TARMAC

CROWN FARM QUARRY, OAKMERE, CHESHIRE

ARCHAEOLOGICAL WATCHING BRIEF REPORT

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TARMAC  
CROWN FARM QUARRY, OAKMERE, CHESHIRE  

Archaeological Watching Brief Report  
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SUMMARY

Wardell Armstrong was commissioned by Tarmac to undertake an archaeological watching brief at Crown Farm Quarry, Oakmere, Cheshire (centred on NGR: SJ 57377 69866). The watching brief was undertaken in accordance with a written scheme of investigation (WSI) produced in response to a brief prepared by Mark Leah acting as the archaeological planning advisor on behalf of Cheshire West and Chester Council. The aim was to identify and record any features of archaeological interest exposed during the groundworks, and in particular the potential remains of a Roman road which is projected to run through the extension areas.

The watching brief comprised field walking followed by monitoring of the topsoil strip of the quarry extension areas, with the current project totalling approximately c.11ha of land.

No archaeological features were identified in any of the three extension areas during the topsoil and subsoil strip phase of the works.
ACKNOWLEDGEMENTS

Wardell Armstrong thanks Tarmac for commissioning the project, and for all assistance throughout the work. Wardell Armstrong also thank staff at Stokey Plant Hire, D Wardle Plant Hire and Cheshire Archaeology Planning Advisory Service (CAPAS) for their assistance.

The watching brief was undertaken by Ed Johnson, Sue Thompson, Kevin Horsley, Claire Marshall, Jaime Levell, Jonathan Banasko, Fiona Wooler and Dave Laverty and the report was written by Kevin Horsley, Jaime Levell, Fiona Wooler and Dave Laverty. The figures were produced by Helen Phillips and Martin Railton. The environmental assessment was undertaken by Lynne F. Gardiner, with the assistance of Freddie Sisson, who processed and sorted the samples, and Rebecca Blakeney, who sorted the flots.

The project was managed by Martin Railton, Associate Director, who also edited the report.
1 INTRODUCTION

1.1 Project Circumstances and Planning Background

1.1.1 Between April 2016 and August 2018 Wardell Armstrong undertook an archaeological watching brief at Crown Farm Quarry, Oakmere, Cheshire (centred on NGR: SJ 57377 69866). It was commissioned by Tarmac who intends to extend the quarry in several locations for which planning consent has been granted by Cheshire West and Chester Council (Planning Ref: 4/APP/2002/1514).

1.1.2 The current quarry extension works were considered likely to impact upon below ground archaeological remains should they be present. As part of an on-going programme of works, the Local Planning Authority required the archaeological monitoring during groundworks.

1.1.3 A watching brief is defined as a programme of ‘monitoring and investigation carried out during a non-archaeological activity within a specified area of land or development where construction operations may disturb or destroy archaeological remains’ (CIfA 2014a). The purpose of the watching brief was to record any archaeological evidence present within the development areas, and to attempt to re-construct the history and past-use of the site.

1.2 Written Scheme of Investigation

1.2.1 A Written Scheme of Investigation (WSI) was produced to provide a specific methodology, based on advice from Cheshire Archaeology Planning Advisory Service (CAPAS), for a programme of archaeological mitigation implemented through a watching brief (Wardell Armstrong 2016). This was approved by the archaeological planning advisor prior to the fieldwork taking place. This was in line with government advice as set out in Section 12 of the National Planning Policy Framework (DCLG 2012).

1.2.2 This report outlines the work undertaken on site, the subsequent programme of post-fieldwork analysis, and the results of the watching brief.
2 METHODOLOGY

2.1 Standards and Guidance

2.1.1 The archaeological watching brief was undertaken following the Chartered Institute for Archaeologists’ document Standard and Guidance for an archaeological watching brief (CIfA 2014a), and in accordance with the Wardell Armstrong excavation manual (Wardell Armstrong 2015a).

2.1.2 The fieldwork programme was followed by an assessment of the data as set out in the Standard and Guidance for an Archaeological Watching Brief (CIfA 2014a) and the Standard and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Materials (CIfA 2014b).

