

Welsh Government

**M4 Corridor around Newport**

Environmental Statement Volume 3:  
Appendix 15.1

Soil Auger Boring Descriptions

M4CaN-DJV-EGN-ZG\_GEN-AX-EN-0001

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# 1 Key to Auger Boring Descriptions

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## 1.1 Textures

Msl	- medium sandy loam
Mszl	- medium sandy silt loam
Mcl	- medium clay loam
Mzcl	- medium silty clay loam
ScI	- sandy clay loam
Hcl	- heavy clay loam
Hzcl	- heavy silty clay loam
C	- Clay

## 1.2 Colours

DB	- dark brown
B	- brown
VDB	- very dark brown
DRB	- dark reddish brown
RB	- reddish brown
DGB	- dark greyish brown
GB	- greyish brown
PB	- pale brown
PRB	- pale yellowish brown
YB	- yellowish brown

## 1.3 Others

PSD	- Particle size distribution
TSP	- Topsoil stone pit

No.	Depth	Colour & Mottles	Texture	Stones (% > 2 cm)	Wetness Class	ALC Grade
1	0 - 25	DRB	scl	10	I	3a
	25 - 40	RB	scl	15 (small)		
	40 +	Too stony to auger				
2	0 - 28	DRB	scl	10	I	3a
	28 - 35	RB	scl	10-15		
	35 +	Too stony to auger				
3	0 - 29	DRB	mcl	5-10	I	2
	29 - 75+ At 24650 84050	RB	mcl	5-10		
4	0 - 30	DRB	mcl	5-10	III	3a
	30 - 40	RB	mcl	5-10		
	40 - 50	RB	scl	20 (small)		
	50 - 60	RB, mottled	hcl	20 (small)		
	70 +	Too stony to auger				
5	0 - 26	DRB	mcl	<5		2
	26 - 65	RB	mcl	<5		
	65 - 70	RB	mcl	10-15		
	70 +	Too stony to auger				
6	0 - 25	DRB	mszl	5-10	I	3a
	25 - 35	RB	mszl	10-15		
	35 - 40	B	msl	25		
	40 +	Too stony to auger				
7	0 - 26	DRB	mcl	5-10	I	2/3a
	26 - 40	RB	mcl	10		
	40 - 45	RB	msl	25		
	45 +	Too stony to auger				
8	0 - 27	DRB	mcl	10	I	3a
	27 - 35	RB	mcl	15		
	35 - 45	RB	mcl	25		
	45 + 3b slope nearby	Too stony to auger				
9	0 - 26	DRB	mcl	5	I	2
	26 - 40	RB	mcl	10		
	40 - 45	RB	msl	10-15		
	45 +	Too stony to auger				
10	0 - 25	DRB	mcl	10-15(TSP)	I	3b slope
	25 - 40	RB	mcl	10-15		
	40 +	Too stony to auger				
11	0 - 30	DRB	mszl	5	I	2
	30 - 60	RB	mszl	5		
	60 +	Too stony to auger				
12	0 - 25	DRB	mcl	10-15	I	3b slope
	25 - 35	RB	mcl	15		
	35 +	Too stony to auger				
12a	0 - 25	DRB	mcl	10-15	I	3a
	25 - 35	RB	scl	15		
	35 +	Too stony to auger				

No.	Depth	Colour & Mottles	Texture	Stones (% total)	Wetness Class	ALC Grade
13	0 - 27	DRB	mcl	5	I	2
	27 - 50	B	mcl	5		
	50 - 60	B	mcl	10-15		
	60 +	Too stony to auger				
14	0 - 27	DB	scl	5-10	II	2
	27 - 40	B, mottled	scl	5-10		
	40 - 50	GB, mottled	scl	10		
	50 - 70	GB, mottled	msl	10		
	70 +	Too stony to auger				
15	0 - 24	DRB	mcl	10	I	3a
	24 - 35	RB	scl	10-15		
	35 - 40	RB	msl	15		
	40 +	Too stony to auger				
3b stony between 14 and 15; 3b slope to E						
16	0 - 28	DB	mszl	<5	I	2
	28 - 70	B	mzcl	<5		
	70 - 75	B	mzcl	10		
	75 +	Too stony to auger				
17	0 - 25	DB	mszl	10-15	I	3b slope
	25 - 35	RB	mcl	15-20		
	35 +	Too stony to auger				
18	0 - 25	DB	msl	20	I	3b slope
	25 +	Too stony to auger				
19	0 - 26	DB	mszl	15+	I	TS Pit 3a/3b
	26 - 40	RB	scl	15-20		
	40 +	Too stony to auger				
stones						
20	0 - 25	DRB	mcl	15+	I	3b stones
	25 - 40	RB	mcl	20		
	40 +	Too stony to auger				
21	0 - 26	DRB	mcl	10-15	I	3a
	26 - 60	RB	mcl	15		
	60 - 65	RB	mszl	20 (small)		
	65 +	Too stony to auger				
22	0 - 25	DB	mszl	15+	I	3b depth
	25 - 35	RB	mszl	15-20		
	35 +	Too stony to auger				
23	0 - 27	DRB	mcl/mzcl	10	I	3a
	27 - 50	RB	mzcl	10		
	50 - 60	RB	mzcl	20 (small)		
	60 +	Too stony to auger				
24	0 - 26	DRB	mzcl	15	I	3b slope
	26 - 30	RB	mszl	15-20		
	30 +	Too stony to auger				
25	0 - 26	DB	mszl	10-15	I	3b slope
	26 - 35	RB	mszl	15		
	35 +	Too stony to auger				

No.	Depth	Colour & Mottles	Texture	Stones (% total)	Wetness Class	ALC Grade
26	0 - 26	DB	mcl	10-15	I	3b slope
	26 - 40	RB	scl	15-20		
	40 +	Too stony to auger				
27	0 - 26	DB	mcl	10-15	I	3b slope
	26 - 40	RB	mcl	15-20		
	40 +	Too stony to auger				
28	0 - 24	DB	mcl	10	I	3a
	24 - 40	RB	mcl	10-15		
	40 +	Too stony to auger				
29	0 - 24	DB	hcl	0	IV	3b
	24 - 50+	RB, mottled	c (SPL)	0		
Worcester series soil over seam of clay						
30	0 - 26	DB	mzcl	5	III	3a
	26 - 60	RB	mzcl	5		
	60+	RB, mottled	c (SPL)	0		
Change to clay at 60cm is sudden; transitional to Worcester series over seam of clay						
31	0 - 26	DRB	hcl	0	IV	3b
	26 - 50+	RB, mottled	c (SPL)	0		
Worcester series soil over seam of clay						
32	0 - 27	DRB	mcl		III	3a
	27 - 60	RB	hcl			
	60 - 85+	RB, mottled	hcl (SPL)			
33	0 - 27	DRB	mcl		III	3a
	27 - 60	RB	hcl			
	60+	RB, mottled	c (SPL)			
34	0 - 27	DRB	mcl		III	3a
	27 - 50	RB	hcl			
	50+	RB, mottled	c (SPL)			
35	0 - 25	DGB	mcl		IV	3b
	25 - 40	B, mottled	hcl			
	40 - 60+	RB, mottled	c (SPL)			
36	0 - 26	DB	mzcl		II/III	2/3a
	26 - 50	RB, occasional mottles	hcl			
	50+	Too stony to auger				
37	0 - 28	DRB	mcl		III	3a
	28 - 35	RB	hcl			
	35 - 60	RB, mottled	hcl			
	60 - 80+	RB, mottled	hcl/c (SPL)			
38	0 - 22	DB	mzcl		IV	3b
	22 - 45	B, mottled	mzcl			
	45 - 50	B, mottled	hzcl			
	50 - 70+	RB, mottled	zc (SPL)			
39	0 - 27	DB	mzcl		III	3a
	27 - 45	B	hzcl			
	45 - 70+	RB, mottled	zc (SPL)			

