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Newbury District Local Plan
Land at Membury
Agricultural Land Classification
ALC Map and Report
April 1994

AGRICULTURAL LAND CLASSIFICATION REPORT

NEWBURY DISTRICT LOCAL PLAN LAND AT MEMBURY

1. Summary

- 1.1 ADAS was commissioned by MAFF's Land Use Planning Unit to provide information on agricultural land quality for a number of sites in the Newbury District of Berkshire. The work forms part of MAFF's statutory input to the preparation of the Newbury District Local Plan.
- 1.2 The site at Membury comprises approximately 18 hectares of land to the south east of the Membury Services on the M4. The Agricultural Land Classification, (ALC), survey was carried out during April 1994. The survey was undertaken at a detailed level of approximately one boring per hectare. A total of 19 soil auger borings and two soil inspection pits were described in accordance with MAFF's revised guidelines and criteria for grading the quality of agricultural land, (MAFF, 1988). These guidelines provide a framework for classifying land according to the extent to which its physical or chemical characteristics impose a long term limitation on its use for agriculture.
- 1.3 The distribution of grades and subgrades is shown on the attached ALC map and the areas and extent are given in the table below. The map has been drawn at a scale of 1:5,000. It is accurate at this scale, but any enlargement would be misleading.

Table 1 : Distribution of Grades and Subgrades

Grade	Area (ha)	% of Agricultural Land
3a	3.4	27
3b	9.2	73
Total Agricultural Area	<u>12.6</u>	<u>100</u>
Non-agricultural land	0.8	
Urban	1.3	
Not surveyed	2.1	
Woodland	<u>1.0</u>	
Total area of site	17.8	

- 1.5 Appendix I gives a general description of the grades, subgrades and land use categories identified in the survey. The main classes are described in terms of the type of limitation that can occur, the typical cropping range and the expected level and consistency of yield.
- 1.6 Land on this site has largely been classified as Subgrade 3b, moderate quality land with smaller areas of Subgrade 3a, good quality land.

as 'fine silty and fine loamy over clayey soils with slowly permeable subsoils and slight seasonal waterlogging' (SSEW, 1983).

- 4.3 Detailed field examination of the soils on the site broadly reflects the published geological map. Generally profiles were clay loams passing to slowly permeable clay horizons with depth. Topsoil stone content is variable ranging from 5-30% total flints by volume.

5. Agricultural Land Classification

- 5.1 Table 1 provides the details of the area measurements for each grade and the distribution of each grade is shown on the attached ALC map.
- 5.2 The location of the soil observation points are shown on the attached sample point map.

Subgrade 3a

- 5.3 Subgrade 3a land is mapped in two small areas in the central part of the site. Soils typically comprise non calcareous medium clay loam topsoils over similar or slightly heavier upper subsoils. Topsoils contain 4-6% flints > 2 cm, 5-8% total flints. In some profiles lower subsoils comprise slowly permeable clay typically at 50-65 cm, whilst in other profiles lower horizons are impenetrable to auger due to stone contents in the range 10-40% total flints which typically occurs at 65-75 cm. Wetness class has been assessed as I, II or III depending on relative depths to gleying and slowly permeable clay. Where drainage is impeded land is limited by slight soil wetness. Sporadically sandier profiles were encountered which typically comprise sandy clay loam topsoils over similar or lighter upper subsoils. Lower subsoils comprise loamy medium sand. These soils suffer from a slight droughtiness limitation because soil moisture reserves may be inadequate to meet the demands of a growing crop throughout the year. Occasional profiles were not affected by either wetness or droughtiness but were included in this mapping unit on the basis of topsoil stone contents of 6-10% > 2 cm in diameter.

Subgrade 3b

- 5.4 Subgrade 3b land is mapped over the remainder of the agricultural land and comprises two soil types. Firstly in the southern part of the site, soils are typically heavy textured and poorly drained. Topsoils typically comprise heavy clay loam directly over slowly permeable clay (30-35 cm) which severely impedes drainage. Wetness class has been assessed as IV and together with heavy textured topsoils this land cannot be graded higher than 3b due to wetness and workability limitations.