2.2 Field Walking

2.2.1 Prior to the stripping of topsoil, the extension areas were subject to a field walking exercise.

2.2.2 The general aims of the field walking were:

- to collect any visible archaeological evidence from the topsoil;
- for any collected materials to be recorded, geographically recorded using a GPS and for any concentrations of materials to be investigated further during the watching brief phase of works;
- for the finds to be assessed by the Wardell Armstrong finds officer.

2.3 Watching Brief

2.3.1 The watching brief comprised the monitoring of topsoil removal and any subsoil deposits from the quarry extension areas.

2.3.2 The general aims of the investigations were:

- to establish the presence/absence, nature, and extent of any archaeological remains and to record these where they were observed;
- to investigate and record any evidence for deposits or structures present;
- to establish the character of archaeological features in terms of cuts, soil matrices and interfaces;
- to recover artefactual material, especially that useful for dating purposes;
• to recover palaeoenvironmental material where it survives in order to understand site and landscape formation processes.

2.3.3 Deposits considered not to be significant were removed by a mechanical excavator fitted with a toothless ditching bucket to maximise the chance for identification of archaeological remains should they be present. All intrusive groundworks were monitored under close supervision by a suitably trained archaeologist. Where potential archaeological remains were present the groundworks were subsequently cleaned by hand. All possible features were inspected and selected deposits were excavated by hand to retrieve artefactual material and environmental samples. Once completed all features were recorded according to the Wardell Armstrong standard procedure as set out in the Excavation Manual (Wardell Armstrong 2015a).

2.3.4 A full professional archive has been compiled in accordance with the project specification, and the Archaeological Archives Forum recommendations (Brown 2011). The archive will be deposited with an appropriate repository, with copies of the report sent to the Cheshire Historic Environment Record. The project archive can be accessed under the unique project identifier WA CFQ-D, CFQ-E & CFQ-F.

2.3.5 Wardell Armstrong supports the Online Acces$ to the Index of Archaeological Investigation$ (OASIS) project. This project aims to provide an on-line index and access to the extensive and expanding body of grey literature, created as a result of developer-funded archaeological work. As a result, details of the results of this project will be made available as a part of this national project. The OASIS reference for the project is: wardella2-261560.
3 BACKGROUND

3.1 Location and Geological Context

3.1.1 Crown Farm Quarry is located to the north-east side of Delamere, north of Oakmere, and west of Northwich in Cheshire. The site is situated on the north-west side of Chester Road (A556) and west of Stonyford Lane (Figure 1). The site is centred on Ordnance Survey grid reference SJ 57377 69866.

3.1.2 The quarry is located in an area of gently undulating pasture fields bounded by an open-area sand quarry to the north and east, and the village of Oakmere and the A556 Chester Road to the south. It is positioned to the south and east of Delamere forest. The Shropshire, Cheshire and Staffordshire Plains extend from the Mersey Valley in the north to the Shropshire Hills, and from the Welsh Hills in the west to the Pennines in the east. It is characterised by gently rolling low-lying farmland, intercepted by sandstone ridges (Oxford Archaeology North 2008). The area of investigation lies at a height of c.80m aOD (above Ordnance Datum).

3.1.3 The site comprised three separate areas to be excavated totalling c.11ha in size. Area D, being 5.07ha, was located beyond the western limits of the current quarry site, on land immediately south of the lake. Area W, being 1.2ha, was located immediately southeast of Area D. Both were within the Western Quarry Extension area. Area W was the former topsoil bund of the groundworks from Summer 2015. Area E, being excavated in two phases, measuring 4.75ha, was located on the western edge of the Eastern Quarry Extension area. All three locations were grass land, with the land in Area D functioning as pasture land until very recently (Figure 2).

3.1.4 The underlying solid geology in the area was formed by Triassic sandstones and marls overlain by substantial drift deposits, namely glacial boulder clay with local deposits of sand and gravel. Discrete glacial hollows have encouraged the development of shallow meres that are occasionally peat filled (Oxford Archaeology North 2008). The superficial deposits to be extracted from the site are a Glaciofluvial deposit of Devensian sand and gravel (BGS 2016).

3.2 Historical and Archaeological Background

3.2.1 A brief overview of the historical and archaeological background of the area is provided below. Further information can be found using the sources mentioned in this overview. The Cheshire Historic Environment Record has been consulted as part of
Previous background research, and any references to entries within the database are indicated with the initials ‘HER’. Scheduled Monuments are referred to as ‘SM’.

