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Archaeological Services

**An Archaeological Fieldwalking survey
at Stephenson's Green, Green Lane,
Coalville, Leicestershire
NGR: SK 438 148 centre**

Jon Coward



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Survey at Stephenson's Green, Green Lane,
Coalville, Leicestershire**

NGR: SK 438 148 centre

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For: Jelson Ltd and William Davis Ltd

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CONTENTS

1. Summary	1
2. Background.....	1
2.1 Site Location, Geology and Topography	1
3. Historical Background	2
4. Aims.....	3
5. Methods.....	3
6. Results.....	4
6.1 Prehistoric material	4
6.2 Medieval material	5
6.3 Post-medieval and modern material.....	6
7. Discussion	7
8. Archive.....	10
9. Acknowledgements.....	10
10. Bibliography	10
Appendix 1: The lithics. Lynden Cooper.....	12
Appendix 2: The ceramic finds. Deborah Sawday.....	12
Appendix 3: The Design Specification	28

FIGURES

Figure 1 Site Location 1: 50 000.....	2
Figure 2 Plan of Assessment Area. Provided by Developer. Grid = 100m	3
Figure 3 Fieldcodes, and survey extent.....	4
Figure 4 Worked Flint.....	5
Figure 5 Early medieval to late medieval pottery	6
Figure 6 Early post-medieval to modern material	7
Figure 7 Aerial photograph: detail of field P	8
Figure 8 Aerial photograph: linear cropmark running down the east side of the area...	9
Figure 9 Relief.	10

An Archaeological Fieldwalking survey at Stephenson's Green, Green Lane, Coalville, Leicestershire SK 438 148

Jon Coward

1. Summary

An archaeological fieldwalking survey was carried out by University of Leicester Archaeological Services (ULAS) in November 2009 over land at Stephenson's Green, Green Lane, Coalville, North West Leicestershire (NGR SK 438 148) on behalf of Jelson Ltd and William Davis Ltd, in advance of the proposed development of the site. The fieldwalking located a small dispersed scatter of worked flint, with some medieval, post-medieval and modern ceramic material. While the fieldwalking has not produced significant evidence of occupation previously unrecorded cropmarks have been located which may indicate the present of a later prehistoric settlement. The archive will be deposited with Leicestershire County Council under accession number X.A203.2009.

2. Background

2.1 Site Location, Geology and Topography

The site lies to the north of Coalville town centre, on the northern side of Stephenson Way (part of the A511), and to the east and west of Green Lane, between Coalville and Whitwick in the District of North West Leicestershire (Figures 1-2).

The Ordnance Survey Geological Survey of Great Britain Sheet 155 shows that the underlying geology is likely to be Mercia Mudstone Group clay, possibly overlain by Till.

The area is bounded by higher land, along the northern and eastern sides, dropping down towards Green Lane in the centre of the area. The highest ground is at c.167m OD at the east edges of fields R and S, the lowest at c.148m OD on the west edge of the area (Figure 9). The total area of the site is 91.3 hectares.

The application area covers 21 fields, of which 11 were available for fieldwalking, the remainder being scrub or pasture. These have been subject to a magnetic susceptibility survey and will be covered by a separate report. The area of the fieldwalking survey was c.60.5 ha. Comparing the site as walked to recent mapping, a field boundary has been recently removed in Field F, and the grass and paddock area attached to the property/properties at Forest View on the east edge of this field have been increased. A new boundary has been erected between fields T and U (Figure 3). A flood relief area on the west edge of field K would have removed a volume of potentially finds-bearing topsoil. What happened to this material is unclear; there are no obvious banks on its edges to account for it. This soil and any concomitant artefacts may have been spread around the vicinity.

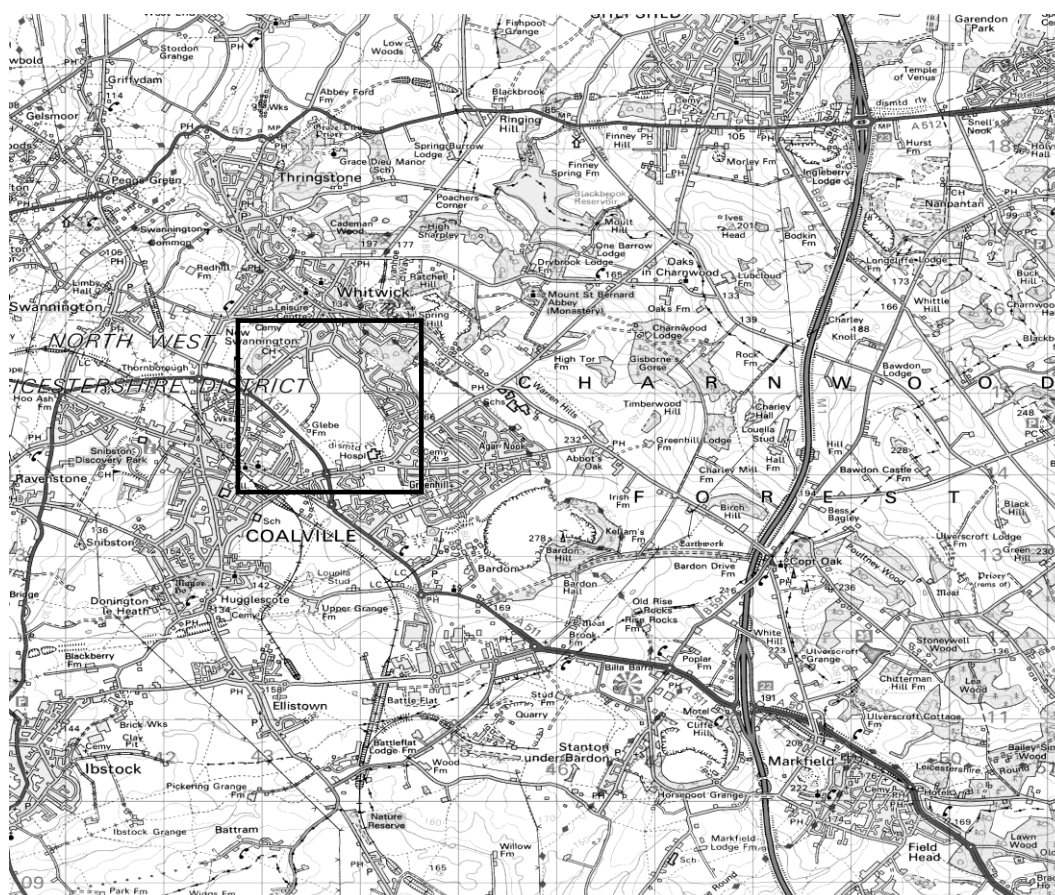


Figure 1 Site Location 1: 50 000

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3. Historical Background

(Taken from the desk-based assessment, Hunt 2008)

The area contains several archaeological findspots, including a leaf arrowhead of likely Late Neolithic date, a scatter of material that suggests a Neolithic-Bronze Age site, a medieval coin, and further medieval material. The remains of a post-medieval mineral railway are also known to the south of the area, while further Neolithic and Roman sites are located in the close vicinity. The fact that archaeological material has been found before within the assessment area, together with the undeveloped nature of the site would suggest that there was moderate to high potential for remains from the Neolithic-Bronze Age, medieval and post-medieval periods to be discovered during any groundworks associated with the proposed development. In the absence of systematic survey there was unknown potential for archaeological remains from other periods.

