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**A1  
Aylesbury Vale District Local Plan  
Site A, Haddenham**

**Agricultural Land Classification  
ALC Map and Report  
February 1996  
(Revised December 1997)**

**Resource Planning Team  
Guildford Statutory Group  
ADAS Reading**

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# AGRICULTURAL LAND CLASSIFICATION REPORT

## AYLESBURY VALE DISTRICT LOCAL PLAN SITE A, HADDENHAM

### Introduction

1. This report presents the findings of a detailed Agricultural Land Classification (ALC) survey of approximately 75 hectares of land on the northern edge of Haddenham. The site is bounded by the A419 to the north and the railway to the west. The original survey was carried out in February 1996. The site was re-visited in October 1997 in order to collect additional information.
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 Aylesbury Vale District Local Plan. The results of the original survey carried out in 1996 have been re-assessed in the light of the additional information obtained in October 1997. Account has also been taken of findings at an adjacent site to the east.
3. The work was co-ordinated by the Resource Planning Team in the Guildford Statutory Group of ADAS and carried out by members of the Taunton Statutory Group. 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 area was in a mix of permanent grassland, oilseed rape and cereal stubble. The grass is used as an informal air strip but there was no evidence of any underlying reinforcement. The southern fringes of the site have been used for a new road and landscaping in connection with the development of the adjacent industrial site.

### 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.
7. During the 1996 survey, the fieldwork was conducted at an average density of one auger boring per hectare. A total of 69 borings and 3 soil inspection pits were described. When the site was re-visited in 1997, a further 10 soil pits were described.

**Table 1: Area of grades and other land**

Grade/Other land	Area (hectares)	% agricultural area	% total site area
2	32.6	49.1	42.9
3a	30.5	45.9	40.1
3b	3.3	5.0	4.3
Other land	7.2	-	9.5
Land not surveyed	2.4	-	3.2
Total agricultural area	66.4	100.0	-
Total site area	76.0	-	100.0

8. A significant proportion of the site has been classified as Grade 2, very good quality agricultural land. Much of this area comprises freely draining, calcareous, heavy clay loams and clays overlying subsoils containing variable proportions of weathered limestone. This limestone slightly reduces the available water holding capacity of the soils and a minor droughtiness limitation exists. This is also the case across localised parts of the site where soils are sandier. Towards the south of the Grade 2 area, calcareous soils which show evidence of seasonal waterlogging exist. Clayey subsoils impede soil drainage slightly, thereby causing a minor soil wetness restriction. The limestone content of these soils is lower than the soils described above and no droughtiness limitation exists.

9. Land mapped as Subgrade 3a and 3b comprises soils derived from limestone deposits. Heavy clay loam and clay soils overlie brashy and weathered limestone at moderate and shallow depths. As a result the amount of moisture available in the soils is reduced, the extent being largely dependent upon soil depth over underlying limestone. The degree of soil droughtiness which arises determines the ALC grade.

### **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	SP 734 091	SP 731 088
Altitude	m, AOD	85	80
Accumulated Temperature	day°C	1410	1416
Average Annual Rainfall	mm	632	630
Field Capacity Days	days	132	132
Moisture Deficit, Wheat	mm	107	108
Moisture Deficit, Potatoes	mm	99	100

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 (AT0, 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 agricultural land at this site lies at an altitude of 80-85 m AOD. The majority of the site is flat with slight undulations. Nowhere does gradient or microrelief affect the land quality.

#### Geology and soils

16. The published geological information for the site (GSGB, 1863) shows it to be underlain by Portland Stone, with a band of Portland sand running south-west to north-east through the centre of the site.

17. The published soils information for the site (SSEW, 1983) shows the site to comprise soils of the Moreton Association. These soils are described as 'well drained calcareous clayey and fine loamy soils over limestone, in places shallow and brashy. There may be some deeper slowly permeable calcareous clayey soils' (SSEW, 1983). Soils of this broad type were found across the majority of the site. Some sandier soils were found in the 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 2*

20. Land of very good quality has been mapped across much of the site. Principal limitations include soil droughtiness, soil wetness and workability.

