

A1
West Sussex Structure Plan Review
Reconnaissance Survey
Land at Ifield
Agricultural Land Classification
September 1995

Resource Planning Team
Guildford Statutory Group
ADAS Reading

ADAS Reference 4205/154/95
MAFF Reference EL42/768
LUPU Commission 02129

AGRICULTURAL LAND CLASSIFICATION REPORT

WEST SUSSEX STRUCTURE PLAN REVIEW LAND AT IFIELD

INTRODUCTION

1 This summary report presents the findings of a reconnaissance Agricultural Land Classification (ALC) survey on approximately 134 ha of land at Ifield to the west of Crawley in West Sussex. The survey was carried out in September 1995.

2 The survey was commissioned by the Ministry of Agriculture Fisheries and Food (MAFF) Land Use Planning Unit (Reading) in connection with the West Sussex Structure Plan Review. The survey was completed at a reconnaissance level of detail on a free survey basis as it was undertaken primarily to update the 1:63,360 scale provisional ALC maps for the area of search. Consequently the results are designed for strategic planning purposes only. For site specific proposals more detailed surveys may be required.

3 This survey supersedes the pre-revision ALC survey which was carried out on land to the east (ADAS Ref 4204/10/79). However a large area of the site was surveyed at a reconnaissance level under the Revised ALC system in March 1995 (ADAS Ref 4205/18/95). The results of this 1995 survey has been used in the classification of the current site.

4 The work was conducted by members of the Resource Planning Team in the Guildford Statutory Group in ADAS. The land has been graded in accordance with the published MAFF ALC guidelines and criteria (MAFF 1988). A description of the ALC grades and subgrades is given in Appendix I.

5 At the time of both surveys the agricultural land use on the site comprised permanent grassland and arable land. Ifield Court Hotel has been mapped as Urban with an area of Woodland in the centre of the area.

SUMMARY

6 The findings of the survey are shown on the enclosed ALC map. The map has been drawn at a scale of 1:50,000. It is accurate at this scale but any enlargement would be misleading.

7 The area and proportions of the ALC grades and subgrades on the surveyed land are summarised in Table 1.

Table 1 Area of grades and other land

Grade/Other land	Area (hectares)	% surveyed area
3b	119.9	96.1
Urban	4.9	3.9
Not surveyed	0	N/A
Total survey area	124.8	100
Total site area	134.3	N/A

8 The fieldwork was conducted at an average density of approximately 1 boring per 5 hectares. A total of 6 borings from this survey and a further 21 borings and 2 soil inspection pits from the earlier 1995 survey have been described.

9 The soils on this site are derived from the Weald Clay and alluvium and as such comprise poorly drained loamy over clayey soils with slowly permeable subsoils. The entire site has therefore been classified as Subgrade 3b moderate quality land on the basis of a severe soil wetness limitation.

FACTORS INFLUENCING ALC GRADE

Climate

9 Climate affects the grading of land through the assessment of an overall climatic limitation and also through interactions with soil characteristics.

10 The key climatic variables used for grading this site are given in Table 2 and were obtained from the published 5km grid datasets using the standard interpolation procedures (Met Office 1989).

Table 2 Climatic and altitude data

Factor	Units	Values
Grid reference	N/A	TQ 246 713
Altitude	m AOD	65
Accumulated Temperature	day°C	1453
Average Annual Rainfall	mm	823
Field Capacity Days	days	173
Moisture Deficit Wheat	mm	103
Moisture Deficit Potatoes	mm	96

11 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.

