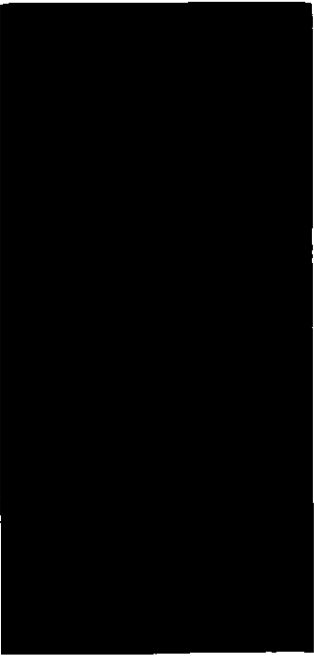


5-1-2021



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Lewes District Local Plan
Site 8 : Land at Newick
ALC Map and Report
May 1995

AGRICULTURAL LAND CLASSIFICATION, REPORT

LEWES DISTRICT LOCAL PLAN SITE 8 : LAND AT NEWICK

1. Summary

- 1.1 ADAS was commissioned by MAFF's Land Use Planning Unit to provide information on land quality for a number of sites in the Lewes District of East Sussex. The work forms part of MAFF's statutory input to the preparation of the Lewes District Local Plan.
- 1.2 The site comprises approximately 15.9 hectares of land on the eastern side of the village of Newick, 10 km due north of Lewes. An Agricultural Land Classification (ALC) survey was carried out in May 1995. The survey was undertaken at a detailed level of approximately one boring per hectare of agricultural land surveyed. A total of 16 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 work was carried out by members of the Resource Planning Team in the Guildford Statutory Group of ADAS.
- 1.4 At the time of survey all the agricultural land was under grass. Several of the fields were under permanent pasture and used as horse paddocks, whilst two of the larger fields were under a grass ley and used for silage. The field at the extreme western end of the site had been neglected and was becoming overgrown.
- 1.5 The distribution of grades and subgrades is shown on the attached ALC map and the areas are given in the table below. The map has been drawn at a scale of 1:10,000. It is accurate at this scale, but any enlargement would be misleading.

Table 1 : Distribution of Grades and Subgrades

Grade	Area (ha)	% of Site	% of Agricultural Land
1	10.5	66.0	82.0
2	0.8	5.0	6.3
3a	1.5	9.4	<u>11.7</u>
Non agricultural	0.5	3.2	100.0 (12.8 ha)
Urban	2.0	12.6	
Woodland	0.5	3.2	
Agricultural Buildings	<u>0.1</u>	<u>0.6</u>	
Total area of site	15.9	100.0	

- 1.6 Appendix 1 gives a general description of the grades, subgrades and land use categories identified in this survey. The main classes are described in terms of the type of limitation that can occur, the typical cropping range and expected level and consistency of yield.
- 1.7 The agricultural land on the site has been mainly classified as Grade 1, excellent quality agricultural land, with small areas of Grade 2 and Subgrade 3a, very good/good quality land. The Grade 1 land comprises freely drained, stoneless, deep coarse over fine silty soils, which are very versatile and have very minor or no limitations to agricultural use. A small area of Grade 2 has been mapped along the southern boundary of the site, where the underlying mudstone bedrock is encountered at a moderate depth. These soils are slightly droughty due to the restricted rooting depth, limiting the land to this grade. Further to the east the mudstone occurs at shallower depths resulting in a more severe droughtiness limitation restricting the land to Subgrade 3a. A further small area of Subgrade 3a has been mapped in the centre of the site, where fine loamy soils over mudstone have been mapped. These soils exhibit mottling in the subsoil indicating a wetness limitation, but also due to the shallow rooting depth a moderate droughtiness restriction will occur during the drier periods of the year.

2. Climate

- 2.1 The climatic criteria are considered first when classifying land as climate can be overriding in the sense that severe climatic limitations will restrict land to low grades irrespective of favourable site or soil conditions.
- 2.2 The main parameters used in the assessment of an overall climatic limitation are average annual rainfall, as a measure of overall wetness, and accumulated temperature, as a measure of the relative warmth of a locality.
- 2.3 A detailed assessment of the prevailing climate was made by interpolation from a 5km grid point dataset (Met. Office, 1989). The details are given in the table below and these show that there is no overall climatic limitation affecting the site.
- 2.4 However, climatic factors do interact with soil factors to influence soil wetness and droughtiness limitations. The climate at this location is relatively warm and moist in a regional context and therefore the likelihood of a wetness or droughtiness limitation may be enhanced depending on the soil conditions.
- 2.4 No local climatic factors such as exposure or frost risk are believed to affect this site significantly.

