		Slight post depositional damage	Uncorticated	Heavily calcined flake fragment.
4381		Flake	1		1		No		Slight post depositional damage	Moderate Cortication	Preparatory flake from chattered pebble.<4103>
4454		Single platform blade core	1			24	No	Mesolithic/early Neolithic	Fresh	Uncorticated	Small chattered (beach?) cobble of slightly cherty flint. Bladelet removals taken down one side from simple platform with abraded edge. <4134>
4481		Flake	1		1		Yes		Fresh	Light Cortication	Secondary flake with slight distal break. Platform edge abrasion.
6014		End scraper	1	1	1		Yes		Slight post depositional damage	Uncorticated	Made on side-trimming flake (possible blade). Neat abrupt retouch to distal end; shallow invasive inverse retouch on right-hand side. Chalk flint with thick cortex, c. 5mm.

CATALOGUE OF CHARCOAL

Table 20: Charcoal by sample and context

Abundance scale: 1 = present (up to 5 items); 2 = common (5-25 items); 3 = abundant (25-100 items); 4 = very abundant (>100 items); N/A = absent

Interpretation	Sample No	Context No	Site	Charcoal abundance, details and contaminants	Sample volume	Notes
	5003	5087	Haul road Site	3: Size: 2-10mm mainly *Quercus,* some vitrification. Contaminants: Many roots; modern insects; some modern seeds (incl. Rubus sp.)	25	
	5004	5148	Haul road Site	2: Size: 2-4mm. Mainly ring porous cf *Quercus* some vitrification. Contaminants: Some root contamination	32	Iron pan (casts from around roots).
	5005	5165	Haul road Site	3: Size: 2-4mm. Mainly *Quercus,* some possible *Calluna.* Contaminants: Many roots; red plastic; Modern seeds (incl. Rubus sp.; Ranunculus sp.)	40	
	6000	6014	Haul road Site	3: Size: 2-10mm. Possibly diffuse porous, may be *Calluna.* Contaminants: Many Roots; Modern Seeds.	40	
	10000	10011	Haul road Site	4: Size: 2-20mm. Majority *Quercus* with some possible tyloses. Contaminants: A few roots	40	1/16 assessed (re-boxed in Box 6)
	3018	3360	Nr. CH 4000	4: Size: 2-40mm. *Calluna* and diffuse porous wood (possibly *Salix).* Many roundwood pieces (max diameter 20mm). Contaminants: A few roots	?40 (4buckets)	High density of charred material but appears quite friable. Considerable amounts of charcoal. Many large charcoal fragments over 8mm in size
	3019	3361	Nr. CH 4000	4: Size: 2-10mm. Ring porous; *Quercus* and possible *Fraxinus. Calluna* and unidentified diffuse porous wood. Some roundwood. Contaminants: A few roots	40	
	3006	3226	Site A	3: Size: 2-4mm. *Quercus,* cf *Calluna and* cf *Ulmus. Contaminants: Many roots; Insect larvae; Modern seeds (Incl. Rubus sp.; Carex sp.); Worm egg*	?40 (4 buckets)	
	3007	3262	Site A	2: Size:2-6mm. *Quercus* and some diffuse porous wood. Contaminants: Some roots; Seeds (Incl. Rubus sp.)	40	Lots of sediments. Most of the charcoal present is <2mm
	3009	3268	Site A	3: Size: 2-8mm. *Quercus* and some diffuse porous wood (*Corylus/Alnus/Salix*). Contaminants: Roots; Insects	40	
	3010	3270	Site A	4: Size: 2-20mm. Diffuse porous wood, possibly Maloideae, and ring porous/semi ring porous wood. Some roundwood. Contaminants: A few roots; Insect larvae	40	

Interpretation	Sample No	Context No	Site	Charcoal abundance, details and contaminants	Sample volume	Notes
	3027	3438	Site A	4: Size: 2-20mm. *Quercus*. Contaminants: Some roots; Strands from flot mesh; Rubus sp. Seed	50	Some burnt bone
	3028	3440	Site A	4: Size: 2-20mm. Mainly ring porous cf *Quercus*. Contaminants: A few roots; Cereal chaff	55	Dominated by charcoal
	3025	3442	Site A	2: Size: 2-4mm. Diffuse porous porous *Corylus/Alnus* and *Calluna*. Contaminants: Some roots; Rubus sp. Seeds	60	
	3030	3443	Site A	2: Size: 2-4mm. Diffuse porous porous roundwood. Contaminants: Many roots; Rubus sp. Seed	50	
	3024	3444	Site A	1: Size: 2-6mm. Unidentified. Contaminants: Chaff; A few roots; Modern seeds (large grass; Rubus sp.)	60	
	3026	3447	Site A	N/A. Contaminants: Many roots; Grass stem; Insects; Modern seeds (incl. Rubus sp.); Worm egg	49	Small amount of <2mm diffuse charcoal
	3029	3449	Site A	2: Size: 2-4mm. Diffuse porous porous wood (possibly *Alnus/Corylus/Salix*). Contaminants: Some large roots	60	
	3041	3450	Site A	2: Size: 2-4mm. Semi ring-diffuse porous wood. Contaminants: Many roots; Leaf (Crateagus); Grass stem; Insect larvae; Plastic from flot mesh.	60	
	3032	3453	Site A	N/A. Contaminants: A few roots; Leaf; Some plastic	60	Low density of charred material.
	3033	3454	Site A	2: Size 2-4mm. diffuse porous with some larger fragments of roundwood. Contaminants: Roots	15	
	3031	3457	Site A	4: Size: 2-20mm. Mainly *Quercus*. Contaminants: A few roots; Blue plastic; Cereal chaff; Strands of flot mesh	20	
	3034	3458	Site A	3: Size: 2-10mm. Ring porous, cf *Quercus*, some vitrification. Contaminants: Roots; Plastic from flot mesh	36	
	3035	3460	Site A	N/A. Contaminants: A few roots; Rubus sp. Seed; Worm egg; Insects	60	Lots of sediment.
	3037	3466	Site A	N/A. Contaminants: A few roots; Modern seeds.	60	Lots of sediment.
	3038	3467	Site A	2: Size 2-4mm. Cf *Quercus*. Contaminants: Roots; Grass stem; Rubus sp. Seed	50	
	3039	3468	Site A	2: Size: 2-6mm. Ring porous, cf *Fraxinus*. Contaminants: A few roots	60	
	3040	3470	Site A	2: Size: 2-4mm. Possibly semi ring porous wood. Contaminants: A few roots; Rubus sp. Seed; Grass stem; Many tiny eggs (?insect/worm)	60	

Interpretation	Sample No	Context No	Site	Charcoal abundance, details and contaminants	Sample volume	Notes
	3043	3472	Site A	N/A. Contaminants: A few roots, and plastic	60	
	3046	3474	Site A	N/A. Contaminants: Some roots; Plastic from flot mesh; Paper	30	
	3047	3475	Site A	N/A. Contaminants: A few roots; Plastic from flot mesh	15	
	3048	3476	Site A	N/A. Contaminants: Some roots; Plastic from flot mesh	30	
	4118	4006	Site B	1: Size: 2-10mm. Possibly ring porous. Contaminants: Roots	10	
	4003	4066	Site B	1: Size: 2-4mm (only a few fragments). Possible diffuse porous wood. Contaminants: A few roots; Plastic.	10	
	4011	4073	Site B			
	4007	4079	Site B			
	4008	4082	Site B	1: Size: 2-8mm (only 2 fragments). Indeterminate. Contaminants: A few roots; Tiny eggs (Insect/Worm?)	10	
	4123	4084	Site B	1: Size: 2-4mm. Indeterminate. Contaminants: A few roots	30	
	4119	4086	Site B	1: Size: 2-4mm. *Quercus*. Contaminants: A few roots	30	
	4012	4101	Site B			
	4014	4143	Site B	3: Size: 2-12mm. Diffuse wood cf *Corylus,* some roundwood. Contaminants: Roots; Modern seeds.	5	Very abundant charred material
	4015	4144	Site B	1: Size: 2-4mm (only a few fragments). Indeterminate. Contaminants: Roots; Tiny eggs (Insect/Worm?)	40	
	4088	4205	Site B			
	4083	4374	Site B	1: Size: 2-8mm. Indeterminate. Contaminants: Roots	40	
	4087	4377	Site B	1: Size: 2-4mm. Diffuse porous wood, indeterminate. Contaminants: Roots	40	
	4086	4380	Site B	1: Size: 2-4mm. *Quercus*. Contaminants: Roots	30	
	4099	4381	Site B	2: Size: 2-4mm. Some *Quercus* and possibly diffuse porous wood. Contaminants: Many roots; Modern Rubus sp. Seeds	40	
	4103	4381	Site B	2: Size: 2-8mm. Diffuse porous wood *Corylus/Alnus*. Contaminants: Roots; Worm eggs	120	
	4089	4383	Site B	1: Size: 2-8mm. Indeterminate. Contaminants: Roots	40	
	4121	4402	Site B	1: Size 2-4mm. Indeterminate. Contaminants: Roots	40	
	4016	4137	Site C	4: Size 2-20mm. Majority *Quercus,* some *Corylus*. Contaminants: A few roots; Modern seed	40	1/8 assessed (re-boxed in Box 6)

Interpretation	Sample No	Context No	Site	Charcoal abundance, details and contaminants	Sample volume	Notes
	4018	4139	Site C	4: Size: 2-20mm. *Quercus* and cf *Corylus*. Contaminants: A few roots	40	1/8assessed (re-boxed in Box 6)
	4019	4140	Site C	4: Size: 2-26mm. Majority appears ring porous, cf *Quercus,* some possible roundwood. Contaminants: A few roots	10	High density of chared material. Predominantly charcoal.
	4020	4173	Site C	4: Size: 2-20mm. *Quercus* and diffuse porous wood cf *Corylus*. Contaminants: Roots	40	1/4 assessed (re-boxed in Box 6)
	4112	4415	Site C	4: Size: 2-40mm. Majority *Quercus*. Contaminants: A few roots	40	
	4113	4415	Site C	4: Size: 2-10mm. *Quercus* and some diffuse porous wood cf Maloideae. Some small twigs. Contaminants: Many roots	40	1/2 assessed
	4127	4419	Site C	2: Size: 2-4mm. *Quercus*. Contaminants: Roots	10	
	4111	4422	Site C	3: Size: 2-18mm. Majority *Quercus,* with some possible diffuse porous wood. Contaminants: A few roots	10	
	4109	4424	Site C	4: Size: 2-30mm. Quercus and some diffuse porous types, cf Maloideae and Corylus. Contaminants: A few roots	40	1/4 assessed
	4110	4425	Site C	4: Size: 2-20mm. Quercus, cf *Corylus* and cf Maloideae. Contaminants: A few roots	35	1/8 assessed (re-boxed in Box 6)
	4108	4426	Site C	4: Size: 2-20mm. Quercus and diffuse porous types including possible roundwood. Contaminants: Roots	40	1/4 assessed
	4116	4427	Site C	3: Majority Quercus and some diffuse porous wood. Contaminants: Roots	35	
	4104	4429	Site C	4: Diffuse woods, cf *Corylus/Alnus*, some *Quercus*. Contaminants: A few roots	40	1/8 assessed (re-boxed in Box 6)
	4105	4432	Site C	4: Size: 2-20mm. Quercus, cf *Corylus* and cf Maloideae. Contaminants: A few roots	30	1/8 assessed (re-boxed in Box 6)
	4106	4433	Site C	4: Size: 2-20mm. Quercus and diffuse porous wood cf Maloideae, some possible Quercus roundwood. Contaminants: A few roots	40	1/16 assessed (re-boxed in Box 6)
	4107	4437	Site C	4: Size: 2-20mm. Quercus and diffuse porous Corylus/Alnus and possible Maloideae. Some possible roundwood. Contaminants: A few roots	10	
	4114	4443	Site C	4: Size: 2-20mm. Majority *Quercus* some Maloideae. Some *Quercus* roundwood. Contaminants: A few roots	20	1/8 assessed (re-boxed in Box 6)
	4115	4444	Site C	4: Size: 2-20mm. *Quercus,* cf *Corylus* and cf Maloideae.	40	1/16 assessed (re-boxed in Box 6)

Interpretation	Sample No	Context No	Site	Charcoal abundance, details and contaminants	Sample volume	Notes
				Contaminants: A few roots		
	4125	4447	Site C	3: Size: 2-8mm. Quercus and diffuse porous Corylus/Alnus and possible Maloideae. Contaminants: Roots; Modern seeds	40	
	4126	4448	Site C	4: Size: 2-12mm. Majority *Quercus*. Contaminants: Roots; Plastic	35	
	4128	4450	Site C	2: Size 2-10mm. *Quercus*. Contaminants: A few roots	10	
	4130	4453	Site C	4: Size: 2-20mm. Majority *Quercus,* lots of roundwood. Contaminants: A few roots	20	1/16 assessed (re-boxed in Box 6)
	4134	4454	Site C	N/A. Contaminants: Roots; Many tiny eggs (Insect/Worm)	20	
	4135	4465	Site C	4: Size: 2-10mm. Majority *Quercus*. Contaminants: A few roots	10	1/8 assessed (re-boxed in Box 6)
	4149	4474	Site C	4: Size: 2-18mm. *Quercus*. Contaminants: Roots	10	
	4148	4415	Site C	2: Size 2-8mm. *Quercus*. Contaminants:	10	
	4143	4433	Site C	4: Size: 2-20mm. Quercus and diffuse porous wood, some roundwood. Contaminants: A few roots	10	
	4136	4452	Site C	3: Size: 2-8mm. Quercus and some possible ring porous roundwood. Contaminants: Roots	30	
	4091	4385	Site D	Roots	40	This sample comes in two bags both different context numbers. As such it was not selected for potential dating material
	4092	4386	Site D	N/A. Contaminants: Roots; Worm eggs	20	
	4093	4387	Site D	1: Size: 2-4mm. Diffuse porous wood, possibly Maloideae. Contaminants:		
	4094	4390	Site D	N/A. Contaminants: Roots	5	
	4095	4391	Site D	N/A. Contaminants: Roots; Modern seeds	10	
	4096	4392	Site D	N/A. Contaminants:		
	4097	4393	Site D	N/A. Contaminants: Roots	60	
	4151	4463	Site D	N/A. Contaminants: A few roots; Modern Ranunculus sp. Seeds	40	
	4150	4464	Site D	N/A. Contaminants: Roots; Modern seeds.	40	
	4152		Site D	Roots	40	
	4073	4329	Site D	2: Size: 2-4mm. Ring porous, indeterminate. Contaminants: Roots; Modern seds; Red paint flake	40	
	4074	4330	Site D	2: Size: 2-20mm. All twig-like material (roundwood)		

Interpretation	Sample No	Context No	Site	Charcoal abundance, details and contaminants	Sample volume	Notes
pit fill; part of eastern pit circle	4069	4003	Site D; E pit circle	2: Size: 2-4mm. Quercus and some possible diffuse porous wood. Contaminants: Roots; Modern seeds (Ranunculus sp.; Rubus sp.; Carex sp.) Green paint flake.	40	
pit fill, part of eastern pit circle	4045	4237	Site D; E pit circle	4: Size: 2-20mm. Majority appears to be *Quercus*, possibly with tyloses. Contaminants: Roots	25	
pit fill; possible post pipe within pit	4062	4257	Site D; E pit circle	1: Size: 2-4mm. (only several fragments), possibly ring porous. Contaminants: Roots; Modern seeds (Rubus sp.; Ranunculus sp.); Worm egg; Paint flake	40	
pit fill, possible basal fill of possible post pipe	4063	4258	Site D; E pit circle	N/A. Contaminants: Roots; Insects; Modern Carex sp. Seed	10	
pit fill; basal fill of feature	4065	4260	Site D; E pit circle	N/A. Contaminants: Roots	10	
pit fill; basal fill of feature	4066	4260	Site D; E pit circle	3: Size: 2-10mm. Majority of *Quercus,* some vitrification. Contaminants: Roots; Modern Rubus sp. Seds; Worm eggs	? (4 boxes/bags)	
pit fill; possible basal fill of possible post pipe in pit	4050	4262	Site D; E pit circle	3: Size: 2-20mm. *Quercus*. Contaminants: Roots; Modern Rubus sp. Seeds; Worm egs	20	
pit fill; possible post packing in pit	4051	4263	Site D; E pit circle	3: Size: 2-10mm. *Quercus* with possible tyloses. Contaminants: Roots; Modern seeds; Insect	40	
pit fill; basal fill of pit	4052	4264	Site D; E pit circle	2: Size: 2-4mm. Cf *Quercus*. Contaminants: Many roots; Many tiny eggs (insect/Worm?)	30	
pit fill; main black organic fil in pit; possibly the remains of a post	4059	4269	Site D; E pit circle	1: Size: 2-4mm. (only a few fragments), *Quercus*. Contaminants: Roots; Worm egs; Modern Rubus sp. Seed; Plastic from flot mesh.	10	
pit fill	4053	4270	Site D; E pit circle	3: Size: 2-20mm. Ring porous, *Quercus*. Contaminants: Roots	40	
pit fill	4067	4274	Site D; E pit circle	3: Size: 2-10mm. Ring porous, cf *Quercus*. Contaminants: Many roots; Modern seeds; Worm eggs.	10	
pit fill	4068	4275	Site D; E pit circle	N/A. Contaminants: Many roots; Modern seeds; Plastic from flot mesh.	20	