3.2.2 Early Prehistoric: The earliest activity within the Delamere area is likely to have been during the Neolithic period (4000-3000BC) when the area was a mixed oak forest likely to have been more open comprising predominantly birch heath communities along the sandstone ridge on which the quarry is located (Latham 1991). It is evident from pollen analysis of lake sediments that significant forest clearance was undertaken within the area during this period. Indeed, five stone axes (Cheshire HER Ref: 842) recorded 1.4km south-west of the quarry at Eddisbury reflect this and it is stated by Latham that Eddisbury was likely an ‘important’ place prior to the Iron Age (Latham 1991). Bronze Age activity (SM Ref: 25692) is recorded on Eddisbury Hill, approximately 800m west of the quarry and a scheduled bowl barrow (SM Ref: 22594) is recorded 850m north. Further evidence for Bronze Age activity comprises a Bronze Age cremation urn (HER Ref: 929), a Bronze Age perforated stone mace head (HER Ref: 910) and an early Bronze Age to late Iron Age arrowhead (HER Ref: 845). These were recorded 1km west, 1.1km north-west and 1.2km south-east of the quarry respectively. In addition to these, three flints dated broadly to the prehistoric period were recorded during the North West Wetlands Survey (HER Ref: 2680/0-1, 2680/03 and 2680/06). These were recorded approximately 1.3-1.5km south of the quarry.

3.2.3 Late Prehistoric and Romano-British: It is probable that lines of communication during this period were, in the Delamere area, focused along the sandstone ridge on which the quarry is located (Latham 1991). This is evident in the presence of Iron Age hill forts at Eddisbury and Oakmere (SM Ref: 25692 and 25688) located approximately 800m west and 1.6km south of the quarry respectively. Eddisbury hill fort was occupied as a Roman signalling station during the Romano-British period due to the fact that Watling Street, which is believed to have crossed the site of the quarry and is the focus of this watching brief (HER Ref: 844), was present to its south. A further two Roman roads are recorded within the area (HER Ref: 1006 and 1016). These joined Oakmere to Cuddington and Cotebrook to Cuddington and were located approximately 260m east and 1km east of the quarry (at their closest points).

3.2.4 Early Medieval and Medieval: In the period after the Roman departure the area is thought to have been heavily wooded (Latham 1991). By the seventh century the Delamere area was within the northern part of Mercia and in AD914 it is recorded that Ethelfreda built a fortress on Eddisbury Hill to protect Mercian communities in the Dee
Valley from invasion by the Danes and the Northumbrians. It was, however, short lived and became disused within a few years. During the Medieval period the site of the quarry was located within the Royal Forest of Mara which was later to become known as the Royal Forest of Delamere (Latham 1991). Forests were often located in areas of low population that were unsuitable for cultivation. Tracts of woodland were also often present. It is evident from Domesday Survey of AD1086 that the Delamere region was sparsely populated and although the HER records the find spot of a medieval horse harness or pendant (HER Ref: 927) within quarry owned land there is no evidence for settlement activity within the site of the quarry. Within the area, evidence is limited to a medieval fishpond (HER Ref: 925) which is recorded 840m east of the quarry boundary and a further find spot of a bronze globe shaped staff terminal (HER Ref: 926) which is recorded 1.1km east of the quarry.

3.2.5 Post-medieval and Modern: Delamere remained a royal forest until 1812, and following enclosure it was used for timber production and agriculture. Historic mapping dating to 1817 depicts woodland over much of the area with a feature marked as ‘Plague Hole’ recorded in the eastern portion of the site. An Act of Parliament created the Parish of Delamere in 1819 and it was split into four areas, of which Oakmere was one. A map dating to 1819 records the site within the Oakmere Township, with the land largely deforested and in agricultural use. The ‘Plague Hole’ is also depicted and is again recorded on the First and Second Edition Ordnance Survey maps of 1872 and 1898. The First Edition Ordnance Survey map depicts Eddisbury Quarry just to the west of the site boundary and a probable railway embankment which crossed the western part of the site. It is assumed that sand and gravel were extracted from the quarry and that the railway transported the extracted material across the site presumably to be used for marling the agricultural land. The railway embankment was recorded in excavations in 1971 as being composed of five successive layers of sand with occasional stone. By 1919, the remaining Crown woodlands had been passed over to the Forestry Commission and the remaining area has remained in agricultural use.

