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Ministry of
Agriculture
Fisheries
and Food

A1
ARUN DISTRICT LOCAL PLAN
SITE 16 : LAND AT CHICHESTER
ROAD/NORTH BERSTED STREET
NORTH BERSTED, BOGNOR REGIS
AGRICULTURAL LAND CLASSIFICATION
ALC MAP & REPORT
MARCH 1994

**ARUN DISTRICT LOCAL PLAN
SITE 16 : LAND AT CHICHESTER ROAD/NORTH BERSTED STREET, BERSTED
BOGNOR REGIS
AGRICULTURAL LAND CLASSIFICATION REPORT**

1.0 Summary

1.1 ADAS was commissioned by MAFF's Land Use Planning Unit to provide information on land quality on a number of sites in the Arun District of West Sussex. The work forms part of MAFF's statutory input to the preparation of the Arun District Local Plan.

1.2 Approximately 38 hectares of land relating to site 16, land at Bersted, Bognor Regis was surveyed in March 1994. The survey was undertaken at a detailed level of approximately one boring per hectare. A total of 14 soil auger borings and one soil inspection pit were assessed 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 long term limitations on its use for agriculture. Part of the site was the subject of a previous survey to assess agricultural land quality carried out in 1988. The results of this survey are incorporated into the present area put forward for possible inclusion in the Arun District Local Plan.

1.3 The work was conducted by members of the Resource Planning Team in the Guildford Statutory Group of ADAS.

1.4 At the time of the survey the majority of the land was under cereal stubble with some areas having been recently ploughed.

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 1:5,000. It is accurate at this scale, but any enlargement would be misleading. This map supersedes any previous survey information carried out before 1988 for this site.

Table 1 : Distribution of Grades and Subgrades

<u>Grade</u>	<u>Area (ha)</u>	<u>% of Site</u>	<u>% of Agricultural Land</u>
1	26.8	70.3	71.5
3b	10.7	28.1	28.5
Non Agricultural Land	0.3	0.8	100% (37.5 ha)
Urban	0.3	0.8	
Total Area of Site	38.1	100%	

1.6 Appendix 1 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.

1.7 The majority of the site is classified as grade 1 with the remainder being subgrade 3b. Grade 1 land comprises deep, well drained coarse and fine silty soils with good reserves of water for plant growth which suffer neither a wetness or droughtiness limitation. Subgrade 3b land coincides with a marked difference in soil types. These soils consist of poorly structured slowly permeable clay below the topsoil and as a result are poorly drained, being classified as subgrade 3b due to a significant wetness limitation. This land, which is slightly lower lying than the rest of the site, may also be at risk from flooding.

2.0 Climate

2.1 The climatic criteria are considered first when classifying land as climate can be overriding in the sense that severe 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 annual average 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 gridpoint 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 No local climatic factors such as exposure or frost risk affect the site. However, it should be noted that climatic characteristics such as rainfall and field capacity days can interact with soil properties to influence soil wetness problems, especially on heavy clayey soils found on this site. Additionally, the comparatively high soil moisture deficits for the locality can increase the likelihood of soil droughtiness problems.

Table 2 : Climatic Interpolation

Grid Reference :	SU 923 016
Altitude (m) :	4
Accumulated Temperature (days) :	1545
Average Annual Rainfall (mm) :	750
Field Capacity (days) :	152
Moisture Deficit, Wheat (mm) :	120
Moisture Deficit, Potatoes (mm) :	117
Overall Climatic Grade :	1

3.0 Relief

3.1 The site is flat and lies at an altitude of approximately 4-5 metres. Nowhere on the site do relief or gradient affect agricultural land quality.

4.0 Geology and Soil

4.1 The published geological sheet for the site, Sheet 332 (BGS, 1975) shows the underlying geology over the majority of the site to be brickearth with alluvium mapped to the north east.

4.2 The published soils information for the area, Sheet 6 (SSEW, 1983) shows the principle soil association over the site to be Hamble 2 which is described as -"Deep stoneless well drained silty soils and similar soils affected by groundwater; over gravel locally. Usually flat land" (SSEW, 1983). Reflecting the alluvium deposits is mapped soils of the Newchurch 1 association, described as -"Deep stoneless calcareous clayey and fine silty soils. Groundwater controlled by ditches and pumps. Flat land with a risk of flooding in places" (SSEW, 1983). A detailed inspection of the site revealed the presence of soils similar to both those soil types described above. However, no gravel was encountered.