Interpretation	Sample No	Context No	Site	Charcoal abundance, details and contaminants	Sample volume	Notes
pit fill; primary fill or possibly a packing deposit within pit	4060	4279	Site D; E pit circle	N/A. Contaminants: Roots; Plastic from flot mesh	20	
pit fill; or possibly a packing deposit within pit	4061	4280	Site D; E pit circle	N/A. Contaminants: Many roots	20	
pit fill	4070	4284	Site D; E pit circle	3: Size: 2-4mm. Possible diffuse porous wood cf Maloideae. Contaminants: Roots; Modern seeds.	30	
pit fill; possible packing for a post	4071	4285	Site D; E pit circle	3: Size: 2-4mm. Indeterminate, possible *Quercus*. Contaminants: Many roots; Modern Ranunculus sp. Seeds	40	
pit fill	4047	4299	Site D; E pit circle	2: Size: 2-20mm. *Quercus*. Contaminants: Roots; Modern Ranunculus sp. Seeds.	40	
pit fill	4058	4307	Site D; E pit circle	Roots; Modern Rubus sp. Seed.	30	
pit fill	4054	4315	Site D; E pit circle	4: Size: 2-20mm. All material appears to be *Quercus*.		
pit fill	4056	4317	Site D; E pit circle	N/A. Contaminants: A few roots; Modern seeds	40	1/8 assessed (re-boxed in Box 6)
primary fill of pit; part of western pit circule 4022	4033	4009	Site D; W pit circle	N/A. Contaminants: Many roots; Plastic	10	
pit fill	4028	4011	Site D; W pit circle			
pit fill	4026	4014	Site D; W pit circle	N/A. Contaminants: Roots; Modern seeds	30	
pit fill; primary fill of pit	4031	4018	Site D; W pit circle	2: Size: 2-4mm. *Quercus* with some possible tyloses. Contaminants: Many roots	40	
pit fill	4036	4020	Site D; W pit circle	Roots; Insects.	40	
pit fill	4034	4239	Site D; W pit circle	4: Size: 2-20mm. Majority appears to be *Quercus* . *Contaminants: Roots*	20	
pit fill	4040	4241	Site D; W pit	3: Size: 2-8mm. Possible ring porous wood. Contaminants: Roots	40	

Interpretation	Sample No	Context No	Site	Charcoal abundance, details and contaminants	Sample volume	Notes
			circle			
pit fill	4025	4245	Site D; W pit circle	3: Size: 2-4mm. Ring porous, cf Quercus. Contaminants: Roots	40	
pit fill	4038	4247	Site D; W pit circle	4: Size: 2-20mm. Ring porous, cf Quercus and some diffuse porous wood. Contaminants: Roots	20	
pit fill	4039	4248	Site D; W pit circle	Roots	5	
pit fill	4042	4250	Site D; W pit circle	3: Size: 2-14mm. Ring porous cf Quercus and some indeterminate wood. Contaminants:		
pit fill	4044	4254	Site D; W pit circle	N/A. Contaminants: Roots	30	
pit fill	4035	4281	Site D; W pit circle	2: Size: 2-4mm. Ring porous, cf *Quercus*. Contaminants: A few roots	40	Unusually high concentration of culm bases.
	1000	1030	Site E	4: Size: 2-20mm. Majority *Quercus* . Contaminants: A few roots	15	1/16 assessed (re-boxed in Box 6)
	1002	1030	Site E	1: Size: 2-4mm (only 2 fragments). Too small to identify. Contaminants: Roots; Straw; Seeds (Rubus sp.)	30	
	1001	1041	Site E	2: Size: 2-4mm. Possibly ring porous cf *Quercus,* encrusted with sediment. Contaminants: Roots; Straw; Modern seeds (Rubus sp.; Carex sp.); Worm eggs	40	
pit fill	1010	1060	Site E			
pit fill	1011	1061	Site E	2: Size: 2-8mm. Possibly diffuse but very encrusted with sediment. Contaminants: Roots; Modern seeds (Rubus sp.)	25	
pit fill	1012	1062	Site E	N/A. Contaminants: Quite a lot of roots; Insect larvae; Modern Rubus sp. Seeds.	40	
pit fill	1015	1084	Site E	3: Size: 2-8mm. Ring porous, cf *Quercus,* encrusted with sediment. Contaminants: Roots; Modern seeds (incl. Rubus sp.); Insects	40	
pit fill	1016	1085	Site E	3: Size: 2-16mm. Majority appears to be *Quercus*. Contaminants: Roots; Insects; Green paint flake.	35	
pit fill	1013	1087	Site E	N/A. Contaminants: Many roots; Modern seeds; Insects	40	
pit fill	1014	1088	Site E	3: Size: 2-8mm. Ring porous, cf *Quercus,* heavily encrusted with sediment. Contaminants: Many roots; Tiny eggs (insect/worm?)	40	
	1024	1090	Site E	1: Size: 2-4mm. (only 2 fragments) too encrusted with sediment to	15	

Interpretation	Sample No	Context No	Site	Charcoal abundance, details and contaminants	Sample volume	Notes
				identify, possibly ring porous. Contaminants: Roots; Modern seeds (Rubus sp.); Insect larvae		
post hole fill	1025	1091	Site E	3: Size: 2-10mm. Ring porous cf *Quercus.* Encrusted with sediment. Contaminants: Roots; Modern seeds (Rubus sp.); Green paint flake.	20	
post hole fill	1027	1093	Site E	4: Size: 2-20mm. Majority of *Quercus,* encrusted with sediment. Contaminants: A few roots; Modern seeds.	20	
post hole fill	1028	1094	Site E	4: Size: 2-20mm. Mainly *Quercus*. Contaminants: Little contamination	15	High density of charred material (mostly charcoal)
post pipe	1003	1113	Site E	3: 2-20mm. *Quercus,* some encrusted with sediment. Contaminants: Roots.	30	Charcoal dominant
post hole fill	1004	1114	Site E	2: Size: 2-10mm. *Quercus,* some encrusted with sediment. Contaminants: Roots	40	
post pipe	1055	1120	Site E	3: Size: 2-10mm. Ring porous, cf *Quercus* . Contaminants: Roots; Modern seds (inl. Rubus sp. & Carex sp.), plastic	20	
	1056	1121	Site E	3: Size: 2-4mm. Mainly *Quercus*. Contaminants: Roots; Worm eggs; Plastic	40	
post hole fill	1057	1122	Site E	N/A. Contaminants: Roots	40	
pit fill	1052	1129	Site E	N/A. Contaminants: Many roots	20	
pit fill	1051	1130	Site E	2: Size: 2-10mm. Unidentified due to being encrusted with sediment. Contaminants: Roots; Modern seeds	40	
pit fill	1050	1131	Site E	4: Size: 2-20mm. *Quercus* and *Corylus*. Contaminants: A few roots	20	1/8 assessd (re-boxed in Box 6)
pit fill	1045	1132	Site E	2: Size: 2-8mm. Ring porous, cf *Quercus*. Contaminants: Modern seeds (Carex, Rubus); Insects	30	
pit fill	1044	1133	Site E	2: Size: 2-8mm. Cf *Calluna.* Some vitrified charcoal. Contaminants: Roots; Insects; Worm egg	30	
pit fill	1043	1134	Site E	N/A. Contaminants: Roots; Modern seeds	8	
pit fill	1046	1136	Site E	2: Size: 2-8mm. Possibly ring porous, cf *Quercus*. Contaminants: Many roots	45	
pit fill	1047	1137	Site E	1: Size: 2-8mm. Unidentified. Contaminants: Roots; Modern seeds	20	
pit fill	1048	1138	Site E	2: Size: 2-4mm. Unidentified, fragments small and degraded from encrusted sediments. Contaminants: Many roots; Worm eggs, straw	40	

Interpretation	Sample No	Context No	Site	Charcoal abundance, details and contaminants	Sample volume	Notes
pit fill	1008	1157	Site E	2: Size: 2-8mm. *Quercus,* some encrusted with sediment. Contaminants: Many roots; Modern seeds.	40	
post hole fill	1005	1159	Site E	N/A. Contaminants: A few roots	30	
post hole fill	1006	1162	Site E	N/A. Contaminants: Insect larvae; Some roots; Modern barley grain.	10	Low density of charred remains.Some <2mm charcoal present possibly diffuse porous
post hole fill	1023	1164	Site E	N/A. Contaminants: Roots; Insect larvae.	20	No recognisable charred plant macro-remains.
post pipe fill	1035	1165	Site E	4: Size: 2-20mm. Majority *Quercus,* encrusted with sediment. Contaminants: A few roots; Modern seeds (Carex sp.); Insect larvae.	20	
post hole fill	1036	1166	Site E	2: Size: 2-10mm. *Quercus,* encrusted with sediment. Contaminants: Roots	15	
post hole fill	1037	1167	Site E	2: Size: 2-6mm. Ring prous, cf *Quercus* . Contaminants: Some roots; Straw	25	Low density of charred remains
post hole fill	1017	1168	Site E	2: Size: 2-4mm. Ring porous, cf *Quercus*. Contaminants: Many roots; Modern seeds; Insect larvae.	20	
post hole fill	1018	1169	Site E	N/A. Contaminants: Paint flake; some roots	10	Very low density of charred material. Few fragments of charcoal (2 fragments)
pit fill	1019	1170	Site E	2: Size: 2-4mm. Unidentified, encrusted with sediment. Contaminants: Roots	30	
pit fill	1020	1171	Site E	3: Size: 2-4mm. Indeterminent, possibly diffuse or semi ring porous. Contaminants: Roots; Modern seeds; Green paint flake.	45	
pit fill	1021	1172	Site E	N/A. Contaminants: Roots	15	
pit fill	1022	1173	Site E	3: Size: 2-8mm. Majority appears to be *Quercus* with some diffuse-semi ring porous wood. Some vitrification and sediment contamination. Contaminants: A few roots	40	
pit fill	1040	1176	Site E	2: Size: 2-4mm. Possibly ring porous, cf *Quercus*. Contaminants: Roots; Modern seeds (incl. Rubus sp.; Carex sp.).	20	
pit fill	1041	1177	Site E	2: Size: 2-8mm. Majority appears to be Quercus, with some diffuse porous roundwood. Contaminants: Roots; Insect larvae; Plastic from flot mesh; Green paint flake	35	
pit fill	1042	1178	Site E	3: Size: 2-20mm. Ring porous, cf *Quercus,* possible tyloses present. Contaminants: Roots	40	
pit fill	1029	1180	Site E	N/A. Contaminants: Roots; Modern seeds (Rubus sp.); Insect larvae;	15	

Interpretation	Sample No	Context No	Site	Charcoal abundance, details and contaminants	Sample volume	Notes
				Plastic from flot mesh.		
pit fill	1030	1181	Site E	2: Size: 2-4mm. Ring porous, cf *Quercus* and possibly one fragment of diffuse to semi ring porous wood encrusted with sediment. Contaminants: Many roots; Modern seeds (incl. Rubus sp.; Carex sp.); Tiny eggs (Insect/worm?)	30	
pit fill	1031	4140	Site E	2: Size: 2-4mm. Ring porous, cf *Quercus*. Contaminants: Many roots; Straw; Insect larvae, green paint flecks	40	Low density of charred remains
	1009	1195	Site E			
post pipe	1032	1197	Site E	3: Size: 2-10mm. *Quercus*, encrusted with sediment. Contaminants: Roots; Modern seeds (Carex sp.); Insects.	40	
post hole fill	1033	1198	Site E	3: Size: 2-8mm. Majority *Quercus*, charcoal encrusted with sediment. Contaminants: Roots; Modern seeds (Rubus sp.)	40	
post hole fill	1034	1199	Site E	2: Size:2-15mm. *Quercus*. Contaminants: Many roots; Modern seeds (incl. Carex sp.); Insect larvae	40	Low density of charred remains, few pieces of charcoal (2 fragments)
	1038	1233	Site E	N/A. Contaminants: Many roots	10	
post hole fill	1026	1232	Site E	N/A. Contaminants: A few roots	15	Low density of charred remains. Few fragments of charcoal (2 fragments)
post hole fill	1039	1234	Site E	2: Size: 2-4mm. *Quercus*. Contaminants: Roots; Many tiny eggs (insect/worm?)	5	
pit fill	1049	1235	Site E	1: Size: 2-10mm. Unidentified as quite degraded. Contaminants: Roots; Worm eggs	40	
	1058		Site E	N/A. Contaminants: Roots	20	One larger piece of charcoal is present bagged sepeately, possibly ring porous
	1059		Site E	1: 2 fragments of cf *Quercus*.	10	Only charcoal (sorted from heavy fraction?) present. No flot found
	1060		Site E	2: Size: 2-10mm. Duffuse porous wood. Contaminants: A few roots	10	
	1061		Site E	N/A. Contaminants: Straw frag.	? (2 boxes/bags)	
	3008	326		2: Size: 2-10mm. diffuse porous, cf Alunus/Corylus. Contaminants: Roots	? (4 boxes/bags)	Not on sample list sent with samples.
	4048	430		N/A. Contaminants: Roots	? (1	

Interpretation	Sample No	Context No	Site	Charcoal abundance, details and contaminants	Sample volume	Notes
					box/bag)	
	3042	3471		1: Size: 2-4mm. Unidentifed. Contaminants: Some roots	?	Not on list sent with samples. Sediment adhering to remains made identification problematic.
	4032	4008		1: Size: 2-4mm (only 1 fragment). Ring porous cf *Quercus*. Contaminants: Roots	? (2 bags)	

CATALOGUE OF CHARRED PLANT REMAINS

Table 21: Charred plant remains by sample and context

Abundance scale: 1 = present (up to 5 items); 2 = common (5-25 items); 3 = abundant (25-100 items); 4 = very abundant (>100 items); N/A = absent

Interpretation	Sample No	Context No	Site	Sample volume	Cereal grains abundance and details	Chaff abundance and details	Weed seeds abundance and details	Misc abundance and details	Preservation	Contaminants	Notes
	5003	5087	Haul road Site	25	-	-	-	1: Culm nodes; Culm bases; ?Rhizome; Dicot. Roots	Good/Average	Many roots; modern insects; some moder seeds (incl. *Rubus* sp.)	
	5004	5148	Haul road Site	32	-	-	1: Chenopodiaceae indet.	1: c.f. Moss; Culm Bases	Good/Average	Some root contamination	Iron pan (casts from around roots).
	5005	5165	Haul road Site	40	-	-	1: Incl. Large Poaceae; Small Poaceae; *Carex* sp.	2: Bud; ?Rhizome; Heather leaves; Culm nodes; Culm bases c.f. mineralised *Carex* sp. Seed.	Good/Average	Many roots; red plastic; Modern seeds (incl. *Rubus* sp.; *Ranunculus* sp.)	
	6000	6014	Haul road Site	40	-	-	*1: Silene* sp.; *Danthonia decumbens*	3: Culm nodes; Culm bases; Dicot. Stem; Rhizomes	Good/Average	Many Roots; Modern Seeds.	
		10011	Haul road Site	40	-	-	-	1: Dicot. Stem, Lots of slag	Good/Average	A few roots	1/16 assessed (re-boxed in Box 6)
	3018	3360	CH 4000)	?40 (4buck ets)	*1: Avena* sp.; Indet cereal	1: Straw.	1: Caryophyllaceae indet.; Small legume; *Rubus* sp.; *Carex* sp.; Small grass; Indet	2: Monocot. stem; Dicot. Stem; Small ?leaves; Culm nodes	Average (many surface features lost)	A few roots.	High density of charred material but appears quite friable. Considerable amounts of charcoal. Many large charcoal fragments over 8mm in size
	3019	3361	CH 4000	40	*2: Avena* sp.; Indet cereal	-	*1: Polygonum* sp.; *Bromus* sp. Type	1: Bud; Dicot. Stem; Small leaves	Good/Average	A few roots	
	3006	3226	Site A	?40 (4	-	-	1: Incl. Chenopodiaceae	1: Fuel ash slag; Dicot. Stem; cf	Good/Average	Many roots; Insect larvae; Modern seeds (Incl.	

