

Grooms Farm Extension, Frith End Quarry, Kingsley, Hampshire

Post-Excavation Assessment Report on the results of the Archaeological Strip, Map and Record



Ref: 59793.02 July 2010



Post-Excavation Assessment Report on the Results of the Archaeological Strip, Map and Record

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Summary

Wessex Archaeology was commissioned by Grundon (Ewelme) Ltd. to undertake a programme of archaeological strip, map and record excavation for part of an extension to the Frith End Quarry at Groom's Farm, Kingsley, Hampshire (the Site), in advance of sand extraction. The Site covered approximately 1.3 ha, centred on Ordnance Survey National Grid Reference (NGR) 481245 138818.

Parts of the quarry to the north of the Site have been subject to previous archaeological investigations, the results of which have been summarised and assessed in an earlier assessment report by Wessex Archaeology in 2003. This assessment report presents the results of the recent strip, map and record excavation only.

The strip, map and record excavation was undertaken in three Phases, between May 2007 and April 2010. It identified a small assemblage of residual Mesolithic flints, and a scatter of Middle to Late Bronze Age/Early Iron Age features, including pits, a posthole, and a continuation of a north-south, east-west field system, with a possible trackway identified in a previous excavation. A curvilinear gully and a single pit have been attributed to the Iron Age, as has a large, erosion feature in the west of the extension area, and this activity appears to be peripheral to the occupation of similar dates identified to the north. The truncated remains of a single-chambered, twin-flue kiln, typical of the Romano-British Alice Holt pottery industry (dated to the late 3rd – 4th century AD), was recorded in the south of the Site, associated with pits, postholes and an east-west aligned ditch.

Also of possible potential significance was a series of erosion features that post-date the activity associated with Romano-British pottery production. At the base of two coombe-like features in the east and west of the Site, a charcoal-rich horizon, probably deriving from kiln waste, was sealed by numerous colluvial deposits. These erosion features may have been caused by deforestation resulting from the intensification of the Alice Holt industry which reached its peak in the mid- to late 4th century AD (Lyne and Jeffries 1979, 13). Further analysis of the charcoal assemblage, including from similar features previously excavated, could yield further information in the management and exploitation of woodland resources for the Alice Holt industry.

In view of the potential of the stratigraphic, artefactual and environmental results, this report proposes a costed programme of further work, including analysis, public dissemination through publication, and the curation of the archive. It is recommended that a synthetic report, combining the result of this and all phases of excavation at the Frith End quarry be prepared for publication in *Hampshire Studies*.

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Wessex Archaeology would like to thank Grundon (Ewelme) Ltd for commissioning the excavation, particularly Stewart Mitchell in this regard. The assistance of Tony Young (Quarry Manager) and the Frith End Quarry team is appreciated. The help and advice of Stephen Appleby and Hannah Fluck of the Hampshire County Council Archaeology Section are also gratefully acknowledged.

The project was managed on behalf of Wessex Archaeology by Nick Truckle (2007, 2008) and Caroline Budd (2010). The fieldwork was directed by Susan Clelland (2007), Julia Sulikowska (2008) and Dave Reay (2010). They were assisted by Laura Cassie, Dorothee Facquez, Matt Kendall and Julia Sulikowska (2007); Andy Sole and Chloe Hunnisett (2008); Chris Ellis, Vasilis Tsamis, Dave Murdie, Ben Cullen and Damien Campbell-Bell (2010). Dr Catherine Barnett provided geoarchaeological advice.

This report was compiled by Dave Reay, based on initial material by Julia Sulikowska, and edited by Pippa Bradley and Andrew Powell. The finds were assessed by Rachael Seager-Smith, with a contribution from Matt Leivers (flint). The environmental samples were processed by Nicola Mulhall, who also recorded the worked wood. The bulk samples were assessed by Dr Ruth Pelling with additional comments on charcoal and worked wood from Dr Catherine Barnett. Soils and sediments were assessed by David Norcott. The illustrations were drawn by Elizabeth James.

Post-Excavation Assessment Report on the Results of the Archaeological Strip, Map and Record

1 INTRODUCTION

1.1 Project background

- 1.1.1 Wessex Archaeology was commissioned by Grundon (Ewelme) Ltd. to undertake a programme of archaeological strip, map and record for part of an extension to the Frith End Quarry at Groom's Farm, Kingsley, Hampshire (hereafter, 'the Site') (Fig. 1). The Site covered approximately 1.3 ha, centred on Ordnance Survey National Grid Reference (NGR) 481245 138818, and was located to the south of the current quarry.
- 1.1.2 The current quarry covers approximately 12.5 ha, centred on NGR 481380 139020. Parts of the quarry have been subject to previous archaeological investigations (Oxford Archaeological Unit 1988; Wessex Archaeology (WA) 1991; 1999; 2000) (Table 1), the results of which have been summarised and fully assessed (WA 2003).

Table 1. Summary of previous archaeological investigations on the Site

Year	Company	Type of fieldwork	Archaeology	Project code and reference
1988	Oxford Archaeological Unit	Field walking, evaluation trenches	Six areas of archaeological activity were revealed, including Mesolithic flint concentration, Late Bronze Age settlement, Late Romano-British activity and medieval sites	N/A OAU 1988
1990-	Wessex	Watching brief	Small scatter of archaeological	33481
1991	Archaeology	Areas A-E	features present in Area D only.	WA 1991
1994	Wessex Archaeology	Excavation	Bronze Age/Iron Age activity	33481b WA 1999
1998	Wessex	Excavation	Bronze Age, Iron Age and	33481b
	Archaeology		Romano British activity.	WA 1999
2000	Wessex	Excavation,	Bronze Age and Romano British	33481c
	Archaeology	test pits	activity.	WA 2000
2001	Wessex	Excavation	Medieval activity	49873.01
	Archaeology			WA 2003

1.1.3 A desk-based assessment for the quarry extension established the potential for archaeological remains dating from the Mesolithic (c. 8,500-4,000 BC) to the medieval period (AD 1066-1499) (Wessex Archaeology 2005). Subsequently, planning permission (Application No. F30633/012/CMA) was granted for the extension, covering a total of 2.87 ha, subject to a condition requiring a programme of archaeological strip, map and record prior to mineral extraction.

- 1.1.4 The fieldwork was undertaken in three phases: Phase 1 in May-June 2007, Phase 2 in October-November 2008, and Phase 3 in March-April 2010 (Fig. 1). Although the planning permission included land to the west of Phase 3, no mineral extraction is currently planned in that area and therefore no archaeological works were undertaken.
- 1.1.5 This report summarises the results of the strip, map and record, and outlines the proposals for further research, publication and archive deposition.

1.2 Location, topography and geology

- 1.2.1 The Site is located on the northern side of the valley of the River Slea, just south of the Alice Holt Forest, close to the Hampshire/Surrey border, approximately 9 km to the east of Alton (**Fig. 1**).
- 1.2.2 The topography of the areas investigated during Phases 1 and 2 comprised a flat topped hill that sloped steeply down towards the River Slea in the south, from 75 m to 65 m above Ordnance Datum (aOD). To the west, Phase 3 consisted of the northeastern portion of Ranks Hill, a tree covered knoll with a maximum height of 80 m aOD; this area also sloped steeply to the south towards the river. The area not investigated to the west of Phase 3 encompasses the summit and western slopes of Ranks Hill.
- 1.2.3 The geology of the Site comprises highly variable, loose, medium and fine sands of the Folkstone Beds, part of the Cretaceous Lower Greensand formation (Gallois 1965; Geological Survey of Great Britain 1975). In some discrete areas, thin layers of clay were interspersed within the sand. The northern part of the current quarry lies on Gault Clay, while the southern part lies on sands.
- 1.2.4 Before the excavation, most of the Site was under pasture, with rough briar, scrub and trees covering Ranks Hill.

1.3 Archaeological background

- 1.3.1 A detailed archaeological and historical background for the Site is included in the desk-based assessment (WA 2005), and is therefore not repeated here. However the area is particularly well known for the Romano-British Alice Holt pottery industry, the core of which lies just over 1km to the north.
- 1.3.2 Previous archaeological investigations within the quarry revealed a range of archaeological features of various dates which have been assessed for their archaeological potential (WA 2003), and summarised by period in **Table 2**.

Table 2. Summary of archaeological findings revealed during previous investigations, by period

Period	Areas	Description of archaeological findings
	(year)	
Mesolithic (c. 8,500 – 4,000 BC)	1988 1994 1998 2000	No features were observed, but a substantial flint assemblage of Late Mesolithic date was collected, which indicates activity of that date in the area. However, none of the artefacts, which included cores, blades, scrapers and microliths, were <i>in situ</i>
Early Bronze Age (<i>c.</i> 2,400 – 1,500 BC)	1994 2000	One pit with fragments of collared urn, and a few fragments of residual pottery in later features
Middle Bronze Age (c. 1,500 – 1100 BC)	1994 1998 2000	A number of postholes, two pits and a penannular ditch probably representing the remains of a circular building
Late Bronze Age/Early Iron Age (c. 1,100 – 400 BC)	1988 1994 1998 2000	Remnants of a settlement, possibly bounded by undated ditches aligned north-south. Postholes, forming circular buildings and four- and six-post structures; three curvilinear gullies; a number of pits, including one with cremated human bone; at least 23 pits with deliberately deposited pottery vessels of unknown function
Iron Age (c. 700 BC – AD 43)	1994 1998	Domestic settlement (at least until 100 BC), represented by numerous pits, postholes forming at least one rectangular six-post structure, and a curvilinear gully. Two large boundary ditches, including an L-shaped enclosure ditch and a smaller segmented feature
Romano-British (c. AD 43-410)	1988 1998 2000	Late Romano-British activity. Substantial midden deposits, filling possible quarry hollows, with four large storage jars found <i>in situ</i> ; a number of pits and postholes; a significant amount of pottery had firing defects, linking the site to local Alice Holt pottery industry. However, no kilns or domestic features were identified
Medieval (c. AD 1066 – 1499)	1988 1994 2001	Possible farmstead. A number of pits dating to 12th to 13th century AD

2 AIMS AND METHODOLOGY

2.1 Aims and objectives

2.1.1 The principal aim of the strip, map and record investigation was to recover and interpret information about the archaeology of the Site and how this relates to the archaeological remains, features and deposits identified within the adjacent area (WA 2007). A further aim was to establish as far as possible the origins, evolution and duration of occupation, its character, status and economy.

