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New Forest District Local Plan
Objectors Site 63
Land East Of Puddleslosh Lane
Fordingbridge, Hampshire
Agricultural Land Classification
ALC Map and Report

February 1997

Resource Planning Team
Eastern Region
FRCA Reading

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AGRICULTURAL LAND CLASSIFICATION REPORT

NEW FOREST DISTRICT LOCAL PLAN
OBJECTOR SITE 63
LAND EAST OF PUDDLESLOSH LANE, FORDINGBRIDGE, HAMPSHIRE

INTRODUCTION

1 This report presents the findings of a detailed Agricultural Land Classification (ALC) survey of approximately 31 ha of land on the eastern side of Puddleslosh Lane which is located on the western side of Fordingbridge The survey was carried out in February 1997

2 The survey was commissioned by the Ministry of Agriculture Fisheries and Food (MAFF) from its Land Use Planning Unit in Reading in connection with the New Forest District Local Plan the site is one of a number of objector sites The results of this survey supersede any previous ALC information for this land

3 Prior to the 1 April 1997 the work was conducted by the Resource Planning Team in the Guildford Statutory Group of ADAS After this date the work was completed by the same team as part of the Farming and Rural Conservation Agency (FRCA) Reading 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 all the agricultural land on the site was under permanent grassland and grazed by cattle and horses Included within the site boundary are two areas of mature woodland which have been mapped as other land

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

Table 1 Area of grades and other land

Grade/Other land	Area (hectares)	% Total survey area	% Total site area
3a	22 0	82 4	71 4
4	4 7	17 6	15 3
Other land	4 1		13 3
Total surveyed area	26 7	100	
Total site area	30 8		100

7 The fieldwork was conducted at an average density of 1 boring per hectare A total of 28 borings and 2 soil pits were described

8 The site comprises a flat lower lying alluvial area along the northern boundary rising moderately steeply through an area of woodland onto a gently sloping river terrace which occupies the majority of the site The land occupying the river terrace deposits has been mapped Subgrade as 3a, good quality agricultural land with the principle limitation to agricultural quality being due to droughtiness The soils in this area typically comprise medium sandy silt loams overlying medium clay loam subsoils which become coarser textured and extremely stony with depth Such soils are moderately droughty restricting plant growth during the drier periods of the year limiting the land quality to Subgrade 3a It should however be noted that the depth to the underlying gravelly strata varies across the site with a few very shallow profiles and some considerably deeper giving rise to profiles of Subgrade 3b and Grade 2 respectively but it was not possible to delineate these at this scale of mapping

9 The low lying land at the northern end of the site has been mapped as Grade 4 poor quality agricultural land This area comprises moderately shallow silty alluvial soils overlying waterlogged gravels At the time of survey there were considerable areas of standing water and the soil profiles showed evidence of prolonged waterlogging restricting the land use of the area to grassland The severity of the wetness limitation therefore restricts the land quality to Grade 4

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
Grid reference	N/A	SU 142 152
Altitude	m AOD	40
Accumulated Temperature	day°C (Jan June)	1517
Average Annual Rainfall	mm	874
Field Capacity Days	days	180
Moisture Deficit Wheat	mm	107
Moisture Deficit Potatoes	mm	99

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 there is no overall climatic limitation (Climate Grade 1) However climatic factors do interact with soil properties to influence soil wetness and droughtiness limitations At this locality the moderately high rainfall figures mean that soil wetness may be enhanced whilst droughtiness limitations will be restricted to soils with low available water capacities

15 Local climatic factors such as exposure or frost risk are not believed to affect this site

Site

16 The site comprises a flat lower lying alluvial area in the valley bottom on the northern side rising moderately steeply through an area of woodland onto a gently sloping river terrace which occupies the majority of the site The altitude of the site ranges from approximately 43 m AOD on the southern boundary to approximately 33 m AOD in the valley bottom Gradients on the agricultural land are relatively gentle ranging from 0 5° with much of the land being flat but slightly steeper slopes occur locally within the woodland at the northern end of the site