Interpretation	Sample No	Context No	Site	Sample volume	Cereal grains abundance and details	Chaff abundance and details	Weed seeds abundance and details	Misc abundance and details	Preservation	Contaminants	Notes
				buckets)			indet.; *Chenopodium* sp.; *Silene* sp.; Indet.	bud. Small shiny black coal like material		*Rubus* sp.; *Carex* sp.); Worm egg	
	3007	3262	Site A	40	*1: Hordeum* sp. (cf hulled).	-	*1: Polygonum* sp.; *Chenopodium* sp.; cf *Carex* sp.; Indet	1: Dicot. stem; Monocot. Stem; Culm base	Good/Average	Some roots; Seeds (Incl. *Rubus* sp.)	Lots of sediments. Most of the charcoal present is <2mm
	3009	3268	Site A	40	*1: Triticum* sp. (cf free-threshing type); cf *Hordeum* sp.; Indet tail grain.	1: Straw; *Triticum* sp. Free-threshing type rachis.	*1: Chenopodium* sp.; Chenopodiaceae indet.	2: Bud; Dicot stem; cf leaf; Amorphous material	Good/Average (Cereals = average)	Roots; Insects	
	3010	3270	Site A	40	*1: Hordeum* sp. (cf hulled); Indet cereal ('clinkered')	*1: Hordeum* sp. Rachis (unclear whether 2- or 6-row)	*1: Stellaria media*; *Carex* sp.; Indet.	1: Dicot. Stem	Good/Average (Cereals = average)	A few roots; Insect larvae	
	3027	3438	Site A	50	-	-	1: Chenopodiaceae indet.; *Rumex* sp.; *Carex* sp.; Cyperaceae indet.; Indet.	1: Culm base; Dicot. Stem; cf leaf.	Good/Average	Some roots; Strands from flot mesh; *Rubus* sp. Seed	Some burnt bone
	3028	3440	Site A	55	-	-	1: Large Poaceae indet.	1: Monocot. Stem; Culm base; Dicot stem; Rhizome	Good/Average	A few roots; Cereal chaff	Dominated by charcoal
	3025	3442	Site A	60	1: Indet ('clinkered')	-	2: Brassicaceae indet.; *Polygonum* cf *aviculare*; *Silene* sp.; *Chenopodium* sp.; Asteraceae indet.; *Carex* spp.	1: Monocot. Stem; Dicot. Stem; Moss; Rhizome	Good/Average	Some roots; *Rubus* sp. Seeds	
	3030	3443	Site A	50	-	1: Straw	*2: Ranunculus* sp.; *Brassica/Sinapis* sp.; *Rumex* spp.; *Urtica* sp.; *Silene* sp.; *Chenopodium* sp.; Small Fabaceae indet.; *Plantago* sp.; *Carex* sp.; cf *Juncus* sp.; Cyperaceae indet.; Indet.	2: Rhizome; Culm node; Monocot. stem; Moss	Good/Average	Many roots; Rubus sp. Seed	

Interpretation	Sample No	Context No	Site	Sample volume	Cereal grains abundance and details	Chaff abundance and details	Weed seeds abundance and details	Misc abundance and details	Preservation	Contaminants	Notes
	3024	3444	Site A	60	-	-	1: cf *Ranunculus* sp.; *Brassica/Sinapis* sp.; *Silene* sp.; *Chenopodium* sp.; Asteraceae indet.; *Carex* sp.	1: cf Bud; Monocot. Stem	Good/Average	Chaff; A few roots; Modern seeds (large grass; *Rubus* sp.)	
	3026	3447	Site A	49	1: cf Avena *sp.;* Indet. (poor preservation)	-	2: Chenopodium *sp.: Cyperaceae indet.*	2: Rhizome; Culm node; Culm base; Dicot. Stem.	Good/Average	Many roots; Grass stem; Insects; Modern seeds (incl. *Rubus* sp.); Worm egg	Small amount of <2mm diffuse charcoal
	3029	3449	Site A	60	1: cf *Hordeum* sp.	-	*2: Rumex* sp.; *Chenopodium* sp.; Small Fabaceae indet.; *Silene* sp.; cf *Carex* sp.; *Danthonia decumbens*; Small Poaceae indet.; Indet.	2: Large rhizome; Culm base; Culm node; Dicot. Stem	Good/Average	Some large roots	
	3041	3450	Site A	60	-	-	*2: Chenopodium* sp.; *Carex* sp.; Cyperaceae indet.; cf mineralised *Carex* sp.?	2: Rhizome; Culm node; Culm base; Dicot. Stem; Fuel ash slag	Good/Average	Many roots; Leaf *(Crateagus);* Grass stem; Insect larvae; Plastic from flot mesh.	
	3032	3453	Site A	60	1: Indet. (poor preservation)	-	*1: Chenopodium* sp.; cf *Carex* sp.; Indet.	1: Culm base; Rhizome; Amorphous charred material.	Average	A few roots; Leaf; Some plastic	Low density of charred material.
	3033	3454	Site A	15	-	-	1: Asteraceae indet.	1: Dicot. Stem.	Good/Average	Roots	
	3031	3451	Site A	20	-	-	-	1: Monocot stem.	Good/Average	A few roots; Blue plastic; Cereal chaff; Strands of flot mesh	
	3034	3458	Site A	36	-	-	*2: Chenopodium* sp.; Chenopodiaceae indet.	1: Culm node; Dicot stem	Good/Average	Roots; Plastic from flot mesh	
	3035	3460	Site A	60	-	-	1: Indet.	1: Rhizome; Monocot. Stem; Fuel ash slag	Average	A few roots; *Rubus* sp. Seed; Worm egg; Insects	Lots of sediment.
	3037	3466	Site A	60	-	-	-	1: Rhizome; Culm node; Dicot. Stem.	Average	A few roots; Modern seeds.	Lots of sediment.
	3038	3467	Site A	50	1: cf *Avena* sp.; cf *Hordeum* sp (?tail grain);	-	*1: Rumex* sp.; *Chenopodium* sp.; Small Poaceae indet.	1: Culm node; Culm base; Monocot. Stem; Rhizome; Root base; Fuel ash slag.	Average	Roots; Grass stem; *Rubus* sp. Seed	

Interpretation	Sample No	Context No	Site	Sample volume	Cereal grains abundance and details	Chaff abundance and details	Weed seeds abundance and details	Misc abundance and details	Preservation	Contaminants	Notes
					Indet. (Quite poor preservation)						
	3039	3468	Site A	60	1: cf *Triticum* sp.; Indet (Poor preservation)	-	1: Chenopodiaceae indet.	1: Dicot. Stem; Fuel ash slag	Average	A few roots	
	3040	3470	Site A	60	-	-	1: Chenopodiaceae indet.	1: Rhizome; Culm base; Monocot. Stem; Dicot. Stem.	Average	A few roots; *Rubus* sp. Seed; Grass stem; Many tiny eggs (?insect/worm)	
	3043	3472	Site A	60	-	-	1: Chenopodium *sp.; Cyperaceae indet.*	1: Monocot. Stem; Dicot. Stem	Good/Average	A few roots, and plastic	
	3046	3474	Site A	30	-	-	-	-	-	Some roots; Plastic from flot mesh; Paper	
	3047	3475	Site A	15	-	-	-	-	-	A few roots; Plastic from flot mesh	
	3048	3476	Site A	30	-	-	*1: Plantago* sp.	-	Average	Some roots; Plastic from flot mesh	
	4118	4066	Site B	10	-	-	*1: Carex* sp.	-	Average	Roots	
	4003	4066	Site B	10	-	-	*2: Polygonum* sp.; *Plantago* sp.; *Carex* sp.; Small Poaceae indet.	1: Culm node; Monocot stem; Dicot. Stem.	Good/Average	A few roots; Plastic.	
	4011	4073	Site B								
	4007	4079	Site B								
	4008	4082	Site B	10	-	-	-	1: Dicot. Stem	Average	A few roots; Tiny eggs (Insect/Worm?)	
	4123	4084	Site B	30	-	-	-	1: Culm base; Monocot. Stem	Average	A few roots	
	4119	4086	Site B	30	-	-	-	1: Dicot. Stem.	Average	A few roots	
	4012	4101	Site B								
	4014	4143	Site B	5	*2: Avena* sp; *Triticum* sp. Cf Free-Threshing type; *Triticum* sp.	*1: Triticum* sp. Free-Threshing Type Rachis; Culm node; Straw	*3: Ranunculus* spp.; *Polygonum* sp.; *Polygonum* cf *aviculare*; *Fallopia convulvulus*; *Stellaria media*; Caryophyllaceae indet.; *Spergula arvensis*; Chenopodiaceae indet.;	3: Culm node; Culm Base; Monocot. Stem; Dicot. Stem; Rhizome; Bud; Fuel ash slag.	Good/Average	Roots; Modern seeds.	Very abundant charred material

Interpretation	Sample No	Context No	Site	Sample volume	Cereal grains abundance and details	Chaff abundance and details	Weed seeds abundance and details	Misc abundance and details	Preservation	Contaminants	Notes
							Galium spp.; *Carex* spp.; Small Poaceae indet.; Indet.				
	4015	4144	Site B	40	*2: Triticum* sp. Free-Threshing Type; *Avena* sp.	-	*3: Ranunculus* spp.; *Polygonum* spp.; *Chenopodium* sp.; *Plantago* sp.; *Galium* sp.; *Carex* spp.; Small Poaceae indet.; *ndet.*	Culm node; Culm base; Monocot. Stem; Fuel ashe slag.	Good/Average	Roots; Tiny eggs (Insect/Worm?)	
	4088	4205	sIte B								
	4083	4374	sIte B	40	-	-	-	-	-	Roots	
	4087	4377	sIte B	40	*1: Triticum* sp.	-	*1: Carex* sp.	2: Rhizome; Culm node; Dicot. Stem.	Good/Average	Roots	
	4086	4380	sIte B	30	-	-	*2: Brassica/Sinapis* sp.; Small *Brassica* sp.; *Fallopia convulvulus*	1: Culm node; Culm base; Dicot. Stem.	Good/Average	Roots	
	4099	4381	Site B	40	-	-	*1: Montia fontana*	-	Good/Average	Many roots; Modern *Rubus* sp. Seeds	
	4103	4381	Site B	120	-	-	*1: Plantago* sp.; Cyperaceae sp.	1: Culm nodes; Culm bases	Good/Average	Roots; Worm eggs	
	4089	4383	sIte B	40	-	-	*3: Ranunculus* sp.; *Brassica/Sinapis* sp.; *Small Brassica* sp.; *Danthonia decumbens.*	2: Rhizome; Dicot. Stem	Good/Average	Roots	
	4121	4402	Site B	40	-	-	1: cf *Rumex* sp.	1: Dicot. Stem	Good/Average	Roots	
	4016	4137	Site C	40	-	-	-	1: Culm node; Dicot. Sem	Good/Average	A few roots; Modern seed	1/8 assessed (re-boxed in Box 6)
	4018	4139	Site C	40	-	-	1: Indet.	1: Fuel ash slag	Good/Average	A few roots	1/8assessed (re-boxed in Box 6)
	4019	4140	Site C	10	-	-	1: Indet. (small, spherical)	1: Culm node	Average	A few roots	High density of chared material. Predominantly charcoal.
	4020	4173	Site C	40	-	-	-	1: Dicot. Stem	Good/Average	Roots	1/4 assessed (re-boxed

Interpretation	Sample No	Context No	Site	Sample volume	Cereal grains abundance and details	Chaff abundance and details	Weed seeds abundance and details	Misc abundance and details	Preservation	Contaminants	Notes
											in Box 6)
	4112	4415	Site C	40	-	-	-	-	-	A few roots	
	4113	4416	Site C	40	-	-	*1: Silene* sp.	-	Good/Average	Many roots	1/2 assessed
	4127	4419	Site C	10	-	-	-	1: Dicot. Stem	Average	Roots	
	4111	4422	Site C	10	-	-	-	-	-	A few roots	
	4109	4424	Site C	40	-	-	*1: Silene* sp.	-	Good/Average	A few roots	1/4 assessed
	4110	4425	Site C	35	-	-	-	1: Dicot.stem	Good/Average	A few roots	1/8 assessed (re-boxed in Box 6)
	4108	4426	Site C	40	-	-	-	1: Dicot. Stem	Good/Average	Roots	1/4 assessed
	4116	4427	Site C	35	-	-	-	1: Monocot. Stem	Average	Roots	
	4104	4429	Site C	40	-	-	*1: Brassica/Sinapis* sp.; Indet.	1: Culm base; Dicot. Stem	Good/Average	A few roots	1/8 assessed (re-boxed in Box 6)
	4105	4432	Site C	30	-	-	-	1: Dicot. Stem	Good/Average	A few roots	1/8 assessed (re-boxed in Box 6)
	4106	4433	Site C	40	-	-	-	1: Monocot. Stem	Good/Average	A few roots	1/16 assessed (re-boxed in Box 6)
	4107	4437	Site C	10	-	-	1: cf *Carex* sp.	1: Monocot. Stem; Moss	Good/Average	A few roots	
	4114	4443	Site C	20	-	-	-	1: Dicot. Stem; cf Bud	Good/Average	Afew roots	1/8 assessed (re-boxed in Box 6)
	4115	4444	Site C	40	-	-	-	1: Dicot. Stem; cf Bud	Good/Average	Afew roots	1/16 assessed (re-boxed in Box 6)
	4125	4447	Site C	40	-	-	*1: Silene* sp.	1: Dicot. Stem	Good/Average	Roots; Modern seeds	
	4126	4448	Site C	35	-	-	1: Fabaceae indet.	1: Culm base; Dicot. Stem; Bud	Good/Average	Roots; Plastic	
	4128	4450	Site C	10	-	-	-		-	A few roots	
	4130	4453	Site C	20	-	-	-	2: Dicot. Stem	Good/Average	A few roots	1/16 assessed (re-boxed in Box 6)
	4134	4454	Site C	20	-	-	1: Small Poaceae indet.; Indet.	1: Culm node; Culm base; Monocot. Stem; Dicot. Stem; Rhizome.	Good/Average	Roots; Many tiny eggs (Insect/Worm)	
	4135	4465	Site C	10	-	-	*1: Brassica/Sinapis* sp.; *Carex* sp.	1: Culm node; Rhizome; Dicot. Stem	Good/Average	A few roots	1/8 assessed (re-boxed in Box 6)
	4149	4474	Site C	10	-	-	-	1: Dicot. Stem	Average	Roots	

Interpretation	Sample No	Context No	Site	Sample volume	Cereal grains abundance and details	Chaff abundance and details	Weed seeds abundance and details	Misc abundance and details	Preservation	Contaminants	Notes
	4148	4415	Site C	10	-	-	-	-	-	-	
	4143	4433	Site C	10	-	-	1: Indet.	-	Average	A few roots	
	4136	4452	Site C	30	-	-	-	-	-	Roots	
	4091	4385	Site D	40				1: Monocot. Stem	Good/Average	Roots	This sample comes in two bags both different context numbers. As such it was not selected for potential dating material
	4092	4386	Site D	20	-	-	-	-	Average	Roots; Worm eggs	
	4093	4387	Site D		-	-	*1: Polygonum* cf *aviculare*				
	4094	4390	Site D	5	-	-	-	1: Dicot. Stem	Average	Roots	
	4095	4391	Site D	10	-	-	-	1: Culm node	Average	Roots; Modern seeds	
	4096	4392	Site D		-	-	-				
	4097	4393	Site D	60	-	-	*1: Carex* sp.	1: Monocot. Stem; Dicot. Stem	Average	Roots	
	4151	4463	Site D	40	-	-	-	1: Culm base; Monocot. Stem; Moss	Average	A few roots; Modern *Ranunculus* sp. Seeds	
	4150	4464	Site D	40	-	-	-	1: Dicot. Stem; Oblong objects (cf mouse/small mamal faeces)	Good/Average	Roots; Modern seeds.	
	4152	4461	Site D	40				-	-	Roots	
	4073	4329	Site D	40	-	-	-	2: Rhizome; Dicot. Stem; Oblong objects (cf mouse/small mammal faeces)	Good/Average	Roots; Modern seds; Red paint flake	
	4074	4330	Site D		-	-	1: Small Poaceae indet.; Indet.				
pit fill; part of eastern pit circle	4069	4003	Site D; E pit circle	40	-	-	*1: Fallopia convulvulus*	1: Culm node; Culm base; Dicot. Stem	Good/Average	Roots; Modern seeds (*Ranunculus* sp.; *Rubus* sp.; *Carex* sp.)Green paint flake.	

