OXFORDSHIRE
STRATEGIC RAIL FREIGHT INTERCHANGE

DCO Submission

Environmental Statement

Chapter 14: Soil Resources and Agricultural Land
Appendix 14.1: Agricultural Quality

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On behalf of
Oxfordshire Railfreight Limited

Prepared by Land Research Associates
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AGRICULTURAL QUALITY
OF LAND AT PROPOSED OXFORD SRFI
DEVELOPMENT NEAR ARDLEY, OXFORDSHIRE

Report 1744/2

16th October 2026

Land Research ASSOCIATES
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AGRICULTURAL QUALITY

OF LAND AT PROPOSED OXFORD SRFI DEVELOPMENT NEAR

ARDLEY, OXFORDSHIRE

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SUMMARY

An agricultural land quality survey has been undertaken of 468.8 ha of land near Ardley, Oxfordshire. The land is part of the proposed Oxford SRFI development. Surveys were undertaken in September 2021 and September 2022.

The land is principally limited by droughtiness and topsoil stoniness, and in a small number of places by wetness/workability limitations. These limitations restrict the land to predominantly subgrade 3b agricultural quality, with smaller areas of subgrade 3a.

1.0 Introduction

1.1 This report provides information on the soils and agricultural quality of 468.8 ha of land near Ardley, Oxfordshire. The land is part of the proposed Oxford SRFI development. The main block of land was surveyed in September 2021, with areas associated with proposed changes to road junctions being surveyed in September 2022. This updated version of the report is to reflect changes to the order limits which are explained within the supporting ES Addendum (Document 6.18).

SITE ENVIRONMENT

1.2 The survey area comprises a central block of land adjacent to the Chiltern Main Line Railway, to the south-west of Junction 10 of the M40 motorway, and east of the former Upper Heyford Air Base, with the villages of Ardley to the north and Middleton Stony to the south. Other smaller areas of land associated with proposed highways works, landfill works and ecological mitigation areas are to the north-east, east and south-east of the main survey area.

1.3 Land within the site is generally gently undulating with gentle and moderate slopes, with elevation ranging between approximately 90 and 120 m AOD.

1.4 At the time of survey the majority of the land comprised post-harvest stubble fields, with a small number of fields in permanent grassland. .

PUBLISHED INFORMATION

1.5 1:50,000 scale BGS information records the geology of the land in the whole of the survey area as Jurassic White Limestone Formation. No superficial deposits are recorded.

1.6 The National Soil Map (published at 1:250,000 scale) records all of the land as Aberford Association, comprising shallow, locally brashy, well drained calcareous soils over limestone, with some deeper calcareous soils in colluvium[1].

[1]Jarvis M.G. *et al*., (1984). *Soils and their use in South East England,* Soil Survey of England and Wales. Bulletin No. 15 , Harpenden.

2.0 Soils

2.1 A detailed soils and agricultural quality survey was carried out in September 2021 and 2022 in accordance with MAFF (1988) guidelines[2]. It was based on observations at intersects of a 100 m grid, giving a density of one observation per hectare. During the survey, soils were examined by a combination of pits and augerings to a maximum depth of 1.2 m.

2.2 Soil auger records and a map showing the location of each investigation point (Map 1) are attached to this report as appendices. At the stonier locations within the survey area if auger penetration was prevented at a shallow depth, a small pit was excavated to the maximum depth possible.

SHALLOW BRASHY SOILS OVER LIMESTONE

2.3 The soils were found to be generally shallow and well drained with no evidence of gleying or mottling and hence were assessed as Soil Wetness Class I. The topsoils are mainly clay or heavy clay loam and very occasionally medium clay loam, overlying a similar-textured upper subsoil, which overlies weathered, brashy, limestone material. In places, the upper subsoil is absent and the topsoil directly overlying the brashy limestone.

2.4 An example of a relatively shallow well drained soil profile is described below from a pit at observation 178 (Map 1).

0-27 cm	Dark yellowish brown (10YR 4/4) heavy clay loam; very calcareous; 20% total stones, 16% > 2cm, small to very large sub-angular limestone; weakly developed coarse sub-angular blocky structure; firm; common fine fibrous roots; smooth clear boundary to:
27-57 cm	Yellowish brown (10YR 5/6) clay; very calcareous; 10% small to large sub-angular limestone; weakly developed very coarse angular blocky structure; firm; no mottles; common fine fibrous roots; >0.5% biopores; smooth, clear boundary to:
57-60 cm	Light grey (10YR 7/1) weathered limestone; very calcareous; 50% small to large sub-angular limestone; structure too stony to determine; no mottles; few fine fibrous roots.
60 cm+	Limestone bedrock

2.5 Occasional deeper soils were encountered. An example of a deep well drained soil profile is described below from a pit at observation 122 (Map 1).

0-28 cm	Dark yellowish brown (10YR 4/4) clay; non-calcareous; 8% total stones of small to medium sub-angular limestone; weakly developed medium to coarse sub-angular blocky structure; firm; common fine fibrous roots; smooth abrupt boundary to:
28-100 cm	Strong brown (7.5YR 5/6) clay; non-calcareous; 3% small to large sub-angular limestone; weakly developed coarse sub-angular blocky structure; firm; no mottles; common fine fibrous roots; >0.5% biopores.

[2]MAFF, (1988).*Agricultural Land Classification for England and Wales: Guidelines and Criteria for Grading the Quality of Agricultural Land*.

DEEP POORLY DRAINED SOILS

2.6 Occasionally deeper soil profiles were encountered which had slowly permeable subsoils. The subsoils are *gleyed* (pale and grey colours with ochreous mottles), indicating seasonal waterlogging. These soils were assessed as Soil Wetness Class III or IV. A number of pits were dug within the soil types and representative examples are given below.

2.7 An example of a deep poorly-drained soil profile is described below from a pit at observation 227 (Map 1).

0-30 cm Brown (10YR 4/3) clay; non-calcareous; 5% total stones of small to medium sub-angular limestone; weakly developed medium to coarse sub-angular blocky structure; firm; abundant fine fibrous roots; smooth abrupt boundary to:

28-100 cm Greyish brown, light yellowish brown (2.5YR 5/2, 6/4) clay; non-calcareous; 5% small to large sub-angular limestone; weakly developed very coarse angular blocky structure; firm; very many prominent ochreous mottles (10YR 5/6); common very fine and fine fibrous roots; >0.5% biopores.

3.0 Agricultural land quality

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. This report describes the main limitations affecting ALC grades at this site. Other factors (e.g. flooding, micro-relief etc.) were assessed but did not affect the overall grading of the site.

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[3]. As the survey area is large the relevant site data for the north, centre and south of the area at representative elevations of 123, 113 and 100 m AOD are given below for the three areas respectively.