Secondly topsoil stone in the northern part of the site is a significant factor. Total topsoil stone content ranges from 13-30% total flints by volume with 8-25% flints > 2 cm in size. The presence of these topsoil stones affect the success of crop drilling and establishment and may have a significant effect on wear and tear of farm machinery. Availability of soil water and nutrients may also be reduced

considerably by high stone content within the soil profile. This area of land is therefore limited by topsoil stoniness to Subgrade 3b. Although small areas of less stony soils do occur sporadically within the mapping unit they occupy too small an area to delineate separately.

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Resource Planning Team
Huntingdon Statutory Group
ADAS Cambridge

SOURCES OF REFERENCE

Geological Survey of England and Wales, (1947), Sheet No 267, Hungerford, 1:63,360 scale.

MAFF (1971), Agricultural Land Classification Map No. 158. Provisional. 1:63,360 scale.

MAFF (1988), Agricultural Land Classification of England and Wales (Revised Guidelines and Criteria for Grading the Quality of Agricultural Land).

Meteorological Office (1989), Published climatic data extracted from the agroclimatic dataset compiled by the Meteorological Office.

Soil Survey of England and Wales (1983), Sheet 6, Soils of South East England, 1:250,000 scale.

Soil Survey of England and Wales (1984), Bulletin No. 15, Soils and their use in South East England.

APPENDIX I

DESCRIPTION OF THE GRADES AND SUBGRADES

Grade 1 : Excellent Quality Agricultural Land

Land with no or very minor limitations to agricultural use. A very wide range of agricultural and horticultural crops can be grown and commonly includes top fruit, soft fruit, salad crops and winter harvested vegetables. Yields are high and less variable than on land of lower quality.

Grade 2 : Very Good Quality Agricultural Land

Land with minor limitations which affect crop yield, cultivations or harvesting. A wide range of agricultural or horticultural crops can usually be grown but on some land of this grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1 land.

Grade 3 : Good to Moderate Quality Land

Land with moderate limitations which affect the choice of crops, the timing and type of cultivation, harvesting or the level of yield. When more demanding crops are grown, yields are generally lower or more variable than on land in Grades 1 and 2.

Subgrade 3a : Good Quality Agricultural Land

Land capable of consistently producing moderate to high yields of a narrow range of arable crops, especially cereals, or moderate yields of a wide range of crops including cereals, grass, oilseed rape, potatoes, sugar beet and the less demanding horticultural crops.

Subgrade 3b : Moderate Quality Agricultural Land

Land capable of producing moderate yields of a narrow range of crops, principally cereals and grass, or lower yields of a wider range of crops or high yields of grass which can be grazed or harvested over most of the year.

Grade 4 : Poor Quality Agricultural Land

Land with severe limitations which significantly restrict the range of crops and/or the level of yields. It is mainly suited to grass with occasional arable crops (eg. cereals and forage crops) the yields of which are variable. In moist climates, yields of grass may be moderate to high but there may be difficulties in utilisation. The grade also includes very droughty arable land.

Grade 5 : Very Poor Quality Agricultural Land

Land with severe limitations which restrict use to permanent pasture or rough grazing, except for occasional pioneer forage crops.

Urban

Built-up or 'hard' uses with relatively little potential for a return to agriculture including: housing, industry, commerce, education, transport, religious buildings, cemeteries. Also, hard-surfaced sports facilities, permanent caravan sites and vacant land; all types of derelict land, including mineral workings which are only likely to be reclaimed using derelict land grants.

Non-agricultural

'Soft' uses where most of the land could be returned relatively easily to agriculture, including: private parkland, public open spaces, sports fields, allotments and soft-surfaced areas on airports. Also active mineral workings and refuse tips where restoration conditions to 'soft' after-uses may apply.

Woodland

Includes commercial and non-commercial woodland. A distinction may be made as necessary between farm and non-farm woodland.

Agricultural Buildings

Includes the normal range of agricultural buildings as well as other relatively permanent structures such as glasshouses. Temporary structures (eg. polythene tunnels erected for lambing) may be ignored.