2.2 Excavation methodology

- 2.2.1 All excavation and post-excavation procedures were conducted in compliance with the standards outlined in the *Institute of Field Archaeologist's Standard and Guidance for Archaeological Excavation* (as amended 1999), excepting where they are superseded by statements made below.
- 2.2.2 Unique site codes (59791, 59792 and 59793) were issued for each of the three Phases of investigation.

- 2.2.3 Modern overburden (i.e. topsoil and subsoil) was removed by a 360° tracked mechanical excavator equipped with a toothless bucket, working under archaeological supervision to the first recognisable archaeological horizon or the underlying geological deposits, whichever was encountered first.
- 2.2.4 The archaeological features were cleaned by hand, as appropriate, to enable an accurate plan to be produced. Investigation of the archaeological features and deposits was undertaken as specified in the Project Design, sufficient to satisfy the principal aims of the excavation. A sufficient sample of archaeological remains was investigated to record the horizontal and vertical extent of the stratigraphic sequence to the level of undisturbed natural deposits.
- 2.2.5 An auger survey was undertaken of a large erosion feature located at the east of the Site in order to locate archaeologically significant areas within it. Subsequently, seven machine excavated slots were dug into the feature, in order to establish and record its depth and the character of its soil sequence. A similar methodology was used to investigate erosion features at the west of the Site. This has enabled the creation of deposit models illustrating these features' forms, extents, fill sequences, and relationships to the topography.

Recording

- 2.2.6 The three separate Phases were surveyed with a Leica TCRP1205 robotic total station, a Leica 1200 series GPS unit, and a Leica Viva series GNSS unit were used, the latter two used the OS National GPS Network through an RTK network with a 3D accuracy of 30 mm or below. All survey data were recorded using the OSGB36 British National Grid coordinate system. During fieldwork, digital plans were produced using AutoCAD.
- 2.2.7 A full written, drawn and photographic record was made for all archaeological features. Hand-drawn plans and sections were produced at scales of 1:20 (plans) and 1:10 (sections). All plans and section points were surveyed using the instruments listed above, giving accurate 3D OS coordinates and spot heights relative to Ordnance Datum. Wessex Archaeology *pro forma* sheets were used exclusively for all site recording.
- 2.2.8 Colour transparency, monochrome negative photographs (35 mm) and digital images were taken (including a scale) as appropriate. A number of general site photographs were also taken to give an overview of the Site and the progress of the excavation.

Environmental sampling

2.2.9 Samples of deposits were taken from dateable contexts where appropriate and under the guidance of the Wessex Archaeology environmental specialists.

Artefact recovery

2.2.10 All artefacts were collected, stored and processed in accordance with standard methodologies and national guidelines (IFA 2001; SMA 1993; 1995). Bulk finds were collected and recorded by context. All artefacts were retained, unless they were of modern origin.

3 ARCHAEOLOGICAL RESULTS

3.1 Introduction

3.1.1 This section summarises the results of all Phases of the archaeological strip, map and record, by period. The assessments of the artefactual and palaeoenvironmental assemblages are presented in the Sections 4 and 5 below. More detailed descriptions of the archaeological features and deposits can be found in the paper and digital archive. All context numbers from Phases 1 and 2 are prefixed with the letter F, to differentiate them from numbers used in previous excavations.

3.2 Mesolithic (c. 8500-4000 BC)

3.2.1 A small residual assemblage of Mesolithic flints was recovered from the fills of later features, providing further evidence that the area was exploited in this period. However, no features or deposits were identified as being Mesolithic in date.

3.3 Middle to Late Bronze Age/Early Iron Age (c. 1600-400 BC)

- 3.3.1 A scatter of seven pits and one posthole on the hilltop in the north of Phase 1 (**Fig. 3**) appears to relate to settlement activity previously recorded during excavations in 1994 and 1998 to the north (**Fig. 2**). The nature and density of these features is suggestive of low level activity on the periphery of the settlement.
- 3.3.2 Two ditches (**F152** and **F153**) (**Fig. 3**) in Phase 2 form what appears to be a continuation of a field system identified during previous excavations (**Fig. 2**). Ditch **F152** was 1.2 m wide and 0.43 m deep with a shallow, U-shaped profile. The western terminus of this feature forms an entrance *c*. 5 m wide with the northern terminus of **F153**. Ditch **F153** was 0.75 m wide and 0.27 m deep and also had a shallow U-shaped profile. Both of these features were filled by natural processes. They produced a very small assemblage of Late Bronze Age/Early Iron Age pottery, struck flint and burnt flint, supporting their interpretation as field boundaries.
- 3.3.3 Ditch **F153** was on the same alignment as a broad, shallow feature (F156), at the northern edge of Phase 1, interpreted as a trackway (previously recorded further north as **367**). The stratigraphy of this feature was ambiguous, but it is most likely to be a single feature measuring 4.6 m wide and 0.82 m deep, with shallow, concave sides and flat base, with deeper V-shaped steps in the base 1.7 m apart, suggestive of wheel ruts. Late Bronze Age/Early Iron Age pottery and struck flint were recovered from the fills.
- 3.3.4 The southern extent of this feature could not be ascertained as its stratigraphic relationship with a large Romano-British erosion feature (F151) (Fig. 3) was not established. It is possible that feature F156 formed the northern portion of F151, and that the prehistoric finds were residual, but given its profile, and alignment with trackway 367, the former interpretation seems most plausible. It is possible that this trackway was still in use in the Romano-British period, and contributed to water run-off and erosion that caused the formation of F151.

3.4 Iron Age (c. 700 BC – AD 43)

- 3.4.1 Two features in Phase 1 have been tentatively assigned to this period, subcircular pit F017 and curvilinear gully F100 (Fig. 3). However, the precise dating of the gully is problematic. It was 10.3 m long, 0.8 m wide and 0.3 m deep, and had rounded termini at each end, but was disturbed by roots in the middle (F054); further disturbance in the vicinity is represented by F015 (Fig. 3) to the west. Gully F100 contained Late Bronze Age/Early Iron Age pottery, and a single, possibly intrusive, Late Iron Age sherd. It is unlikely to have been part of a roundhouse ring gully; its function is unknown.
- 3.4.2 In Phase 3, a large spread of colluvial sand (5199) (Fig. 3), measuring 21 m by 18 m, was recorded on the south-east slope of Ranks Hill. This sealed a buried soil horizon (5200), containing two sherds of Iron Age pottery, that was only present in the southern, down-slope area. It is possible that the soil horizon dates to the more widespread erosion that occurred in the Late Romano-British period (below) with the Iron Age pottery being residual. (See Fig. 5, Transects 1 and 2 for deposit model of this area). In the southern edge of the excavation the colluvial sand (5199) was overlain by a thin layer of eroded/buried soil (5198), which was removed by machine along with the overlying subsoil and topsoil.

3.5 Romano-British (AD 43-410)

- 3.5.1 All features assigned to this phase date to the late Romano-British period (late 3rd 4th century AD) (**Fig. 3**). They include a range of features and deposits, including kiln **F155** in Phase 2, associated with the Alice Holt pottery industry. Subsequently, considerable erosion occurred over the Site, possibly resulting from localised deforestation.
- 3.5.2 A pottery kiln (F155) was recorded at the south of Phase 2 (Figs. 3 and 4). Although heavily truncated, it is identifiable as a single chambered twin flue kiln, typical of the Alice Holt pottery industry (Swan 1984, 78, 117ff; Lyne and Jefferies 1979). It was aligned east to west and had an overall length of 4 m, consisting of a central firing chamber with two flanking stokeholes. The oval chamber was c. 2 m long, 1.3 m wide and 0.2 m deep, and narrowed to the east to form a flue. Both stokeholes were shallow sided and subcircular in form, the eastern one measuring c. 1.3 m by 1.7 m and 0.2 m deep, the western measuring c. 1 m by 1 m and 0.14 m deep. It appears that the kiln was dismantled after its last firing, as none of the floor or structure survived; however, fragments of locally occurring heath stone recovered from the chamber were probably part of the superstructure. The chamber and the stokeholes each had single fills, producing late 4th century AD pottery (including firing wasters), abundant charcoal, vitrified globules of organic material.
- 3.5.3 This kiln was bounded to the south by three pits or postholes (**F120**, **F122** and **F124**), and by a truncated ditch (**F154**), all of which appear to have been associated with it, as does pit **F144** to the west (all shown on **Fig. 3**). All these features contained Romano-British pottery which, where diagnostic, dated to the 4th century AD. Ditch **F154** also produced a single, probably intrusive, medieval sherd.

