

KENNETHOLME FARM, MIDHAM.

Site cant be drained (35)
Site affected by flooding

SCHEDULE OF AUGER BORINGS.

① Grassland pasture, Flat

0-20	(organic) ZL	10YR 3/2, v. calc.
20-35	ZL	CDom in grey matrix om → 7.5 YR 5/6 matrix → 10YR 7/2 Highly calc.
35-45	ZL S2L	v. pale grey - 10YR 7/2 with fewer om. Algal marl?
45-70		Almost white / v. pale - 2.5Y 8/2 Algal marl with shelly inclusions. Highly calc; textures as ZL. Banded lighter & darker material.
70-100	A	Becoming sandier (FS) - FSZL 10YR 4/1, moist.
100-110	A	v. pale - MSL
110+		Impenetrable - gravel.

WC I.

② Spring barley, gentle falls south. (Small pit).
stony on surface.

0-35	SL	10YR 3/2, calc. stones - c. 15-18% small & medium flints > 2cm + c. 2% < 2cm
35-55	A	40% SL and c. 60% small & medium flints.
55-70	P	75% small & medium flints and 25% coarse sand. with shelly fragments.
70+		Impenetrable - gravel.

(TOPSOIL SAMPLE). WC I. Drought T/S stones.
PSD shows t/s not to be organic.

(3A) Spring barley, gently undulating (small pit).
Stony on surface.

- 0-35 (organic) ZL 10YR 2/1, v. calc
c. 10-12% small & medium flints > 2cm + c. 2% < 2cm.
- 35-55. A ZL^{well} / Gravel mix.
c. 60% medium & large flints.
- 55-70 P Gravel / coarse sand mix. with shelly fragments
c. 70% small & medium flints, loose.
- 70+ Impenetrable - Gravel.

we I

Drought

VT/S Stones

(3B) Spring barley, gently undulating (small pit).

- 0-35 (organic) ZL 10YR 3/1, v. calc.
almost stone-free → c. 1% medium flints.
- 35-85 (organic) ZL 10YR 3/2
Almost no differentiation between topsoil and
subsoil except for slight colour difference.
virtually stone-free.
- 85+ Impenetrable - Gravel.

we I.

Drought

(4) Spring barley, gently undulating. (pit).
c. 2-3% surface flints.

- 0-30 (organic) ZL 10YR 2/2, v. calc
- 30-50 (organic) ZL 10YR 4/2 matrix, 20% flints
0-10cm
10-20cm
20-30cm
30-40cm
40-50cm
50-60cm
60-70cm
70-80cm
80-90cm
90-100cm
100-110cm
110-120cm
120-130cm
130-140cm
140-150cm
150-160cm
160-170cm
170-180cm
180-190cm
190-200cm
200-210cm
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360-370cm
370-380cm
380-390cm
390-400cm
400-410cm
410-420cm
420-430cm
430-440cm
440-450cm
450-460cm
460-470cm
470-480cm
480-490cm
490-500cm
500-510cm
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890-900cm
900-910cm
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920-930cm
930-940cm
940-950cm
950-960cm
960-970cm
970-980cm
980-990cm
990-1000cm
- 50-52 ZL F52L v. bright orange - 7.5 YR 6/8
(with FS) Highly calc.
- 52+ Impenetrable - Gravel. No! See pit details.

we I.

Drought

made on pit description rather than boring.

⑤ Spring barley, gently undulating.
c. 15% medium & occasionally large flints on surface.

0-35 (organic) 2L 10YR 2/1, v. calc, slightly gritty.
c. 20% medium flints > 2cm + c. 2% < 2cm.
35-50 G moist 2L pale - 10YR 5/2, v. calc.
Not mottled.
50+ Impenetrable - gravel / coarse sand mix with shelly fragments. c. 70-80% medium flints.

WE I.

⑥ Spring barley, gently undulating.
< 5% surface stones - 1% medium flints.

