

**SOIL RESOURCES  
AND AGRICULTURAL QUALITY  
OF LAND NORTH-EAST OF CHELMSFORD**

Report 1721/2

20<sup>th</sup> December 2020

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**SOIL RESOURCES AND AGRICULTURAL QUALITY  
OF LAND NORTH-EAST OF CHELMSFORD**

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Report 1721/2  
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## **SUMMARY**

An agricultural land quality survey has been undertaken of 638 ha of land north-east of Chelmsford, between September and December 2020.

The land has a mixture of heavy soils with wetness limitations, gravel soils with droughtiness/stoniness limitations and silty soils which mainly have minor wetness and droughtiness constraints. Land quality is mostly grade 3, with patches of grade 2 and grade 1.

## 1.0 Introduction

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- 1.1 This report provides information on the soils and agricultural quality of 638 ha of land north-east of Chelmsford, proposed as the site of Longfield Solar Farm.

### **SITE ENVIRONMENT**

- 1.2 The survey area covers a large block of land, bordered to the south by the A12, to the north by Braintree Road, to the north-west by Boreham Road and on other sides by adjoining agricultural land. A separate block of land to the south-west of the main site and west of Boreham Road is also included. The site is gently sloping, at an elevation of approximately 45-55 m AOD.

- 1.3 At the time of survey most of the land was under arable use (cereals and oilseed rape), with potatoes in the south, beef pasture in the north and an area of sugar beet in the east.

### **PUBLISHED INFORMATION**

- 1.4 1:50,000 scale BGS information records the solid geology of the land as London Clay Formation. Superficial (drift) deposits are recorded over all of the land: dominantly this cover consists of Lowestoft Formation (chalky) glacial till; patches of silty windblown Brickearth deposits are recorded, particularly in central and southern areas, and sand and gravel is recorded in the north, south-east and south-west. An area of Head is also recorded in the south-west.
- 1.5 The National Soil Map (published at 1:250,000 scale) records most of the land as Hornbeam III Association: mainly fine loamy over clayey soils formed in decalcified drift over chalky glacial till. Patches of Hamble Association (silty soils formed in Brickearth deposits, sometimes with gravel at depth) are also recorded<sup>1</sup>.
- 1.6 Provisional Agricultural Land Classification (ALC) mapping shows the site to be within an area estimated to be of grade 2 agricultural quality. This mapping was prepared to the original ALC guidelines (prior to the subdivision of grade 3) and using very limited field data. For these reasons Natural England guidance (TIN049) states that *“this mapping is not sufficiently accurate for use in assessment of development sites and should not be used other than as general*

<sup>1</sup>Hodge, C.A.H. *et al.*, (1984). *Soils and their use in Eastern England*. Soil Survey of England and Wales Bulletin No. 13, Harpenden.

*guidance*".<sup>2</sup> Therefore, the applicant has commissioned this survey to the current guidelines to be undertaken to inform their site layout and include with their planning application.

- 1.7 A small area of the southern part of the site is shown (by Defra's Magic website) to have been mapped to current guidelines, although the accompanying report is not available. This shows the land to be a combination of Grades 1, 2 and subgrade 3a and 3b agricultural quality.

<sup>2</sup> Natural England, (2012). *Agricultural Land Classifications: protecting the best and most versatile agricultural land*. Technical Information Note TIN049. Second Edition.

## 2.0 Soils

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- 2.1 A detailed soils and agricultural quality survey was carried out in September and October 2020 in strict accordance with MAFF (1988) guidelines<sup>3</sup>. It was based on initial observations at alternate intersects of a 100 m grid, giving a density of one observation per two hectares. This density of sampling has been widely applied to provide information for large sites, including MAFF surveys during the 1990s. Where soils were found to vary significantly, additional sample points were investigated (one observation per hectare) to confirm grade boundaries. This approach allows the accurate grading of large sites at an appropriate mapping scale and is judged appropriate given the very large survey area. Overall sampling density was approximately one observation per 1.5 ha.
- 2.2 During the survey, soils were examined by a combination of pits and augerings to a maximum depth of 1.2 m. A log of the sampling points and maps (Map 1 and 1A) showing their location are in an appendix to this report.
- 2.3 The soils were found to vary principally in texture, drainage and stoniness. The main soil types are shown by Map 2 in the appendix to this report and are described below.

### **HEAVY SOILS WITH IMPEDED DRAINAGE**

- 2.4 This soil type is the most common within the survey area, occurring where land is underlain by chalky glacial till, or by clayey de-calcified drift. The topsoils are mainly slightly stony clay loams or sandy clay loams and are rarely calcareous. The upper subsoil most commonly comprises de-calcified heavy clay loam or clay, but in places, particularly in the north of the site, is formed of slightly chalky material. Where drift cover over till is thickest, the soils are non-calcareous to depth; elsewhere the subsoils grade to poorly-structured chalky clay. These soils mainly show evidence of seasonal waterlogging (greyish colours with ochreous mottling) at shallow depth.
- 2.5 An example profile with chalky subsoil is described below from a pit at observation 44 (Map 1).

<sup>3</sup>MAFF, (1988). *Agricultural Land Classification for England and Wales: Guidelines and Criteria for Grading the Quality of Agricultural Land*.

0-31 cm	Dark greyish brown (10YR 4/2) heavy clay loam; moderately stony (15% small and medium flints and pebbles); weakly developed coarse sub-angular blocky structure; non-calcareous; firm; smooth clear boundary to:
31-42 cm	Grey (10YR 5/1) clay (ped faces and matrix mottles) with abundant distinct medium yellowish brown (10YR 5/6) and yellow (10YR 7/6) mottles; slightly stony (10% small and medium sub-angular flints and small rounded soft chalk); weakly developed very coarse prismatic structure; very firm; slightly calcareous; smooth gradual boundary to:
42-100 cm+	Grey (10YR 6/1) clay (ped faces and matrix mottles) with abundant distinct yellowish brown (10YR 5/6) and reddish yellow (7.5YR 6/8) mottles; moderately stony (20% small and medium soft chalk stones); weakly developed very coarse prismatic structure; very firm; calcareous.

2.6 An example profile with de-calcified subsoil is described below from a pit at observation 48 (Map 1).

0-31 cm	Greyish brown (10YR 5/2) heavy clay loam; slightly-moderately stony (10-15% small and medium rounded hard pebbles and sub-angular flints); moderately developed medium to coarse sub-angular blocky structure; firm; non-calcareous; smooth clear boundary to:
31-120 cm+	Light brown (7.5YR 6/4) clay with abundant reddish yellow (7.5YR 6/8) and pinkish grey (7.5YR 6/2) mottles; slightly stony (10% sub-angular flints); weakly developed very coarse prismatic structure; very firm; non-calcareous.

2.7 These soils are dominantly imperfectly-draining (Soil Wetness Class III), meaning waterlogging will occur to shallow depth during the winter field capacity period. In patches the depth to slowly permeable layer is greater and they are slightly better draining (Soil Wetness Class II).

**SILTY SOILS**

2.8 These soils are found in sizeable patches in northern and central areas of the site, apparently where Brickearth deposits overlie glacial till or sands and gravels. They mainly comprise silty clay loam topsoil and subsoil, often becoming weakly-structured at depth, with evidence of seasonal waterlogging (greyish colours with ochreous mottling). On the boundary to the heavier soils described above, permeable silty upper layers are underlain by dense clay.

2.9 An example profile is described below from a pit at observation 129 (Map 1)

0-29 cm	Greyish brown (10YR 5/2) medium silty clay loam; slightly stony (5-10% small and medium sub-angular hard stones and flints); moderately developed fine and medium sub-angular blocky structure; friable; smooth clear boundary to:
29-52 cm	Yellowish brown (10YR 5/6) medium silty clay loam with few fine yellow (10YR 7/6) mottles; very slightly stony (5% small sub-angular hard stones and flints); well developed medium sub-angular blocky structure; friable; smooth gradual boundary to:
52-100 cm+	Brownish yellow (10YR 6/6) medium silty clay loam; common fine diffuse reddish yellow (7.5YR 6/8) and light grey (10YR 7/2) mottles; very slightly stony (5% small sub-angular hard stones and flints); moderately developed medium angular blocky structure; friable.

2.10 These soils are dominantly freely-draining (Soil Wetness Class I or II), but imperfectly-draining (Soil Wetness Class III) where underlain by clay on the

boundary to the heavier soils described above.

#### **LOAMY SOILS OVER GRAVEL**

- 2.11 These soils are found in the south-east of the site where sand and gravel deposits occur. They are variable, reflecting the fact that the sand and gravel deposit is often overlain by thin silts, and/or underlain by clay. Where the deposit is thickest, the topsoils are moderately stony (up to 25% hard stones) sandy loams or sandy clay loams and grade to extremely stony gravel subsoils; elsewhere the upper layers are often less stony.
- 2.12 An example (deep gravel) profile is described below from a pit at observation 392 (Map 1A).
- |            |   |
|------------|---|
| 0-33 cm    | Dark brown (7.5YR 3/2) sandy clay loam; slightly stony (15% small and medium sub-angular flints and quartz pebbles); moderately developed medium and coarse granular structure; very friable; smooth gradual boundary to: |
| 33-66 cm   | Dark greyish brown (10YR 4/2) coarse sandy loam; extremely stony (60% medium and coarse flints and pebbles); weakly developed medium granular structure; very friable; smooth gradual boundary to:                        |
| 66-100 cm+ | Strong brown (7.5YR 5/6) loamy coarse sand; extremely stony (60% medium and coarse flints and pebbles plus very fine gravel); weakly developed coarse granular structure; very friable.                                   |
- 2.13 These soils are freely-draining (Soil Wetness Class I or II).



### 3.0 Agricultural land quality

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3.1 To assist in assessing land quality, the Ministry of Agriculture, Fisheries and Food (MAFF) developed a method for classifying agricultural land by grade according to the extent to which physical or chemical characteristics impose long-term limitations on agricultural use for food production. The MAFF ALC system classifies land into five grades numbered 1 to 5, with grade 3 divided into two subgrades (3a and 3b). The system was devised and introduced in the 1960s and revised in 1988.

3.2 The agricultural climate is an important factor in assessing the agricultural quality of land and has been calculated using the Climatological Data for Agricultural Land Classification<sup>4</sup>. The relevant site data for an average elevation of 50 m is given below.

- Average annual rainfall: 574 mm
- January-June accumulated temperature >0°C 1424 day°
- Field capacity period (when the soils are fully replete with water) 104 days mid Dec-late Mar
- Summer moisture deficits for: wheat: 122 mm potatoes: 118 mm

3.3 The survey described in the previous section was used in conjunction with the agro-climatic data above to classify the site using the revised guidelines for ALC issued in 1988 by MAFF<sup>5</sup>. There are no climatic limitations at this locality.

#### **SURVEY RESULTS**

3.4 The agricultural quality of the land is primarily determined by soil wetness, droughtiness and stoniness. Other factors have been assessed but do not affect the land grade. Land of grades 1-3 has been identified.

#### **Grade 1**

3.5 This land comprises a small patch of silty soils in the south, which have fine sandy silt loam texture (rather than the dominant silty clay loam texture of this soil type). These soils hold high moisture reserves and are therefore not limited by droughtiness (or other constraints) for agriculture.

<sup>4</sup>Meteorological Office, (1989). *Climatological Data for Agricultural Land Classification*.

<sup>5</sup>MAFF, (1988). *Agricultural Land Classification for England and Wales: Guidelines and Criteria for Grading the Quality of Agricultural Land*.

## **Grade 2**

- 3.6 This land includes freely-draining silty soils. The main limitation is slight droughtiness caused by the combination of the dry local climate and restricted moisture storage in deeper subsoil layers. As a result, yields are likely to be reduced by summer droughtiness in dry years, although high yields of a wide range of crops are possible. In places the topsoils are slightly flinty, which is likely to present some issues for the quality of root crops, as well as decreasing moisture storage. In places the silty layers are underlain by slowly permeable layers at depth (Soil Wetness Class II). Combined with the moderately high clay content of the topsoil, this results in wetness restrictions which limit machinery access, particularly in winter. This is an equally limiting factor with droughtiness in these areas.
- 3.7 In patches these soils are less stony and better structured, and are therefore borderline between grades 1 and 2. These areas are judged most appropriately allocated to the average degree of limitation.

## **Subgrade 3a**

- 3.8 This land is of two principal types:

The soils over gravel in the south are limited by droughtiness due to the low moisture storage of the gravel layers, combined with the dry climate. This land is likely to be limited to moderate average yields as a result. In places land over these soils is equally limited by topsoil stoniness, which causes excess machinery wear and reduces quality of root crops.

On the boundary between silty and heavy soils, the soil is intermediate, having loamy topsoil and poorly-structured subsoil (Soil Wetness Class III) or heavy soils with permeable upper subsoil (Soil Wetness Class II). As a result, the land has wetness limitations which restrict machinery access in winter and early spring. The low moisture storage of the subsoil also often means this land is often equally limited by moderate droughtiness, with average yields reduced as a result.

## **Subgrade 3b**

- 3.9 This subgrade includes land with high topsoil clay content and significant drainage restrictions (Soil Wetness Class III). This combination means spring machinery land access opportunities are rare and arable cropping is therefore limited to autumn sowings. The topsoils are occasionally calcareous, which is reported to confer greater workability than would otherwise be the case.

However, this appears to be limited to small patches which could not be managed separately and are therefore limited to the same subgrade by the constraints of the surrounding land<sup>6</sup>.

- 3.10 A small area in the south-east has sandy and gravelly subsoil which means under the dry local climate, droughtiness is likely to result in low average yields.

**Other land (non agricultural)**

- 3.11 This land comprises, roads, tracks, blocks of woodland and scrub and water bodies.

**Grade areas**

- 3.12 The land grades are shown on Map 3 and the areas occupied shown below.

**Table 1: Areas occupied by the different land grades**

<i>Grade/subgrade</i>	<i>Area (ha)</i>	<i>% of the land</i>
<b>Grade 1</b>	3.3	<1
<b>Grade 2</b>	90.8	14
<b>Subgrade 3a</b>	170.4	27
<b>Subgrade 3b</b>	350.1	55
<b>Other land</b>	23.0	4
<b>Total</b>	637.6	100

<sup>6</sup> The grade of these investigations are shown in the observations log (see Appendix) in brackets.