3.3 Previous Archaeological Work

3.3.1 A number of surveys, watching briefs, trial trenching and excavation have taken place in and around the immediate site since the early 1970s, with a more intensive programme of watching briefs since 2008 where extensions to the current quarry have been made.
3.3.2 An archaeological excavation was undertaken in May 1971 by Professor G. D. B. Jones on behalf of the Department of the Environment. The works targeted the embankment which was thought to represent the line of the Roman road. The excavation encountered and recorded the deposits which made up the embankment, concluding that it was the remains of an embanked mineral railway which overlay remains of the Roman road (Jones and Manley 1973). No artefacts were recorded.

3.3.3 In 1991 a programme of evaluation included two small areas of geophysical survey (Geophysical Surveys of Bradford 1991) and the excavation of seven trial trenches (Lancaster Archaeological Unit 1991). The geophysical surveys targeted the projected course of the Roman road. One of these was undertaken within the eastern extent of the area of the current watching brief. The geophysical survey identified anomalies which could be interpreted as a Roman road in both of the survey areas. The seven trial trenches were targeted on the projected course of the Roman road; features consistent with a Roman Road were recorded east of the current watching brief area consisting of a 12.5m wide cambered road surface with ditches to either side.

3.3.4 An archaeological watching brief was undertaken in 2008 by Oxford Archaeology North of part of the area covered by the current planning condition that this report relates to. It did not reveal any significant archaeological features (Oxford Archaeology North 2008).

3.3.5 An archaeological evaluation was undertaken in 2010 by North Pennines Archaeology (subsequently known as Wardell Armstrong) (NPA 2010) targeting the projected route of the Roman road to the east and west of the quarry, in particular to the north of the projected route on the western side against the known route of a railway embankment where road-related features pre-dating the embankment were recorded. Figure 2 shows the locations of the 2010 trenches.

3.3.6 A second watching brief on the projected line of the Roman road was undertaken by Wardell Armstrong approximately 200m to the north-east of the current watching brief (Figure 2). This revealed a plough-scar, three undated shallow pits and a post-hole all thought to be associated with agricultural activity (Wardell Armstrong 2012). A third watching brief was undertaken in 2014 in an adjacent field (Wardell Armstrong 2014). This revealed no significant archaeological features.

3.3.7 In August 2015, another phase of watching brief was undertaken (Wardell Armstrong 2015b) in the approximate position of Area W of this current phase, targeting the
projected line of the Roman road. Although plough-scarring was again noted, this phase revealed no significant archaeological features.
4 FIELD-WALKING RESULTS

4.1 Introduction

4.1.1 The field-walking was undertaken concurrently to the watching brief phase immediately prior to topsoil removal, from 14th April 2016 to 28th August 2018. This was due to the nature of the programme of groundworks.

4.2 Results

4.2.1 In Area D, several earthwork features were identified. Linear boundaries and building platforms relating to the former ‘Golf Links Farm’ were noted. A selection of early to mid-20th century artefactual material was initially recovered comprising mostly glass and ceramic objects, however, these were deemed archaeologically insignificant and have not been retained beyond a photographic record.

4.2.2 Pits of unknown date and function were also noted in Area D prior to the groundworks (see Plate 1), however, information gained from the landowner suggests that these were possible anti-aircraft artillery shell craters dating to World War II, as apparently the field was used for target practice during this period. These are also depicted on Ordnance Survey maps of the site.

4.2.3 No finds were made during the field-walking in Area E or Area W.
5 WATCHING BRIEF RESULTS

5.1 Introduction

5.1.1 The archaeological watching brief was initially undertaken over a total of 84 days from 14th April 2016 to 28th August 2018, with the field-walking running concurrently immediately prior to topsoil removal. Three further phases of the watching brief were undertaken over nine days between the 3rd April 2017 and the 28th June 2017, over 14 days between 6th and 23rd November 2017, over eight days between 12th and 21st February 2018 and over 34 days between 9th July – 28th August 2018. The archaeological watching brief monitored all excavations associated with extension areas. Context numbers are provided, where relevant, in brackets, relating also to a summary table provided in Appendix 1.

