Assessment of the Fired Clay and Ceramic Building Material from the A4146, Stoke Hammond and Linslade Western Bypass, Buckinghamshire

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The fired clay and ceramic building material found on in archaeological fieldwork on the line of the A4146, Stoke Hammond and Linslade Western Bypass, in Buckinghamshire, were submitted for assessment. The finds range in date from Iron Age loomweights and daub to early modern field drain fragments. However, the majority of the sherds are medieval flat roof tiles, of pegtile form.

Description

The fired clay and ceramic building material was recorded using an internal fabric series and the weight, maximum number of objects and fragment counts were recorded (Appendix 1).

Fired clay

Condition

Two hundred and thirty five fragments of fired clay were recovered, representing no more than 50 objects and weighing 2.467 Kg (Table 1). The fragments include several which were large enough to identify the objects they came from but a large proportion were featureless fragments. Thirty-seven fragments were notably abraded. Most fragments were extremely small, the only exception being fragments of probable Iron Age loom weights and daub.

Table 1. Quantities and mean weight of fired clay, by spot-date of context

Data	EMED	EMOD	IA/EROM	ND	PMED	Grand Total
Nosh	21	1	61	140	12	235
Weight	49	0	1548	828	42	2467
NoV	6	1	10	29	4	50
mean wt	1.94	-	16.88	5.87	5.14	7.42

Fabric

The fired clay was examined visually and divided into five fabric groups (Table 2).

Table 2

Fabric	Major Inclusions	Groundmass
FAB1	Sparse angular white flint <5.0mm. Abundant rounded quartzose sand, including polished grains <1.0mm.	Poorly mixed with streaks of light-coloured,

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	Rounded dark red clay/iron grains <1.0mm. Rounded marl fragments <2.0mm.	possibly calcareous clay.
FAB2	Sparse angular white sandstone <2.0mm. Abundant rounded quartzose sand, including polished grains <2.0mm. Rounded dark red clay/iron grains <1.0mm.	Poorly mixed.
FAB3	Moderate rounded quartzose sand, including polished grains < 3.0mm. Sparse rounded dark red clay/iron grains <3.0mm. Moderate calcareous inclusions < 0.2mm.	Poorly mixed with lenses and streaks of fine white-firing clay mixed with sandy red-firing clay.
FAB4	Abundant voids with chaff/grass impressions	Fine-textured with muscovite < 0.05mm
FAB5	Sparse dark red-brown stained subangular flint < 2.0mm. Moderate rounded quartzose sand, including polished grains < 2.0mm. Abundant dark red clay pellets	Poorly cemented.

Fabrics 1 and 2 are clearly variations of the same fabric, whilst Fabric 3 is a mixture of that fabric (1/2) with a fine, white-firing clay. Most probably, all three fabrics come from glacial till composed of a mixture of clays and sands of varying age. White-firing clays occur in the middle Jurassic of Northamptonshire (where they were used for the production of Late Saxon pottery and post-medieval clay pipes) whilst the sand includes polished quartz grains and clay/iron from the Woburn Sands, together with flint from the Upper Cretaceous chalk.

Fabric 4 is probably chaff-tempered Jurassic clay.

Fabric 5 may not be fired clay, but clay cemented by iron panning and therefore not of human origin.

Form

Two definite examples of triangular loom weights were found (contexts 22019 and 32214). Both have horizontal holes, 10mm and 12mm in diameter, about 2/3 from the base of the weight and both could be illustrated.

In addition, several other groups of fired clay fragments might be from similar loom weights but are too fragmentary for positive identification. Of these, one comes from what appears to be a corner of the weight (70069). The remainder have flat surfaces and could be either daub or weights, but were found in association with weights.

Five groups of fired clay have one or more wattle impressions and are therefore from wattle and daub structures (contexts 4001, 4129, 12164, 22034 and 32214).

A fragment of fired clay from context 12297 has a cylindrical impression which might either be the horizontal or vertical hole from a loom weight.

All of the loom weight fragments occur in Fabrics 1 or 2 whilst the daub occurs in fabrics 1, 2 and 3.

None of the fabric 4 fragments had an identifiable form and the fabric 5 fragments all come from a single context (80021).

Table 3

Form	Data	EMED	EMOD	IA/EROM	ND	PMED
?	Nosh	6	1		67	5
	NoV	4	1		23	3
	mean wt	1.42	-		5.66	6.33
DAUB	Nosh	15		1	37	
	NoV	2		1	2	
	mean wt	3.00		32.00	6.83	
DAUB?	Nosh				36	7
	NoV				4	1
	mean wt				6.58	1.57
DAUB? LOOM WEIGHT?	Nosh			1		
	NoV			1		
	mean wt			28.00		
DAUB? LOOMWEIGHT?	Nosh			1		
	NoV			1		
	mean wt			5.00		
LOOM WEIGHT	Nosh			34		
	NoV			2		
	mean wt			43.08		
LOOMWEIGHT?	Nosh			24		
	NoV			5		
	mean wt			3.53		

Ceramic Building Material

Two hundred and twenty-nine fragments of ceramic building material, representing no more than 253 objects and weighing 10.344 Kg, were recovered. The collection includes six fragments which might be of Roman date but is mostly medieval with some post-medieval and later finds.

Condition

The collection includes material noted as abraded and very abraded, but the fragment size (mean weight) is fairly high, with an average of 40.30 gm. This is a result of the very solid nature of the brick and tile. In addition, a single fragment of over-fired tile was recovered.

