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**West Sussex Minerals Plan
Plan 3: Land at Woodfield Farm, Oving,**

**Agricultural Land Classification
ALC Map and Summary Report**

June 1997

**Resource Planning Team
Eastern Region
FRCA Reading**

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AGRICULTURAL LAND CLASSIFICATION REPORT

WEST SUSSEX MINERALS PLAN. PLAN 3: LAND AT WOODFIELD FARM, OVING.

INTRODUCTION

1. This report presents the findings of a detailed Agricultural Land Classification (ALC) survey of 24.7 hectares of land to the east of Woodfield Farm to the north west of Oving near Chichester in West Sussex. The survey was carried out during June 1997.
2. The survey was undertaken by the Farming and Rural Conservation Agency (FRCA) on behalf of the Ministry of Agriculture, Fisheries and Food (MAFF), in connection with the West Sussex Minerals Plan. This survey supersedes any previous ALC information for this land. As part of the same plan, a survey was carried out on adjacent land to the south and west in 1993 (FRCA Refs: 4203/118/93 and 4203/177/93)
3. The work was conducted by members of the Resource Planning Team in the Eastern Region of FRCA. 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.
4. At the time of survey, the majority of the site was in arable production. To the north of Marlpit Lane, which divides the site, the land was in peas. To the south, the land was in oats. The area shown as 'Other Land' includes the metalled road (Marlpit Lane) together with a narrow strip immediately to the south of this which comprises scrubby woodland adjacent to an open drain.

SUMMARY

5. The findings of the survey are shown on the enclosed ALC map. The map has been drawn at a scale of 1:10,000. It is accurate at this scale, but any enlargement would be misleading.
6. The area and proportions of the ALC grades and subgrades on the surveyed land are summarised in Table 1 below.

Table 1: Area of grades and other land

Grade/Other land	Area (hectares)	% surveyed area	% site area
1	14.0	57.4	56.7
3b	10.4	42.6	42.1
Other land	0.3	N/A	1.2
Total surveyed area	24.4	100	98.8
Total site area	24.7	-	100

7. The fieldwork was conducted at an average density of 1 boring per hectare of agricultural land. A total of 26 borings and 2 soil pits were described.

8. The agricultural land at this site has been classified as Grade 1 (excellent quality) and Subgrade 3b (moderate quality). Where there is a limitation to land quality, it is principally soil droughtiness.

9. The majority of the agricultural land at this site has been mapped as Grade 1. The soils in this area comprise deep, well drained, very slightly stony medium and light silts. These soils present few limitations to agricultural production in the local climate and are suited to growing a very wide range of agricultural and horticultural crops. The soils in the area mapped as Subgrade 3b towards the centre and south west of the site comprise slightly to extremely stony medium silts, where the underlying gravels occur closer to the surface. Given the local climate, these well drained soils are significantly limited by soil droughtiness. This is likely to lead to a reduction in plant growth and potential yield in most years.

FACTORS INFLUENCING ALC GRADE

Climate

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

11. 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	
		SU 898 049	SU 895 052
Grid reference	N/A	SU 898 049	SU 895 052
Altitude	m, AOD	11	12
Accumulated Temperature	day°C (Jan-June)	1536	1535
Average Annual Rainfall	mm	781	783
Field Capacity Days	days	160	160
Moisture Deficit, Wheat	mm	116	116
Moisture Deficit, Potatoes	mm	112	112
Overall climatic grade	N/A	Grade 1	Grade 1

12. 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.

13. 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 (ATO, January to June), as a measure of the relative warmth of a locality.

14. The combination of rainfall and temperature at this site mean that there is no overall climatic limitation. Other local climatic factors such as exposure and frost risk are also believed not to affect the site. The site is climatically Grade 1.

Site

15. The site lies at an altitude between approximately 11 and 12m AOD. The site is effectively flat, forming part of the West Sussex coastal plain.

Geology and soils

16. The published geological information for the site (BGS, 1972) shows the entire site to be underlain by valley gravels.

17. The most detailed published soils information for the site (SSEW, 1967) maps the site as containing soils from the Hook and Hamble series, as well as the Gade complex. The Hook series soils are mapped in both shallow and deep phases, towards the east and west. The shallow phase comprises soils that are well to imperfectly drained and contain light and medium silts, with medium loams overlying compact gravel at moderate depths. The deep phase comprises similar soils but the gravel does not occur within 120cm. Both the shallow and deep phases were represented during the survey. Hamble series soils in the deep phase are mapped towards the east of the site. They are described as comprising, 'well drained brown earths developed in silty drift, which is stoneless, or nearly so' (SSGB, 1967). Soils of this nature were encountered at the site. Soils of the Gade complex (Gade and Racton series) are mapped through the centre of the site. They are described as having been 'developed in fresh water alluvium overlying gravel at no great depth. Calcareous and non-calcareous soils are included. The drainage status ranges from moderate to poor and most are imperfectly drained' (SSGB, 1967). The textures described are light and medium silts. This soil type was encountered in a band passing through the centre of the site and to the extreme south west.