Interpretation	Sample No	Context No	Site	Sample volume	Cereal grains abundance and details	Chaff abundance and details	Weed seeds abundance and details	Misc abundance and details	Preservation	Contaminants	Notes
pit fill, part of eastern pit circle	4045	4237	Site D; E pit circle	25	-	-	-	-	-	Roots	
pit fill; possible post pipe within pit	4062	4257	Site D; E pit circle	40	-	-	*1: Silene sp.; Montia fontana.*	1: Culm node	Good/Average	Roots; Modern seeds (*Rubus* sp.; *Ranunculus* sp.); Worm egg; Paint flake	
pit fill, possible basal fill of possible post pipe	4063	4258	Site D; E pit circle	10	-	-	-	-	-	Roots; Insects; Modern *Carex* sp. Seed	
pit fill; basal fill of feature	4065	4260	Site D; E pit circle	10	-	-	*1: Montia fontana*	-	Good/Average	Roots.	
pit fill; basal fill of feature	4066	4273	Site D; E pit circle	? (4 boxes/bags)	-	-	1: Indet.	1: Culm base; Monocot. stem; Dicot. Stem	Average	Roots; Modern *Rubus* sp. Seds; Worm eggs	
pit fill; possible basal fill of possible post pipe in pit	4050	4262	Site D; E pit circle	20	-	-	-	1: Dicot stem	Average	Roots; Modern *Rubus* sp. Seeds; Worm egs	
pit fill; possible post packing in pit	4051	4263	Site D; E pit circle	40	-	-	*1: Polygonum* sp	1: Dicot stem	Average	Roots; Modern seeds; Insect	
pit fill; basal fill of pit	4052	4264	Site D; E pit circle	30	-	-	-	-	-	Many roots; Many tiny eggs (insect/Worm?)	
pit fill; main black organic fil in pit; possibly the remains of a post	4059	4269	Site D; E pit circle	10	-	-	-	1: Culm node; Dicot. Stem	Average	Roots; Worm egs; Modern *Rubus* sp. Seed; Plastic from flot mesh.	
pit fill	4053	4270	Site D; E pit circle	40	-	-	-	1: Culm base; cf Bud	Good/Average	Roots	

Interpretation	Sample No	Context No	Site	Sample volume	Cereal grains abundance and details	Chaff abundance and details	Weed seeds abundance and details	Misc abundance and details	Preservation	Contaminants	Notes
pit fill	4067	4274	Site D; E pit circle	10	-	-	-	1: Culm node	Average	Many roots; Modern seeds; Worm eggs.	
pit fill	4068	4275	Site D; E pit circle	20	-	-	-	-	-	Many roots; Modern seeds; Plastic from flot mesh.	
pit fill; primary fill or possibly a packing deposit within pit	4060	4279	Site D; E pit circle	20	-	-	-	-	-	Roots; Plastic from flot mesh	
pit fill; or possibly a packing deposit within pit	4061	4280	Site D; E pit circle	20	-	-	*1: Fallopia convulvulus*; Indet.	1: Dicot. Stem	Good/Average	Many roots	
pit fill	4070	4284	Site D; E pit circle	30	-	-	–	1: Culm base; Monocot. Stem; Dicot. Stem.	Good/Average	Roots; Modern seeds.	
pit fill; possible packing for a post	4071	4285	Site D; E pit circle	40	-	-	-	1: Monocot. Stem; Dicot. stem	Average	Many roots; Modern *Ranunculus* sp. Seeds	
pit fill	4047	4299	Site D; E pit circle	40	-	-	-	1: Dicot. Stem	Average	Roots; Modern *Ranunculus* sp. Seeds.	
pit fill	4058	4307	Site D; E pit circle	30				1: Rhizome; Culm base	Average	Roots; Modern *Rubus* sp. Seed.	
pit fill	4054	4315	Site D; E pit circle		-	-	-				
pit fill	4056	4317	Site D; E pit circle	40	-	-	-	1: Dicot. Stem	Good/Average	A few roots; Modern seeds	1/8 assessed (re-boxed in Box 6)
primary fill of pit; part of western pit	4033	4009	Site D; W pit circle	10	-	-	Indet.	1: Dicot. Stem	Average	Many roots; Plastic	

Interpretation	Sample No	Context No	Site	Sample volume	Cereal grains abundance and details	Chaff abundance and details	Weed seeds abundance and details	Misc abundance and details	Preservation	Contaminants	Notes
circule 4022											
pit fill	4028	4011	Site D; W pit circle								
pit fill	4026	4014	Site D; W pit circle	30	-	-	-	1: Dicot. Stem	Good/Average	Roots; Modern seeds	
pit fill; primary fill of pit	4031	4018	Site D; W pit circle	40	-	-	1: cf Carex sp.; Indet.	1: Culm base; Dicot. Stem	Good/Average	Many roots	
pit fill	4036	4020	Site D; W pit circle	40				1: Culm base; Dicot. Stem	Good/Average	Roots; Insects.	
pit fill	4034	4239	Site D; W pit circle	20	-	-	-	1: Dicot. Stem	Good/Average	Roots	
pit fill	4040	4241	Site D; W pit circle	40	-	-	*1: Fallopia convulvulus*	2: Culm bases; Culm nodes; Monocot. Stem; Dicot. Stem	Good/Average	Roots	
pit fill	4025	4245	Site D; W pit circle	40	-	-	-	2: Rhizome; Culm bases; Dicot. Stem	Good/Average	Roots	
pit fill	4038	4247	Site D; W pit circle	20	-	-	1: cf *Spergula arvensis*	-	-	Roots	
pit fill	4039	4248	Site D; W pit circle	5				1: Dicot. Stem	Average	Roots	
pit fill	4042	4250	Site D; W pit circle		_	_	1: Caryophyllaceae indet.				
pit fill	4044	4254	Site D; W pit circle	30	-	-	-	1: Culm node; Culm base; Dicot. Stem	Good/Average	Roots	

Interpretation	Sample No	Context No	Site	Sample volume	Cereal grains abundance and details	Chaff abundance and details	Weed seeds abundance and details	Misc abundance and details	Preservation	Contaminants	Notes
pit fill	4035	4281	Site D; W pit circle	40	-	-	*1: Montia fontana*	2: Culm bases; Monocot. Stem; Dicot. Stem	Good/Average	A few roots	Unusually high concentration of culm bases.
	1000	1030	Site E	15	-	-	-	-	-	A few roots	1/16 assessed (re-boxed in Box 6)
	1002	1030	Site E	30	-	-	-	1: Large rhizome	Good/Average	Roots; Straw; Seeds (*Rubus* sp.)	
	1001	1041	Site E	40	-	-	*1: Silene* sp.; *Montia fontana*.	1: Rhizomes; Moss; Dicot. Stem	Good/Average	Roots; Straw; Modern seeds (*Rubus* sp.; *Carex* sp.); Worm eggs	
pit fill	1010	1060	Site E								
pit fill	1011	1061	Site E	25	-	-	1: cf *Carex* sp.	1: Monocot. Stem; Dicot. Stem	Average	Roots; Modern seeds (*Rubus* sp.)	
pit fill	1012	1062	Site E	40	-	-	1: Incl. *Polygonum* cf *aviculare*; *Carex* sp.	1: Monocot stem.	Good/Average	Quite a lot of roots; Insect larvae; Modern *Rubus* sp. Seeds.	
pit fill	1015	1084	Site E	40	-	-	*1: Brassica/Sinapis* sp.	1: Dicot. Stem; Fuel ash slag	Average	Roots; Modern seeds (incl. *Rubus* sp.); Insects	
pit fill	1016	1085	Site E	35	-	-	1: Small *Brassica* sp.	1: Culm node; Culm base; Monocot. Stem; Dicot. Stem.	Average	Roots; Insects; Green paint flake.	
pit fill	1013	1087	Site E	40	-	-	*1: Brassica/Sinapis* sp	-	Average	Many roots; Modern seeds; Insects	
pit fill	1014	1088	Site E	40	-	-	1: Indet.	-	Average	Many roots; Tiny eggs (insect/worm?)	
	1024	1090	Site E	15	-	-	-	1: Dicot. Stem	Average	Roots; Modern seeds (*Rubus* sp.); Insect larvae	
post hole fill	1025	1091	Site E	20	-	-	1: cf. *Carex* sp.	-	Average	Roots; Modern seeds (*Rubus* sp.); Green paint flake.	
post hole fill	1027	1093	Site E	20	-	-	1: cf *Spergula arvensis*; Indet.	1: Dicot. Stem; Rhizome	Average	A few roots; Modern seeds.	
post hole fill	1028	1094	Site E	15	-	-	1: Incl. *Rubus* sp.; *Carex* sp.	1: Monocot stem; Indet oblong items (cf mouse/small mammal faeces)	Good/Average	Little contamination	High density of charred material (mostly charcoal)
post pipe	1003	1113	Site E	30	-	-	*1: Silene* sp.	1: Dicot. Stem	Good/Average	Roots.	Charcoal dominant
post hole fill	1004	1114	Site E	40	-	-	-	-	-	Roots	

Interpretation	Sample No	Context No	Site	Sample volume	Cereal grains abundance and details	Chaff abundance and details	Weed seeds abundance and details	Misc abundance and details	Preservation	Contaminants	Notes
post pipe	1055	1120	Site E	20	-	-	-	1: Amorphous charred material	-	Roots; Modern seds (inl. *Rubus* sp. & *Carex* sp.), plastic	
	1056	1121	Site E	40	-	-	1: Indet.	1: Culm bases, pumace-like fuel ash slag	Average	Roots; Worm eggs; Plastic	
post hole fill	1057	1122	Site E	40	-	-	-	-	-	Roots	
pit fill	1052	1129	Site E	20	-	-	-	-	-	Many roots	
pit fill	1051	1130	Site E	40	-	-	1: Small Poaceae indet.; Indet.	1: Monocot. Stem; Culm node.	Good/Average	Roots; Modern seeds	
pit fill	1050	1131	Site E	20	-	-	-	1: Dicot. Stem	Good/Average	A few roots	1/8 assessd (re-boxed in Box 6)
pit fill	1045	1132	Site E	30	-	-	-	1: Dicot. Stem; Culm node; Moss; cf bud	Good/Average	Modern seeds (*Carex, Rubus*); Insects	
pit fill	1044	1133	Site E	30	-	-	*1: Silene*sp.	1: Monocot. Stem; Culm node; Culm base; Root base; Dicot. Stem. Fuel ash slag	Good/Average	Roots; Insects; Worm egg	
pit fill	1043	1134	Site E	8	-	-	-	1: Culm node; Culm base; Root base; Dicot.stem; Moss. Fuel ash slag	Good/Average	Roots; Modern seeds	
pit fill	1046	1136	Site E	45	-	-	-	-	-	Many roots	
pit fill	1047	1137	Site E	20	-	-	*1: Fallopia convulvulus*	-	Good/Average	Roots; Modern seeds	
pit fill	1048	1138	Site E	40	-	-	1: Small Poaceae indet.; Indet.	-	Average	Many roots; Worm eggs, straw	
pit fill	1008	1157	Site E	40	-	-	1: cf *Juncus* sp.; Indet.	1: Monocot. Stem; Culm nodes; Dicot stem.	Good/Average	Many roots; Modern seeds.	
post hole fill	1005	1159	Site E	30	-	-	-	-	-	A few roots	
post hole fill	1006	1162	Site E	10	-	-	1: Caryophyllaceae indet.	1: Monocot stem	Good/Average	Insect larvae; Some roots; Modern barley grain.	Low density of charred remains.Some <2mm charcoal present possibly diffuse porous

Interpretation	Sample No	Context No	Site	Sample volume	Cereal grains abundance and details	Chaff abundance and details	Weed seeds abundance and details	Misc abundance and details	Preservation	Contaminants	Notes
post hole fill	1023	1164	Site E	20	-	-	-	-	-	Roots; Insect larvae.	No recognisable charred plant macro-remains.
post pipe fill	1035	1165	Site E	20	-	-	2: Indet.	1: Dicot. Stem	Good/Average	A few roots; Modern seeds (*Carex* sp.); Insect larvae.	
post hole fill	1036	1166	Site E	15	-	-	*1: Brassica/Sinapis* sp.	-	Average	Roots	
post hole fill	1037	1167	Site E	25	-	-	-	-	-	Some roots; Straw	Low density of charred remains
post hole fill	1017	1168	Site E	20	-	-	*1: Silene* sp.	1: Culm base; Dicot. Stem.	Good/Average	Many roots; Modern seeds; Insect larvae.	
post hole fill	1018	1169	Site E	10	-	-	-	-	-	Paint flake; some roots	Very low density of charred material. Few fragments of charcoal (2 fragments)
pit fill	1019	1170	Site E	30	-	-	*1: Silene* sp.; Indet.	1: Culm node; Monocot. Stem; Dicot. Stem	Average	Roots	
pit fill	1020	1171	Site E	45	-	-	*1:Silene* sp.	1: Culm node; Monocot. Stem; Dicot. Stem.	Average	Roots; Modern seeds; Green paint flake.	
pit fill	1021	1172	Site E	15	-	-	1: Indet.	1: Monocot. Stem; Dicot. Stem.	Average	Roots	
pit fill	1022	1173	Site E	40	-	-	*1: Carex* sp.	1: Dicot stem; Rhizome fragments (quite large)	Good/Average	A few roots	
pit fill	1040	1176	Site E	20	-	-	*1: Silene* sp.	1: Monocot. Stem; Dicot. Stem; cf Hammer scale (1 flake)	Good/Average	Roots; Modern seeds (incl. *Rubus* sp.; *Carex* sp.).	
pit fill	1041	1177	Site E	35	-	-	-	1: Monocot. Stem	Average	Roots; Insect larvae; Plastic from flot mesh; Green paint flake	
pit fill	1042	1178	Site E	40	-	-	1: Cyperaceae indet.; *Brassica/Sinapis* sp.	1: Dicot. Stem	Good/Average	Roots	
pit fill	1029	1180	Site E	15	-	-	-	1: Dicot. Stem	Average	Roots; Modern seeds (*Rubus* sp.); Insect larvae; Plastic from flot mesh.	