Fabric

Twenty-two different fabrics were recognised. Of these, twenty were described in detail in Table 4 (the other two being respectively, modern and Potterspury ware).

In most cases the same range of inclusions as was found in the fired clay was present (a mixture of flint, red sandstones, Woburn Sands-derived quartzose sand and clay/iron, with a mixture of red-firing sandy and inclusionless white-firing clays). This suggests that most of these fabrics were produced locally, although exactly how far from the site their source or sources might be is unknown.

A single fabric contained abundant micaceous quartz silt, typical of the Gault clay (Fabrics C).

A group of calcareous fabrics was present (Fabrics A, I, F, L and M). These were probably made from a marl. Marl facies occur in the Upper Jurassic and the Mercian Mudstone. Fabric F appears more similar to Mercian Mudstone-derived clays and the remainder are probably derived from Upper Jurassic clays.

Three fabrics have a silty, micaceous groundmass which is finer in texture than Fabric C and probably come from a separate source (Fabrics K, O and P).

Table 4

Fabric	Major Inclusions	Groundmass	Interpretation
FABA	Abundant rounded quartzose sand, mostly red-stained. Sparse rounded fragments of red sandstone < 3.0mm (and one 15mm long). Abundant rounded quartz sand, including polished grains < 1.0mm Abundant rounded white mudstone fragments < 4.0mm.	Poorly mixed calcareous clays with lenses and streaks of white-firing marl. Lenses and streaks of white-firing inclusionless clay mixed with sandy, inclusionless light red-firing clay.	Upper Jurassic calcareous clay. Sand rather different from local examples. Local.
FABB	Abundant rounded quartz sand, including red-stained and polished grains.	Silty, micaceous (muscovite)	Gault clay with Woburn sands temper.
FABC	Sparse subangular red sandstone fragments < 2.0mm. Rounded quartzose sand < 0.5mm, abundant in moulding sand, sparse in body.	Poorly mixed with lenses of light-coloured inclusionless clay alternating with red-firing clay with sandstone and quartz inclusions.	Local
FABD	Sparse subangular red sandstone fragments < 2.0mm. Rounded quartzose sand < 0.5mm, abundant in moulding sand, sparse in body.	Poorly mixed with lenses of light-coloured inclusionless clay alternating with red-firing clay with sandstone and quartz inclusions.	Local
FABE	Rounded marl pellets < 3.0mm.	Fine silty, micaceous calcareous with some mixing of clays with different quantities of	Triassic? Mercian Mudstone.
FABF			

		clay/carbonate.	
FABG	Abundant lenticular voids < 0.5mm long. Fine quartz sand <0.2mm used as moulding sand. Sparse subangular white flint < 4.0mm.	Fine-textured clay. Homogenous.	Upper Jurassic clay. Local.
FABH	Abundant rounded quartz sand, including red-coated and polished grains. Abundant calcareous voids < 0.5mm. Moulding sand consists of rounded quartzose sand, mostly red-coated and/or polished < 0.5mm.	Calcareous. Dark grey reduced.	Upper Jurassic calcareous clay tempered with Woburn sands-derived sand.
FABI	Sparse red sandstone < 0.5mm. Abundant rounded quartzose sand, mainly red-coated and some polished grains < 1.0mm.	Fine-textured clay, some mixing of lighter and darker shades of light red.	Local.
FABJ	Moderate rounded quartzose sand, including red-stained and polished grains.	Silty, micaceous with finer lenses.	Local. Compare FABO and FABP
FABK	Moderate rounded quartzose sand, including red-stained and polished grains. Finer sand used as moulding sand (< 0.2mm).	Poorly mixed, mainly calcareous clay with lenses of red sandy clay.	
FABL	Sparse rounded quartz sand, including red-coated and polished grains < 0.5mm. Sparse subangular white flint < 4.0mm.	Calcareous.	Upper Jurassic calcareous clay tempered with Woburn sands-derived sand.
FABM	Abundant rounded heat-altered calcareous inclusions.	Calcareous.	
FABN	Moderate rounded quartzose sand, including red-stained and polished grains.	Silty, micaceous with finer lenses.	Local. Very similar to FABK
FABO	Sparse rounded quartzose sand, including red-stained and polished grains. Sparse angular white flint fragments <5.0mm. Moderate rounded quartzose sand, including polished grains < 2.0mm. Moderate red fine-grained clay pellets < 1.0mm.	Silty, micaceous with finer lenses. Fine-grained with some lenses of lighter and darker red clays, some slightly micaceous.	Local. Very similar to FABK.
FABP	Sparse dark red clay/iron pellets < 2.0mm. Sparse angular flint fragments < 5.0mm. Sparse rounded red clay/iron pellets < 3.0mm.		
FABQ	Sparse subangular red sandstone fragments < 2.0mm. Rounded quartzose sand < 0.5mm, abundant in moulding sand, sparse in body. Same as FABE.	Fine-grained with some lenses of lighter and darker red clays, some slightly micaceous. Poorly mixed with lenses of light-coloured inclusionless clay alternating with red-firing clay with sandstone and quartz inclusions. Same as FABE.	Local.
FABR	Sparse angular white flint fragments <5.0mm. Moderate rounded quartzose sand, including polished grains < 2.0mm. Sparse subangular fine-grained red sandstone <2.0mm. Moderate red fine-grained clay pellets < 1.0mm.	Homogenous. Fairly fine textured.	Local.
FABS	Sparse dark red clay/iron pellets < 2.0mm.		
FABT	Not recorded	Not recorded	
MOD			
POTTERSPURY			

Form

The form of most of the ceramic building material fragments could be identified (Table 5). Three fragments were possibly of Roman date: a brick, a fragment of imbrex or flat tile and a possible fragment of tegula. The brick is the most certain of these identifications but even there, the top surface of the brick is worn and it might be a fragment of medieval or later floor tile.