North

- Average annual rainfall: 692 mm
- January-June accumulated temperature >0°C 1363 day°
- Field capacity period 150 days
  (when the soils are fully replete with water)
- Summer moisture deficits for: wheat: 98 mm
  potatoes: 87 mm

Centre

- Average annual rainfall: 696 mm
- January-June accumulated temperature >0°C 1375 day°
- Field capacity period 151 days
  (when the soils are fully replete with water)
- Summer moisture deficits for: wheat: 99 mm
  potatoes: 89 mm

South

- Average annual rainfall: 690 mm
- January-June accumulated temperature >0°C 1390 day°
- Field capacity period 150 days
  (when the soils are fully replete with water)

[3]Meteorological Office, (1989).*Climatological Data for Agricultural Land Classification*.

- Summer moisture deficits for: wheat: 101 mm
  potatoes: 91 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[4]. There are no climatic limitations at this locality.

SURVEY RESULTS

3.4 The agricultural quality of the land is primarily determined by droughtiness and topsoil stone content; wetness/workability is also limiting or an equally limiting factor at a number of survey locations. Land of Grade 3 has been identified.

Subgrade 3a

3.5 This land grade occurs in parts of the site where shallow brashy soils have moderate topsoil stone content (10-15% hard stones > 2 cm and 5-10% hard stones >6 cm). The topsoil stoniness can damage root crops, impede precision drilling and cause increased wear on farm machinery.

3.6 Freely-draining land (Soil Wetness Class I) with clay topsoils is also limited to this subgrade through wetness/workability limitations. The high topsoil clay content means land access with machinery is rarely possible in winter and early spring, restricting cultivations to autumn and late spring in most years.

3.7 Droughtiness is also a limiting factor to the moderately shallow soils as the subsoils hold below optimum moisture for crop uptake in dry years, reducing average yields.

Subgrade 3b

3.8 The shallow soils over limestone have significant droughtiness limitations. The high stone content and shallow subsoil store insufficient moisture for crop uptake and this is likely to lead to low average yields.

3.9 Topsoil stoniness (15-35% hard stones > 2 cm and 10-20% hard stones > 6 cm) is often an equally limiting factor on land with shallow soils. The high topsoil stone content causes significant damage to root crops, reduces nutrient and moisture storage capacity of the soils and causes wear to farm machinery.

3.10 Limited areas have imperfect to poor drainage (Soil Wetness Class III and IV) and heavy topsoil. This land is limited to this subgrade by wetness/workability: the high topsoil clay content means land access with machinery is rarely possible in spring, restricting arable cropping to autumn sowings in most years.

[4]MAFF, (1988).*Agricultural Land Classification for England and Wales: Guidelines and Criteria for Grading the Quality of Agricultural Land*.

Predicted mixture of Subgrade 3a and 3b

3.11 Land proposed for ecological mitigation areas has not been surveyed due to no construction works taking place in these locations. The land grade has been estimated using published information and adjacent surveyed land. The change to the order limits includes land proposed for ecological mitigation areas.

Other land (non-agricultural)

3.12 This includes woodland, tracks, farm buildings, a land-fill and roads. The to the order limits includes existing and proposed highways land.

Land not surveyed

3.13A very small area of land has not been surveyed. The exclusion / inclusion of this land does not / would not change the outcome of the environmental impact assessment (ES / EIA).

Grade areas

3.14 The land grades are shown on Map 2 and the areas occupied are shown below.

Table 1: Areas occupied by the different land grades

Grade/subgrade	*Area (ha)*	*% of the land*
Subgrade 3a	37.7	8
Subgrade 3b	284.5	61
Predicted mix of Subgrade 3a and 3b	16.5	4
Other Land	127.3	27
Land not surveyed	2.8	<1
Total	468.8	100

APPENDICES:

1. SOIL AUGER LOG

2. MAPS

Land at proposed Oxford SRFI, near Ardley, Oxfordshire – details of survey observations.

Obs	Topsoil			Upper subsoil			Lower subsoil			Slope	Wetness	Agricultural quality	
No	Depth (cm)	Texture	Stones >20 mm (%)	Depth (cm)	Texture	Mottling	Depth (cm)	Texture	Mottling	(°)	Class	Grade	Main limitation
34	0-30	C	12	30+ Impenetrable LST						0	I	3b	D
39	0-29	C	8	29-65	C	o	65+ Impenetrable LST			2	I	3a	W/D
40	0-30	C	10	30-35	C + LST	o	35+ Impenetrable LST			0	I	3b	D
43	0-28	HCL	13	28+ Impenetrable LST						1	I	3b	D
44	0-29	HCL	18	29+ Impenetrable LST						0	I	3b	St/D
45	0-28	C	16	28-39	C	o	39+ Impenetrable LST			0	I	3b	St/D
48	0-27	C	12	27-50	C	o	50+ Impenetrable LST			0	I	3b	D
49	0-30	C	12	30-40	C	o	40+ Impenetrable LST			1	I	3b	D
50	0-30	HCL	18	30+ Impenetrable LST						2	I	3b	St/D
51	0-30	HCL	20	30+ Impenetrable LST						0	I	3b	St/D
52	0-28	HCL	13	28-45	C	o	45+ Impenetrable LST			0	I	3b	D
53	0-30	HCL/C	16	30+ Impenetrable LST						1	I	3b	St/D
54												Non-Ag	
59	0-29	C	16	29-38	C + LST	o	38+ Impenetrable LST			0	I	3b	St/D
60	0-30	C	8	30-65	C	o	65+ Impenetrable LST			0	I	3a	W/D
61	0-30	HCL	13	30-38	C + LST	o	38+ Impenetrable LST			2	I	3b	D
62	0-29	HCL	8	29-58	C	o	58+ Impenetrable LST			1	I	3a	D
63	0-30	HCL	8	30+ Impenetrable LST						1	I	3b	D
64	0-30	HCL	12	30-35	C + LST	o	35+ Impenetrable LST			2	I	3b	D
65	0-28	C	10	28-35	C	o	35+ Impenetrable LST			0	I	3b	St/D
70	0-30	C	16	30+ Impenetrable LST						0	I	3b	St/D
71	0-29	HCL	6	29-40	C	o	40+ Impenetrable LST			0	I	3b	D
72	0-27	HCL	12	27-35	C	o	35+ Impenetrable LST			1	I	3b	D
73	0-30	HCL	7	30-60	C	o	60-78 78-100	MS C	o xxx	2	I	3a	D
74	0-28	HCL	10	28-46	C + LST	o	46+ Impenetrable LST			2	I	3b	D
75	0-28	HCL	8	28-38	C	o	38+ Impenetrable LST			1	I	3b	D
76	0-27	HCL	8	27-35	C	o	35+ Impenetrable LST			0	I	3b	D
77	0-30	HCL	20	30+ Impenetrable LST						0	I	3b	St/D
78												Non-Ag	
82	0-30	HCL	16	30+ Impenetrable LST						0	I	3b	St/D
83	0-28	HCL	7	28-50	C	o	50-73 73+ Impenetrable LST	C	o	0	I	3a	D
84	0-30	HCL	6	30-45	C + LST	o	45+ Impenetrable LST			2	I	3b	D
85	0-30	HCL	11	30-38	HCL + LST	o	38+ Impenetrable LST			2	I	3b	D
86	0-28	HCL	10	28-35	HCL	o	35+ Impenetrable LST			2	I	3b	D
87	0-30	MCL	11	30-58	C	o	58+ Impenetrable LST			0	I	3a	D