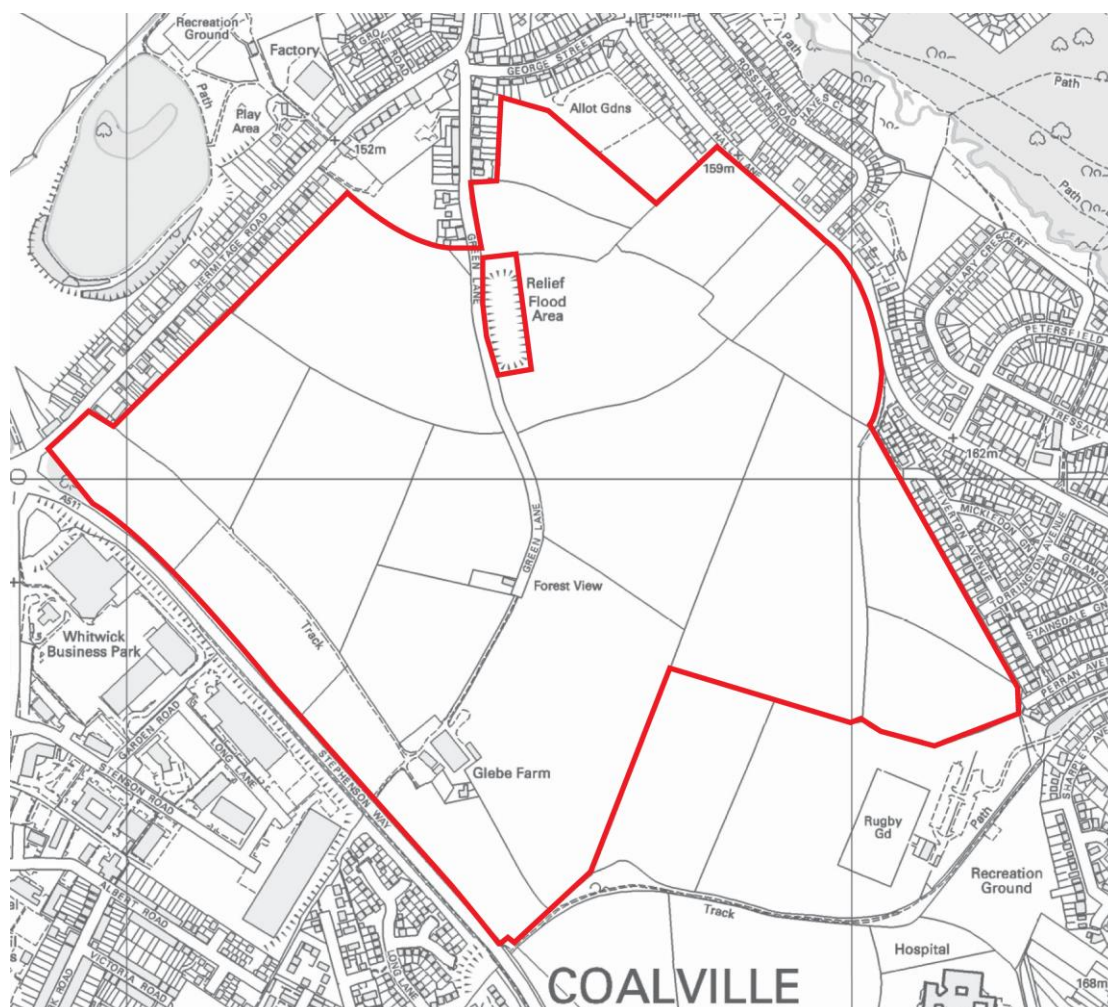


Figure 2 Plan of Assessment Area. Provided by Developer. Grid = 100m

4. Aims

The overall aim of the survey was to gather information to help establish the extent, condition, character and date (as far as circumstances permit) of any archaeological features and deposits within the proposed area for development.

5. Methods

The available fields were walked at 20m interval traverses. Finds were recovered and logged by hand-held GPS, at a reported accuracy of approximately 3-5m. Conditions during the survey were reasonable to good; low light was occasionally a problem, and on most of the fields the crop was well through, but not enough to seriously affect recovery rates. Material which was obviously modern was not recovered, nor was ceramic building material (CBM) unless there was doubt as to its modernity. There was an unusually large amount of fragmentary CBM across many of the surveyed fields. Fields A, C, H, J, L, M, R, U, V, and W were surveyed by magnetic susceptibility as they were pasture or scrub, and are excluded from this report.



Figure 3 Fieldcodes, and survey extent.
Shaded fields surveyed by magnetic susceptibility.

6. Results

6.1 Prehistoric material

No prehistoric pottery was recovered, and all the lithic material was flint. Although some 60+ flint pieces were recovered, examination indicated that the majority had been caused by natural processes or plough damage. The remaining 16 worked pieces were spread around the area, mostly keeping to the slopes below the highest ground but above the lowest (Figure 9), although there is a noticeable dispersed cluster in field P (Figure 4).

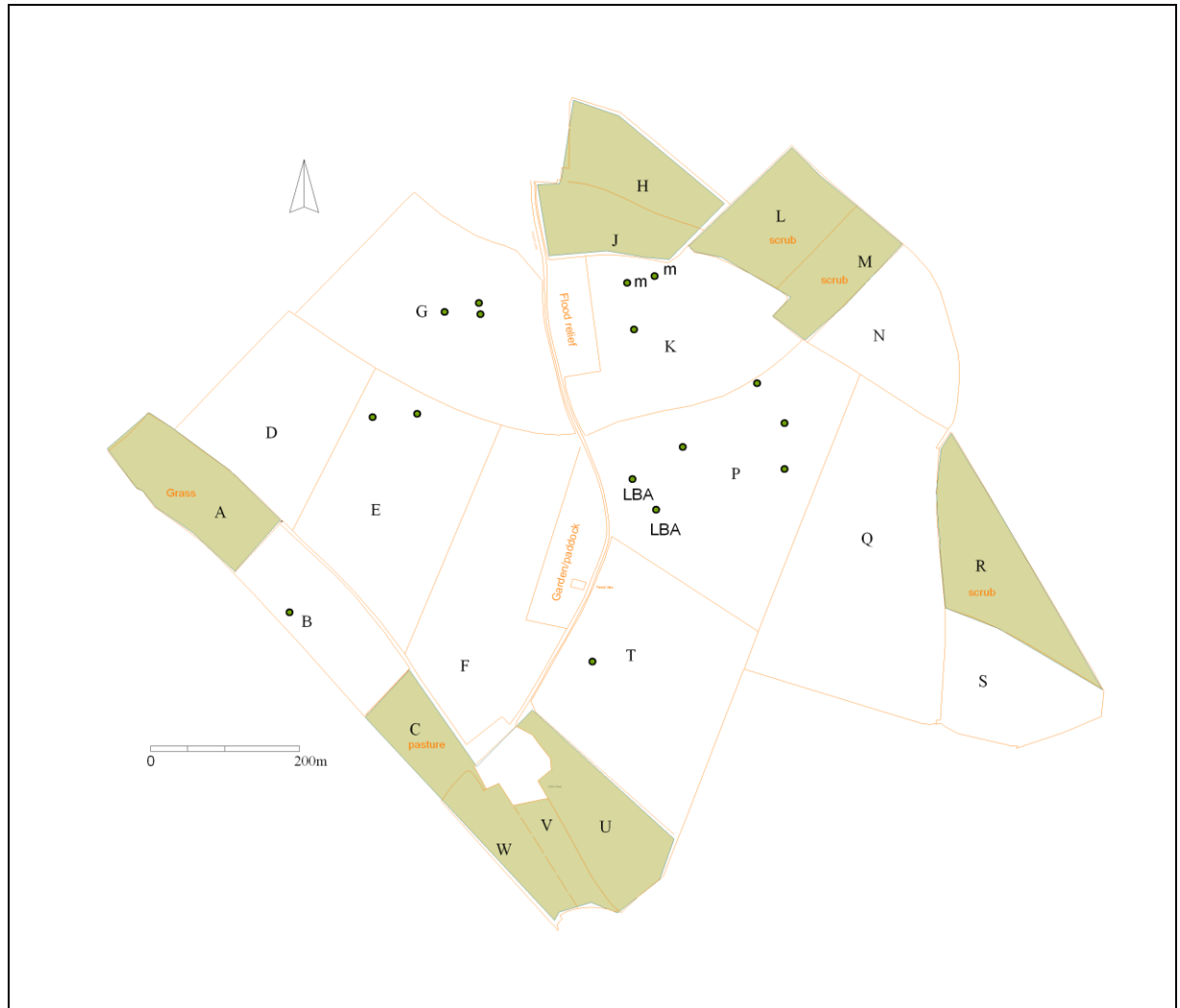


Figure 4 Worked Flint.

m = Mesolithic, LBA = Late Bronze Age, remainder = undiagnostic prehistoric.

6.2 Medieval material

Pottery of the early (one sherd) and later medieval periods was sparse with slightly more later material recovered. As with the flint, the low-lying ground is generally empty, but some dispersed material appears on the eastern slope up to the highest ground (Figure 5).