21. Much of the area mapped as Grade 2 comprises free draining clay loams and clay soils overlying weathered limestone in the subsoil. Heavy clay loam and clay topsoils predominate towards the north of the site, passing to lighter medium or heavy clay loams in the south. The soils are calcareous throughout and are assessed as Wetness Class I, which in combination with the prevailing climate for the area and the topsoil textures imposes a slight workability limitation across parts of the site, especially towards the north. This slightly restricts the number of days when the soil is in a suitable condition for cultivation, trafficking by machinery or grazing by livestock. The soils are impenetrable to the auger at variable depths greater than about 80 cm, and soil inspection pits (see pits 1, 21 and 22, Appendix II) showed that this was caused by the occurrence of weathered limestone in most cases, or occasionally isolated fragments of limestone. Topsoils were found to contain 2-9% total limestone fragments. Upper subsoils were found to be stoneless to slightly stony (up to 14% limestone), passing to banded weathered limestone where stone contents range from 0-60%. The combination of soil texture, stone content and restricted rooting in these soils imposes a slight droughtiness limitation restricting the land to Grade 2. Within the Grade 2 mapping units there are occasional isolated areas where the stone content is considered to be higher than elsewhere and these areas are limited to Subgrade 3a by a moderate droughtiness limitation. However, these areas are not sufficiently extensive to be mapped as a separate mapping unit at the scale of mapping and they are also balanced by occasional borings of better quality.

22. In the south of the Grade 2 mapping unit the soils show some evidence of seasonal waterlogging in the form of gleying which occurs at variable depths. Soil inspection pit 3 suggests that a fluctuating watertable is responsible for the waterlogging, whilst pit 23 provides evidence of slowly permeable subsoils which are impeding drainage. Whatever the cause, waterlogging is not prolonged so soils are assigned to Wetness Class I or II. The wetness limitation may restrict the timing of cultivations and grazing, as well as affecting crop growth and development. The soft limestone content of the soils in this area is lower than described above and no droughtiness limitation exists.

23. A small area in the west of the site comprises sandier soils. Medium sandy loam profiles may contain up to 50% limestone. Soil inspection pit 2 showed that there are bands of limestone within the profile. The combination of light textures and the stone content restricts the available water in the profile and a slight droughtiness limitation exists. The soils show evidence of waterlogging at depth caused by groundwater, but are assessed as Wetness Class I because of the freely draining nature of the sandy subsoils.

### *Subgrade 3a*

24. Good quality agricultural land has been mapped where soils rest on weathered limestone at moderate depth, such that a soil droughtiness limitation determines land quality. Soils are calcareous throughout and comprise medium or heavy clay loam topsoils, which overlie similar or clay subsoils. Stone contents were estimated to be in the range 10-15% limestone for topsoils, and 10-35% limestone in the subsoil. Profiles were typically impenetrable to the soil auger between depths of 50 and 80cm. A number of soil pits were dug to assess subsoil conditions (see pits 14, 16 and 19, Appendix II). Weathered limestone was found to occur at depths between 50 and 85cm. The nature of the limestone is variable within each pit and across the site, such that bands of hard, brashy material containing about 35-45% limestone, alternate with highly weathered material which although not very stony (up to 10-15% limestone), is dense and restricts rooting. These soil characteristics result in the amount of soil moisture which is available being reduced. Moisture balance calculations indicate that given the prevailing climatic conditions, such land cannot be graded higher than Subgrade 3a. Soil droughtiness such as this will cause plants to suffer drought stress, especially during drier periods and the level and consistency of crop yields may be affected.