Most of the fragments come from flat roof tiles. Fifty-three fragments had peg holes, of which all but one were circular. The holes ranged from 9mm to 15mm in diameter. In several cases it is clear that there were two holes per tile and this is likely to be true of all. One tile had a rectangular hole, 7mm by 9mm. the tiles are unglazed, although one has ash glaze, as a result of a high firing temperature. No tiles had sooting or mortar traces.

Fifteen fragments of post-medieval or modern brick were recovered. Two were clearly modern and the remainder were hand-moulded bricks, of fabrics A, B, C, D, E and K. None had measurable dimensions and all were found in association with other post-medieval or later finds.

Severn fragments of field drain were recorded. One of these was from a U-shaped tile with rectangular flanges and the others might be cylindrical or U-shaped. The drain fragments were in fabrics N, P and M.

Table 5

Form	EMED	EMOD	HMED	MED	PMED	PMED?	ROM	Grand Total
?		4			1			5
BRICK		4			10		1	15
FIELD DRAIN		6						6
FIELD DRAIN?		1						1
FLAT	157	27	43	6	19			252
FLAT?		3	5		4			12
IMBREX/FLAT?					1	1		2
TEG?		1						1
Grand Total	157	46	48	6	35	1	1	294

Assessment

Dating of fabrics

The possible Roman tiles occur in fabrics A, F and H. All these fabrics were used in the post-medieval or modern periods, which makes their identification suspect.

Flat tiles from contexts associated with 12th- to 13th-century pottery were of fabrics A, T, L, R, Q and S.

Flat tiles in fabrics B, C, E, G, H, I and J were only found in association with post-medieval or later material.

Bricks and field drains were found in fabrics A, B, C, E, D, K, M, N, O and P.

These associations are shown in Table 6. From these figures we can say that in the medieval period the majority of the tiles probably come from a single source, with variations in fabric (Q, R, S and T) but with a small quantity of tiles coming from a second source, utilising a calcareous clay (Fabrics A and L).

There is a wider range of sources in the post-medieval and later periods. These can be grouped into five groups: a) possible Triassic marl (Fabric F); b) Gault clay (Fabric C); c) Local silty, micaceous (Fabrics K O and P); c) Upper Jurassic clay (Fabric G); d) Upper Jurassic calcareous (Fabrics I, M and N); e) Local mixed till (Fabrics B, D, E and H).

Table 6

subfabric	EMED	HMED	PMED	EMOD	Grand Total
FABS	89	9	2		100
FABQ	55	19			74
FABR	6	2			8
FABL	4	1	3		8
FABT	2	12	2		16
FABA	1	5	10	8	24
FABB			5	14	19
FABG			3		3
FABI			2	2	4
FABE			2	1	3
POTTERSPURY			2	1	3
FABD			2		2
FABC			1	4	5
FABH			1	1	2
FABN				4	4
MOD				3	3
FABF				3	3
FABK				1	1
FABM				1	1
FABO				1	1
FABP				1	1
FABJ				1	1

Sites

Site A North

One piece of fired clay and two pieces of CBM were recorded from Site A. They come from three different features:

- F80048, a field drain, produced a piece of brick.
- F80022, a probable ditch, produced a fragment of fired clay, possibly daub.
- F80017, a ditch, furrow or root disturbance, produced an unidentifiable fragment of CBM.

Site B

Five fragments of fired clay were recovered from Site B.

- F22051, a possible cremation, produced 7 fragments of Fabric 2 fired clay.
- F22033, a pit, produced a fragment of Fabric 1 fired clay which might be daub.

- F22016, a ditch, produced part of the side of a pyramidal loomweight of Iron Age or early Roman type, Fabric 2. The fragment is part of the side with a horizontal hole, 10mm diameter.
- F22024, a ditch, produced a fragment of Fabric 1fired clay.
- F22028, a large pit, produced a fragment of Fabric 1fired clay

Site CN

Site C North produced 71 fragments of fired clay (representing no more than 11 objects, Table 7) and 10 fragments of ceramic building material (Table 00). The possible daub fragments from F32054 include a piece with a possible wattle impression. The loomweight fragments from F32172, a pit, include part of two sides of a pyramidal loomweight with a horizontal hole 12mm diameter. The daub fragment from the same feature had two wattle impressions, confirming its identification. The possible loomweight fragments from F39015 include a piece which might be the top of a pyramidal loomweight.

Table 7

context group	Form	FAB1	FAB2	FAB3	FAB4	Grand Total
F32039	?	2				2
F32054	DAUB?	7				7
F32089	?		6			6
F32130	?	10			2	12
F32172	DAUB			1		1
	LOOMWEIGHT		27			27
F32198	?		1			1
F39015	LOOMWEIGHT?	11				11
Grand Total		30	34	1	2	67

The CBM (Table 8) includes: modern field drain fragments; a possible flat tile, from ditch F32138 of medieval or post-medieval date; brick, of either Roman or post-medieval/modern date from posthole F32162 and well F32244 and an unidentifiable fragment from spread 32155. The well has produced post-medieval pottery, which probably indicates that the brick too is post-medieval.