5.0 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 locations of the soil observation points are shown on the attached sample point map.

Grade 1

5.3 Excellent quality agricultural land covers the majority of the site where soils have developed in deposits of brickearth. Typical soil profiles comprise non calcareous silt loam topsoils with 1-4% total small flints over upper subsoils of medium silty clay loam containing 0-2% total flints. Lower subsoils consist of clay or medium/heavy silty clay loam with 0-5% total flints. Soil Pit 1 is typical of these soils. Profiles are well drained showing slight or no signs of wetness problems and are assigned to Wetness Class I. There are, also, adequate reserves of available water in the soils for crop growth. Consequently, this land has no or very minor limitations and is classified as Grade 1. Land to the south of the site which was previously surveyed comprises similar textured, well drained soils. As a result, the land is capable of growing a very wide range of agricultural and horticultural crops producing high and consistent yields. A small number of profiles of poorer quality were found within this mapping unit but were not mapped separately due to their limited number and distribution.

Subgrade 3b

5.4 This moderate quality agricultural land occupies a slightly lower lying position adjacent to main drainage channels across the site and is mapped in association with alluvial deposits. Typical soil profiles comprise medium or heavy silty clay loam topsoils which are calcareous or non calcareous and contain 0-3% total flints or chalk stones. Underlying this is poorly structured slowly permeable silty clay with 0-3% total chalk stones. The soils are poorly drained showing signs of wetness in the form of gleying from the surface caused by slowly permeable horizons of silty clay from 25-30 cm depth in the profile. Soils are assigned to Wetness class IV and a classification of Subgrade 3b due to a significant wetness limitation. Again similar, poorly drained soils were found in the previous survey. Additionally, it should be noted that the low lying position of this land together with the heavy nature of the soils make it prone to episodes of flooding with water likely to remain standing for long periods.

5.5 The area marked as Urban comprises a gravel track.

5.6 The area marked as Non-agricultural consists of a garden.

APPENDIX I

DESCRIPTION OF THE GRADES AND SUB-GRADES

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 on the 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.

Grade 3 : Good To Moderate Quality Agricultural Land

Land with moderate limitations which affect the choice of crops, 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.

Sub-grade 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.

Sub-grade 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 very 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 : 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 re-claimed 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/airfields. Also active mineral workings and refuse tips where restoration conditions to 'soft' after-uses may apply.

Woodland

Includes commercial and non-commercial 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

REFERENCES

- * ADAS (1988) Agricultural Land Classification : North Bersted, Bognor Regis (Reference 4202/049/88).
- * BRITISH GEOLOGICAL SURVEY (1975), Sheet No.332, Bognor Regis, 1:50,000 scale.
- * 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 No.6, "Soils of South East England", 1:250,000 scale and accompanying legend.

APPENDIX III

DEFINITION OF SOIL WETNESS CLASSES

Wetness Class I

The soil profile is not wet within 70cm depth for more than 30 days in most years.

Wetness Class II

The soil profile is wet within 70cm depth for 31-90 days in most years or, if there is no slowly permeable layer within 80cm depth, it is wet within 70cm for more than 90 days, but not wet within 40cm depth for more than 30 days in most years.

Wetness Class III

The soil profile is wet within 70cm depth for 91-180 days in most years or, if there is no slowly permeable layer within 80cm depth, it is wet within 70cm for more than 180 days, but only wet within 40cm depth for 31-90 days in most years.

Wetness Class IV

The soil profile is wet within 70cm depth for more than 180 days but not wet within 40cm depth for more than 210 days in most years or, if there is no slowly permeable layer within 80cm depth, it is wet within 40cm depth for 91-210 days in most years.

Wetness Class V

The soil profile is wet within 40cm depth for 211-335 days in most years.

Wetness Class VI

The soil profile is wet within 40cm depth for more than 335 days in most years.

(The number of days is not necessarily a continuous period. 'In most years' is defined as more than 10 out of 20 years.)

APPENDIX IV

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 database. This has commonly used notations and abbreviations as set out below.

Boring Header Information

1. **GRID REF** : national 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 **HRT** : Horticultural Crops **PGR** : Permanent Pasture **LEY** : Ley Grass **RGR** : Rough Grazing
SCR : Scrub **CFW** : Coniferous Woodland **DCW** : Deciduous Woodland **HTH** : Heathland **BOG** : Bog or Marsh
FLW : Fallow **PLO** : Ploughed **SAS** : Set aside **OTH** : Other

3. **GRDNT** : Gradient as measured by a hand-held optical clinometer.