Obs	Topsoil			Upper subsoil			Lower subsoil			Slope	Wetness	Agricultural quality	
No	Depth (cm)	Texture	Stones >20 mm (%)	Depth (cm)	Texture	Mottling	Depth (cm)	Texture	Mottling	(°)	Class	Grade	Main limitation
88	0-30	HCL	18	30-57	C + LST	o	57+ Impenetrable LST			1	I	3b	St
89	0-32	C	17	32+ Impenetrable LST						0	I	3b	St/D
90	0-29	HCL	10	29-50	C	o	50-65 65+ Impenetrable LST	C + LST	o	0	I	3a	D
96	0-29	C	13	29-80	C	o	80+ Impenetrable LST			0	I	3a	W/D
97	0-30	C	12	30-35	C	o	35+ Impenetrable LST			0	I	3b	D
98	0-28	HCL	5	28-72	C	o	72+ Impenetrable LST			2	I	3a	D
99	0-29	HCL	7	29-45	HCL + LST	o	45+ Impenetrable LST			1	I	3b	D
100	0-30	MCL	5	30-45	MCL	o	45+ Impenetrable LST			1	I	3b	D
101	0-30	HCL	8	30-45	C	o	45+ Impenetrable LST			0	I	3b	D
102	0-30	HCL	20	30+ Impenetrable LST						2	I	3b	St/D
103	0-28	HCL	16	28-35	C	o	35+ Impenetrable LST			1	I	3b	St/D
104	0-29	HCL	10	29-36	C + LST	o	36+ Impenetrable LST			1	I	3b	D
105	Not recorded - Landfill												
108	0-31	HCL	6	31-55	C	o	55+ Impenetrable LST			0	I	3a	D
109	0-28	HCL	17	28+ Impenetrable LST						0	I	3b	St/D
110	0-30	HCL	7	30-37	C	o	37+ Impenetrable LST			0	I	3b	D
111	0-30	HCL	8	30-35	C	o	35+ Impenetrable LST			0	I	3b	D
112	0-30	C	7	30-50	C	o	50-65 65+ Impenetrable LST	C + LST	o	0	I	3a	D
113	0-26	C	8	26-50	C	o	50+ Impenetrable LST			0	I	3b	D
114	0-29	HCL	5	29-36	C	o	36+ Impenetrable LST			0	I	3b	D
115	0-28	C	5	28-50	C	o	50+ Impenetrable LST			1	I	3b	D
116	0-29	C	12	29-35	C	o	35+ Impenetrable LST			2	I	3b	D
117	0-25	C	16	25+ Impenetrable LST						1	I	3b	St/D
118	Not recorded - Landfill												
119	Not recorded - Landfill												
121	0-29	C	17	29+ Impenetrable LST						0	I	3b	St/D
122	0-28	C	8	28-120	C	o				0	I	3a	W
123	0-35	C	7	35-90	C	o	90+ Impenetrable LST			0	I	3a	W
124	0-29	C	18	29+ Impenetrable LST						0	I	3b	St/D
125	0-30	C	13	30-53	C	o	53+ Impenetrable LST			0	I	3a	D/W
126	0-27	C	12	27+ Impenetrable LST						0	I	3b	D
127	0-31	C	17	31+ Impenetrable LST						0	I	3b	St/D
128	0-29	HCL	8	29-35	C	o	35+ Impenetrable LST			0	I	3b	D
129	0-30	HCL	10	30+ Impenetrable LST						0	I	3b	D
130	0-30	C	8	30+ Impenetrable LST						0	I	3b	D
131	0-30	C	7	30-45	C	o	45+ Impenetrable LST			0	I	3b	D
132	0-25	C	10	25-40	C + LST	o	40+ Impenetrable LST			2	I	3b	D
133	0-25	C	6	25-120	C	xxx				1	IV	3b	W

Obs	Topsoil			Upper subsoil			Lower subsoil			Slope	Wetness	Agricultural quality	
No	Depth (cm)	Texture	Stones >20 mm (%)	Depth (cm)	Texture	Mottling	Depth (cm)	Texture	Mottling	(°)	Class	Grade	Main limitation
134	0-25	HCL	7	25+ Impenetrable LST						2	I	3b	D
135	0-31	C	10	31+ Impenetrable LST						2	I	3b	D
136	0-30	C	10	30-45	C	o	45+ Impenetrable LST			1	I	3b	D
137	Not recorded – Landfill												
138	Not recorded - Landfill												
139	0-28	C	18	28+ Impenetrable LST						0	I	3b	St/D
140	0-28	C	13	28+ Impenetrable LST						0	I	3b	D
141	0-30	C	7	30-48	C	o	48-62 62+ Impenetrable LST	C	o	2	I	3a	W
142	0-30	C	10	30+ Impenetrable LST						0	I	3b	D
143	0-29	C	17	29+ Impenetrable LST						0	I	3b	St/D
144	0-28	C	18	28+ Impenetrable LST						1	I	3b	St/D
145	0-27	C	16	27+ Impenetrable LST						0	I	3b	St/D
146	0-28	HCL	8	28-50	C	o	50+ Impenetrable LST			0	I	3b	D
147	0-30	C	10	30+ Impenetrable LST						0	I	3b	D
148	0-30	C	8	30-40	C	o	40+ Impenetrable LST			1	I	3b	D
149	0-30	C	18	30+ Impenetrable LST						2	I	3b	St/D
150	0-28	HCL	16	28-44	C	o	44+ Impenetrable LST			0	I	3b	St/D
151	0-31	C	8	31-48	C	o	48+ Impenetrable LST			3	I	3b	D
152	0-30	HCL	8	30-45	C	o	45+ Impenetrable LST			2	I	3b	D
153	0-28	HCL	10	28+ Impenetrable LST						1	I	3b	D
154	0-28	C	7	28-47	C	o	47+ Impenetrable LST			0	I	3b	D
155	Not recorded – Landfill												
156	Not recorded - Landfill												
157	0-32	C	12	32+ Impenetrable LST						0	I	3b	D
158	0-28	C	11	28-35	C	o	35-45 45+ Impenetrable LST	C + LST	o	0	I	3b	D
159	0-28	C	12	28+ Impenetrable LST						1	I	3b	D
160	0-28	C	12	28+ Impenetrable LST						2	I	3b	D
161	0-33	C	7	33-80	C fmn	o	80+ Impenetrable LST			0	I	3a	D/W
162	0-28	C	18	28+ Impenetrable LST						2	I	3b	St/D
163	0-28	HCL	17	28-32	C	o	32+ Impenetrable LST			0	I	3b	St/D
164	0-28	HCL	25	28+ Impenetrable LST						0	I	3b	St/D
165	0-29	C	8	29-50	C	o	50+ Impenetrable LST			2	I	3b	D
166	0-29	HCL	8	29-40	C	o	40+ Impenetrable LST			1	I	3b	D
167	0-27	HCL	10	27-45	C	o	45+ Impenetrable LST			0	I	3b	D
168	0-33	HCL	10	33-60	C	o	60+ Impenetrable LST			0	I	3a	D
169	0-30	C	8	30+ Impenetrable LST						0	I	3b	D
170	0-30	C	6	30-55	C	o	55+ Impenetrable LST			0	I	3a	D
171	Not recorded - Landfill												