**APPENDIX**  
**DETAILS OF OBSERVATIONS**  
**SELECTED SOIL DROUGHTINESS CALCULATIONS**  
**MAPS**

**Longfield Solar: Soil resources survey – Details of observations at each sampling point**

Obs	Topsoil			Upper subsoil			Lower subsoil			Slope	Wetness	ALC	Main
No	Depth (cm)	Texture	Stones >20mm (%)	Depth (cm)	Texture	Mottling	Depth (cm)	Texture	Mottling	(°)	Class	Grade	Limitation
1	0-32	MCL	<5	32-74	HZCL	xxx	74+	Stopped on stones		1	II	2	W
2	0-31	HZCL	5-10	<u>31</u> -50	C	xxx	<u>50</u> -100+	C chalky	xxx	1	III	3b	W
3	0-30	HZCL	<5	30-44	HZCL	xxx	<del>44</del> -71+	ZC	xxx	2	II	3a	W
4	0-32	HCL	5-10	<u>32</u> -61	C	xxx	61+	Stopped on stones		0	III	3b	W
5	0-24	MCL	5-10	24-64+	HCL	xx(x)	64+	Too stony/dry		0	I/II	3a	D
6	0-29	HCL	5-10	<u>29</u> -60	C	xxx	60+	Stopped on stones		1	III	3b	W
7	0-30	HZCL	5-10	<u>30</u> -61	C	xxx	<u>61</u> -100+	Cchky	xxx	1	III	3b	W
8	0-28	HCL	5-10	<u>28</u> -90+	C	xxx				1	III	3b	W
9	0-30	HZCL	5-10	30-44	HZCL	xxx	44+	Stopped on stones		1	-	-	-
10	0-28	HCLca	5-10	28-71+	HCLca	xx(x)	71+	Stopped on stones		2	II	2/3a	D/W
11	Farm track												
12	0-29	HCL	5-10	<u>29</u> -90+	C	xxx				2	III	3b	W
13	0-30	MCL	5-10	30-40	HCL	x	40+	Stopped on stones		1	-	-	-
14	0-31	HCL	5-10	31-62	slcaHCL	xx	62+	Stopped on stones		3	-	-	-
15	0-28	HCL	10-15	<u>28</u> -41	HCL	xxx	41+	Stopped on stones		2	-	-	-
16	0-29	HCL	5-10	<u>29</u> -90+	C	xxx				1	III	3b	W
17	0-30	C	5-10	<u>30</u> -85+	C	xxx				2	III	3b	W
18	0-28	HCL	10-15	<u>28</u> -100+	C	xxx				5	III	3b	W
19	0-31	HCL ca	5-10	31+	Too stony					1	-	-	-
20	0-26	HCL	<5	<u>26</u> -100+	C	xxx				2	III	3b	W
21	0-30	HCL	5-10	30-41	HCL	xx	41+	Stopped on stones		1	-	-	-
22	0-25	MCL	5-10	25-50	HCL 35% stones	xx	50+	Stopped on stones		3	I	3a	D?
23	0-23	SCL	15-20	23-55	SCL 35% stones	x	55+	Stopped on stones		3	I	3b	D/St
24	0-28+	MCL	10-15	28+	Too stony					2	-	-	-
25	0-28	HCL	5-10	28+	Too stony					1	-	-	-
26	0-24	HCL	<5	<u>24</u> -60+	C	xxx				4	III	3b	W

Obs	Topsoil			Upper subsoil			Lower subsoil			Slope	Wetness	ALC	Main
No	Depth (cm)	Texture	Stones >20mm (%)	Depth (cm)	Texture	Mottling	Depth (cm)	Texture	Mottling	(°)	Class	Grade	Limitation
27	0-26	MCL	<5	26-44	MCL	x	44+	Stopped on stones		5	I	2/3a	D
28	0-28	HZCL	10-15	28-51+	HZCL	xxx	51+	Stopped on stones		3	II	3a?	W
29	0-30	HCL	5-10	<u>30</u> -90+	C	xxx				2	III	3b	W
30	0-31	HCL	5-10	<u>31</u> -90+	C	xxx				3	III	3b	W
31	0-24	HCL	10-15	24-60	mstHCL	xxx	60+	Stopped on stones		2	II	3a	W/D
32	0-29	HCL ca	5-10	<u>29</u> -40	HCL	xxx	40+	Stopped on stones		2	II?	3a	W/D
34	0-29	HCL v sl ca	5-10	29-44	HCL ca	xxx	<u>44</u> -100+	C chalky	xxx	2	III	3b	W
35	0-31	HCL	5-10	31-40	HCL	xxx	<u>40</u> -110+	C r	xx	1	III	3b	W
36	0-29	C	5-10	<u>29</u> -60	C	xxx	<u>60</u> -94+	C chalky	xxx	2	III	3b	W
37	0-30	HCL	15-20	<u>30</u> -55	mstHCL	xxx	55+	Stopped on stones		3	II	3b	St
38	0-31	HCL	10-15	<u>31</u> -100+	Cr	xxx				3	III	3b	W
39	0-30	HCL	10-15	30-41	HCL	xxx	<u>41</u> -79+	C ca	xxx	0	III	3b	W
40	0-31	HCL	5-10	31-42	HCLr	xxx	<u>42</u> -110+	Cr	xxx	0	III	3b	W
41	0-31	MCL	5-10	31+	Too stony					0	-	-	-
42	0-30	HCL	5-10	30-58	HCL	xxx	58+	Stopped on stones		3	II	3a	W(D)
43	0-31	C ca	5-10	<u>31</u> -100+	Cca	xxx				2	III	3b	W
44	0-31	HCL	5-10	<u>31</u> -42	Cslca	xxx	<u>42</u> -100+	Cchky	xxx	1	III	3b	W
45	0-28	HCL	10-15	28+	Too stony					2	-	-	-
46	0-28	HCL	<5	<u>28</u> -90+	C	xxx				2	III	3b	W
47	0-33	HCL	10-15	<u>33</u> -51	mstHCL/C	xxx	51+	Stopped on stones		1	II/III	3a/b	W
48	0-31	HCL	5-10	<u>31</u> -120	C	xxx				0	III	3b	W
49	0-30	HCL	5-10	30-61	HCL	xx	61+	Stopped on stones		2	II	3a	W
50	0-29	HCL	5-10	<u>29</u> -54	C(r)	xxx	54+	Stopped on stones		1	III	3b	W
51	0-30	HCL	10-15	<u>30</u> +	C(r)	xxx				1	III	3b	W
52	0-32	HCL	<5	32-52	HCL	xx	<u>52</u> -80+	C	xxx	2	III	3b	W
53	0-30	Cca	<5	30-42	C	xxx	<u>42</u> -90+	C	xxx	2	III	(3a)	W
54	0-32	HCL	5-10	<u>32</u> -45	C	xxx	45+	Stopped on stones		0	III	3b	W
55	0-30	HCL	5-10	<u>30</u> -45	Cr	xxx	45+	Stopped on stones		1	III	3b	W
56	0-28	HCL	<5	<u>28</u> -44	C	xxx	<u>44</u> -80+	C chalky	xxx	2	III	3b	W

Obs	Topsoil			Upper subsoil			Lower subsoil			Slope	Wetness	ALC	Main
No	Depth (cm)	Texture	Stones >20mm (%)	Depth (cm)	Texture	Mottling	Depth (cm)	Texture	Mottling	(°)	Class	Grade	Limitation
57	0-29	C	<5	29-47	C	xxx	47-90+	C	xxx	2	III	3b	W
58	0-27	HCL	5-10	27-41	HCLr	xx(x)	41-100+	Cr	xxx	0	III/II	3b/3a	W
59	0-31	HCL	5-10	31-46	HCL	xxx	46-60 60-75+	Cr Cchky	xxx xxx	0	III	3b	W
60	Track												
61	0-31	HCL	5-10	31-80+	C(r)slca	xxx				1	III	3b	W
62	0-27	HCLca	<5	27-42	HCLchky	xx(x)	42-80+	Cchky	xx(x)	2	III/II	(3a/2)	W
63	0-30	C	<5	30-47	C	xxx	47-60 60+	C Stopped on stones	xxx	1	III	3b	W
64	0-29	HCL	<5	29-42	HCL	xxx	42-90+	Cca	xxx	2	III	3b	W
65	Woodland												
66	0-34	HCLca	<5	34-90+	C	xxx				1	III	(3a)	W
67	0-27	HCL	<5	27-41	HCL	xxx	41-62 62+	C Stopped on stones	xxx	2	III	3b	W
68	0-26	HCL	<5	26-52	HCL	xxx	52-80+	C	xxx	1	III	3b	W
69	0-28	HCL	<5	28-40	HCL	xxx	40-60 60+	C Stopped on stones	xxx	1	III	3b	W
70	0-30	MCL	<5	30-47	MCLr	o	47-90+	HCL	x	0	I	2	D
71	0-27	HCLca	<5	27-42	HCLca	xxx	42-47 47+	HCL/Cca Stopped on stones	xxx	1	III	(3a)	W
72	Not recorded											3a	W
73	0-33	HCL	<5	33-80+	HCL	xxx				1	II/III	3a/3b	W
74	0-29	HCL	<5	29-46	HCL	xxx	46-80+	C	xxx	1	III	3b	W
75	0-31	MCL	<5	31-100+	HCLr	o				0	I	2	D
76	Not recorded											3b	W
77	0-27	HCL	<5	27-45	HCL	xxx	45-80+	C	xxx	0	III	3b	W
78	0-29	HCL/C	<5	29-51	C	xxx	51-100+	C	xxx	1	III	3b	W
79	0-31	HCL	<5	31-60	HCL	xxx	60-92+	C(r)	xxx	1	II	3a	W/D
80	0-33	HZCL	<5	33-64	HZCL	xxx	64+	Stopped on stones		0	II	3a	W

Obs	Topsoil			Upper subsoil			Lower subsoil			Slope	Wetness	ALC	Main
No	Depth (cm)	Texture	Stones >20mm (%)	Depth (cm)	Texture	Mottling	Depth (cm)	Texture	Mottling	(°)	Class	Grade	Limitation
81	0-33	HCL	5-10	33-40	HCL	xxx	<u>40-60</u> <u>60-100+</u>	C C chalky	xxx xxx	0	III	3b	W
82	0-30	HCL	<5	<u>30-47</u>	HCL	xxx	<u>47-80+</u>	C/HCL	xxx	0	III	3b	W
83	0-30	HCL	<5	30-52	HCL	xxx	<u>52-80+</u>	C	xxx	0	III	3b	W
84	Not recorded											3b	W
85	0-27	C	<5	<u>27-60</u>	C	xxx	<u>60-80+</u>	Cchky	xxx	1	III	3b	W
86	0-30	HCL	<5	30-52	HCL	xxx	<u>52-80+</u>	C	xxx	1	III	3b	W
87	0-33	HCL	5-10	<u>33-70</u>	C ca	xxx	<u>70-100+</u>	Cr	xxx	0	III	3b	W
88	0-28	MZCL	<5	28-72	MZCL(r)	o	72-90+	M/HZCL(r)	o	0	I	2	D
89	0-31	HCL	5-10	31-82+	HCL	xx(x)				0	I/II	2	D/W
90	0-30	HCL	5-10	30-42	HCL	xxx	<u>42-100+</u>	C	xxx	0	III	3b	W
91	0-28	HCL	<5	28-47	HCL	xxx	<u>47-80+</u>	HCL	xxx	0	III	3b	W
92	0-32	HCL	<5	32-43	HCL	xxx	<u>43-80+</u>	C	xxx	0	III	3b	W
93	0-32	Cvsica	<5	32-38	Csica	xxx	<u>38-53</u> <u>53-80+</u>	Cca Cchky	xxx xxx	2	III	3b	W
94	0-27	HCL	<5	27-40	HCL	xxx	<u>40-90+</u>	C	xxx	0	III	3b	W
95	0-31	HCL	<5	31-60	HCL	xxx	<u>60-80+</u>	C	xxx	0	II	3a	W
96	0-30	MZCL	5-10	30-40	MZCL	o	40-55+	HZCL 40% flints	xxx	0	I	3a	D
97	0-29	MZCL	<5	29-100+	HZCL(r)	o				0	I	2	D
98	0-30	MCL	<5	30-48	HCL	x	48-91+	HCL	xxx	0	I	2	D
99	0-31	MZCL	5-10	31-55+	HZCL	xxx	55+	Stopped on stones		0	I	3a	D
100	0-32	HCL	5-10	32-58	HCL	xxx	<u>58-100+</u>	C(r)	xxx	0	II	3a	W
101	0-28	HCL	<5	28-61	HCL	xxx	61+	Stopped on stones		3	II	3a	W
102	0-30	HCL	<5	<u>30-80+</u>	C/HCL	xxx				1	III	3b	W
103	0-28	HCL	<5	28-53	HCL	xxx	<u>53-90+</u>	C	xxx	1	II/III	3b/3a	W
104	0-27	HCL	<5	27-44	HCL/C	xxx	<u>44-70+</u>	C	xxx	1	III	3b	W
105	0-34	HCL	<5	34-46	HCL	xxx	<u>46-80+</u>	C	xxx	1	III	3b	W
106	0-28	HCL	<5	<u>26-45</u>	HCL	xxx	<u>45-80+</u>	C	xxx	0	III	3b	W
107	0-30	HCL	10-15	<u>30-42</u>	HCL	xxx	<u>42-100+</u>	C	xxx	1	III	3b	W



Obs	Topsoil			Upper subsoil			Lower subsoil			Slope	Wetness	ALC	Main
No	Depth (cm)	Texture	Stones >20mm (%)	Depth (cm)	Texture	Mottling	Depth (cm)	Texture	Mottling	(°)	Class	Grade	Limitation
108	0-29	MZCL	5-10	29-51	MZCL	xx	51+	Stopped on stones		0	I	2/3a	D
109	0-30	HCL	5-10	30-44	HCL	xxx	44-100+	C	xxx	0	III	3b	W
110	0-30	HCL	5-10	30-60	C	xxx	60-110+	Cchky	xxx	0	III	3b	W
111	0-28	HZCL	5-10	28-49	HZCL	xxx	49-100+	C	xxx	1	III	3b	W
112	0-30	HCL	10-15	30-48	HCL	xxx	48-85+	C(r)	xxx	0	III	3b	W
113	Woody scrub												
114	0-28	HCL	<5	28-40	HCL	xxx	40+	Stopped on stones		0	-	-	-
115	0-24	HCL	<5	24-39	HCL	xxx	39-80+	C	xxx	2	III	3b	W
116	0-21	MCL	5-10	21-64	MCL 20% flints	xx	64-84 84-100+	HCL flinty C	xxx xxx	0	I	3a	D
117	0-30	HCL	5-10	30-50	HCL	xxx	50-72	C(r)	xxx	0	III	3b	W
118	0-30	HCL	5-10	30+	Flints					0	-	-	-
119	0-27	HCL	5-10	27-50	HCL	xxx	50-71+	mstC(r)	xxx	0	III	3b	W
120	0-30	HCL	5-10	30-44	HCL	xx	44-75 75-100+	HZCL HCL	xxx xxx	0	I/II	2/3a	W
121	0-30	HCL	<5	30-40	HCL	xx	40-62 62+	vstHCL Stopped on stones	xxx	1	II/III	3a/3b	W
122	0-24	HCL/MCL	<5	24-38	HCL	xxx	38-76 76+	C Stopped on stones	xxx	3	III	3b/3a	W
123	0-28	MCL	<5	28-53	MCL	xx	53-90+	MZCL	xxx	2	II	2	W/D
124	0-25	HCL/MCL	<5	25-45	HCL	xxx	45-80+	C	xxx	1	III	3b/3a	W
125	0-34	MCL	<5	34-68	MCL	x	68+	Stopped on stones		3	I	2	D
126	0-30	Cvslca	5-10	30-100+	C(r)slca	xxx				0	III	3b	W
127	0-30	HCL	5-10	30-51	HCL	xxx	51-70+ 70+	C(r) Stopped on stones		0	III	3b	W
128	0-30	HCLslca	10-15	30-43	HCLca	xxx	43-80+	Cca	xxx	0	III	(3a)	W
129	0-29	MZCL	<5	29-50	MZCL	o	50-90+	MZCL(modstr)	o	0	I	2	D
130	0-26	HCL	<5	26-34	HCL	xxx	34-90+	C	xxx	1	III	3b	W
131	0-25	HCL	<5	25-33	HCL	xxx	33+	Stopped on stones		2	-	-	-
132	0-26	HCL	<5	26-55	MCL	x(x)	55-90+	HZCL	xx(x)	0	I	2	D/W