4. **GLEYSPL** : Depth in cm to gleying/slight gleying or slowly permeable layers.

5. **AP (WHEAT/POTS)** : Crop-adjusted available water capacity.

6. **MB (WHEAT/POTS)** : Moisture Balance.

7. **DRT** : Best grade according to soil droughtiness.

8. If any of the following factors are considered significant, an entry of 'Y' will be entered in the relevant column.

MREL : Microrelief limitation **FLOOD** : Flood risk **EROSN** : Soil erosion risk **EXP** : Exposure limitation **FROST** : Frost
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** : Soil Erosion Risk **WD** : Combined 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
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 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

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

6. **STONE LITH** : One of the following is used.

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

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

7. **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

8. **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

9. **SUBS STR** : Subsoil structural condition recorded for the purpose of calculating profile droughtiness.

G : good **M** : moderate **P** : poor

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

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

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

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

14. 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 : ARUN LP:SITE 16

Pit Number : 10P

Grid Reference: SU92000150 Average Annual Rainfall : 750 mm
 Accumulated Temperature : 1545 degree days
 Field Capacity Level : 152 days
 Land Use : Bare Soil
 Slope and Aspect : 01 degrees S

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	MOTTLES	STRUCTURE
0- 34	ZL	10YR4.3 00	0	1	F	
34- 46	MZCL	10YR5.4 00	0	1	F	MDCSAB
46- 62	MZCL	10YR5.4 00	0	15	C	MDCSAB
62- 82	HCL	10YR5.4 00	0	1	C	MDCSAB
82-105	HZCL	10YR6.4 00	0	1	C	MDCSAB
105-120	MCL	10YR6.4 00	0	1	C	

Wetness Grade : 1 Wetness Class : I
 Gleying : 0.46 cm
 SPL : No SPL

Drought Grade : 1 APW : 171mm MBW : 51 mm
 APP : 134mm MBP : 17 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	SU92100160	CER S	01		1	1	158	38	133	16	1				1	
2	SU92200160	CER S	01		1	1	154	34	130	13	1				1	
3	SU92300160	STB S	01	038	2	2	153	33	119	2	2			WE	2	WEDR
4	SU92400160	STB		025 025	4	3B		0		0				WE	3B	
5	SU92500160	STB		028 028	4	3B		0		0				WE	3B	
6	SU92600160	PGR NW	01	055	1	1	172	52	136	19	1				1	SLI GLEY 30
7	SU92700160	STB		030 030	4	3B		0		0				WE	3B	
8	SU92800160	STB		028 028	4	3B		0		0				WE	3B	
9	SU91900150	PLO		045	1	1	176	56	140	23	1				1	SLI GLEY 35
10	SU92000150	PLO		058	1	1	170	50	139	22	1				1	
10P	SU92000150	PLO S	01	082	1	1	171	51	134	17	1				1	SLI GLEY 46
11	SU92100150	CER S	01		1	1	098	-22	113	-4	3B			DR	2	IMP 70
12	SU92300150	STB		025 025	4	3B		0		0				WE	3B	
14	SU92400150	PLO NW	01		1	1	170	50	135	18	1				1	
15	SU92500150	CAB NW	01	090	1	1	147	27	123	6	2			DR	2	SLI GLEY 55