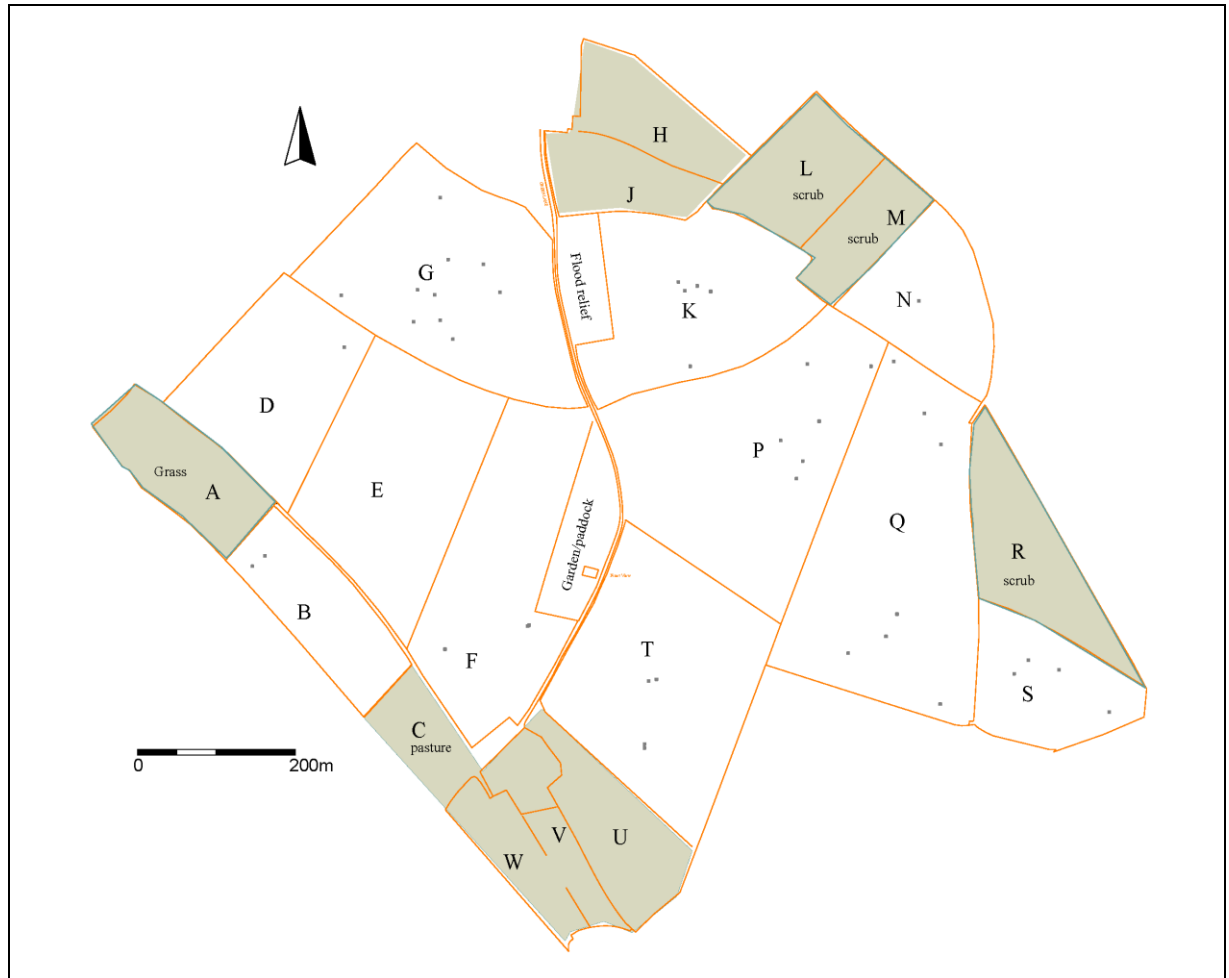


Figure 5 Early medieval to late medieval pottery

6.3 Post-medieval and modern material

A large quantity of post-medieval and modern pottery and CBM was recovered (398 fragments). The distribution map (Figure 6) shows this to be present across all areas, including the low-lying areas which showed no evidence for earlier artefacts.

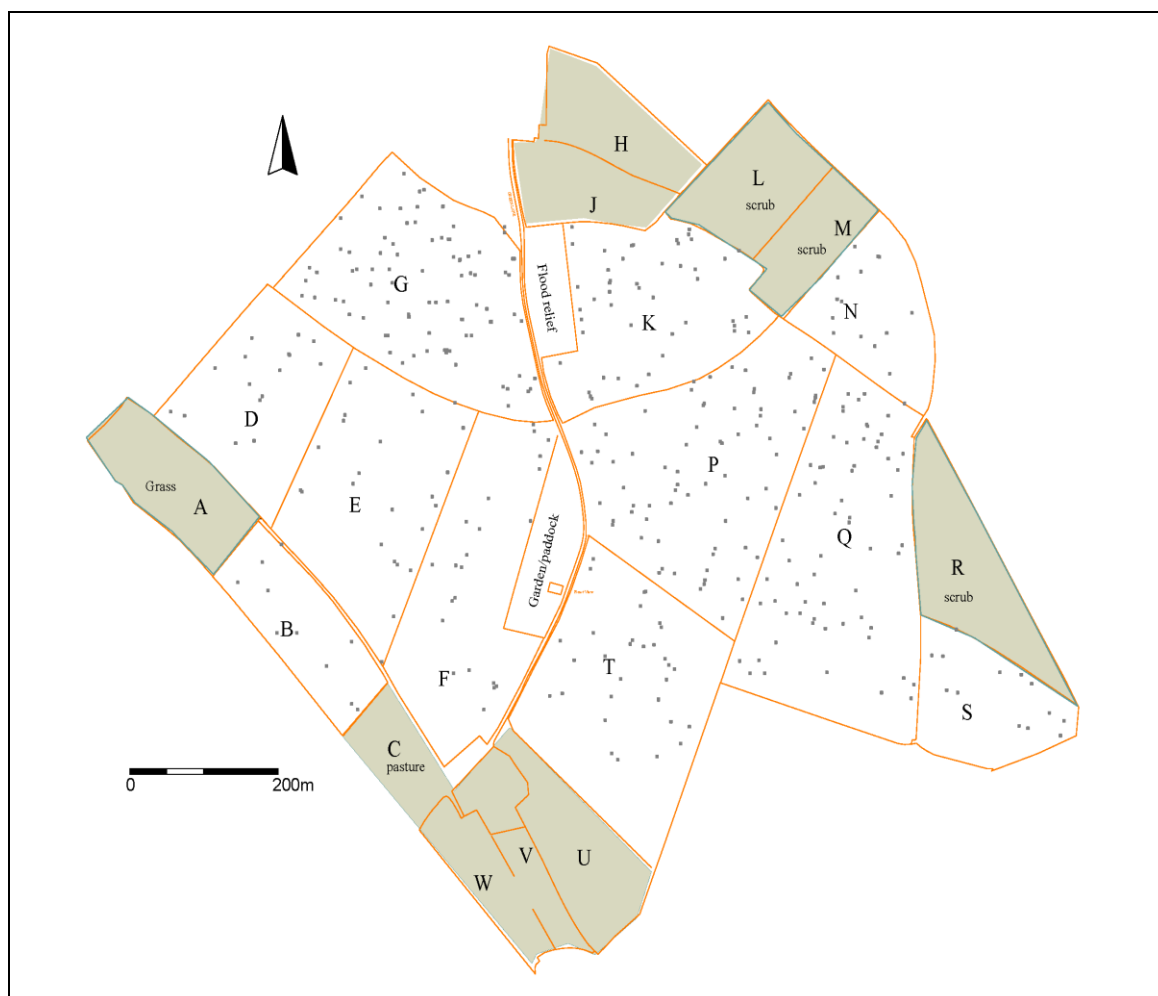


Figure 6 Early post-medieval to modern material

7. Discussion

A few worked flint pieces were located during the fieldwalking. While most were undiagnostic a bladelet core and microlith are Mesolithic in date, while three scrapers can be dated to the Bronze Age (Appendix 1). The absence of earlier material from the low-lying areas may represent a true distribution, or may indicate a degree of colluviation from the higher ground around, masking evidence of earlier activity. The fact that a flood relief basin has been constructed on the western side of field K indicates drainage problems; the lower ground may always have been marginal, and thus avoided by settlement.

During preparation for this project, an aerial photograph was noted, not previously recorded on the HER, which appears to show a rectilinear cropmark (Figure 7) in field P, plus a long linear cropmark (apparently two parallel cropmarks in field S) which crosses several fields in the north-east, running north-north-west to south-south-east from field N to field S (Figure 8). No finds were recovered during the survey which appeared to be associated with the long linear cropmark, although it should be noted that a group of flints (HER ref MLE9457, see Hunt 2008) is on the line of this cropmark in field R, which was covered with scrub at the time of this survey. A very

slight ridge is visible in field S along the same general alignment as this cropmark; whether this is a remnant of an upstanding feature, or of geological origin is not known. There is a dispersed flint scatter in the vicinity of the enclosure cropmark in field P, albeit of no great density. No prehistoric pottery was recovered from this area, though the soils are not particularly heavy and it may be that any ploughing is relatively shallow.

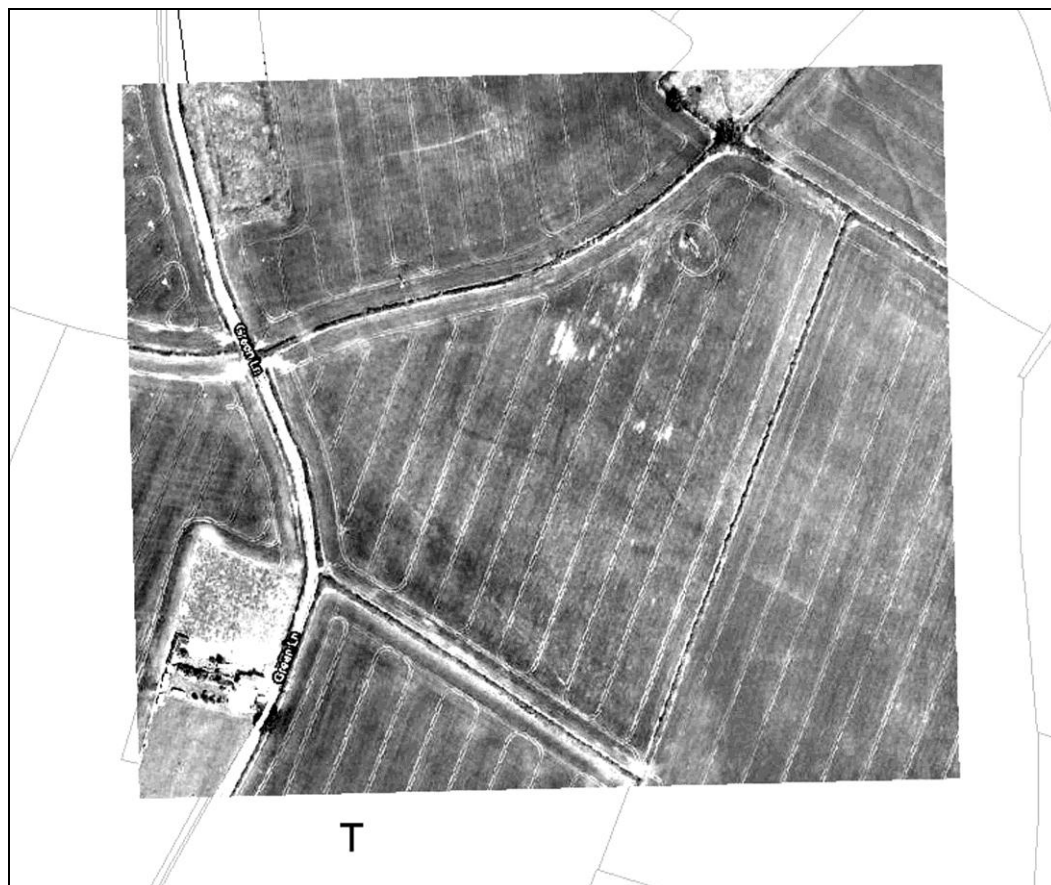


Figure 7 Aerial photograph: detail of field P

Rectified and enhanced to show possible rectilinear cropmark, centre. Part of the long linear cropmark can be seen in field N, top right. RGB Aerial Photography - ©GeoPerspectives

Thirty-eight sherds recovered are medieval or early post-medieval, dating from between *c.*1100 and *c.*1550, with another 54 sherds dating between *c.*1450 and *c.*1650. The remaining 398 fragments, comprising over 80% of the total by count, are of post-medieval and modern date (*c.*1650-1900) date (Appendix 2). Many of these fragments are pancheon wares, which are not closely datable and have been recorded as post-medieval or modern. Also present were Mottled Wares, Blackware, Slipware, 38 fragments of tile or brick and part of a Victorian figurine or doll, predominantly in unclassified earthenwares. Much of the material was probably deposited as a result of agricultural activities such as manuring associated with the nearby settlement at Whitwick. Four fragments of post-medieval or modern clay tobacco pipes were also recovered.