Table 2 : Climatic Interpolations

Grid Reference	TQ 422 212
Altitude (m)	30
Accumulated Temperature (Day °C, Jan-June)	1496
Average Annual Rainfall (mm)	783
Field Capacity (days)	168
Moisture Deficit, Wheat (mm)	110
Moisture Deficit, Potatoes (mm)	105
Overall Climatic Grade	1

3. Relief

- 3.1 The altitude of the site ranges from approximately 20 to 35 m AOD falling gently from west to east. A shallow dry valley feature running east west extends through the central part of the site. Nowhere on the site do altitude or relief pose any limitation to agricultural use.

4. Geology and Soil

- 4.1 The published geological map (BGS, 1979) shows the entire site to be underlain by Upper Tunbridge Wells Sand a division of the Hastings Beds which are sandstones, siltstones and clays.
- 4.2 The published Soil Survey map (SSEW, 1983) shows the soils on the site to belong to the Curtisden association. These soils are described as 'silty soils over siltstone with slowly permeable subsoils and slight seasonal waterlogging, with some similar well drained soils' (SSEW, 1983).
- 4.3 Detailed field examination found the soils over the majority of the site to be well drained silty soils. A typical soil profile has a dark brown silt loam topsoil over a strong brown silt loam or medium silty clay loam subsoil which has a moderately well developed subangular blocky structure. The soils are generally stoneless throughout. Along the south eastern boundary of the site the underlying fine grained sandstone/mudstone was encountered within 1 m of the surface and in some profiles mottling was present in the subsoil indicating periodic waterlogging.
- 4.4 On the northern central part of the site, a small area of shallow fine loamy soils have been mapped. These soils have a fine sandy clay loam topsoil over a strongly mottled heavy clay loam subsoil containing patches of fine sand, with the underlying sandstone found within 60 cm depth. These soils have been assessed as Wetness Class III.

5. Agricultural Land Classification

- 5.1 The location of the soil observation points are shown on the attached sample point map.

Grade 1

- 5.2 The majority of the site has been classified as Grade 1 due to the presence of deep free draining moisture retentive soils. Despite the moderately high moisture deficits that develop in this area during the summer months, available water capacities in these deep silty soils are sufficient to supply adequate moisture to the crops to prevent any significant drought stress. Furthermore, due to their free draining nature, these silty soils are easily worked for long periods of the year. This land therefore has no significant limitations to agricultural use and is capable of growing a wide range of crops.

Grade 2

- 5.3 A small area of Grade 2 land has been mapped on the higher ground along the south eastern edge of the site. In this area the underlying bedrock was encountered at moderate depths (60-100 cm), restricting rooting depth. Despite the presence of silty soil textures, moisture balance calculations indicate that these soils will have a minor droughtiness limitation restricting the land to this grade.

Subgrade 3a

- 5.4 Two areas of Subgrade 3a have been identified, one at the eastern end of the site where the underlying bedrock is found at moderately shallow depths (at approximately 50 cm depth) resulting in a moderate droughtiness limitation. The other area corresponds to the imperfectly drained fine loamy soils described in paragraph 4.4 These soils have been assessed as Wetness Class III due to the presence of slowly permeable heavy clay loam subsoils and given the prevailing climatic conditions the land is restricted to Subgrade 3a. In addition the underlying bedrock is also found at a moderately shallow depth and therefore crops growing on these fine loamy soils will suffer moderate drought stress during the summer months again limiting the land quality to Subgrade 3a.

SOURCES OF REFERENCE

British Geological Survey (1979), Sheet No 319, Lewes, 1:50,000 Series (solid and drift edition)

MAFF (1988), Agricultural Land Classification of England and Wales: Revised guidelines and criteria for grading the quality of agricultural land.

Meteorological Office (1989), Climatological Data for Agricultural Land Classification.