0-28 (organic) 2L 10YR 3/2, v. calc.
28-35 2L (with FS) matrix - 2.5 Y 7/2 & 10YR 7/2.
Algal mat?
Common - 10YR 6/6 - weyed.
35-55 P Sand & gravel mix.
c. 50% medium flints & 50% coarse sand.
55+ Impenetrable - Gravel.

(TOPSOIL SAMPLE).

WE I.

⑦ Spring barley, gently undulating, falling south towards river.
Topsoil colour darker than elsewhere. (pit).

0-45 (organic) 2L 10YR 2/1, v. calc.
c. 1% small & medium flints > 2cm.
45-50+ Impenetrable - Gravel.

(TOPSOIL SAMPLE).

WE I.

⑧ Grassland pasture, Flat.

0-35 (organic) 2L 10YR 3/2, v. calc.
c. 2% medium flints > 2cm.
35+ Impenetrable - Gravel.

WE I.

(9) Grassland pasture, Flat / v. gently undulating.

0-30 (organic) ZL 10YR 2/1, v. calc.
30-50 v. black organic horizon - 7.5YR 3/0.
textures as gritty mzel.
50+ Impenetrable - Gravel.

(10) Grassland pasture, Flat. (pit).

0-25 mZL 10YR 3/2, v. calc.
25-40 FSZL matrix - 10YR 7/2
A down - 10YR 8/4, 10YR 7/3 & 10YR 7/6.
Algal marl?
Gleyed.
40-70 A FSL Algal marl - 10YR 7/2 Highly calc.
No mottling.
Sand content increasing with depth.
70-80 A LMS Algal marl.
Highly calc.
80+ Impenetrable - Gravel.

Wc I.

(11) Grassland pasture, Flat / v. gently undulating.

0-35 (organic) ZL 10YR 3/1 v. calc.
35-65 G₁ ZL matrix 10YR 6/2 v. calc.
Not mottled or gleyed.
becoming slightly gritty with small
inclusions of black organic matter from
c. 50 cm +.
65-70 P pale yellow - 10YR 6/4.
Sand & gravel mix. v. calc. c. 70% fines.
70+ Impenetrable - Gravel.

Wc I.

(12) Grassland pasture, Flat / v. gently undulating. (Small pit).

0-30	(organic) 2L	10YR 3/2, v. calc. slightly gritty - shell fragments.
30-35	G MU	10YR 6/2, v. calc. with some inclusions of v. pale algal marl.
35-80	Black peat (loamy peat).	5YR 2.5/1, amorphous. v. slightly calc.
80+	Impenetrable - gravel.	

(TOPSOIL & SUBSOIL, 35-80,
SAMPLES). WC I.

(13) Grassland pasture, Flat / v. gently undulating.

0-30	(organic) 2L	10YR 2/1, v. calc.
30-75	Black peat (loamy peat)	5YR 2.5/1, amorphous. v. sharp boundary with topsoil v. slightly calc.
75+	Impenetrable - gravel.	v. wet at junction of peat & gravel.

WC I.

(14) Grassland pasture, Flat / v. gently undulating.

0-20	(organic) 2L	10YR 3/2 v. calc.
20-48	A 2L / F02L	slightly gritty 10YR 8/2 and 8/3 possibly slightly gleyed, FDown.
48-52	A v. white 2L	10YR 8/2
52-65	Black peat	amorphous. - loamy peat.
65-80	A 2L	10YR 4/1. calc. increasingly gritty & stony.
80+	Impenetrable - gravel.	

WC I.

(15) Grassland pasture, flat / v. gentle falls.

0-35 (organic) 2L 10YR 3/2 v. calc.
35-55 A mZL / mL 10YR 4/1 matrix
C0Mh - 10YR 4/6. Gleyed.
55-80 A FSZL 10YR 7/4 & 7/6.
Algal marl.
C0Mh. Gleyed?
ochreous colours may be weathering.
80-95 A FSZL 10YR 8/2
95+ Black amorphous Peat. - loamy peat.

Wc I.

(16) Grassland pasture, flat.