Table 8

context group	Form	FABA	FABB	FABD	FABN	FABO	Grand Total
F32192	FIELD DRAIN				3		3
F32138	FLAT?	1					1
F32139	FIELD DRAIN?					1	1
F32162	BRICK			1			1
F32190	FIELD DRAIN				1		1
Spread 32155	?		1				1
F32244	BRICK	1					1
Grand Total		2	1	1	4	1	9

Site CS

A single fragment of CBM, possibly a flat roof tile (Fabric I), was recovered from the fill of pit/posthole F39007. If misidentified it might be of Roman date but is otherwise of medieval to post-medieval date.

Site D

Trench 5

Two areas in Site D were excavated. The first of these, Trench 5, produced ditches and gullies producing mid 12th-century pottery, a few post-medieval features and topsoil containing a mixture of medieval, post-medieval and modern finds.

The only ceramic building material from this trench consists of a small, unidentifiable scrap from F4010/F4137 and collections from F4107 and the topsoil (Table 9), both of which also produced post-medieval pottery.

Table 9

context group	Form	FABA	FABB	FABC	FABE	FABF	FABG	FABH	MOD	POTTERSPURY
F4010/F4137		1								
F4107	BRICK	2	1	1	1					
	FLAT	1					3			
	FLAT?									2
TOPSOIL	?				1					
	BRICK								2	
	FLAT	2	2	6	4			1		
	TEG?					1				

Fired clay was present in the fills of four medieval features, as well as in deposits of subsoil and topsoil. In most cases, these assemblages include fragments with wattle impressions and it is likely that all of this fired clay comes from one or more burnt wattle and daub structure.

Table 10

context group	Form	FAB1	FAB2	FAB3	FAB4
F4009	?		1		
	DAUB		10		
F4010/F4137	DAUB?	4	5		
F4012	?		1		3
	DAUB	5			
F4117	?			1	
SUBSOIL?	DAUB?	1			
UNSTRAT	DAUB?	3			

The Moat

Ceramic building material was recovered from three deposits in the Moat area (Table 11). All the finds come from the final filling of the moat, which took place in the post-medieval period.

There is therefore no primary evidence that any structures that might have existed within the moat used ceramic building material although it is possible that some of these fragments came from such structures. There is no fired clay from the moat area.

Table 11

context group	Form	FABA	FABB	FABD	FABH
F4033	FLAT	2	1		
F4057	IMBREX/FLAT?				1
F4140/4110	BRICK		1	1	

Site E

Two hundred and nineteen fragments of ceramic building material were recorded from Site E. This site consists of a series of ditches and gullies, which on the basis of their pottery assemblages and the presence/absence of flat roof tile have been assigned (by the authors) to three phases: I) Possibly late 11th to mid 12th century; II) mid 12th century or later, with no tile; III) mid 12th-century or later with tile. A few features, notably a ditch complex and a hollow way, contained a few sherds of pottery of the later 13th century or later, but associated with residual sherds of 12th-century type (phase iv). Finally, the subsoil produced a mixed assemblage including a possible fragment of field drain (phase V). Topsoil produced a single fragment of ceramic building material, too small to identify (phase VI). The flat roof tiles from the site occur in six fabrics (Table 12). There is a possibly significant difference in the composition of the phase III assemblage and that from Phase IV. Phase III is composed mostly of Fabric S tiles whilst that in Phase IV is composed mostly of Fabric Q tiles. There are fragments with pegholes present in both phases but they show no obvious difference in diameter.

Table 12

Phase	UNID	FABA	FABL	FABQ	FABR	FABS	FABT
III	1	1	4	19	5	94	2
IV			1	37	1	4	13
V		5		19	2	7	1

There is no fired clay from the site.

Site F

Five fragments of fired clay were recovered from Site F (Table 13). None could be positively identified although that from context 70069 (F70071) has a curved surface which either indicates the presence of a corner (such as a doorway) in a wattle and daub structure or a loom weight. If the latter, there was no enough of the object present to allow it to be assigned to a specific type (and thus to a closer date than Bronze Age to Early Roman).

A single fragment of brick, probably of post-medieval or modern date, was recovered from a post-hole, F70131 (context 70132). The fragment is, however, only 2gm in weight and could easily have been intruded into an earlier feature (or even been mis-identified).

Table 13

context group	Context	?	DAUB?	DAUB? LOOMWEIGHT?
F70012	70011	1		
F70024	70022		1	
F70071	70069			1
	70070		1	
F70203	70018	1		

Further Work

The fired clay requires little further work, except to compare the fabric of the prehistoric daub and loom weights with that of the early medieval daub from Site D, Trench 5 (Task 1) and to reconstruct and illustrate the two loomweight fragments from Site B (Task 2).

The putative Roman tile from these sites is too small a collection to be worth further study, unless it is required as dating evidence. In which case it should be compared with tile from the Milton Keynes area where several Roman villas have been excavated. This comparison would be firstly to confirm or reject the identification and, secondly, to determine whether the Milton Keynes sites obtained their tile from the same area as those in the Linslade bypass area (Task 3).