Geology and soils

17 The relevant geological map (BGS 1976) shows the majority of the site to be underlain by Valley Gravel with a small area of Reading Beds on the steeper sloping land toward the north of the site The flat low lying land at the north of the site is mapped as alluvium

18 The most recently published soil information for the site (SSEW 1983) shows the whole site to comprise soils of the Sonning 1 association Sonning 1 soils are described as well drained flinty coarse loamy and sandy soils mainly over gravel with some coarse loamy over clayey soils with slowly permeable subsoils and slight seasonal waterlogging (SSEW 1983)

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

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 II

Subgrade 3a

21 All the land on the river terrace has been mapped as Subgrade 3a, good quality agricultural land The soils in this area typically have dark brown medium sandy silt loam or medium sandy loam topsoils overlying a brown medium clay loam upper subsoil which has a coarse subangular blocky structure Stone contents in the topsoil range from 3-15% total

flints by volume up to 7% of which are >2cm in size whilst the upper subsoil stone content ranges from 10 35% Below 40 60 cm depth the lower subsoil typically becomes a yellowish brown sandy clay loam loamy sand or sandy loam with 40-70% small subangular flint stones These soils are well drained but moisture balance calculations indicate that they are moderately droughty which will restrict crop growth and yield during the drier periods of the year This land therefore has a moderate droughtiness limitation restricting the land quality to Subgrade 3a Included within this area are profiles where the underlying gravel strata is both shallower and deeper giving rise to profiles of Subgrade 3b and Grade 2 quality respectively However it is not considered feasible to delineate these separately at this scale of mapping

Grade 4

22 The lower lying land on the valley floor at the northern end of the site has been mapped as Grade 4 poor quality agricultural land The soils in this area comprise relatively shallow silty alluvial deposits overlying waterlogged gravel These soils typically have a humose or slightly humose fine sandy silt loam topsoil with common reddish brown mottles overlying a grey strongly mottled medium silty clay loam subsoil Below 45-55 cm depth impenetrable waterlogged gravel was encountered At the time of survey there were considerable areas of standing water and the soils have therefore been assessed as Wetness Class V This area therefore has a severe wetness limitation restricting the land use to permanent grass and consequently the land quality has been assessed as Grade 4

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SOURCES OF REFERENCE

British Geological Survey (1976) *Sheet No* 314 Ringwood 1 50 000 scale (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* 1 250 000 scale SSEW Harpenden.

Soil Survey of England and Wales (1984) *Soils and their Use in South East England* Bulletin 15 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

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 **GLEY/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 **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 NEW FOREST DLP SITE 63 Pit Number 1P

Grid Reference SU14001520 Average Annual Rainfall 874 mm
Accumulated Temperature 1517 degree days
Field Capacity Level 180 days
Land Use Permanent Grass
Slope and Aspect degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 27	MSZL	75YR43 00	5	8	HR					
27- 40	MCL	75YR43 00	0	35	HR		WDCSAB	FR	M	
40-120	LMS	75YR55 00	0	40	HR		VWCSAB	VF	M	

Wetness Grade 1 Wetness Class I
Gleying cm
SPL cm

Drought Grade 3A APW 087mm MBW -19 mm
APP 075mm MBP -23 mm

FINAL ALC GRADE 3A
MAIN LIMITATION Droughtiness

SOIL PIT DESCRIPTION

Site Name NEW FOREST DLP SITE 63 Pit Number 2P

Grid Reference SU14101500 Average Annual Rainfall 874 mm
Accumulated Temperature 1517 degree days
Field Capacity Level 180 days
Land Use Permanent Grass
Slope and Aspect degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0 27	MSZL	75YR43 00	4	7	HR					
27- 47	MCL	75YR44 00	0	15	HR		MDCSAB	FR	M	
47- 65	SCL	10YR45 00	0	49	HR		WDFSAB	VF	G	
65 100	GH	75YR56 00	0	0					M	