SAMPLE	DEPTH	TEXTURE	COLOUR	-----MOTTLES-----		PED		-----STONES-----		STRUCT/ CONSIST	SUBS								
				COL	ABUN	CONT	COL.	GLE	>2		>6	LITH	TOT	STR	POR	IMP	SPL	CALC	
1	0-25	z1	10YR43 00					0	0	HR	1								
	25-55	mzc1	10YR54 00					0	0		0		M						
	55-75	mzc1	10YR56 00					0	0	HR	3		M						
	75-120	c	10YR56 00					0	0	HR	5		M						
2	0-25	z1	10YR42 00					0	0	HR	1								
	25-45	mzc1	10YR54 00					0	0	HR	2		M						
	45-120	c	10YR56 00	00MN00	00	F		0	0		0		M						
3	0-25	mzc1	10YR42 00					0	0	HR	4								
	25-38	hzc1	10YR43 00					0	0	HR	1		M						
	38-55	mzc1	10YR63 00	10YR56	00	C		Y	0	0	HR	1		M					
	55-70	mzc1	10YR63 00	10YR56	00	C		Y	0	0	HR	10		M					
	70-95	mzc1	10YR63 00	10YR68	00	M		Y	0	0	HR	1		M			Y		
95-120	mzc1	10YR81 74	10YR68	00	M		Y	0	0	CH	40		M				Y		
4	0-25	mzc1	10YR42 00					0	0	CH	1						Y		
	25-38	zc	10YR53 00	10YR58	61	M	00MN00	00	Y	0	0	CH	1		P		Y	Y	
	38-60	zc	25Y 61 00	10YR58	46	M	00MN00	00	Y	0	0		0		P		Y		
5	0-28	hzc1	10YR42 00					0	0	CH	1						Y		
	28-55	zc	25Y 61 00	10YR58	46	M		Y	0	0	CH	3		P		Y	Y		
6	0-30	z1	10YR43 00					0	0	HR	1								
	30-55	mzc1	10YR44 00	10YR51	56	C		S	0	0		0		M			SLI	GLE	
	55-80	mzc1	10YR53 00	10YR56	00	C		Y	0	0		0		M					
	80-120	hzc1	10YR63 53	75YR68	00	M		Y	0	0		0		M					
7	0-30	mzc1	10YR42 00					0	0		0						Y		
	30-55	zc	10YR53 00	10YR58	61	M		Y	0	0		0		P		Y	Y		
8	0-28	hzc1	10YR42 00					0	0	HR	1						Y		
	28-55	zc	25Y 61 00	10YR58	00	M		Y	0	0		0		P		Y	Y		
9	0-35	z1	10YR42 00					0	0	HR	1								
	35-45	mzc1	10YR54 00	10YR56	00	C		S	0	0		0		M			SLI	GLE	
	45-100	hzc1	10YR64 54	75YR56	00	C	00MN00	00	Y	0	0		0		M				
	100-120	hc1	10YR64 54	75YR56	00	C	00MN00	00	Y	0	0	HR	1		M				
10	0-35	z1	10YR42 00	10YR56	00	F		0	0	HR	1								
	35-58	mzc1	10YR54 00	10YR56	00	F		0	0		0		M						
	58-78	hzc1	10YR64 54	10YR56	00	C	00MN00	00	Y	0	0	HR	3		M				
	78-100	c	10YR64 54	10YR56	00	C	00MN00	00	Y	0	0	HR	1		M				
	100-120	hc1	10YR54 00	10YR56	00	F		S	0	0	HR	3		M			SLI	GLE	
10P	0-34	z1	10YR43 00	10YR68	00	F		0	0	HR	1								
	34-46	mzc1	10YR54 00	10YR68	00	F		0	0	HR	1	MDCSAB	FR	M	Y				
	46-62	mzc1	10YR54 00	75YR58	00	C	00MN00	00	S	0	0	HR	15	MDCSAB	FR	M	Y	SLI	GLE
	62-82	hc1	10YR54 00	75YR58	00	C	00MN00	00	S	0	0	HR	1	MDCSAB	FR	M	Y	SLI	GLE
	82-105	hzc1	10YR64 00	75YR58	00	C	00MN00	00	Y	0	0	HR	1	MDCSAB	FM	M	Y		
	105-120	mc1	10YR64 00	75YR58	00	C	00MN00	00	Y	0	0	HR	1		M				

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES-----			PED	----STONES-----			STRUCT/	SUBS							
				COL	ABUN	CONT	COL.	GLE	>2	>6	LITH	TOT	CONSIST	STR	POR	IMP	SPL	CALC	
11	0-20	mzc1	10YR42 00						0	0	HR	2							
	20-35	hzc1	10YR56 00						0	0	HR	8			M				
	35-70	c	10YR56 00	10YR68 00	F		00MN00 00		0	0	HR	8			M				IMP 70
12	0-25	mzc1	10YR42 00						0	0	HR	3							
	25-40	zc	10YR53 00	10YR58 52	M			Y	0	0		0			P			Y	Y
	40-60	zc	10YR53 00	10YR51 58	M		00MN00 00	Y	0	0		0			P			Y	Y
14	0-30	z1	10YR43 00						0	0	HR	2							
	30-60	mzc1	10YR44 00						0	0	HR	2			M				
	60-120	hzc1	10YR56 00						0	0	HR	1			M				
15	0-30	mzc1	10YR43 00						0	0	HR	1							
	30-55	mzc1	10YR44 00						0	0	HR	1			M				
	55-90	c	10YR44 00	10YR56 00	C			S	0	0		0			M				SLI GLEY
	90-120	c	10YR52 00	10YR56 00	C			Y	0	0		0			M				