Obs	Topsoil			Upper subsoil			Lower subsoil			Slope	Wetness	Agricultural quality	
No	Depth (cm)	Texture	Stones >20 mm (%)	Depth (cm)	Texture	Mottling	Depth (cm)	Texture	Mottling	(°)	Class	Grade	Main limitation
172	0-31	C	7	31-77	C	o	77+ Impenetrable LST			0	I	3a	W/D
173	0-30	C	11	30-40	C + LST	o	40+ Impenetrable LST			1	I	3b	D
174	0-30	C	6	30-55	C	o	55+ Impenetrable LST			0	I	3a	W/D
175	0-30	C	10	30+ Impenetrable LST						0	I	3b	D
176	0-28	C	18	28-43	C	o	43+ Impenetrable LST			0	I	3b	St/D
177	0-29	C	16	29-65	C	o	65+ Impenetrable LST			2	I	3b	St
178	0-27	C	16	27-57	C	o	57-60 60+ Impenetrable LST	C + LST	o	0	I	3b	St
179	0-29	C	10	29-35	C	o	35+ Impenetrable LST			0	I	3b	D
180	0-30	C	16	30+ Impenetrable LST						0	I	3b	St/D
181	0-30	HCL	15	30+ Impenetrable LST						0	I	3b	D
182	0-27	HCL	8	27-55	C	o	55+ Impenetrable LST			0	I	3a	D
183												Non-Ag	
184	0-30	C	16	30+ Impenetrable LST						0	I	3b	St/D
185	0-30	HCL	12	30+ Impenetrable LST						0	I	3b	D
187	0-30	C	16	30+ Impenetrable LST						0	I	3b	St/D
188	0-30	HCL	12	30-75	C	o	75+ Impenetrable LST			0	I	3a	St/D
189	0-30	C	8	30-48	C	o	48+ Impenetrable LST			0	I	3b	D
190	0-30	C	12	30-38	C	o	38+ Impenetrable LST			1	I	3b	D
191	0-30	C	20	30+ Impenetrable LST						1	I	3b	St/D
192	0-29	C	25	29+ Impenetrable LST						0	I	3b	St/D
193	0-30	C	8	30-60	C	xxx	60+ Impenetrable LST			3	IV	3b	W
194	0-28	C	10	28-35	C	xxx	35+ Impenetrable LST			5	I	3b	D
195	0-30	HCL	16	30+ Impenetrable LST						0	I	3b	D
196	0-30	HCL	15	30-40	C + LST	o	40+ Impenetrable LST			0	I	3b	D
197	0-30	HCL	18	30+ Impenetrable LST						0	I	3b	St/D
198												Non-Ag	
199	0-30	HCL	12	30+ Impenetrable LST						0	I	3b	D
200	0-28	HCL	18	28+ Impenetrable LST						1	I	3b	St/D
201	0-30	HCL	12	30-38	C + LST	o	38+ Impenetrable LST			0	I	3b	D
202	0-28	HCL	10	28-30	C + LST	o	30+ Impenetrable LST			1	I	3b	D
204	0-26	C/HCL	16	26-50	C	o	50+ Impenetrable LST			0	I	3b	St/D
205	0-30	C	10	30-70	C	o	70-85 85+ Impenetrable LST	C + LST	o	0	I	3a	St/W/D
206	0-30	C	12	30-50	C	o	50+ Impenetrable LST			1	I	3b	D
207	0-29	C	11	29-40	C	o	40+ Impenetrable LST			2	I	3b	D
208	0-32	C	6	32-55	C	xx	55-70 70+ Impenetrable LST	C	xxx	0	III	3b	W
209	0-24	HCL	12	24-26	LST + C	o	26+ Impenetrable LST			3	I	3b	D
210	0-30	HCL	10	30+ Impenetrable LST						2	I	3b	D

Obs	Topsoil			Upper subsoil			Lower subsoil			Slope	Wetness	Agricultural quality	
No	Depth (cm)	Texture	Stones >20 mm (%)	Depth (cm)	Texture	Mottling	Depth (cm)	Texture	Mottling	(°)	Class	Grade	Main limitation
211	0-31	C	5	31-90	C	xxx	90-120	C	xxx	2	IV	3b	W
212	0-25	HCL	16	25+ Impenetrable LST						0	I	3b	St/D
213	0-27	HCL	13	27-40	C	o	40+ Impenetrable LST			0	I	3b	D
214												Non-Ag	
215	0-30	HCL	18	30-48	C + LST	o	48+ Impenetrable LST			3	I	3b	St/D
216	0-28	HCL	17	28+ Impenetrable LST						2	I	3b	St/D
217	0-30	HCL	13	30-36	C + LST	o	36+ Impenetrable LST			1	I	3b	D
218	0-28	HCL	7	28-38	C + LST	o	38+ Impenetrable LST			0	I	3b	D
219	0-30	HCL	13	30+ Impenetrable LST						0	I	3b	D
220	0-25	C	25	25-50	C	o	50+ Impenetrable LST			0	I	3b	St/D
221	0-25	C	10	25-48	C	o	48+ Impenetrable LST			0	I	3b	D
222	0-29	C	10	29-35	C	o	35+ Impenetrable LST			0	I	3b	D
223	0-31	HCL	16	31-50	C	o	50+ Impenetrable LST			0	I	3b	St/D
224	0-29	HCL	8	29+ Impenetrable LST						1	I	3b	D
225	0-30	C	10	30-35	C + LST	o	35+ Impenetrable LST			2	I	3b	D
226	0-32	HCL	5	32-60	C (sandy)	xxx	60+ Impenetrable LST			0	IV	3b	W
227	0-30	C	5	30-120	C	xxx				1	IV	3b	W
228	0-35	C	7	35-70	C fmn	xxx	70+ Impenetrable LST			0	IV	3b	W
229												Non-Ag	
230	0-28	HCL	16	28+ Impenetrable LST						3	I	3b	St/D
231	0-26	HCL	18	26+ Impenetrable LST						2	I	3b	St/D
232	0-30	HCL	8	30-72	HCL	o	36+ Impenetrable LST			1	I	3a	D
233	0-29	HCL	7	29-80	C	o	80+ Impenetrable LST			1	I	3a	D
234	0-30	C	7	30-39	C	o	39+ Impenetrable LST			0	I	3b	D
235	0-31	HCL	8	31+ Impenetrable LST						0	I	3b	D
236	0-28	C	12	28-32	C	o	48+ Impenetrable LST			0	I	3b	D
237	0-30	C	17	30-35	C	o	35+ Impenetrable LST			0	I	3b	St/D
238	0-30	HCL	12	30+ Impenetrable LST						0	I	3b	D
239	0-28	HCL	18	28+ Impenetrable LST						2	I	3b	St/D
240	0-30	HCL	11	30-50	C + LST	o	50+ Impenetrable LST			0	I	3b	D
241	0-32	HCL	7	32-55	C fmn	xxx	55-75 75+ Impenetrable LST	C (fmn)	xxx	0	IV	3b	W
242	0-28	C	17	28-50	C fmn	xxx	50+ Impenetrable LST			4	IV	3b	St/W
243	0-32	C	20	32-40	C	o	40+ Impenetrable LST			3	I	3b	St/D
244	0-26	C	25	26-50	C	o	50+ Impenetrable LST			1	I	3b	St/D
245	0-31	C	20	31-35	C + LST	o	35+ Impenetrable LST			0	I	3b	St/D
246	0-30	HCL	8	30-63	HCL	o	63+ Impenetrable LST			0	I	3a	D
247	0-28	C	6	28-40	C	o	40+ Impenetrable LST			1	I	3b	D
248	0-28	HCL	8	28-35	C + LST	o	35+ Impenetrable LST			0	I	3b	D
249	0-29	HCL/C	8	29-40	C	o	80+ Impenetrable LST			0	I	3b	D