Obs	Topsoil			Upper subsoil			Lower subsoil			Slope	Wetness	ALC	Main
No	Depth (cm)	Texture	Stones >20mm (%)	Depth (cm)	Texture	Mottling	Depth (cm)	Texture	Mottling	(°)	Class	Grade	Limitation
133	0-21	Cca	<5	21-40	Cchky	xx(x)	40-60+	Cchky	xxx	3	III	(3a)	W
134	0-30	HCL	<5	30-57	HCL	xxx	57-90+	C	xxx	0	III	3b	W
135	0-33	HCL	<5	33-53	HCL	xxx	53-64 64+	C Stopped on stones	xxx	0	III/II	3b/3a	W
136	0-30	HCL	5-10	30-39	HCL	xxx	39-55+ 55+	Cslca Stopped on stones		0	III	3b	W
137	0-28	MZCL	5-10	28-70	MZCL	xx	70-100+	MZCL	xxx	0	I	2	D
138	0-33	MZCL	<5	33-80+	C	xxx				0	III	3a	W/D
139	0-32	MZCL	<5	32-48	MZCL	xxx	48-80+	HZCL	xxx	1	III	3a	W/D
140	0-28	MZCL	<5	28-48	MZCL	xx	48-80+	MZCL	xxx	1	I	2	D
141	0-32	HCL	<5	32-70+	C	xxx				0	III	3b	W
142	0-30	HCL	<5	30-38	HCL/C	xxx	38-70+	C	xxx	0	III	3b	W
143	0-31	MCL	<5	31-70	MCL	o	70-90+	HCL	xxx	0	I	2	D
144	0-30	HCL	<5	30-46	HCL	xxx	46-80+	C	xxx	1	III	3b	W
145	0-34	MZCL	<5	34-57	MZCL	x	57-100+	HZCL	xx(x)	0	II	2	D
146	0-31	MZCL	<5	31-46	MZCL	xx	46-60 60-90+	HZCL C	xxx xxx	0	II	2	W/D
147	0-32	HCL	<5	32-42	HCL	xxx	42-90+	C	xxx	1	III	3b	W
148	0-30	HCL	<5	30-44	HCL	xxx	44-70+	C	xxx	0	III	3b	W
149	Not recorded												
150	0-40	MCL	<5	40-68	MCL	o	68-90+	HCL	xxx	0	II	2	W/D
151	0-32	C	0	32-70+	C	xxx				0	III	3b	W
152	0-32	HZCL	<5	32-49	HZCL	xx	49-90+	HZCL	xxx	0	II	3a	W
153	0-34	MZCL	<5	34-48	HZCL	xxx	48-100+	HZCL	xxx	1	III/II	3b/3a	W
154	0-32	HCL	<5	32-43	HCL	xxx	43-70+	C	xxx	0	III	3b	W
155	0-34	HCLca	<5	34-52	HCLca	xxx	52-66+	Cchky	xxx	1	III	(3a)	W
156	0-33	HCL	<5	33-44	HCL	xxx	44-80+	HCL	xxx	0	III	3b	W
157	0-31	MZCL	<5	31-45	MZCL	xxx	45-72 72-80+	HZCL C	xxx xxx	0	III	3a	W
158	0-25	MZCL	<5	25-45	MZCL	xxx	45-90+	HZCL	xxx	1	II/III	2/3a	W

Obs	Topsoil			Upper subsoil			Lower subsoil			Slope	Wetness	ALC	Main
No	Depth (cm)	Texture	Stones >20mm (%)	Depth (cm)	Texture	Mottling	Depth (cm)	Texture	Mottling	(°)	Class	Grade	Limitation
159	0-32	HCL	<5	32-45	HCL	xxx	45-60 60-80+	HCL C	xxx xxx	0	III/II	3b/3a	W
160	0-26	MZCL	<5	26-37	MZCL	xxx	37-55 55+	C Stopped on stones	xxx	1	III	3a	W/D
161	0-31	M/HZCL	<5	31-57	M/HZCL	xxx	57-90+	HZCL	xxx	0	II/III	2/3a	W
162	0-31	MZCL	<5	31-56	MZCL	xxx	56-90+	HZCL	xxx	0	II/III	2/3a	W
163	0-26	HCL	<5	26-34	HCL	xxx	34-46 46+	C Stopped on stones	xxx	0	III	3b	W
164	0-28	HCL	<5	28-56	C	xxx	56+	Stopped on stones		0	III	3b	W
165	0-30	MZCL	<5	30-42	MZCL	xxx	42-70 70-90+	HCL C	xxx xxx	0	III	3a	W/D
166	0-30	MZCL	<5	30-52	MZCL	xxx	52-68 68-90+	C Cchky	xxx xxx	0	III/II	3a/2	W
167	0-26	HCL	<5	26-40	C	xxx	40-70+	Cchky	xxx	1	III	3b	W
168	0-30	HCL	<5	30-46	HCL	xxx	46-68 68-90+	C Cchky	xxx xxx	0	III	3b	W
169	0-30	HCL/C	<5	30-80+	C	xxx				0	III	3b	W
170	0-27	MZCL	<5	27-46	MZCL	xxx	46-90+	HZCL/HCL	xxx	1	III	3a	W
171	0-29	HCL	<5	29-56	C	xxx	56+	Stopped on stones		1	III	3b	W
172	0-27	HCL	<5	27-38	HCL	xxx	38-62 62-75+	C Cchky		1	III	3b	W
173	0-25	HCL	<5	25-41	HCL	xxx	41-80+	C	xxx	0	III	3b	W
174	0-26	HCL	<5	26-42	C/HCL	xxx	42-90+	C	xxx	1	III	3b	W
175	0-28	HCL	<5	28-46	C	xxx	46+	Stopped on stones		1	III	3b	W
176	0-28	HCL	<5	28-33	HCL	xxx	33-90+	C	xxx	2	III	3b	W
177	0-28	HCL	<5	28-52	HCL	xxx	52-90+	C	xxx	0	III	3b	W
178	0-30	HCL	<5	30-39	C	xxx	39-60+	Cchky	xxx	2	III	3b	W
179	0-28	HCL	<5	28-72	C	xxx	72-90+	Cchky	xxx	0	III	3b	W
180	0-31	HCL	<5	31-80+	C	xxx				3	III	3b	W
181	0-29	HCL	<5	29-46	HCL	xxx	46-90+	C	xxx	1	III	3b	W

Obs	Topsoil			Upper subsoil			Lower subsoil			Slope	Wetness	ALC	Main
No	Depth (cm)	Texture	Stones >20mm (%)	Depth (cm)	Texture	Mottling	Depth (cm)	Texture	Mottling	(°)	Class	Grade	Limitation
182	0-34	HCL	<5	<u>34</u> -90+	C	xxx				1	III	3b	W
183	0-27	M/HCL	<5	27-42	HCL	xxx	<u>42</u> -53 53+	C Stopped on stones	xxx	1	III	3a/3b	W
184	0-29	HCL/C	<5	<u>29</u> -80+	C	xxx				2	III	3b	W
185	0-30	HCLca	<5	<u>30</u> -73	Cca	xxx	73-90+	Cchky	xxx	0	III	(3a)	W
186	0-26	HCL	<5	26-43	HCL	xxx	<u>43</u> -53 53+	C Stopped on stones	xxx	0	III	3b	W
187	0-25	HCL	<5	25-43	HCL	xxx	<u>43</u> -63 63+	C Stopped on stones	xxx	0	III	3b	W
188	0-28	HCL	<5	28-46	HCL	xxx	<del>46</del> -60 <u>60</u> -90+	HCL HCL/gravel	xxx xxx	0	II/III	3a/3b	W
189	0-31	HCL	<5	31-42	HCL	xxx	<u>42</u> -90+	C	xxx	1	III	3b	W
190	0-28	C	<5	<u>28</u> -100+	C	xxx				0	III	3b	W
191	0-27	HCL	<5	<u>27</u> -37	HCL/C	xxx	<u>37</u> -80+	C	xxx	0	III	3b	W
192	0-26	HCL	<5	<u>26</u> -90+	C	xxx				0	III	3b	W
193	0-28	HCL	<5	27-54	HCL	xxx	<u>54</u> -64 64+	C Stopped on stones	xx	1	III	3b	W
194	0-30	HCL	5-10	<u>30</u> -90+	C	xxx				1	III	3b	W
195	0-28	HCL	<5	<u>28</u> -64	C	xxx	64+	Stopped on stones		0	III	3b	W
196	0-34	HCL	<5	34-54	HCL	xxx	<u>54</u> -90+	HCL	xxx	2	III	3b	W
197	0-32	MZCL	<5	32-55	MZCL	xxx	<u>55</u> -90+	C	xxx	0	III	3a	W
198	0-27	HCL	<5	28-43	HCL	xxx	<u>43</u> -60 60+	C Stopped on stones	xxx	1	III	3b	W
199	0-31	HCL	<5	31-90+	HCL(dist?)	xx				2	I	-	-
200	0-27	HCL	<5	27-50	HCL	xxx	<u>50</u> -90+	C	xxx	2	III	3b	W
201	0-29	MZCL	<5	29-85+	HZCL	o				0	I	2	D
202	0-31	HCL	5-10	31-45	HCL	xxx	<u>45</u> -90+	C	xxx	3	III	3b	W
203	0-26	HCL	5-10	26-37	HCL	xxx	<u>37</u> -90+	C	xxx	2	III	3b	W
204	0-33	MSL	15-20	33-65	CSL 25% flints	xxx	65+	Gravel		0	I	3a/3b	D

Obs	Topsoil			Upper subsoil			Lower subsoil			Slope	Wetness	ALC	Main
No	Depth (cm)	Texture	Stones >20mm (%)	Depth (cm)	Texture	Mottling	Depth (cm)	Texture	Mottling	(°)	Class	Grade	Limitation
205	0-32	SCL	<5	32-54	SCL	xx	54-74 74-90+	SCL HCL	xxx xxx	0	II	3a	D
206	0-36	HCL	5	36-52	HCL	xxx	52-100+	C	xxx	2	III	3b	W
207	0-29	HCL	5-10	29-60+	C	xxx				2	III	3b	W
208	0-36	SCL	5	36-50	SCL	xxx	50-100+	C	xxx	0	III	3a	D/W
209	0-32	MSL	15-20	32-62+	CSL 30% flints	xxx	62+	Gravel		1	I	3a/3b	D
210	0-30	HCL	5-10	30-52	HCL	xxx	52-60+	C	xxx	2	III	3b	W
211	0-35	HCL/SCL	5	35-51	HCL	xxx	51-90+	C	xxx	1	III	3b/3a	W
212	0-32	HZCL	<5	32-48	HCL	xxx	48-90+	C	xxx	0	III	3b	W
213	0-33	SCL	5-10	33-50	SCL	xxx	50-74 74+	SCL/HCL Stopped on stones	xxx	0	III	3a	D/W
214	0-35	SCL	10-15	35-50	SCL/gravel	xx	50+	Stopped on stones		0	-	3b	D
215	0-34	HCL	5	34-60	HCL	xxx	60-90+	C	xxx	2	II	3a	W
216	0-32	SCL	5-10	32-47	SCL/gravel	o	47+	Stopped on stones		2	-	3a/3b	D
217	0-33	MZCL	<5	33-100+	MZCL	x				0	I	2	D
218	0-32	MZCL	0	32-60	HCL	x	60-100+	HZCL	xx(x)	0	II	2	D/W
219	0-24	SCL	5-10	24-30	gravel	o	30+	Stopped on stones		1	-	-	-
220	0-32	MZCL	<5	32-51	M/HZCL	xxx	51-90+	HZCL	xxx	0	III	3a	W
221	0-27	SCL	5-10	27-47	SCL	xx	47-57 57+	SCL Stopped on stones	xxx	1	II	3a	D
222	0-26	MZCL	<5	26-54	MZCL	xx	54-100+	HZCL	o	0	I	2	D
223	0-34	FSZL/MZCL	5-10	34-55	MZCL	x	55-110	MZCL	xxx	0	I	2	D/St
224	0-40	MSL	10-15	40-60+	CSL 25% gravel	xx				0	I	3a	D/St
225	0-40	MZCL/FSZL	10-15	40-71	MZCL	xx	71+	Flints		0	I	3a	St
226	0-44	MSL	10-15	44-64	CLS 20% gravel	xxx	64+	Stopped on stones		0	I	3a	D/St
227	0-41	MZCL/FSZL	5-10	41-100+	MZCL	x				0	I	2	D/St
228	0-36	MZCL/FSZL	5-10	36-50+	FSZL	xx	50+	Stopped on stones		0	I	2	D/St
229	0-40	MZCL	<5	40-100+	MZCL	x				0	I	2	D

Obs	Topsoil			Upper subsoil			Lower subsoil			Slope	Wetness	ALC	Main
No	Depth (cm)	Texture	Stones >20mm (%)	Depth (cm)	Texture	Mottling	Depth (cm)	Texture	Mottling	(°)	Class	Grade	Limitation
230	0-40	MZCL	5-10	40-66	MZCL	x	66+	Stopped on stones		0	I	2	St/D
231	0-30	MSZL	<5	30-68	MZCL	o	68-110+	MZCL	x	0	I	2	D
232	0-35	FSZL/MZCL	<5	35-100+	FSZL	o				0	I	1	-
233	0-40	FSZL	<5	40-100+	MZCL	o				0	I	1	-
234	0-33	MZCL	<5	33-53	MZCL	o	53-90+	MZCL	xx	0	I	2	D
235	0-33	MZCL	<5	33-55	MZCL	o	55-80+	MZCL	xx	0	I	2	D
236	0-28	MZCL	<5	28-47	MZCL	o	47-90+	MZCL	x	0	I	2	D
237	0-35	MZCL	<5	35-54	MZCL	o	54-90+	MZCL	xx	0	I	2	D
238	0-35	HCL	<5	35-41	HCL	xxx	41-80+	HCL/C	xxx	2	III	3b	W
239	0-32	HCL	<5	32-46	HCL	xxx	45-90+	HCL	xxx	2	III	3b	W
240	0-28	HCL	<5	28-48	HCL	xx	48-65 65-90+	HCL HCL	xxx xxx	1	II	3a	W
241	0-30	HCL	<5	30-45	HCL	xxx	45-90+	HCL	xxx	1	III	3b	W
242	0-31	MZCL	<5	31-56	HZCL	xx(x)	56-91+	HZCL	xxx	0	II/III	2/3a	W
243	0-28	MZCL	<5	28-90+	MZCL	x				2	I	2	D
244	0-30	HZCL	<5	30-100+	HZCL	xxx				0	II	3a	W
245	0-29	MZCL	0	29-90+	MZCL	o				1	I	2	D
246	0-29	HCL	<5	29-100+	Cr	xxx				0	III	3b	W
247	0-32	MZCL	0	32-90+	MZCL	o				1	I	2	D
248	0-33	HCL	<5	33-60	HCL(r)	xx	60-100+	HCL(r)	xxx	0	I	2	W/D
249	0-31	MZCL	<5	31-90+	MZCL	x				1	I	2	D
250	0-30	HCL	<5	30-58	HCL(r)	x	58-100+	MZCL	xxx	0	I	2	W/D
251	0-32	MZCL	0	32-82	MZCL	x	82-100+	MZCL	xx	0	I	2	D
252	0-29	MCL	<5	29-62	M/HCL(r)	o	62-100+	HCL(r)	xx(x)	1	I/II	2	D
253	0-28	MZCL	0	28-90+	MZCL	xx				0	I	2	D
254	0-33	HCL	<5	33-90+	C	xxx				1	III	3b	W
255	0-31	HCL	<5	31-50	C/SC	xxx	50+	Stopped (wet)		1	III	3b	W
256	0-33	MCL	<5	33-45	MCL	xxx	45-80+	HCL	xxx	0	III	3a	W/D
257	0-32	MCL	<5	32-61	MCL	xxx	61-90+	HCL	xxx	0	II	3a	W