### *Subgrade 3b*

25. A small area of moderate quality land is mapped towards the centre of the site where soils are similar to those described in paragraph 24 above, but shallower over limestone. Therefore the soil droughtiness restriction is more severe and land quality lower. Heavy clay loam or clay topsoils containing up to 15% total limestone, overlie similar upper subsoils with 25-35% limestone. Profiles were found to be impenetrable to the soil auger at 40-50 cm depth. A soil pit (see 18P, Appendix II) confirmed that the reason for this is the presence of hard, brashy limestone at shallow depth. The high stone contents in the subsoil and the restricted rooting into the bedrock, results in significant restrictions on the amount of profile available water. The degree of the soil droughtiness limitation which is present is consistent with land of Subgrade 3b quality.

## SOURCES OF REFERENCE

Geological Survey of Great Britain (1863) *Sheet 45 SE*, Old Series, Solid.  
GSGB: 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.  
SSEW: Harpenden.

Soil Survey of England and Wales (1984) *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.



**APPENDIX II**

**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:

<b>ARA:</b>	Arable	<b>WHT:</b>	Wheat	<b>BAR:</b>	Barley
<b>CER:</b>	Cereals	<b>OAT:</b>	Oats	<b>MZE:</b>	Maize
<b>OSR:</b>	Oilseed rape	<b>BEN:</b>	Field beans	<b>BRA:</b>	Brassicae
<b>POT:</b>	Potatoes	<b>SBT:</b>	Sugar beet	<b>FCD:</b>	Fodder crops
<b>LIN:</b>	Linseed	<b>FRT:</b>	Soft and top fruit	<b>FLW:</b>	Fallow
<b>PGR:</b>	Permanent grass	<b>LEY:</b>	Ley grass	<b>RGR:</b>	Rough grazing
<b>SCR:</b>	Scrub	<b>CFW:</b>	Coniferous woodland	<b>OTH:</b>	Other
<b>DCW:</b>	Deciduous woodland	<b>BOG:</b>	Bog or marsh	<b>SAS:</b>	Set-Aside
<b>HTH:</b>	Heathland	<b>HRT:</b>	Horticultural crops	<b>PLO:</b>	Ploughed

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:

<b>MREL:</b>	Microrelief limitation	<b>FLOOD:</b>	Flood risk	<b>EROSN:</b>	Soil erosion risk
<b>EXP:</b>	Exposure limitation	<b>FROST:</b>	Frost prone	<b>DIST:</b>	Disturbed land
<b>CHEM:</b>	Chemical limitation				

9. **LIMIT:** The main limitation to land quality. The following abbreviations are used:

<b>OC:</b>	Overall Climate	<b>AE:</b>	Aspect	<b>ST:</b>	Topsoil Stoniness
<b>FR:</b>	Frost Risk	<b>GR:</b>	Gradient	<b>MR:</b>	Microrelief
<b>FL:</b>	Flood Risk	<b>TX:</b>	Topsoil Texture	<b>DP:</b>	Soil Depth
<b>CH:</b>	Chemical	<b>WE:</b>	Wetness	<b>WK:</b>	Workability
<b>DR:</b>	Drought	<b>ER:</b>	Erosion Risk	<b>WD:</b>	Soil Wetness/Droughtiness

### Soil Pits and Auger Borings

1. **TEXTURE:** soil texture classes are denoted by the following abbreviations:

<b>S:</b>	Sand	<b>LS:</b>	Loamy Sand	<b>SL:</b>	Sandy Loam
<b>SZL:</b>	Sandy Silt Loam	<b>CL:</b>	Clay Loam	<b>ZCL:</b>	Silty Clay Loam
<b>ZL:</b>	Silt Loam	<b>SCL:</b>	Sandy Clay Loam	<b>C:</b>	Clay
<b>SC:</b>	Sandy Clay	<b>ZC:</b>	Silty Clay	<b>OL:</b>	Organic Loam
<b>P:</b>	Peat	<b>SP:</b>	Sandy Peat	<b>LP:</b>	Loamy Peat
<b>PL:</b>	Peaty Loam	<b>PS:</b>	Peaty Sand	<b>MZ:</b>	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:

<b>F:</b>	Fine (more than 66% of the sand less than 0.2mm)
<b>M:</b>	Medium (less than 66% fine sand and less than 33% coarse sand)
<b>C:</b>	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:  