Open Water

Includes lakes, ponds and rivers as map scale permits.

Land Not Surveyed

Agricultural land which has not been surveyed.

Where the land use includes more than one of the above, eg. buildings in large grounds, and where map scale permits, the cover types may be shown separately. Otherwise, the most extensive cover type will be shown.

APPENDIX II

FIELD ASSESSMENT OF SOIL WETNESS CLASS

SOIL WETNESS CLASSIFICATION

Soil wetness is classified according to the depth and duration of waterlogging in the soil profile. Six soil wetness classes are identified and are defined in the table below.

Definition of Soil Wetness Classes

Wetness Class	Duration of Waterlogging ¹
I	The soil profile is not wet within 70 cm depth for more than 30 days in most years. ²
II	The soil profile is wet within 70 cm depth for 31-90 days in most years or, if there is no slowly permeable layer within 80 cm depth, it is wet within 70 cm for more than 90 days, but only wet within 40 cm depth for 30 days in most years.
III	The soil profile is wet within 70 cm depth for 91-180 days in most years or, if there is no slowly permeable layer present within 80 cm depth, it is wet within 70 cm for more than 180 days, but only wet within 40 cm depth for between 31-90 days in most years.
IV	The soil profile is wet within 70 cm depth for more than 180 days but not wet within 40 cm depth for more than 210 days in most years or, if there is no slowly permeable layer present within 80 cm depth, it is wet within 40 cm depth for 91-210 days in most years.
V	The soil profile is wet within 40 cm depth for 211-335 days in most years.
VI	The soil profile is wet within 40 cm depth for more than 335 days in most years.

Soils can be allocated to a wetness class on the basis of quantitative data recorded over a period of many years or by the interpretation of soil profile characteristics, site and climatic factors. Adequate quantitative data will rarely be available for ALC surveys and therefore the interpretative method of field assessment is used to identify soil wetness class in the field. The method adopted here is common to ADAS and the SSLRC.

¹The number of days specified is not necessarily a continuous period.

²'In most years' is defined as more than 10 out of 20 years.

APPENDIX III

SOIL PIT AND SOIL BORING DESCRIPTIONS

Contents :

Soil Abbreviations - Explanatory Note

Soil Pit Descriptions

Database Printout - Boring Level Information

Database Printout - Horizon Level Information

SOIL PROFILE DESCRIPTIONS : EXPLANATORY NOTE

Soil pit and auger boring information collected during ALC fieldwork is held on a computer database. This uses notations and abbreviations as set out below.

Boring Header Information

1. **GRID REF** : national 100 km grid square and 8 figure grid reference.
2. **USE** : Land use at the time of survey. The following abbreviations are used.

ARA : Arable	WHT : Wheat	BAR : Barley
CER : Cereals	OAT : Oats	MZE : Maize
OSR : Oilseed rape	BEN : Field Beans	BRA : Brassicae
POT : Potatoes	SBT : Sugar Beet	FCD : Fodder Crops
LIN : Linseed	FRT : Soft and Top Fruit	FLW : Fallow
PGR : Permanent Pasture	LEY : Ley Grass	RGR : Rough Grazing
SCR : Scrub	CFW : Coniferous Woodland	DCW : Deciduous Wood
HTH : Heathland	BOG : Bog or Marsh	FLW : Fallow
PLO : Ploughed	SAS : Set aside	OTH : Other
HRT : Horticultural Crops		
3. **GRDNT** : Gradient as estimated or measured by a hand-held optical clinometer.
4. **GLEYSPL** : Depth in centimetres (cm) to gleying and/or slowly permeable layers.
5. **AP (WHEAT/POTS)** : Crop-adjusted available water capacity.
6. **MB (WHEAT/POTS)** : Moisture Balance. (Crop adjusted AP - crop adjusted MD)
7. **DRT** : Best grade according to soil droughtiness.
8. If any of the following factors are considered significant, 'Y' will be entered in the relevant column.