No.	Depth	Colour & Mottles	Texture	Stones (% total)	Wetness Class	ALC Grade
40	0 - 27	DB	mzcl		IV	3b
	27 - 45	B, mottled	hzcl			
	45 - 65+	PB, mottled	zc (SPL)			
41	0 - 25	DB	mzcl		IV	3b
	25 - 40	B, mottled	hzcl			
	40 - 60+	RB, mottled	c (SPL)			
42	0 - 28	DB	mzcl		IV	3b
	28 - 45	B, mottled	hzcl			
	45 - 65+	PB, mottled	zc (SPL)			
43	0 - 28	DRB	mcl		III	3a
	28 - 40	RB	mcl			
	40 - 45	RB	hcl			
	45+	RB, mottled	c (SPL)			
44	0 - 27	DRB	mcl	5	I	2
	27 - 50	RB	mcl	5-10		
	50 - 90+	RB, mottled	mzcl	10		
45	0 - 28	DB	mcl		III	3a
	28 - 35	B	mcl			
	35 - 45	YB, mottled	mcl			
	45 - 55	YB, mottled	hcl			
	55+	YB, mottled	c (SPL)			
46	0 - 26	DB	mcl		III	3a
	26 - 35	B	mcl			
	35 - 50	B, mottled	mcl			
	50 - 65	YB, mottled	hcl			
	65+	YB, mottled	c (SPL)			
47	0 - 28	DRB	mcl		IV	3b
	28 - 45	RB, mottled	hcl			
	45 - 70+	RB, mottled	c (SPL)			
48	0 - 25	DGB	mzcl		IV	3b
	26 - 35	PB	hzcl			
	25+	PB, mottled	zc (SPL)			
49	0 - 30	DRB	mzcl	5	II/III	3a
	30 - 40	RB, occasional mottles	hzcl	10		
	40 - 45	RB, mottled	hzcl	15-20		
	45+	Too stony to auger				
50	0 - 25	DB	mzcl		IV	3b
	25 - 35	B, occasional mottles	mzcl			
	35 - 40	B, mottled	hzcl			
	40 - 65+	B, mottled	zc (SPL)			
51	0 - 26	DGB	hzcl		IV	4
	26 - 45	GB, mottled	hzcl			
	45 - 60+	YB, mottled	zc (SPL)			
52	0 - 24	DB, mottled	mzcl		IV	3b
	24 - 35	PB, mottled	hzcl			
	35 - 60+	G, mottled	sc (SPL)			

No.	Depth	Colour & Mottles	Texture	Stones (% total)	Wetness Class	ALC Grade
53	0 - 25	DB	mzcl		III	3b
	25 - 55	PB	hzcl			
	55 - 70+	PB, mottled	zc (SPL)			
54	0 - 30	DB	mzcl		III	3a
	30 - 60	PB, mottled	hcl			
	60 - 85+	B, mottled	c (SPL)			
55	0 - 25	DGB, mottled	c		IV	4
	25 - 65+	PB, mottled	c (SPL)			
56	0 - 25	DGB	hcl		IV	4
	25 - 35	YB, mottled	hcl/c			
	35 - 65+	YB, mottled	c (SPL)			
	At 27300 84115 (to* avoid very boggy area)					
57	0 - 25	DB, mottled	hcl		IV	4
	25+	GB, mottled	c (SPL)			
58	Non-ag					
59	0 - 25	DGB, mottled	hcl		IV	4
	25 - 30	GB, mottled	hcl			
	30 - 60+	GB, mottled	c (SPL)			
60	0 - 27	DGB, mottled	hcl		IV	4
	27 - 35	GB, mottled	hcl			
	35 - 60+	GB, mottled	c (SPL)			
61	0 - 27	DB	scl (wet)	5	III	3a
	27 - 35	B, occasional mottles	scl	5		
	35 - 70	GB, mottled	scl	<5		
	70 - 90+	YB, mottled	sc (SPL)			
62	0 - 23	DB	mcl	5	III	3a
	23 - 35	B, mottled	mcl	5		
	35 - 70	YB, mottled	scl	10		
	70 +	Too stony to auger				
Wet patches nearby						
63	0 - 27	DB	scl	5	II/III	3a
	27 - 45	SB	scl	5-10		
	45 - 60	SB	msl + clay lenses	10		
	60 - 80+	B, mottled	sc (SPL)			
64	0 - 26	DB	mcl	5	IV	3b
	26 - 40	YB, mottled	mcl	5		
	40 - 45	YB, mottled	hcl	5		
	45 +	YB, mottled	c (SPL)	5		
65	0 - 25	DB	mcl	5	III	3a
	25 - 60	YB, mottled	mcl	10		
	60 +	Too stony to auger				
Very wet immediately to south-east						
66	0 - 27	DRB	msl	10	I	3a
	27 - 45	YB, mottled	msl	10-15		
	45 +	Too stony to auger				
	At 27420 83600					



No.	Depth	Colour & Mottles	Texture	Stones (% total)	Wetness Class	ALC Grade
67	0 - 28	DB	m sl	<5	I	1/2
	28 - 55	B	m sl	<5		
	55 - 90	B	lms + scl lenses	<5		
68	0 - 25	DB	scl	5	I	3a
	25 - 30	B	m sl	10 (small)		
	30 - 40	B	lms	10-15 (small)		
	40 - 45	PB	ms	30 (small & grit)		
69	0 - 31	DB	m cl	5	II	2
	31 - 45	B	m cl	5		
	45 - 80	B, mottled	h cl	10		
	80 +	Too stony to auger				
At 27725 83600						
70	0 - 30	DB	scl	10-15	I	3a
	30 - 40	B	scl	15-20		
	40 +	Too stony to auger				
71	0 - 28	DB	scl	5	I	2
	28 - 40	B	m sl	10		
	40 - 50	B	m sl	15		
	50 - 60	B	lms	20		
	60 +	Too stony to auger				
72	0 - 30	DB	scl	5	III	3a
	30 - 70	B, mottled	scl	10		
	70 +	B, mottled	sc	10		
73	0 - 26	DB	m sl	10	I	3a
	26 - 40	B	m sl	15-20		
	40+	Too stony to auger				
74	0 - 25	VDB	scl	5	II	3a
	25 - 35	B, occasional mottles	scl	5		
	35 - 45	B, mottled	cs	10-15		
	45 +	Too stony to auger				
75	See below					
76	0 - 26	DB	m cl	5	III	3a
	26 - 45	PB, mottled	m cl	5		
	45 - 55	PB, mottled	h cl	5		
	55 - 80+	GB, mottled	c (SPL)	0		
At 27480 83425						
77	0 - 25	DB	m sl	5	II	2
	25 - 35	B	m sl	5		
	35 - 60	GB, mottled	lms	5		
	60 - 80+	GB, mottled	ms + scl lenses	10		
78	0 - 26	DB	m cl		IV	3b
	26 - 35	GB, mottled	h cl			
	35 - 60+	G, mottled	c (SPL)			
79	0 - 27	DB	m cl		IV	3b
	27 - 40	B, occasional mottles	h cl			
	40 - 70+	GB, mottled	c (SPL)			