Obs	Topsoil			Upper subsoil			Lower subsoil			Slope	Wetness	ALC	Main
No	Depth (cm)	Texture	Stones >20mm (%)	Depth (cm)	Texture	Mottling	Depth (cm)	Texture	Mottling	(°)	Class	Grade	Limitation
258	0-27	HCL	<5	27-40	HCL	xxx	40-90+	C	xxx	1	III	3b	W
259	0-31	HCL	<5	31-36	HCL	xxx	36-70+	C	xxx	1	III	3b	W
260	0-30	MZCL	0	30-90+	HZCL	xxx				1	II	2	W/D
261	0-32	MZCL	0	32-52	MZCL	x	52-100+	HZCL	xx	1	I	2	D
262	0-32	MZCL	0	32-62	MZCL	o	62-100+	MZCL	x	0	I	2	D
263	0-27	MZCL	0	27-52	MZCL	xxx	52-80+	HCL	xxx	1	III	3a	W
264	0-30	HCL	<5	30-50	HCL	xxx	50-100+	C®	xxx	0	III	3b	W
265	Non agricultural – hard standings												
266	0-32	HCL	5-10	32-90+	Cr	xxx				1	III	3b	W
267	0-27	HCL	5-10	27-35	HCL	xxx	35-60+	C	xxx	1	III	3b	W
268	0-34	HCL	<5	34-87+	HCL/C	xxx				1	III	3b	W
269	0-28	HCL	5-10	28-41	HCL	xxx	41-60+	C	xxx	1	III	3b	W
270	0-30	HCL	10	30-80+						2	III	3b	W
271	0-29	HCL	5-10	29-80+	HCL	xxx				3	II/III	3a/b	W
272	0-30	SCL	5-10	30-61	SCLr	o	61-100+	MS	x	1	I	3a	D
273	Non agricultural – woodland												
274	Non agricultural – woodland												
275	0-31	MCL	<5	31-44	MCL	xxx	44-61 61+	HCL Stopped on stones	xxx	1	III	3a	W/D
276	0-29	SCL	<5	29-47	SCL	xx(x)	47-80+	HCL	xxx	1	III	3a	W/D
277	0-27	MCL	<5	27-37	MCL	xxx	37-50 50-80+	HCL C	xxx xxx	0	III	3a	W/D
278	0-32	SCL	<5	32-50	SCL	xxx	50-80+	HCL	xxx	0	III	3a	W/D
279	0-28	SCL	5-10	28-58	SCL	xx	58+	Gravel?		0	I	3a	D
280	0-32	HCL	5-10	32-46	HCL	xxx	46-90+	C	xxx	1	III	3b	W
281	0-29	MCL	5-10	29-60	HCL/MCL	xxx	60-90+	C	xxx	0	II	2	W/D
282	0-35	SCL	5-10	35-62	SCL	xx(x)	62-100+	SCL	xxx	1	I/II	2	W/D
283	0-40	SCL/MCL	5-10	40-50	CSL/Gravel	xxx	50-80+	C	xxx	1	III	3a	W
284	0-32	HCL	<5	32-100+	C	xxx				0	III	3b	W

Obs	Topsoil			Upper subsoil			Lower subsoil			Slope	Wetness	ALC	Main
No	Depth (cm)	Texture	Stones >20mm (%)	Depth (cm)	Texture	Mottling	Depth (cm)	Texture	Mottling	(°)	Class	Grade	Limitation
285	0-28	MCL	5-10	28-52	HCL	xxx	52-70 70-100+	SCL SCL/Gravel	xxx xxx	1	II	3a	D
286	0-32	SCL	5-10	32-43	SCL	x	43-80+	sistMS	xxx	2	I	3b	D
287	0-30	HCL	5-10	30-61	HCL	xxx	61-100+	C	xxx	2	III/II	3b/3a	W
288	0-31	HCL	5-10	31-51	HCL	xxx	51-100+	C	xxx	1	III	3b	W
289	0-31	SCL	5-10	31-100+	SCL	xxx				0	III	3a	W
290	0-30	HCL	<5	30-100+	C	xxx				0	III	3b	W
291	0-31	SCL/HCL	<5	31-40	SCL	xxx	40-70+	C	xxx	0	III	3a/3b	W
292	0-31	HCL	5-10	31-50	C	xxx	50+	Stopped on stones		1	III	3b	W
293	0-31	HCL	<5	31-55	HCL	xxx	55-100+	C	xxx	0	III	3b	W
294	0-30	HCL	<5	30-90+	C	xxx				0	III	3b	W
295	0-30	HCL	5-10	30-61	HCL/C	xxx	61-100+	C	xxx	0	III	3b	W
296	0-30	SCL	5-10	30-50	mstSCL(wet)	xxx	50+	Stopped on stones		0	II	3a	D
297	0-31	HCL	<5	31-100+	C(r)	x				1	III	3b	W
298	0-30	HCL	<5	30-66	C	xxx	66-100+	C	xxx	1	III	3b	W
299	0-32	HCL	5-10	32-50	HCL	xxx	50-70+	C		1	III	3b	W
300	0-30	MCL	5-10	30-74	mstSCL	xxx	74+	Stopped on stones		0	II	3a	D
301	0-29	HCL	<5	29-42	HCL	xxx	42-90+	C	xxx	2	III	3b	W
302	0-32	HCL	<5	32-100+	C	xxx				1	III	3b	W
303	0-28	HCL	5-10	26-60	C	xxx	60-100+	Cca	xxx	0	III	3b	W
304	0-22	HCL	5-10	22-50	C	xxx	50-60 60-100+	SCL CSL(wet)	xxx xxx	3	III	3b	W
305	0-30	HCL	5-10	30-90+	C					3	III	3b	W
306	Non agricultural – woodland												
307	0-28	HCL	5-10	28-80+	C	xxx				3	III	3b	W
308	0-32	HZCL	5-10	32-65	HCL ca	xxx	65+	Stopped on stones		0	II	3a	W
309	0-30	HCL	10-15	30-80+	C	xxx				0	III	3b	W
310	0-30	HCL	5-10	30-45	HCL	xxx	45-90+	Cca	xxx	0	III	3b	W
311	0-30	HCL	5-10	30-60	HCL	xxx	60-100+	C	xxx	0	II	3a	W



Obs	Topsoil			Upper subsoil			Lower subsoil			Slope	Wetness	ALC	Main
No	Depth (cm)	Texture	Stones >20mm (%)	Depth (cm)	Texture	Mottling	Depth (cm)	Texture	Mottling	(°)	Class	Grade	Limitation
312	0-26	HCL	5-10	26-50	HCL	xx(x)	<u>50-78+</u> 78+	C(r) Stopped on stones	xxx	1	III	3b	W
313	0-26	HCL	5-10	26-50	HCL	xx	<u>50-80</u> <u>80-100+</u>	HCL C	xxx xxx	0	II	3a	W
314	0-29	HCL	5-10	29-46	HCL	xxx	<u>46-80+</u>	C	xxx	0	III	3b	W
315	0-28	HCL	5-10	28-80	HCL	xxx	<u>80-100+</u>	C	xxx	0	II	3a	W
316	0-30	HCL	5-10	30-45	HCL	xxx	<u>45-71+</u> 71+	C Stopped	xxx	1	III	3b	W
317	0-28	MCL	5-10	28-46	HCL	o	46-61 61+	HCL Stopped on stones	xxx	1	I	2	D
318	0-30	MZCL	5-10	30-62	MZCL	xx	62+	Stopped on stones		0	I	2	D
319	0-28	MZCL	5-10	28-71	M/HZCL	xxx	71+	Stopped on stones		0	I	2	D
320	0-30	HCL/MCL	5-10	30-46	HCLr	xxx	<u>48-81+</u>	Cr ca	xxx	0	III	3b/3a	W
321	0-94	HCL(dist)	<5	<u>94-100+</u>	HCL	xxx				1	-	-	-
322	0-28	HCL	<5	28-36	HCL	xxx	<u>36-60+</u>	C	xxx	1	III	3b	W
323	0-32	HCL	<5	32-58	HCL	xxx	<u>58-70+</u>	C	xxx	0	II	3a	W
324	0-33	HCL	<5	<u>33-60+</u>	C	xxx				0	III	3b	W
325	0-32	HCL	<5	32-52	HCL	xxx	<u>52-80+</u>	C	xxx	1	III	3b	W
326	0-30	HCL	<5	30-54	HCL	xxx	<u>54-80+</u>	HCL	xxx	2	III/II	3b/3a	W
327	0-28	HCLvslca	<5	<u>28-63</u>	C	xxx	<u>63-70+</u>	Cchky	xxx	2	III	3b	W
328	0-30	HCL	5-10	30-50	HCL	xx	<u>50-80+</u>	HCL	xxx	0	II	3a	W/D
329	0-33	mstSCL	10	33-70+	mstSCL	xx				1	I	3a	D
330	0-29	HCL	5-10	29-45	HCL	xxx	<u>45-60+</u>	C	xxx	1	III	3b	W
331	0-30	slstMCL	5-10	30-52	mstMCL	xx	52+	Stopped on stones		2	II?	3a	D
332	0-30	HCL	5-10	30-56	HCL	xxx	<u>56-65+</u>	HCL	xxx	2	II/III	3a/3b	W
333	0-28	HCL	10	28-36	HCL	xxx	<u>36-54</u> <u>54-60+</u>	C Cchky	xxx xxx	1	III	3b	W
334	0-28	HCL	<5	<u>28-54</u>	C	xxx	<u>54-60+</u>	Cchky	xxx	2	III	3b	W
335	0-28	HCL	<5	28-65	HCL	xxx	<u>65-90+</u>	HCL	xxx	2	II	3a	W
336	0-35	MCL	<5	35-80+	MCL	x				1	I	2	D

Obs	Topsoil			Upper subsoil			Lower subsoil			Slope	Wetness	ALC	Main
No	Depth (cm)	Texture	Stones >20mm (%)	Depth (cm)	Texture	Mottling	Depth (cm)	Texture	Mottling	(°)	Class	Grade	Limitation
337	0-34	HCL	<5	<u>34</u> -80+	C	xxx				1	III	3b	W
338	0-32	HCL	<5	<u>32</u> -50	mstC	xxx	50+	Stopped on stones		0	III	3b	W
339	0-30	HCL	<5	<u>30</u> -47	mstHCL	xxx	<u>47</u> -60+	C	xxx	0	III	3b	W
340	0-24	HCL	<5	24-38	HCL	xxx	<u>38</u> -60 <u>60</u> -70+	C Cchky	xxx xxx	0	III	3b	W
341	0-29	HCL/MCL	<5	29-59	HCL/MCL	x	<u>59</u> -65+	HCL	xxx	0	II	3a/2	W
342	0-33	MCL	0	33-60	MCL	o	60-80+	HCL	xx	0	I/II	2	D
343	0-32	MZCL	0	32-52	MZCL	o	52-100+	MZCL	xx	0	I	2	D
344	0-27	MZCL	0	27-45	MZCL	xxx	<u>45</u> -60+	HCL	xxx	0	III	3a	W/D
345	0-33	MZCL	0	33-90+	MZCL	xx				0	I	2	D
346	0-27	HCL	<5	27-34	HCL	xxx	<u>34</u> -60+	C	xxx	0	III	3b	W
347	0-33	HCL	<5	33-70+	HCL	xxx				0	II	3a	W
348	0-31	MCL	<5	31-70+	MZCL	o				0	I	2	D
349	0-29	HCL	<5	<u>29</u> -60+	C	xxx				1	III	3b	W
349a	0-32	HCL	<5	32-55	HCL	xxx	<u>55</u> -90+	C	xxx	0	II/III	3a/3b	W
350	0-34	HCL	<5	34-56	HCL	xxx	<u>56</u> -70+	HCL	xxx	0	II	3a	W
351	0-31	HCL	<5	<u>31</u> -47	HCL/C	xxx	<u>47</u> -70+	C	xxx	1	III	3b	W
352	0-27	HCL	<5	27-62	HCL	xxx	<u>62</u> -90+	C	xxx	0	II	3a	W
353	0-31	HCL	5-10	<u>31</u> -44	mstHCL	xxx	<u>44</u> -60+	C	xxx	1	III	3b	W
354	0-30	MCL	<5	30-60	MCL	xxx	<u>60</u> -90+	HCL	xxx	1	II	2/3a	D
355	0-25	HCL	<5	<u>25</u> -44	MCL	xxx	<u>44</u> -60+	C	xxx	0	III	3b	W
356	0-35	MCL	<5	35-58	MCL	xxx	<u>58</u> -70+	C	xxx	0	II/III	3a/2	D
357	0-30	MZCL	0	30-70+	MZCL	o				0	I	2	D
358	0-42	MCL	0	42-63	MCL	o	63-90+	MCL	x	1	I	2	D
359	0-27	MCL	<5	27-52	HCL	xxx	<u>52</u> -70+	C	xxx	0	III	3a	D/W
360	0-37	HCL	<5	37-65+	HCL	xx				0	I	2	D
361	0-26	HCL	<5	26-36	HCL	xxx	<u>36</u> -60+	C	xxx	0	III	3b	W
362	0-32	HCL	<5	32-52	HCL	xxx	<u>52</u> -60+	HCL	xxx	0	III	3b	W
363	0-26	MZCL	5-10	<u>26</u> -33	HCL	xxx	<u>33</u> -60+	C	xxx	2	III	3a	D/W