MREL : Microrelief limitation **FLOOD** : Flood risk **EROSN** : Soil erosion risk
EXP : Exposure limitation **FROST** : Frost prone **DIST** : Disturbed land
CHEM : Chemical limitation

9. **LIMIT** : The main limitation to land quality. The following abbreviations are used.

OC : Overall Climate	AE : Aspect	EX : Exposure
FR : Frost Risk	GR : Gradient	MR : Microrelief
FL : Flood Risk	TX : Topsoil Texture	DP : Soil Depth
CH : Chemical	WE : Wetness	WK : Workability
DR : Drought	ER : Erosion Risk	WD : Soil Wetness/Droughtiness
ST : Topsoil Stoniness		

Soil Pits and Auger Borings

1. **TEXTURE** : soil texture classes are denoted by the following abbreviations.

S :	Sand	LS :	Loamy Sand	SL :	Sandy Loam
SZL :	Sandy Silt Loam	CL :	Clay Loam	ZCL :	Silty Clay Loam
ZL :	Silt Loam	SCL :	Sandy Clay Loam	C :	Clay
SC :	Sandy Clay	ZC :	Silty Clay	OL :	Organic Loam
P :	Peat	SP :	Sandy Peat	LP :	Loamy Peat
PL :	Peaty Loam	PS :	Peaty Sand	MZ :	Marine Light Silts

For the sand, loamy sand, sandy loam and sandy silt loam classes, the predominant size of sand fraction will be indicated by the use of the following prefixes:

F :	Fine (more than 66% of the sand less than 0.2mm)
M :	Medium (less than 66% fine sand and less than 33% coarse sand)
C :	Coarse (more than 33% of the sand larger than 0.6mm)

The clay loam and silty clay loam classes will be sub-divided according to the clay content: **M** : Medium (<27% clay) **H** : Heavy (27-35% clay)

2. **MOTTLE COL** : Mottle colour using Munsell notation.
3. **MOTTLE ABUN** : Mottle abundance, expressed as a percentage of the matrix or surface described.

F : few <2% **C** : common 2-20% **M** : many 20-40% **VM** : very many 40% +

4. **MOTTLE CONT** : Mottle contrast
F : faint - indistinct mottles, evident only on close inspection
D : distinct - mottles are readily seen
P : prominent - mottling is conspicuous and one of the outstanding features of the horizon

5. **PED. COL** : Ped face colour using Munsell notation.
6. **GLEYS** : If the soil horizon is gleyed a 'Y' will appear in this column. If slightly gleyed, an 'S' will appear.
7. **STONE LITH** : Stone Lithology - One of the following is used.

HR :	all hard rocks and stones	SLST :	soft oolitic or dolimitic limestone
CH :	chalk	FSST :	soft, fine grained sandstone
ZR :	soft, argillaceous, or silty rocks	GH :	gravel with non-porous (hard) stones
MSST :	soft, medium grained sandstone	GS :	gravel with porous (soft) stones
SI :	soft weathered igneous/metamorphic rock		

Stone contents (>2cm, >6cm and total) are given in percentages (by volume).

8. **STRUCT** : the degree of development, size and shape of soil peds are described using the following notation:

degree of development **WK** : weakly developed **MD** : moderately developed
 ST : strongly developed

ped size **F** : fine **M** : medium
 C : coarse **VC** : very coarse

ped shape **S** : single grain **M** : massive
 GR : granular **AB** : angular blocky
 SAB : sub-angular blocky **PR** : prismatic
 PL : platy

9. **CONSIST** : Soil consistence is described using the following notation:

L : loose **VF** : very friable **FR** : friable **FM** : firm **VM** : very firm
EM : extremely firm **EH** : extremely hard

10. **SUBS STR** : Subsoil structural condition recorded for the purpose of calculating profile droughtiness : **G** : good **M** : moderate **P** : poor

11. **POR** : Soil porosity. If a soil horizon has less than 0.5% biopores >0.5 mm, a 'Y' will appear in this column.

12. **IMP** : If the profile is impenetrable to rooting a 'Y' will appear in this column at the appropriate horizon.