No.	Depth	Colour & Mottles	Texture	Stones (% total)	Wetness Class	ALC Grade
80 - 100 Inclusive - See below						
101	0 - 24 24+	DB Rock (Limestone?)	mszl	5	I	3b
102	0 - 25 25+	DB Rock (Limestone?)	mszl	5	I	3b
103	0 - 27 27 - 35 35 - 55 55+	DRB RB RB, mottled RB, mottled	mcl mcl mcl mcl	<5 <5 <5 10% ls frags	III	3a
104	0 - 23 23+	DB Rock (Limestone?)	mcl	5	I	3b
105	0 - 27 27 - 40 40 - 60 60 - 80+	DB B RB RB	mcl mcl mcl hcl	<5 <5 5 5	I	2
106	0 - 23 23+	DB Rock (Limestone?)	mszl	5	I	3b
107	0 - 22 22+	DB Rock (Limestone?)	mszl	5	I	3b
108	0 - 26 26 - 80+	DB B	mcl mcl	5 5	I	2
109	0 - 27 27 - 60 60 +	DB B Too stony to auger	mcl mcl	5 10	I	2
110	0 - 26 26+	DRB Rock (Limestone?)	mszl	5	I	3b
111	0 - 24 24+	DRB Rock (Limestone?)	mszl	5	I	3b
112	0 - 26 26 - 60 60 - 80+	DB B B	mcl mcl scl	<5 5 5	I	2
113	0 - 26 26 - 40 40 +	DB RB Too stony to auger	mszl mszl	10 15	I	3a
114	0 - 25 25 - 50 50 - 80+ At 44200 97690	DB B B	scl scl mzcl	<5 5 5	I	2
115	0 - 24 24 - 70 70+	DB B B	mzcl mzcl hzcl	<5 5 5	I	2

No.	Depth	Colour & Mottles	Texture	Stones (% total)	Wetness Class	ALC Grade
116	0 - 24	DB	mcl	<5	I	2
	24 - 60	B	mcl	<5		
	60 - 75	B	scl	5		
	75+	B, occasional mottles	scl	5		
117	0 - 23	DB	scl	5	I	2
	23 - 80+	B	scl	5-10		
118	0 - 25	DB	mcl	10+	I	3a
	25 - 40	RB	mcl	10-15		
	40 +	Too stony to auger				
119	0 - 22	DB	mszl	5	I	3b
	22+	Rock (Limestone?)				
120	0 - 27	DB	mszl	5	I	1
	27 - 80	B	mcl	5		
	80 +	Too stony to auger				
121	0 - 27	DB	mcl	5	I	2
	27 - 50	B	mcl	10		
	50 +	Too stony to auger				
122	0 - 27	DB	mcl	5	I	2
	27 - 60	B	mcl	10		
	60 +	Too stony to auger				
123	0 - 26	DB	mcl	5	I	3a
	26 - 40	B	mcl	10		
	40 +	Too stony to auger				
124	0 - 26	DB	mcl	5-10	I	3b
	25 - 35	Creamy white powdery limestone				
	35 +	Rock				
125	0 - 25	DB	mcl	5	I	2
	25 - 60	B	mcl	5		
	60 - 75	B	scl	5-10		
	75+	B	scl	0		
126	0 - 25	DB	mzcl	5	I	2
	25 - 60	B	mzcl	5		
	60 - 65	B	mzcl	20 (small)		
	65 +	Too stony to auger				
At 44300 87530						
127	0 - 26	DB	mcl	5	I	2
	26 - 80+	B	mcl	5		
At 43550 87875						
128	0 - 27	DB	mcl	<5	II	2
	27 - 60	B	mzcl	<5		
	60 - 80+	B, mottled	hzcl	0		
129	0 - 27	DB	mcl	<5	I	2
	27 - 80+	B	mcl	<5		
130	0 - 22	DB	mcl	5		

No.	Depth	Colour & Mottles	Texture	Stones (% total)	Wetness Class	ALC Grade
	22+	Rock (Limestone?)			I	3b
131	0 - 25 26 - 45 45 -90+	DB RB, mottled PRB, mottled	mcl c (SPL) c (SPL)	5 10-15 ls frags	IV	3b
	Atypical poorly drained soil					
132	0 - 28 28 - 80+	DB B	mcl mcl	<5 <5	I	2
133	0 - 22 22 - 50 50 - 90 90+	DB B B B, occasional mottles	mcl(PSD) mcl mzcl hzcl	5 5 <5 0	I	2
134	0 - 27 27 - 60 60 - 75 75+	DB B B B	mcl mcl mcl hzcl	5 5 <5 0	I	2
	At 43550 87725					
135	0 - 31 31 - 60 60 - 75 75+	DB B B, occasional mottles PB, mottled	mzcl mzcl hzcl hzcl	5 <5 <5 <5	II	3a
136	0 - 30 30 - 60 60 - 85 85+	DB B B B, mottled	mzcl mzcl scl sc (SPL)	0 0 5-10 10	I	2
137	0 - 28 28 - 50 50 - 80 80+	DB B B, occasional mottles PB, occasional mottles	mcl(PSD) mzcl hzcl hzcl	5-10 5-10 5 5	I	2
138	0 - 30 30 - 80+	DB B	mzcl mzcl	<5 0	I	2
	At 44700 87520					
139	0 - 29 29 - 80+	DB B	mzcl mzcl	<5 0	I	2
	At 44800 87550					
140	0 - 30 30+	DB, mottled Too stony to auger	hcl with admixed greyish sandy material		Disturbed	3b?
141	0 - 23 23+	DRB Grey sandy rubble	scl/mcl	10-15	Disturbed	3b?
142	0 - 22 22+	DB Too stony to auger	msl with admixed greyish sandy material		Disturbed	3b?
143	0 - 25 25 - 35 35 +	DB B Too stony to auger	mcl mcl	5 15	Disturbed	3a/3b?
144	0 - 35 35+	Mixed reddish clay and greyish sandy material Too stony to auger			Disturbed	3b?