5.1.2 The excavations largely comprised the removal of topsoil and, in some places, subsoil to a maximum depth of 1.30m in all three extension areas (Plate 2). No significant archaeological features were encountered throughout, although occasional superficial plough-scarring was noted across the project areas, particularly in Area E.

5.2 Area D

5.2.1 Area D, or the Delamere Strip, was located in the Western Quarry Extension zone. The original area was approximately c.5.07ha in size with stripping of topsoil and subsoil taking place from 26th April to 21st June 2017 (CFQ-D), with observable work totalling 9 days; a further phase of the watching brief was undertaken between 6th and 23rd November 2017 (CFQ-E), with observable work totalling 14 days (Plate 3); and a further c.5.07ha was stripped as an extension to the previous strip between from 9th July to 28th August 2018 (CFQ-F), with observable work totalling twenty-three days (Plates 11 and 12). The topography in this area undulated to great extents with the highest point measuring 81.9m aOD and the lowest measuring 68.7m aOD.

5.2.2 No significant archaeological remains were found during 2017; however, in the north-east corner of the area an early 20th century structure was noted. This structure was known as ‘Golf Links Farm’ and comprised a main farmhouse and several associated outbuildings. Two distinctive rubbish pits [302] and [304] were found in the gardens with finds dating from c.1920-80 (Plate 4). Further material was recovered, and subsequently not retained, during the initial field-walk of the area (see Section 4.2.1).

5.2.3 Three pits originally identified as possible marl pits, but then advised by the land owner that they were anti-aircraft artillery shell craters, were also excavated during
the groundworks (Plate 1). No material or discrete deposits were noted, and the thickness of the soil layers were found to differ little from the surrounding field.

5.2.4 The only other feature identified in Area D during 2017 was agricultural in character. This was exposed as a section of ceramic field drain located close to the northern boundary of the area, orientated north-west to south-east (Plate 5).

5.2.5 During the 2018 watching brief again no significant archaeological remains were discovered; however, an abundance of plough scars and field drains were observed throughout the area.

5.2.6 An articulated sheep skeleton was discovered within a root bowl in the north-east corner of the area (Plate 13), however, as this sat in between the topsoil (001) [CFQ-F] or (300) [CFQ-D] and the subsoil (002) [CFQ-F] this suggests that it was modern in age. This was further evidenced by the fact that it was located in sand which is extremely acidic and tends to accelerate the decomposition of bone, and while most of the skeleton was preserved very well, any bones on the underside of the sheep in the deepest areas were significantly more abraded than those on the upside.

5.2.7 The north-west corner of the strip area on the lake edge showed evidence of being stripped previously and filled in with a peaty-compost deposit (004) [CFQ-F]. The deposit was between 0.47 and 0.98m deep and had been deposited recently as modern machine tracks were visible in the natural sands (003) [CFQ-F] (301) [CFQ-D] below the peaty-compost (004) (Plate 14). Due to the modern nature of the deposit, it therefore had no paleoenvironmental or archaeological potential.

5.2.8 A single sherd of modern pottery was discovered within the topsoil (001) [CFQ-F] (300) [CFQ-D], during the field walk of the area, however as it was just a single sherd found within a sizeable area this suggests that it was residual and due to its modern date, it was decided not to keep the sherd for further analysis.

5.3 Area E

5.3.1 Area E, or the Eastern Strip, was located in the Eastern Quarry Extension zone and was extended eastwards. An area measuring approximately c.3.18ha in size was stripped of topsoil from the 23rd June to the 13th July 2016 (CFQ-D), with observable work totalling five days; an additional day of topsoil stripping was undertaken on the 6th June 2017 (CFQ-D); with a further c.1.3ha of land being stripped between 6th to 23rd November 2017 and 12th to 21st February 2018 (CFQ-E); and a further c.3.18ha in size
stripped from the 10th August to 28th August 2018 (CFQ-F), with observable work totalling eleven days.

5.3.2 During the 2016 watching brief (CFQ-D), the groundworks covered a large depression known locally as the ‘Plague Hole’ (Plate 6). Upon excavation it was revealed to be a silted up, shallow, water feature with an approximate maximum depth of 1.20m comprising an additional alluvial deposit (205) with a maximum thickness of 0.30m.