13. **SPL** : Slowly permeable layer. If the soil horizon is slowly permeable a 'Y' will appear in this column.

14. **CALC** : If the soil horizon is calcareous, a 'Y' will appear in this column.

15. Other notations

APW : available water capacity (in mm) adjusted for wheat
APP : available water capacity (in mm) adjusted for potatoes
MBW : moisture balance, wheat
MBP : moisture balance, potatoes

SOIL PIT DESCRIPTION

Site Name : NEWBURY LP, MEMBURY

Pit Number : 1P

Grid Reference: SU31007550 Average Annual Rainfall : 770 mm
 Accumulated Temperature : 1298 degree days
 Field Capacity Level : 170 days
 Land Use : Ley
 Slope and Aspect : 01 degrees NE

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	MOTTLES	STRUCTURE
0- 30	MCL	10YR43 00	4	5		
30- 45	MCL	10YR54 53	0	5	F	MDCSAB
45- 60	HCL	10YR72 62	0	20	C	MDCSAB
60- 95	C	10YR53 62	0	10	C	WKCSAB
95-120	C	25 Y61 00	0	0	C	

Wetness Grade : 3A Wetness Class : III
 Gleying : 045 cm
 SPL : 060 cm

Drought Grade : 1 APW : 129mm MBW : 42 mm
 APP : 106mm MBP : 33 mm

FINAL ALC GRADE : 3A
 MAIN LIMITATION : Wetness

SOIL PIT DESCRIPTION

Site Name : NEWBURY LP, MEMBURY Pit Number : 2P

Grid Reference: SU31107500 Average Annual Rainfall : 770 mm
 Accumulated Temperature : 1298 degree days
 Field Capacity Level : 170 days
 Land Use : Ley
 Slope and Aspect : 01 degrees SE

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	MOTTLES	STRUCTURE
0- 30	HCL	10YR43 00	12	15		
30- 70	C	10YR64 63	0	1	C	WKVCSB

Wetness Grade : 3B Wetness Class : IV
 Gleying : 030 cm
 SPL : 030 cm

Drought Grade : 3A APW : 086mm MBW : -1 mm
 APP : 098mm MBP : 25 mm

FINAL ALC GRADE : 3B
 MAIN LIMITATION : Wetness

SAMPLE NO.	GRID REF	USE	ASPECT	GRDNT	GLEYS	--WETNESS--		-WHEAT-		-POTS-		M. REL		EROSN EXP	FROST DIST	CHEM LIMIT	ALC	COMMENTS
						CLASS	GRADE	AP	MB	AP	MB	DRT	FLOOD					
1P	SU31007550	LEY	NE	01	045 060	3	3A	129	42	106	33	1				WE	3A	
2P	SU31107500	LEY	SE	01	030 030	4	3B	086	-1	098	25	3A				WE	3B	3A ST
17	SU31017566	LEY	NE	01	040 040	3	3A	093	6	098	25	2				ST	3B	WET TOO
18	SU31107690	LEY	NE	02	055	3	3A	099	12	097	24	2		Y		ST	3B	SL. GLEY 45+
19	SU31007560	LEY	NE	02	050 050	3	3A	095	8	093	20	2				ST	3B	RIDDLED
20	SU30907550	LEY	NE	01		1	1	133	46	114	41	1				ST	2	IMP 65
21	SU31007550	LEY	NE	01	048 060	3	3A	115	28	106	33	2				WE	3A	1P
22	SU30907540	LEY	NE	01	030	2	2	131	44	109	36	1				DR	2	
23	SU30977539	LEY	NE	02	030 030	4	3B	105	18	095	22	2				WE	3B	3B ST
24	SU30907530	LEY	NE	02	045	3	3A	091	4	095	22	3A				ST	3B	SL. GLEY 45+
25	SU31007530	LEY	NE	01	040 040	3	3A	100	13	101	28	2				WE	3A	
26	SU30977520	LEY	SE	01	030 030	4	3B	000	0	000	0					WE	3B	
27	SU31007517	LEY	SE	01	050	3	3A	000	0	000	0					WE	3A	SL. GLEY 45+
28	SU31007510	LEY	SE	01		1	1	133	46	111	38	1				ST	2	
29	SU31007500	LEY	SE	01	030 030	4	3B	000	0	000	0					WE	3B	3A ST
30	SU31107500	LEY	SE	01	030	4	3B	000	0	000	0					WE	3B	2P, SL GLEY 30
31	SU31207500	LEY	SE	01	065	2	3A	135	48	109	36	1		Y		WE	3A	SL. GLEY 65+
32	SU31027493	LEY	SE	01	050 030	3	3B	123	36	100	27	1				WE	3B	SL. GLEY 30+
33	SU31097493	LEY	SE	01	060	2	3A	115	28	092	19	2				WE	3A	SL. GLEY 60+
34	SU31177494	LEY	SE	01	030 030	4	3B	124	37	101	28	1				WE	3B	
35	SU31057575	LEY	NE	01	040 050	3	3A	122	35	101	28	1		Y		WE	3A	SL. GLEY 20+