Interpretation	Sample No	Context No	Site	Sample volume	Cereal grains abundance and details	Chaff abundance and details	Weed seeds abundance and details	Misc abundance and details	Preservation	Contaminants	Notes
pit fill	1030	1181	Site E	30	-	-	1: Indet.	-	Average	Many roots; Modern seeds (incl. *Rubus* sp.; *Carex* sp.); Tiny eggs (Insect/worm?)	
pit fill	1031	1182	Site E	40	-	-	*1: Juncus* sp.; Indet.	-	Good/Average	Many roots; Straw; Insect larvae, green paint flecks	Low density of charred remains
	1009	1195	Site E								
post pipe	1032	1197	Site E	40	-	-	1: Small *Brassica* sp.	1: Dicot. Stem	Average	Roots; Modern seeds (*Carex* sp.); Insects.	
post hole fill	1033	1198	Site E	40	-	1: Straw	-	-	Average	Roots; Modern seeds (*Rubus* sp.)	
post hole fill	1034	1199	Site E	40	-	-	-	-	-	Many roots; Modern seeds (incl. *Carex* sp.); Insect larvae	Low density of charred remains, few pieces of charcoal (2 fragments)
	1038	1233	Site E	10	-	-	-	-	-	Many roots	
post hole fill	1026	1232	Site E	15	-	-	-	-	-	A few roots	Low density of charred remains. Few fragments of charcoal (2 fragments)
post hole fill	1039	1234	Site E	5	-	-	-	-	-	Roots; Many tiny eggs (insect/worm?)	
pit fill	1049	1235	Site E	40	-	-	*1: Carex* sp.	1: Culm node; Dicot. Stem; cf bud	Good/Average	Roots; Worm eggs	
	1058	1075	Site E	20	-	-	-	1: Culm node; Monocot stem; Dicot. Stem.	Average	Roots	One larger piece of charcoal is present bagged sepeately, possibly ring porous
	1059	1071	Site E	10	-	-	-	-	-	-	Only charcoal (sorted from heavy fraction?) present. No flot found
	1060	1069	Site E	10	-	-	-	-	-	A few roots	
	1061	1065	Site E	? (2 boxes/bags)	-	-	-	-	-	Straw frag.	
	3008	3266		? (4	-	-	1: Carex sp.;	1: Rhizome; Culm node; Culm	Good/Average	Roots	Not on sample list sent

Interpretation	Sample No	Context No	Site	Sample volume	Cereal grains abundance and details	Chaff abundance and details	Weed seeds abundance and details	Misc abundance and details	Preservation	Contaminants	Notes
				boxes/bags)			*Chenopodium* sp.	base; Dicot. Stem			with samples.
	4048	4300		? (1 box/bag)	-	-	-	-	-	Roots	
	3042	3471		?	-	-	*1: Chenopodium sp.; cf Carex sp.; Indet.*	1: Culm base; Dicot. Stem.	Average	Some roots	Not on list sent with samples. Sediment adhering to remains made identification problematic.
	4032	4008		? (2 bags)	-	-	-	1: Dicot. Stem	Average	Roots	

CATALOGUE OF SEDIMENT LOGS FROM PALAEOENVIRONMENTAL SAMPLING

Table 22: Sediment logs

Auger hole	*Context No*	*Type*	*Width (m)*	*Depth. (m)*	*Comment*
001					
	101	Layer		0-0.40	Silty loam topsoil
	1002	Layer		0.40-	Sandy Gravels
002					
	201	Layer		0-0.30	Silty loam topsoil
	202	Layer		0.30-	Sandy Gravels
003					
	301	Layer		0-0.28	Silty topsoil
	302	Layer		0.28 -	Sandy Gravel
004					
	401	Layer		0-0.20	Silty topsoil
	402	Layer		0.20-0.30	Grey sandy silt
	403	Layer		0.30-	Sandy Gravel
005					
	501	Layer		0-0.12	Silty peat topsoil
	502	Layer		0.12-0.46	Grey sandy silt
	503	Layer		0.46-	Sandy gravel
006					
	601	Layer		0-0.15	Silty peat topsoil
	602	Layer		0.15-0.30	Greyish brown sandy silt
	603	Layer		0.30-	Bedrock
007					
	701	Layer		0-0.14	Silty peat topsoil
	702	Layer		0.14-0.52	Greyish brown sandy silt
	703	Layer		0.52-	Bedrock
008					
	801	Layer		0-0.15	Silty peat topsoil

Auger hole	*Context No*	*Type*	*Width (m)*	*Depth. (m)*	*Comment*
	802	Layer		0.15-0.50	Bedrock
009					
	901	Layer		0-0.11	Silty peat topsoil
	902	Layer		0.11-	Weathered Bedrock
010					
	1001	Layer		0-0.22	Silt peat topsoil
	1002	Layer		0.22-	Bedrock
011					
	1101	Layer		0-0.28	Silt peat topsoil
	1102	Layer		0.28-0.74	Bedrock

CATALOGUE OF POLLEN

Table 23: Pollen assessment - Species count per sample, Site A

Site A										
Sample	3068	3068	3080	3080	3080	3062	3062	3062	3069	3069
Depth in metres	0.08-0.085	0.15-0.155	0.03-0.035	0.22-0.225	0.32.5-0.33	0.095-0.10	0.21-0.215	0.365-0.37	0.20-0.205	0.305-0.31
Trees										
Alnus	1		1			1				
Betula			1							
Corylus	12	11	1	4	2	4	1	1	4	2
Quercus					1					
Shrubs										
Calluna vulgaris	2	1				6				1
Ericaceae	1	3				1				
Lonerica						1				
Myrica	1	2	1	1		1			1	
Herbs										
Apiaceae	2			1	2	1			1	
Asteraceae		1	1			1				1
Centaurea nigra	2		2							
Cyperaceae	5	5	3	6	4	5			6	1
Filipendula						1				
Galium sp.	1	1								
Lactuceae	11	8	9	19	8	6	5	7	20	2
Plantago lanceolata	2					1			1	1
Plantago major/media				1					1	
Poaceae	32	15	6	21	16	32	7	7	21	7

Site A										
Sample	3068	3068	3080	3080	3080	3062	3062	3062	3069	3069
Depth in metres	0.08-0.085	0.15-0.155	0.03-0.035	0.22-0.225	0.32.5-0.33	0.095-0.10	0.21-0.215	0.365-0.37	0.20-0.205	0.305-0.31
Potentilla		1								1
Ranunculaceae	1			1					1	
Scabiosa		2					1			
Stachys	1							1		
Taraxacum	2	3	4					3		
Ferns										
Filicales			1		1	1				
Polypodium	1	1	1	2			2	2		5
Mosses										
Sphagnum	1	1		2	2				2	
Aquatics										
Myriophyllum							1	1		
Myriophyllum alterniforum	1			2	2		1	1	1	
Other spores										
T16				2					2	
T201										1
T519				2					2	
Un ID spore	3		6	1	2				1	5
Total	82	55	37	65	40	62	18	23	64	27
Exotics	180	85	148	134	101	114	116	126	96	191

Site A										
Sample	3068	3068	3080	3080	3080	3062	3062	3062	3069	3069
Depth in metres	0.08-0.085	0.15-0.155	0.03-0.035	0.22-0.225	0.32.5-0.33	0.095-0.10	0.21-0.215	0.365-0.37	0.20-0.205	0.305-0.31
Preservation:Good	25	26	12	25	18	26	8	8	25	9
Preservation:Crumpled	37	18	9	25	14	26	7	7	25	5
Preservation:Corroded	9	4	2	5	1	4	1	1	5	
Preservation :Ruptured	7	5	2	2	2	5	1	1	2	2
Preservation:UnID	4	2	2	2	3	2	2	2	2	
Concentration (g)	16931	24049	9292	18028	14719	21213 37166	5767	6784	24777	5254

The actual number of pollen grains recorded are shown in the table.

Table 24: Pollen assessment - Species count per sample, Site B

Site B			
Sample	4137	4137	4137
Depth in metres	0.09-0.095	0.255-0.26	0.375-0.38
Trees			
Alnus	1	2	1
Betula	1	2	
Corylus	1	59	1
Quercus		2	
Shrubs			
Calluna vulgaris		20	1
Ericaceae		2	
Hedra helix		1	
Myrica	1	9	
Herbs			
Apiaceae		1	
Asteraceae	1	2	
Centaurea nigra	1		
Cyperaceae	3	8	
Filipendula		1	
Lactuceae	11	13	
Plantago lanceolata		1	
Poaceae	4	38	4
Potentilla		1	
Ranunculaceae		3	
Scabiosa		4	2
Taraxacum	1	3	
Ferns			
Botyclium?		1	
Filicales	1		1
Polypodium	1	13	1
Aquatics			
Myriophyllum		1	
Myriophyllum alterniforum		1	
Other spores			
T16			1
Un ID spore	6		
Total	34	191	12
Exotics	91	186	106
Preservation:Good	12	89	4
Preservation:Crumpled	9	57	6

Site B			
Sample	4137	4137	4137
Depth in metres	0.09-0.095	0.255-0.26	0.375-0.38
Preservation:Corroded	2	15	
Preservation :Ruptured	2	10	1
Preservation:UnID	2	4	1
Concentration (g)	N/A	38165	4207

The actual number of pollen grains recorded are shown in the table.

Table 25: Pollen assessment - Species count per sample, Site C

Site C						
Sample	4129	4129	4129	4131	4131	4131
Depth in metres	0.065-0.07	0.23-0.235	0.425-0.43	0.09-0.095	0.23-0.235	0.34-0.345
Trees						
Betula	1					
Corylus					2	2
Quercus					1	**1**
Shrubs						
Calluna vulgaris				1		
Ericaceae	1					
Rosaceae					1	
Herbs						
Apiaceae					1	2
Cyperaceae					6	4
Lactuceae				6	4	8
Poaceae		1		4	9	16
Ranunculaceae					1	
Ferns						
Filicales						1
Polypodium			3			
Mosses						
Sphagnum	3			9	1	2
Aquatics						
Myriophyllum alterniforum						1
Other spores						
T16				1		
Un ID spore					2	2
Total	5	1	3	21	28	39
Exotics	145	246	153	279	46	111
Preservation:Good				9	7	18

Site C						
Sample	4129	4129	4129	4131	4131	4131
Depth in metres	0.065-0.07	0.23-0.235	0.425-0.43	0.09-0.095	0.23-0.235	0.34-0.345
Preservation:Crumpled	2	1		1	11	14
Preservation:Corroded					7	1
Preservation :Ruptured					4	2
Preservation:UnID				1	5	3
Concentration (g)	513	151	729	2797	22623	13058

The actual number of pollen grains recorded are shown in the table.

Table 26: Pollen assessment - Species count per sample, Site E

Site E		
Sample	1053	1053
Depth in metres	0.10-0.105	0.205-0.21
Trees		
Alnus	1	3
Betula		1
Corylus	25	26
Pinus		1
Quercus	1	10
Shrubs		
Calluna vulgaris	2	3
Hedra helix		1
Ilex	1	
Lonerica		1
Myrica	5	1
Rosaceae		1
Herbs		
Apiaceae	1	
Cyperaceae	4	13
Lactuceae	7	2
Plantago lanceolata		1
Poaceae	24	67
Ranunculaceae		1
Succisa prantensis		1
Taraxacum	3	
Ferns		
Filicales	3	11
Polypodium	1	
Mosses		
Sphagnum	1	1
Aquatics		
Myriophyllum alterniforum	5	3
Other spores		
Un ID spore		3
Total	84	155
Exotics	39	26
Preservation:Good	39	66
Preservation:Crumpled	29	49
Preservation:Corroded	6	10
Preservation :Ruptured	4	9

Site E		
Sample	1053	1053
Depth in metres	0.10-0.105	0.205-0.21
Preservation:UnID	7	2
Concentration (g)	80050	221567

The actual number of pollen grains recorded are shown in the table.

Table 27: Pollen assessment - Species count per sample, Palaeochannel at Chainage 3200

Palaeochannel at CH 3200											
Sample	20005	20005	20005	20005	20005	20005	20005	20006	20006	20006	20006
Depth in metres	0.065-0.07	0.12-0.125	0.20-0.205	0.28-0.285	0.39-0.395	0.41-0.415	0.455-0.46	0.15-0.155	0.24-0.245	0.315-0.32	0.345-0.35
Trees											
Alnus	4.3	5.4	3.8	12.9	17.8	10.7	16.7	9.5	15.1	12.4	8.4
Betula	1.1	1.2	1.9	4.9	6.5	6.4	6.6	5.3	3.6	3.0	5.0
Corylus	8.6	5.4	8.7	14.4	20.9	18.6	21.3	13.9	13.6	9.9	9.0
Fagus											0.3
Fraxinus				0.3	0.3		0.3				
Pinus											0.3
Pinus frags.	0.5		0.5		0.3	0.3			0.3		0.3
Quercus	1.6	0.8	1.4	3.4	0.6	4.0	0.6	5.3	3.6	3.5	
Salix				0.3	0.3	1.2	0.3	0.3	0.3		4.4
Ulmus						0.6			0.6	0.5	0.6
Shrubs											
Calluna vulgaris	4.3	3.9	2.9	3.1	2.8	0.3	2.9	3.6	2.7	1.5	3.1
Empertium					0.3		0.3				
Ericaceae	2.2	1.6	2.4	0.3	1.4	0.3	1.4	0.9	1.2		0.3
Hedra helix		1.2		0.6	1.1	0.9	1.2	0.9	0.6	1.0	0.3
Lonerica			1.0		0.6	0.3	0.6		0.6		
Myrica	1.6	0.4	1.9	2.1	2.5	3.4	2.5	5.6	4.5	0.5	3.4
Rosaceae	1.1	0.8	0.5	1.5	0.8	0.6	0.9	0.6		0.5	
Herbs											

Palaeochannel at CH 3200											
Sample	20005	20005	20005	20005	20005	20005	20005	20006	20006	20006	20006
Depth in metres	0.065-0.07	0.12-0.125	0.20-0.205	0.28-0.285	0.39-0.395	0.41-0.415	0.455-0.46	0.15-0.155	0.24-0.245	0.315-0.32	0.345-0.35
Anthemis		0.4									
Apiaceae		0.8	2.9	0.9	0.6	0.3	0.6	0.9	0.9	1.0	
Artemisia		0.4		0.6	0.3	0.3	0.3				0.3
Asteraceae			1.0	0.6	0.3	1.2	0.3	0.3	0.6	1.0	
Centaurea nigra		0.8	1.4						0.3		
Caryophyllaceae											0.3
Chenopodiaceae						0.6					
Cyperaceae	12.9	20.5	4.8	11.0	6.5	6.7	6.6	6.2	4.2	12.4	
Filipendula	1.6	1.6	1.0	1.8	0.3	0.9	0.3	0.6	0.9		0.9
Galium sp.			1.4				0.6	0.3		1.0	0.6
Gentianaceae-type					0.6				0.3		
Hordeum sativum		0.4							0.3		0.3
Lactuceae	1.1	2.7	1.0	0.9	0.3	0.3	0.3	0.3	0.3		0.3
Plantago coronopus	1.1	0.4			0.3		0.3		0.3		
Plantago lanceolata	2.2	1.6	1.9	0.9				0.6	0.6	2.5	1.6
Plantago major/media	0.5	2.3	1.0			0.3					
Poaceae	36.6	34.5	36.5	23.6	17.2	25.3	17.0	22.6	23.7	30.7	34.3
Potentilla	2.2	1.6	1.0	1.5	0.8	1.2	0.9	2.4	1.5		1.2
Ranunculaceae	2.7	1.6	1.9	0.9	1.1	0.3	1.2	1.2	1.8	2.0	1.6
Rumex acetosa/acetosella		1.9	0.5		0.3	0.9	0.6			0.5	0.3
Stachys											0.3
Succisa prantensis	0.5										
Taraxacum	0.5		0.5	0.3		0.3		0.3	0.3		0.6
Ferns											
Filicales	1.6	1.2	3.4	1.2	7.1	2.4	7.2	3.6	2.7	3.5	4.4

Palaeochannel at CH 3200											
Sample	20005	20005	20005	20005	20005	20005	20005	20006	20006	20006	20006
Depth in metres	0.065-0.07	0.12-0.125	0.20-0.205	0.28-0.285	0.39-0.395	0.41-0.415	0.455-0.46	0.15-0.155	0.24-0.245	0.315-0.32	0.345-0.35
Polypodium		0.4	1.0	1.5	0.3	0.6	0.3		0.9		
Pteridium aqualina											0.3
Mosses											
Sphagnum	4.3	1.2	4.3	4.6	7.9	4.3	8.1	6.2	3.3	1.5	6.2
Aquatics											
Myriophyllum alterniforum			2.9								
Myriophyllum spicatum								0.9	6.5		
Myriophyllum verticullatum			1.4	4.9		4.9		6.8		7.4	8.4
Other spores											
T16	0.5	2.3	2.4			0.6		0.6	0.3	0.5	0.3
T25									1.5		
T72a	1.1									0.5	
T200	3.2			0.3				0.3		0.5	
T201		1.2	2.4						0.6	0.5	0.9
T226		0.4							0.6		
T519		0.8									
T729		0.4									
Un ID spore	2.2	0.4	0.5	0.3		0.9			1.2	2.0	0.6
Total number of pollen grains	186	258	208	326	354	328	347	337	337	202	321

Palaeochannel at CH 3200											
Sample	20005	20005	20005	20005	20005	20005	20005	20006	20006	20006	20006
Depth in metres	0.065-0.07	0.12-0.125	0.20-0.205	0.28-0.285	0.39-0.395	0.41-0.415	0.455-0.46	0.15-0.155	0.24-0.245	0.315-0.32	0.345-0.35
Exotics	139	165	79	101	74	59	74	81	72	37	88
Preservation:Good	110	146	146	168	199	210	199	223	211	112	188
Preservation:Crumpled	32	66	14	99	55	68	55	43	42	43	75
Preservation:Corroded	5	11	2	16	21	20	21	21	19	17	23
Preservation : Ruptured	9	9	9	7	10	11	10	12	20	14	14
Preservation:UnID	1	7	3	2	9	10	9	11	7	3	5
Concentration (g)	49733	58114	97855	119962	177794	206618	174278	154629	173958	202906	135571

Pollen grains are shown as percentages in the table.