AGRICULTURAL LAND CLASSIFICATION

18. 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.

19. 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 II.

Grade 1

20. Excellent quality agricultural land capable of supporting a wide range of arable and horticultural crops has been identified in two units to the east and west of the site. The soils are characterised by the soil pit, 1P (see Appendix II).

21. In these areas, the soils were found to be of a single type. This comprises a very slightly to slightly stony silt loam or medium silty clay loam topsoil, passing to a commonly stone-free medium silty clay loam upper subsoil. The lower subsoil comprises medium, occasionally heavy, silty clay loam textures, containing up to 15% flints by volume. This

horizon was moderately structured, commonly gleyed or slightly gleyed and was occasionally impenetrable to the soil auger, due to flints in the profile, from approximately 70cm. Given the local climate, these well drained (Wetness Class I) profiles have good reserves of available water for plant growth and soil droughtiness is not likely to be a limitation in all but the driest years. Occasional observations that may be of slightly poorer quality have been included in these mapping units as they were too few in number and too scattered to be shown separately.

Subgrade 3b

22. Land of moderate quality has been mapped in two areas, in a band through the centre of the site and to the south west where a small unit is shown. Previous survey information (FRCA Refs: 4203/118/93 and 4203/177/93) adjacent to the small unit and a visual inspection of the ground surface during the survey confirmed the presence of poorer quality land in this area.

23. The principal limitation in these mapping units is soil droughtiness. The soils encountered are characterised by the soil pit, 2P (see Appendix II).

24. Soil profiles commonly comprise a slightly stony (up to 15% flints by volume, including up to 9% >2cm) medium silty clay loam, occasionally silt loam topsoil. This passes to a moderately stony (up to 30% flints by volume), medium silty clay loam upper subsoil which was commonly impenetrable to the soil auger. In the soil pit, 2P, the upper subsoil passes to a calcareous, poorly structured, very stony (38% flints by volume and 25% chalk fragments), medium silty clay loam horizon overlying an extremely stony (69% flints by volume and 15% chalk fragments) medium silty clay loam lower subsoil to depth. Given the local climate, these well drained (Wetness Class I) soils are significantly restricted in terms of water availability to plants and as such are limited to Subgrade 3b on the basis of soil droughtiness. Soil droughtiness will affect plant growth and yields, as the supply of available water may be deficient, especially in drier years. Occasional observations of slightly better quality have been included in the main mapping unit as they were too few in number and too scattered to be shown separately.

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SOURCES OF REFERENCE

British Geological Survey (1972) *Sheet No.317. Chichester. Drift Edition. 1:63 360 scale*
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 Great Britain (1967) *Soils of the West Sussex Coastal Plain. Bulletin No. 15.*
1:25,000 Scale. 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.

APPENDIX II

SOIL DATA

Contents:

Sample location map

Soil abbreviations - explanatory note

Soil pit descriptions

Soil boring descriptions (boring and horizon levels)

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	OTH: Other
DCW: Deciduous woodland	BOG: Bog or marsh	SAS: Set-Aside
HTH: Heathland	HRT: Horticultural crops	PLO: Ploughed

3. **GRDNT:** Gradient as estimated or measured by a hand-held optical clinometer.
4. **GLEYS/SPL:** 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	ST: Topsoil Stoniness
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
EX: Exposure		

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. **GLEY:** 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	FSST:	soft, fine grained sandstone
ZR:	soft, argillaceous, or silty rocks	CH:	chalk
MSST:	soft, medium grained sandstone	GS:	gravel with porous (soft) stones
SI:	soft weathered igneous/metamorphic rock	GH:	gravel with non-porous (hard) stones

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

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 : PLAN3 WOODFIELD FM OVING Pit Number : 1P

Grid Reference: SUB9700530 Average Annual Rainfall : 783 mm
 Accumulated Temperature : 1535 degree days
 Field Capacity Level : 160 days
 Land Use : Horticultural Crops
 Slope and Aspect : degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 32	MZCL	10YR53 43	1	3	HR		WKCSAB	FR		
32- 67	MZCL	10YR54 00	0	0			MVCSAB	FR	M	
67-120	MZCL	10YR54 64	0	5	HR	F	MDCSAB	FR	M	