12 The main parameters used in the assessment of an overall climatic limitation are average annual rainfall (AAR) as a measure of overall wetness and accumulated temperature (AT0 January to June) as a measure of the relative warmth of a locality

13 The combination of rainfall and temperature at this site mean that there is no overall climatic limitation (Climate Grade 1) However climatic factors can interact with soil properties to influence soil wetness and droughtiness limitations

14 Local climatic factors such as exposure or frost risk are not believed to affect the site

Site

15 The site is relatively flat and low lying situated at approximately 65m AOD thus gradient and relief impose no restrictions to agriculture land use

16 Flooding does not appear to be limiting on this site either

Geology and soils

17 The relevant geological sheet (BGS 1972) maps the majority of the site as Weald Clay with clay ironstone bands in the west and north Drift deposits are shown to include alluvium through the centre of the site and mole valley 2nd terrace deposits which occur in pockets in the south and east

18 The most recently published soil information for the site (SSEW 1983) shows the Wickham 1 soil association across all of the site These soils are described as Slowly permeable seasonally waterlogged fine silty over clayey, fine loamy over clayey and clayey soils' (SSEW 1983) Detailed field survey broadly confirms this

AGRICULTURAL LAND CLASSIFICATION

19 The details of the classification of the site are shown on the attached ALC map and the area statistics of each grade are given in Table 1 page 2

20 The location of the auger borings and pits is shown on the attached sample location map and the details of the soils data are presented in Appendix III

Subgrade 3b

21 All of the agricultural land on this site has been classified as Subgrade 3b (moderate quality) The profiles comprise medium or heavy clay loam and silty clay loam topsoils over heavier upper subsoils Generally poorly structured slowly permeable clay horizons occur immediately below the topsoil at between 20-30cm depth (see Pit 1 from the earlier survey 4205/18/95) Occasional borings however contain moderately structured heavy clay loam or silty clay loam upper subsoils Here the clay is still relatively shallow occurring between 30-43cm depth (see Pit 2 4205/18/95) Gleying is present throughout most of the profiles with manganese concretions appearing in some horizons In this climatic regime the land has been assessed as being consistent with Wetness Class IV as the shallow slowly permeable horizons

significantly impede drainage causing prolonged waterlogging in the soil profile. As a result crop germination and growth may be adversely affected. The heavier topsoil textures can also limit the timing of cultivations as trafficking by agricultural machinery or grazing by livestock may lead to structural damage.

Helen Goode
Resource Planning Team,
Guildford Statutory Centre
ADAS Reading

SOURCES OF REFERENCE

British Geological Survey (1972) *Sheet No 302 Horsham 1 63360 scale (Solid & Drift Edition)* BGS London

Ministry of Agriculture Fisheries and Food (1988) *Agricultural Land Classification of England and Wales Revised guidelines and criteria for grading the quality of agricultural land* MAFF London

Met Office (1989) *Climatological Data for Agricultural Land Classification*
Met Office Bracknell

Soil Survey of England and Wales (1983) *Sheet 6 Soils of South East England*
SSEW Harpenden.

Soil Survey of England and Wales (1983) *Soils and their Use in South East England*
SSEW Harpenden

APPENDIX I

DESCRIPTIONS 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 (e.g. 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

SOIL WETNESS CLASSIFICATION

Definitions of Soil Wetness Classes

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.

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

Assessment of Wetness Class

Soils have been allocated to wetness classes by the interpretation of soil profile characteristics and climatic factors using the methodology described in *Agricultural Land Classification of England and Wales Revised guidelines and criteria for grading the quality of agricultural land* (MAFF 1988)

¹ The number of days is not necessarily a continuous period

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

APPENDIX III

SOIL DATA

Contents

Sample location map

Soil abbreviations - Explanatory Note

Soil Pit Descriptions

Soil boring descriptions (boring and horizon levels)

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 dolomitic 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

SAMPLE NO	GRID REF	ASPECT USE	- WETNESS--		WHEAT-		POTS		M REL		EROSN EXP	FROST DIST	CHEM LIMIT	ALC	COMMENTS
			GRDNT	GLEYSPL	CLASS	GRADE	AP	MB	AP	MB					
1	TQ24803713	RGR	030	043	4	3B		0	0				WE	3B	V Hard
2	TQ24633734	RGR	0	030	4	3B		0	0				WE	3B	
3	TQ24563755	RGR	0	020	4	3B		0	0				WE	3B	
4	TQ24703780	RGR	020	020	4	3B		0	0				WE	3B	V Hard
5	TQ24593705	RGR	0	030	4	3B		0	0				WE	3B	Few Rushes
6	TQ24553678	RGR	0	030	4	3B		0	0				WE	3B	Few Rushes

SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES		PED		STONES -			STRUCT/ CONSIST	SUBS			SPL	CALC
				COL	ABUN	COL	CONT	2	6	LITH		TOT	STR	POR		
1	0 30	mc1	10YR43 00					0	0	HR	2					
	30 43	hc1	10YR53 00	10YR58 00	C			Y	0	0	HR	2		M		
	43 45	c	25Y 72 00	75YR58 00	C			Y	0	0		0		P		Y
2	0 20	mc1	10YR52 00	10YR58 00	C			00MN00 00	Y	0	0	HR	2			
	20 30	hc1	25Y 62 00	75YR58 00	C			00MN00 00	Y	0	0		0		M	
	30-60	c	05Y 61 00	05YR58 00	M			Y	0	0		0		P		Y
3	0-20	mc1	10YR53 00	10YR58 00	C				Y	0	0		0			
	20-50	c	25Y 72 00	75YR58 00	M			00MN00 00	Y	0	0		0		P	Y
	50 80	c	05Y 62 00	75YR58 00	M			00MN00 00	Y	0	0		0		P	Y
4	0-20	mc1	10YR53 00						0	0		0				
	20 40	c	25Y 62 00	75YR58 00	M			Y	0	0		0		P		Y
5	0-30	hc1	25Y 62 00	75YR58 00	C				Y	0	0	HR	2			
	30-60	c	05Y 62 00	75YR58 00	M			00MN00 00	Y	0	0		0		P	Y
6	0-30	hc1	25Y 62 00	75YR58 00	C				Y	0	0	HR	2			
	30 60	c	05Y 62 00	75YR58 00	M			Y	0	0		0		P		Y

PREVIOUS SURVEY 4205/18/95

SOIL PIT DESCRIPTION

Site Name HORSHAM IFIELD CT FM REC Pit Number 1P

Grid Reference TQ24603830 Average Annual Rainfall 812 mm
 Accumulated Temperature 1452 degree days
 Field Capacity Level 172 days
 Land Use Permanent Grass
 Slope and Aspect degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0 2B	HZCL	10YR5/2 0/0	0	2	HR	C				
2B 70	C	2.5Y 7/2 0/0	0	0		M	MDVCAB	VM	P	

Wetness Grade 3B Wetness Class IV
 Gleying 0 cm
 SPL 0.28 cm

Drought Grade APW mm MBW 0 mm
 APP mm MBP 0 mm

FINAL ALC GRADE 3B
 MAIN LIMITATION Wetness

PREVIOUS SURVEY 4205/18/95

SOIL PIT DESCRIPTION

Site Name HORSHAM IFIELD CT FM REC Pit Number 2P

Grid Reference TQ24403810 Average Annual Rainfall 812 mm
 Accumulated Temperature 1452 degree days
 Field Capacity Level 172 days
 Land Use Permanent Grass
 Slope and Aspect degree

HORIZON	TEXTURE	COLOUR	STONES	2	TOT STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0-25	MZCL	10YR5/2 0/0	0		2	HR	F				
25-35	C	25Y 5/2 0/0	0		2	HR	C	WKCSAB	FM	M	
35-70	C	25Y 7/2 0/0	0		0		M	MDCAB	FM	P	