<b>HR:</b> all hard rocks and stones <b>ZR:</b> soft, argillaceous, or silty rocks <b>MSST:</b> soft, medium grained sandstone <b>SI:</b> soft weathered igneous/metamorphic rock	<b>FSST:</b> soft, fine grained sandstone <b>CH:</b> chalk <b>GS:</b> gravel with porous (soft) stones <b>GH:</b> gravel with non-porous (hard) stones
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Stone contents (>2cm, >6cm and total) are given in percentages (by volume).
8. **STRUCT:** the degree of development, size and shape of soil pedes are described using the following notation:  

Degree of development	<b>WK:</b> weakly developed	<b>MD:</b> moderately developed
	<b>ST:</b> strongly developed	
Ped size	<b>F:</b> fine	<b>M:</b> medium
	<b>C:</b> coarse	
Ped shape	<b>S:</b> single grain	<b>M:</b> massive
	<b>GR:</b> granular	<b>AB:</b> angular blocky
	<b>SAB:</b> sub-angular blocky	<b>PR:</b> prismatic
	<b>PL:</b> platy	
9. **CONSIST:** Soil consistence is described using the following notation:  

<b>L:</b> loose	<b>FM:</b> firm	<b>EH:</b> extremely hard
<b>VF:</b> very friable	<b>VM:</b> very firm	
<b>FR:</b> friable	<b>EM:</b> 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

SAMPLE NO.	GRID REF	ASPECT USE	--WETNESS--				-WHEAT-		-POTS-		M.REL DRT	EROSN FLOOD	FROST EXP	FROST DIST	CHEM LIMIT	ALC COMMENTS
			GRDNT	GLEY	SPL	CLASS	GRADE	AP	MB	AP						
1	SP73300960	LEY				1	2	76	-32	82	-18	3B			DR 3A	SEE 17P
1P	SP73300940	CER				1	2	141	33	103	3	2			WD 2	
2	SP73400960	LEY				1	2	112	4	104	4	3A			DR 3A	SEE 14P
2P	SP72800910	CER				1	1	113	5	96	-4	2			DR 2	
3	SP73100950	LEY				1	2	76	-32	76	-24	3B			DR 3B	SEE 18P
3P	SP72900880	CER	050			1	2	146	38	112	12	1			WK 2	
4	SP73200950	LEY				1	2	107	-1	100	0	3A			WD 2	SEE 2P
5	SP73300950	LEY				1	2	72	-36	72	-28	3B			DR 3B	SEE 15P
6	SP73400950	LEY				1	2	105	-3	97	-3	3A			WD 2	SEE 2P
7	SP73500950	LEY	060			1	2	91	-17	97	-3	3A			WD 2	SEE 2P
8	SP73600950	PGR	060			1	2	123	15	100	0	2			WD 2	
9	SP73000940	BRA				1	2	126	18	110	10	2			WD 2	
10	SP73100940	CER				1	2	115	7	95	-5	2			WD 2	
11	SP73200940	CER				1	2	74	-34	79	-21	3B			DR 3B	SEE 17P
12	SP73300940	CER				1	2	94	-14	92	-8	3A			WD 2	SEE 1P
13	SP73400940	FAL				1	2	79	-29	88	-12	3B			DR 3A	SEE 16P
14	SP73500940	PGR				1	2	69	-39	69	-31	3B			DR 3B	SEE 18P
15	SP73600940	BRA				1	2	83	-25	95	-5	3B			DR 3A	SEE 19P
16	SP73700940	BRA				1	2	120	12	99	-1	2			WD 2	
17	SP72900930	BRA				1	1	145	37	117	17	1			1	
18	SP73000930	CER				1	2	88	-20	100	0	3A			DR 3A	SEE 19P
19	SP73100930	CER				1	2	116	8	95	-5	2			WD 2	
20	SP73200930	CER				1	2	77	-31	82	-18	3B			DR 3A	SEE 16P
21	SP73300930	PGR				1	2	72	-36	75	-25	3B			DR 3A	SEE 16P
22	SP73400930	BRA				1	2	88	-20	94	-6	3A			DR 3A	SEE 19P
23	SP73500930	PGR				1	2	110	2	105	5	3A			WD 2	SEE 1P
24	SP73600930	PGR				1	2	91	-17	103	3	3A			DR 3A	SEE 16P
25	SP73700930	PGR				1	2	56	-52	56	-44	4			DR 3B	SEE 18P
27	SP72800920	CER				1	1	136	28	111	11	2			DR 2	
28	SP72900920	CER				1	2	78	-30	80	-20	3B			DR 3A	
29	SP73000920	CER				1	2	72	-36	72	-28	3B			DR 3B	SEE 18P
30	SP73100920	CER				1	2	104	-4	106	6	3A			DR 3A	SEE 19P
31	SP73200920	CER				1	2	59	-49	59	-41	3B			DR 3B	SEE 18P
32	SP73300920	PGR				1	2	67	-41	67	-33	3B			DR 3B	SEE 18P
33	SP73400920	BRA				1	2	82	-26	89	-11	3B			DR 3A	SEE 16P
34	SP73500920	BRA				1	2	121	13	105	5	2			WD 2	
35	SP73600920	PGR				1	2	107	-1	102	2	3A			WD 2	SEE 1P + 21P
37	SP72700910	CER				1	1	77	-31	77	-23	3B			DR 3B	SEE 18P
38	SP72800910	CER				1	1	106	-2	106	6	3A			DR 2	SEE 2P
39	SP72900910	CER				1	1	120	12	106	6	2			DR 2	
40	SP73000910	CER				1	2	101	-7	108	8	3A			DR 3A	SEE 19P
41	SP73100910	CER				1	2	82	-26	88	-12	3B			DR 3A	SEE 16P