Wetness Grade : 1 Wetness Class : I
 Gleying : cm
 SPL : cm
 Drought Grade : 1 APW : 157mm MBW : 41 mm
 APP : 123mm MBP : 11 mm

FINAL ALC GRADE : 1
 MAIN LIMITATION :

SOIL PIT DESCRIPTION

Site Name : PLAN3 WOODFIELD FM OVING Pit Number : 2P

Grid Reference: SUB9700510 Average Annual Rainfall : 783 mm
 Accumulated Temperature : 1535 degree days
 Field Capacity Level : 160 days
 Land Use : Horticultural Crops
 Slope and Aspect : degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 31	MZCL	10YR42 00	4	7	HR		WKCSAB	FR		
31- 54	MZCL	10YR53 00	18	26	HR				M	
54- 72	MZCL	10YR53 63	5	38	HR		WDCPL	VM	P	Y
72-120	MZCL	10YR53 63	42	69	HR				P	Y

Wetness Grade : 1 Wetness Class : I
 Gleying : cm
 SPL : cm
 Drought Grade : 3B APW : 095mm MBW : -21 mm
 APP : 088mm MBP : -24 mm

FINAL ALC GRADE : 3B
 MAIN LIMITATION : Droughtiness

SAMPLE NO.	GRID REF	ASPECT USE	--WETNESS--		-WHEAT-		-POTS-		M.REL		EROSN	FROST	CHEM	ALC	COMMENTS
			GRDNT	GLEYSPL	CLASS	GRADE	AP	MB	AP	MB	DRT	FLOOD	EXP	DIST	
1	SU89400540	HRT	68		1	1	159	43	123	11	1			1	SEE 1P
1P	SU89700530	HRT			1	1	157	41	123	11	1			1	PIT100 AUG120
2	SU89500540	HRT			1	1	143	27	125	13	2			1	SEE 1P IMP 105
2P	SU89700510	HRT			1	1	095	-21	088	-24	38		DR	38	PIT100 AUG120
3	SU89600540	HRT			1	1	075	-41	075	-37	38		DR	38	IMP 45 POSS 3A
4	SU89700540	HRT			1	1	159	43	123	11	1			1	SEE 1P SLGL 70
5	SU89800540	HRT	70		1	1	159	43	123	11	1			1	SEE 1P SLGL 40
6	SU89500530	HRT			1	1	058	-58	058	-54	4		DR	38	SEE 2P IMP 35
7	SU89600530	HRT			1	1	064	-52	064	-48	4		DR	38	SEE 2P IMP 40
8	SU89700530	HRT	70		1	1	157	41	123	11	1			1	SEE 1P
9	SU89800530	HRT			1	1	170	54	134	22	1			1	SEE 1P
10	SU89500520	HRT	58		1	1	158	42	124	12	1			1	SEE 1P
11	SU89600520	HRT			1	1	062	-54	062	-50	4		DR	38	SEE 2P IMP 40
12	SU89700520	HRT			1	1	114	-2	114	2	3A		DR	3A	SEE1P/2PIMP85
13	SU89800520	HRT	80		1	1	155	39	124	12	1			1	SEE 1P
14	SU89900520	HRT			1	1	154	38	120	8	2		DR	2	SEE 1P
15	SU89600510	HRT			1	1	072	-44	072	-40	38		DR	38	SEE 2P IMP 45
16	SU89700510	HRT			1	1	053	-63	053	-59	4		DR	4	SEE 2P IMP 30
17	SU89800510	HRT			1	1	105	-11	117	5	3A		DR	3A	SEE1P/2PIMP68
18	SU89600500	OAT	60		1	1	155	39	134	22	1			1	SEE 1P IMP 105
19	SU89700500	OAT			1	1	069	-47	069	-43	38		DR	38	SEE 2P IMP 35
20	SU89500490	OAT	70		1	1	133	17	123	11	2			1	SEE 1P IMP 95
21	SU89600490	OAT	50		1	1	167	51	133	21	1			1	SEE 1P
22	SU89700490	OAT			1	1	076	-40	076	-36	38		DR	38	SEE 2P IMP 50
23	SU89800490	OAT			1	1	061	-55	061	-51	4		DR	38	SEE 2P IMP 40
24	SU89500480	OAT	55		1	1	131	15	135	23	2		DR	2	SEE1P/2PIMP80
25	SU89600480	OAT	70		1	1	169	53	135	23	1			1	SEE 1P SLGL 55
26	SU89700480	OAT			1	1	065	-51	065	-47	4		DR	38	SEE 2P IMP 40