The medieval tile, however, has a greater potential, since at Site E it seems that the tile comes from a 12th to early 13th-century context and there are possible variations in fabric between the two phases of medieval activity on the site in which tile was used (phases III and IV). No major dimensions were measurable but thicknesses could be measured and these might be useful in determining whether or not there are two periods of tile use at the site, as well as forming a fixed point with which to compare other groups of flat tiles (Task 4). The variations in fabric should also be investigated; to see if it is possible that more than one source of supply was used at the site (Task 5)

The post-medieval and later ceramic building material is mostly unstratified and its main significance is that tiles with fabrics not present at Site E are likely to be of later medieval or post-medieval date. It is probably not worth pursuing and documenting these differences.

Following this work, the contents of this report should be updated and re-written for publication (Task 6).

Costing

Table 14 shows the estimated costs of the six recommended tasks identified above. The costing is based on 2005/06 rates, all of which are scheduled to rise in April 2006.

Table 14

Task	Description	Rate	Cost
1	Fabric analysis of fired clay of IA and early medieval dates (2 thin sections and 12 ICPS analyses)	£23.50 per sample	£329.00

2	Reconstruct and illustrate loom weights (Nb. This does not include in-house Network Archaeology drawing time and is merely covers checking the drawings in pencil)	£23.50 per hour	£47.00
3	Examination of comparable Roman tile fabrics (visit to Aylesbury/Milton Keynes)	£23.50 per hour	£238.00
4	Measurement of thicknesses of flat roof tiles from Site E	£23.50 per hour	£188.00
5	Fabric analysis of flat roof tiles from Site E (6 thin sections, 35 ICPS analyses)	£23.50 per sample	£963.50
6	Integration of results of tasks 1 to 5, production of report for publication	£23.50 per hour	£376.00
0	Total		£2,141.50
0	Total inc VAT		£2,516.26

Appendix 1

Context	Action	class	cname	subfabric	Form	Description	Part	Nosh	NoV	Weight	Condition
4000		CBM	PMTIL	FABB	FLAT		BS	4	4	105	
4000		CBM	PMTIL	FABC	FLAT		BS	4	2	80	
4000		CBM	PMTIL	FABA	FLAT		BS	1	1	16	
4000		CBM	PMTIL		FLAT		BS	2	2	17	
4000		CBM	MOD	MOD	BRICK		BS	2	2	160	
4000	FABF	CBM	RTIL	FABF	TEG?		BS	1	1	115	
4000	FABH	CBM	PMTIL	FABH	FLAT		BS	1	1	31	
4001		FCLAY	FCLAY	FAB2	DAUB	STRAW IMPRESSIONS A POSS WATTLE IMPRESSIONS	BS	10	1	24	
4002		FCLAY	FCLAY	FAB2	?		BS	1	1	3	
4002		FCLAY	FCLAY	FAB4	?		BS	3	1	2	ABRA
4004		FCLAY	FCLAY	FAB2	?		BS	1	1	1	ABRA
4011		FCLAY	FCLAY	FAB2	DAUB?	SURFACE WITH REDUCED CLAY BEHIND	BS	5	1	12	
4034	FABA	CBM	PMTIL	FABA	FLAT	TWO CIRCULAR HOLES 9MM ACROSS; 35MM APART; 47MM FROM TOP EDGE TILE	BS	2	1	153	
4034	FABB	CBM	PMTIL	FABB	FLAT		BS	1	1	92	
4055		CBM	RTIL/PMTIL	FABH	IMBREX/FLAT?		BS	1	1	46	
4107		CBM	PMTIL	FABB	BRICK		BS	1	1	17	
4107		CBM	MTIL	POTTERSPURY	FLAT?		BS	2	1	3	ABRA
4107		CBM	PMTIL	FABA	BRICK		BS	2	2	36	
4107		CBM	PMTIL	FABA	FLAT		BS	1	1	6	
4107	FABC	CBM	PMTIL	FABC	BRICK		BS	1	1	28	
4107	FABE	CBM	PMTIL	FABE	BRICK		BS	1	1	28	
4107	FABG	CBM	PMTIL	FABG	FLAT		BS	3	1	6	
4117		FCLAY	FCLAY	FAB3	?		BS	1	1	1	
4129		FCLAY	FCLAY	FAB1	DAUB	WATTLE IMPRESSIONS	BS	5	1	18	
4129		STONE	STONE	MICA SCHIST	HONESTONE	NORWEGIAN RAGSTONE	BS	1	1	39	