- 3.5.4 West of the kiln, in Phase 3, three large shallow scoops (5179, 5183 and 5186) (Fig. 3) were partially exposed within a machine slot cut through the fills of a large erosion feature (5181, below), and are probably associated with the phase of pottery manufacture on the Site. Feature 5179 contained pottery of 4th century AD date, the others contained undiagnostic sherds of Romano-British date, but the stratigraphy suggests they are contemporary. They all contained a similar sequence of a topsoil-derived lower fill, overlain by mixed, very charcoal-rich deposits that had mottles of burnt material present. Environmental samples produced large quantities of round wood predominantly of oak, with some probable hazel/alder and vitrified material. possibly dumps of waste material from pottery manufacture. Similar material has been recovered from nearby pottery production sites at Rookery Farm (WA 2008) and Alice Holt (Birbeck et al. 2008, 115; WA 2005a; Lyne and Jefferies 1979, 13). It is possible that these features were the remains of ephemeral kiln structures, similar to kiln F155, but as they were not fully exposed this cannot be determined. It is more likely, however, given their topsoil-derived basal fills that they were simply for dumping kiln waste. Among these features was a small pit (5177) (Fig. 3).
- 3.5.5 A charcoal-rich horizon (comprising deposits **F081**, **F083** and **F085**), was exposed in the base of the large erosion feature (**F151**) at the east of the Site (**Figs. 3 and 6**), and appear to comprise dumps of material that may also have derived from pottery production, or other industrial processes in the vicinity. It is likely that this activity is also 4th century AD in date, although only a single undiagnostic sherd of Romano-British greyware was recovered.
- 3.5.6 Two features at the north of the Phase 3 area, pit **5143** and sub-rectangular feature **5113** (both shown on **Fig. 3**), appear to be unrelated to pottery manufacture. Feature **5113**, aligned north-east to south-west, was *c.* 2.6 m long, 0.9 m wide and at least 0.4 m deep, with vertical, straight sides and a flat base, with a small subcircular depression (**5118**) in the base at the south-western end. The feature contained a waterlogged plank or possibly a stake fragment (**5117**) on its base, a peat layer (**5115**) and a mixed backfill (**5114**). The waterlogging was caused by horizontally bedded seams of clay within the natural sands, preventing groundwater seepage. Although this feature has the appearance of a grave, it contained no human bone (perhaps due to the acidic nature of the soil) and its function remains unclear.

Erosion features

- 3.5.7 Large-scale erosion appears to have occurred within the Site in the late Romano-British period (**Fig. 3**). The erosion features were generally irregular water-eroded channels running north to south down-slope. They include two coombe-like features (**F151** and **5201**) (**Fig. 3**) which appear to have formed after the activity horizons associated with pottery production outlined above. Simplified deposit models have been constructed for these features (**Fig. 5** transect 3, **Fig. 6** transect 4), to illustrate their broad depositional sequences both horizontally and vertically.
- 3.5.8 Feature **5201** (**Fig. 5** transect 3) was *c.* 50 m long, 30 m wide and up to 1.2 m deep. Its fills overlay the shallow late 4th century AD scoops (**5179**, **5183** and **5186**, above) which are represented on the deposit model as the charcoal-rich horizon. A slump of eroded topsoil (**5182**) up to 0.56 m thick was sealed by colluvial sand (**5181**) up to 0.72 m thick that had eroded from

the slopes of Ranks Hill to the west. Sealing these colluvial deposits was a topsoil derived tertiary fill (5173). The fills in the northern part of this feature produced a large quantity of Romano-British pottery derived from activity upslope to the north, possibly washed down from large spreads of midden material encountered in the 1998 and 2000 excavations (WA 2003).

- 3.5.9 **F151** (**Fig. 6** transect 4) was 57 m long, 21 m wide and mostly around 1 m deep. It contained a very charcoal-rich (**F081**, **F085**) horizon containing Romano-British pottery, followed first by a series of redeposited sands, then by a thick tertiary, topsoil-derived deposit. These upper fills contained a range of finds dating from the Mesolithic to early medieval period, demonstrating that this material was very mixed and redeposited; the early medieval sherd came from the upper part of the tertiary fill, suggesting a relatively late date for this layer.
- 3.5.10 A number of other erosion features were investigated, mostly in Phase 3, which, with the exception of possibly Iron Age feature **5199/5200** (above) (**Fig. 3**), all appear to be late Romano-British in date.

3.6 Modern (post-1800)

3.6.1 Two machine-cut rectangular pits were observed in Phase 3, one of which contained a juvenile cattle burial and modern plastic.

3.7 Undated

3.7.1 One sub-circular pit (5105) contained no finds and remains undated (Fig. 3).

4 FINDS

4.1 Introduction

- 4.1.1 The small quantities and restricted range of material types are directly comparable with the artefacts found during the previous investigations in the quarry (WA 2003). Only pottery occurred in any quantity and indicated a date range extending from the Middle/Late Bronze Age to the post-medieval, period with a heavy emphasis on the late Romano-British (late 3rd 4th centuries AD). The flintwork suggests an even longer activity range starting in the Mesolithic period.
- 4.1.2 All the finds have been cleaned and quantified by material type within each context; this information is summarised in **Table 3**. They were then visually scanned to gain an impression of the range of material types present, their condition, and potential date range. Where possible, for example pottery and ceramic building material (CBM), spotdates were also recorded for each context.
- 4.1.3 This section presents an overview of the finds assemblage and forms the basis for an assessment of its potential to contribute to an understanding of the character and development of the Site in its local and regional context.

Table 3: Finds totals by material type (number/weight in grammes)

Material type	No	Weight (g)
Animal bone	4	3
Burnt flint	31	528
Ceramic building material	42	3048
Romano-British	28	-
Medieval	14	-
Clay pipe	1	3
Fired clay	8	120
Flint	120	1233
Glass	6	14
Metalwork:		
Iron	5	100
Lead	1	28
Pottery:	2686	33635
Later prehistoric	125	1092
Romano-British	2469	31689
Saxon	3	21
Medieval	87	824
Post-medieval/modern	2	9
Slag	8	1053
Stone	4	1451
Worked wood	1	ı

4.2 Metalwork

4.2.1 Metalwork was only present in very small amounts. No precious metals or copper alloy were recovered and the iron objects, all in a corroded condition, consisted of four hand-made iron nails and a single hobnail or tack, probably of late Romano-British date. One of the nails came from kiln **F155** and two of the others were from pit **5143** while the hobnail was found in dump layer **F081**. The fourth nail and the single lead object, a flat, disc-shaped weight with raised concentric circles on its upper surface (**Object 2200**), both came from channel **5201**. At 28 g, its weight is broadly equivalent to that of a Roman ounce or *uncia* (27.288 g; Chantraine 1961, sp.620).

4.3 Pottery

4.3.1 The pottery (2686 sherds, weighing 33635 g) constitutes the primary dating evidence for the Site, but confident dating has been hampered by the condition of the sherds and, among the later prehistoric material in particular, the scarcity of diagnostic pieces. Overall, the assemblage is in poor condition, with sherds showing a high degree of surface abrasion and edge damaged. The mean sherd weight is 12.5 g, dropping to just 8.7 g for the prehistoric material. A breakdown of the assemblage by ware type is shown in **Table 4**.

Later prehistoric

4.3.2 Prehistoric pottery is represented by sherds in coarse flint-tempered, sandy and grog-tempered fabrics and most have been dated on fabric grounds alone. Some flint-tempered sherds at the coarser end of the spectrum are likely to be of Middle/Late Bronze Age date (e.g. posthole **F029**, pit **F035** and five found residually in gully **F151**), while the majority, made in finer, harder fired fabrics, are considered to belong within the post-Deverel-Rimbury tradition, characteristic of the Late Bronze Age or Early Iron Age. These include one finger impressed jar shoulder and part of a convex,

shouldered jar with simple unelaborated rim from tree-throw hole **F015** but other diagnostic sherds are limited to seven rims from vessels of uncertain profile. The sandy fabrics are less easy to date; some could also be of Late Bronze Age/Early Iron Age date, while others are likely to be later, perhaps Middle Iron Age. These include a few well burnished sherds, two with tooled decoration (tree-throw hole **F015**), and two possible 'saucepan' pot rims (pit **F017** and layer **F039**), dated to 2nd to 1st centuries BC (Cunliffe 1991, fig. A:15). The two grog-tempered sherds (curvilinear gully **F100** and gully **F151**) are both likely to be of Late Iron Age date.

4.3.3 Three sherds in organic-tempered fabrics (pit **F033**, layer **F084** and gully **F151**) could be of Early or Middle Iron Age date, since organic inclusions also occur in sandy fabrics of this date. However, they have been tentatively dated as early/middle Saxon (see below).

Table 4: Pottery totals by ware type (number/weight)

Ware	No.	Weight (g)
Later prehistoric:		
Flint-tempered wares	82	789
Sandy wares	41	271
Grog-tempered ware	2	32
Romano-British:		
Greyware	2298	28967
Overwey/Tilford	104	1218
Oxon colour coat	54	1331
Oxon whiteware mortaria	4	81
Calcareous ware	4	22
Oxon colour coat mortaria	3	37
Grog-tempered ware	1	25
Oxidised ware	1	8
Post-Roman:		
Saxon organic-tempered ware	3	21
Medieval calcareous/flint-tempered ware	40	349
Medieval flint-tempered ware	10	139
Medieval sandy wares	37	336
Post-med/modern refined whiteware	1	1
Post-med/modern redware	1	8

Romano-British

4.3.4 The Romano-British assemblage predominantly consisted of coarse greywares, most from the local Alice Holt industry (Lyne and Jefferies 1979). The assemblage is of late Romano-British date (late 3rd to 4th century AD) with a few sherds perhaps extending into the early 5th century AD. Most vessel forms can be paralleled within the published range for the Alice Holt industry and consist largely of jars, (ibid. classes 1A-C, 3B-C, 4 and 10), with smaller quantities of flanged bowls (classes 5A and B), strainers (class 5C), straight- and convex- sided dishes (class 6A), lids (class 7) and flagons (class 8). Sherds from two new forms were recognised; a fairly squat, indented or dimpled jar/bowl with a short, everted rim from the fill of channel **5201**, while a square, pre-firing perforation in the base of a straight-sided bowl/dish found in kiln F155 may also indicate that cheese presses were at least occasionally made by the Alice Holt potters. A small number of warped, spalled and cracked sherds scattered throughout the assemblage indicate pottery production in the immediate vicinity. Two jar base sherds, also found in the fills of kiln F155, had been deliberately trimmed to forms flat discs. One sherd, a shoulder from a large, thick-walled storage jar (layer

5116) is of particular interest in that it carries a post-firing, scratched graffito, the surviving letters reading]V DICI A N[. A few rilled jars (class 3C), flanged bowls (class 5B) and convex-sided dishes (class 6A.11) occurred in the distinctive buff/yellow Overwey/Tilford fabric which was introduced from about c. AD 330 (ibid., 35).