Wetness Grade 3B Wetness Class IV
 Gleying 025 cm
 SPL 025 cm

Drought Grade APW mm MBW 0 mm
 APP mm MBP 0 mm

FINAL ALC GRADE 3B
 MAIN LIMITATION Wetness

PREVIOUS SURVEY 4205/18/95

rogram ALC012

LIST OF BORINGS HEADERS 26/10/95 HORSHAM IFIELD CT FM REC

page 1

SAMPLE	GRID REF	ASPECT USE	--WETNESS--		WHEAT-		POTS		M REL		EROSN	FROST	CHEM	ALC	COMMENTS
			GRDNT	GLEY SPL	CLASS	GRADE	AP	MB	AP	MB	DRT	FLOOD	EXP	DIST	
1	TQ24803870	PGR		0 028	4	3B		0		0				WE	3B
1P	TQ24603830	PGR		0 028	4	3B		0		0				WE	3B
2	TQ24903850	PGR		039 039	4	3B		0		0				WE	3B
2P	TQ24403810	PGR		025 025	4	3B		0		0				WE	3B
3	TQ24603830	PGR		0 030	4	3B		0		0				WE	3B
4	TQ24803830	PGR		046 046	3	3B		0		0				WE	3B
5	TQ25003830	PGR		0 035	4	3B		0		0				WE	3B
6	TQ24503820	PGR		0 028	4	3B		0		0				WE	3B
7	TQ24703820	PGR		028 028	4	3B		0		0				WE	3B
8	TQ24903820	PGR		0 025	4	3B		0		0				WE	3B
9	TQ24403810	PGR		0 024	4	3B		0		0				WE	3B
10	TQ24603810	PGR		028 028	4	3B		0		0				WE	3B
11	TQ24603800	PGR		024 035	4	3B		0		0				WE	3B
12	TQ24203780	PGR		0 020	4	3B		0		0				WE	3B
13	TQ24403780	LEY		0 038	4	3B		0		0				WE	3B
14	TQ24103760	LEY		0 029	4	3B		0		0				WE	3B
15	TQ23903750	LEY		0 025	4	3B		0		0				WE	3B
16	TQ24203750	LEY		0 038	4	3B		0		0				WE	3B
17	TQ24403750	LEY		028 028	4	3B		0		0				WE	3B
18	TQ24103730	CER		0 026	4	3B		0		0				WE	3B
19	TQ24303720	LEY		0 025	4	3B		0		0				WE	3B
20	TQ24503710	PLO		0 026	4	3B		0		0				WE	3B
21	TQ24203700	PGR		0 035	4	3B		0		0				WE	3B

PREVIOUS SURVEY 4205/18/95

program ALC011

COMPLETE LIST OF PROFILES 26/10/95 HORSHAM IFIELD CT FM REC

page 1

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 28	hzc1	10YR52 00 75YR58 00 C					Y	0	0	HR	2						
	28 45	c	25Y 61 00 75YR58 00 M				00MN00	00	Y	0	0	HR	8		P		Y	
	45 60	c	25Y 71 00 75YR58 00 M				00MN00	00	Y	0	0	HR	2		P		Y	
1P	0-28	hzc1	10YR52 00 75YR58 00 C					Y	0	0	HR	2						
	28-70	c	25Y 72 00 10YR58 00 M					Y	0	0		0	MDVCAB	VM	P	Y	Y	
2	0-39	hzc1	10YR53 00 10YR58 00 F						0	0		0						
	39 49	c	25Y 53 00 10YR58 00 C					Y	0	0		0		P			Y	
	49-70	c	25Y 72 00 75YR58 00 M				00MN00	00	Y	0	0	0		P			Y	
2P	0-25	mzc1	10YR52 00 75YR58 00 F						0	0	HR	2						
	25-35	c	25Y 52 00 10YR58 00 C				00MN00	00	Y	0	0	HR	2	WKCSAB	FM	M	Y	Y
	35 70	c	25Y 72 00 10YR58 00 M				00MN00	00	Y	0	0	0	MDCAB	FM	P	Y	Y	
3	0 30	hzc1	10YR53 00 75YR58 00 C					Y	0	0	HR	5						
	30 60	zc	25Y 72 00 10YR58 00 M					Y	0	0	HR	2		P			Y	
4	0-28	hzc1	10YR53 00						0	0	HR	2						
	28-46	hzc1	25Y 63 00 10YR58 00 F						0	0		0		M				
	46 65	c	25Y 73 00 10YR58 00 C				00MN00	00	Y	0	0	0		P			Y	
5	0 35	c	25Y 52 00 75YR58 00 C					Y	0	0		0						
	35-60	c	25Y 72 00 75YR58 00 M				00MN00	00	Y	0	0	0		P			Y	
6	0 28	hzc1	10YR53 00 75YR58 00 C					Y	0	0	HR	5						
	28 35	c	10YR53 00 75YR58 00 C					Y	0	0	HR	1		P			Y	
	35 60	c	25Y 72 00 10YR58 00 M					Y	0	0	HR	1		P			Y	
7	0-28	mzc1	10YR53 00 10YR58 00 F						0	0	HR	3						
	28 46	hzc1	25Y 63 00 10YR58 00 C				00MN00	00	Y	0	0	HR	1		P		Y	
	46-60	c	25Y 73 00 10YR68 00 C				00MN00	00	Y	0	0	0		P			Y	
8	0 25	hzc1	10YR52 00 10YR58 00 C					Y	0	0	HR	1						
	25 60	c	05Y 61 71 75YR46 00 M					Y	0	0	HR	5		P			Y	
9	0 24	mzc1	10YR53 00 10YR58 00 C					Y	0	0		0						
	24 60	c	10YR62 00 10YR68 71 M					Y	0	0		0		P			Y	
10	0 28	hzc1	10YR53 00 10YR58 00 F						0	0	HR	5						
	28 55	c	25Y 63 00 10YR58 00 C				00MN00	00	Y	0	0	HR	1		P		Y	
	55 70	c	25Y 72 00 05Y 58 00 M					Y	0	0		0		P			Y	
11	0 24	mzc1	10YR42 00						0	0		0						
	24-35	hc1	10YR52 00 10YR58 61 C					Y	0	0		0		M				
	35-65	c	10YR62 00 10YR68 71 M					Y	0	0		0		P			Y	
12	0-20	hzc1	10YR52 00 10YR58 00 C					Y	0	0		0						
	20-60	c	10YR62 00 10YR68 71 M					Y	0	0		0		P			Y	