SAMPLE NO.	GRID REF	ASPECT USE	--WETNESS--		-WHEAT-		-POTS-		M.REL DRT	EROSN EXP	FROST DIST	CHEM LIMIT	ALC	COMMENTS
			GRDNT	GLEY	SPL CLASS	GRADE	AP	MB						
42	SP73200910	PGR			1	2	108	0	99	-1	3A	WD	2	SEE 2P
43	SP73300910	PGR			1	2	70	-38	70	-30	3B	DR	3B	SEE 18P
44	SP73400910	OSR			1	2	79	-29	85	-15	3B	DR	3A	SEE 16P
45	SP73500910	OSR			1	2	70	-38	70	-30	3B	DR	3B	SEE 18P
46	SP72700900	OSR	S50		1	2	107	-1	107	7	3A	WD	2	SEE 2P
47	SP72800900	CER	060		1	2	100	-8	106	6	3A	DR	3A	
48	SP72900900	CER	065	065	2	2	113	5	113	13	2	WD	2	
49	SP73000900	CER	030		1	1	123	15	109	9	2	DR	2	SEE 21P
50	SP73100900	CER	070		1	1	117	9	106	6	2	DR	2	SEE 21P
51	SP73200900	CER	060		1	2	95	-13	108	8	3A	DR	3A	SEE 19P
52	SP73300900	OSR			1	2	86	-22	98	-2	3B	DR	3A	SEE 19P
53	SP73400900	OSR			1	2	88	-20	100	0	3A	DR	3A	SEE 19P
54	SP73500900	OSR			1	2	81	-27	87	-13	3B	DR	3A	SEE 19P
55	SP72800890	OSR			1	2	78	-30	78	-22	3B	DR	3B	SEE 18P
56	SP72900890	CER			1	2	116	8	108	8	2	WD	2	SEE 22P
57	SP73000890	CER	030		2	1	103	-5	106	6	3A	DR	3A	SEE 19P
58	SP73100890	PGR	0		2	2	123	15	113	13	2	WD	2	SEE 1P
59	SP73200890	OSR	050		1	2	88	-20	101	1	3A	DR	3A	SEE 19P
60	SP73300890	OSR			1	2	93	-15	102	2	3A	DR	3A	SEE 19P
61	SP73400890	OSR			1	2	106	-2	108	8	3A	DR	3A	
63	SP72900880	CER	030		2	1	106	-2	114	14	3A	DR	2	SEE 3P
64	SP73000880	PGR	0		2	2	116	8	118	18	2	WD	2	SEE 3P
65	SP73100880	OSR	030	030	3	3A	91	-17	105	5	3A	WE	3A	SEE 19P
66	SP73200880	OSR	030		2	2	92	-16	106	6	3A	DR	3A	SEE 19P
67	SP73300880	OSR	030		2	2	85	-23	92	-8	3B	DR	3A	SEE 19P
70	SP73000870	OSR	025		2	2	125	17	117	17	2	WE	2	
71	SP73100870	OSR	030		2	2	119	11	117	17	2	WE	2	
72	SP73200870	OSR	030	030	3	2	110	2	118	18	3A	WD	2	
74A	SP73100860	OSR			1	2	127	19	116	16	2	WD	2	
75	SP73200860	OSR	050		1	2	84	-24	90	-10	3B	DR	3A	SEE 16P