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES-----			PED COL.	----STONES----			STRUCT/ CONSIST	SUBS					
				COL	ABUN	CONT		GLEY	>2	>6		LITH	TOT	STR	POR	IMP	SPL
1P	0-30	mc1	10YR43 00					4	0	HR	5						
	30-45	mc1	10YR54 53 10YR58 00 F					0	0	HR	5	MDCSAB	FR	M			
	45-60	hc1	10YR72 62 10YR66 00 C					Y	0	0	HR	20	MDCSAB	FM	M		
	60-95	c	10YR53 62 10YR58 00 C					Y	0	0	HR	10	WKCSAB	FM	P	Y	Y
	95-120	c	25 Y61 00 10YR58 00 C					Y	0	0		0			P	Y	Y
2P	0-30	hc1	10YR43 00					12	6	HR	15						
	30-70	c	10YR64 63 25YR46 00 C					Y	0	0	HR	1	WKVCSB	FM	P	Y	Y
17	0-30	mc1	10YR44 00					17	4	HR	21						
	30-40	mc1	10YR66 00					0	0	HR	5			M			
	40-80	c	10YR63 00 75YR56 00 C				05YR56 00	Y	0	0		0			P	Y	Y
18	0-35	mc1	10YR43 44					16	4	HR	20						
	35-45	mc1	10YR44 00 10YR56 00 F					0	0	HR	15			M			
	45-55	mc1	10YR44 00 10YR56 00 C					S	0	0	HR	15		M			
	55-90	c	75YR56 00 75YR58 00 C					S	0	0	HR	5		P	Y	Y	
19	0-30	mc1	10YR43 00					25	10	HR	30						
	30-40	hc1	75YR55 56 75YR58 00 F					0	0	HR	10			M			
	40-50	c	75YR55 56 75YR56 00 F					0	0	HR	5			M			
	50-90	c	10YR53 00 75YR55 56 C					Y	0	0	HR	5		P	Y	Y	
20	0-30	mzc1	10YR42 00					6	0	HR	6						
	30-65	mzc1	10YR54 00					0	0	HR	10			M			
	65-120	mzc1	10YR54 00					0	0	HR	40			M			
21	0-30	mc1	10YR43 00					4	1	HR	5						
	30-48	mc1	10YR54 00 10YR58 00 F				10YR53 00	0	0	HR	5			M			
	48-60	hc1	10YR72 00 10YR66 00 C				10YR62 00	Y	0	0	HR	20		M			
	60-95	c	10YR53 00 10YR58 00 M				10YR62 00	Y	0	0	HR	10		P	Y	Y	
	95-100	c	25 Y61 00 10YR58 00 M					Y	0	0		0		P	Y	Y	
22	0-30	sc1	10YR53 00					5	0	HR	5						
	30-40	sc1	10YR71 00 75YR46 64 C					Y	0	0		0		M			
	40-60	ms1	10YR71 00 75YR46 64 C					Y	0	0		0		M			
	60-80	ms1	10YR62 00 75YR58 00 C				10YR61 00	Y	0	0		0		M			
	80-120	1ms	10YR62 00 75YR58 00 C					Y	0	0		0		M			
23	0-30	mc1	10YR43 00					16	8	HR	17						
	30-65	c	10YR53 00 10YR58 00 C				10YR62 00	Y	0	0	HR	5		P	Y	Y	
	65-100	c	25 Y61 00 25 Y58 00 C					Y	0	0		0		P	Y	Y	
24	0-30	mc1	10YR43 00					15	12	HR	20						
	30-45	mc1	10YR54 00 10YR56 00 F					0	0	HR	15			M			
	45-80	c	05YR55 00 05YR56 00 C					S	0	0	HR	5		P	Y	Y	
25	0-30	mc1	10YR43 00					10	6	HR	12						
	30-40	mc1	10YR55 56 10YR58 00 F					0	0	HR	10			M			
	40-65	c	10YR63 00 10YR66 00 C				75YR58 00	Y	0	0		0		P	Y	Y	
	65-85	c	10YR63 00 10YR66 00 C				75YR58 00	Y	0	0		0		P	Y	Y	