Context	Action	class	cname	subfabric	Form	Description	Part	Nosh	NoV	Weight	Condition
4134	FABD	CBM	RTIL	FABD	BRICK		BS	1	1	267	
4134		CBM	PMTIL	FABB	BRICK		BS	1	1	40	
4135		FCLAY	FCLAY	FAB1	DAUB?	SURFACE WITH REDUCED CLAY BEHIND	BS	1	1	5	
4136		FCLAY	FCLAY	FAB1	DAUB?	SURFACE WITH REDUCED CLAY BEHIND	BS	3	1	9	
4138		FCLAY	FCLAY	FAB1	DAUB?	SURFACE WITH REDUCED CLAY BEHIND; CURVED SURFACE	BS	4	1	18	
4138		CBM	CBM				BS	1	1	4	
4142		CBM	PMTIL	FABE	?		BS	1	1	3	
4142		CBM	PMTIL	FABA	FLAT		BS	1	1	58	
4142		CBM	PMTIL	FABB	FLAT		BS	2	1	22	
12025		FCLAY	FCLAY	FAB1	?		BS	1	1	1	
12087	FAB2	FCLAY	FCLAY	FAB2	?		BS	1	1	16	
12102		FCLAY	FCLAY	FAB1	?		BS	6	1	26	
12140		FCLAY	FCLAY	FAB2	?		BS	3	1	4	
12164	FAB1	FCLAY	FCLAY	FAB1	DAUB	WATTLE IMPRESSIONS ON 9; BETWEEN 12-15MM DIA	BS	36	1	420	
12186		FCLAY	FCLAY	FAB2	?		BS	1	1	12	
12193		FCLAY	FCLAY	FAB2	DAUB?	ONE PIECE WITH 2 POSSIBLE WATTLE IMPRESSIONS	BS	10	1	77	
12220		FCLAY	FCLAY	FAB1	?		BS	6	1	24	
12222		FCLAY	FCLAY	FAB1	?		BS	1	1	7	
12230		FCLAY	FCLAY	FAB1	?		BS	1	1	2	
12297		FCLAY	FCLAY	FAB1	DAUB? LOOM WEIGHT?	POSS WATTLE IMPRESSION/HOLE IN LOOMWEIGHT	BS	1	1	28	
12332		FCLAY	FCLAY	FAB1	?		BS	5	1	10	
12354		FCLAY	FCLAY	FAB2	?		BS	2	1	3	
12401		FCLAY	FCLAY	FAB1	?		BS	1	1	2	ABRA
12401		FCLAY	FCLAY	FAB2	?		BS	1	1	1	
12580		FCLAY	FCLAY	FAB1	?		BS	1	1	3	
22019		STONE	STONE	FINE-GRAINED SANDSTONE	SURFACE		BS	1	1	1392	
22019	DR15	FCLAY	FCLAY	FAB2	LOOMWEIGHT	PART OF ONE SIDE OF TRIANGULAR LOOMWEIGHT; 10MM DIA	BS	7	1	321	

Context	Action	class	cname	subfabric	Form	Description	Part	Nosh	NoV	Weight	Condition
22025		STONE	STONE	FERUGENOUS SANDSTONE	SADDLE QUERN		BS	2	1	1802	
22025		FCLAY	FCLAY	FAB1	?		BS	1	1	5	ABRA
22030		FCLAY	FCLAY	FAB1	?		BS	2	1	71	ABRA
22034		FCLAY	FCLAY	FAB1	DAUB	GROOVE 4MM DIA	BS	1	1	2	
22050		FCLAY	FCLAY	FAB2	?		BS	7	1	9	
32016		FCLAY	FCLAY	FAB1	LOOMWEIGHT?	ONE PIECE LOOKS LIKE TIP OF TRIANGLE	BS	11	1	30	
32041		FCLAY	FCLAY	FAB1	?		BS	2	1	2	ABRA
32055		FCLAY	FCLAY	FAB1	DAUB?	POSS WATTLE IMPRESSIONS	BS	7	1	11	
32090		FCLAY	FCLAY	FAB2	?		BS	6	1	30	
32131		FCLAY	FCLAY	FAB4	?		BS	2	1	1	
32132		FCLAY	FCLAY	FAB1	?		BS	10	1	19	
32137		CBM	PMTIL	FABA	FLAT?		BS	1	1	5	
32155		FCLAY	FCLAY	FAB1	?		BS	1	1	0	
32155		CBM	PMTIL	FABB	?		BS	1	1	1	
32161		CBM	PMTIL	FABD	BRICK		BS	1	1	3	
32173		CBM	EMODTIL	FABO	FIELD DRAIN?	U-SHAPED?	BS	1	1	83	
32191	FABN	CBM	EMODTIL	FABN	FIELD DRAIN		BS	1	1	8	
32193		FCLAY	FCLAY	FAB2	?		BS	3	1	18	
32193		CBM	EMODTIL	FABN	FIELD DRAIN		BS	3	1	5	
32202		FCLAY	FCLAY	FAB2	?		BS	1	1	14	
32214	DR14	FCLAY	FCLAY	FAB2	LOOMWEIGHT	TWO SIDES OF TRIANGULAR LOOMWEIGHT; HOLE 12MM DIA	BS	27	1	1088	
32214	FAB3	FCLAY	FCLAY	FAB3	DAUB	TWO WATTLE IMPRESSIONS 10MM AND 15MM DIA	BS	1	1	32	
32251		CBM	RTIL	FABA	BRICK		BS	1	1	53	
39008		CBM	PMTIL	FABI	FLAT?		BS	1	1	3	
39016	FABP	CBM	EMODTIL	FABP	FIELD DRAIN		BS	1	1	24	
40002		CBM	PMTIL		BRICK		BS	1	1	18	
40002		FCLAY	FCLAY	FAB4	?		BS	1	1	12	ABRA
40011		CBM	PMTIL		BRICK		BS	1	1	2	