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES----- PED			----STONES-----			STRUCT/ CONSIST	SUBS						
				COL	ABUN	CONT	COL.	GLE	>2		>6	LITH	TOT	STR	POR	IMP	SPL
1	0-40	c	10YR43 00					0	0	HR	15						Y
	40-60	c	10YR64 00					0	0	SLST	35		M				Y
1P	0-28	c	10YR43 00					0	0	HR	9						Y
	28-60	c	10YR66 00					0	0	SLST	14	WKCSAB	FR	M			Y
	60-75	hc1	10YR56 00					0	0	SLST	18	WKCSAB	FR	M			Y
	75-120	hc1	10YR56 00					0	0	SLST	35	WKMSAB	FR	G			Y
2	0-35	c	10YR43 00					0	0	HR	10						Y
	35-50	c	10YR54 00					0	0	HR	15		M				Y
	50-100	c	10YR64 00					0	0	SLST	10		M				Y
2P	0-30	ms1	10YR42 00					0	0	HR	1						Y
	30-35	ms1	10YR54 00					0	0	SLST	50	WKCSAB	FR	M			Y
	35-55	ms1	25 Y54 00	10YR66	00	F		0	0		0	WKCSAB	FR	M			Y
	55-120	lms	25 Y64 00	10YR66	00	F		0	0	SLST	8	WKCP	LF	M			Y
3	0-30	hc1	10YR44 00					0	0	HR	10						Y
	30-50	c	10YR64 00					0	0	HR	15		M				Y
3P	0-26	hc1	10YR53 00					0	0	HR	1						Y
	26-50	hc1	10YR54 00	10YR56	00	F		0	0	HR	1	MDCPR	FR	M			Y
	50-120	hc1	25 Y64 00	10YR56	71	M		Y	0	0	SLST	18	WKCSAB	FR	M		Y
4	0-35	hc1	10YR44 00					0	0	HR	15						Y
	35-100	c	10YR63 00					0	0	SLST	25		M				Y
5	0-35	c	10YR43 00					0	0	HR	15						Y
	35-50	c	10YR63 00					0	0	HR	15		M				Y
6	0-40	c	10YR43-00					0	0	HR	15						Y
	40-100	c	10YR63-00					0	0	SLST	25		M				Y
7	0-40	c	10YR44 00					0	0	HR	15						Y
	40-60	c	10YR63 00					0	0	HR	20		M				Y
	60-80	c	10YR62 00	10YR56	00	C		Y	0	0	SLST	30		M			Y
8	0-40	c	10YR44 00					0	0	HR	15						Y
	40-60	c	10YR72 00					0	0	HR	15		M				Y
	60-120	c	10YR72 00	10YR58	00	C		Y	0	0	SLST	15		M			Y
9	0-40	hc1	10YR44 00					0	0	HR	10						Y
	40-70	ms1	25Y 54 00					0	0		0		M				Y
	70-120	lms	25Y 54 00					0	0		0		M				Y
10	0-35	c	10YR43 00					0	0	HR	15						Y
	35-120	c	10YR44 00					0	0	SLST	30		M				Y