Obs	Topsoil			Upper subsoil			Lower subsoil			Slope	Wetness	ALC	Main
No	Depth (cm)	Texture	Stones >20mm (%)	Depth (cm)	Texture	Mottling	Depth (cm)	Texture	Mottling	(°)	Class	Grade	Limitation
364	0-32	HCL	<5	32-63	MZCL	o	63-90+	MZCL	xx	1	I	2	D/W
365	0-31	HCL	<5	31-45	HCL	xxx	<del>45</del> -60+	C	xxx	0	III	3b	W
366	0-31	HCL	<5	31-44	HCL	xx	<del>44</del> -60+	HCL	xxx	2	II/III	3a/3b	W
367	0-30	HCL	<5	<del>30</del> -58	C	xxx	<del>58</del> -70+	Cchky	xxx	2	III	3b	W
368	0-27	HCL	<5	<del>27</del> -60+	C	xxx				0	III	3b	W
369	0-28	C	<5	<del>28</del> -50+	C	xxx				1	III	3b	W
370	0-31	HCL	<5	31-39	HCL	xxx	<del>39</del> -60+	C	xxx	0	III	3b	W
371	0-32	HCL	<5	<del>32</del> -60+	C	xxx				0	III	3b	W
372	0-27	MZCL	<5	27-37	MZCL	xxx	<del>37</del> -60+	HCL/C	xxx	0	III	3a	D/W
373	0-32	MZCL	<5	32-37	MZCL	xxx	<del>37</del> -60+	HZCL	xxx	0	III	3a	D/W
374	0-26	HCL	5-10	<del>26</del> -40	HCL	xxx	<del>40</del> -60+	C	xxx	0	III	3b	W
375	0-31	HCL	<del>≤5</del>	<del>31</del> -60+	C	xxx				0	III	3b	W
376	0-33	HCL	<5	<del>33</del> -48	HCL	xxx	<del>48</del> -60+	C	xxx	0	III	3b	W
377	0-29	MCL	<5	29-45	M/HCL	xxx	<del>45</del> -60+	HCL	xxx	1	III	3a	D/W
378	0-27	Cca	<5	<del>27</del> -60+	Cchky	xxx				3	III	(3a)	W
379	0-28	HCL	<5	<del>28</del> -60+	C	xxx				0	III	3b	W
380	0-29	HCL	<5	<del>29</del> -60+	C	xxx				1	III	3b	W
381	0-26	HCL	5-10	26-32	HCL	xxx	<del>32</del> -60+	C	xxx	0	III	3b	W
382	0-32	HCL	<5	<del>32</del> -52	HCL	xxx	<del>52</del> -60+	C	xxx	2	III	3b	W
383	0-33	HCL	<5	33-52	HCL	xxx	<del>52</del> -90+	C	xxx	2	III	3b	W
384	0-31	HCL	<5	<del>31</del> -43	HCL	xxx	<del>43</del> -60+	C	xxx	2	III	3b	W
385	0-40	HCL	<5	<del>40</del> -80+	C	xxx				2	III	3b	W
386	0-28	HCL/MCL	<5	28-43	HCL	xxx	<del>43</del> -60+	C	xxx	1	III	3b/3a	W
387	0-31	MCL	<5	31-51	HCL	xxx	<del>51</del> -90+	HCL	xxx	1	III	3a	D/W
388	0-31	SCL	<5	31-54	SCL	xxx	<del>54</del> -90+	SCL	xxx	1	III/II	3a	W
389	0-34	MSL	5	34-42	MSL	xx	42-90+	MS	xx	1	I	3a	D
390	0-30	MZCL	<5	30-44	MZCL	xxx	<del>44</del> -66 <del>66</del> -90+	HZCL C	xxx xxx	0	III	3a	D/W
391	0-34	MCL	<5	34-54	MCL	xx(x)	<del>54</del> -90+	ZC	xxx	1	II/III	3a	D/W

Obs	Topsoil			Upper subsoil			Lower subsoil			Slope	Wetness	ALC	Main
No	Depth (cm)	Texture	Stones >20mm (%)	Depth (cm)	Texture	Mottling	Depth (cm)	Texture	Mottling	(°)	Class	Grade	Limitation
392	0-33	mstSCL	10-15	33-66	xtCSL	x	66-100+	LCS/gravel	o	1	I	3b	D
393	0-30	MZCL	<5	30-58	MZCL	xxx	<u>58</u> -90+	HZCL	xxx	0	II	2	W/D
394	0-27	MZCL	10	27-60+	MZCL	o				0	I	2/3a	St
395	0-35	MCL	10	35-70+	MZCL	xxx				0	II	2/3a	St
396	0-34	slstSCL	5-10	34-50	mstSCL	xxx	50+	Stopped on stones		1	II	3a	D
397	0-34	MZCL	<5	34-70+	MZCL	xxx				0	II	2	D
398	0-35	MZCL	10-15	35-43	MZCL	xx	43-60+	CSL/gravel	xx	0	I	3a	D/St
399	0-31	MZCL	<5	31-52	MZCL	xx	52-80+	MZCL	xxx	0	I	2	D
400	0-32	MZCL	<5	32-65	MZCL	xx	<u>65</u> -90+	MZCL	xxx	0	II	2	D/W
401	0-33	HZCL	<5	33-48	HZCL	xx(x)	<u>48</u> -80+	HZCL	xxx	0	III	3b	W
402	0-31	HCL	<5	31-43	HCL	xx	<u>43</u> -60+	C	xxx	1	III	3b	W
403	0-31	MZCL	0	31-71	MZCL	x	<u>71</u> -80+	HCL	xxx	0	II	2	W/D
404	0-28	MZCL	0	28-80+	MZCL	o				1	I	2	D
405	0-31	MCL	<5	31-70+	MZCL	o				0	I	2	D
406	0-28	MCL	<5	28-46	MCL	xxx	<u>46</u> -80+	HCL	xxx	0	IIII	3a	W
407	0-33	MZCL	0	33-47	HCL	xxx	<u>47</u> -70+	HCL	xxx	0	III	3a	W
408	0-32	MZCL	0	32-80+	MZCL	xx				0	I	2	D
409	0-30	MZCL	0	30-70+	MZCL	o				0	I	2	D
410	0-27	MCL	<5	27-53	MCL	xxx	<u>53</u> -80+	HCL	xxx	0	III/II	3a/2	W
411	0-32	HCL	<5	<u>32</u> -50+	C	xxx				0	III	3b	W
412	0-30	HCL	<5	30-40	HCL	xxx	<u>40</u> -60+	C	xxx	1	III	3b	W
413	0-31	MZCL	<5	31-65	HCL	xx	<u>65</u> -80+	HCL	xxx	1	II	2	W/D
414	0-30	HZCL	0	30-45	HCL	xx(x)	<u>45</u> -80+	HCL	xxx	1	II/III	3a	W
415	0-29	HCL	<5	<u>29</u> -50+	C	xxx				0	III	3b	W
416	0-33	MCL	<5	33-59	MCL	xx	<u>59</u> -80+	HCL	xxx	1	II	2	W/D
417	0-24	MZCL	<5	<u>24</u> -47	HCL	xxx	<u>47</u> -60+	C	xxx	1	III	3a	W
418	0-28	MCL	0	28-80+	MZCL	xx				0	I	2	D
419	0-38	MZCL	0	38-58	MZCL	o	<u>58</u> -80+	HZCL	xx	1	II	2	D/W
420	0-30	HCL/MCL	0	30-52	HCL	xxx	<u>52</u> -80+	HCL	xxx	1	III	3b/3a	W

Obs	Topsoil			Upper subsoil			Lower subsoil			Slope	Wetness	ALC	Main
No	Depth (cm)	Texture	Stones >20mm (%)	Depth (cm)	Texture	Mottling	Depth (cm)	Texture	Mottling	(°)	Class	Grade	Limitation
421	0-26	HCL	5-10	26-43	HCL	xxx	42-50+	C	xxx	2	III	3b	W
422	0-30	HCL	5-10	30-60+	C	xxx				2	III	3b	W
423	0-35	SCL	5-10	35-80+	MCL/SCL	o				2	I	2	D/St
424	0-28	HCL	<5	28-50+	C	xxx				2	III	3b	W
425	0-31	SCL	5-10	31-52	SCL	xxx	52-80+	HCL	xxx	1	III	3a	W
426	0-30	MCL	5-10	30-60	SCL(r)	xxx	60+	Stopped on stones		0	II	2	W?
427	0-31	HCL	5-10	31-100+	C	xxx				0	III	3b	W
428	0-30	HCL	10-15	30-51	C ca	xxx	51-100+	C ca	xxx	0	III	3b	W
429	0-30	HCL	<5	30-100+	C	xxx				0	III	3b	W
430	0-30	MCL	5-10	30-50+	SCL flinty	xxx	50+	Stopped on stones		2	II	3a	D
431	0-29	HCL	<5	29-70+	C	xxx				0	III	3b	W
432	0-30	HCL	<5	30-41	HCL	xxx	41-60+ 60+	C Stopped on stones	xxx	0	III	3b	W
433	0-30	MCL	5-10	30-55	SCL	xxx	55-76 76+	SCL Flinty	xxx	0	II	3a	D
434	0-30	HCL	<5	30-90+	C(r)	xxx				1	III	3b	W
435	0-31	MCL	<5	31-90+	slstSCL	xxx				0	II	2	W/D
436	0-30	HCL	<5	30-91+	C	xxx				0	III	3b	W
437	0-30	MCL	5-10	30-70+	mstSCL(wet at 45 cm)	xxx				0	II	3a	D
438	0-30	HCL	5-10	30-90+	C(r)	xxx				0	III	3b	W

## Key to table

### *Gley indicators*<sup>1</sup>

o	unmottled
x	a few ochreous mottles (or a few to common root mottles (topsoils)) <sup>3</sup>
xx	common to many ochreous mottles and/or dull structure faces (slightly gleyed horizon)
xxx	greyish or pale matrix common to many ochreous mottles (gleyed horizon)
xxxx	dominantly grey or blueish matrix often with some ochreous mottles (gleyed horizon)

### *Slowly permeable layers*<sup>4</sup>

a depth underlined (e.g. 50) indicates  
the top of a slowly permeable layer  
A wavy underline (e.g. 50) indicates  
the top of a layer borderline to slowly permeable

### *Texture*<sup>2</sup>

C	- clay
ZC	- silty clay
SC	- sandy clay
CL	- clay loam (H-heavy, M-medium)
ZCL	- silty clay loam (H-heavy, M-medium)
SZL	- sandy silt loam (F-fine, M-medium, C-coarse)
LS	- loamy sand (F-fine, M-medium, C-coarse)
SL	- sandy loam (F-fine, M-medium, C-coarse)
S	- sand (F-fine, M-medium, C-coarse)
SCL	- sandy clay loam
P	- peat (H-humified, SF-semi-fibrous, F-fibrous)
LP	- loamy peat; PL - peaty loam

### *Wetness Class*<sup>5</sup>

I-VI

### *Limitations:*

W	- wetness/workability
D	- droughtiness
De	- depth
F	- flooding
St	- stoniness
Sl	- slope
T	- topography/microrelief

### *Suffixes & prefixes:*

r	- reddish, gn - greenish
o	- organic
(v)st	- (very) stony, chky-chalky
ca	- calcareous: x-extremely, v-very, sl-slightly

### *Other abbreviations*

fmn	- ferri-manganiferous concentrations
dist	- disturbed soil layer;
R	- bedrock (CH - chalk, SST - sandstone)
LST	- limestone, MST - Mudstone)

<sup>1</sup>Gley indicators in accordance with Hodgson, J.M., 1997. Soil Survey Field Handbook (third edition). Soil survey technical monograph No. 5

<sup>2</sup>Texture in accordance with particle size classes in Hodgson (1997)

<sup>3</sup> Occasionally recorded in the texture box

<sup>4</sup>Permeability is estimated for auger borings and must be confirmed by full pit observations in accordance with the definitions in Hodgson (1984)

<sup>5</sup>These classes are defined in Hodgson (1997)

**SITE:** Longfield Solar  
**Location:** 23

<b>Layer</b>	<b>Lower depth</b> (cm)	<b>Texture symbo</b> (or stop)	<b>Structure</b> Good, Moderate or Poor)	<b>% stones</b>	<b>Stone type</b> (see table)
Topsoil	23	scl		20	1
Subsoil 1	55	scl	m	35	1
Subsoil 2	120	scl	m	35	1
Subsoil 3	120	stop	m	25	1

(Lowest horizon depth must be 120 and topsoil cannot be greater than 70 cm (potatoes) or 50 cm (wheat))

**DATA USED FROM MASTER TABLE**

	<b>Fine earth</b>	<b>Stones</b>
Topsoil Av	17	1
Subsoil 1 TAv	15	1
Subsoil 1 EAv	10	0.5
Subsoil 2 TAv	15	1
Subsoil 2 EAv	10	0.5
Subsoil 3 TAv	0.1	1
Subsoil 3 EAv	0.1	0.5

(ERR = no data)

<b>Stone codes</b>	
0	No stones
1	Hard rocks or stones
2	Soft, medium or coarse grained sdst
3	Soft weathered ign or metamorph
4	Soft oolitic or dolomitic limestones
5	Soft fine-grained sandstone
6	Soft argillaceous or silty
7	Chalk
8	Gravel with non-porous stones
9	Gravel with porous stones

**PROFILE CALCULATIONS**

	<b>Ap potatoes</b>	<b>Ap wheat</b>
Topsoil	317.4	317.4
Subsoil 1	0.0	0.0
Subsoil 1	323.2	306.1
Subsoil 2	151.5	0.0
Subsoil 2	0.0	433.9
Subsoil 3	0.0	0.0

<b>TOTAL AP (mm)</b>	79	106
<b>MD (mm)</b>	118	122
<b>AP-MD (mm)</b>	-39	-16

**AGRICULTURAL LAND GRADE**

<b>Class</b>	<b>Potatoes</b>	<b>Wheat</b>
1		
2		
3a		*
3b	*	
4		

**SITE:** Longfield Solar  
**Location:** 44

Layer	Lower depth (cm)	Texture symbol (or stop)	Structure (Good, Moderate or Poor)	% stones	Stone type (see table)
Topsoil	31	cl		15	1
Subsoil 1	44	c	p	10	1
Subsoil 2	120	c	p	20	7
Subsoil 3	120	stop	m	5	1

(Lowest horizon depth must be 120 and topsoil cannot be greater than 70 cm (potatoes) or 50 cm (wheat))

**DATA USED FROM MASTER TABLE**

	Fine earth	Stones
Topsoil Av	18	1
Subsoil 1 TAv	13	1
Subsoil 1 EAv	7	0.5
Subsoil 2 TAv	13	10
Subsoil 2 EAv	7	7
Subsoil 3 TAv	0.1	1
Subsoil 3 EAv	0.1	0.5

(ERR = no data)

Stone codes	
0	No stones
1	Hard rocks or stones
2	Soft, medium or coarse grained sdst
3	Soft weathered ign or metamorph
4	Soft oolitic or dolomitic limestones
5	Soft fine-grained sandstone
6	Soft argillaceous or silty
7	Chalk
8	Gravel with non-porous stones
9	Gravel with porous stones

**PROFILE CALCULATIONS**

	Ap potatoes	Ap wheat
Topsoil	479.0	479.0
Subsoil 1	0.0	153.4
Subsoil 1	153.4	0.0
Subsoil 2	322.4	0.0
Subsoil 2	0.0	532.0
Subsoil 3	0.0	0.0