4.3.5 Other fabrics were dominated by the regionally imported Oxfordshire wares, which were present in most context groups of any size. The red-slipped wares from this region include a variety of bowls (Young 1977, types C45, C47, C51, C55, C71 and C75) and at least one mortaria (type C100) as well as a handful of dark colour-coated beaker or flagon sherds and at least one whiteware mortaria (type M22). No vessel forms were present among the grog-, shell-tempered and oxidised ware sherds, although all are likely to be of late Romano-British date.

Post-Roman

- 4.3.6 Three small sherds (from pit **F033**, layer **F084** and gully **F151**) have been tentatively dated as early/middle Saxon (although, as note above, they could also be Early or Middle Iron Age). All are in organic-tempered fabrics, and one (from pit **F033**) is a rim. If they are Saxon they would be of particular interest, as no material of this date has as yet been found on the Site.
- 4.3.7 One large group of medieval sherds occurred in gully F151 (context F072; 62 sherds). Three fabrics are represented: flint-tempered, calcareous (some also containing flint) and sandy wares. A small number of rim sherds, mostly derived from jars with undeveloped rims (one finger-impressed), suggest a date range of 11th/12th century, but one glazed sandy sherd (tree-throw hole F015) is probably slightly later, perhaps 13th century AD. These wares too were probably locally made.
- 4.3.8 One tiny sherd of modern refined whiteware came from layer **F026** and a red earthernware sherd, dating from the 18th century onwards, was found in gully **F151** (context **F104**).

4.4 Ceramic building material

- 4.4.1 Pieces of Romano-British CBM included *tegula* roof tiles, the smaller, thinner (maximum 40 mm) types of brick and a single piece of combed box flue tile. All were made in sandy, oxidised or variably fired fabrics similar to those used for Alice Holt pottery and perhaps indicative of local manufacture. However, the small quantity and highly fragmentary nature of the pieces suggests that they may have been used in the structure of the kiln and/or associated workshop rather than implying the existence of a tilery or a sophisticated Romanised building boasting a tiled roof and under-floor heating in the vicinity.
- 4.4.2 The medieval/post-medieval CBM all consisted of peg-hole roof tile fragments, a type developed in the 12th century AD, and continuing with very little typological change into the 20th century.

4.5 Struck flint

- 4.5.1 The whole assemblage consists of gravel pebbles with a generally thick, water-rolled cortex. There is a great variety in colour, patination and condition. The material includes many cherty pieces and a few pieces of Greensand chert. Quality is variable, with considerable frost shattering apparent. There was nothing to suggest that the raw material was other than local in origin.
- 4.5.2 The overall impression is that much of the assemblage is Late Mesolithic in date, but where clearly diagnostic pieces are absent a more general Mesolithic/Early Neolithic date is more appropriate. There is also some suggestion of an admixture of Bronze Age material.
- 4.5.3 The cores are all small, producing blades and/or blade-like flakes. Most have two opposed platforms and cortical backs, with the remainder irregular multi-platform examples. Most are rather irregular and seem to have been abandoned because of flaws or frost shattering. The waste material includes regular blades with both hard and soft hammer percussion and some evidence for prepared platforms. The number and range of implements is very limited, with only notched blades and a singe rod or fabricator present.

Table 5: The composition of the struck flint assemblage

Flint types	No.	%
Retouched tools:		
Notch	4	3.42
Rod/fabricator	1	0.86
Misc. retouched pieces	3	2.56
Retouched tools sub-total	8	6.84
Debitage:		
Flakes (incl. broken)	79	67.52
Blade(let)s (incl. broken)	11	9.40
Utilised flakes, blades, bladelets	(11)	(9.40)
Core preparation/rejuvenation pieces	2	1.71
Cores/core fragments	14	11.97
Irregular debitage	3	2.56
Total	117	100.0%

4.6 Burnt flint

4.6.1 Unworked burnt flint was recovered from 17 contexts. It is intrinsically undatable, but generally interpreted as an indicator of prehistoric activity. Here, only two pieces (tree-throw hole **F031** and pit **F035**) were found with later prehistoric pottery; most pieces occurred with Romano-British pottery and may therefore be of similar date.

4.7 Other finds

4.7.1 Animal bone did not survive well in the acidic and abrasive sands of this Site and only a few tiny scraps were recovered; none of them could be assigned to species.

- 4.7.2 The fired clay consisted of small, featureless fragments, all made in oxidised or variably fired sandy fabrics. Associated pottery suggests that the two pieces from pit F005 and layer F039 are of later prehistoric date, while those from channel 5202 (contexts 5124 and 5152) and gully F151 (contexts F072 and F074) are likely to be Romano-British.
- 4.7.3 The single clay tobacco pipe stem fragment was found in the topsoil (context **F101**).
- 4.7.4 All the glass was of post-medieval/modern date, with window and vessel fragments recovered from the topsoil and subsoil (contexts **5101** and **F001**) and three other pieces of window glass from channel **5201** (context **5141**).
- 4.7.5 Just over 1 kg of highly vesicular slag was found in layer **5116**, associated with pottery of 4th century AD date, while small fragments also came from channel **5201** and kiln **F155**. This material is likely to represent fuel ash slag, probably derived from the kilns of the Alice Holt pottery industry.
- 4.7.6 Three pieces of the locally-available ferruginous sandstone (commonly known as heathstone or ironstone) were found among the material filling kiln **F155** and, although unworked, it is possible that this heat-resistant rock was utilized within the kiln structure itself. A small chip (7 g) of granite was also found in the secondary fill (**5124**) of channel **5202**; although associated with pottery of Romano-British date, fired clay and struck flint, it is possible that this piece represents a modern roadstone, accidentally incorporated into this layer.
- 4.7.7 A piece of worked wood (**5117**) was recovered from a sub-circular feature (**5118**).within the grave-like feature **5113**. The piece, possibly a plank or stake fragment, measures 0.44 m long, 0.09 m wide and 0.05 m thick. No tool marks were visible, although the surface was quite abraded. It has been identified as mature oak (*Quercus* sp.).

5 PALAEOENVIRONMENTAL EVIDENCE

5.1 Introduction

Environmental samples taken

Nineteen bulk samples were taken from features and were processed for the recovery and assessment of charred and waterlogged plant remains and charcoals (Table 6). The majority of deposits sampled were Late Bronze Age/Early Iron Age to Romano-British in date. Of particular interest were the samples from a late Romano-British kiln and associated features thought to relate to the Alice Holt pottery industry. A number of samples were also taken from colluvial deposits which included substantial dumps of charcoal likely to have been derived from kiln waste. An organic-rich deposit in a rectangular feature resembling a grave was sampled (contexts 5114 and 5115, feature 5113) from which a worked plank or stake was recovered (see Section 4.77 above). The bulk samples break down into the following phase groups:

Table 6: Summary of environmental samples

Date	No.	Volume	Feature types
	samples	(I)	
Late Bronze Age/	3	22	Pits
Early Iron Age			
Iron Age	1	7	Gully
Romano-British	12	134	Charcoal deposits associated with kilns,
			kilns, features associated with kilns,
			pits/postholes, possible grave and
			associated cut
Bronze Age – medieval?	1	8	Tree-throw hole
Romano-British – medieval	1	8	Colluvial deposit
Medieval – post-medieval	1	9	Layer/deposit
Totals	19	188	

5.1.2 In addition, three monoliths were taken for the examination of sediments, two through the fills of erosion feature **F151**, and one through the fills of scoop **5183** and erosion feature **5201** (**Fig. 3**).

5.2 Charred plant remains

- 5.2.1 Bulk samples were processed by standard flotation methods; the flot retained on a 0.5 mm mesh, residues fractionated into 5.6 mm, 2 mm and 1 mm fractions and dried. The coarse fractions (>5.6 mm) were sorted, weighed and discarded. Flots were scanned under a x10 x40 stereo-binocular microscope and the presence of charred remains quantified (Appendix 1, Table 11) to record the preservation and nature of the charred plant and wood charcoal remains. Preliminary identifications of dominant or important taxa are noted below, following the nomenclature of Stace (1997).
- 5.2.2 The flots were variable in size, some being particularly substantial and dominated by charcoal. A number of flots contained large quantities of roots which may be indicative of stratigraphic movement and the possibility of contamination by later intrusive elements. Charred seeds and chaff were uncommon on the Site. Cereal remains were extremely rare consisting of three grains only from the pits, one of which was identified as wheat (*Triticum* sp.), the other two being of indeterminate genus. Weed seeds were present in six samples in small number (generally up to three seeds, with just over ten in one deposit) and included docks (*Rumex* sp.), medick/clover type (*MedicagolTrifolium* sp.), fat hen (*Chenopodium album*) and small grasses (Poaceae). A single pulse, thought probably to be a pea (*Pisum sativum*) was noted in the colluvial deposits (**F089**) while a hazelnut shell was noted in pit **F005**. Occasional leaf buds and indeterminate vitrified matter were occasionally present.