Of note is the low number of medieval sherds from Field N where previous fieldwalking had located 18 sherds and some slag perhaps suggesting occupation (MLE10123; Hunt 2008). However the larger number of sherds recovered during the earlier fieldwalking may be due to different conditions. From an examination of the original fieldwalking records the overall distribution of this material is still dispersed and it is likely that this is more evidence of the manuring scatters identified in the other fields.



Figure 8 Aerial photograph: linear cropmark running down the east side of the area
RGB Aerial Photography - ©GeoPerspectives

8. Archive

The site archive consists of the finds (see Appendices 1-2) , three sheets of field notes made during the survey, and survey data. The archive will be deposited with LMARS under accession code X.A203.2009 in due course.

9. Acknowledgements

The survey was carried out by Jon Coward, Andy Hyam, Gavin Speed, and Tim Higgins. Project management was by Patrick Clay. ULAS would like to thank the owners and agents who facilitated access to their land and geoperspectives for permission to reproduce Figures 7 and 8. Helen Wells of Leicestershire County Council has kindly supplied the HER records for earlier fieldwalking.

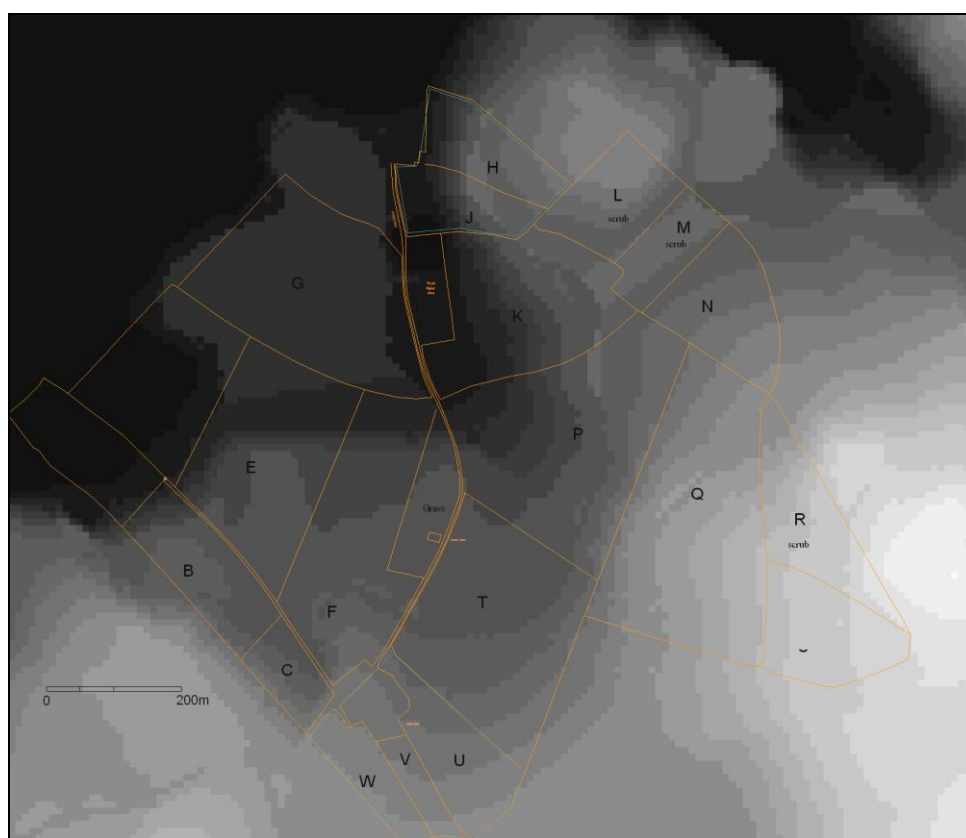


Figure 9 Relief.
White = high ground, dark= low ground

10. Bibliography

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Appendix 1: The lithics. Lynden Cooper

Of the 66 pieces collected only 13 show certain signs of being worked, while three others may be worked. Of note is a bladelet core and microlith of Mesolithic date, while the three scrapers are Bronze Age, with those with a straight edge, later Bronze Age.

Find number	Description	Date
39	calcined shatter	PreH
51	1ry flake(?)	PreH
78	shatter(?)	PreH
84	2ry flake	PreH
116	shatter(?)	PreH
199	2ry flake	PreH
277	retouched flake	PreH
312	2ry flake	PreH
412	2ry flake	PreH
417	scraper (with straight-edged retouch)	Later BA
437	scraper (with convex and concave retouch, approaching thumbnail type)	BA
447	bladelet core	Meso
448	microlith (obliquely truncated point with additional retouch. NB the retouch cuts through previous patina ie a re-used piece)	Meso
534	2ry flake	PreH
572	2ry flake	PreH
633	scraper (with concave and straight edge retouch)	Later BA

PreH: undiagnostic, prehistoric date

BA: Bronze Age

Later BA: later Bronze Age

Meso: mesolithic

Appendix 2: The ceramic finds. Deborah Sawday

The 490 fragments of pottery, tile and brick were catalogued with reference to the ULAS fabric series (Sawday 1989; Davies and Sawday 1999). The results are shown in the table and catalogue below.

Fabric	Common Name	Sherds/Fragments
Medieval/Later Medieval		
PM	Potters Marston	1
MS3	Medieval Sandy ware 3	23
MP2	Midland Purple ware 2	10
MP4	Midland Purple ware 4	1
MP	Midland Purple ware	1
CW2	Cistercian ware 2	2
Sub Totals		38
Later Medieval/Early Post Medieval		
CW/MB	Cistercian/Midland Blackware	19
MB	Midland Blackware	1

MY	Midland Yellow	1
EA1	Earthenware 1	33
Sub Totals		54
Post Medieval/Modern		
EA1/2	Earthenware 1/2	60
EA2	Earthenware 2	180
EA3	Earthenware 3	27
EA4	Earthenware 4	2
EA5	Earthenware 5	2
EA6	Earthenware 6	50
EA7	Earthenware 7	12
EA	Earthenware	56
SW	Stoneware	9
Sub Totals		398
Total		490

Table 1: The medieval and later pottery by fabric, sherd numbers and weight (grams).

Thirty-eight sherds are medieval or early post-medieval, dating from between *c.*1100 and *c.*1550, with another 54 sherds dating between *c.*1450 and *c.*1650. The remaining 398 fragments, comprised over 80% of the total by count, are of post-medieval date. Many of these fragments are pancheon wares in EA2, which are not closely datable and have been catalogued as post-medieval or modern. Also present were Mottled Wares, EA3 - EA5, Blackware – EA6 and Slipware – EA7 and 38 fragments of tile or brick and part of a Victorian figurine or doll, predominantly in the unclassified earthenware, EA. Much of the material was probably deposited as a result of agricultural activities such as manuring associated with the nearby settlement at Whitwick. Four fragments of post-medieval or modern clay tobacco pipes were also recovered.

Typically the medieval and early post-medieval wares appear to be local in origin. The source of the medieval Potters Marston ware lies approximately 15km to the south at the now deserted medieval village of that name, where medieval pottery kilns have been recorded (Sawday 1991). The Medieval Sandy ware, MS3 and much of the later medieval and early post-medieval wares: the Midland Purple, the Cistercian/Midland Blackware and the Midland Yellow ware, are thought to originate in production centres in Derbyshire, notably Ticknall, some 13km to the north-west. The later wares are harder to source as the clay bodies are often highly refined and lack the generally naturally occurring inclusions which can help to pinpoint the production centres of the earlier wares. However, the most obvious sources for the later pottery and ceramic building materials include Ticknall and Chilvers Coton in nearby Warwickshire, but manufacturing centres further afield cannot be discounted.

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Site/ Parish: Stephenson's Green, Green Lane, Whitwick, Leics.	Submitter: J. Coward
Accession No.: XA203 2009	Identifier: D. Sawday
Document Ref: whitwick1.docx	Method of Recovery: field walking
Material: pot/flint/misc	Date of Id: 2.12.09 Job No: 10/552
	Site Type: open fields

Key: MED – Med LM – Late Med EPM – Early Post Med LPM – Later Post Med PM – Post Med MOD – Modern CBM – Ceramic Building Material Blank/missing numbers indicate unused or discarded findspot numbers.