5.3.3 A narrow linear ditch [203] was also noted, running NE-SW to the immediate east of the ‘Plague Hole’ (Plate 7). The feature was determined to be very recent as modern pottery was found in its base. No significant archaeological remains were found.

5.3.4 During the topsoil strip it was noted that two narrow shallow gullies were cut into the subsoil (102). They were aligned north-south parallel approximately 9m apart. The gully to the west [103] (Plate 8) contained a lower fill (104), moderately compacted mid orange brown silty sand, and upper fill (105), moderately compacted dark brown grey silty sand. Three slots were excavated, producing no dating evidence, to a maximum depth of 0.2m. The gully to the east [106] (Plate 9) contained a single fill (107), and two slots were excavated, producing no dating evidence, to a maximum depth of 0.09m.

5.3.5 In addition to this, a possible discreet feature was observed cut into the natural substrate (101) [CFQ-E] (201) [CFQ-D] and (002) [CFQ-F]. The sub-circular feature [108] (Plate 10) was initially identified as a pit containing a single fill (109) however, no dating evidence and irregular base suggest it could be a natural feature such as a tree throw. No other significant archaeological deposits were observed in this phase.

5.3.6 A variety of archaeological finds were initially recovered but not retained, as upon inspection all were modern in date. Environmental samples were taken from the two fills of an undated gully [103] during the groundworks, and the results of the assessment are presented in Section 6 below.

5.3.7 During the 2018 watching brief (CFQ-F) no subsoil was observed within this area (Plate 15) with topsoil (001) [CFQ-F] (200) [CFQ-D] and (100) [CFQ-E] superseding natural sands and gravel (002) [CFQ-F] (201) [CFQ-D] and (101) [CFQ-E].

5.3.8 No archaeological features were discovered in this area despite the projected Roman Road of Watling Street being thought to cut through this area. Instead, an abundance
of plough scars were observed, evidencing the extensive agricultural practices that had been carried out over a substantial period of time here.

5.3.9 The only archaeological finds to be discovered in this area were three small sherds of modern pottery. Each sherd appeared to be from a separate vessel, suggesting that these were again residual finds. This coupled with the fact that they were of modern age, meant that it was decided not to keep the sherds for further analysis.

5.4 Area W

5.4.1 Area W, or the Western Strip, was located in the Western Quarry Extension zone. It was approximately 1.2ha in size with removal of previous bund to the surface taking place from 14th April to 20th April 2016 (CFQ-D), and removal of topsoil and subsoil from 21st to 23rd June 2016 (CFQ-D), with observable work totalling seven days. A single possible feature was recorded [105] but has since been determined to be soil staining from tree rooting. No significant archaeological remains were found.
ENVIRONMENTAL ASSESSMENT

6.1 Introduction

6.1.1 Two bulk environmental samples were taken from the two fills of an undated gully [103] in Area E during the archaeological watching brief.

6.1.2 This report presents the results of the assessment of the environmental samples and their remains in accordance with Campbell et al. (2011) and English Heritage (2008).

6.2 Methodology

6.2.1 The bulk environmental samples (presented in Table 1) were processed at the Wardell Armstrong offices in Carlisle. The colour, lithology, weight and volume of each sample was recorded using standard Wardell Armstrong pro forma recording sheets (Table 2). In the first instance a pH test was undertaken on a small sub-sample of sediment from each sample. The samples were then processed with 500-micron retention and flotation meshes using the Siraf method of flotation (Williams 1973). Once dried, the residues from the retention mesh were sieved to 4mm and checked for artefacts and ecofacts. The smaller fraction was scanned with a magnet for microslags such as hammerscales. This fraction was then examined for smaller artefacts such as beads.

6.2.2 The flot, plant macrofossils and charcoal were retained and scanned using a stereo microscope (up to x45 magnification). Any non-palaeobotanical finds were noted on the flot pro forma.

6.3 Results

6.3.1 No artefactual or ecofactual remains were observed within the samples.

6.3.2 Both samples yielded small amounts of charcoal in their flots. However, these were too small to be identified. The were some abrasion and mineralisation occurring too.

6.3.3 Although the charred plant remains were present in both samples they tended to be fragments of non-economic plant remains. Due to the fragmentation, they remained unidentified.

6.4 Discussion

6.4.1 Due to the quantities, size and fragmentation of the charcoal and charred plant remains there is not enough data to enable a meaningful discussion.