5.3 Wood charcoal

5.3.1 Wood charcoal was found to be abundant in five samples (Table 11). Three were taken from the colluvial deposits within erosion feature F151 and included charcoal-rich dumped deposits noted during the excavation. The charcoal appeared to be mostly mature oak wood (Quercus sp.). Two samples which were particularly rich in charcoal were taken from scoops 5179 and 5183. Scoop 5179 produced in excess of 2 litres of charcoal. Both these features produced a large quantity of roundwood, that from scoop 5179 appearing to be dominated by oak while that from scoop 5183 also

included roundwood of probably hazel/alder type (*Corylus/Alnus* sp.). Assuming the charcoal is largely derived from the pottery kilns, this would indicate the use of both mature wood and coppice poles as fuel. Charcoal was not recovered from the kiln itself in any significant quantity which would be consistent with the feature being regularly cleaned of spent fuel. Occasional pieces of highly vitrified, possibly organic matter were noted in the kiln samples which may derive from fuel burnt at high temperatures.

5.4 Waterlogged plant remains

5.4.1 The rectangular, grave-like feature (**5113**) and the depression in its base (**5118**) were thought to contain waterlogged material. Subsamples of 1 litre were taken from bulk samples from these features and processed for the recovery of waterlogged remains. Laboratory flotation was undertaken with flots retained on a 0.25 mm mesh and residues on a 0.5 mm mesh. The flots were visually inspected under a x10 to x40 stereo-binocular microscope to determine if waterlogged material occurred. However, neither sample produced any identifiable material. The dark material on the base of feature **5118** consisted of a layer of compacted small fragments of wood, which may be derived from wood shavings or woodworking debris, and occasional roots. Occasional leaf buds were also noted, but no seeds. The deposit in feature **5118** contained degraded possible *Phragmites* stem only.

5.5 Sediments

- 5.5.1 Three monolith samples were taken through three sedimentary sequences (**Table 7**). The monoliths were cleaned prior to recording and standard descriptions used, (following Hodgson 1997) including Munsell colour, texture, structure and nature of boundaries, as given below in **Appendix 1**, **Tables 12**, **13 and 14**.
- 5.5.2 All of the sequences sampled are dominated by colluvial sediments, which is not surprising in this area of highly mobile, unconsolidated and easily destabilised sand geology (belonging to the Folkestone beds (BGS Sheets 300 and 301)).

Table 7: Monolith sample summary

Monolith no.	Depth (m)	Feature	Unit or summary description
1	0.55	F151	Colluvial sequence
12	0.53	F151	Colluvial sequence
3205	0.90	5201	Colluvial and ?buried soil sequence

Monolith 1

5.5.3 Monolith 1, from feature **F151**, is a sandy colluvial sequence, bioturbated and redeposited and of no potential for further study (**Appendix 1, Table 12**).

Monolith 12

5.5.4 Monolith 12, also from feature **F151**, contains what appears to be a charcoal-rich remnant of a land-surface. However no preserved palaeosol is present, indicating relatively gradual burial (**Appendix 1, Table 13**).

5.5.5 The bleached appearance of the sand grains in the lower half of the sequence is interesting, as this phenomenon is typical of E-horizon material found in podzolic and argillic brown earth soils, where clays and humic materials are displaced down-profile leaving a bleached mineral layer. These horizons are especially vulnerable to erosion where exposed, so one possibility is that the lower profile represents redeposited colluvial E-horizon material eroded from disturbed podzolic or argillic soils upslope. This layer seems to be very widespread, however, (as noted by C. Barnett during site visit in 2007), so another explanation may be the case.

Monolith 3205

5.5.6 The charcoal-rich, somewhat humic deposit (context **5185**) at the base of the monolith from feature **5201**, could well be the fill of a tree-throw hole as suggested on site, with charcoal-rich topsoil being incorporated by the action of the falling tree (**Appendix 1**, **Table 14**). Alternatively, it may be that the charcoal-rich features on site represent a wider area of charcoal deposition which has been truncated except where hollows are present to preserve them. The charcoal may relate to industrial activity, or possibly clearance.

5.6 Dating

5.6.1 Being short-lived in nature, roundwood charcoal is potentially useful for dating purposes should it be required. While radiocarbon dating is not normally recommended for colluvial deposits, the observation on site that mass tipping of charcoal-rich material was probable, it could be considered in this case, given the paucity of diagnostic pottery recovered from the deposits.

6 STATEMENT OF POTENTIAL

6.1 Potential of the features

Middle-Late Bronze Age/Early Iron Age

6.1.1 The features of this period represents low level activity on the periphery of the settlement, the focus of which appears to be located in the previously excavated areas to the north. Possible trackway **F156** and field boundary ditches **F152** and **F153** show a continuation of a north-south to east-west division of the landscape, identified in the previous phases of work. These linear features appear to represent the organised division of the landscape, and the paucity of finds and nature of the fill sequences support an agricultural interpretation. Activity of this period appears to be restricted to the north and eastern portion of the extension area.

Iron Age

6.1.2 Only two features were allocated to this phase, the dating of curvilinear gully **F100** being questionable, but they appear to show a continuation of use of the landscape. The focus of Iron Age activity appears to be to the northeast, in the area examined in 1994.

Romano-British

- 6.1.3 All the excavations within the quarry appear to demonstrate a hiatus of activity in the vicinity during the Late Iron Age to early Romano-British period, with all Romano-British features dating late 3rd 4th centuries AD and probably relating to activity associated with the Alice Holt pottery industry. The activity associated with kiln **F155** adds to the growing corpus of pottery production sites known in the area, and is probably of regional significance.
- 6.1.4 The Site lies centrally within a large, undated enclosure identified as an earthwork (Lyne and Jefferies 1974, 35ff). Swan (1984, 7) has suggested that this enclosure may have been a coppice, which supplied the large fuel resources needed to sustain the pottery industry. What is of potential interest, is the relationship between the late 4th century AD activity associated with pottery manufacture, and the localised erosion/degradation of the landscape that appears to seal this horizon.
- 6.1.5 The Alice Holt pottery industry reached its peak of production in the mid to late 4th century AD (Lyne and Jeffries 1979, 13) and it is probable that this intensification of activity led to a greater exploitation of resources. It is possible therefore, that the erosion features seen over the Site were caused by deforestation linked to this period of intensification of production. Further analysis of the charcoal assemblage should reveal further information on the management of woodland and fuel resources.
- 6.1.6 In light of these findings, it would be desirable to reassess similar erosion features present in the previous excavation areas, to see if they support this interpretation of landscape degradation caused by deforestation. Also of significance are the large spreads of Romano-British midden material that produced a large assemblage of pottery, including firing wasters from the 1998 and 2000 excavation areas.

6.2 Potential of the finds assemblage

6.2.1 The relatively small finds assemblage augments the larger but unpublished assemblage already recovered from other parts of the quarry. Chronological evidence (pottery, CBM and flint) indicates three main phases of activity – the Late Bronze Age to Early Iron Age, the late Roman-British period and the early medieval period, but the range of material culture is very restricted. Only the pottery occurred in any quantity and provides some indications of the sources of supply as well as further evidence of pottery manufacturing activities during the late Roman-British period.

6.3 Potential of the palaeoenvironmental evidence

Charred plant remains and charcoal

6.3.1 Given the paucity of charred plant remains in the deposits there is no potential for further analysis. The occasional grain and other economic species are likely to represent material which has undergone considerable reworking and movement and as such have no clear relationship to the archaeological deposits from which they were recovered. No identifiable waterlogged material other than the indeterminate wood shavings was present.

6.3.2 The charcoal from the scoops possibly associated with pottery manufacture (features **5179** and **5183**) and from the dumps within the colluvial deposits are potentially of interest in terms of examining charcoal burning or fuel use. They are also of specific interest: the possibility was raised on-site by the geoarchaeologist of large scale dumping of charcoal-rich material at the top of the hill. This was found to be so extensive that an industrial source might be questioned. Given the proximity to the centre of the Alice Holt pottery production, analysis of these deposits may shed light on the large scale procurement and use of wood resources and potentially inform on woodland management in the region used to supply the kilns.

Sediments

6.3.3 The sediments have little further potential.

6.4 Dating

6.4.1 Any roundwood or twigwood recovered from the charcoal dumps within the colluvial deposits should be considered for radiocarbon dating in order to better relate these deposits with the pottery kilns and the Alice Holt pottery industry.

7 PROPOSALS FOR PUBLICATION, ANALYSIS AND ARCHIVE

7.1 Introduction

7.1.1 In view of the potential of the stratigraphic, artefactual and environment results from the strip, map and record excavation this section makes proposals for costed programme of further work needed to achieve that potential, including analysis, public dissemination through publication, and the curation of the archive.

7.2 Publication

- 7.2.1 It is recommended that a synthetic report, combining the results of this and all previous phases on excavation at the Frith End quarry, be prepared for as a stand alone publication which will be available online. All specialist reports related to the works will also be available online.
- 7.2.2 A note will also be published in *Hampshire Studies* which signposts the location of the full publication via the Wessex Archaeology website.
- 7.2.3 A synopsis, revised from that presented in the assessment report of the previous excavations (WA 2003), is outlined in **Table 8**.

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	Words	Images	Tables
Introduction			
Background to the project	200		
Geology and topography	200	2	-
Archaeology of the area	500		
Methods	800		
Results			
Mesolithic to Early Bronze Age	800	1	1
The later prehistoric settlement	2000	2	1
The prehistoric finds	1200	3	4
The late Romano-British features	1000	1	-
Romano-British finds	1500	2	2
Medieval features	400	-	-
Medieval finds	300	1	1
Palaeo-environmental material	1500	1	2
Discussion and conclusions	1000	1	-
Total	11400	14	11

7.3 Analysis

Stratigraphic

- 7.3.1 Post-excavation work to date has included checking and ordering of the stratigraphic archive, compilation of an Access database for all context records, digitisation of features where necessary, section lines etc (using AutoCAD 2004) and provisional phasing of all contexts.
- 7.3.2 The provisional phasing will be checked and refined at the analysis stage. Following this, a structural narrative will be prepared, presenting the site by phase based on the previous assessment report and the results presented here.

7.3.3 A discussion will be prepared which will bring together the results of excavation, finds and environmental analyses. This will consider the site sequence in all its phases, and place it within its broader archaeological context.