Find No.	Material	No.	Period	notes
1	COAL	1		
2	EA2	1	PM/MOD	
3	SW	1	MOD	
4	EA	1	MOD	flower pot
5	EA2	1	PM/MOD	
6	EA	1	MOD	flower pot
7	MP	1	LM	
8	FLINT	1		
9	EA	1	MOD	flower pot
10	EA2	1	PM/MOD	
11	EA2	1	PM/MOD	
12	MS3	1	MED/LM	
13	EA2	1	PM/MOD	
14	EA2	1	PM/MOD	
15	EA2	1	PM/MOD	
16	EA	1	MOD	flower pot
17	EA2	1	PM/MOD	
18	EA2	1	PM/MOD	
19	EA2	1	PM/MOD	
20	STONE	1		
21	EA7	1	PM	
22	EA	1	MOD	tile
23	FLINT	1		
24	FLINT	1		
25	EA5	1	LPM	
26	EA6	1	LPM	
27	EA	1	MOD	tile
28	EA	1		flower pot
29	SW	1	MOD	
30	EA2	1	PM/MOD	
31	EA6	1	LPM	
32	FLINT	1		
33	EA2	1	PM/MOD	

34	EA1	1	EPM	
35	EA2	1	PM/MOD	
36	EA2	1	PM/MOD	
37	EA2	1	PM/MOD	
38	EA1	1	EPM	
39	FLINT	1		
40	FLINT	1		
41	FLINT	1		
42	EA	1	MOD	tile
43	EA3	1	LPM	
44	EA1	1	EPM	
45	STONE	1		
46	EA1/2	1	EPM	
47	STONE	1		
48	FLINT	1		
49	EA1/2	1	PM	
50	EA2	1	PM/MOD	
51	FLINT	1		
52	CW2	1	LM	
53	EA2	1	PM/MOD	
54	EA6	1	LPM	
55	EA2	1	PM/MOD	
56	EA3	1	LPM	
57	EA6	1	LPM	
58	EA2	1	PM/MOD	
59	EA1	1	EPM	
60	EA2	1	PM/MOD	
61	EA5	1	LPM	
62	EA2	1	EPM	?early
63	CW/MB	1	LM/EPM	
64	EA2	1	PM/MOD	
65	EA3	1	LPM	
66	EA1/2	1	EPM	
67	EA2	1	PM/MOD	
68	EA1/2	1	EPM	
69	FLINT	1		
70	STONE	1		
71	STONE	1		
72	CW/MB	1	LM/EPM	
73	EA	1	MOD	flower pot
74	FLINT	1		
75	EA6	1	LPM	
76	STONE	1		
77	EA	1	PMED/MOD	brick
78	FLINT	1		
79	FLINT	1		
80	EA1	1	EPM	
81	EA6	1	LPM	
82	FLINT	1		
83	EA2	1	PM/MOD	
84	FLINT	1		
85	FLINT	1		

86	EA2	1	PM/MOD	
87	EA2	1	PM/MOD	
88	EA7	1	PM	
89	EA2	1	PM/MOD	
90	EA2	1	PM/MOD	
91	EA2	1	PM/MOD	
92	EA2	1	EPM	early
93	STONE	1		
94	FLINT	1		
95	FLINT	1		
96	FLINT	1		
97	FLINT	1		
98	FLINT	1		
99	FLINT	1		
100	FLINT	1		
101	MS3	1	LM	
102	EA2	1	PM/MOD	
103	STONE	1		
104	FLINT	1		
105				
106	FLINT	1		
107	FLINT	1		
108	STONE	1		
109	EA2	1	PM/MOD	
110	FLINT			
111	FLINT	1		
112	MP2	1	LM	
113	FLINT	1		
114				
115	STONE/FLINT	1		
116	FLINT	1		
117	EA2	1	PM/MOD	
118	FLINT	1		
119	FLINT	1		
120	EA2	1	PM/MOD	
121				
122	STONE	1		
123	STONE	1		
124	FLINT	1		
125	FLINT	1		
126	FLINT	1		
127	STONE/FLINT	1		
128	FLINT	1		
129	FLINT	1		
130	FLINT	1		
131	FLINT	1		
132	STONE/FLINT	1		
133	EA2	1	PM/MOD	
134	FLINT	1		
135	FLINT	1		
136	FLINT	1		
137	MS3	1	LM	
138	MS3	1	LM	

139	FLINT	1		
140	EA	1	MOD	flower pot
141	EA1/2	1	EPM	
142	FLINT	1		
143	FLINT	1		
144	EA6	1	LPM	
145	EA2	1	PM/MOD	
146	FLINT	1		
147	FLINT	1		
148	FLINT	1		
149	FLINT	1		
150	FLINT	1		
151	STONE/FLINT	1		
152	EA6	1	LPM	
153	CW/MB	1	LM/EPM	
154	EA2	1	PM/MOD	
155	EA3	1	LPM	
156	EA7	1	PM	
157	EA2	1	PM/MOD	
158	EA2	1	PM/MOD	
159	SW	1	PM/MOD	
160				
161	EA2	1	PM/MOD	
162	EA2	1	EPM	early
163	EA2	1	PM/MOD	
164	STONE	1		
165	EA2	1	PM/MOD	
166	EA1	1	PM	
167	CW/MB	1	LM/EPM	
168	EA2	1	PM/MOD	
169	EA2	1	PM/MOD	
170	EA2	1	PM/MOD	
171	EA1	1	EPM	
172	EA1	1	EPM	
173	EA	1	MOD	drain pipe
174	EA2	1	PM/MOD	
175	SW	1	MOD	
176	EA6	1	LPM	
177	EA6	1	LPM	
178	EA6	1	LPM	
179	EA2	1	PM/MOD	
180	EA3	1	LPM	
181	CW/MB	1	LM/EPM	
182	STONE	1		
183	EA2	1	PM/MOD	
184	MS3	1	MED/LM	
185	EA6	1	LPM	
186	EA2	1	PM/MOD	
187	EA6	1	LPM	
188	EA	1	MOD	tile
189	EA	1	MOD	tile
190	EA4	1	LPM	
191	EA1	1	EPM	

192	EA3	1	LPM	
193	STONE	1		
194	EA1	1	EPM	hollow ware gl int & ext
195	EA6	1	LPM	flat roof tile
196	EA7	1	PM	
197	FLINT	1		
198	EA2	1	PM/MOD	
199	FLINT	1		
200	MS3	1	MED/LM	
201	EA2	1	PM/MOD	
202	EA2	1	PM/MOD	jar rim, pos EPM
203	EA1/2	1	EPM	
204	EA1	1	EPM	
205	EA2	1	PM/MOD	
206	EA2	1	PM/MOD	
207	EA1	1	EPM	
208	EA6	1	LPM	
209	EA7	1	PM	
210	EA3	1	LPM	
211	FLINT	1		
212	SW	1	MOD	
213	EA	1	MOD	flower pot
214	EA2	1	PM/MOD	
215	EA2	1	PM/MOD	
216	EA	1	MOD	tile
217	CW2	1	LM	
218	EA2	1	PM/MOD	
219	EA6	1	LPM	
220	EA2	1	PM/MOD	
221	EA2	1	PM/MOD	
222	SW	1	MOD	
223	EA2	1	PM/MOD	
224	EA7	1	PM	
225	EA2	1	PM/MOD	
226	EA2	1	PM/MOD	
227	FLINT	1		
228	EA1/2	1	EPM	
229	EA6	1	LPM	
230	EA2	1	PM/MOD	
231	EA2	1	PM/MOD	
232	EA3	1	LPM	
233	EA	1	MOD	tile
234	EA2	1	PM/MOD	
235	FLINT	1		
236	EA2	1	PM/MOD	
237	EA2	1	PM/MOD	
238	CW/MB	1	LM/EPM	
239	CW/MB	1	LM/EPM	
240	EA6	1	LPM	
241	EA2	1	PM/MOD	
242	EA2	1	PM/MOD	
243	EA1	1	EPM	
244	EA6	1	LPM	

245	EA2	1	PM/MOD	
246	EA2	1	PM/MOD	
247	EA2	1	PM/MOD	
248	EA3	1	LPM	
249	PM	1	EM	
250	EA2	1	EPM	early
251	MP2	1	LM	brown glaze
252	EA6	1	LPM	
253	EA6	1	LPM	
254	MS3	1	MED/LM	
255	EA2	1	PM/MOD	
256	EA3	1	LPM	
257	EA4	1	LPM	
258	EA2	1	PM/MOD	
259	MS3	1	MED/LM	
260	EA2	1	PM/MOD	
261	EA2	1	PM/MOD	
262	MS3	1	MED/LM	
263	EA1/2	1	EPM	
264	EA2	1	PM/MOD	
265	EA6	1	LPM	
266	EA2	1	PM/MOD	
267	EA2	1	PM/MOD	
268	EA2	1	PM/MOD	
269	FLINT	1		
270	EA1	1	EPM	
271	EA2	1	PM/MOD	
272	CW/MB	1	LM/EPM	
273				
274	MP2	1	LM	
275	MP4	1	LM	
276	EA2	1	PM/MOD	
277	FLINT	1		
278	EA2	1	PM/MOD	
279	EA1	1	EPM	
280	EA2	1	PM/MOD	
281	EA1	1	EPM	
282	EA2	1	PM/MOD	
283	FLINT	1		
284	CHINA CLAY	1	PM/MOD	
285	EA2	1	PM/MOD	
286	EA2	1	PM/MOD	
287	EA2	1	PM/MOD	
288	STONE	1		
289	EA1/2	1	EPM	
290	EA	1	MOD	flower pot
291	FLINT	1		
292	EA2	1	PM/MOD	
293	EA6	2	LPM	
294	EA2	1	PM/MOD	
295	EA	1	MOD	tile
296	EA2	1	PM/MOD	
297	EA6	2	LPM	