<b>TOTAL AP (mm)</b>	95	116
<b>MD (mm)</b>	118	122
<b>AP-MD (mm)</b>	-23	-6

**AGRICULTURAL LAND GRADE**

Class	Potatoes	Wheat
1		
2		
3a	*	*
3b		
4		



**SITE:** Longfield Solar  
**Location:** 48

<i>Layer</i>	<i>Lower depth</i> (cm)	<i>Texture symbol</i> (or stop)	<i>Structure</i> (Good, Moderate or Poor)	<i>% stones</i>	<i>Stone type</i> (see table)
Topsoil	31	cl		15	1
Subsoil 1	44	c	p	10	1
Subsoil 2	120	c	p	10	1
Subsoil 3	120	stop	m	5	1

(Lowest horizon depth must be 120 and topsoil cannot be greater than 70 cm (potatoes) or 50 cm (wheat))

**DATA USED FROM MASTER TABLE**

	<i>Fine earth</i>	<i>Stones</i>
Topsoil Av	18	1
Subsoil 1 TAv	13	1
Subsoil 1 EAv	7	0.5
Subsoil 2 TAv	13	1
Subsoil 2 EAv	7	0.5
Subsoil 3 TAv	0.1	1
Subsoil 3 EAv	0.1	0.5

(ERR = no data)

Stone codes	
0	No stones
1	Hard rocks or stones
2	Soft, medium or coarse grained sdst
3	Soft weathered ign or metamorph
4	Soft oolitic or dolomitic limestones
5	Soft fine-grained sandstone
6	Soft argillaceous or silty
7	Chalk
8	Gravel with non-porous stones
9	Gravel with porous stones

**PROFILE CALCULATIONS**

	<i>Ap potatoes</i>	<i>Ap wheat</i>
Topsoil	479.0	479.0
Subsoil 1	0.0	153.4
Subsoil 1	153.4	0.0
Subsoil 2	306.8	0.0
Subsoil 2	0.0	482.6
Subsoil 3	0.0	0.0

<b>TOTAL AP (mm)</b>	94	111
<b>MD (mm)</b>	118	122
<b>AP-MD (mm)</b>	-24	-11

**AGRICULTURAL LAND GRADE**

<i>Class</i>	<i>Potatoes</i>	<i>Wheat</i>
1		
2		
3a	*	*
3b		
4		

**SITE:** Longfield Solar  
**Location:** 96

Layer	Lower depth (cm)	Texture symbol (or stop)	Structure (Good, Moderate or Poor)	% stones	Stone type (see table)
Topsoil	30	zcl	or Poor)	10	1
Subsoil 1	50	zcl	m	20	1
Subsoil 2	120	zcl	m	40	1
Subsoil 3	120	stop	m	5	1

(Lowest horizon depth must be 120 and topsoil cannot be greater than 70 cm (potatoes) or 50 cm (wheat))

#### DATA USED FROM MASTER TABLE

	<i>Fine earth</i>	<i>Stones</i>
Topsoil Av	19	1
Subsoil 1 TAv	17	1
Subsoil 1 EAv	10	0.5
Subsoil 2 TAv	17	1
Subsoil 2 EAv	10	0.5
Subsoil 3 TAv	0.1	1
Subsoil 3 EAv	0.1	0.5

(ERR = no data)

Stone codes	
0	No stones
1	Hard rocks or stones
2	Soft, medium or coarse grained sdst
3	Soft weathered ign or metamorph
4	Soft oolitic or dolomitic limestones
5	Soft fine-grained sandstone
6	Soft argillaceous or silty
7	Chalk
8	Gravel with non-porous stones
9	Gravel with porous stones

#### PROFILE CALCULATIONS

	<i>Ap potatoes</i>	<i>Ap wheat</i>
Topsoil	516.0	516.0
Subsoil 1	0.0	276.0
Subsoil 1	276.0	0.0
Subsoil 2	212.0	0.0
Subsoil 2	0.0	434.0
Subsoil 3	0.0	0.0

<b>TOTAL AP (mm)</b>	100	123
<b>MD (mm)</b>	118	122
<b>AP-MD (mm)</b>	-18	1

#### AGRICULTURAL LAND GRADE

<i>Class</i>	<i>Potatoes</i>	<i>Wheat</i>
1		
2		
3a	*	*
3b		
4		

**SITE:** Longfield Solar  
**Location:** 100

<i>Layer</i>	<i>Lower depth</i> (cm)	<i>Texture symbol</i> (or stop)	<i>Structure</i> (Good, Moderate or Poor)	<i>% stones</i>	<i>Stone type</i> (see table)
Topsoil	32	cl		5	1
Subsoil 1	58	cl	m	5	1
Subsoil 2	120	c	p	5	1
Subsoil 3	120	stop	m	5	1

(Lowest horizon depth must be 120 and topsoil cannot be greater than 70 cm (potatoes) or 50 cm (wheat))

**DATA USED FROM MASTER TABLE**

	<i>Fine earth</i>	<i>Stones</i>
Topsoil Av	18	1
Subsoil 1 TAv	16	1
Subsoil 1 EAv	10	0.5
Subsoil 2 TAv	13	1
Subsoil 2 EAv	7	0.5
Subsoil 3 TAv	0.1	1
Subsoil 3 EAv	0.1	0.5

(ERR = no data)

Stone codes	
0	No stones
1	Hard rocks or stones
2	Soft, medium or coarse grained sdst
3	Soft weathered ign or metamorph
4	Soft oolitic or dolomitic limestones
5	Soft fine-grained sandstone
6	Soft argillaceous or silty
7	Chalk
8	Gravel with non-porous stones
9	Gravel with porous stones

**PROFILE CALCULATIONS**

	<i>Ap potatoes</i>	<i>Ap wheat</i>
Topsoil	548.8	548.8
Subsoil 1	0.0	0.0
Subsoil 1	396.5	350.7
Subsoil 2	148.8	0.0
Subsoil 2	0.0	413.9
Subsoil 3	0.0	0.0

<b>TOTAL AP (mm)</b>	109	131
<b>MD (mm)</b>	118	122
<b>AP-MD (mm)</b>	-9	9

**AGRICULTURAL LAND GRADE**

<i>Class</i>	<i>Potatoes</i>	<i>Wheat</i>
1		
2	*	*
3a		
3b		
4		

**SITE:** Longfield Solar  
**Location:** 116

Layer	Lower depth (cm)	Texture symbol (or stop)	Structure (Good, Moderate or Poor)	% stones	Stone type (see table)
Topsoil	21	cl		10	1
Subsoil 1	64	cl	m	20	1
Subsoil 2	84	cl	m	20	1
Subsoil 3	120	c	p	10	1

(Lowest horizon depth must be 120 and topsoil cannot be greater than 70 cm (potatoes) or 50 cm (wheat))

**DATA USED FROM MASTER TABLE**

	Fine earth	Stones
Topsoil Av	18	1
Subsoil 1 TAv	16	1
Subsoil 1 EAv	10	0.5
Subsoil 2 TAv	16	1
Subsoil 2 EAv	10	0.5
Subsoil 3 TAv	13	1
Subsoil 3 EAv	7	0.5

(ERR = no data)

Stone codes	
0	No stones
1	Hard rocks or stones
2	Soft, medium or coarse grained sdst
3	Soft weathered ign or metamorph
4	Soft oolitic or dolomitic limestones
5	Soft fine-grained sandstone
6	Soft argillaceous or silty
7	Chalk
8	Gravel with non-porous stones
9	Gravel with porous stones

**PROFILE CALCULATIONS**

	Ap potatoes	Ap wheat
Topsoil	342.3	342.3
Subsoil 1	0.0	0.0
Subsoil 1	559.0	490.4
Subsoil 2	78.0	0.0
Subsoil 2	0.0	162.0
Subsoil 3	0.0	228.6

<b>TOTAL AP (mm)</b>	98	122
<b>MD (mm)</b>	118	122
<b>AP-MD (mm)</b>	-20	0

**AGRICULTURAL LAND GRADE**

Class	Potatoes	Wheat
1		
2		
3a	*	*
3b		
4		

**SITE:** Longfield Solar  
**Location:** 129

<i>Layer</i>	<i>Lower depth</i> (cm)	<i>Texture symbol</i> (or stop)	<i>Structure</i> (Good, Moderate or Poor)	<i>% stones</i>	<i>Stone type</i> (see table)
Topsoil	29	zcl		7	1
Subsoil 1	52	zcl	g	5	1
Subsoil 2	120	zcl	m	5	1
Subsoil 3	120	stop	m	5	1

(Lowest horizon depth must be 120 and topsoil cannot be greater than 70 cm (potatoes) or 50 cm (wheat))

**DATA USED FROM MASTER TABLE**

	<i>Fine earth</i>	<i>Stones</i>
Topsoil Av	19	1
Subsoil 1 TAv	21	1
Subsoil 1 EAv	12	0.5
Subsoil 2 TAv	17	1
Subsoil 2 EAv	10	0.5
Subsoil 3 TAv	0.1	1
Subsoil 3 EAv	0.1	0.5

(ERR = no data)

Stone codes	
0	No stones
1	Hard rocks or stones
2	Soft, medium or coarse grained sdst
3	Soft weathered ign or metamorph
4	Soft oolitic or dolomitic limestones
5	Soft fine-grained sandstone
6	Soft argillaceous or silty
7	Chalk
8	Gravel with non-porous stones
9	Gravel with porous stones

**PROFILE CALCULATIONS**

	<i>Ap potatoes</i>	<i>Ap wheat</i>
Topsoil	514.5	514.5
Subsoil 1	0.0	0.0
Subsoil 1	460.0	442.9
Subsoil 2	291.6	0.0
Subsoil 2	0.0	647.7
Subsoil 3	0.0	0.0

<b>TOTAL AP (mm)</b>	127	161
<b>MD (mm)</b>	118	122
<b>AP-MD (mm)</b>	9	39

**AGRICULTURAL LAND GRADE**

<i>Class</i>	<i>Potatoes</i>	<i>Wheat</i>
1		*
2	*	
3a		
3b		
4		

**SITE:** Longfield Solar  
**Location:** 138

Layer	Lower depth (cm)	Texture symbol (or stop)	Structure (Good, Moderate or Poor)	% stones	Stone type (see table)
Topsoil	32	zcl		5	1
Subsoil 1	58	c	p	5	1
Subsoil 2	120	c	p	5	1
Subsoil 3	120	stop	m	5	1

(Lowest horizon depth must be 120 and topsoil cannot be greater than 70 cm (potatoes) or 50 cm (wheat))

**DATA USED FROM MASTER TABLE**

	Fine earth	Stones
Topsoil Av	19	1
Subsoil 1 TAv	13	1
Subsoil 1 EAv	7	0.5
Subsoil 2 TAv	13	1
Subsoil 2 EAv	7	0.5
Subsoil 3 TAv	0.1	1
Subsoil 3 EAv	0.1	0.5

(ERR = no data)

Stone codes	
0	No stones
1	Hard rocks or stones
2	Soft, medium or coarse grained sdst
3	Soft weathered ign or metamorph
4	Soft oolitic or dolomitic limestones
5	Soft fine-grained sandstone
6	Soft argillaceous or silty
7	Chalk
8	Gravel with non-porous stones
9	Gravel with porous stones

**PROFILE CALCULATIONS**

	Ap potatoes	Ap wheat
Topsoil	579.2	579.2
Subsoil 1	0.0	0.0
Subsoil 1	322.4	276.6
Subsoil 2	148.8	0.0
Subsoil 2	0.0	413.9
Subsoil 3	0.0	0.0

<b>TOTAL AP (mm)</b>	105	127
<b>MD (mm)</b>	118	122
<b>AP-MD (mm)</b>	-13	5

**AGRICULTURAL LAND GRADE**

Class	Potatoes	Wheat
1		
2		
3a	*	*
3b		
4		

**SITE:** Longfield Solar  
**Location:** 157

<b>Layer</b>	<b>Lower depth</b> (cm)	<b>Texture symbol</b> (or stop)	<b>Structure</b> (Good, Moderate or Poor)	<b>% stones</b>	<b>Stone type</b> (see table)
Topsoil	31	zcl		5	1
Subsoil 1	45	zcl	m	5	1
Subsoil 2	72	zcl	p	5	1
Subsoil 3	120	c	p	5	1

(Lowest horizon depth must be 120 and topsoil cannot be greater than 70 cm (potatoes) or 50 cm (wheat))

**DATA USED FROM MASTER TABLE**

	<b>Fine earth</b>	<b>Stones</b>
Topsoil Av	19	1
Subsoil 1 TAv	17	1
Subsoil 1 EAv	10	0.5
Subsoil 2 TAv	12	1
Subsoil 2 EAv	6	0.5
Subsoil 3 TAv	13	1
Subsoil 3 EAv	7	0.5

(ERR = no data)

Stone codes	
0	No stones
1	Hard rocks or stones
2	Soft, medium or coarse grained sdst
3	Soft weathered ign or metamorph
4	Soft oolitic or dolomitic limestones
5	Soft fine-grained sandstone
6	Soft argillaceous or silty
7	Chalk
8	Gravel with non-porous stones
9	Gravel with porous stones

**PROFILE CALCULATIONS**

	<b>Ap potatoes</b>	<b>Ap wheat</b>
Topsoil	561.1	561.1
Subsoil 1	0.0	226.8
Subsoil 1	226.8	0.0
Subsoil 2	286.3	0.0
Subsoil 2	0.0	154.6
Subsoil 3	0.0	320.4

<b>TOTAL AP (mm)</b>	107	126
<b>MD (mm)</b>	118	122
<b>AP-MD (mm)</b>	-11	4

**AGRICULTURAL LAND GRADE**

<b>Class</b>	<b>Potatoes</b>	<b>Wheat</b>
1		
2		
3a	*	*
3b		
4		

**SITE:** Longfield Solar  
**Location:** 201

<i>Layer</i>	<i>Lower depth</i> (cm)	<i>Texture symbo</i> (or stop)	<i>Structure</i> Good, Moderate or Poor)	<i>% stones</i>	<i>Stone type</i> (see table)
Topsoil	29	zcl		5	1
Subsoil 1	85	zcl	m	5	1
Subsoil 2	120	zcl	m	5	1
Subsoil 3	120	stop	m	5	1

(Lowest horizon depth must be 120 and topsoil cannot be greater than 70 cm (potatoes) or 50 cm (wheat))

**DATA USED FROM MASTER TABLE**

	<i>Fine earth</i>	<i>Stones</i>
Topsoil Av	19	1
Subsoil 1 TAv	17	1
Subsoil 1 EAv	10	0.5
Subsoil 2 TAv	17	1
Subsoil 2 EAv	10	0.5
Subsoil 3 TAv	0.1	1
Subsoil 3 EAv	0.1	0.5

(ERR = no data)

Stone codes	
0	No stones
1	Hard rocks or stones
2	Soft, medium or coarse grained sdst
3	Soft weathered ign or metamorph
4	Soft oolitic or dolomitic limestones
5	Soft fine-grained sandstone
6	Soft argillaceous or silty
7	Chalk
8	Gravel with non-porous stones
9	Gravel with porous stones