Obs	Topsoil			Upper subsoil			Lower subsoil			Slope	Wetness	Agricultural quality	
No	Depth (cm)	Texture	Stones >20 mm (%)	Depth (cm)	Texture	Mottling	Depth (cm)	Texture	Mottling	(°)	Class	Grade	Main limitation
250	0-30	C	16	30+ Impenetrable LST						0	I	3b	St/D
251	0-29	HCL	17	29-38	C	o	38+ Impenetrable LST			0	I	3b	St/D
252	0-30	HCL	17	30-35	C + LST	o	35+ Impenetrable LST			0	I	3b	St/D
253	0-28	HCL	8	28-52	C fmn	xxx	52-83 83+ Impenetrable LST	SC (fmn)	xxx	1	IV	3b	W
254	0-28	HCL	23	28-40	C + LST	o	40+ Impenetrable LST			3	I	3b	St/D
255	0-29	HCL	25	29-40	C	o	40+ Impenetrable LST			2	I	3b	St/D
256	0-30	C	20	30+ Impenetrable LST						1	I	3b	St/D
257	0-30	C	17	30-95	C	o	95+ Impenetrable LST			0	I	3b	St
258	0-28	HCL/C	7	28+ Impenetrable LST						0	I	3b	D
259	0-30	C	17	30+ Impenetrable LST						0	I	3b	St/D
260	0-30	HCL	20	30+ Impenetrable LST						0	I	3b	St/D
261	0-29	HCL	12	29+ Impenetrable LST						1	I	3b	D
262												Non-Ag	
263	0-31	HCL	20	31-45	C + LST	o	45+ Impenetrable LST			3	I	3b	St/D
264	0-35	C	9	35-50	C + LST	o	50+ Impenetrable LST			0	I	3b	D
265	0-30	C	18	30+ Impenetrable LST						0	I	3b	St/D
266	0-31	C	8	31-55	C + LST	o	55+ Impenetrable LST			0	I	3b	D
267	0-28	C	8	28-50	C	o	50-65 65+ Impenetrable LST	C		0	I	3a	W
268	0-28	HCL/C	12	28-35	C + LST	o	35+ Impenetrable LST			0	I	3b	D
269	0-30	C	16	30-32	C + LST	o	32+ Impenetrable LST			0	I	3b	St/D
270	0-30	HCL	20	30+ Impenetrable LST						0	I	3b	St/D
271	0-27	C	20	27-54	C	o	54-80 80+ Impenetrable LST	C		1	I	3b	St
272	0-33	C	16	33-40	C + LST	o	40+ Impenetrable LST			4	I	3b	St/D
273	0-30	HCL	20	30+ Impenetrable LST						1	I	3b	St/D
274	0-28	HCL	16	28-35	C + LST	o	35+ Impenetrable LST			1	I	3b	St/D
275	0-30	C	12	30-55	C + LST	o	55+ Impenetrable LST			0	I	3b	D
276	0-30	C	6	30-65	C	o	65+ Impenetrable LST			0	I	3a	W
277	0-28	C	7	28-50	C	o	50+ Impenetrable LST			0	I	3b	D
278	0-28	C	8	28-40	C	o	40-42 42+ Impenetrable LST	C + LST	o	0	I	3b	D
279	0-30	C	16	30-40	C + LST	o	40+ Impenetrable LST			0	I	3b	St/D
280	0-28	HCL	20	28-40	C + LST	o	40+ Impenetrable LST			0	I	3b	St/D
281	0-28	HCL	17	28-50	C + LST	o	50+ Impenetrable LST			0	I	3b	St/D
282	0-28	HCL/MCL	18	28-35	C + LST	o	35+ Impenetrable LST			2	I	3b	St/D
283	0-25	C	5	25-65	C	xxx	65-100 100+ Impenetrable LST	C	xxx	0	IV	3b	W
284	0-30	HCL	22	30+ Impenetrable LST						2	I	3b	St/D