298	EA1/2	1	EPM	
299	EA2	1	PM/MOD	
300				
301	FLINT	1		
302	FLINT	1		
303	FLINT	1		
304	FLINT	1		
305	FLINT	1		
306	EA2	1	PM/MOD	
307	FLINT	1		
308	FLINT	1		
309	EA1/2	1	PM/MOD	
310	FLINT	1		
311	EA1/2	1	PM/MOD	
312	FLINT	1		
313	FLINT	1		
314	FLINT	1		
315	FLINT	1		
316	FLINT	1		
317	EA2	1	PM/MOD	
318	FLINT	1		
319	FLINT	1		
320	FLINT	1		
321	FLINT	1		
322	EA	1	MOD	cbm
323	FLINT	1		
324	EA2	1	PM/MOD	
325	EA1/2	1	PM	brown gl
326	EA2	1	PM/MOD	
327	EA2	1	PM/MOD	
328	EA6	1	LPM	
329	EA1/2	1	PM/MOD	
330	FLINT	1		
331	EA1	1	EPM	
332	EA3	1	LPM	
333	FLINT	1		
334				
335				
336	EA2	1	PM/MOD	
337	STONE	1		
338	EA2	1	PM/MOD	
339	EA6	1	LPM	
340	STONE	1		
341	EA2	1	PM/MOD	yellowish gl
342	EA1/2	1	EPM	
343	EA2	1	PM/MOD	
344	EA2	1	PM/MOD	
345	EA3	1	LPM	
346	FLINT	1		
347	EA1	1	EPM	
348	EA7	1	PM/MOD	
349	EA	1	MOD	cbm
350	EA3	1	LPM	

351	MP2	1	LM	
352	CW/MB	1	LM/EPM	
353	EA7	1	PM	trailed
354	EA2	1	PM/MOD	
355	EA2	1	PM/MOD	
356	EA7	1	PM	trailed/feathered
357	EA2	1	PM/MOD	
358	EA1/2	1	EPM	sandy, brown gl
359	CW/MB	1	LM/EPM	
360	MS3	1	MED/LM	
361	EA2	1	PM/MOD	
362	EA2	1	PM/MOD	
363	EA3	1	LPM	
364	EA	1	MOD	flower pot
365	EA	1	MOD	flower pot
366	FLINT	1		
367	STONE	1		
368	EA2	1	PM/MOD	
369	EA	1	MOD	tile
370	EA1	1	EPM	
371	FLINT	1		
372	EA	1	MOD	tile
373	CHINA CLAY	1	PM/MOD	tobacco pipe stem
374	CW/MB	1	LM/EPM	
375	EA2	1	PM/MOD	
376	EA2	1	PM/MOD	
377	CHINA CLAY	1	PM/MOD	tobacco pipe stem
378	EA1	1	EPM	
379	COAL	1		
380	EA6	1	LPM/MOD	
381	EA3	1	LPM	
382	EA6	1	LPM/MOD	
383	EA	1	MOD	flower pot
384	EA6	1	LPM/MOD	painted dec
385	EA2	1	PM/MOD	
386	EA2	1	PM/MOD	
387	EA2	1	PM/MOD	
388	EA1/2	1	PM	
389	EA	1	MOD	cbm
390	EA1/2	1	PM	brown gl
391	EA1/2	1	EPM	sandy, brown gl
392	EA2	1	PM/MOD	
393	EA	1	MOD	tile
394	EA2	1	PM/MOD	
395	EA	1	MOD	tile
396	EA	1	MOD	flower pot
397	EA2	1	PM/MOD	
398	EA6	1	LPM	
399	EA3	1	LPM	
400	EA2	1	PM/MOD	
401	FLINT	1		
402	EA	1	MOD	tile
403	EA	1	PM/MOD	tile

404	EA	1	MOD	tile - composite
405	MS3	1	MED/LM	
406	EA6	1	LPM	?roof tile
407	EA2	1	PM/MOD	
408	EA2	1	PM/MOD	
409	EA2	1	PM/MOD	
410	EA1/2	1	PM	
411	CW/MB	1	LM/EPM	
412	FLINT	1		
413	FLINT	1		
414	EA1	1	EPM	
415	FLINT	1		
416	EA2	1	PM/MOD	
417	FLINT	1		
418	EA6	1	LPM	
419	EA	1	MOD	tile
420	EA7	1	PM	trailed/feathered
421	EA1/2	1	PM	
422	MS3	1	MED	
423	EA2	1	PM/MOD	
424	EA2	1	PM/MOD	
425	EA	1	MOD	cbm
426	EA2	1	PM/MOD	
427	EA	1	MOD	flower pot
428	STONE	1		
429	EA	1	MOD	tile
430	MP2	1	LM	
431	MS3	1	MED/LM	
432	EA2	1	PM/MOD	
433	EA1	1	EPM	
434	FLINT	1		
435	FLINT	1		
436	EA1/2	1	PM	
437	FLINT	1		
438	EA1/2	1	PM	
439	MS3	1	MED	
440	EA1/2	1	PM	
441	EA2	1	PM/MOD	
442	EA3	1	LPM	
443	STONE	1		
444	EA1	1	EPM	
445	EA2	1	PM/MOD	
446	EA1/2	1	PM	
447	FLINT	1		
448	EA2	1	PM/MOD	
449	MS3	1	MED/LM	
450	CW/MB	1	LM/EPM	
451	EA2	1	PM/MOD	
452	EA2	1	PM/MOD	
453	EA2	1	PM/MOD	
454	EA1/2	1	PM	
455	EA	1	MOD	flower pot
456				

457	EA1	1	EPM	
458	EA2	1	PM/MOD	
459	EA3	1	LPM	
460	EA1/2	1	PM	
461	EA	1	MOD	tile
462	EA6	1	MOD	brown gl
463	SW	1	MOD	
464	EA1	1	EPM	
465	MP2	1	LM	
466	EA2	1	PM/MOD	
467	EA1	1	EPM	
468	STONE	1		
469	EA2	1	PM/MOD	
470	EA3	1	LPM	
471	EA2	1	PM/MOD	
472	EA2	1	PM/MOD	
473	STONE	1		
474	EA2	1	PM/MOD	
475	EA6	1	LPM	
476	EA	1	MOD	tile
477	MP2	1	LM	
478	EA6	1	LPM	
479	EA2	1	PM/MOD	
480	EA	1	MOD	tile
481	EA6	1	LPM	
482	EA	1	MOD	?flower por
483	EA6	1	LPM	
484	EA1	1	EPM	
485	EA2	1	PM/MOD	
486	EA3	1	LPM	
487	EA6	1	LPM/MOD	
488	EA6	1	LPM	
489	EA7	1	PM/MOD	trailed slip
490	EA2	1	PM/MOD	
491	MS3	1	MED/LM	
492	EA2	1	PM/MOD	
493	EA2	1	PM/MOD	
494	EA2	1	PM/MOD	
495	EA2	1	PM/MOD	
496	EA2	1	PM/MOD	
497	EA2	1	PM/MOD	
498	EA2	1	PM/MOD	
499	EA2	1	PM/MOD	
500	EA6	1	LPM	
501	EA3	1	LPM	
502	EA1/2	1	PM	
503	EA1/2	1	PM/MOD	
504	EA1/2	1	PM	
505	EA6	1	LPM	
506	MS3	1	MED/LM	
507	EA2	1	PM/MOD	
508	EA2	1	PM/MOD	
509	EA1/2	1	PM/MOD	

510	MS3	1	MED	soft fired
511	FLINT	1		
512	FLINT	1		
513	MS3	1	MED	
514	EA	1	MOD	tile
515	FLINT	1		
516	FLINT	1		
517	MS3	1	MED/LM	
518	FLINT	1		
519	FLINT	1		
520	CW/MB	1	LM/EPM	
521	EA1	1	EPM	
522	FLINT	1		
523	EA2	1	PM/MOD	
524	EA3	1	LPM	
525	FLINT	1		
526	EA1	1	EPM	
527	EA2	1	PM/MOD	
528	EA2	1	PM/MOD	
529	FLINT	1		
530	EA	1	MOD	tile
531	EA2	1	PM/MOD	
532	EA	1	MOD	cbm
533	EA2	1	PM/MOD	
534	FLINT	1		
534	MY	1	PM	
535	EA3	1	LPM	
536	EA2	1	PM/MOD	
537	EA	1	MOD	tile
538	EA	1	MOD	flower pot
539				
540	EA2	1	PM/MOD	
541	EA1/2	1	PM/MOD	
542	EA6	1	LPM	
543	FLINT	1		
544	EA3	1	LPM	
545	EA2	1	PM/MOD	
546	EA2	1	PM/MOD	
547	FLINT	1		
548	EA2	1	PM/MOD	
549	EA1/2	1	PM/MOD	
550	EA3	1	LPM	
551	CW/MB	1	LM/EPM	
552	EA3	1	LPM	
553	EA2	1	PM/MOD	
554	CHINA CLAY	1	PM/MOD	tobacco pipe stem
555	EA2	1	PM/MOD	
556	EA1/2	1	PM/MOD	
557	EA7	1	PM/MOD	trailed slip
558	EA2	1	PM/MOD	
559	?GLASS	1	MOD	cut - possibly from a bracelet
560	EA2	1	PM/MOD	
561	EA1	1	EPM	