**PROFILE CALCULATIONS**

	<i>Ap potatoes</i>	<i>Ap wheat</i>
Topsoil	524.9	524.9
Subsoil 1	664.2	0.0
Subsoil 1	0.0	673.6
Subsoil 2	0.0	0.0
Subsoil 2	0.0	333.4
Subsoil 3	0.0	0.0

<b>TOTAL AP (mm)</b>	119	153
<b>MD (mm)</b>	118	122
<b>AP-MD (mm)</b>	1	31

**AGRICULTURAL LAND GRADE**

<i>Class</i>	<i>Potatoes</i>	<i>Wheat</i>
1		*
2	*	
3a		
3b		
4		



**SITE:** Longfield Solar  
**Location:** 204

<i>Layer</i>	<i>Lower depth</i> (cm)	<i>Texture symbol</i> (or stop)	<i>Structure</i> (Good, Moderate or Poor)	<i>% stones</i>	<i>Stone type</i> (see table)
Topsoil	33	msl		20	1
Subsoil 1	65	csl	m	25	1
Subsoil 2	120	csl	m	25	1
Subsoil 3	120	stop	m	25	1

(Lowest horizon depth must be 120 and topsoil cannot be greater than 70 cm (potatoes) or 50 cm (wheat))

**DATA USED FROM MASTER TABLE**

	<i>Fine earth</i>	<i>Stones</i>
Topsoil Av	17	1
Subsoil 1 TAv	16	1
Subsoil 1 EAv	11	0.5
Subsoil 2 TAv	16	1
Subsoil 2 EAv	11	0.5
Subsoil 3 TAv	0.1	1
Subsoil 3 EAv	0.1	0.5

(ERR = no data)

Stone codes	
0	No stones
1	Hard rocks or stones
2	Soft, medium or coarse grained sdst
3	Soft weathered ign or metamorph
4	Soft oolitic or dolomitic limestones
5	Soft fine-grained sandstone
6	Soft argillaceous or silty
7	Chalk
8	Gravel with non-porous stones
9	Gravel with porous stones

**PROFILE CALCULATIONS**

	<i>Ap potatoes</i>	<i>Ap wheat</i>
Topsoil	455.4	455.4
Subsoil 1	0.0	0.0
Subsoil 1	392.0	333.9
Subsoil 2	61.3	0.0
Subsoil 2	0.0	460.6
Subsoil 3	0.0	0.0

<b>TOTAL AP (mm)</b>	91	125
<b>MD (mm)</b>	118	122
<b>AP-MD (mm)</b>	-27	3

**AGRICULTURAL LAND GRADE**

<i>Class</i>	<i>Potatoes</i>	<i>Wheat</i>
1		
2		
3a	*	*
3b		
4		

**SITE:** Longfield Solar  
**Location:** 205

Layer	Lower depth (cm)	Texture symbol (or stop)	Structure (Good, Moderate or Poor)	% stones	Stone type (see table)
Topsoil	32	scl		5	1
Subsoil 1	54	scl	m	5	1
Subsoil 2	72	scl	p	5	1
Subsoil 3	120	cl	p	5	1

(Lowest horizon depth must be 120 and topsoil cannot be greater than 70 cm (potatoes) or 50 cm (wheat))

**DATA USED FROM MASTER TABLE**

	Fine earth	Stones
Topsoil Av	17	1
Subsoil 1 TAv	15	1
Subsoil 1 EAv	10	0.5
Subsoil 2 TAv	13	1
Subsoil 2 EAv	8	0.5
Subsoil 3 TAv	12	1
Subsoil 3 EAv	7	0.5

(ERR = no data)

Stone codes	
0	No stones
1	Hard rocks or stones
2	Soft, medium or coarse grained sdst
3	Soft weathered ign or metamorph
4	Soft oolitic or dolomitic limestones
5	Soft fine-grained sandstone
6	Soft argillaceous or silty
7	Chalk
8	Gravel with non-porous stones
9	Gravel with porous stones

**PROFILE CALCULATIONS**

	Ap potatoes	Ap wheat
Topsoil	518.4	518.4
Subsoil 1	0.0	0.0
Subsoil 1	314.6	295.5
Subsoil 2	198.4	0.0
Subsoil 2	0.0	137.3
Subsoil 3	0.0	320.4

<b>TOTAL AP (mm)</b>	103	127
<b>MD (mm)</b>	118	122
<b>AP-MD (mm)</b>	-15	5

**AGRICULTURAL LAND GRADE**

Class	Potatoes	Wheat
1		
2		*
3a	*	
3b		
4		

**SITE:** Longfield Solar  
**Location:** 209

Layer	Lower depth (cm)	Texture symbol (or stop)	Structure (Good, Moderate or Poor)	% stones	Stone type (see table)
Topsoil	32	msl		20	1
Subsoil 1	65	csl	m	30	1
Subsoil 2	120	csl	m	30	1
Subsoil 3	120	stop	m	30	1

(Lowest horizon depth must be 120 and topsoil cannot be greater than 70 cm (potatoes) or 50 cm (wheat))

#### DATA USED FROM MASTER TABLE

	<i>Fine earth</i>	<i>Stones</i>
Topsoil Av	17	1
Subsoil 1 TAv	16	1
Subsoil 1 EAv	11	0.5
Subsoil 2 TAv	16	1
Subsoil 2 EAv	11	0.5
Subsoil 3 TAv	0.1	1
Subsoil 3 EAv	0.1	0.5

(ERR = no data)

Stone codes	
0	No stones
1	Hard rocks or stones
2	Soft, medium or coarse grained sdst
3	Soft weathered ign or metamorph
4	Soft oolitic or dolomitic limestones
5	Soft fine-grained sandstone
6	Soft argillaceous or silty
7	Chalk
8	Gravel with non-porous stones
9	Gravel with porous stones

#### PROFILE CALCULATIONS

	<i>Ap potatoes</i>	<i>Ap wheat</i>
Topsoil	441.6	441.6
Subsoil 1	0.0	0.0
Subsoil 1	379.5	324.8
Subsoil 2	57.5	0.0
Subsoil 2	0.0	431.8
Subsoil 3	0.0	0.0

<b>TOTAL AP (mm)</b>	88	120
<b>MD (mm)</b>	118	122
<b>AP-MD (mm)</b>	-30	-2

#### AGRICULTURAL LAND GRADE

Class	Potatoes	Wheat
1		
2		
3a		*
3b	*	
4		

**SITE:** Longfield Solar  
**Location:** 224

<i>Layer</i>	<i>Lower depth</i> (cm)	<i>Texture symbo</i> (or stop)	<i>Structure</i> Good, Moderate or Poor)	<i>% stones</i>	<i>Stone type</i> (see table)
Topsoil	40	msl		15	1
Subsoil 1	60	csl	m	25	1
Subsoil 2	120	csl	m	25	1
Subsoil 3	120	stop	m	25	1

(Lowest horizon depth must be 120 and topsoil cannot be greater than 70 cm (potatoes) or 50 cm (wheat))

**DATA USED FROM MASTER TABLE**

	<i>Fine earth</i>	<i>Stones</i>
Topsoil Av	17	1
Subsoil 1 TAv	16	1
Subsoil 1 EAv	11	0.5
Subsoil 2 TAv	16	1
Subsoil 2 EAv	11	0.5
Subsoil 3 TAv	0.1	1
Subsoil 3 EAv	0.1	0.5

(ERR = no data)

Stone codes	
0	No stones
1	Hard rocks or stones
2	Soft, medium or coarse grained sdst
3	Soft weathered ign or metamorph
4	Soft oolitic or dolomitic limestones
5	Soft fine-grained sandstone
6	Soft argillaceous or silty
7	Chalk
8	Gravel with non-porous stones
9	Gravel with porous stones

**PROFILE CALCULATIONS**

	<i>Ap potatoes</i>	<i>Ap wheat</i>
Topsoil	584.0	584.0
Subsoil 1	0.0	0.0
Subsoil 1	245.0	206.3
Subsoil 2	122.5	0.0
Subsoil 2	0.0	502.5
Subsoil 3	0.0	0.0

<b>TOTAL AP (mm)</b>	95	129
<b>MD (mm)</b>	118	122
<b>AP-MD (mm)</b>	-23	7

**AGRICULTURAL LAND GRADE**

<i>Class</i>	<i>Potatoes</i>	<i>Wheat</i>
1		
2		*
3a	*	
3b		
4		

**SITE:** Longfield Solar  
**Location:** 226

<i>Layer</i>	<i>Lower depth</i> (cm)	<i>Texture symbo</i> (or stop)	<i>Structure</i> Good, Moderate or Poor)	<i>% stones</i>	<i>Stone type</i> (see table)
Topsoil	44	msl		15	1
Subsoil 1	64	csl	m	20	1
Subsoil 2	120	csl	m	20	1
Subsoil 3	120	stop	m	25	1

(Lowest horizon depth must be 120 and topsoil cannot be greater than 70 cm (potatoes) or 50 cm (wheat))

**DATA USED FROM MASTER TABLE**

	<i>Fine earth</i>	<i>Stones</i>
Topsoil Av	17	1
Subsoil 1 TAv	16	1
Subsoil 1 EAv	11	0.5
Subsoil 2 TAv	16	1
Subsoil 2 EAv	11	0.5
Subsoil 3 TAv	0.1	1
Subsoil 3 EAv	0.1	0.5

(ERR = no data)

Stone codes	
0	No stones
1	Hard rocks or stones
2	Soft, medium or coarse grained sdst
3	Soft weathered ign or metamorph
4	Soft oolitic or dolomitic limestones
5	Soft fine-grained sandstone
6	Soft argillaceous or silty
7	Chalk
8	Gravel with non-porous stones
9	Gravel with porous stones

**PROFILE CALCULATIONS**

	<i>Ap potatoes</i>	<i>Ap wheat</i>
Topsoil	642.4	642.4
Subsoil 1	0.0	0.0
Subsoil 1	260.0	202.6
Subsoil 2	78.0	0.0
Subsoil 2	0.0	498.4
Subsoil 3	0.0	0.0

<b>TOTAL AP (mm)</b>	98	134
<b>MD (mm)</b>	118	122
<b>AP-MD (mm)</b>	-20	12

**AGRICULTURAL LAND GRADE**

<i>Class</i>	<i>Potatoes</i>	<i>Wheat</i>
1		
2		*
3a	*	
3b		
4		

**SITE:** Longfield Solar  
**Location:** 232

Layer	Lower depth (cm)	Texture symbol (or stop)	Structure (Good, Moderate or Poor)	% stones	Stone type (see table)
Topsoil	35	FSZL		5	1
Subsoil 1	120	FSZL	g	2	1
Subsoil 2	120	stop	m	2	1
Subsoil 3	120	stop	M	0	1

(Lowest horizon depth must be 120 and topsoil cannot be greater than 70 cm (potatoes) or 50 cm (wheat))

**DATA USED FROM MASTER TABLE**

	Fine earth	Stones
Topsoil Av	22	1
Subsoil 1 TAv	22	1
Subsoil 1 EAv	16	0.5
Subsoil 2 TAv	0.1	1
Subsoil 2 EAv	0.1	0.5
Subsoil 3 TAv	0.1	1
Subsoil 3 EAv	0.1	0.5

(ERR = no data)

Stone codes	
0	No stones
1	Hard rocks or stones
2	Soft, medium or coarse grained sdst
3	Soft weathered ign or metamorph
4	Soft oolitic or dolomitic limestones
5	Soft fine-grained sandstone
6	Soft argillaceous or silty
7	Chalk
8	Gravel with non-porous stones
9	Gravel with porous stones

**PROFILE CALCULATIONS**

	Ap potatoes	Ap wheat
Topsoil	733.3	733.3
Subsoil 1	755.3	1422.0
Subsoil 1	0.0	0.0
Subsoil 2	0.0	0.0
Subsoil 2	0.0	0.0
Subsoil 3	0.0	0.0

<b>TOTAL AP (mm)</b>	149	216
<b>MD (mm)</b>	118	122
<b>AP-MD (mm)</b>	31	94

**AGRICULTURAL LAND GRADE**

Class	Potatoes	Wheat
1	*	*
2		
3a		
3b		
4		

**SITE:** Longfield Solar  
**Location:** 392

Layer	Lower depth (cm)	Texture symbol (or stop)	Structure (Good, Moderate or Poor)	% stones	Stone type (see table)
Topsoil	33	scl	or Poor)	15	1
Subsoil 1	66	csl	g	60	1
Subsoil 2	120	lcs	m	60	1
Subsoil 3	120	stop	m	5	1

(Lowest horizon depth must be 120 and topsoil cannot be greater than 70 cm (potatoes) or 50 cm (wheat))

#### DATA USED FROM MASTER TABLE

	Fine earth	Stones
Topsoil Av	17	1
Subsoil 1 TAv	22	1
Subsoil 1 EAv	15	0.5
Subsoil 2 TAv	8	1
Subsoil 2 EAv	6	0.5
Subsoil 3 TAv	0.1	1
Subsoil 3 EAv	0.1	0.5

(ERR = no data)

Stone codes	
0	No stones
1	Hard rocks or stones
2	Soft, medium or coarse grained sdst
3	Soft weathered ign or metamorph
4	Soft oolitic or dolomitic limestones
5	Soft fine-grained sandstone
6	Soft argillaceous or silty
7	Chalk
8	Gravel with non-porous stones
9	Gravel with porous stones