Wetness Grade 1 Wetness Class I
Gleying cm
SPL cm

Drought Grade 3A APW 093mm MBW -3 mm
APP 095mm MBP -1 mm

FINAL ALC GRADE 3A
MAIN LIMITATION Droughtiness

SAMPLE NO	GRID REF	USE	ASPECT	GRDNT	GLEY	SPL	--WETNESS-- CLASS	GRADE	-WHEAT- AP	MB	POTS- AP	MB	M REL DRT	FLOOD	EROSN EXP	FROST DIST	CHEM LIMIT		ALC	COMMENTS
1	SU14001540	PGR	NE	05			1	1	000	0	000	0					DR	3A		IMP 60 SEE 1P
1P	SU14001520	PGR					1	1	087	-19	075	-23	3A				DR	3A		
2	SU14101541	PGR			0		5	4	000	0	000	0					WE	4		IMP 45
2P	SU14101500	PGR					1	1	093	-3	095	-1	3A				DR	3A		IMP 65 GRAVEL
3	SU14201541	PGR			005		5	4	000	0	000	0					WE	4		IMP 55
4	SU13901530	PGR	NE	01			1	1	108	2	100	2	3A				DR	3A		IMP 95
5	SU14001530	PGR					1	1	047	-59	047	-51	4				DR	3A		IMP 30 SEE 1P
6	SU14101530	PGR					1	1	039	-67	039	-59	4				DR	3A		IMP 25 SEE 1P
8	SU14301530	PGR			0		5	4	000	0	000	0					WE	4		IMP 50
9	SU13901520	PGR					1	1	081	-25	081	-17	3A				DR	3A		IMP 55 SEE 1P
10	SU14001520	PGR					1	1	074	-32	074	-24	3B				DR	3A		IMP 42 SEE 2P
11	SU14101520	PGR					1	1	069	-37	069	-29	3B				DR	3A		IMP 40 SEE 2P
12	SU14201520	PGR	E	02			1	1	060	-46	060	-38	3B				DR	3A		IMP 38 SEE 1P
14	SU14401520	PGR			025		5	4	000	0	000	0					WE	4		IMP 50
15	SU13901510	PGR					1	1	074	-32	074	-24	3B				DR	3A		IMP 45 SEE 2P
16	SU14001510	PGR					1	1	126	20	114	16	2				DR	2		IMP 100
17	SU14101510	PGR					1	1	134	28	114	16	2				DR	2		IMP 105
18	SU14201510	PGR	E	01			1	1	052	-54	052	-46	4				DR	3A		IMP 30 SEE 1P
19	SU14301510	PGR	E	02			1	1	102	-4	104	6	3A				DR	3A		IMP 80
20	SU14401510	PGR	E	01			1	1	107	0	106	7	2				DR	2		IMP 80 SEE 2P
21	SU13801500	PGR					1	1	072	34	072	-26	3B				DR	3A		IMP 45 SEE 1P
22	SU13901500	PGR					1	1	099	-7	107	9	3A				DR	3A		IMP 70 SEE 2P
23	SU14001500	PGR					1	1	097	-9	106	8	3A				DR	3A		IMP 70 SEE 2P
24	SU14101500	PGR					1	1	096	-10	105	7	3A				DR	3A		IMP 70 SEE P2
25	SU14201500	PGR	E	02			1	1	129	23	111	13	2				DR	2		IMP 105
26	SU14301500	PGR	E	04			1	1	101	-5	099	1	3A				DR	3A		IMP 80
27	SU13901490	PGR					1	1	000	0	000	0					DR	3A		IMP 50 SEE P2
28	SU14001490	PGR					1	1	153	47	116	18	1					1		
29	SU14101490	PGR					1	1	119	12	091	-20	3A				DR	3A		IMP 45 SEE P2
30	SU14001480	PGR					1	1	112	7	105	2	3A				DR	2		IMP 90 SEE P2

SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES COL	MOTTLES ABUN	MOTTLES CONT	PED COL	GLEY	STONES >2	STONES >6	STONES LITH	STONES TOT	STRUCT/ CONSIST	SUBS STR	SUBS POR	SUBS IMP	SUBS SPL	SUBS CALC	
1	0-50	msl	75YR44 00						6	0	HR	15							
	50-60	msl	75YR44 00						0	0	HR	25		M					IMP GRAVELLY
1P	0-27	mszl	75YR43 00						5	0	HR	8							
	27-40	mcl	75YR43 00						0	0	HR	35	WDCSAB	FR	M				
	40-120	lms	75YR55 00						0	0	HR	40	VWCSAB	VF	M				
2	0-12	fszl	10YR42 00	05YR46 00	M			Y	0	0	HR	3							
	12-45	msl	10YR62 00					Y	0	0	HR	25		M					IMP GRAVELLY
2P	0-27	mszl	75YR43 00						4	0	HR	7							
	27-47	mcl	75YR44 00						0	0	HR	15	MDCSAB	FR	M				
	47-65	scl	10YR45 00						0	0	HR	49	WDFSAB	VF	G				
	65-100	gh	75YR56 00						0	0		0		M					
3	0-5	zl	75YR22 00						0	0		0							HUMIC/ORGANIC
	5-24	mzcl	10YR42 00	05YR46 00	M			Y	0	0		0		M					
	24-55	mzcl	75YR52 00	05YR46 00	C			Y	0	0		0		M					IMP GRAVELLY
4	0-30	mszl	75YR43 00						3	0	HR	11							
	30-95	scl	75YR54 00						0	0	HR	20		G					IMP GRAVELLY
5	0-20	mszl	10YR43 00						0	0	HR	10							
	20-30	mcl	10YR43 44						0	0	HR	25		M					IMP GRAVELLY
6	0-25	mszl	10YR42 43						0	0	HR	20							IMP GRAVELLY
8	0 25	fszl	75YR32 00	25YR46 00	M			Y	0	0		0							
	25-50	mzcl	75YR42 00	05YR46 00	C			Y	0	0		0		M					IMP GRAVELLY
9	0-25	mszl	10YR42 43						0	0	HR	6							
	25-45	mszl	10YR43 44						0	0	HR	8		M					
	45-50	mszl	10YR54 00						0	0	HR	50		M					IMP GRAVELLY
10	0-35	mszl	10YR42 43						0	0	HR	5							
	35-42	mcl	10YR43 44						0	0	HR	10		M					IMP GRAVELLY
11	0-30	mszl	10YR42 43						0	0	HR	5							
	30-40	mcl	10YR43 44						0	0	HR	10		M					IMP GRAVELLY
12	0-28	mszl	10YR43 00						0	0	HR	7							
	28-38	mcl	10YR38 00						0	0	HR	35		M					IMP GRAVELLY
14	0 25	fszl	75YR32 00						0	0	HR	3							
	25-35	mszl	75YR42 00	05YR46 00	C			Y	0	0	HR	5		M					
	35-50	mcl	10YR52 00	75YR46 00	C			Y	0	0	HR	5		M					
	50-52	csl	10YR52 00					Y	0	0	HR	50		M					IMP GRAVELLY

SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES COL	MOTTLES ABUN	MOTTLES CONT	PED COL	GLEY	STONES >2	STONES >6	STONES LITH	STONES TOT	STRUCT/ CONSIST	SUBS STR	POR	IMP	SPL	CALC
15	0-30	msz1	10YR43 00	75YR34 00	F				0	0	HR	4						
	30-40	mc1	10YR43 44						0	0	HR	10		M				
	40-45	mc1	10YR43 44						0	0	HR	40		M				IMP GRAVELLY
16	0-28	msz1	10YR42 43						0	0	HR	3						
	28-40	msz1	10YR43 44						0	0	HR	6		M				
	40-50	mc1	10YR43 44						0	0	HR	10		M				
	50-60	msz1	10YR44 00						0	0	HR	15		M				
	60-80	msz1	10YR43 44						0	0	HR	20		M				
	80-100	ms1	10YR54 00						0	0	HR	40		M				IMP GRAVELLY
17	0-30	msz1	10YR42 43						0	0	HR	6						
	30-50	mc1	10YR44 00						0	0	HR	8		M				
	50-100	mc1	10YR43 44						0	0	HR	6		M				
	100-105	ms1	10YR66 00						0	0	HR	40		M				IMP GRAVELLY
18	0-30	msz1	10YR42 00						0	0	HR	10						IMP GRAVELLY
19	0-26	ms1	75YR43 00						1	0	HR	6						
	26-50	mc1	10YR44 00						0	0	HR	7		M				
	50-70	sc1	10YR44 00						0	0	HR	12		G				
	70-80	sc1	10YR54 00						0	0	HR	30		G				IMP GRAVELLY
20	0-25	ms1	75YR43 00						0	0	HR	3						
	25-50	mc1	75YR44 00						0	0	HR	5		M				
	50-65	mc1	75YR44 00						0	0	HR	18		M				
	65-80	sc1	75YR55 00						0	0	HR	30		G				IMP GRAVELLY
21	0-25	msz1	75YR43 00						1	0	HR	5						
	25-40	mc1	75YR44 00						0	0	HR	10		M				
	40-45	mc1	75YR44 00						0	0	HR	35		M				IMP GRAVELLY
22	0-27	msz1	75YR43 00						2	0	HR	8						
	27-65	msz1	75YR44 00						0	0	HR	8		M				
	65-70	lcs	10YR55 00						0	0	HR	40		M				IMP GRAVELLY
23	0-28	msz1	75YR43 00						2	0	HR	8						
	28-65	mc1	75YR44 00						0	0	HR	8		M				
	65-70	lcs	10YR55 00						0	0	HR	40		M				IMP GRAVELLY
24	0-27	msz1	75YR43 00						4	0	HR	9						
	27-45	mc1	75YR44 00						0	0	HR	8		M				
	45-65	mc1	75YR44 00						0	0	HR	20		M				
	65-70	cs1	75YR55 00						0	0	HR	35		M				IMP GRAVELLY
25	0-40	msz1	75YR33 00						7	0	HR	12						
	40-60	mc1	75YR43 00						0	0	HR	12		M				
	60-90	mc1	75YR55 00						0	0	HR	6		M				
	90-105	sc1	75YR55 00						0	0	HR	30		G				IMP GRAVELLY

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES----- COL	ABUN	CONT	PED COL	GLEY	----STONES---- >2	>6	LITH	TOT	STRUCT/ CONSIST	SUBS STR	POR	IMP	SPL	CALC	
26	0-28	msz1	75YR43 00						3	0	HR	9							
	28-60	cs1	75YR44 00						0	0	HR	30		M					
	60-80	ms1	75YR55 00						0	0	HR	12		M					IMP GRAVELLY
27	0-25	msz1	75YR43 00						1	0	HR	5							
	25-50	mc1	75YR44 00						0	0	HR	10		M					IMP GRAVELLY
28	0-28	msz1	75YR44 00						0	0	HR	4							
	28-60	mc1	75YR45 00						0	0	HR	4		M					
	60-85	mc1	75YR55 00						0	0	HR	4		M					
	85-120	hc1	75YR56 00						0	0	HR	2		M					
29	0-30	msz1	75YR43 00						3	0	HR	8							
	30-40	msz1	75YR43 00						0	0	HR	35		M					
	40-45	sc1	75YR44 00						0	0	HR	55		G					IMP GRAVELLY
30	0 27	msz1	75YR43 00						3	0	HR	7							
	27-55	mc1	75YR44 00						0	0	HR	15		M					
	55-90	sc1	75YR54 00						0	0	HR	35		G					IMP GRAVELLY