Obs	Topsoil			Upper subsoil			Lower subsoil			Slope	Wetness	Agricultural quality	
No	Depth (cm)	Texture	Stones >20 mm (%)	Depth (cm)	Texture	Mottling	Depth (cm)	Texture	Mottling	(°)	Class	Grade	Main limitation
285	0-30	C	18	30-35	C + LST	o	35+ Impenetrable LST			1	I	3b	St/D
286	0-30	HCL	12	30+ Impenetrable LST						1	I	3b	D
287	0-29	C	16	29-40	C + LST	o	40+ Impenetrable LST			0	I	3b	St/D
288	0-28	C	10	28-50	C	o	50+ Impenetrable LST			0	I	3b	D
289	0-30	C	12	30+ Impenetrable LST						0	I	3b	D
290	0-30	C	7	30-35	C + LST	o	35+ Impenetrable LST			0	I	3b	D
291	0-30	HCL	18	30+ Impenetrable LST						0	I	3b	St/D
292	0-28	C	17	28-32	C + LST	o	32+ Impenetrable LST			0	I	3b	St/D
293	0-26	HCL	18	26-40	C + LST	o	40+ Impenetrable LST			1	I	3b	St/D
294	0-30	HCL	18	30+ Impenetrable LST						2	I	3b	St/D
295	0-30	C	17	30+ Impenetrable LST						4	I	3b	St/D
296	0-30	HCL	20	30+ Impenetrable LST						2	I	3b	St/D
297	0-30	HCL	18	30-40	C + LST	o	40+ Impenetrable LST			0	I	3b	St/D
298	0-31	C	14	31-50	C	o	50+ Impenetrable LST			0	I	3b	D
299	0-30	C	10	30-40	C + LST	o	40+ Impenetrable LST			0	I	3b	D
300	0-29	C	18	29-45	C + LST	o	45+ Impenetrable LST			0	I	3b	St/D
301	0-27	C	18	27-32	C + LST	o	32+ Impenetrable LST			0	I	3b	St/D
302	0-29	C	16	29-40	C + LST	o	40+ Impenetrable LST			0	I	3b	St/D
303	0-28	C	16	28-35	C + LST	o	35+ Impenetrable LST			0	I	3b	St/D
304	0-30	HCL	14	30-40	C + LST	o	40+ Impenetrable LST			0	I	3b	D
305	0-30	C	12	30-45	C	o	45+ Impenetrable LST			1	I	3b	D
306												Non-Ag	
307	0-30	C	18	30-40	C + LST	o	40+ Impenetrable LST			1	I	3b	St/D
308	0-28	C	16	28-60	C + LST	o	60+ Impenetrable LST			0	I	3b	St
309	0-30	C	18	30-48	C	o	48-55 55+ Impenetrable LST	C + LST	o	0	I	3b	St
310	0-30	C	20	30-38	C + LST	o	38+ Impenetrable LST			0	I	3b	St/D
311	0-30	C	12	30-60	C	xxx	60-95 95+ Impenetrable LST	C	xxx	0	IV	3b	W
312	0-30	C	18	30-35	C + LST	o	35+ Impenetrable LST			1	I	3b	St/D
313	0-30	C	12	30-45	C	o	45-80 80+ Impenetrable LST	C	o	0	I	3a	St/W
314	0-35	C	12	35-65	C	o	65+ Impenetrable LST			0	I	3a	St/W/D
315	0-30	C	13	30-42	C	o	42-57 57+ Impenetrable LST	C	o	0	I	3a	D
316	0-30	C	12	30-55	C	o	55+ Impenetrable LST			0	I	3b	D
317	0-31	C	14	31-45	C	o	45+ Impenetrable LST			1	I	3b	D
318	0-32	C	17	32-40	C	o	40+ Impenetrable LST			0	I	3b	St/D
319	0-30	C	17	30-65	C	o	65+ Impenetrable LST			0	I	3b	St/D
320	0-29	C	16	29-55	C	o	55+ Impenetrable LST			1	I	3b	St/D

Obs	Topsoil			Upper subsoil			Lower subsoil			Slope	Wetness	Agricultural quality	
No	Depth (cm)	Texture	Stones >20 mm (%)	Depth (cm)	Texture	Mottling	Depth (cm)	Texture	Mottling	(°)	Class	Grade	Main limitation
321	0-31	C	12	31-70	C	o	70+ Impenetrable LST			0	I	3a	St/W
322	0-25	HCL	13	25-50	C	o	50+ Impenetrable LST			1	I	3b	D
323	0-25	C	20	25-50	C	xxx	50-85 85+ Impenetrable LST	C + LST	xxx	0	I	3b	St
324	0-28	C	6	28-52	C	o	52-105 105+ Impenetrable LST	C	xxx	1	III	3b	W

Obs	Topsoil			Upper subsoil			Lower subsoil			Slope	Wetness	Agricultural quality	
No	Depth (cm)	Texture	Stones >20 mm (%)	Depth (cm)	Texture	Mottling	Depth (cm)	Texture	Mottling	(°)	Class	Grade	Main limitation
22/1	0-30	C	7	30-58	C fmn	xxx	58-65 65+ Impenetrable LST	C + LST	o	0	IV	3b	W
22/2	0-30	C	7	30-46	C fmn	xxx	46-50 50+ Impenetrable LST	C + LST	o	0	I	3b	D
22/3	0-30	C	17	30-35	C + LST	o	35+ Impenetrable LST			2	I	3b	St/D
22/4	0-26	MCL	16	26-30	C + LST	o	30+ Impenetrable LST			1	I	3b	St/D
22/5	0-25	HCL	18	25-30	C + LST	o	30+ Impenetrable LST			3	I	3b	St/D
22/6	0-25	MCL	16	25-30	C + LST	o	30+ Impenetrable LST			1	I	3b	St/D
22/7	0-30	HCL	7	30-55	HCL	o	55+ Impenetrable LST			2	I	3b	D
22/8	0-35	MCL	7	35+ Impenetrable LST						2	I	3b	D
22/9	0-30	MCL	7	30+ Impenetrable LST						3	I	3b	D
22/10	0-29	HCL	5	29-45	C	o	45+ Impenetrable LST			2	I	3b	D
22/11	0-30	HCL	18	30-35	C + LST	o	35+ Impenetrable LST			3	I	3b	St/D
22/12	0-28	HCL	18	28+ Impenetrable LST						2	I	3b	St/D
22/13	0-28	HCL	7	28-68	C	o	68+ Impenetrable LST			1	I	3a	D
22/14	0-28	MCL	12	28-32	Weathered LST	o	32+ Impenetrable LST			0	I	3b	D
22/15	0-29	MCL	7	29-44	Weathered LST	o	44+ Impenetrable LST			1	I	3b	D
22/16	0-29	HCL	5	29-45	C	xxx	45-120	C	xxx	0	IV	3b	W
22/17	0-30	MCL	17	30+ Impenetrable LST						0	I	3b	St/D
22/18	0-26	HCL	16	26-42	C	xxx	42+ Impenetrable LST			0	I	3b	St/D
22/19	0-28	MCL	12	28-40	Weathered LST	o	40+ Impenetrable LST			2	I	3b	D
22/20	0-30	MCL	12	30-35	Weathered LST	o	35+ Impenetrable LST			2	I	3b	D
22/21	0-27	MCL	16	27+ Impenetrable LST						1	I	3b	St/D
22/22	0-28	HCL	12	28+ Impenetrable LST						3	I	3b	D