Finds

- 7.3.4 It is recommended that the artefacts from all stages of fieldwork within the quarry will be examined as a single assemblage, split chronologically where appropriate. Supporting tables and illustrations will include context information.
- 7.3.5 In line with the previous proposals for further post-excavation analysis and report preparation (WA 2003, 23-24), it is recommended that full fabric and form analysis is undertaken for the prehistoric, Romano-British and medieval pottery. Details of surface treatment, decoration, manufacture and evidence of use will be recorded, and all data entered into an Access database.
- 7.3.6 The prehistoric pottery will be described, the text including full descriptions of the fabrics and forms present. Appropriate parallels will be cited to establish the chronology and cultural affinities of the material.
- 7.3.7 The late Romano-British and medieval pottery will be described and discussed in its local and regional context, with reference to the Alice Holt type series (Lyne and Jefferies 1974 and 1979). In the Romano-British period, particular attention will be paid to evidence for pottery production. Only additions to the type series, feature groups or vessels of intrinsic interest will be illustrated.
- 7.3.8 The CBM will be divided into types (tegulae, box flue tiles etc) but no detailed fabric analysis will be carried out. The text will summarise the range of types present and comment upon any structural significance of the assemblage.
- 7.3.9 All struck flint will be combined into a single data set for all previous phases of fieldwork, and discussed in terms of its wider, geographical context. This relatively small assemblage sheds further light on the Mesolithic exploitation of this landscape already well known from sites nearby, such as Kingsley Common, Shortheath Common and around Oakhanger (Jacobi 1981; Rankine 1953).
- 7.3.10 As the finds assemblage from this phase of work has already been recorded to a fairly detailed level, no further analysis is proposed for the animal bone, burnt flint, clay pipe, fired clay, glass, metalwork, slag, stone and worked wood. Where relevant, and with some modification, information presented in this assessment could be incorporated into the publication report.

Palaeoenvironmental

Charred plant remains and charcoal

7.3.11 No further work is recommended on the charred plant remains. The charcoal from the five samples described should all be examined in closer detail. Identifiable charcoal will be extracted from the 2 mm residue together and the flot (>2 mm). Given the size of the assemblages a representative subsample will be examined although this should include a representative proportion of the non-oak charcoal in order to establish the full range of taxa present. Fragments will be prepared for identification according to the

standard methodology of Leney and Casteel (1975, see also Gale and Cutler 2000). Charcoal pieces will be fractured with a razor blade so that three planes can be seen: transverse section (TS), radial longitudinal section (RL) and tangential longitudinal section (TL). They will then be examined under bi-focal epi-illuminated microscopy at magnifications of x50, x100 and x400 using a Kyowa ME-LUX2 microscope. Identification will be undertaken according to the anatomical characteristics described by Schweingruber (1990) and Butterfield and Meylan (1980). Identification will be to the lowest taxonomic level possible, usually that of genus and nomenclature according to Stace (1997), individual taxon (mature and twig) will be separated, quantified, and the results tabulated. Particularly attention will be given to the description of round wood and identification of possible coppiced wood.

Sediments

7.3.12 The sediments are recommended for discard unless stratified charcoal for radiocarbon dating is required

Dating

7.3.13 Round or twig wood identified from the charcoal dumps within the colluvial deposits will be extracted and prepared for radiocarbon dating. Two dates should be obtained assist with the phasing of these deposits.

7.4 Task list

7.4.1 **Table 9** sets out the tasks required to carry out the programme of work described above.

Table 9: Task list for analysis, publication and archive

Task	Grade	Name	Days
Management			
General management	PM	P Bradley	6
Consultation	PM	C Budd	2
Project meetings	All	All	2
Stratigraphic			
Revise phasing	SPO	A Powell	5
Provide information for specialists	SPO	A Powell	2
Site narrative incorporating pertinent OA results	SPO	A Powell	12
Consult/collect OA evaluation archive	SPO	A Powell	2
Figures for publication	DO	Illustrator	12
Finds			
Finds conservation (X-ray metalwork, cleaning selected artefacts for analysis)	Ext	Wiltshire Conservation	Ext costs
Selected afteracts for analysis)		Laboratory	
Pottery analysis and report	SPO	R Seager Smith	15
Other finds (metalwork, CBM, fired clay, stone and misc finds)	SPO	R Seager Smith	3
Coins	SPO	N Cooke	0.5
Worked and burnt flint	SPO	M Leivers	3
Finds illustration	DO	Illustrator	15
Environmental analysis			
Extraction of charcoal, CPR (37 samples)	EO		9
Charred and mineralised remains analysis and reporting	SPO		15
Charcoal analysis and report	SPO		15
Preparation/submission of samples for C14 dating	SPO		1
Radiocarbon dating 8 samples	C14 Lab	-	Ext cost

Radiocarbon report	РО	C Stevens	1
Report			
Assemble reports	SPO	A Powell	4
Write discussion	SPO	A Powell	5
Edit and check report	PM	P Bradley	2
QA report	SH	K. Walker	0.5
Review and edit report	PM	J Gardiner	1
Authors corrections	SPO	A Powell	1
Drawing office corrections	DO	Illustrator	1
Publication costs	EXT		Ext cost
Proof reading publication draft	All	All	4
Archive			
Archive preparation	SPO	A Powell	1
Microfilm job sheets and checking	PS	H MacIntyre	1
Microfilm paper records	EXT		Ext cost
Archive deposition	PS	H MacIntyre	1
Box storage grant	_		Ext cost

7.5 Archive storage and curation

Museum

7.5.1 It is recommended that the project archive resulting from the excavation be deposited with the Hampshire County Museum Service. At the time of writing this report, agreement still has to be reached on the precise terms of deposition. Deposition of the finds with the Museum will only be carried out with the full agreement of the landowner.

Preparation of the archive

7.5.2 The complete site archive, which will include paper records, photographic records, digital records, graphics, artefacts and ecofacts, will be prepared in accordance with: Guidelines for the preparation of excavation archives for long term storage (Walker 1990), Standards in the museum care of archaeological collections (Museums and Galleries Commission 1994) and standards issued by Hampshire Museums Service. All archive elements are marked with the relevant site code (59791, 59792 or 59793), and a full index of all elements will be prepared.

Conservation

7.5.3 No immediate conservation requirements were noted in the field. Finds which have been identified as of unstable condition and therefore potentially in need of further conservation treatment comprise five iron and one lead objects. These have been packaged appropriately for long term storage. The metalwork will be X-rayed to aid identification and selected metal artefacts will be cleaned.

Discard policy

7.5.4 Wessex Archaeology follows the guidelines set out in Selection, Retention and Dispersal (Society of Museum Archaeologists 1993), which allows for the discard of selected artefact and ecofact categories which are not considered to warrant any future analysis. In this instance, burnt, unworked flint has already been discarded. All finds discard will be fully documented within the project archive.

7.5.5 The discard of environmental remains and samples follows the guidelines laid out in Wessex Archaeology's 'Archive and Dispersal Policy for Environmental Remains and Samples'. The archive policy conforms with nationally recommended guidelines (SMA 1993; 1995; English Heritage 2002) and is available upon request.

Copyright

7.5.6 The full copyright of the written/illustrative archive relating to the Site will be retained by Wessex Archaeology Ltd under the Copyright, Designs and Patents Act 1988 with all rights reserved. The recipient museum, however, will be granted an exclusive licence for the use of the archive for educational purposes, including academic research, providing that such use shall be non-profitmaking, and conforms with the Copyright and Related Rights regulations 2003.

Security copy

7.5.7 In line with current best practice, on completion of the project a security copy of the paper records will be prepared, in the form of microfilm. The master jackets and one diazo copy of the microfilm will be submitted to the National Archaeological Record (English Heritage), a second diazo copy will be deposited with the paper records, and a third diazo copy will be retained by Wessex Archaeology.

7.6 Designated project team

7.6.1 The project team consists primarily of internal Wessex Archaeology staff. The post-excavation project will be managed by Caroline Budd (Fieldwork Manager) and Pippa Bradley (Post-Excavation Manager). The following staff (**Table 10**) are scheduled to undertake the work as outlined in the task list (**Table 9**) and the programme.

Table 10: The project team

Name	Position
Caroline Budd	Project Manager
Pippa Bradley	Post-Excavation Manager
Andrew Powell	Senior Project Officer
Rachael Seager Smith	Pottery and Finds Specialist
Dr Matt Leivers	Flint specialist
Dr Nick Cooke	Coin specialist
Dr Chris Stevens	Archaeobotanist
Sarah Wyles	Environmental archaeologist
External specialist TBC	Charcoal specialist
Illustrator	Illustrator
Karen Walker	Head of Specialist Services
Julie Gardiner	Reports Manager
Helen MacIntyre	Archive Officer

7.7 Management structure

7.7.1 Wessex Archaeology operates a project management system. Projects are undertaken under the direction of Project Managers who are responsible for the successful completion of all aspects of the project. Throughout the project, the Manager assesses and monitors the performance of staff and adherence to objectives, timetables and budgets. Projects are managed in accordance with the English Heritage guidelines outlined in the document

Management of archaeological projects (English Heritage 1991). The Manager may, however, delegate certain aspects of the project to other staff. The Reports Manager ensures the consistent quality and academic standard of the published report.