6.5 Statement of potential and recommendations
6.5.1 No material was suitable for radiocarbon determination. No further work is warranted on the environmental assemblage and it will be discarded.

6.5.3 If further archaeological interventions occur in the vicinity then environmental sampling should still be undertaken. The presence, albeit small amounts, of charred material and the neutral-alkaline pH levels would indicate a favourable preservation if the environmental remains were present in the first instance.
7 CONCLUSIONS

7.1 Results

7.1.1 A combined field walk and archaeological watching brief monitored all topsoil and subsoil groundworks associated with three extension areas at Crown Farm quarry. The aim was to identify and record any features of archaeological interest exposed during the groundworks, and in particular, the potential remains of a Roman road (Watling Street) which is projected to run through the extension areas. This is visible on aerial photographs of the site and has been identified previously as a thin gravel deposit.

7.1.2 No features or finds of archaeological interest were noted during the watching brief, apart from those which related to post medieval agricultural activity. Two undated gullies were recorded on the east side of the site, which may be agricultural features.

7.1.3 No archaeological finds of a Roman date were discovered in any of the strip areas indicating that the remains of Watling Street have been removed by agricultural activity within the quarry extension areas.

7.1.4 Preservation

7.1.5 The preservation of archaeology in the areas monitored was limited. This was probably due to agricultural use of all the fields as plough-scarring had been noted in previous archaeological watching briefs (Wardell Armstrong 2012 and 2015b). The combination of this agricultural activity and the relatively thin topsoil (being approximately 0.30m maximum across the monitored area), indicates that there was a low survival rate of below and above ground archaeology within the current quarry extension areas.

7.1.6 No evidence of the Roman road along the projected line has been located since the archaeological evaluation in 2010 (NPA 2010). However, there remains the possibility that this is preserved beneath the embankment south of the Delamere Strip (Area D), where it has been preserved from the plough damage experienced elsewhere on site.
8 BIBLIOGRAPHY


**Websites**

British Geological Survey (BGS), 2016. *Geology of Britain Viewer*,

http://mapapps.bgs.ac.uk/geologyofbritain/home.html - accessed July 2016
APPENDIX 1: CONTEXT TABLES

**Area D**

**CFQ-D**

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<td>302</td>
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<td>Cut</td>
<td>Cut of 20\textsuperscript{th} century rubbish pit</td>
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**CFQ-F**

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<td>003</td>
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<td>004</td>
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## AREA E

### CFQ-D

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### CFQ-E

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**AREA W**

**CFQ-D**

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APPENDIX 2: PLATES

Plate 1: Possible anti-artillery shell crater dating from World War II, identified during field-walking (2016). Scale = 1 x 1m.

Plate 3: View looking west showing southern part of Area D topsoil stripping (2017). Scale = 1 x 1m.

Plate 4: A selection of mid-20th century finds from rubbish pits [302] and [304] in Area D (2016). Scale = 1 x 1m.
Plate 5: Detail of circular ceramic field drain exposed in the north-west part of Area D (2017).

Scale = 1 x 1m.

Plate 6: General shot of ‘Plague Hole’, view looking west, after topsoil strip in Area E (2016). Scale = 1 x 1m.
Plate 7: NE-facing section of modern ditch [203] in Area E (2016). Scale = 1 x 1m.

Plate 8: South facing section of gully [103] in Area E, looking north (2017). Scale = 1 x 0.4m.
Plate 9: South facing section of gully [105] in Area E, looking north (2017). Scale = 1 x 0.4m.

Plate 10: North-west facing section of pit [107] in Area E, looking south-east (2017). Scale = 1 x 1m.
Plate 11: Area D Extension Area fully stripped looking north-west (2018). Scale = 2 x 2m.

Plate 12: Area D Extension Area fully stripped looking south-west (2018). Scale = 2 x 2m.
Plate 13: Partially excavated articulated Sheep Skeleton in Area D (2018). Scale = 1 x 1m.

Plate 14: Working shot of peaty-compost deposit (004) strip looking east (2018). Scale = 1 x 0.25m.
Plate 15: Area E with topsoil (001) and Natural Sands (002) (2018). Scale = 2 x 2m.
Figure 1: Site location.
Figure 2: Location of the quarry extension areas.