SAMPLE	DEPTH	TEXTURE	COLOUR	- MOTTLES -			--- PED		STONES---			- STRUCT/		SUBS			
				COL	ABUN	CONT	COL	GLE	2	6	LITH	TOT	CONSIST	STR	POR	IMP	SPL
13	0-27	mzc1	10YR53 00	10YR58 00	C				Y	0	0	0					
	27-38	hzc1	10YR52 00	10YR58 00	C				Y	0	0	0		M			
	38 60	c	10YR62 00	10YR68 71	M				Y	0	0	0		P		Y	
14	0-29	mzc1	10YR52 00	10YR58 00	C				Y	0	0	0					
	29 60	c	10YR62 00	10YR68 71	M				Y	0	0	0		P		Y	
15	0 25	hzc1	10YR52 00	10YR58 00	C				Y	0	0	0					
	25 40	c	10YR52 00	10YR58 61	C				Y	0	0	0		P		Y	
	40 60	c	10YR62 00	10YR68 71	M				Y	0	0	0		P		Y	
16	0-27	mzc1	10YR53 43	10YR58 00	C				Y	0	0	0					
	27-38	hzc1	10YR52 00	10YR58 61	C			00MN00	Y	0	0	0		M			
	38-70	c	05Y 62 00	10YR68 71	M				Y	0	0	0		P		Y	
17	0 28	mzc1	10YR53 00							0	0	0					
	28-60	c	10YR62 00	10YR68 71	M				Y	0	0	0		P		Y	
18	0 26	mzc1	10YR53 00	10YR58 00	C				Y	0	0	0					
	26-65	c	10YR62 00	10YR68 71	M				Y	0	0	0		P		Y	
19	0-25	mzc1	10YR53 00	10YR58 00	C			00MN00	Y	0	0	0					
	25-60	c	10YR62 00	10YR68 71	M				Y	0	0	0		P		Y	
20	0-26	mzc1	10YR53 00	10YR58 00	C				Y	0	0	0					
	26-65	c	05Y 62 00	10YR68 71	M				Y	0	0	0		P		Y	
21	0 20	hzc1	10YR52 00	10YR58 00	C				Y	0	0	0					
	20 35	c	10YR51 00	10YR68 00	C				Y	0	0	0		M			
	35 60	c	10YR62 00	10YR68 71	M				Y	0	0	0		P		Y	