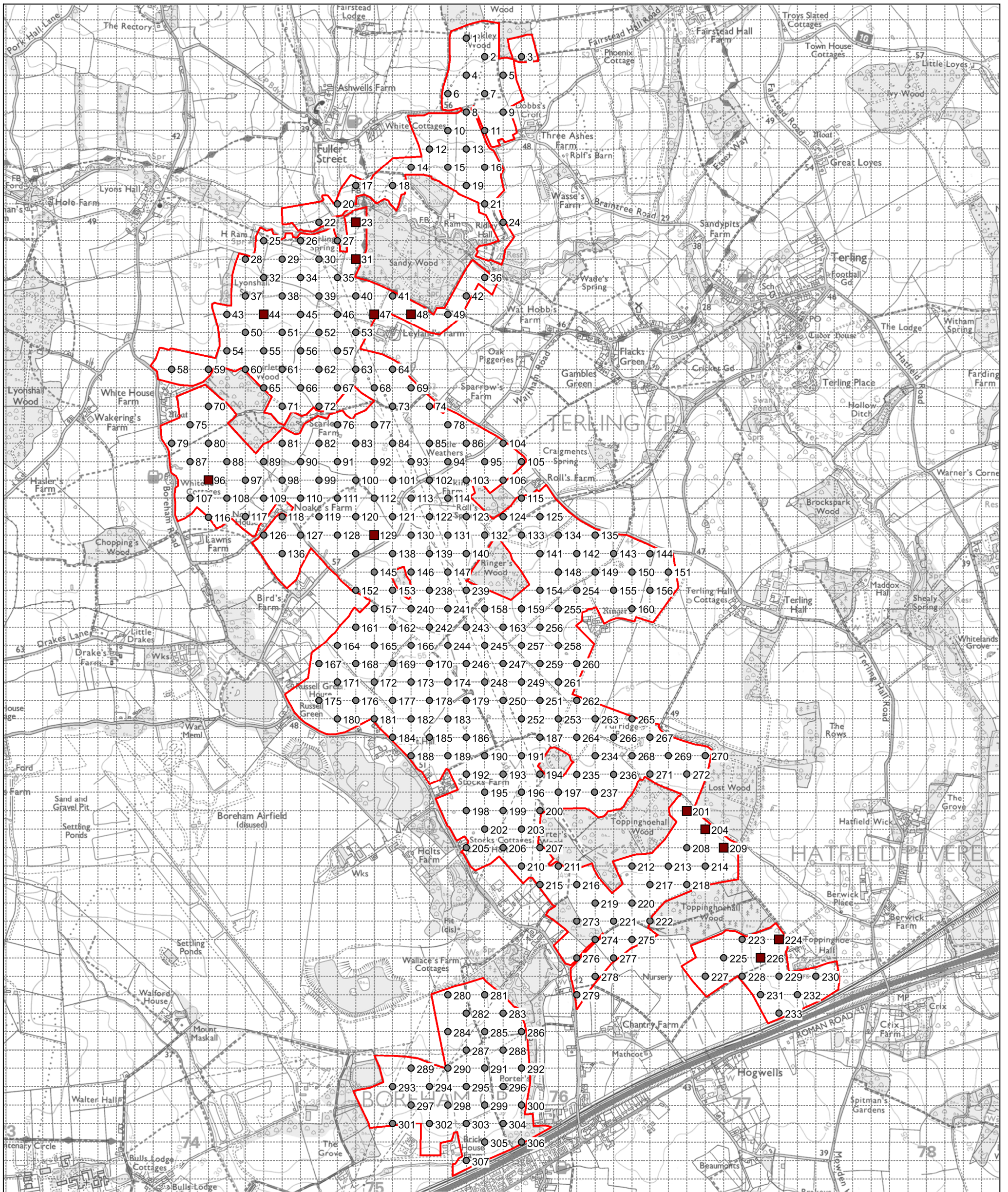
#### PROFILE CALCULATIONS

	Ap potatoes	Ap wheat
Topsoil	481.8	481.8
Subsoil 1	0.0	0.0
Subsoil 1	310.2	260.6
Subsoil 2	15.2	0.0
Subsoil 2	0.0	145.8
Subsoil 3	0.0	0.0

<b>TOTAL AP (mm)</b>	81	89
<b>MD (mm)</b>	118	122
<b>AP-MD (mm)</b>	-37	-33

#### AGRICULTURAL LAND GRADE

Class	Potatoes	Wheat
1		
2		
3a		
3b	*	*
4		



Site:

Longfield Solar

Map Title:

MAP 1  
Observations

**KEY**

- Auger observation point
- Pit observation point
- Site boundary

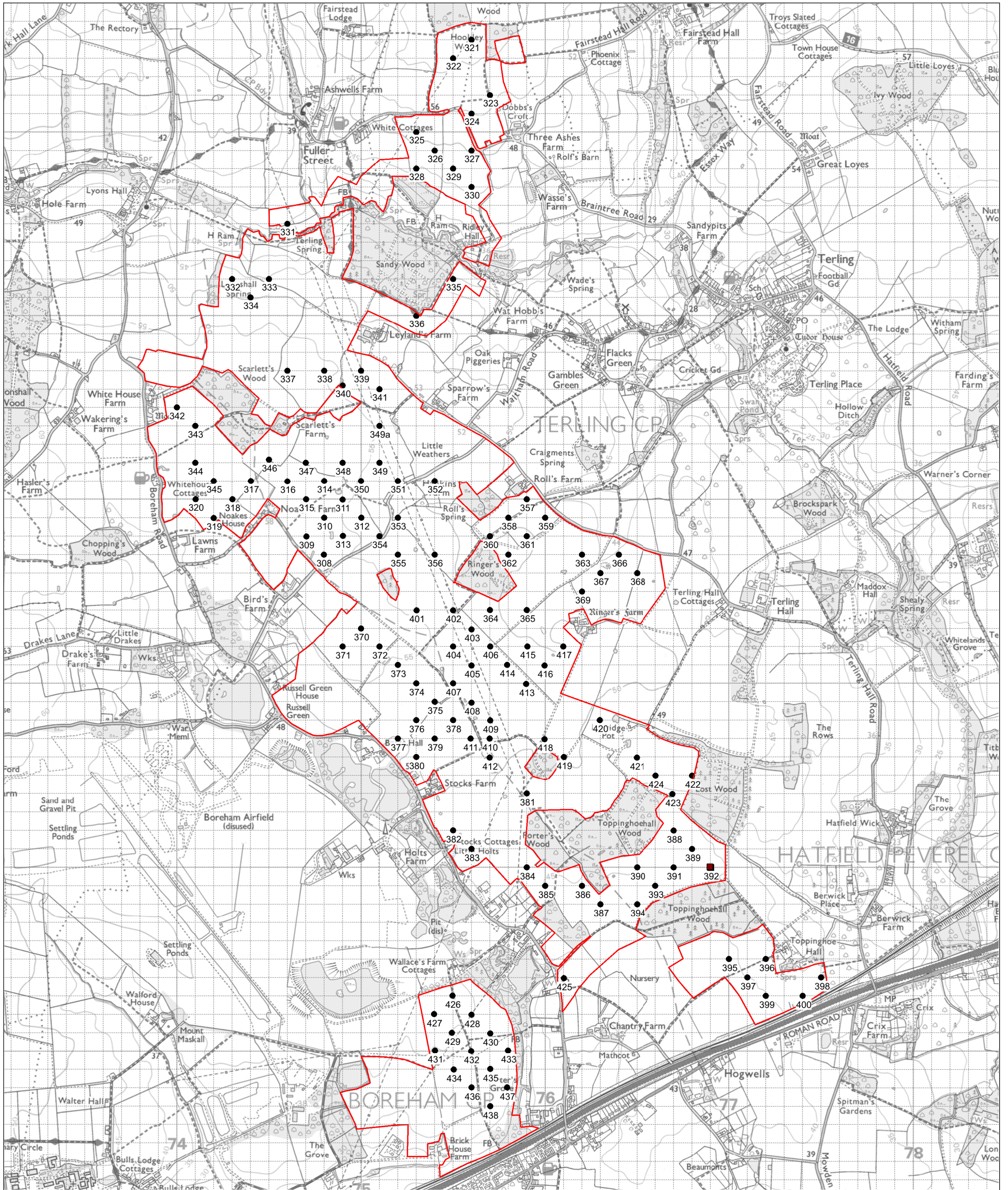
Scale: 1:20,000 @ A3

Date: 20/12/2020

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Site:

Longfield Solar

Map Title:

MAP 1A  
Extra observations

**KEY**

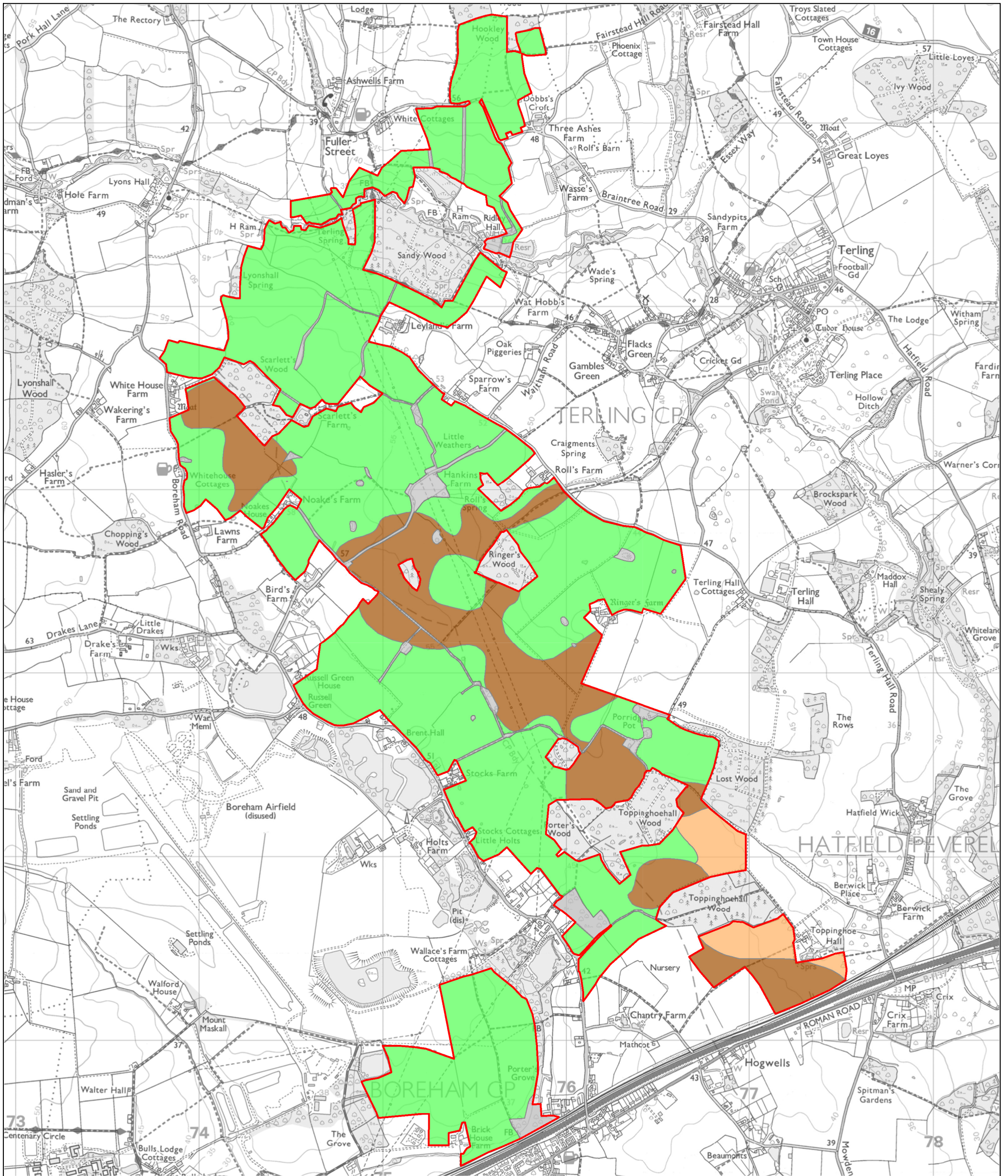
- Auger observation point (additional)
- Pit observation point
- Site boundary

Scale: 1:20,000 @ A3

Date: 20/12/2020

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Site:

Longfield Solar

Map Title:

MAP 2  
Soil Types

**KEY**

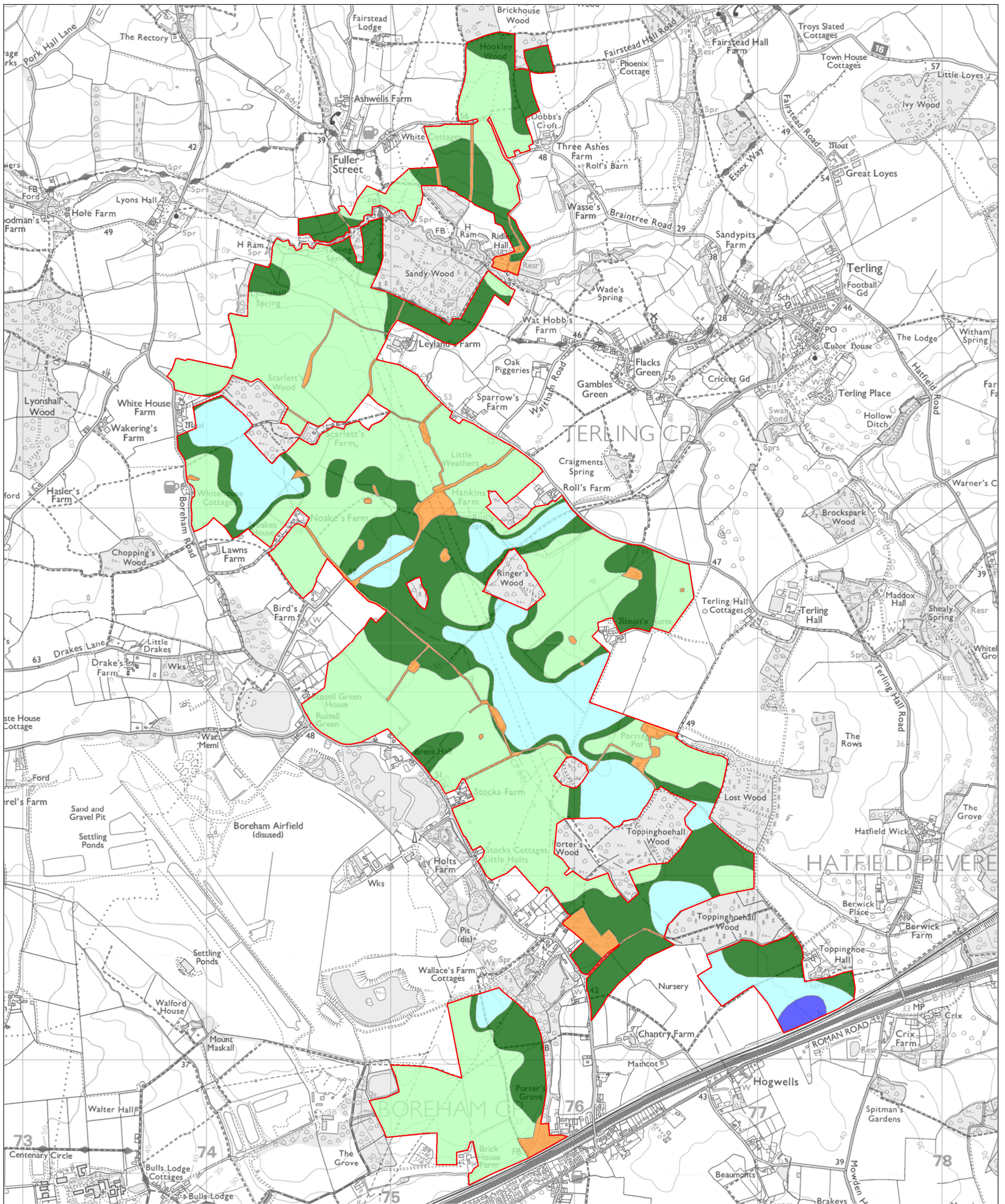
- Heavy soils with impeded drainage
- Silty soils
- Loamy soils over gravel
- Survey area

Scale: 1:20,000 @ A3

Date: 20/12/2020

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Site:

Longfield Solar

Map Title:

MAP 3  
Agricultural Land  
Classification

**KEY**

- Grade 1 (3.3 ha)
- Grade 2 (90.8 ha)
- Subgrade 3a (170.4 ha)
- Subgrade 3b (350.1 ha)
- Other land (23.0 ha)
- Survey area

Scale: 1:20,000 @ A3

Date: 20/12/2020

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