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES-----			PED COL.	----STONES----			STRUCT/ CONSIST	SUBS STR POR	IMP	SPL	CALC
				COL	ABUN	CONT		>2	>6	LITH					
1	0-30	mzc1	10YR54 00					1	0	HR	3				RIDDLED
	30-68	mzc1	10YR54 00					0	0		0		M		
	68-120	mzc1	10YR64 63	75YR58 00 C			00M00 00 Y	0	0		0		M		
1P	0-32	mzc1	10YR53 43					1	0	HR	3	WKCSAB	FR		RIDDLED BDR ZL
	32-67	mzc1	10YR54 00					0	0		0	MVCSAB	FR M		VERY COARSE
	67-120	mzc1	10YR54 64	75YR68 00 F			00M00 00	0	0	HR	5	MDCSAB	FR M		MOTTS INCONSISTENT
2	0-30	z1	10YR53 00					4	1	HR	6				RIDDLED
	30-45	mzc1	10YR54 00					0	0	HR	10		M		
	45-105	mzc1	10YR53 00					0	0	HR	15		M		IMP FLINT 105
2P	0-31	mzc1	10YR42 00					4	0	HR	7	WKCSAB	FR		RIDDLED
	31-54	mzc1	10YR53 00					18	6	HR	26		M		WET SIEVED
	54-72	mzc1	10YR53 63					5	2	HR	38	WDCPL	VM P	Y	WET SIEVED +25% CH
	72-120	mzc1	10YR53 63					42	5	HR	69		P	Y	WET SIEVED +15% CH
3	0-30	mzc1	10YR53 00					2	0	HR	6				RIDDLED
	30-40	mzc1	10YR53 00					0	0	HR	10		M		
	40-45	mzc1	10YR53 00					0	0	HR	30		M		IMP FLINT 45
4	0-28	mzc1	10YR53 00					1	0	HR	3				BORDER ZL
	28-40	mzc1	10YR54 00					0	0		0		M		
	40-70	hzc1	10YR54 00					0	0		0		M		BORDER MZCL
	70-120	hzc1	10YR54 00	10YR58 00 C			00M00 00 S	0	0		0		M		SLIGHTLY GLEYED
5	0-30	mzc1	10YR53 00					1	0	HR	3				
	30-40	mzc1	10YR54 00					0	0		0		M		
	40-70	mzc1	10YR54 00	75YR58 00 C				S	0	0	0		M		SLIGHTLY GLEYED
	70-120	mzc1	10YR64 00	75YR58 00 C				Y	0	0	0		M		
6	0-30	mzc1	10YR53 00					6	1	HR	10				RIDDLED G2 TS STONE
	30-35	mzc1	10YR53 00					0	0	HR	30		M		IMP FLINTS 35
7	0-30	mzc1	10YR53 00					3	1	HR	10				RIDDLED
	30-40	mzc1	10YR53 00					0	0	HR	30		M		IMP FLINTS 40
8	0-30	mzc1	10YR53 00					1	0	HR	3				
	30-70	mzc1	10YR54 00					0	0		0		M		
	70-100	mzc1	10YR64 00	75YR58 00 C				Y	0	0	0		M		
	100-120	mzc1	10YR64 00	75YR58 00 C				Y	0	0	HR	10		M	
9	0-30	z1	10YR53 00					1	0	HR	3				
	30-80	mzc1	10YR54 00					0	0	HR	1		M		
	80-120	mzc1	10YR53 00	75YR58 00 F			00M00 00	0	0		0		M		
10	0-30	mzc1	10YR54 00					1	0	HR	2				RIDDLED
	30-58	mzc1	10YR56 46	75YR58 00 F			00M00 00	0	0		0		M		
	58-95	mzc1	10YR63 00	75YR58 00 C			00M00 00 Y	0	0		0		M		
	95-120	mzc1	10YR73 00	10YR68 66 C				Y	0	0	CH	20		M	Y