CONCORDANCE TABLE

Table 28: Concordance of samples, fill and feature numbers

(See Table 14 for context details for monoliths from archaeological features)

Fill Number	Sample Number	Feature Number	Feature Type
1030	1000	1022	Pit
1030 (1057)	1002	1059?	Ditch
1041	1001	1042	Ditch
1060	1010	1063	Pit
1061	1011	1063	Pit
1062	1012	1063	Pit
1065	1061	1064	Pit
1069	1060	1064	Pit
1071	1059	1064	Pit
1075	1058	1064	Pit
1084	1015	1086	Pit
1085	1016	1086	Pit
1087	1013	1089	Pit
1088	1014	1089	Pit
1090	1024	1092	Posthole
1091	1025	1092	Posthole
1093	1027	1095	Posthole
1094	1028	1095	Posthole
1113	1003	1115	Posthole
1114	1004	1115	Posthole
1120	1055	1123	Posthole
1121	1056	1123	Posthole
1122	1057	1123	Posthole
1129	1052	1128	Pit
1130	1051	1128	Pit
1131	1050	1128	Pit
1132	1045	1128	Pit
1133	1044	1128	Pit
1134	1043	1128	Pit
1136	1046	1135	Pit
1137	1047	1135	Pit
1138	1048	1135	Pit
1157	1008	1156	Pit
1159	1005	1158	Posthole
1162	1006	1163	Posthole
1164	1023	1115	Posthole
1165	1035	1139	Posthole
1166	1036	1139	Posthole
1167	1037	1139	Posthole
1168	1017	1155	Posthole
1169	1018	1155	Posthole
1170	1019	1154	Pit
1171	1020	1154	Pit
1172	1021	1154	Pit

Fill Number	Sample Number	Feature Number	Feature Type
1173	1022	1154	Pit
1176	1040	1179	Pit
1177	1041	1179	Pit
1178	1042	1179	Pit
1180	1029	1183	Pit
1181	1030	1183	Pit
4140(1182)	1031	?1183?	?Pit?
1195	1009	1196	Posthole
1197	1032	1200	Posthole
1198	1033	1200	Posthole
1199	1034	1200	Posthole
1232	1026	1092	Pit
1233	1038	1139	Posthole
1234	1039	1139	Posthole
1235	1049	1135	Pit
3000		3000	Layer
3001		3002	Ditch
3021		3021	Layer
3046		3047	Pit
3064		3063	Pit
3224		3224	Layer
3226	3006	3226	Layer
3262	3007	3262	Layer
3266	3008	3266	Layer
3267		3269	Ditch
3268	3009	3269	Ditch
3270	3010	3269	Ditch
3358		3555	Ditch
3360	3018	3355	Ditch
3361	3019	3355	Ditch
3414		3414	Layer
3426		3426	Wall
3438	3027	3435	Ditch
3440	3028	3439	Ditch
3441		3441	Layer
3442	3025	3442	Layer
3443	3030	3443	Layer
3444	3024	3445	Ditch
3447	3026	3446	Ditch
3449	3029	3448	Ditch
3450	3041	3448	Ditch
3453	3032	3452	Ditch
3454	3033	3455	Posthole
3451	3031	3451	Layer
3458	3034	3446	Ditch
3460	3035	3461	Posthole
3466	3037	3452	Ditch
3467	3038	3469	Ditch
3468	3039	3469	Ditch
3470	3040	3452	Ditch
3471	3042	3448	Ditch

Fill Number	Sample Number	Feature Number	Feature Type
3472	3043	3448	Ditch
3474	3046	3452	Ditch
3475	3047	3452	Ditch
3476	3048	3452	Ditch
4003	4069	4005	Pit
4008	4032	4010	Pit
4009	4033	4010	Pit
4011	4028	4013	Pit
4014	4026	4016	Pit
4015	4027	4016	Pit
4018	4031	4019	Pit
4020	4036	4021	Pit
4060		4060	Layer
4061		4061	Layer
4066	4003, 4118	4067	Ditch
4071		4071	Layer
4073	4011	4074	Pit
4079	4007	4080	Posthole
4082	4008	4083	Pit
4084	4123	4085	Posthole
4086	4119	4087	Pit
4101	4012	4102	Posthole
4108		4107	Ditch
4121		4123	Pit
4122		4123	Pit
4137	4016	4136	Pit
4139	4018	4136	Pit
4140	4019	4136	Pit
4143	4014	4145	Ditch
4144	4015	4145	Ditch
4156		4157	Posthole
4173	4020	4172	Pit
4175		4174	Pit
4176		4176	Layer
4181		4179	Ditch
4200		4198	Ditch
4205	4088	4205	Layer
4237	4045	4236	Pit
4239	4034	4238	Pit
4241	4040	4240	Pit
4245	4025	4246	Pit
4247	4038	4249	Pit
4248	4039	4249	Pit
4250	4042	4252	Pit
4254	4044	4255	Pit
4257	4062	4256	Pit
4258	4063	4256	Pit
4260	4065	4256	Pit
4262	4050	4235	Pit
4263	4051	4235	Pit
4264	4052	4235	Pit

Fill Number	Sample Number	Feature Number	Feature Type
4269	4059	4268	Pit
4270	4053	4272	Pit
4273	4066	4276	Pit
4274	4067	4276	Pit
4275	4068	4276	Pit
4279	4060	4268	Pit
4280	4061	4268	Pit
4281	4035	4238	Pit
4284	4070	4283	Pit
4285	4071	4283	Pit
4292		4297	Ditch
4299	4047	4298	Pit
4300	4048	4298	Pit
4307	4058	4303	Pit
4315	4054	4309	Pit
4317	4056	4309	Pit
4329	4073	4310	Pit
4330	4074	4310	Pit
4342		4341	Pit
4350		4351	Pit
4355		4358	Pit
4357		4358	Pit
4374	4083	4373	Ditch
4377	4087	4378	Ditch
4380	4086	4379	Ditch
4381	4099, 4103	4381	Layer
4383	4089	4379	Ditch
4385	4091	4388	Pit
4386	4092	4389	Pit
4387	4093	4389	Pit
4390	4094	4389	Pit
4391	4095	4389	Pit
4392	4096	4388	Pit
4393	4097	4388	Pit
4402	4121	4403	Pit
4415	4148, 4112	4414	Pit
4416	4113	4414	Pit
4419	4127	4417	Pit
4422	4111	4421	Pit
4424	4109	4421	Pit
4425	4110	4421	Pit
4426	4108	4421	Pit
4427	4116	4414	Pit
4429	4104	4428	Pit
4432	4105	4428	Pit
4433	4143, 4106	4428	Pit
4437	4107	4436	Pit
4443	4114	4439	Ditch
4444	4115	4439	Ditch
4447	4125	4446	Ditch
4448	4126	4446	Ditch

Fill Number	Sample Number	Feature Number	Feature Type
4450	4128	4414	Posthole
4452	4136	4451	Hearth
4453	4130	4451	Hearth
4454	4134	4454	Layerayer
4461	4152	4460	Ditch
4463	4151	4462	Pit
4464	4150	4462	Pit
4465	4135	4451	Hearth
4466		4466	Layer
4474	4149	4472	Posthole
4476		4476	Layer
4480		4480	Layer
4481		4481	Layer
5001		5000	Pit
5087	5003	5083	Pit
5121		5123	Ditch
5139		5138	Ditch
5148	5004	5147	Pit
5165	5005	5164	Pit
6014	6000	6012	Pit
7003		7002	Ditch
7008		7006	Ditch
7015		7012	Ditch
7018		7016	Ditch
7034		7032	Ditch
7064		7063	Ditch
8036		8035	Ditch
8057		8056	Ditch
8062		8061	Ditch
10009		10009	Layer
10011	10000	10010	Pit
11001/11026		3263	Ditch

APPENDIX 1: PROJECT TASK LIST

Task list attached.

Task list for post-excavation analysis, publication and archive

Task	Item	Work required	Aims and objectives (refer to Section 8 - this report) A = Aim; O = Objective	Staff
100	**Stratigraphic analysis and comparative research**			
110	Site stratigraphy, taphonomy and landscape context (Late Neolithic/ early Bronze Age)	Sites D and E analysis: Integrate specialist data with site data and radiocarbon dates; assess phasing and taphonomy; construction methods and materials; evidence for use of the monuments; characterise local landscape and topography;	**A2:** O1, O2, O3, O4, O5, O6;	Clark P (OA project officer)
120	Site stratigraphy, taphonomy and landscape context (middle Bronze Age)	Site C analysis: Integrate specialist data with site data and radiocarbon dates; Assess phasing and taphonomy; construction methods and materials; evidence for use of the site; characterise local landscape and topography;	**A4:** O1, O2, O3, O4, O5;	Clark P (OA project officer)
130	Comparative research (Neolithic and Bronze Age)	Research, to compare and contrast early prehistoric A30 Sites C, D and E with contemporary sites in the region.	**A3:** O1, O2, O3, O4, O5, O6;	Clark P (OA project officer)
140	Site stratigraphy, taphonomy and landscape context (Iron Age/ Romano-British)	Sites A and B: Integrate specialist data with site data and radiocarbon dates; describe phasing and taphonomy; construction methods and materials; evidence for use of the houses; characterise local landscape and topography;	**A5:** O1, O2, O3, O6;	Clark P (OA project officer)
150	Comparative research (later prehistoric/ Romano-British)	Research, to compare and contrast later prehistoric/ Romano-British A30 Sites A and B with contemporary sites in the region.	**A5:** O2, O4, O5, O6;	Clark P (OA project officer)
	Artefact analysis and reports			
160	Prehistoric and Romano-British ceramics	Check and up-date existing report for publication	**A5:** O2, O4, O5;	Quinnell H (external ceramics specialist)
170	Medieval and post-medieval ceramics	Check and up-date existing report for publication	**A7:** O2, O3, O4;	Allan J (external ceramics specialist)
180	Worked flint	Check and up-date existing report for publication	**A7:** O1, O2;	Cramp K (OA worked flint specialist)
190	Worked and burnt stone	Further research on source of stone, and up-date existing report for publication	**A4:** O1, O3, O4;	Schaffrey R (OA worked stone)
200	*Tin residue identification (RLAHA research project)*	*Test quernstone from Belowda BA pit and hearth group for tin residues - Write report*	*A4: O1, O3, O4;*	*Pollard M (tin residues)*
	Environmental analysis and report			
300	Soil micromorphology (late Neolithic or early Bronze Age)	6 thin sections and 6 bulk samples; Write report	**A1:** O1, O2, O3; **A2:** O4, O6, O7; **A3:** O3;	McPhail R and Crowther J (UCL soil micromorphology specialists)
310	Soil micromorphology (middle Bronze Age)	2 thin sections and 2 bulk samples from Site C; Write report	**A1:** O1, O3; **A4:** O3, 04, O5;	McPhail R and Crowther J (UCL soil micromorphology specialists)
320	Soil micromorphology (late Iron Age/ Romano-British)	Total of 6 thin sections and 11 bulk samples from Sites and A and B; Write report	**A1:** O1, O3; **A5:** O2, O3, O6; **A6:** O1; **A7:** O1;	McPhail R and Crowther J (UCL soil micromorphology specialists)
330	Soil micromorphology (med/ post-med)	Total of 4 thin sections and 4 bulk samples from 'prospecting pits' and a soil beneath a hedge bank near Belowda	**A1:** O1, O3; **A6:** O1, **A7:** O4	McPhail R and Crowther J (UCL soil micromorphology specialists)
340	Geoarchaeological analysis (palaeochannel)	Integrate specialist evidence from the palaeochannel sequence with stratigraphic data. Write report	**A1:** O1, O3; **A2:** O4; **A4:** O5; **A5:** O2, O6; **A7:** O2;	Stafford L (OA geoarchaeology manager)
350	Pollen analysis (Palaeochannel)	Detailed counting and analysis of Bronze Age to post-medieval palaeochannel sequence, and write report	**A1:** O1, O3; **A2:** O1; O2: **A3:** O1, O3, O4, O5, O6; **A4:** O57	Huckerby E/ Druce D (pollen analyst)

Task list for post-excavation analysis, publication and archive

Task	Item	Work required	Aims and objectives (refer to Section 8 - this report) A = Aim; O = Objective	Staff
360	Pollen analysis (late Neolithic or early Bronze Age, Site E)	Detailed counting and analysis of Site E on-site pollen sequence, and write report	**A1:** O1, O2, O3; **A2:** O4, O7; **A3:** O3, O5, O6; **A4:** O5;	Huckerby E/ Druce D (OA pollen analyst)
370	*Pollen analysis (late Iron Age and Romano-British)*	*Detailed counting and analysis of Site A on-site sequence, and write report. Item deleted on recommendation of SW/ RPS but EH recommend it's retention.*	***A1:** O1, O3; **A2:** O6, O7; **A4:** O1, O2, O3, O4, O5; **A5:** 01, 02, 06;*	*Huckerby E/ Druce D (OA pollen analyst)*
380	*Pollen analysis (?medieval Buried soil, Site C)*			*Huckerby E/ Druce D (OA pollen analyst)*
390	Charred plant remains (late Neolithic or early Bronze Age)	Detailed analysis and specialist report (Sites D & E)	**A1:** O1, O2, O3; **A2:** O1, O4, O6; **A3:** O3;	Druce D (OA charred plant remains specialist)
400	Charred plant remains (middle Bronze Age)	Detailed analysis and specialist report (Site C)	**A4:** O1, O3, O4, O5	Druce D (OA charred plant remains specialist)
410	Charred plant remains (late Iron Age/ Romano-British)	Detailed analysis and specilaist report (Sites A & B)	**A1:** O1, O3; **A5:** O1, O2, O3, O4, O5, O6;	Druce D (OA charred plant remains specialist)
420	Charcoal (late Neolithic or early Bronze Age)	Further IDs for C14 and structural analysis, and specialist report (Sites D & E)	**A1:** O1, O2, O3; **A2:** O1, O4, O6; **A3:** O3;	Challinor D (OA charcoal specialist)
420	Charcoal (middle Bronze Age)	Further IDs for C14 and structural analysis, and specialist report (Site C)	**A4:** O1, O3, O4, O5	Challinor D (OA charcoal specialist)
430	Charcoal (late Iron Age/ Romano-British)	Further IDs for C14 and structural analysis, and specialist report (Sites A & B)	**A1:** O1, O3; **A5:** O1, O2, O3, O4, O5, O6;	Challinor D (OA charcoal specialist)
	Radiocarbon dating and report			
500	Radiocarbon dating on Late Neolithic/ EBA monuments - Sites D and E	4 further dates proposed, 3 obtained at assessment, one of which was insecure	**A1:** O2, **A2:** O1, O2, O3; **A3:** O2;	Rafter radiocarbon laboratory (NZ)
510	Radiocarbon dating on Site C - BA pit and hearth group	1 further date proposed, 1 obtained at assessment	**A1:** O1, O3; **A4:** O5;	Rafter radiocarbon laboratory (NZ)
520	Radiocarbon dating on roundhouses at Sites A and B	3 further dates proposed, 1 obtained at assessment	**A1:** O1, O3; **A5:** O1, O2, O3, O6;	Rafter radiocarbon laboratory (NZ)
530	Radiocarbon dating on prospecting pit groups	2 further dates proposed, 1 obtained at assessment	**A6:** O1; **A7:** O2	Rafter radiocarbon laboratory (NZ)
540	Radiocarbon dating on palaeochannel sequence	4 further dates proposed on change horizons, 2 obtained at assessment (top and bottom of monolith sequence)	**A1:** O1, O3;	SUERC radiocarbon laboratory
550	*Miscellaneous provisional radiocarbon dates (see C14 assessment)*	*2 proposed on suspected prehistoric features, 1 on a possible Roman ditch and 2 on a buried soil beneath hedge bank near Belowda*	***A7:** O1, O2, O3, O4, O5,*	*Rafter radiocarbon laboratory (NZ)*
560	Radiocarbon sample selection, modelling and specialist report	Selection of sample material, coordination with labs, calibration, modelling and report	**A1:** O1, O2, O3; **A2:** O1, O2, O3; **A3:** O2, **A4:** O5; **A5:** O1, O2, O3, O6; **A6:** O1; **A7:** O2;	Griffiths S (OA radiocarbon coordinator)
	Publication report			
600	Up-date historic landscape assessment/ research vist to CAU	Review and update original assesssment in light of fieldwork results, carry out additional research	**A6:** O1, O2; **A7:** O1, O2, O3, O4, O5, O6, O7	Clark P/ CAU archaeologists
610	*Prepare Environmental database/ HER data entries*	*Database entries, finalise GIS files and prepare metadata*	*N/A*	*Storey M*
620	Draft integrated scheme-wide publication report: Prehistoric sections dealing with Site C, D and E		N/A	Clark P (project officer)