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

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 : LEWES LP, SITE 8

Pit Number : 1P

Grid Reference: TQ42602120 Average Annual Rainfall : 783 mm
 Accumulated Temperature : 1496 degree days
 Field Capacity Level : 168 days
 Land Use : Ley
 Slope and Aspect : 01 degrees E

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 32	MZCL	10YR43 00	0	3	ZR					
32- 48	MZCL	10YR74 64	0	15	ZR	C	MDMAB	FR	G	
48- 55	ZR	10YR73 00	0	0					P	

Wetness Grade : 3A Wetness Class : III
 Gleying : 032 cm
 SPL : 048 cm

Drought Grade : 3A APW : 094mm MBW : -16 mm
 APP : 096mm MBP : -9 mm

FINAL ALC GRADE : 3A
 MAIN LIMITATION : Droughtiness

SOIL PIT DESCRIPTION

Site Name : LEWES LP, SITE 8 Pit Number : 2P

Grid Reference: TQ42002120 Average Annual Rainfall : 783 mm
 Accumulated Temperature : 1496 degree days
 Field Capacity Level : 168 days
 Land Use : Rough Grazing
 Slope and Aspect : 01 degrees N

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 28	ZL	10YR44 00	0	0						
28- 50	ZL	10YR45 55	0	0			MDMSB	FR	G	
50- 75	MZCL	75YR46 00	0	0			MDCSB	FM	M	
75-120	ZL	75YR56 00	0	0			WKCSB	FM	M	

Wetness Grade : 1 Wetness Class : I
 Gleying : cm
 SPL : No SPL

Drought Grade : 1 APW : 203mm MBW : 93 mm
 APP : 149mm MBP : 44 mm

FINAL ALC GRADE : 1
 MAIN LIMITATION :

SAMPLE NO.	GRID REF	ASPECT USE	GRDNT	--WETNESS--		-WHEAT-		-POTS-		M.REL		EROSN EXP	FROST DIST	CHEM LIMIT	ALC	COMMENTS
				GLEY	SPL	CLASS	GRADE	AP	MB	AP	MB					
1	TQ42612129	LEY N	05	070	1	1	173	63	137	32	1				1	GDWATER
1P	TQ42602120	LEY E	01	032 048	3	3A	094	-16	096	-9	3A			DR	3A	ROCK 48
2	TQ42002120	RGR N	01		1	1	208	98	147	42	1				1	
2P	TQ42002120	RGR N	01		1	1	203	93	149	44	1				1	
3	TQ42152120	LEY E			1	1	116	6	126	21	2			DR	2	ROCK 70
4	TQ42202120	LEY E	01		1	1	146	36	127	22	1				1	ROCK 100
5	TQ42302120	LEY S	01	050	1	1	159	49	141	36	1				1	
6	TQ42442104	PGR SE	02	028	2	2	091	-19	096	-9	3A			DR	3A	IMP 60
7	TQ42502119	LEY N	05	085	1	1	183	73	147	42	1				1	
8	TQ42602120	LEY E	01	030	2	2	090	-20	090	-15	3B			DR	3B	SEE 1P
9	TQ42102113	LEY S	01		1	1	155	45	135	30	1				1	ROCK 100
10	TQ42202110	PGR E	02		1	1	189	79	144	39	1				1	
11	TQ42302110	PGR E	01		1	1	195	85	157	52	1				1	S1. gley 80
12	TQ42402110	PGR N	03		1	1	174	64	138	33	1				1	
13	TQ42502111	LEY N			1	1	122	12	127	22	2			DR	2	Rock 60
14	TQ42202100	PGR N	01		1	1	187	77	152	47	1				1	S1. gley 85
15	TQ42302100	PGR N	01		1	1	170	60	134	29	1				1	
16	TQ42402100	PGR E		040	2	2	150	40	139	34	1			WE	2	