562	EA6	1	LPM	
563	EA1/2	1	PM/MOD	
564				
565	EA	1	MOD	curved roof tile
566	EA2	1	PM/MOD	
567	EA2	1	PM/MOD	
568	EA2	1	PM/MOD	
569	EA2	1	PM/MOD	
570	EA6	1	LPM	
571	EA2	1	PM/MOD	
572	FLINT	1		
573	MP2	1	LM	
574	MS3	1	MED	
575	EA1	1	EPM	
576	MB	1	EPM	
577	EA2	1	PM/MOD	
578	CW/MB	1	LM/EPM	
579	EA3	1	LPM	
580	EA2	1	PM/MOD	
581	EA2	1	PM/MOD	
582	EA2	1	PM/MOD	
583	SW	1	MOD	
584	EA2	1	PM/MOD	
585	EA1/2	1	PM/MOD	
586	EA1/2	1	PM/MOD	
587	EA2	1	PM/MOD	
588	CW/MB	1	LM/EPM	
589	EA	1	MOD	
590	EA6	1	LPM	
591	EA	1	MOD	tile
592	MS3	1	MED/LM	
593	EA1/2	1	PM/MOD	
594	SW	1	MOD	
595	EA1	1	EPM	
596	EA2	1	PM/MOD	
597	EA2	1	PM/MOD	
598	EA1/2	1	PM/MOD	
599	EA2	1	PM/MOD	
600	EA	1	MOD	tile
601	STONE	1		
602	EA	1	MOD	tile
603	EA1/2	1	PM/MOD	
604	EA1/2	1	PM/MOD	
605	FLINT	1		
605	MS3	1	LM	
606	EA	1	MOD	tile
607	EA1/2	1	PM/MOD	
608	EA1/2	1	PM/MOD	
609	EA1/2	1	PM/MOD	
610	EA1/2	1	PM/MOD	
611	EA1/2	1	PM/MOD	
612	EA6	1	LPM	
613	EA	1	MOD	tile

614	EA1/2	1	PM/MOD	
615	EA1/2	1	PM/MOD	
616	MP2	1	LM	
617	EA1/2	1	PM/MOD	
618	EA1/2	1	PM/MOD	
619	EA1/2	1	PM/MOD	
620	EA6	1	LPM	
621	EA	1	MOD	tile
622	FLINT	1		
623	EA1/2	1	PM/MOD	
624	EA1/2	1	PM/MOD	
625	EA6	1	LPM	
626	EA1/2	1	PM/MOD	
627	MP2	1	LM	
628	EA1/2	1	PM/MOD	
629	STONE	1		
630	EA1/2	1	PM/MOD	
631	EA1	1	EPM	
632	EA1/2	1	PM/MOD	
633	FLINT	1		
634	CW/MB	1	LM/EPM	
635	CW/MB	1	LM/EPM	
636	EA1/2	1	PM/MOD	
637	FLINT	1		
638	EA1/2	1	PM/MOD	
639				
640				
641				
642				
643				
644	EA1/2	1	PM/MOD	
645				
646				
647				
648				
649				
650	EA	1	MOD	tile
698				
699				
700	EA2	1	PM/MOD	
701	EA2	1	PM/MOD	
702	EA3	1	LPM	
703	EA2	1	PM/MOD	
704	EA1/2	1	PM/MOD	
705	EA	1	MOD	flower pot
706	EA3	1	LPM	
707	EA1	1	EPM	
708	EA2	1	PM/MOD	
709	EA2	1	PM/MOD	
710	CW2	1	LM	
711	EA	1	MOD	flower pot
712	STONE	1		
713	EA2	1	PM/MOD	

714	EA1	1	EPM	
715	SW	1	MOD	
716	CW/MB	1	LM	
717	EA	1	MOD	flower pot
718	EA1/2	1	PM/MOD	
719	EA	1	MOD	figurine ?Victorian
720	CW/MB	1	LM	
721	EA2	1	PM/MOD	
722	EA1/2	1	PM/MOD	
723	CW/MB	1	LM	
724	MS3	1	MED	
725	SW	1	MOD	
726	EA1/2	1	PM/MOD	
727	EA1/2	1	PM/MOD	
728	EA2	1	PM/MOD	
729	EA2	1	PM/MOD	
730	SW	1	MOD	
731	EA3	1	LPM	
732	EA1/2	1	PM/MOD	
733	EA1/2	1	PM/MOD	
734				
735				
736				
737				
738				
739	EA	1	MOD	tile
740	EA2	1	PM/MOD	
741				

Appendix 3: The Design Specification

UNIVERSITY OF LEICESTER ARCHAEOLOGICAL SERVICES

Design Specification for archaeological work

Stephensons Green, Green Lane, Coalville, Leicestershire (SK 438 148)

Written scheme of investigation for Geophysical and Fieldwalking Surveys

For: William Davies Ltd and Jelson Ltd

1. Introduction

1.1 This document sets out a Written Scheme of Investigation (WSI) to evaluate potential archaeological deposits at Stephenson's Green, Coalville, Leicestershire (SK 438 148) in advance proposed residential development. An Archaeological Desk Based Assessment for the area has been prepared (Hunt 2008) and an Environmental Statement is in progress.

1.2 The proposed development area is located in the parish of Coalville (Grid. Ref. SK 438 148; figs.1 and 2). It covers an area of c. 79 ha currently used as agricultural land. The site lies in an area that once made up most of the parish of Whitwick, which lies to the north of Coalville. The area is currently made up of farm land and may have remained so since at least the medieval period.

The Historic Environment Record (HER) for Leicestershire and Rutland shows that there are several archaeological findspots within the area, including a leaf arrowhead of likely Late Neolithic date (**MLE7326**) a scatter of material that suggests a Neolithic-Bronze Age site (**MLE9457**), a medieval coin (**MLE6973**), and further medieval material (**MLE10123**). Further Neolithic and Roman sites are located close to the assessment area.

The fact that archaeological material has been found before within the assessment area, together with the undeveloped nature of the site would suggest that there is moderate to high potential for remains from the Neolithic-Bronze Age and medieval and post-medieval periods to be discovered during any groundworks associated with new development. In the absence of systematic survey there is unknown potential for archaeological remains from other periods.

2. Geology and topography

2.1 The site lies to the north of Coalville town centre, on the northern side of Stephenson Way (part of the A511), and to the east and west of Green Lane, between Coalville and Whitwick in the District of North West Leicestershire.

2.2 The Ordnance Survey Geological Survey of Great Britain Sheet 155 shows that the underlying geology is likely to be Mercia Mudstone Group clay, possibly overlain by Till.

2.3 The northern part of the site lies at c.148m OD, rising to the south and east to 167m.

3. Aim of the Surveys

3.1 The overall aim of the surveys is to gather sufficient information to establish the extent, condition, character and date (as far as circumstances permit) of any archaeological features and deposits within the area targeted for evaluation. Fieldwalking will be undertaken of the arable land while a Magnetic susceptibility survey is proposed to cover the pasture areas which cannot be subject to fieldwalking. Detailed gradiometry will then be undertaken

of areas identified as having archaeological potential by the fieldwalking and magnetic susceptibility surveys (Figure 2).

4. SURVEY METHODOLOGY

4.1 General Methodology

4.1.1 Geophysical and fieldwalking surveys are required over the areas identified above in order that an assessment can be made of the presence and extent of any archaeological deposits.

4.1.2 The geophysical survey will be sub-contracted to Stratascan, a registered organisation with the Institute for Archaeologists (IfA). Suitable equipment will be used by a qualified archaeologists specialising in geophysical survey to cover an area as indicated in Figure 2. The results will then be interpreted and reported in a way that will give as much clarity as possible to the surveyed results enabling an informed decision on the nature of the archaeology. The specifications of the equipment and detailed methodology are outlined in Appendix 1.

4.1.3 The land for survey is mostly farmland. Access will be agreed with the landowners prior to access.

4.1.4 All geophysical survey work will adhere to guidance set out in English Heritage Research and Professional Services Guideline No.1: Geophysical survey in archaeological field evaluation (2008) and Geophysical Data in Archaeology: A Guide to Good Practice (Archaeology Data Service).

4.1.5 Available ploughed fields will be subject to a fieldwalking survey. The surveys will be committed to the standards and codes of conduct set out by the Institute for Archaeologists (IfA).

4.2 Setting out of survey grids

4.2.1 The survey grids will be set out using a Global Positioning Satellite receiver. Partial grids shall be avoided wherever possible. Survey pegs will be set out in field boundaries and where possible be left in place. All survey grids will be plotted onto the OS digital base map with National Grid co-ordinates to enable the accurate location of trial trenches over anomalies.

4.3 Specific Methodology: Geophysical survey

4.3.1 The equipment used for the Magnetic Susceptibility Survey will be an MS2 Magnetic Susceptibility meter manufactured by Bartington Instruments Ltd. A field coil known as an MS2D will be used to take field readings assessing the top 200mm or so of topsoil. To overcome the problem of ground contact all readings will be taken 4 – 5 times and an average taken. All obvious localised 'spikes' were ignored.