SAMPLE	DEPTH	TEXTURE	COLOUR	---MOTTLES---			PED		---STONES---			STRUCT/	SUBS	SPL	CALC	
				COL	ABUN	CONT	COL.	GLE	>2	>6	LITH					TOT
11	0-30	mzc1	10YR43 00						9	2	HR	15				RIDDLED G2 TS
	30-40	mzc1	10YR53 00						0	0	CH	20	M		Y	+15% HR IMP FLS 40
12	0-30	mzc1	10YR42 00						2	0	HR	2				RIDDLED
	30-70	mzc1	10YR43 00						0	0	HR	15	M			
	70-80	mzc1	10YR32 00						0	0	HR	15	M		Y	
	80-85	mzc1	10YR53 00						0	0	CH	30	M		Y	IMP FLS/CH 85
13	0-28	mzc1	10YR43 00						1	0	HR	2				RIDDLED
	28-57	mzc1	10YR44 00						0	0		0	M			
	57-80	mzc1	10YR46 00						0	0		0	M			
	80-85	mzc1	10YR64 54	75YR56 00 C			00M00 00 Y		0	0		0	M			
	85-120	mzc1	10YR44 00					Y	0	0	HR	15	M			
14	0-30	mzc1	10YR42 00						2	0	HR	4				RIDDLED
	30-60	mzc1	10YR43 00						0	0	HR	5	M			
	60-120	mzc1	10YR54 00						0	0	HR	5	M			
15	0-30	mzc1	10YR42 00						4	0	HR	8				
	30-45	mzc1	10YR43 00						0	0	HR	25	M			IMP FLINTS 45
16	0-30	mzc1	10YR42 00						4	0	HR	7				RIDDLED IMP FLS 30
17	0-30	mzc1	10YR42 00						1	0	HR	3				RIDDLED
	30-55	mzc1	10YR54 00						0	0	HR	5	M			
	55-68	mzc1	10YR54 64	75YR56 00 C			00M00 00 S		0	0	HR	5	M			SL GLEYED IMPFLS 68
18	0-30	z1	10YR42 52						0	0	HR	3				BORDER MZCL
	30-45	mzc1	10YR43 44	10YR46 00 F					0	0	HR	2	M			
	45-60	mzc1	10YR54 00	10YR56 00 C			00M00 00 S		0	0		0	M			SLIGHTLY GLEYED
	60-105	mzc1	10YR53 63	10YR58 56 C			00M00 00 Y		0	0	HR	2	M			IMP FLINT 105
19	0-28	z1	10YR42 00						8	0	HR	12				V SL CALC G2 TSST
	28-35	z1	10YR42 52						0	0	HR	25	M			IMP FLINTS 35
20	0-35	mzc1	10YR42 52						1	0	HR	3				BORDER ZL
	35-70	mzc1	10YR44 00	00M00 00 F					0	0	HR	2	M			
	70-95	mzc1	10YR53 63	10YR58 00 C			00M00 00 Y		0	0	HR	5	M			IMP FLINT 95
21	0-30	z1	10YR42 00						0	0	HR	3				
	30-50	mzc1	10YR43 00	00M00 00 F					0	0	HR	3	M			
	50-70	mzc1	10YR44 54	00M00 00 C				Y	0	0	HR	3	M			
	70-120	mzc1	10YR53 63	10YR58 00 C			00M00 00 Y		0	0	HR	5	M			
22	0-33	mzc1	10YR41 00						4	1	HR	15				
	33-50	mzc1	10YR42 00						0	0	HR	25	M			IMP FLINTS 50
23	0-30	mzc1	10YR42 00						8	3	HR	15			Y	
	30-40	mzc1	10YR42 52						0	0	HR	30	M		Y	IMP FLINTS 40

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES-----		PED	----STONES----			STRUCT/ CONSIST	SUBS STR POR	IMP	SPL	CALC
				COL	ABUN		CONT	COL.	GLE					
24	0-33	z1	10YR42 52					1	0	HR	3			BORDER MZCL
	33-55	mzc1	10YR43 53	00M00	00	F		0	0	HR	2	M		
	55-75	mzc1	10YR63 00	10YR58	00	C	00M00	00	Y	0	0	HR	3	M
	75-80	mzc1	10YR63 00	10YR58	00	C	00M00	00	Y	0	0	HR	15	M
25	0-33	z1	10YR42 43					1	0	HR	3			BORDER MZCL
	33-55	mzc1	10YR44 54					0	0	HR	3	M	Y	
	55-70	mzc1	10YR54 00	10YR56	00	C		S	0	0	HR	3	M	SLIGHTLY GLEYED
	70-120	mzc1	10YR64 54	10YR58	00	C	00M00	00	Y	0	0	HR	5	M
26	0-35	mzc1	10YR42 00					5	2	HR	12			
	35-40	mzc1	10YR43 00					0	0	HR	25	M		IMP FLINTS 40