Context	Action	class	cname	subfabric	Form	Description	Part	Nosh	NoV	Weight	Condition
40028		FCLAY	FCLAY	FAB1	?		BS	1	1	1	
40113		CBM	MOD		LAND DRAIN		BS	3	1	20	
40113	FABI	CBM	PMTIL	FABI	FLAT		BS	1	1	48	
40114		CBM	PMTIL	FABB	FLAT?		BS	2	2	7	
40114		CBM	PMTIL	FABE	FLAT?		BS	1	1	29	
40114		CBM	PMTIL	POTTERSPERRY			BS	1	1	4	ABRA
40114	FABM	CBM	EMODTIL	FABM	FIELD DRAIN	U-SHAPED	BS	1	1	171	
40148		CBM	PMTIL	FABB	FLAT		BS	7	6	124	
40148		CBM	RTIL?	FABF	?		BS	2	2	23	
40148		CBM	PMTIL	FABA	FLAT		BS	4	4	47	
40148		CBM	PMTIL	FABA	FLAT	ONE OF TWO CIRCULAR HOLES; 9MM ACROSS	BS	1	1	86	
40148		CBM	PMTIL	FABA	FLAT		BS	1	1	73	OVERFIRED
40148	FABJ	CBM	PMTIL	FABJ	FLAT		BS	1	1	30	
40148	FABK	CBM	RTIL/PMTIL	FABK	BRICK		BS	1	1	40	
40154		CBM	PMTIL	FABA	FLAT		BS	1	1	10	
40154		CBM	PMTIL	FABI	FLAT	RECTANGULAR HOLE 7BY9MM	BS	1	1	60	
40154		CBM	PMTIL		FLAT		BS	1	1	26	VABRA
40154		CBM	MOD	MOD	BRICK		BS	1	1	6	
40154		CBM	PMTIL				BS	2	2	8	VABRA
40204		CBM	PMTIL	FABI	FLAT		BS	1	1	14	
40204		CBM	RTIL/PMTIL	FABH	IMBREX/FLAT?		BS	1	1	30	
40204	FABL	CBM	PMTIL	FABL	FLAT		BS	3	3	83	
40304		CBM	PMTIL	FABA	FLAT	CIRCULAR HOLE 12MM ACROSS	BS	1	1	21	
60001		CBM	CBM				BS	1	1	6	ABRA
60002		CBM	MTIL	FABT	FLAT		BS	1	1	55	
60002		CBM	EMODTIL		FIELD DRAIN?		BS	1	1	16	VABRA
60002		CBM	MTIL	FABS	FLAT		BS	1	1	19	
60033		CBM	MTIL	FABQ	FLAT		BS	1	1	65	
60033		CBM	MTIL	FABS	FLAT		BS	5	4	168	

Context	Action	class	cname	subfabric	Form	Description	Part	Nosh	NoV	Weight	Condition
60034		CBM	MTIL	FABQ	FLAT		BS	3	3	48	
60034		CBM	MTIL	FABS	FLAT		BS	21	9	393	
60035		CBM	MTIL	FABS	FLAT	CIRCULAR PEGHOLE 11MM DIA	BS	1	1	166	
60035		CBM	MTIL	FABS	FLAT		BS	7	6	156	
60035		CBM	MTIL	FABS	FLAT	CIRCULAR PEGHOLE (PART)	BS	4	3	129	
60035		CBM	MTIL	FABS	FLAT	CIRCULAR PEGHOLE 10MM DIA	BS	1	1	98	
60035		CBM	MTIL	FABL	FLAT		BS	1	1	64	
60035		CBM	MTIL	FABR	FLAT		BS	2	1	120	ABRA
60038		CBM	MTIL	FABL	FLAT		BS	3	3	63	
60038		CBM	MTIL	FABQ	FLAT	CIRCULAR PEGHOLE (PART)	BS	2	2	53	
60038	FABQ	CBM	MTIL	FABQ	FLAT		BS	13	12	373	
60038	FABR	CBM	MTIL	FABR	FLAT		BS	1	1	59	
60038	FABS	CBM	MTIL	FABS	FLAT		BS	6	5	295	
60043		CBM	MTIL	FABS	FLAT		BS	5	5	138	
60049		CBM	MTIL	FABS	FLAT	CIRCULAR PEGHOLE (PART) 10MM DIA; 12MM FROM TOP	BS	1	1	42	
60049		CBM	MTIL	FABS	FLAT	CIRCULAR PEGHOLE 10MM DIA; 22MM FROM TOP	BS	1	1	144	
60049		CBM	MTIL	FABS	FLAT	CIRCULAR PEGHOLE (PART); 23MM FROM TOP	BS	1	1	51	
60049		CBM	MTIL	FABS	FLAT	CIRCULAR PEGHOLE (PART) 11MM DIA; 18MM FROM TOP	BS	1	1	41	
60049		CBM	MTIL	FABS	FLAT	CIRCULAR PEGHOLE (PART) 9MM DIA; 20MM FROM TOP	BS	1	1	40	
60049		CBM	MTIL	FABS	FLAT	CIRCULAR PEGHOLES (PART) 12MM DIA; 22MM FROM TOP	BS	1	1	87	
60049		CBM	MTIL	FABS	FLAT	CIRCULAR PEGHOLE (PART) 12MM DIA; 15MM FROM TOP	BS	1	1	65	
60049		CBM	MTIL	FABS	FLAT		BS	10	10	655	
60049		CBM	MTIL	FABS	FLAT	CIRCULAR PEGHOLE (PART)	BS	3	1	178	
60049		CBM	MTIL	FABS	FLAT	CIRCULAR PEGHOLES 10-12MM DIA; 48MM APART; 26MM FROM TOP; PATCHY ASH GLAZE	BS	2	1	251	
60049		CBM	MTIL	FABS	FLAT	CIRCULAR PEGHOLES 12MM DIA; 51MM APART; 13MM FROM TOP	BS	4	1	485	