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES-----			PED COL.	----STONES-----			STRUCT/ CONSIST	SUBS				
				COL	ABUN	CONT		GLEY	>2	>6		LITH	TOT	STR	POR	IMP
1	0-33	z1	10YR43 00					0	0	ZR	3					
	33-55	mzc1	10YR54 00					0	0	ZR	1		M			
	55-70	mzc1	25Y 74 64	00M00	00 C			0	0		0		M			
	70-120	mzc1	05Y 81 00	10YR64	66 M		Y	0	0		0		M			
1P	0-32	mzc1	10YR43 00					0	0	ZR	3					
	32-48	mzc1	10YR74 64	10YR68	00 C		Y	0	0	ZR	15	MDMAB	FR G			
	48-55	zr	10YR73 00				Y	0	0		0		P		Y	
2	0-30	z1	10YR44 00					0	0		0					
	30-50	z1	10YR55 00					0	0		0		G			
	50-70	mzc1	75YR56 00					0	0		0		M			
	70-120	fsz1	75YR55 00					0	0		0		M			
2P	0-28	z1	10YR44 00					0	0		0					
	28-50	z1	10YR45 55					0	0		0	MDMSB	FR G			
	50-75	mzc1	75YR46 00					0	0		0	MDCSB	FM M			
	75-120	z1	75YR56 00					0	0		0	WKCSB	FM M			
3	0-33	fsz1	75YR43 00					0	0	ZR	1					
	33-60	mc1	10YR55 00					0	0	ZR	5		M			
	60-70	sc1	10YR55 00					0	0	ZR	20		M			IMP SILTSTONE
4	0-35	fsz1	10YR44 00					0	0	ZR	3					
	35-100	sc1	10YR64 58					0	0	ZR	5		M			IMP SILTSTONE
5	0-28	fsz1	10YR44 00					0	0	ZR	3					
	28-50	fs1	10YR46 00					0	0	ZR	5		M			
	50-90	fsz1	25Y 74 00	10YR68	81 C		Y	0	0		0		M			
6	0-28	sc1	10YR44 00					0	0	ZR	3					
	28-50	hc1	10YR65 00	75YR68	61 C		Y	0	0		0		M			
	50-60	sc1	10YR73 00	10YR68	61 M		Y	0	0		0		M			IMP SILTSTONE
7	0-28	z1	10YR44 00					0	0		0					
	28-50	z1	10YR55 00					0	0		0		G			
	50-85	mzc1	75YR55 00					0	0		0		M			
	85-120	mzc1	10YR64 00	10YR68	62 C		Y	0	0		0		M			
8	0-30	mzc1	10YR43 00					0	0	ZR	1					
	30-50	mzc1	25Y 74 64	10YR68	00 C		Y	0	0	ZR	5		M			IMP SILTSTONE
9	0-33	z1	75YR43 00					0	0	ZR	3					
	33-60	fs1	75YR46 00					0	0	ZR	5		M			
	60-100	sc1	10YR46 00					0	0	ZR	5		M			
	100-105	zr	10YR74 00					0	0		0		P			
10	0-25	fsz1	75YR43 00					0	0		0					
	25-50	z1	75YR44 00					0	0		0		G			
	50-90	mzc1	75YR56 00	00M00	00 F			0	0		0		M			
	90-120	fs1	75YR65 00					0	0		0		M			

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES-----			PED COL.	----STONES----			STRUCT/ CONSIST	SUBS					
				COL	ABUN	CONT		GLEY	>2	>6		LITH	TOT	STR	POR	IMP	SPL
11	0-25	z1	75YR43 00						0	0	0						
	25-70	z1	10YR45 00						0	0	0			G			
	70-80	z1	10YR55 00						0	0	0			G			
	80-120	mzc1	10YR55 00	25Y 62 00 F				S	0	0	0			M			
12	0-25	fsz1	10YR43 00						0	0	ZR 1						
	25-40	z1	75YR44 00						0	0	0			G			
	40-120	mzc1	75YR55 00	00MN00 00 F					0	0	0			M			
13	0-30	z1	10YR43 00						0	0	0						
	30-40	z1	10YR54 00						0	0	0			G			
	40-60	fs1	10YR73 54						0	0	0			M			IMP SILTSTONE
14	0-25	z1	75YR43 00						0	0	0						
	25-60	z1	75YR44 00						0	0	0			G			
	60-85	mzc1	10YR56 00						0	0	0			M			
	85-120	mzc1	10YR56 00	10YR68 00 F				S	0	0	0			M			
15	0-25	z1	75YR43 00						0	0	0						
	25-60	mzc1	75YR44 00						0	0	0			M			
	60-120	mzc1	75YR55 00	00MN00 00 F					0	0	0			M			
16	0-20	z1	10YR43 00						0	0	ZR 1						
	20-40	z1	75YR44 00						0	0	ZR 3			G			
	40-70	hzc1	10YR74 00	10YR68 61 C				Y	0	0	0			M			
	70-95	sc1	10YR74 00	10YR68 00 C				Y	0	0	ZR 3			M			