4.3.2 The magnetic survey will be carried out using a dual sensor Grad601-2 Magnetic Gradiometer manufactured by Bartington Instruments Ltd. The Grad601-2 consists of two high stability fluxgate gradiometers suspended on a single frame. Each sensor has a 1m separation between the sensing elements increasing the sensitivity to small changes in the Earth's magnetic field.

4.3.3 The equipment will be zeroed and balanced at a 'magnetically quiet' location with the use of a non-magnetic tripod. The balancing point will be accurately laid out using a compass. The gradiometer will be switched on for a period of at least 30 minutes prior to balancing and placed outside to allow stabilisation of temperature. Metal objects and compasses will be removed to at least 50m from the balancing position. Balancing with the Grad601-2 is an automated process using electronic adjustments and is only required prior to the start of each survey session (usually 2 per day).

4.4 Specific Methodology: Fieldwalking

4.4.1 A programme of fieldwalking will be undertaken over all the available areas within the southeastern section where field conditions are conducive. The fieldwalking is to take place after the fields are ploughed, rolled and weathered for at least 3 weeks.

4.4.2 Pre-modern artefacts will be collected and bagged along 20m transects. The location of the finds will be plotted using hand held GPS loggers.

4.5 Sampling Interval

4.5.1 The magnetic susceptibility and fieldwalking surveys will be carried out on a 20m grid with readings for the MS being taken at the node points.

4.5.2 Magnetometry Readings will be taken at 0.25m centres along traverses 1m apart. This equates to 3600 sampling points in a full 30x30m grid.

4.6 Depth of scan and resolution

4.6.1 Magnetic Susceptibility - the MS2D coil assesses the average MS of the soil within a hemisphere of radius 200mm. This equates to a volume of some 0.016m^3 and maximum depth of 200mm. As readings are only at 20m centres this results in a coarse resolution but adequate to pick up trends in MS variations.

4.6.2 Magnetometry - The Grad601-2 has a typical depth penetration of 0.5 – 1.0m. This would be increased in the presence of buried, strongly magnetic objects. The collection of data at 0.5m centres provides an appropriate methodology for balancing cost and time with resolution.

4.7 Data Capture

4.7.1 Magnetic Susceptibility and fieldwalking readings will be logged manually on site, and then transferred to the office where they will be entered into a computer and colour surfer plots produced.

4.7.2 Magnetometry Readings will be logged consecutively into the data logger which in turn is daily downloaded into a portable computer on site. At the end of each job, data will be transferred to the office for processing and presentation. An initial assessment of the data quality will be carried out by the survey team. After each survey session a site record sheet will be completed or updated as appropriate.

4.8 Processing of data

4.8.1 Magnetometry Processing is performed using specialist software (e.g. Geoplot 3). Details of the software used and processing techniques should be provided by the Geophysical Survey Contractor.

4.8.2 Pre-modern artefacts will be collected from the fieldwalking surveys. These will be washed marked and identified.

4.8.3 All survey results will be plotted at an appropriate scale on an OS digital base map.

4.9 Timetabling

4.9.1 It is proposed that the surveys will be undertaken following the harvest of the crop in early November 2009. The fieldwalking will be undertaken following four weeks weathering following ploughing.

5. LIAISON/MONITORING

5.1 Unlimited access to monitor the project will be available to the Leicestershire Planning Archaeologists Client and his representatives subject to the health and safety requirements of the site.

5.2 Internal monitoring procedures will be undertaken including visits to the site by the project manager. These will ensure that project targets are met and professional standards are maintained.

6. REPORT

6.1 Reports on the fieldwork will be provided following analysis of the surveys. It will be distributed to

- The client
- Leicestershire County Council, Planning Archaeologist
- Leicestershire County Council, (HER)

6.2 The reports will contain sufficient detail to enable the results of the evaluation to be interpreted without recourse to the site archive.

6.3 The reports will include the following

- Non-technical summary
- Introduction (Site location and description, archaeological background, nature and location of the survey)
- Method statement detailing methods and equipment used, results and conclusions.
- Summary of results and significance
- Appendices of specialist reports

6.4 The reports will contain an accurate site plan showing the surveyed areas, raw data and interpretation of the principal features revealed. The data will be presented in map form on the OS digital map base, on A3 sheets at an appropriate scale; usually no scale smaller than 1:1000 is used. Maps will be constructed using AutoCAD and contain north arrows, scale-bar, scale, title, figure number, key and date. Adjacent areas must also be included on the plan to allow the site to be accurately located as well as the grid co-ordinates used.

7 Health and Safety

7.1 ULAS is covered by and adheres to the University of Leicester Statement of Safety Policy and uses the ULAS Health and Safety Manual (revised 2007) with appropriate risks assessments for all archaeological work. A draft Health and Safety statement for this project is in the Appendix. The relevant Health and Safety Executive guidelines will be adhered to as appropriate.

8 Insurance

8.1 All ULAS work is covered by the University of Leicester's Public Liability and Professional Indemnity Insurance. The Public Liability Insurance is with St Pauls Travellers Policy No. UCPOP3651237 while the Professional Indemnity Insurance is with Lloyds Underwriters (50%) and Brit Insurances (50%) Policy No. FUNK3605.

9. Bibliography.

- | | |
|------------------|---|
| EH, 2008 | <i>Geophysical survey in archaeological field evaluation</i> (English Heritage 2008) |
| Hunt, L., , 2008 | <i>An Archaeological Desk-based Assessment for land at Stephenson's Green, Green Lane, Coalville, Leicestershire (SK 438 148) ULAS report</i> |

2008-131

ADS *Geophysical Data in Archaeology: A Guide to Good Practice*
(Archaeology Data Service)

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26.09.2008

Appendix 1: Geophysics-Methodology and Equipment

A detailed magnetometer survey will be carried out along the line of the new road. This measures the changes in the magnetic field resulting from differing features in the soil. Although these are usually weak, changes as small as 0.2 nano Tesla(nT) in an overall field strength of 48,000nT can be accurately detected using an appropriate instrument.

The systematic mapping of these anomalies will allow an estimate of the types of material present beneath the surface. Strong magnetic anomalies will be generated by buried iron-based objects such as kilns or hearths. More subtle features such as pits and ditches may be visible if they contain more humic material which is normally rich in magnetic iron oxides compared to the subsoil. For example the cutting and subsequent silting or backfilling of a ditch may result in a larger volume of weakly magnetic material accumulating in the trench. A weak magnetic anomaly should therefore appear in plan along the line of the ditch.

Setting out of survey grids

The survey grids will be set out using a Global Positioning Satellite receiver. Partial grids shall be avoided wherever possible.

Equipment

The magnetic survey will be carried out using a dual sensor Grad601-2 Magnetic Gradiometer manufactured by Bartlington Instruments Ltd. The Grad601-2 consists of two high stability fluxgate gradiometers suspended on a single frame. Each sensor has a 1m separation between the sensing elements increasing the sensitivity to small changes in the Earth's magnetic field.

The equipment will be zeroed and balanced at a 'magnetically quiet' location with the use of a non-magnetic tripod. The balancing point will be accurately laid out using a compass. The gradiometer will be switched on for a period of at least 30 minutes prior to balancing and placed outside to allow stabilisation of temperature. Metal objects and compasses will be removed to at least 50m from the balancing position. Balancing with the Grad601-2 is an automated process using electronic adjustments and is only required prior to the start of each survey session (usually 2 per day).

Sampling Interval

Readings will be taken at 0.25m centres along traverses 1m apart. This equates to 3600 sampling points in a full 30x30m grid. Traverses would be surveyed in zig-zag mode.

Depth of scan and resolution

The Grad601-2 has a typical depth penetration of 0.5 – 1.0m. This would be increased in the presence of buried, strongly magnetic objects.

Data Capture

Readings are logged consecutively into the data logger which in turn is daily downloaded into a portable computer on site. At the end of each job, data is transferred to the office for processing and presentation. An initial assessment of the data quality will be carried out by the survey team. After each survey session a site record sheet will be completed or updated as appropriate.

Grid locations for the survey will be plotted onto the British Ordnance Survey Grid.

Processing of data

Processing is performed using the specialist software *Geoplot 3*. This can emphasise various aspects contained within the data but which are often not easily seen in the raw data. Basic processing of the magnetic data involves 'flattening' the background levels with respect to adjacent traverses and adjacent grids. 'Despiking' is also

performed to remove the anomalies resulting from small iron objects often found on agricultural land. Once the basic processing has flattened the background it is then possible to carry out further processing which may include low pass filtering to reduce 'noise' in the data and hence emphasise the archaeological or man-made anomalies. A basic processing sequence for magnetic survey includes despiking (useful for display and allows further processing functions to be carried out more effectively by removing extreme values), zero mean grid (sets the background mean for each grid to zero and is useful for removing grid edge discontinuities) and zero mean traverse (sets the background mean of each traverse within a grid to zero and is useful for removing striping effects).

The following schedule shows the basic processing carried out on all processed magnetometer data used in this report:

Zero mean grid Threshold = 0.25 std.dev.

Zero mean traverse Last mean square fit = off

Despike X radius = 1 Y radius = 1

Threshold = 3 std. Dev.

Spike replacement = mean

Presentation of data

The presentation of the data for each site involves the print out of the raw data both as grey scale and trace plots together with a grey scale plot of the processed data. Magnetic anomalies have been identified and plotted onto the 'Abstraction and Interpretation of Anomalies' drawing for the site.

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