Context	Action	class	cname	subfabric	Form	Description	Part	Nosh	NoV	Weight	Condition
60049		CBM	MTIL	FABS	FLAT	CIRCULAR PEGHOLE 11MM DIA; 15MM FROM TOP	BS	1	1	50	
60049		CBM	MTIL	FABS	FLAT	CIRCULAR PEGHOLE (PART) 15MM DIA	BS	1	1	50	
60049		CBM	MTIL	FABS	FLAT	CIRCULAR PEGHOLE (PART)	BS	3	3	66	
60049		CBM	MTIL	FABS	FLAT	CIRCULAR PEGHOLE (PART) 11MM DIA	BS	1	1	58	
60049		CBM	MTIL	FABS	FLAT	CIRCULAR PEGHOLE (PART) 13MM DIA	BS	1	1	54	
60049		CBM	MTIL	FABS	FLAT	CIRCULAR PEGHOLE (PART) 11MM DIA	BS	1	1	79	
60049		CBM	MTIL	FABS	FLAT	CIRCULAR PEGHOLE 11MM DIA; 25MM FROM TOP	BS	1	1	211	
60049		CBM	MTIL	FABS	FLAT	CIRCULAR PEGHOLE 12MM DIA; 20MM FROM TOP	BS	1	1	102	
60049		CBM	MTIL	FABS	FLAT	CIRCULAR PEGHOLE 10MM DIA; 22MM FROM TOP	BS	1	1	69	
60049		CBM	MTIL	FABS	FLAT	CIRCULAR PEGHOLE; 10MM DIA; 15MM FROM TOP	BS	2	1	133	
60069		CBM	CBM		?		BS	1	1	2	
60069		CBM	MTIL	FABS	FLAT		BS	1	1	9	
60069		CBM	MTIL	FABT	FLAT		BS	1	1	36	
60069		CBM	MTIL		FLAT		BS	1	1	11	
60073		CBM	MTIL	FABT	FLAT		BS	1	1	4	
60075		CBM	MTIL	FABQ	FLAT		BS	3	2	12	
60076		CBM	MTIL	FABQ	FLAT		BS	5	2	39	
60076		CBM	MTIL	FABT	FLAT		BS	1	1	8	
60077		CBM	MTIL	FABS	FLAT		BS	1	1	32	
60077		CBM	MTIL	FABR	FLAT		BS	1	1	23	
60077		CBM	MTIL	FABQ	FLAT		BS	1	1	28	
60077		CBM	MTIL	FABQ	FLAT		BS	28	28	154	
60078		CBM	MTIL	FABL	FLAT		BS	1	1	59	
60078		CBM	MTIL	FABS	FLAT		BS	3	2	122	
60078		CBM	MTIL	FABT	FLAT	CIRCULAR PEGHOLE (PART)	BS	3	3	80	
60078	FABT	CBM	MTIL	FABT	FLAT		BS	8	8	384	
60095		CBM	MTIL	FABT	FLAT		BS	1	1	19	

Context	Action	class	cname	subfabric	Form	Description	Part	Nosh	NoV	Weight	Condition
60095		CBM	MTIL	FABR	FLAT		BS	1	1	20	
60095		CBM	MTIL	FABA	FLAT		BS	1	1	4	
60095		CBM	MTIL	FABS	FLAT		BS	2	2	36	
60096		CBM	MTIL	FABA	FLAT?		BS	5	1	51	
60096		CBM	MTIL	FABQ	FLAT	CIRCULAR PEGHOLE (PART)	BS	4	4	198	
60096		CBM	MTIL	FABQ	FLAT	CIRCULAR PEGHOLE (PART) 11MM DIA	BS	1	1	80	
60096		CBM	MTIL	FABQ	FLAT	CIRCULAR PEGHOLE (PART) 15MM DIA	BS	1	1	28	
60096		CBM	MTIL	FABQ	FLAT	CIRCULAR PEGHOLE (PART) 11MM DIA	BS	1	1	26	
60096		CBM	MTIL	FABR	FLAT		BS	2	2	88	
60096		CBM	MTIL	FABS	FLAT		BS	6	6	285	
60096		CBM	MTIL	FABQ	FLAT	CIRCULAR PEGHOLES (PART) 13MM DIA; 38 MM APART; 12MM FROM TOP	BS	1	1	68	
60096		CBM	MTIL	FABQ	FLAT		BS	11	11	504	
60096		STONE	STONE	CHALK	GEO		BS	1	1	51	
60103		CBM	MTIL	FABS	FLAT		BS	2	2	65	
60110		CBM	MTIL	FABR	FLAT		BS	1	1	17	
70011	FAB4	FCLAY	FCLAY	FAB4	?		BS	1	1	7	ABRA
70018		FCLAY	FCLAY	FAB1	?		BS	5	1	9	
70022		FCLAY	FCLAY	FAB1	DAUB?		BS	16	1	26	ABRA
70069		FCLAY	FCLAY	FAB1	DAUB? LOOMWEIGHT?	CURVED SURFACE	BS	1	1	5	
70070		FCLAY	FCLAY	FAB1	DAUB?		BS	1	1	16	
70132		CBM	PMTIL	FABA	BRICK		BS	1	1	2	
80020		CBM	PMTIL	FAB2	?		BS	1	1	1	
80021	FAB5	FCLAY	FCLAY	FAB5	DAUB?		BS	9	1	9	ABRA
80049		CBM	PMTIL	FABA	BRICK		BS	1	1	8	