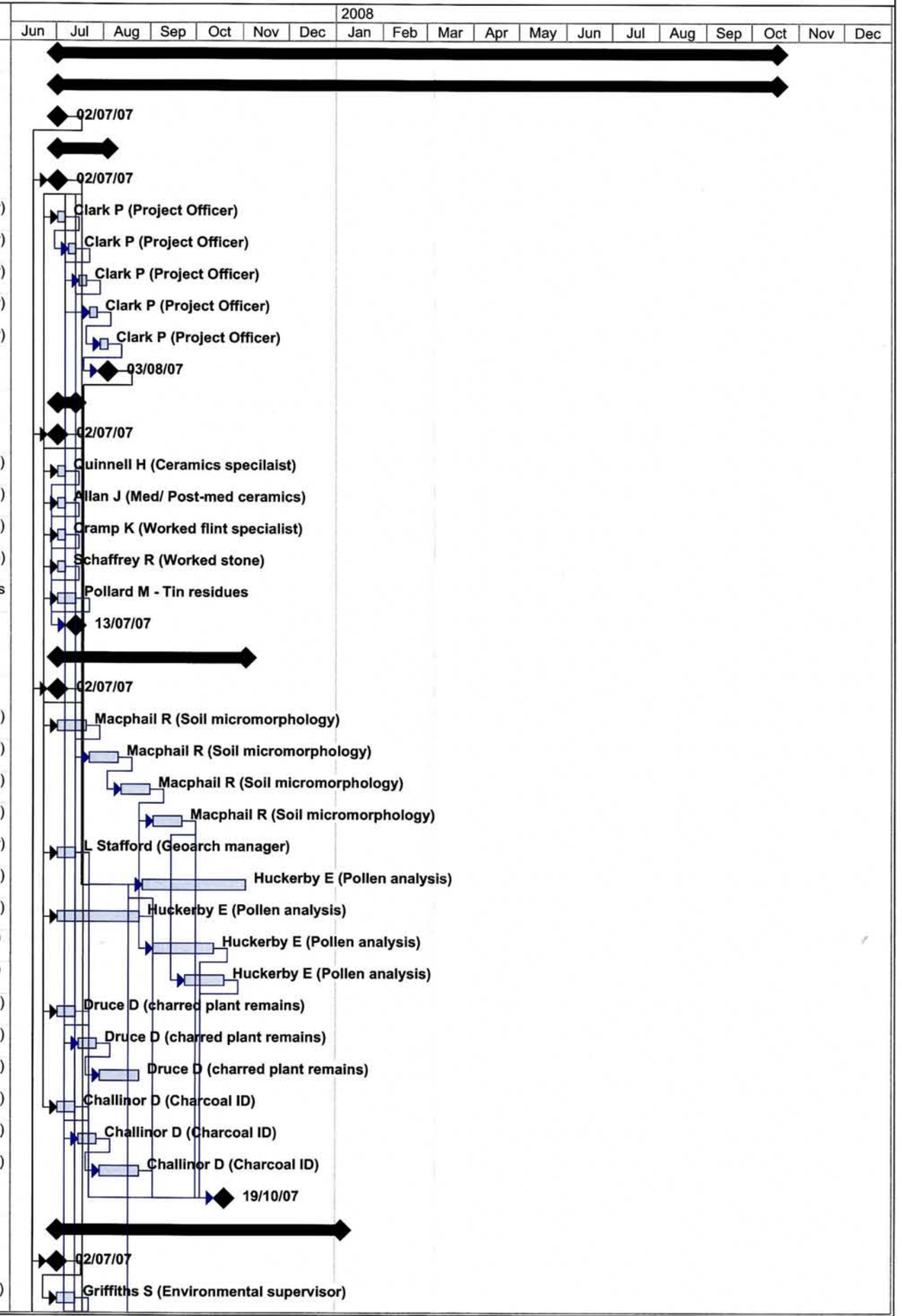
Task list for post-excavation analysis, publication and archive

Task	Item	Work required	Aims and objectives (refer to Section 8 - this report) A = Aim; O = Objective	Staff
630	Draft integrated scheme-wide publication report: IA Romano-British sections dealing with sites A and B		N/A	Clark P (project officer)
640	Draft integrated scheme-wide publication report: Medieval and post-medieval landscape sections		N/A	Clark P (project officer)
650	Prepare illustration briefs (all)		N/A	Clark P (project officer)
660	Prepare report illustrations: Prehistoric figures - Site C, D and E		N/A	OA Graphics
670	Prepare report illustrations: IA Romano-British figures - Sites A and B		N/A	OA Graphics
680	Prepare report illustrations: General location and landscape features		N/A	OA Graphics
690	Assemble draft report for submission to Editor including introductory pages		N/A	Foreman S (OA project manager)
700	Peer review		N/A	Peer Review (external specialist TBA)
	Dissemination			
800	Editing		N/A	Hayden C (OA prehistorian/ editor)
810	Editorial corrections		N/A	Clark P (OA project officer)
820	Check/ correct proofs		N/A	Clark P (OA project officer)
830	*Publication grant (Cornish Archaeology)*		*N/A*	*Editor, Cornish Archaeology*
840	*Publication grant (PPS)*		*N/A*	*Editor, Proceedings of the Prehistoric Society*
850	Distribute off-prints		N/A	Foreman S (OA project manager)
	Archive			
900	Archive consolidation/ museum deposition		N/A	OA Archives
910	ADS deposition		N/A	Archaeology Data Service
	Supervision/ management			
1000	Management/ meetings		N/A	All

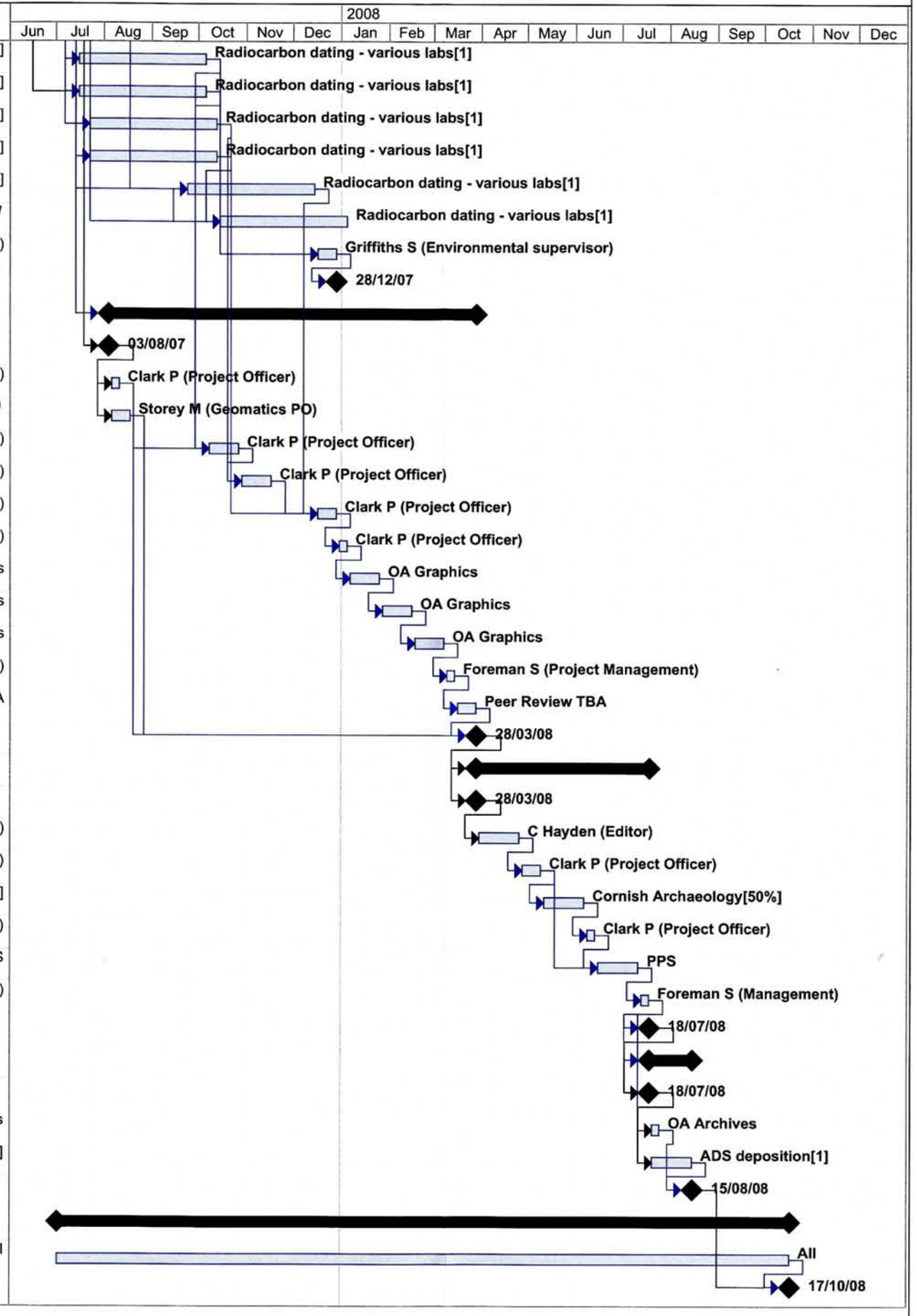
APPENDIX 2: PROJECT PROGRAMME

Programme attached.

ID	Task	Task Name	Duration	Resource Names
1		**A30 Bodmin to Indian Queens Archaeology - Post-excavation programme**	**340 days**	
2		**Analysis and publication programme and costs**	**340 days**	
3		Start programme	0 days	
4		**Stratigraphic analysis and comapartive research**	**25 days**	
5		Start stratigraphic analysis and research	0 days	
6	**110**	Site statigraphy, taphonomy and landscape context (late Neolithic/early Bronze Age)	5 days	Clark P (Project Officer)
7	**120**	Site statigraphy, taphonomy and landscape context (Middle Bronze Age)	5 days	Clark P (Project Officer)
8	**130**	Comparative research (Neolithic and Bronze Age)	5 days	Clark P (Project Officer)
9	**140**	Site statigraphy, taphonomy and landscape context (Iron Age/ Romano-British)	5 days	Clark P (Project Officer)
10	**150**	Comparative research (Iron Age/ Romano-British)	5 days	Clark P (Project Officer)
11		Complete stratigraphic analysis and research	0 days	
12		**Artefact analysis and reports**	**10 days**	
13		Start artefact analysis and reports	0 days	
14	**160**	Prehistoric and Romano-British ceramics	5 days	Quinnell H (Ceramics specilaist)
15	**170**	Medieval and post-medieval ceramics	5 days	Allan J (Med/ Post-med ceramics)
16	**180**	Worked flint	5 days	Cramp K (Worked flint specialist)
17	**190**	Worked and burnt stone	5 days	Schaffrey R (Worked stone)
18	**200**	Tin residues	10 days	Pollard M - Tin residues
19		Complete artefact analysis and reports	0 days	
20		**Environmental analysis and reports**	**90 days**	
21		Start environmental analysis and reports	0 days	
22	**300**	Soil micromorphology (late Neolithic/ Bronze Age)	15 days	Macphail R (Soil micromorphology)
23	**310**	Soil micromorphology (middle Bronze Age)	15 days	Macphail R (Soil micromorphology)
24	**320**	Soil micromorhology (Iron Age/ Romano-British)	15 days	Macphail R (Soil micromorphology)
25	**330**	Soil micromorhology (medieval/ post-med)	15 days	Macphail R (Soil micromorphology)
26	**340**	Geoarchaeology (palaeochannel sequence)	10 days	L Stafford (Geoarch manager)
27	**350**	Pollen analysis (palaeochannel sequence)	50 days	Huckerby E (Pollen analysis)
28	**360**	Pollen analysis (late Neolithic or Bronze Age)	40 days	Huckerby E (Pollen analysis)
29	**370**	*Pollen analysis (Iron Age/ Romano-British) - Provisional*	*30 days*	*Huckerby E (Pollen analysis)*
30	**380**	*Pollen analysis (?medieval buried soil) - Provisional*	*20 days*	*Huckerby E (Pollen analysis)*
31	**390**	Charred plant remains (late Neolithic/ early Bronze Age)	10 days	Druce D (charred plant remains)
32	**400**	Charred plant remains middle Bronze Age)	10 days	Druce D (charred plant remains)
33	**410**	Charred plant remains (Iron Age/ Romano-British)	20 days	Druce D (charred plant remains)
34	**420**	Charcoal (late Neolithic/ early Bronze Age))	10 days	Challinor D (Charcoal ID)
35	**430**	Charcoal (middle Bronze Age)	10 days	Challinor D (Charcoal ID)
36	**430**	Charcoal (Iron Age/ Romano-British)	20 days	Challinor D (Charcoal ID)
37		Complete environmental analysis and reports	0 days	
38		**Radiocarbon dating and report**	**135 days**	
39		Start radiocarbon dates	0 days	
40	**490**	Sample selection	10 days	iffiths S (Environmental supervisor)