Obs	Topsoil			Upper subsoil			Lower subsoil			Slope	Wetness	Agricultural quality	
No	Depth (cm)	Texture	Stones >20 mm (%)	Depth (cm)	Texture	Mottling	Depth (cm)	Texture	Mottling	(°)	Class	Grade	Main limitation
22/23	0-28	MCL	7	28-45	HCL	o	45-65 65+ Impenetrable LST	C	o	0	I	3a	D
22/24	0-29	HCL	1	29-68	C fmn	xxx	68-120	C fmn	xxx	3	IV	3b	W
22/25	0-30	MCL	1	30-80	C fmn	xxx	80-120	C (Z) fmn	xxx	3	IV	3b	W
22/26	0-30	C	2	30-60	C	xxx	60+ Impenetrable LST			0	IV	3b	W
22/27	0-30	C	5	30-40	Weathered LST	o	40+ Impenetrable LST			0	I	3b	D
22/28	0-29	MCL	8	29-55	C	o	55-62 62-70 70+ Impenetrable LST	C fmn Weathered Limestone	xxx	2	I	3a	D
22/29	0-34	MCL	7	34+ Impenetrable LST						0	I	3b	D
22/30	0-32	SCL	3	32-60	SCL	o	60-120	LMS	o	1	I	2	D
22/31	0-29	HCL	3	29-55	C fmn	xxx	55-80 80-120	C LMS	xxx xxx	1	IV	3b	W
22/32	0-28	HCL	5	28-50	HCL	o	50-70 70+ Impenetrable LST	C	xxx	2	III	3b	W
22/33	0-30	MCL	5	30-55	C	o	55+ Impenetrable LST			2	I	3b	D
22/34	0-27	MCL	12	27+ Impenetrable LST						3	I	3b	D
22/35	0-25	HCL	15	25-37	Weathered LST	o	37+ Impenetrable LST			2	I	3b	D
22/36	0-26	HCL	16	26+ Impenetrable LST						1	I	3b	St/D
22/37	0-28	MZCL	9	28-35	HCL	o	35+ Impenetrable LST			0	I	3b	D
22/38	0-32	MCL	9	32-38	C	o	38+ Impenetrable LST			2	I	3b	D
22/39	0-29	HCL	10	29+ Impenetrable LST						2	I	3b	D
22/40	0-30	MCL	9	30+ Impenetrable LST						2	I	3b	D
22/41	0-30	MCL	12	30-35	HCL	o	35+ Impenetrable LST			2	I	3b	D
22/42	0-30	MCL	10	30-35	Weathered LST	o	35+ Impenetrable LST			1	I	3b	D
22/43	0-30	MCL	5	30-55	Weathered LST	o	55+ Impenetrable LST			1	I	3a	D
22/44	0-32	MCL	5	32-95	C	o	95+ Impenetrable LST			1	I	2	D
22/45	0-27	MCL	16	27-50	C	o	50+ Impenetrable LST			0	I	3b	St/D
22/46	0-32	HCL	5	32-47	C	o	47-95 95-120	C FSZL	xxx o	0	III	3b	W
22/47	0-35	MCL	4	35+ Impenetrable LST						3	I	3b	D
22/48	0-30	MCL	9	30-35	C	o	35+ Impenetrable LST			0	I	3b	D
22/49	0-29	HCL	12	29-35	C + LST	o	35+ Impenetrable LST			0	I	3b	D
22/50	0-30	HCL	12	30+ Impenetrable LST						1	I	3b	D
22/51	0-27	MCL	12	27-40	C	o	40+ Impenetrable LST			0	I	3b	D
22/52	0-30	HCL	7	30-60	C	o	60+ Impenetrable LST			0	I	3a	D
22/53	0-30	HCL	12	30-38	C + LST	o	38+ Impenetrable LST			0	I	3b	D
22/54	0-31	MCL	12	31+ Impenetrable LST						0	I	3b	D
22/55	0-28	MCL	18	28+ Impenetrable LST						0	I	3b	St/D
22/56	0-29	MCL	7	29-50	C	o	50+ Impenetrable LST			0	I	3b	D

Obs	Topsoil			Upper subsoil			Lower subsoil			Slope	Wetness	Agricultural quality	
No	Depth (cm)	Texture	Stones >20 mm (%)	Depth (cm)	Texture	Mottling	Depth (cm)	Texture	Mottling	(°)	Class	Grade	Main limitation
22/57	0-30	HCL	12	30+ Impenetrable LST						0	I	3b	D
22/58	0-30	MCL	12	30+ Impenetrable LST						0	I	3b	D
22/59	0-27	MCL	12	27-55	C	o	55+ Impenetrable LST			0	I	3b	D
22/60	0-35	MCL	12	35+ Impenetrable LST						0	I	3b	D
22/61	0-30	HCL	7	30-38	C	o	38+ Impenetrable LST			0	I	3b	D
22/62	0-35	MCL	7	35+ Impenetrable LST						0	I	3b	D
22/63	0-30	HCL	7	30-60	C	o	60+ Impenetrable LST			0	I	3a	D
22/64	0-28	HCL	7	28-63	C	o	63-71 71+ Impenetrable LST	C + LST	xxx	1	I	3a	D
22/65	0-30	C	18	30+ Impenetrable LST						0	I	3b	St/D
22/66	0-29	C	10	29-42	C	xxx	42+ Impenetrable LST			1	I	3b	D
22/67	0-28	C	7	28-50	C	xxx	50-70 70+ Impenetrable LST	C	xxx	2	IV	3b	W
22/68	0-29	C	17	29+ Impenetrable LST						2	I	3b	St/D
22/69	0-28	C	7	28-58	C	o	58+ Impenetrable LST			3	I	3b	D
22/70	0-26	C	7	26-52	C	xxx	52-55 55+ impenetrable LST	Weathered LST	o	1	IV	3b	W/D
22/71	0-28	C	18	28+ Impenetrable LST						0	I	3b	St/D
22/72	0-29	C	12	29-38	C	o	38+ Impenetrable LST			1	I	3b	D
22/73	0-28	C	12	28-32	C	o	32+ Impenetrable LST			2	I	3b	D
22/74	0-27	C	12	27-38	C	o	38+ Impenetrable LST			2	I	3b	D
22/75	0-30	HCL	16	30-35	C + LST	o	35+ Impenetrable LST			2	I	3b	St/D
22/76	0-30	HCL	17	30-40	C + Little LST	o	40-45 45+ Impenetrable LST	Weathered LST	o	1	I	3b	St/D
22/77	0-30	SCL	18	30-40	Weathered LST	o	40+ Impenetrable LST			2	I	3b	St/D
22/78	0-28	HCL	17	28-35	Weathered LST	o	35+ Impenetrable LST			2	I	3b	St/D
22/79	0-28	C	12	28-33	C + LST	o	33+ Impenetrable LST			1	I	3b	D
22/80	0-28	SCL	17	28-40	C + LST	o	40+ Impenetrable LST			2	I	3b	St/D
22/81	0-30	C	6	30-70	C	xxx	70-120	C	xxx	2	IV	3b	W
22/82	0-22	C	18	22-35	C + LST	o	35+ Impenetrable LST			1	I	3b	St/D
22/83	0-29	C	6	29-55	C	xxx	55-70 70+ Impenetrable LST	C + Little LST	xxx	0	IV	3b	W
22/84	0-33	HCL	16	33-40	C + LST	o	40+ Impenetrable LST			1	I	3b	St/D
22/85	0-30	HCL	18	30-45	C + LST	o	45+ Impenetrable LST			2	I	3b	St/D
22/86	0-30	HCL	20	30-35	C + LST	o	35+ Impenetrable LST			1	I	3b	St/D