No.	Depth	Colour & Mottles	Texture	Stones (% total)	Wetness Class	ALC Grade
145	0 - 23	DB	mcl	5	II	3a
	23 - 45	PB, mottled	mcl	5		
	45 - 60	RB, mottled	hcl	10		
	60 +	Too stony to auger				
146	0 - 27	DB	mcl	<5	I	2
	27 - 60	B	mcl	5		
	60 -70+	B	mcl	5-10		
147	0 - 27	DB	mcl	5	III/IV	3a/3b
	27 - 35	GB, mottled	scl	5		
	35 - 55+	GB, mottled	sc/c (SPL)	10		
148	0 - 27	DB	mcl	10	I	3a
	27 - 40	B	mcl/scl	10-15		
	40 +	Too stony to auger				
149	0 - 27	DB	scl	5	III	3a
	27 - 40	B	scl	5-10		
	40 - 60	B, mottled	scl	5-10		
	60 - 80+	RB, mottled	sc/c (SPL)	5		
150	0 - 27	DB	mszl	5-10	I	2
	27 - 55	B	scl	10		
	55+	Too stony to auger				
151	0 - 27	DB	scl	5	III	3a
	27 - 45	B	scl	5-10		
	45 - 65	B, mottled	scl	5-10		
	65 - 80+	RB, mottled	sc/c (SPL)	5		
152	0 - 25	DB	hcl	5-10	I	2/3a
	25 - 40	YB	hcl/c	5-10		
	40 - 45	B	c	10% ls frags		
	45+	Limestone				
153	0 - 24	DB	hcl	<5	I	3a
	24 - 60	B	hcl	0		
	60 - 80+	B	c	0		
154	0 - 24	DB	hcl	<5	I	3a
	24 - 80	B	hcl	<5		
	80+	B	c	5 (limestone)		
155	0 - 27	DB	mcl	5-10	I	3a
	27 - 40	B	mcl	10		
	40+	Too stony to auger				
156	0 - 28	DB	scl	<5	I	2
	28 - 60	B	scl	5		
	60 - 70	B	scl	10		
	70 +	Too stony to auger				
157	0 - 28	DB	mcl	<5	I	2
	28 - 50	B	mcl	5		
	50 - 70	B	scl	5		
	70 - 90+	B	scl/msl	0		

No.	Depth	Colour & Mottles	Texture	Stones (% total)	Wetness Class	ALC Grade
158	0 - 27 27 - 40 40+	DB B Too stony to auger	mcl mcl	5-10 10-15	I	2
159	0 - 27 27 - 45 45 - 65 65 - 85+	DB B RB PB, mottled	mcl mcl hcl c (SPL)	5 5 5 5	III	3a
160	0 - 26 26 - 40 40 +	DB B Too stony to auger	mcl mcl	10 10	I	3a
161	0 - 20 20+ At 44500 88025	DB Rock (Limestone?)	mcl	10	I	3b
162	0 - 24 24 - 35 35 - 40 40+ At 44600 88040	DB B B Limestone	hcl hcl hcl/c	5 5 10% ls frags	I	3a
163	0 - 27 27 - 35 35 + At 44760 88030	DB RB Too stony to auger	mcl mcl	5-10 5-10	I	3b
164	0 - 26 26 - 45 45 - 65 65 - 75 75+ At 44800 88030	DB B B B, mottled B, mottled	mszl mszl scl hcl c (SPL)	<5 5 <5 5 0	II	2
165	0 - 27 27 - 40 40 + At 44900 88030	DB B Too stony to auger	scl scl	5-10 10+	I	3a
166	0 - 27 27 - 40 40 + At 45000 88040	DB B Too stony to auger	mcl mcl	5 5-10	I	3a
167	0 - 26 26 - 80+ At 45130 88050	DB B	scl scl	5 <5	I	2
168	0 - 25 25 - 70 70 + At 45200 88050	DB B Too stony to auger	mcl mcl	10 5-10	I	2/3a
169	0 - 24 24 - 40 40 +	DB B Too stony to auger	mcl mcl	10 10-15	I	3a

No.	Depth	Colour & Mottles	Texture	Stones (% total)	Wetness Class	ALC Grade
170	0 - 26	DB	mcl	<5	II	3a
	26 - 55	B	mcl	5		
	55 - 65	B	hcl	<5		
	65 - 70	B, mottled	hcl	5		
	70+	B, mottled	c (SPL)	0		
171	0 - 25	DB	mzcl	5	I	2
	25 - 65	B	mcl	10		
	65 +	Rock (Limestone?)				
172	0 - 27	DB	mzcl	5	I	2
	27 - 55	B	mcl	10		
	55 +	Rock (Limestone?)				
173	0 - 20	DB	mcl	<5	I	3b
	20 - 30	B	mcl	5-10		
	30+	Rock (Limestone?)				
174	0 - 21	DB	mcl	5	III	3a
	21 - 55	B	mcl	5		
	55 - 75	B, mottled	hcl	5		
	75+	B, mottled	c (SPL)	5		
175	0 - 24	DB	mzcl	0	I	2
	24 - 75	B	mzcl	0		
	75 +	Too stony to auger At 45200 88050				
176	0 - 21	DB	mcl	<5	I	3b
	21- 35	B	mcl	5		
	35+	Rock (Limestone?)				
		At 42950 87915				
177	0 - 28	DB	mszl	5	I	3b
	28+	Soft Limestone				
178	0 - 28	DB	mzcl	5	II	3a
	28 - 45	B	mzcl	5		
	45 - 65	B	hcl	0		
	65+	B, mottled	zc/c (SPL)	0		
179	0 - 28	DB	mzcl	<5	I	2
	28 - 75+	B	mzcl	<5		
180	0 - 27	DB	mzcl	5	II	3a
	27 - 50	B	mzcl	5		
	50 - 70	B	hcl	0		
	70 - 90	B, mottled	zc/c (SPL)	0		
181	0 - 26	DRB	mcl	15	I	3b
	26 - 50	RB	mcl	15		
	50 +	Too stony to auger				
182	0 - 20	DRB	mcl	20 some v. large	I	3b
	20+	Rock (Sandstone?)				
183	0 - 27	DRB	mcl	10	I	3a
	27- 55	PRB	mcl	20		
	55 +	Rock				