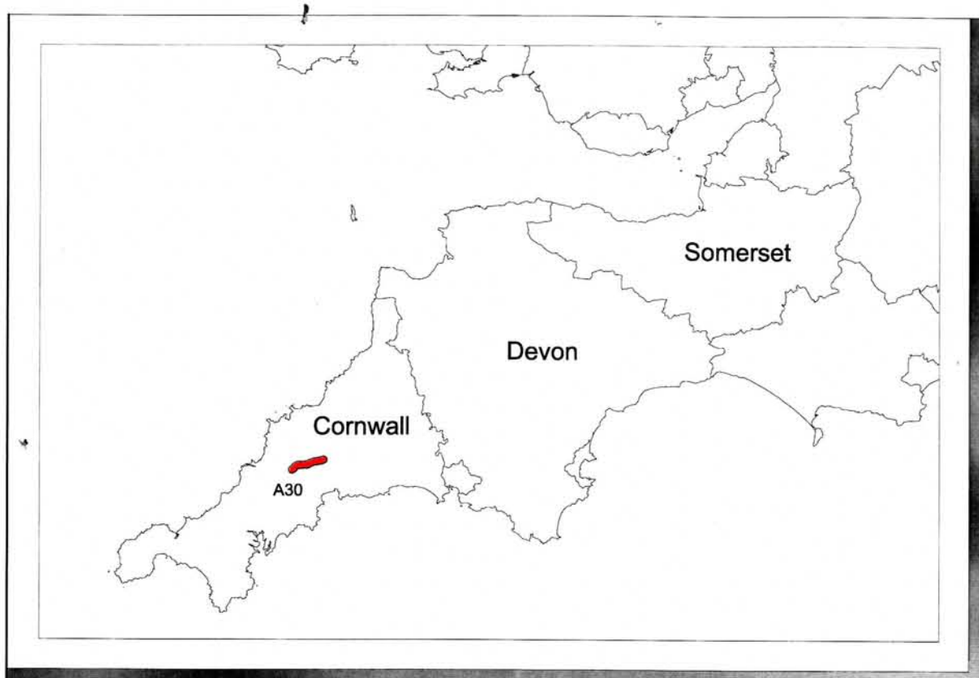


ID	Task	Task Name	Duration	Resource Names
41	**500**	Radiocarbon dates Sites D and E (late Neolithic/ Early Bronze Age)	60 days	Radiocarbon dating - various labs[1]
42	**510**	Radiocarbon dates Site C (middle Bronze Age)	60 days	Radiocarbon dating - various labs[1]
43	**520**	Radiocarbon dates Sites A ad B (Iron Age/ Romano-British)	60 days	Radiocarbon dating - various labs[1]
44	**530**	Radiocarbon dates on prospecting pits (medieval/ post-medieval)	60 days	Radiocarbon dating - various labs[1]
45	**540**	Radiocarbon dates on palaeochannel sequence	60 days	Radiocarbon dating - various labs[1]
46	**550**	*Miscellaneous provisional radiocarbon dates (See c14 assessment)*	*60 days*	*adiocarbon dating - various labs[1]*
47	**560**	Modelling and report	10 days	iffiths S (Environmental supervisor)
48		Complete radiocarbon dates	0 days	
49		**Publication**	**170 days**	
50		Start publication	0 days	
51	**600**	Up-date historic landscape narrative/ reserch visit to CCC	5 days	Clark P (Project Officer)
52	**610**	*Prepare Environmental Database/ HER entries (provisional)*	*10 days*	*Storey M (Geomatics PO)*
53	**620**	Draft integrated publication report - Sites, C, D and E(Neolithic/ Bronze Age)	15 days	Clark P (Project Officer)
54	**630**	Draft integrated publication report -Sites A and B (Iron Age/ Romano-British)	15 days	Clark P (Project Officer)
55	**640**	Draft integrated publication report - Medieval and post-medieval landscape	10 days	Clark P (Project Officer)
56	**650**	Prepare illustration briefs	5 days	Clark P (Project Officer)
57	**660**	Prepare report illustrations - Prehistopric figures and plates	15 days	OA Graphics
58	**670**	Prepare report illustrations - Iron Age/ Romano-British figures and plates	15 days	OA Graphics
59	**680**	Prepare report illustrations - General location and landscape features	15 days	OA Graphics
60	**690**	Assemble draft report for submission to Editor including introductory pages	5 days	Foreman S (Project Management)
61	**700**	Peer review	10 days	Peer Review TBA
62		Complete draft report	0 days	
63		**Dissemination**	**80 days**	
64		Start dissemination and archive	0 days	
65	**800**	Editing	20 days	C Hayden (Editor)
66	**810**	Editorial corrections	10 days	Clark P (Project Officer)
67	**830**	Publication grant (Cornish Archaeology)	20 days	Cornish Archaeology[50%]
68	**820**	Check/ correct proofs	5 days	Clark P (Project Officer)
69	**840**	Publication grant (PPS)	20 days	PPS
70	**850**	Distribute off-prints	5 days	Foreman S (Management)
71		Complete publication	0 days	
72		**Archive**	**20 days**	
73		Start archive preparation	0 days	
74	**900**	Paper finds archive consolidation/ museum deposition	5 days	OA Archives
75	**910**	Digital archive - ADS and HER deposition	20 days	ADS deposition[1]
76		Complete archive	0 days	
77		**Supervision/ management**	**340 days**	
78	**1000**	Management/ meetings	340 days	All
79		Complete Project	0 days	



APPENDIX 3: PROJECT COSTS

Costs table attached.



Elevation

350m
300m
250m
200m
150m
100m
50m
0m AOD

Key

- Lake or body of water
- Loam over hard rock
- Loam over granite
- Loam over shale
- Seasonally wet loam over shale
- Blanket peat
- Peat to loam over shale
- Seasonally wet peat to loam over shale

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N

0 1 km

Scale at A3 1:30000

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A30 Improvement Scheme: Archaeological Assessment Report

Drawing No.	A30BOD05.3/AAR/OA/001
Date	27 October 2006
Drawing title	Figure 1: A30 Improvement Scheme with Soil Type and Elevation Data

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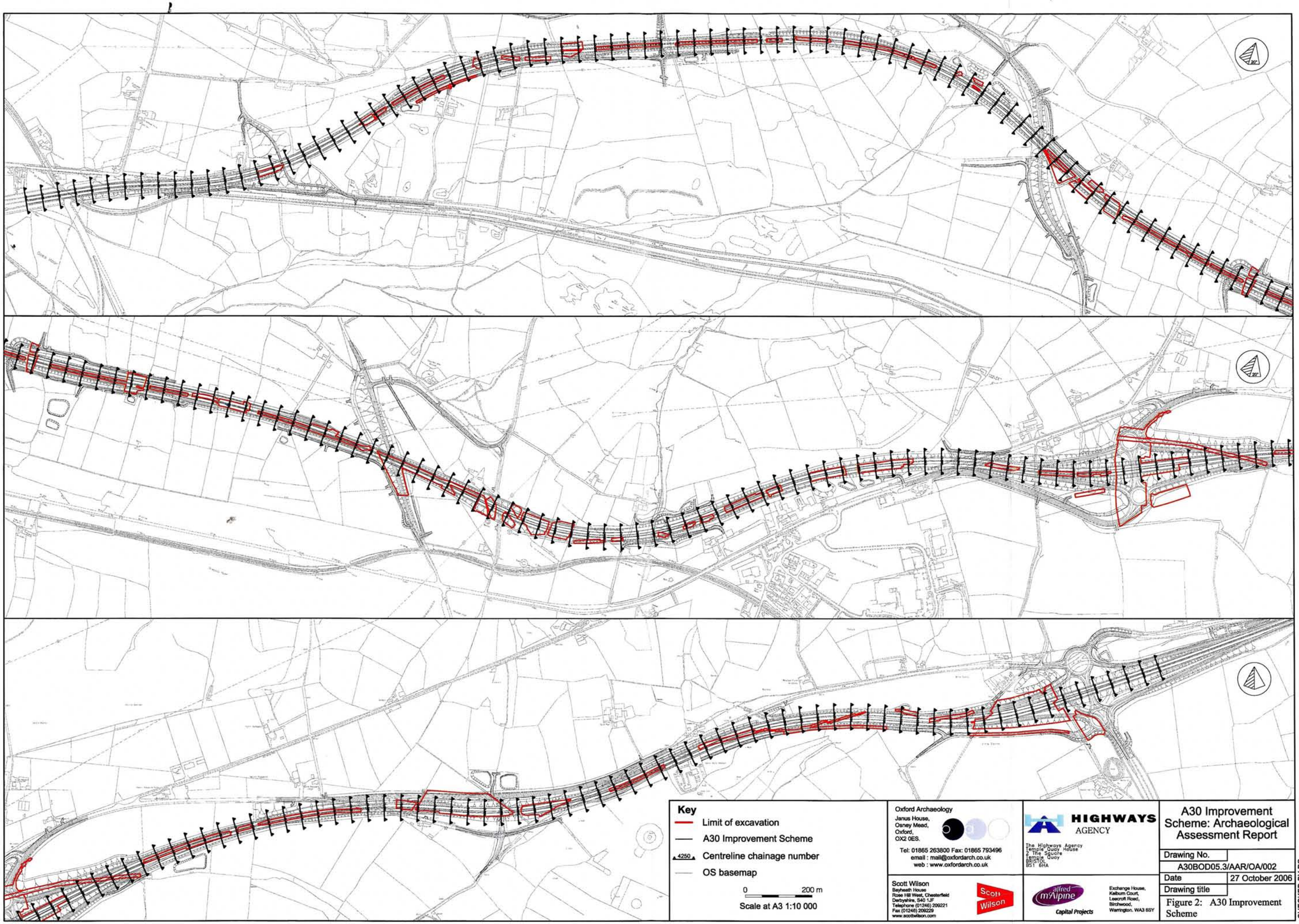

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A30 Improvement Scheme: Archaeological Assessment Report

Drawing No.	A30BOD05.3/AAR/OA/002
Date	27 October 2006
Drawing title	Figure 2: A30 Improvement Scheme

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194470E
61060N

1156
1128
1135
1123
1237
1179
1064
1117
1115
1196
1200
1139
1053
1155
1154
1183
1095
1163
1056
1092
1089
1063
1059
1158
1101
1086

194480E
61051N

Site E

Scale at A3 1 : 50 000

Key

- Limit of excavation
- Archaeological feature
- Excavated intervention
- 4250 Context number
- Hachure (indicator of slope)
- Base of slope
- Extrapolated feature
- A30 Improvement Scheme
- OS basemap

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N

0 1 m

Scale at A3 1:50

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A30 Improvement Scheme: Archaeological Assessment Report

Drawing No.	A30BOD05.3/AAR/OA/003
Date	27 October 2006
Drawing title	Figure 3: Site E - Royalton hengiform, St. Columb Major

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197490E
61580N

4283
4462
4320
4389
4303
4310
4388
4308
4309
4298
4301
4276
4278
4246
4243
4249
4256
4252
4240
4235
4255
4238
4236
4007
4025
4047
4005
4010
4021
4267
4268
4272
4027
4013
4019
4016

197536E
61540N

Site D

Scale at A3 1 : 50 000

Key

- Limit of excavation
- Archaeological feature
- Excavated intervention
- 4250 Context number
- Hachure (indicator of slope)
- Base of slope
- Extrapolated feature
- A30 Improvement Scheme
- OS basemap

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N

0 2.5 m

Scale at A3 1:150

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A30 Improvement Scheme: Archaeological Assessment Report

Drawing No.	A30BOD05.3/AAR/OA/004
Date	27 October 2006
Drawing title	

Figure 4: Site D - Lane End pit circles, Roche

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197240E
61545N

4439
4436
4455
4451
4428
4414
4421
4136
4158
4446
4172
4166
4134
4169

197270E
61530N

Site C

Scale at A3 1 : 50 000

Key

- Limit of excavation
- Archaeological feature
- Excavated intervention
- 4250 Context number
- Hachure (indicator of slope)
- Base of slope
- Extrapolated feature
- Modern truncation
- A30 Improvement Scheme
- OS basemap

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N

0 2 m

Scale at A3 1:100

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A30 Improvement Scheme: Archaeological Assessment Report

Drawing No.	A30BOD05.3/AAR/OA/005
Date	27 October 2006
Drawing title	Figure 5 Site C - Belowda pit and hearth group, Roche

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4145
4150
4092
196935E
61490N
4157
4366
4152
4364
4360
4083
4078
4080
4105
4076
4067
4085
4065
4074
4087
4102
4399
4403
4401
4378
4371
196905E
61475N

Site B

Scale at A3 1 : 50 000

Key

- Limit of excavation
- Archaeological feature
- Excavated intervention
- 4250 Context number
- Hachure (indicator of slope)
- Base of slope
- Extrapolated feature
- A30 Improvement Scheme
- OS basemap

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Scale at A3 1:100

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Drawing No.	A30BOD05.3/AAR/OA/006
Date	27 October 2006
Drawing title	

Figure 6: Site B - Belowda roundhouse, Roche

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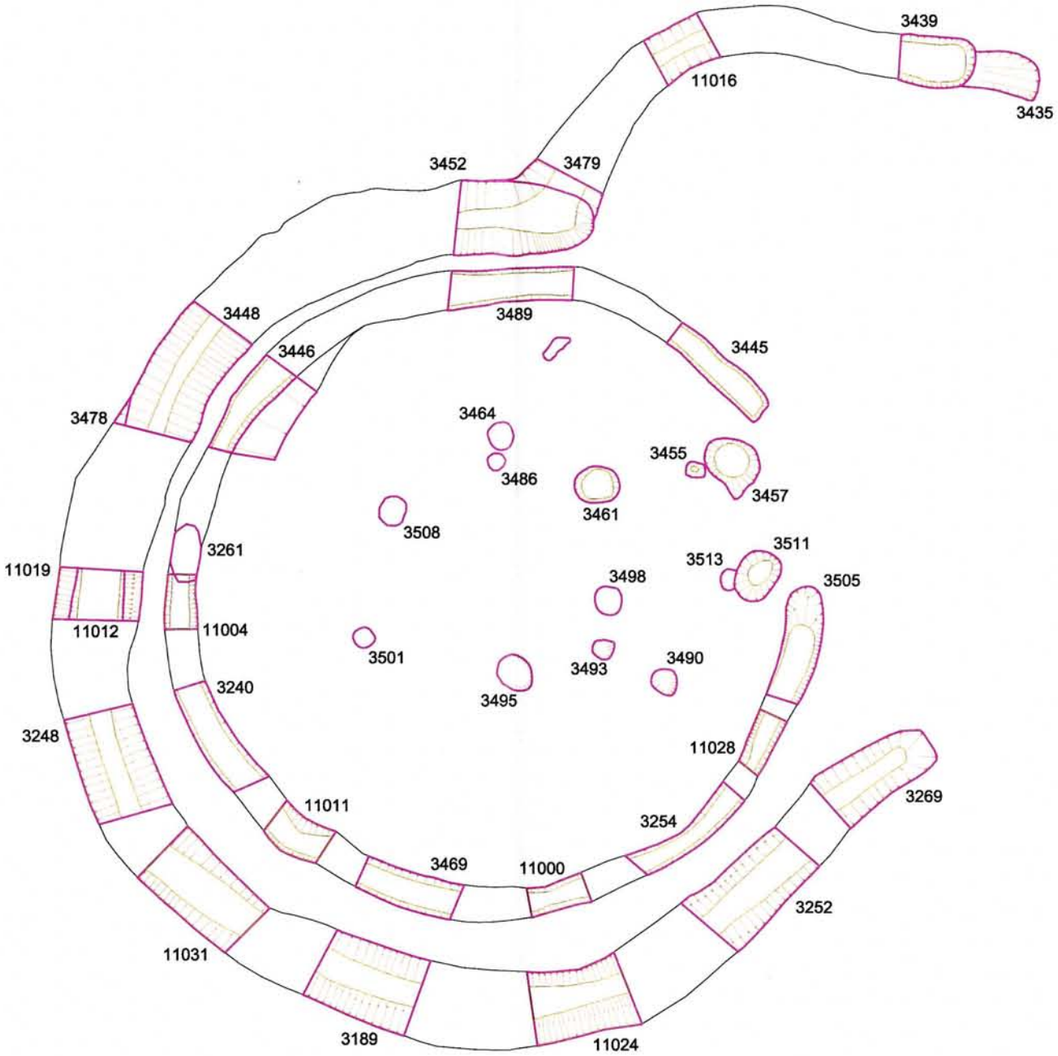

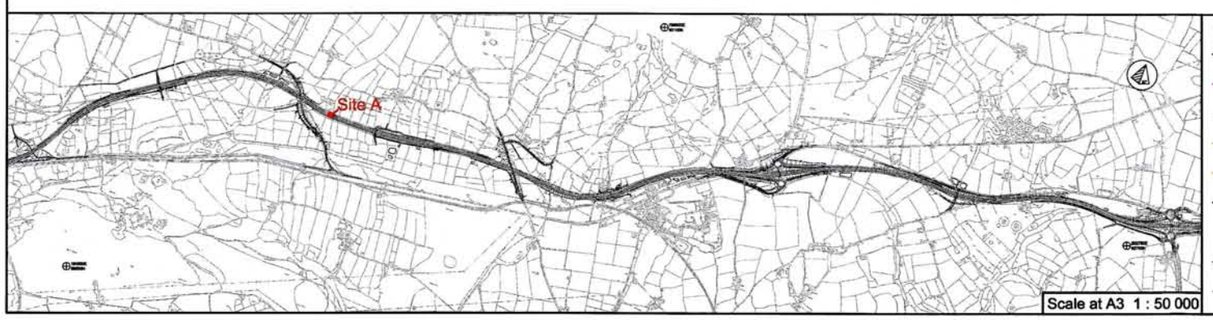

Key

- Archaeological feature
- Excavated intervention
- 4250 Context number
- Hachure (indicator of slope)
- Base of slope
- Extrapolated feature
- A30 Improvement Scheme
- OS basemap

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Scale at A3 1:100

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Drawing title	

Figure 7: Site A - Lower Trenoweth roundhouse, Roche

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Plate 1: Pit ***10010*** at Innis Downs SMS

Plate 2: Hengiform monument, Site E. Flags mark internal postholes, people mark alternate pits

Plate 3: Western pit circle ***4022*** at Site D. Flags mark location of pits

Plate 4: Bronze Age pits and ditch at Site C

Plate 5: Hearth ***4451***, at Site C

Plate 6: Site B, as uncovered during Haul Road SMS

Plate 7: Double ditches at Site A

Plate 8: Possible prospecting pit ***5103***, at Saffron Park SMS

Plate 9: Cornish Hedge ***3283***, within the Belowda field system

Plate 10: Heavily bioturbated hedge ***3281***, in the Belowda field system

Plate 11: Western end of Site C as revealed by Haul Road SMS

Plate 12: Pit ***6009***, located around CH 6700 in Haul Road SMS

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