DISTURBED

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES-----			PED		----STONES-----			STRUCT/ CONSIST	SUBS					
				COL	ABUN	CONT	COL.	GLE	>2	>6	LITH		TOT	STR	POR	IMP	SPL	CALC
26	0-30	mc1	10YR43 00						5	0	HR	5						
	30-80	c	10YR64 00	05YR58 00	C		10YR73	72	Y	0	0	0		P	Y		Y	
27	0-30	mc1	10YR43 00						6	4	HR	8						
	30-45	hc1	10YR54 00	75YR56 00	F				0	0	HR	5		M				
	45-50	hc1	10YR54 00	75YR56 00	C		10YR62	00	S	0	0	HR	5		M			
	50-120	c	10YR54 00	05YR58 00	C				S	0	0	0		P	Y		Y	
28	0-30	mc1	10YR44 00						6	4	HR	7					Y	
	30-60	mc1	10YR54 00						0	0	HR	5		M				
	60-75	hc1	75YR54 00	75YR56 00	F				0	0	HR	5		M				
	75-120	hc1	75YR54 00	75YR58 00	F				0	0	HR	40		M				
29	0-30	hc1	10YR44 00						11	7	HR	14						
	30-120	c	10YR62 00	75YR56 00	C		75YR58	00	Y	0	0	0		P	Y		Y	
30	0-30	hc1	10YR43 00						9	7	HR	14						
	30-120	c	75YR58 00	05YR58 00	C				S	0	0	0		P	Y		Y	
31	0-55	hc1	10YR43 00						8	2	HR	13					Y	
	55-65	hc1	75YR56 00	75YR58 00	F		10YR54	00		0	0	HR	5		M			
	65-120	c	75YR58 00	75YR58 00	C				S	0	0	0		P	Y		Y	
32	0-30	hc1	10YR43 00						10	4	HR	12						
	30-50	c	75YR58 00	75YR58 00	C				S	0	0	0		P	Y		Y	
	50-120	c	10YR62 00	75YR56 58	C				Y	0	0	0		P	Y		Y	
33	0-30	hc1	10YR43 00						10	7	HR	12						
	30-60	c	75YR56 00	10YR58 00	F				0	0	HR	20		P	Y		Y	
	60-120	c	75YR56 00	75YR58 00	C				S	0	0	HR	5		P	Y	Y	
34	0-30	hc1	10YR43 00						9	4	HR	10						
	30-120	c	10YR53 00	10YR56 00	C		75YR58	00	Y	0	0	0		P	Y		Y	
35	0-20	mzc1	10YR44 00						8	4	HR	13					DISTURBED	
	20-40	c	10YR54 00	10YR58 00	C				S	0	0	HR	5		M			
	40-50	c	10YR53 00	75YR56 54	C				Y	0	0	HR	15		M			
	50-120	c	75YR56 00	10YR58 00	C				S	0	0	HR	10		P	Y	Y	