No.	Depth	Colour & Mottles	Texture	Stones (% total)	Wetness Class	ALC Grade
184	0 - 26 26 - 35 35+	DB B Rock (Sandstone?)	mcl mcl	15-20(TSP) 15-20	I	3b (stones)
185	0 - 20 20 - 40+ 40 - 60+ Worcester series soil over seam of clay	DRB RB, occasional mottles RB, mottled	hcl c c (SPL)	0 0 0	IV?	3b
186	0 - 29 29 - 50+ Worcester series soil over seam of clay	DRB RB, mottled	hcl c (SPL)	5 0	IV?	3b
187	0 - 26 26 - 45 45 - 50 50+ Worcester series soil over mudstone At 26800 84480	DRB RB RB, mottled RB and greenish mottled mudstone (SPL)	hcl hcl hcl	10 10 5-10	III	3b
188	0 - 26 26 - 45 45+ Change to clay at 45cm is sudden; transitional to Worcester series over seam of clay	DB RB RB, mottled	mcl mcl c (SPL)	10-15 10-15 0	III	3a
189	0 - 26 26 - 40 40 - 50 50+ Too stony to auger	DRB RB, occasional mottles RB, mottled	hcl hcl hcl	5-10 10 10-15	III	3b
190	0 - 28 28 - 45 45 - 80+	DB RB RB, occasional mottles	mzcl mzcl mzcl	5 5 5	I	3b slope
191	0 - 24 24+	DB Rock (Sandstone?)	hcl	15	I	3b slope
192	0 - 27 27 - 80+	DB B	mcl mcl	0 0	I	2
193	0 - 26 26 - 40 40 - 50 50+ Limestone	DB B B	mcl mcl hcl	0 5% ls frags 15% ls frags	I	2/3a
194	0 - 23 23 - 40 40+ At 43820 88100	DB B Limestone	mcl mcl	5% ls frags 5% ls frags	I	3a
195	0 - 27 27 - 40 40+ Limestone	DB B	mcl mcl	5% ls frags 5% ls frags	I	3a
196	0 - 27 27 - 40 40+ Limestone	DB B	mcl mcl	5% ls frags 5% ls frags	I	3a



No.	Depth	Colour & Mottles	Texture	Stones (% total)	Wetness Class	ALC Grade
197	0 - 27 27 - 50+ 50+	DB RB, mottled Too stony to auger Worcester -like series soil over clay	mcl hcl/c (SPL)	0 0	IV	3b
198	0 - 25 25 - 30 30+	DB B Limestone	mcl mcl	5% ls frags 10% ls frags	I	3b
199	0 - 26 26+	DB Limestone	mcl	10% ls frags	I	3b
200	0 - 26 26 - 70 70 - 85+	DB B B	mcl mcl hcl	0 0 0	I	2
201	0 - 25 25 - 35 35 - 40 40+	DB B B Limestone	mcl mcl hcl	0 5% ls frags 10% ls frags	I	3a
	At 44000 88010					
202	0 - 25 25 - 35 35 - 45 45 - 50 50+	DB B B Broken limestone in clayey matrix Limestone	mcl mcl hcl	0 5% ls frags 20% ls frags	I	3a
	At 44100 88010					
203	0 - 25 25+	DB Limestone	mcl	15% ls frags	I	3b
	At 44200 88010					
204	0 - 21 21 - 50 50+	DB B Limestone	mcl mcl	10% ls frags 10% ls frags	I	3a
	At 44300 88010					
205	0 - 26 26+	DB Limestone	mcl	15% ls frags	I	3b
	At 44400 88020					
206	0 - 26 26 - 45 45+	DB B B, mottled	hcl hcl c (SPL)	0 0 0	III	3b
207	0 - 25 25 - 35 35+	DB B, mottled B, mottled	mcl/hcl hcl c (SPL)	0 0 0	III/IV	3b
208	0 - 22 22+	DB Too stony to auger	mcl	15	I	3b/4 slope
	At 42540 87940					
209	0 - 25 25 - 55 55 +	DB B Rock	mcl mcl	5 10	I	3a

No.	Depth	Colour & Mottles	Texture	Stones (% total)	Wetness Class	ALC Grade
210	0 - 24 24 - 45 45 - 90+	DB B B, mottled	hcl hcl hcl	0 0 0	III	3b
	At 42350 87900					
211	0 - 24 24 - 45 45 - 75 75+	DB B B, mottled SB	hcl hcl hcl "clayey sand"	0 0 0	III	3b
	At 42450 87870 in low-lying area					
212	0 - 27 27 - 50 50 - 80+	DB B, occasional mottles B, mottled	mcl hcl c (SPL)	0 0 0	III	3a
	At 42475 87725					
213	0 - 22 22+	DB Too stony to auger	mcl	15	I	3b/4 slope
214	0 - 20 20+	DB Too stony to auger	mcl	15	I	3b
	At 42525 87850					
215	0 - 24 24 - 60 60+	DB B, mottled B, mottled	mcl hcl c (SPL)	0 0 0	III	3a
	At 42475 87725 in low lying area					
216	0 - 24 24+	DB Rock	mcl	15	I	3b slope
217	0 - 26 26+	DB Rock	mcl	15	I	3b slope
218	0 - 24 24 - 30 30+	DB B Limestone	mcl mcl	10% ls frags 15% ls frags	I	3b
	At 42000 87580					
219	0 - 22 22+	DB Too stony to auger	mcl	15	I	3b
	At 42080 87550					
220	0 - 23 23 - 30 30+	DB B Limestone?	mzcl mzcl	10 15	I	3b
221	0 - 24 24+	DB Limestone	mcl	15% ls frags	I	3b
222	0 - 22 22 - 65 65 - 75+	DB B B	mcl mcl hcl	10-15 10-15 10	I	3a
223	0 - 25 25 - 30 30+	DB B Limestone	mcl mcl	10% ls frags 15% ls frags	I	3b
224	0 - 25 25+	DB Limestone	mcl	15% ls frags	I	3b

No.	Depth	Colour & Mottles	Texture	Stones (% total)	Wetness Class	ALC Grade
225	0 - 22 22+ At 41975 87325	DB Limestone	mcl	15% ls frags	I	3b
226	0 - 25 25+	DB Limestone	mzcl	5% ls frags	I	3b
227	0 -25 IMP	DB	mcl	5-10% ls	I	3b
228	0 - 23 23+	DB Limestone?	mcl	5	I	3b
229 - 337 inclusive - See below						
338	0 - 26 26 - 80+	DRB RB	mcl mcl	5 5	I	2
339	0 - 28 28 - 80+	DRB RB	mcl mcl	5-10 5-10	I	2
340	0 - 26 26 - 35 45 +	DRB RB, mottled Too stony to auger	mcl scl	5-10 10	II/III	3a
341	0 - 26 26 - 35 35 - 60+	DB GB, mottled GB, mottled	mcl hcl c (SPL)	5 5 5	IV	3b
342	0 - 27 27 - 40 40 - 45 45 + At 25400 83515	DRB RB RB Too stony to auger	mcl mcl hcl	5 10 10	I?	3a
343	0 - 26 26 - 45 45 - 70+ At 25515 83520	DRB RB, mottled RB, mottled	mcl mcl hcl	5 5 5	III	3a
344	0 - 28 28 - 65 65+ At 25575 83530	DRB RB, mottled RB, mottled	mcl mcl hcl	5 5 5	III	3a
345	Disturbed area (tipped?) Around 26900 84390					4 slope
346	Disturbed area (tipped?) Around 27000 84440					4 slope
347	0 - 20 20 - 70+ At 27100 84470	DRB RB	hcl c	<5 <5	I	4 slope