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APPENDIX: PALAEOENVIRONMENTAL TABLES

 Table 11: Assessment of the charred plant remains and charcoal

Feature	Context	Sample	Sample Vol (I)	Flot vol (ml)	Roots	Grain	Chaff	Weeds	Other	>4mm	>2mm	Comments
Late Bro	Late Bronze Age/Early Iron Age											
Pits												
F005	F006	6	8	55	-	С	-	С	С	5	5	Triticum sp. X1, Corylus frag x1, Fallopia x1, charcoal mostly oak.
F019	F020	9	8	120	40%	С		С		5	10	Cereal indet x1, Chenopodium x1, charcoal mostly Quercus
F035	F088	10	6	40						2	5	mixed charcoal. Occ recent weeds
Tree-thro	w hole							•				
F015	F016	7	8	60	30%	-	-	-	-	15	10	Mostly Quercus
Iron Age	;											
Gully												
F013	F013	8	7	100	40%					3	5	mixed charcoal
Romand	-British											
Kilns												
F112	F113	13	8	40		С				5	10	cereal indet x1
F114	F115	14	9	30	20%					0.5	1	highly vitrified, organic? Globules
F116	F117	15	9	60						5	10	vitrified globules
Features	associated	d with potte	ry manufact	ure		_			_	_		
F122	F123	16	7	30	20%					5	2	
5179	5174	3203	39	2750						>1800	500	Mostly Quercus and includes round wood up to c.40cm diam. Growth rings variable: 6/7yrs to 30. Occ vitrified frags - burnt rooty material?
Scoop as		ith pottery	manufactur									
5183	5184	3204	9	675	5%			С		200	200	Much round wood including <i>Corylus/Alnus</i> type and <i>Quercus</i> (provisional scan). Weeds - <i>Plantago lanceolata</i> x1 Poaceae small x2
Rectang	ular grave-l	like feature										
5113	5114	3200	19	20	20%					<1	1	recent Sambucus, Rubus
	5115	3201	7	1250								Wood frags/shavings? occasional leaf bud, roots no seeds.
Cut in ba	se of featu	re 5113										
5118	5119	3202	3	20								decayed Phragmites? Roots and sand

Feature	Context	Sample	Sample		Roots	Grain	Chaff	Weeds	Other	>4mm	>2mm	Comments
			Vol (I)	(ml)								
Charcoal	l layer with	in colluvial	deposits wit	thin hollow	on easter	n side of	f hill					
	F081	2	9	400	-	-	-	С	-	150	100	Ranunculus sp., Charcoal mostly Quercus
F082	F083	3	7	500	5%	-	-	С	-	150	100	Weeds - Plantago, Medicargo/Trifolium sp Charcoal
												mostly Quercus
Colluvial	sands/Nat	tural deposit	ts									
F086	F085	5	8	500	-	-	-	Α	В	250	200	Weeds - Rumex, Persicaria, Poaceae small,
												Medicago/Trifolium. Charcoal mostly Quercus sp., Highly
												vitrified stem like material. Leaf buds.
Romano	-British/m	nedieval										
Colluvial	sands/Nat	tural deposit	ts									
	F089	4	8	40	50%	-	-	-	1	5	5	Vicia/Pisum (prob Pisum). Charcoal mostly Quercus.
												Recent Carex
Medieva	I/post-me	dieval laye	r/deposit									
	F095	11	9	55	30%					20	10	recent moss and roots.

Key: A*** = exceptional, A** = 100+, A* = 30-99, A = >10, B = 9-5, C = <5; Analysis: C = charcoal, P = plant, M = molluscs, C14 = radiocarbon

Table 12: Sediment descriptions, Monolith 1, feature F151

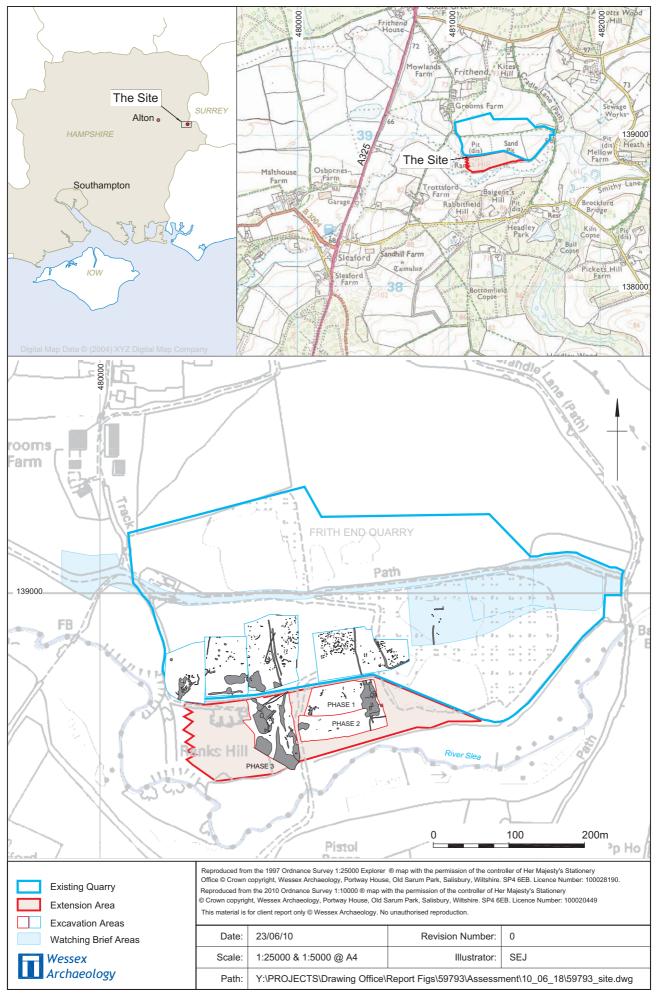
Level (top): 7			
Depth (m)	Context	Sediment description	Interpretation
0-0.55	F001	10YR 4/3 brown loamy sand, stonefree, very fine hairlike rootlets, 0.5-1% fine macropores.	Sandy colluvium
	F057	No real context differences here, very slight increase in clay content from 0.22-0.30m, but not enough for different	-
	F058	textural classification. From section drawing this clayey patch is a likely burrow fill.	

Table 13: Sediment descriptions, Monolith 12, feature F151

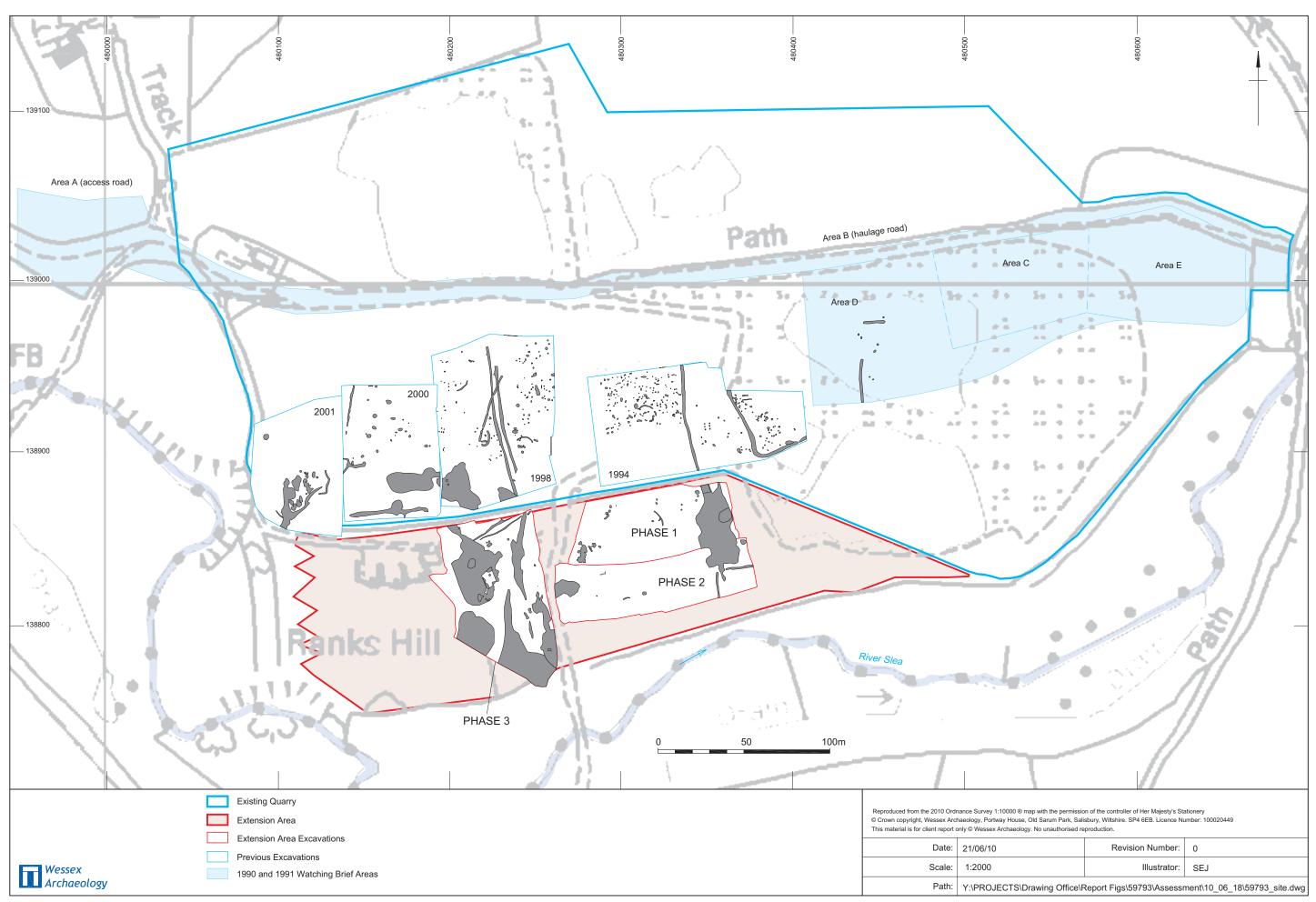
Level (top):	Level (top): 72.85 m aOD Comments: Monoltih through colluvial layers within a 'natural gully feature', including a charcoal dump								
Depth (m)	Context	Sediment description	Interpretation						
0-0.29	F084	10YR 4/3 brown loamy sand, rare charcoal lumps 1-3mm, clear to abrupt boundary.	Colluvium						
0.29-0.45	F093	Top 100mm or so appeared paler, possibly leached.	Charcoal-rich bleached						
	F087	10YR 3/2 very dark greyish brown sandy loam, loose, grains appear bleached but matrix is dark. Quite common	sands, probably eroded-in						
		small charcoal 1-2mm (not manganese). Sharp boundary.	podzolic E-horizon						
0.45-0.53	F085	10YR 5/6 yellowish brown sand to sandy loam (slight staining to fingers). Could be iron stained (i.e. podzolic Bfe	Geological sand with bio-						
		horizon), but is very even with no banding	turbated charcoal inclusions						