0-35 (organic) 2L 10YR 3/2 v. calc.
35-70 A Algal marl textures as mZL, v. calc.
C0Mh - may be weathering rather than gleying?
matrix - 10YR 5/1 and 4/1.
Oh - 5YR 4/4.
few shell fragments.
Sand content increasing with depth.
70-80 A mZL 10YR 4/1 NOT gleyed.
80-85 A FSZL 10YR 4/1.
85+ Impenetrable - Gravel.

Wc I.

KENNETHOWNE FARM, MIDHAM.

PIT DETAILS.

PIT 1 AT BORING 4.

TOPSOIL	0-23	(organic) cl.	10YR 2/1, v. calc. friable < 1% small & medium sub- angular flints.
SUBSOIL	23-37	mc G.	10YR 4/2 matrix down - 7.5YR 4/4, bleached. c. 18% medium flints > 2 cm + 1-2% < 2 cm very weakly developed fine sub-angular blocky friable. > 0.5% biopores.
	37-41.	STONY HORIZON.	on top of algal marl. c. 80% small & medium sub- angular flints.
	41-58	ALGAL MARL texture - scl.	bright orange & white many small shelly fragments. Not v. porous, v. few roots penetrating.
	58-120	BLACK PEAT.	amorphous & porous. - loamy peat. v. slightly calc.
	120-180 180+	GREY CLAY Impenetrable - gravel.	v. wet & plastic

PIT 2 AT BORING 7.

TOPSOIL	0-22	(organic) 2L	10YR 2/1, v. calc. c. 10% small flints.
SUBSOIL	22-32	(organic) 2L	10YR 3/1, v. calc. c. 75-80% small angular & sub-angular flints. Too stony to structure.
	32-50+	Gravel & coarse sand mix	c. 90% flints + 10% pale, 10YR 5/3 sand. small, medium & occasionally large angular & sub-angular flints
	50+	Becoming impossible to dig !! Impenetrable.	

PIT 3 AT BORING 10.

TOPSOIL 0-22 (organic) SL 10YR 2/2
highly calc; friable.

SUBSOIL 22-78 (f) SL 2.5Y 7/2 & 10YR 7/6 OH -
with many small shell fragments.
probably due to weathering.
highly calc.
moderately well developed, coarse
angular blocky
friable & >0.5% biopores.
becoming gradually more coarse /
stony / gritty / gravelly with depth.

78-130 mixture of coarse sand, shells & gravel.
(.75% gravel & 25% sand?)

130+ impervious - gravel.

Kenneth Holme fur, Michigan.

PSD RESULTS.

<u>Sample.</u>	<u>Hand texture.</u>	<u>PSD Texture.</u>	
		<u>Non-acid.</u>	<u>Acid treated.</u>
BORING 6 - TOPSOIL.	(organic) 2L.	(organic) SZL.	(organic) SL.
BORING 7 - TOPSOIL	(organic) 2L.	(organic) SC / MCL.	(organic) SL.
BORING 2 - TOPSOIL.	(organic) 2L.	SC / SL.	(organic) SL.
PIT AT 10 - TOPSOIL	(organic) 2L.	(organic) SZL.	(organic) SL.
PIT AT 10 - UPPER SUBSOIL.	F/M SZL.	(F) SL.	(F) LS.
PIT AT 10 - LOWER SUBSOIL.	LMS.	L (C) S	(M) S.
PIT AT 4 - TOPSOIL.	(organic) 2L.	(organic) MCL.	(organic) SL.
PIT AT 4 - SUBSOIL.	(organic) 2L.	MCL.	(C) SL.
PIT AT 4 - ACTUAL MARL.	F SZL.	SC.	(H) C.
PIT AT 4 - AMORPHOUS PEAT.		Loamy peat (H2L).	Loamy peat (Mc).
PIT AT 12 - TOPSOIL.	(organic) 2L.	(organic) MCL.	(organic) SL.
PIT AT 12 - AMORPHOUS PEAT.		Loamy peat (MCL).	Sandy peat (SL).