No.	Depth	Colour & Mottles	Texture	Stones (% total)	Wetness Class	ALC Grade
348	0 - 25 25 - 40 40+ At 41950 87760	DB B Too stony to auger	mcl mcl	10 10	I	3a
349	0 - 26 26 - 40 40+ At 42050 87785	DB B Too stony to auger	mcl mcl	10 10	I	3a
350	0 - 24 24+ At 42150 87740	DB Limestone	mzcl	10% ls frags	I	3b
351	0 - 25 25+	DB Limestone	mzcl	10% ls frags	I	3b
352	0 - 25 25+	DB Limestone	mzcl	10% ls frags	I	3b
353	0 - 23 23+ At 42120 87520	DB Limestone	mzcl	10% ls frags	I	3b
354	0 - 28 28 - 60 60 - 80+	DB B B	mcl mcl scl	5 5 5-10	I	2
355	0 - 25 25 - 40 40 +	DB RB Too stony to auger	mszl mszl	5-10 15	I	3a
356	0 - 26 26 - 35 35 - 55 55+ At 44300 87475	DB B B, mottled Too stony to auger	mcl mcl hcl	5 5 5	III	3a
357	0 - 26 26 - 30 30+ At 44290 87400	DB B Too stony to auger	mcl mcl	10 10-15	I	3b
358	0 - 25 25+ At 44060 87340	DB Soft Limestone	mcl	5	I	3b
359	0 - 25 25+ At 44060 87340	DB Limestone	mcl	5-10	I	3b PSD
360	0 - 26 26 - 40 40+	DB B Too stony to auger	mcl mcl	10 10-15	I	3a
361	0 - 26 26 - 40 40+	DB B Too stony to auger	mcl mcl	10 10-15	I	3a

No.	Depth	Colour & Mottles	Texture	Stones (% total)	Wetness Class	ALC Grade
362	0 - 24 24 - 40 40+ At 44400 87430	DB B Too stony to auger	mcl mcl	10 15	I	3a
363 - 370 inclusive - See below						
371	0 - 28 28+	DB Limestone?	mcl	5	I	3b
372	See below					
373	0 - 24 24 - 50 50 - 55 55 +	DRB RB RB, mottled RB, mottled	mcl mcl hcl/c (SPL) c (SPL)	5 5 5 10	III	3a
374	0 - 26 24 - 50 50 - 65 65 +	DRB RB RB RB, mottled	mszl mcl hcl c (SPL)	5 5 5 10	III	3a
375	0 - 28 28 - 80+ At 43625 88170	DRB RB	mcl mcl	5 5	I	2
376	0 - 27 27 - 75+	DRB RB	mcl mcl	5 5-10	I	2
377	0 - 25 25 - 30 30+	DB B Too stony to auger	mcl mcl	10 10	I	3b
378	0 - 25 25 - 30 25 - 50 50+	DB B B Too stony to auger	mcl mcl mcl	10+ 15 10	I	3a
379	0 - 27 27+ At 42020 87300	DB Too stony to auger	scl	10	I	3b
380	0 - 22 22+	DB Too stony to auger	scl	10	I	3b
381	0 - 25 25 - 30 30+	DB B Too stony to auger	mcl mcl	10 10-15	I	3b
382	0 - 25 25+ At 41750 87300	DB Too stony to auger	scl	10-15	I	3b
383	0 - 25 25 - 30 30+ At 41800 87380	DB B Too stony to auger	scl scl	10 10-15	I	3b

No.	Depth	Colour & Mottles	Texture	Stones (% total)	Wetness Class	ALC Grade
384	0 - 27 27 - 45 45+ At 41690 87210	DB B YB soft weathering sandstone	scl scl	5- 10 15	I	3a
385	Disturbed area 0 - 25 27 - 40 40+ At 41675 87125	DB Mix of B scl and weathering sandstone YB soft weathering sandstone	scl	large lumps of sandstone	I	3a
386	0 - 27 27 - 65 65 - 90 90+ At 41760 87120	DB B B Too stony to auger	msl msl scl	5-10 10 10-15	I	2 (stones)
387	0 - 26 26 - 45 45+ At 41680 87015	DB B Too stony to auger	scl scl	10 10	I	3a
388	0 - 25 25 - 35 35+ At 41600 87030	DB B Too stony to auger	mcl mcl	5-10 15	I	3a
389	0 - 25 25 - 30 30+ At 41610 87100	DB B Too stony to auger	mcl mcl	10 15	I	3b
390	0 - 26 26 - 50 50 - 90+ At 26790 84090	DRB RB B, mottled	mzcl mzcl hzcl (SPL)	5 5 0	III	3a
391	0 - 27 27 - 55 55 - 80+	DRB RB B, mottled	mzcl mzcl hzcl (SPL)	5 5 0	III	3a
392	0 - 27 27 - 45 45 - 55 55 - 80+	DRB RB PRB, mottled PRB, mottled	mzcl mzcl mzcl hzcl/zc (SPL)	5 5 5 0	III	3a
393	0 - 30 30 - 50 50 - 80+	DB B, mottled PB, mottled	mzcl hzcl c (SPL)	5 5 0	IV	3b
394	0 - 26 26 - 35 35 - 60+	DRB PRB, mottled GB, mottled	mzcl hzcl zc (SPL)	5 5 0	IV	3b
395	0 - 24 26 - 45 45+	DB PRB Too stony to auger	mcl mcl	10-15 15	I	3a (stones)

No.	Depth	Colour & Mottles	Texture	Stones (% total)	Wetness Class	ALC Grade
396	0 - 28 28 - 40 40+	DB PRB, mottled Too stony to auger	mcl mcl	10-15 15	III	3a
397	0 - 26 26 - 40 40+	DB PRB, occ mottles Too stony to auger	mcl mcl	10-15 15	I	3a (TSP)
398	0 - 27 27 - 40 40+	DB B Too stony to auger	mcl mcl	10-15 15	I	3a
399	0 - 25 25 - 55 55+	DB B Too stony to auger	scl scl	10-15 15	I	3a (stones)
400	0 - 26 26 - 35 35+	DB PRB, mottled Too stony to auger	mcl mcl	10-15 15 & gritty	III	3a
401	0 - 24 24 - 60+ At 26820 83600	DGB GB, mottled	mcl hcl/c (SPL)	5 0	IV	3b
402	0 - 27 27 - 65 65+	DB B Too stony to auger	mcl mcl	10-15 15	I	3a
403	0 - 27 27 - 30 30+	DB B Too stony to auger	mcl mcl	10-15 15	I	3b
404	0 - 24 24 - 30 30+	DB B Too stony to auger	mcl mcl	10-15 15	I	3b