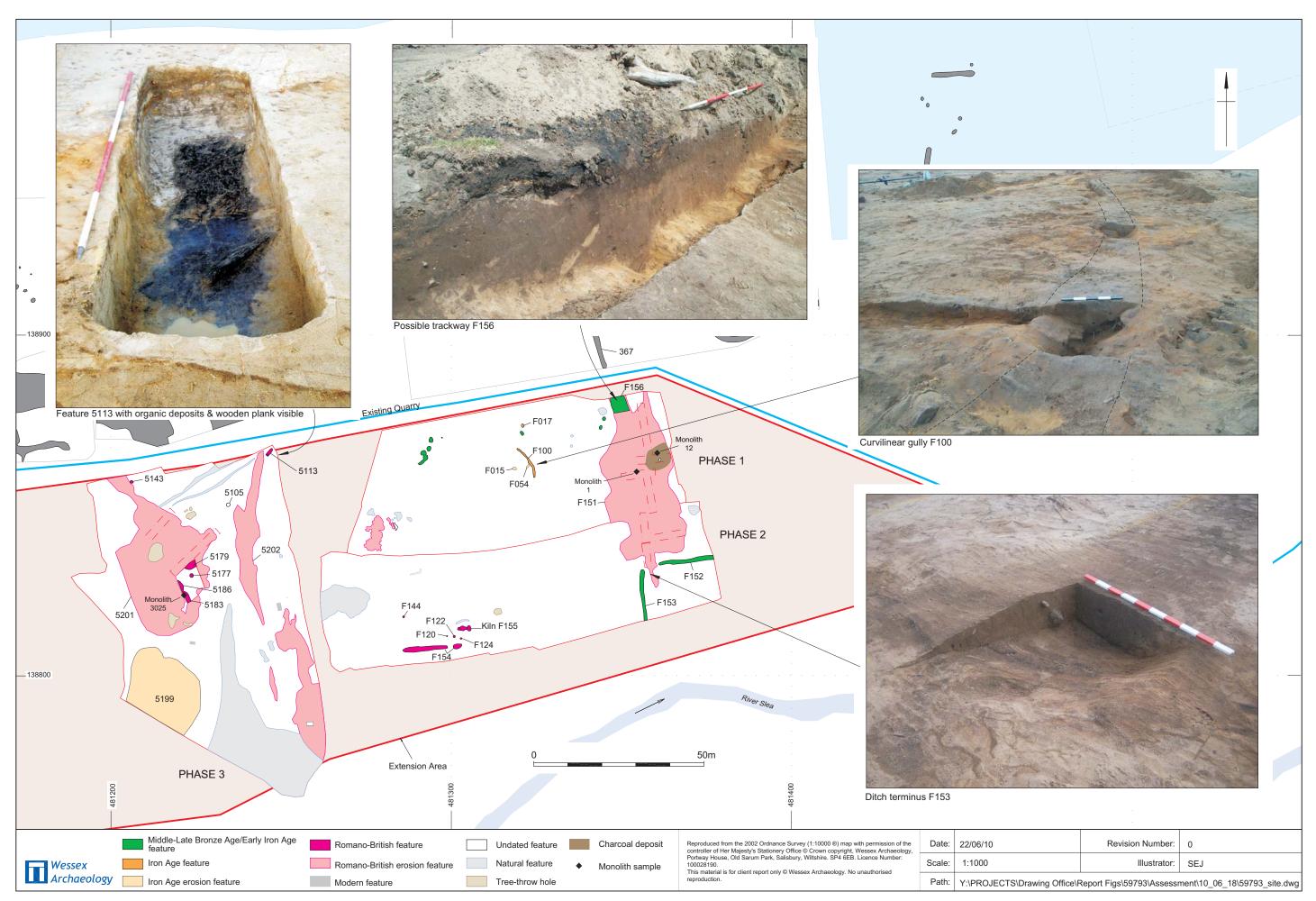
Table 14: Sediment descriptions, Monolith 3205, feature 5201

Level (top):	70.69 m aOD	Comments: monolith through ?redep sand, buried soil, fills of pit or tree-throw hole & geology	
Depth (m)	Context	Sediment description	Interpretation
0-0.50	5181	10YR 4/4 dark yellowish brown sandy loam, rare v small stones (actually fragments of broken iron pan). Diffuse	Colluvium
		boundary	
0.50-0.66	5182	10YR 4/3 brown sandy loam (holds moisture better than above, likely higher humic and/or clay content)	?colluvium with charcoal
0.66-0.74	5184	10YR 3/2 very dark greyish brown sandy loam, common charcoal lumps up to 10mm, fine fleshy rootlets, holds	charcoally fill of possible tree-
		moisture well, possibly humic, clear boundary.	throw hole
0.74-0.86	5185	10YR 4/3 brown to 4/4 dark yellowish brown sandy loam, some charcoal at top where mixed with above. Sharp	?colluvial fill
		boundary	
0.86-0.90+	5180	Paler yellowish brown pure sand	geology



Site location Figure 1





Phase plan of Extension Area Phases 1 to 3



Kiln F155 viewed from the south-east

Kiln F155 F112 F114 E 66.56mOD F112 F111 F111 F1116 0 1 2m

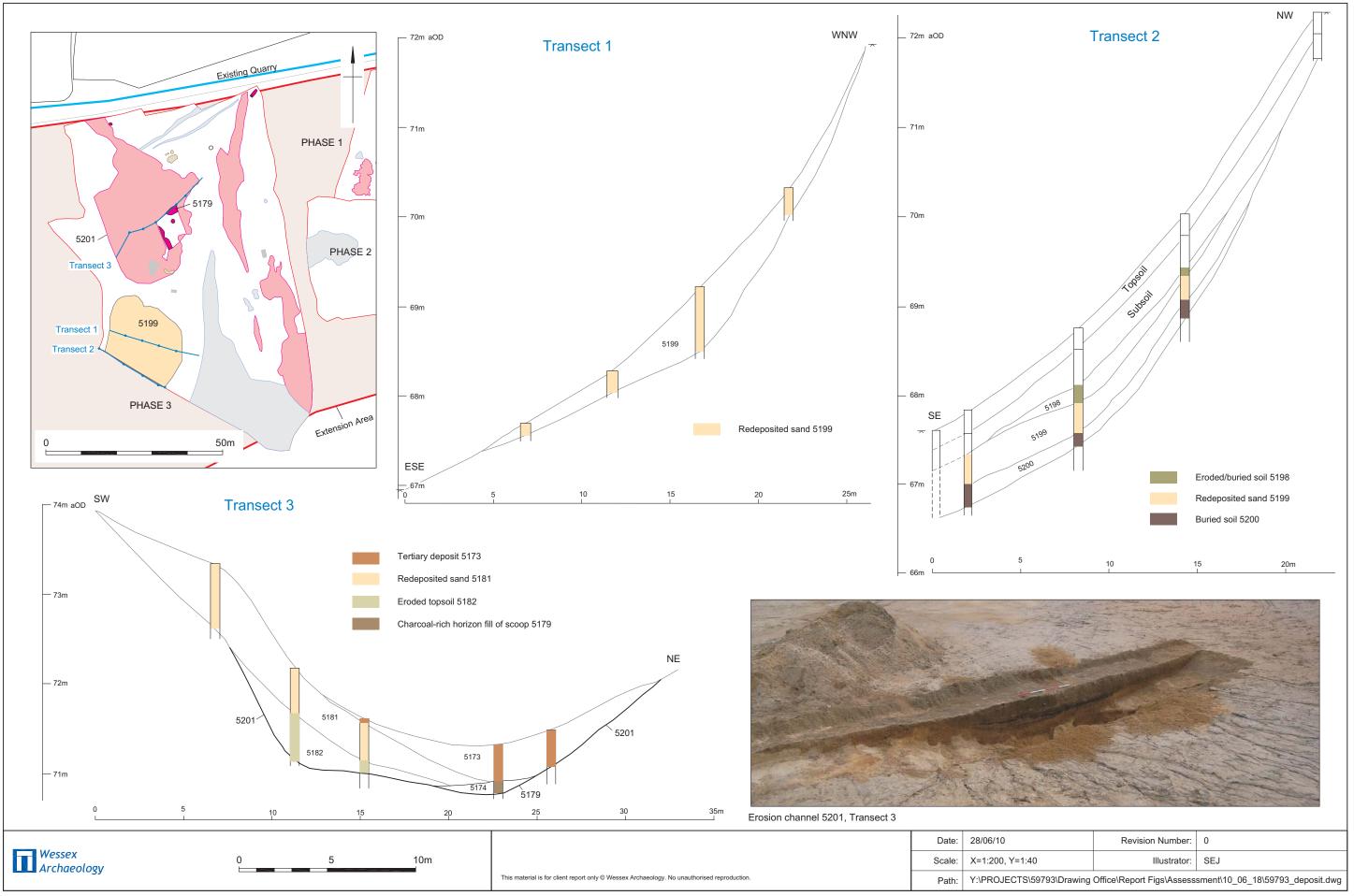
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 29/06/10
 Revision Number:
 0

 Scale:
 1:40
 Illustrator:
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 Path:
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Deposit model of erosion features in Phase 3