Soil log key

Gley indicators[1]

o	unmottled
x	1-2% ochreous mottles and brownish matrix (or a few to common root mottles (topsoils))[3]
xx	>2% ochreous mottles and brownish matrix and/or dull structure faces (slightly gleyed horizon)
xxx	>2% ochreous mottles and greyish or pale matrix (gleyed horizon) or reddish matrix and >2% greyish, brownish or ochreous mottles or f-m concentrations and pale ped faces (gleyed horizon)
xxxx	dominantly blueish/greenish matrix, often with some reddish mottles (gleyed horizon)
xx(x)	Subsoils where gleying evidence is unclear in auger boring (especially reddish soils)

Texture[2]

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

Limitations:

W - wetness/workability
D - droughtiness
De - depth
F - flooding
St – stoniness
G - gradient
T – topography/microrelief
Tx – texture
C - Climate

Suffixes & prefixes:

o - organic

(vsl, sl, m, v, x)**st** – (very slightly, slightly, moderately, very, extremely) **stony**[6]

(vsl, sl, m, v, x)**ca**
(very slightly, slightly, moderately, very, extremely) **calcareous**[7]

Slowly permeable layers[4]

a depth underlined (e.g. <u>50</u>) indicates the top of a slowly permeable layer

A wavy underline (e.g. <u>50</u> indicates the top of a layer borderline to slowly permeable

Wetness Class[5]

I (freely drained) to VI (very poorly drained)

Other abbreviations

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

[1]Gley indicators in accordance with Hodgson, J.M., 1997. Soil Survey Field Handbook (third edition). Soil survey technical monograph No. 5
[2]Texture in accordance with particle size classes in Hodgson (1997)
[3] Occasionally recorded in the texture box
[4]Permeability is estimated for auger borings and must be confirmed by full pit observations in accordance with the definitions in: Revised Guidelines for grading the quality of Agricultural Land (Maff 1988)
[5]Soil Wetness Classes are defined in Hodgson (1997)
[6]stoniness classes as defined in Hodgson (1997)
[7]calcareous classes as defined in Hodgson (1997)

Grades shown as intergrade e.g. **3a**/3b are close to the grade boundary. The estimate of which side of the boundary the grading falls is the shown first (in bold here)
grades in brackets eg. (3a) raised by one grade due to calcareous topsoil

452000 452500 453000 453500 454000 454500 455000 455500

229500 229000 228500 228000 227500 227000 226500 226000 225500 225000 224500 224000 223500

Key

- Site boundary
- Soil auger
- Soil pit

Location:

Ardley, Oxfordshire

Map:

Map 1 - Observations

Date: 16 / 10 / 2026

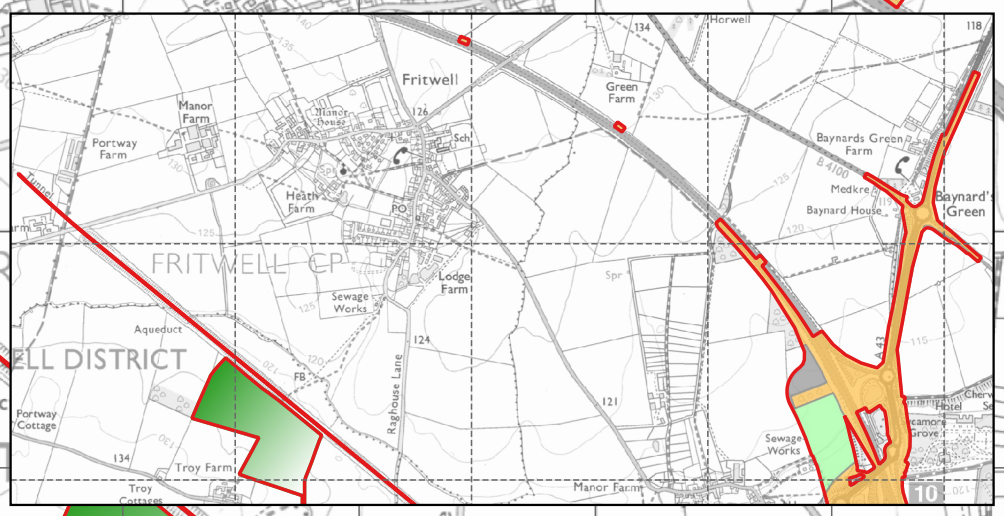
Scale: 1 : 16,000 at A3
(insets 1 : 32,000)

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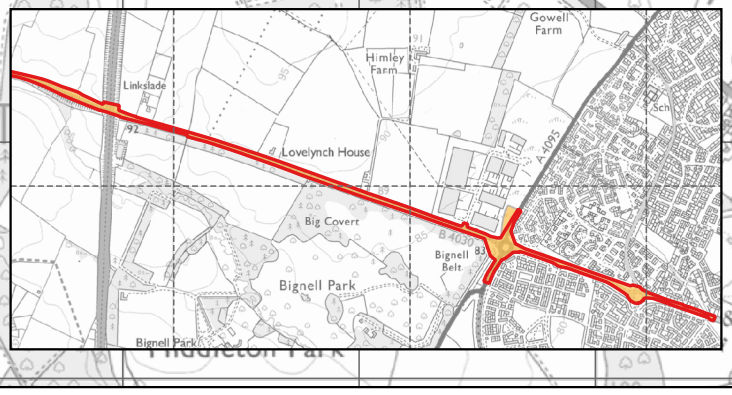
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452000 452500 453000 453500 454000 454500 455000

229500 229000 228500 228000 227500 227000 226500 226000 225500 225000 224500 224000 223500 223000







Baynards Green Farm
Medkre
Baynard House
Baynard's Green
B4100
A43
Cherwell Valley Services
Hotel
Sycamore Grove
Sewage Works
Troy Farm
Raghouse
Manor Farm
FB
Fewcott
N1
10
Somerton Road
Cross Roads Farm
Kennel Copse
Crowfoot Pond
Ardley
Ardley Wood Earthwork
Station Road
MS
Upland Cottage
Nevilles Farm
Quarry (Stone)
Kilby's
Digging Copse
The Plantation
M40
Ashgrove Farm
Ashgrove Cottages
Letchmere Farm
Cherwell Drive
The Heath
Sewage Works
Ardley Incinerator
Reservoir
Quarry
Trow Pool
Gagle Brook
Upper Farm
Water Tower
Trowpool Spinney
Birch Spinney
Manor Farm
The Gorse
Timberyard Clump
Quarry
Manor Farm Cottages
Dewars Farm
Burnt Close Copse
Bucknell Lodge
Middleton Stoney
Sewage Works
Rectory Farm
Linkslade
Bignell Park
Middleton Park
ARDLEY CP
FRITWELL CP
GREEN CP
WENDL
BUCKN

Key

- Site boundary
- Subgrade 3a
- Subgrade 3b
- Other land (non-agricultural)
- Predicted mix of Subgrade 3a / 3b
- Land not surveyed

Location:

Ardley, Oxfordshire

Map:

Map 2 - Agricultural land classification

Date: 16 / 10 / 2026

Scale: 1 : 16,000 at A3
(insets 1 : 32,000)

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