### Poorly drained soils on Alluvium (Newchurch series, all horizons stoneless)

No.	Topsoil DGB (sometimes mottled), clay or heavy clay loam	Subsoil 1 GB, mottled clay	Subsoil 2 G or DG, mottled clay	Wetness Class	ALC Grade
75	0 - 23	23 - 30	30+	IV	4
80	0 - 25 hcl	-	25+	IV	4
81	0 - 25	-	25+	IV	4
82	0 - 27	27 - 35	35+	IV	4
83	0 - 24	24 - 30	30+	IV	4
84	0 - 24	24 - 30	30+	IV	4
85	0 - 25	25 - 30		IV	4
86	Not surveyed (livestock)			IV (assumed)	4 (assumed)
87	0 - 23	-	23+	IV	4
88	0 - 22	22- 30	30+	IV	4
89	0 - 23	23 - 30	30+	IV	4
90	0 - 23	-	25+	IV	4
91	0 - 23	23 - 30	23+	IV	4
93	0 - 22	22 - 30	30+	IV	4 PSD
94	0 - 20 (silty clay)	-	20+	IV	4 PSD
95	0 - 21	-	21+	IV	4
96	0 - 23	23 - 30	30+	IV	4
97	0 - 20 (silty clay)	-	20+	IV	4
98	Not used				
99	Not used				
100	Not used				
231	0 - 22 (humose hcl) At 41280 86700	-	22+	IV	4
233	0 - 23 At 40850 86500	-	23+	IV	4
234	0 - 25 At 40860 86400	-	25+	IV	4
235	0 - 24 At 40930 86380	-	24+	IV	4
236	Non-agricultural				
240	0 - 22 At 41100 86360	-	22+	IV	4
244	0 - 20	-	20+	IV	4
245	0 - 23	-	23+	IV	4
246	0 - 20	-	20+	IV	4
249	0 - 22 At 41100 86210	-	22+	IV	4
250	0 - 20 At 40700 86180	-	20+	IV	4
251	0 - 22	-	22+	IV	4
252	0 - 22 At 40500 86080	-	22+	IV	4
253	0 - 25	-	25+	IV	4
254	0 - 23	-	23+	IV	4
255	0 - 24 At 40780 86120	-	24+	IV	4
256	0 - 21 At 40120 86000	-	21+	IV	4
257	0 - 20	20 - 25	25+	IV	4
258	0 - 23	-	23+	IV	4
259	0 - 23 (hcl) At 40420 86000	-	23+	IV	4
260	0 - 23	-	23+	IV	4



## Poorly drained soils on Alluvium (Newchurch series, all horizons stoneless) (continued)

No.	Topsoil DGB (sometimes mottled), clay or heavy clay loam	Subsoil 1 GB, mottled clay	Subsoil 2 G or DG, mottled clay	Wetness Class	ALC Grade
261	0 - 22 At 40600 86020	-	22+	IV	4
262	0 - 20 At 40110 85900	-	20+	IV	4
263	0 - 16	16 - 35	35+	IV	4
264	0 - 24	-	24+	IV	4
265	0 - 21 At 40120 85800	21 - 30	30+	IV	4
266	0 - 18 At 40200 85830	18 - 35	35+	IV	4
267	0 - 17	-	17+	IV	4
268	0 - 19	-	19+	IV	4
269	0 - 20	-	20+	IV	4
270	0 - 22	22 - 30	30+	IV	4
271	0 - 23	23 - 30	30+	IV	4
272	0 - 20	20 - 35	35+	IV	4
273	0 - 20	20 - 30	30+	IV	4
274	0 - 22	22 - 30	30+	IV	4
275	0 - 22	-	22+	IV	4
276	0 - 24	-	24+	IV	4
277	Not surveyed (livestock)			IV (assumed)	4 (assumed)
278	0 - 18 (hcl)	-	18+	IV	4
279	0 - 22 At 35800 85790	-	22+	IV	4
280	0 - 20	20 - 30	30+	IV	4
281	0 - 22	22 - 30	30+	IV	4
282	0 - 21	21 - 30	30+	IV	4
283	0 - 25	-	25+	IV	4
284	0 - 23 At 35500 85580	23 - 30	30+	IV	4
285	0 - 21	-	21+	IV	4
286	0 - 17	17 - 35	35+	IV	4
287	0 - 21	21 - 30	30+	IV	4
288	0 - 24	-	24+	IV	4
289	0 - 20 At 34980 85500	-	20+	IV	4
290	0 - 20 (hcl) At 35090 85610	20 - 35	35+	IV	4(PSD)
291	0 - 20	20 - 35	35+	IV	4
292	0 - 20 (hcl)	-	20+	IV	4
293	0 - 15 At 35380 85610	-	15+	IV	4
294	0 - 23	-	23+	IV	4
295	0 - 23 At 34980 85480	-	23+	IV	4
296	0 - 20	20 - 45	45+	IV	4
297	0 - 19 At 35200 85525	-	19+	IV	4
298	0 - 20	-	20+	IV	4
299	0 - 22	-	22+	IV	4
300	0 - 21 (hcl)	-	21+	IV	4
301	0 - 23 (hcl)	-	23+	IV	4
302	0 - 17	17 - 35	35+	IV	4

No.	Topsoil DGB (sometimes mottled), clay or heavy clay loam	Subsoil 1 GB, mottled clay	Subsoil 2 G or DG, mottled clay	Wetness Class	ALC Grade
303	0 - 22	-	22+	IV	4
304	0 - 19 At 34590 85250	-	19+	IV	4

## Poorly drained soils on Alluvium (Newchurch series, all horizons stoneless) (continued)

No.	Topsoil DGB (sometimes mottled), clay or heavy clay loam	Subsoil 1 GB, mottled clay	Subsoil 2 G or DG, mottled clay	Wetness Class	ALC Grade
305	0 - 20	-	20+	IV	4
306	0 - 20	20 - 35	35+	IV	4
307	0 - 21 At 30515 54400	-	21+	IV	4
308	0 - 22 At 30790 84510	-	22+	IV	4
309	0 - 20 At 30880 84500	-	20+	IV	4
310	0 - 22 At 30510 84400	22 - 35	35+	IV	4
311	0 - 20	-	20+	IV	4
312	0 - 20 (hcl)	20 - 30	30+	IV	4
313	0 - 20	22 - 30	30+	IV	4
314	0 - 18 (hcl) At 30890 84400	18 - 25	25+	IV	4
315	0 - 18	-	18+	IV	4
316	0 - 20 hcl	22 - 30	30+	IV	4 PSD
317	0 - 16 hcl	16 - 25	25+	IV	4
318	0 - 21	21 - 30	30+	IV	4
319	0 - 20 At 30215 84300	-	20+	IV	4
320	0 - 23	23 - 30	30+	IV	4
321	0 - 17	17 - 30	30+	IV	4
322	0 - 16	16 - 30	30+	IV	4
323	0 - 23 At 30300 84210	-	20+	IV	4
324	0 - 20	-	20+	IV	4
325	0 - 20	-	20+	IV	4
326	0 - 21 (hcl)	-	21+	IV	4
327	0 - 21 (hcl)	-	21+	IV	4
328	0 - 25 (hcl)	25 - 35	35+	IV	4PSD
329	0 - 22 (hcl)	-	22+	IV	4
330	0 - 23 At 29985 83915	-	23+	IV	4
331	0 - 20	20 - 35	35+	IV	4
332	0 - 21	-	21+	IV	4
333	0 - 22	-	22+	IV	4
334	0 - 20	20 - 30	30+	IV	4
335	0 - 21 At 29700 83710	21 - 35	35+	IV	4
336	0 - 20	-	20+	IV	4
337	0 - 23	23 - 30	30+	IV	4

## Poorly drained soils with peaty layers (all horizons stoneless)

No.	Depth	Colour & Mottles	Texture	Wetness Class	ALC Grade
229	0 - 26 26+ At 4310 86800	VDB Black	humose hcl wet peat	V	4
230	0 - 25 25+	VDB Black	humose hcl wet peat	V	4
232	0 - 22 22+ At 41250 86660	DGB Black	c wet peat	V	4
237	0 - 90+	Black	soft wet peat	V	4
238	0 - 20 20+ At 41220 86500	VDB Black	humose hcl wet peat	V	4
239	0 - 22 20 - 60 60+	DB Black G, mottled	hcl soft, wet peat semi-liquid, wet clay	IV	4
241	0 - 16 16 - 20 20 - 25 25 - 90+ At 41220 86400	DGB GB, mottled Black LG, mottled	c c peat soft, wet clay	IV	4
242	0 - 15 15 - 35 35 - 40 40+	DGB GB, mottled Black LG, mottled	c c peat soft, wet clay	IV	4
243	0 - 17 17 - 30 30 - 90+	DGB DG, mottled Black	c c peat	IV	4
247	0 - 20 20 - 50 50 - 90+	DGB DG, mottled Black	c c peat and clay	IV	4
248	0 - 20 20 - 60 60+ At 41400 86320	DGB G, mottled Black	c c peat	IV	4
363	0 - 20 20+ At 41540 86700	DGB, mottled Black	zc soft wet peat	V	4
364	0 - 30 30 - 45 45+ At 41600 86715	Black GB, mottled Black	peat c soft wet peat	V	4

## Poorly drained soils with peaty layers (all horizons stoneless) (continued)

No.	Depth	Colour & Mottles	Texture	Wetness Class	ALC Grade
365	0 - 25 25+	DGB, mottled Black	zc soft wet peat	V	4
366	0 - 27 27+	DGB, mottled Black	zc soft wet peat	V	4
367	0 - 25 25+	DGB, mottled Black	zc soft wet peat	V	4
368	0 - 20 20+ At 41590 86800	DGB, mottled Black	zc soft wet peat	V	4
369	0 - 25 25+	DGB, mottled Black	zc soft wet peat	V	4
370	0 - 22 22+ At 41500 8650	DGB, mottled Black	zc soft wet peat	V	4
372	0 - 26 26+ At 41450 86740	DGB, mottled Black	zc soft wet peat	V	4

## 2 Soil Pit Descriptions

### 2.1 Bromyard Series (Close to Auger Boring 8.)

- 0 - 27cm Dark reddish brown; medium clay loam; about 10% total stones, of which about half are >2cm; moderately developed fine and medium subangular blocky structure; moist; friable; abundant roots; no worms observed.
- 27 - 35cm Reddish brown; medium clay loam; stones as above, with occasional larger stones>6cm; weakly developed coarse angular blocky structure; moist; firm; occasional roots; no worms observed.
- 35 - 45cm Reddish brown; medium clay loam; about 25% stones as above, including occasional larger stones>6cm; weakly developed coarse prismatic structure; moist; firm; occasional roots; no worms observed.
- 45 + cm Pit abandoned (too stony) with weathering greyish brown sandstone at base impenetrable by auger or spade.

Wetness Class I; ALC 3a (soil depth)

### 2.2 Salwick Series – Close to Auger Boring 38

- 0 - 22cm Dark brown; medium silty clay loam; occasional rounded small and medium stones; weakly developed coarse subangular blocky structure; moist; friable to firm; common roots; no worms observed.
- 22 - 45cm Brown with common small and medium ochreous mottles; medium silty clay loam; stones as above; weakly developed medium subangular blocky structure; moist; firm; occasional roots ; no worms observed
- 45 - 50cm Brown with common small and medium ochreous and greyish brown mottles; heavy silty clay loam; stoneless; weakly developed medium subangular blocky to massive structure; moist; firm; no roots or worms observed
- 50 - 70+ cm Reddish brown with common small and medium ochreous, greyish brown and grey mottles; silty clay; massive structure; stoneless; moist; very firm; Slowly Permeable Layer
- 70+cm By auger in base of pit - mottled reddish brown silty clay

Wetness Class IV; ALC Subgrade 3b (wetness)

### 2.3 East Keswick Series - Close to Boring between 218 and 221

- 0 - 24cm Dark brown; calcareous medium clay loam; 10% angular limestone fragments which are >2cm; well-developed fine and medium angular blocky structure; slightly moist; firm; common maize roots; no worms observed.
- 24 - 30cm Brown; calcareous medium clay loam; about 15% stones as above, with occasional larger stones>6cm; well-developed medium angular blocky structure; slightly moist; firm; occasional roots; no worms observed.
- 30 + cm Weathering limestone, impenetrable by auger but can be loosened with pick-axe and spade.

East Keswick series; Wetness Class I; ALC Subgrade 3b (soil depth)

## 2.4 Escrick Series – Close to Boring 137

0 - 28cm	Dark brown; medium silty clay loam; about 5% stones, mostly <2cm diameter; moderately developed medium subangular blocky structure, but much unaggregated material; moist; friable; common roots; occasional worms
28 - 50cm	Brown; medium silty clay loam; almost stoneless; moderately developed coarse and medium angular blocky structure; moist; friable; occasional roots; no worms observed
50 - 80cm	Brown with occasional small ochreous mottles; heavy silty clay loam; almost stoneless; weakly developed coarse prismatic structure; moist; firm; no roots or worms observed
80+cm	As above but paler brown (by auger in base of pit)

Wetness Class I to II; ALC Grade 2 (wetness)

## 2.5 Newchurch Series – South of Auger Boring 82 (Linseed Crop)

0 - 24cm	Dark greyish brown; slightly calcareous heavy clay loam; stoneless; moderately developed medium angular blocky structure; dry in the surface becoming moist below; firm; common roots; no worms observed
24 - 35cm	Greyish brown with common distinct fine and medium ochreous and grey mottles; slightly calcareous heavy clay loam; stoneless; moderately developed medium and coarse angular blocky structure; moist; very firm; occasional roots; no worms; Slowly Permeable Layer?
35 + cm	Grey to dark grey with common distinct fine and medium ochreous and yellowish brown mottles; calcareous clay; stoneless; massive; moist; plastic; few roots; no worms; no roots; Slowly Permeable Layer

Newchurch series; Wetness Class IV; ALC Grade 4 (wetness)