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES----- PED			----STONES-----			STRUCT/ CONSIST	SUBS STR POR IMP SPL CALC			
				COL	ABUN	CONT	COL.	GLEY	>2			>6	LITH	TOT
11	0-30	c	10YR44 00					0	2	HR	15			Y
	30-60	c	10YR62 56					0	0	SLST	35	M		Y
12	0-35	c	10YR44 00					0	0	HR	15			Y
	35-90	c	10YR56 62	10YR58	00	C		0	0	SLST	35	M		Y
13	0-35	c	10YR44 00					0	0	HR	15			Y
	35-65	c	10YR56 00	10YR58	00	C		0	0	HR	25	M		Y
14	0-25	c	10YR43 00					0	0	HR	15			Y
	25-50	c	10YR44 00	10YR56	00	C		0	0	HR	20	M		Y
15	0-40	c	10YR43 00					0	0	HR	15			Y
	40-70	c	10YR53 00					0	0	HR	25	M		Y
16	0-45	c	10YR43 00					0	0	HR	15			Y
	45-60	c	10YR53 00					0	0	HR	15	M		Y
	60-120	c	10YR72 00					0	0	SLST	25	M		Y
17	0-40	mc1	10YR44 00					0	0		0			Y
	40-50	sc1	10YR56 00					0	0		0	M		Y
	50-90	ms1	10YR56 00					0	0		0	M		Y
	90-120	lms	25Y 56 00					0	0		0	M		Y
18	0-40	hc1	10YR44 00					0	0	HR	15			Y
	40-60	c	10YR56 00					0	0	HR	20	M		Y
	60-70	c	10YR56 62					0	0	SLST	35	M		Y
19	0-35	hc1	10YR43 00					0	0	HR	15			Y
	35-120	c	10YR44 62					0	0	SLST	35	M		Y
20	0-40	c	10YR43 00					0	0	HR	15			Y
	40-50	c	10YR44 00	10YR56	00	F		0	0	HR	25	M		Y
	50-60	c	10YR56 62					0	0	SLST	35	M		Y
21	0-30	c	10YR44 00					0	0	HR	15			Y
	30-45	c	10YR56 00					0	0	HR	20	M		Y
	45-55	c	10YR56 62					0	0	SLST	35	M		Y
22	0-35	c	10YR43 00					0	0	HR	15			Y
	35-70	c	10YR44 00					0	0	HR	25	M		Y
	70-80	c	10YR56 62					0	0	SLST	35	M		Y
23	0-30	c	10YR44 00					0	0	HR	10			Y
	30-60	c	10YR56 00					0	0	HR	10	M		Y
	60-90	mzc1	10YR72 00					0	0	HR	10	M		Y
24	0-30	c	10YR44 00					0	0	HR	10			Y
	30-60	c	10YR56 00					0	0	HR	10	M		Y
	60-70	hc1	10YR72 00					0	0	SLST	20	M		Y

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES----			PED COL.	----STONES----			STRUCT/ CONSIST	SUBS			SPL	CALC
				COL	ABUN	CONT		GLY	>2	>6		LITH	TOT	STR		
25	0-30	c	10YR44 00					0	0	HR	15					Y
	30-40	c	10YR56 00					0	0	SLST	35		M			Y
27	0-30	ms1	10YR42 00					0	0	HR	1					Y
	30-100	ms1	10YR54 00	10YR56 00	F			0	0		0		M			Y
28	0-30	hc1	10YR42 00					0	0	HR	15					Y
	30-50	c	10YR54 00					0	0	SLST	20		M			Y
	50-55	hc1	10YR66 00					0	0	SLST	25		M			Y
29	0-30	hc1	10YR42 00					0	0	HR	15					Y
	30-50	c	10YR54 00					0	0	SLST	25		M			Y
30	0-30	hc1	10YR42 00					0	0	HR	10					Y
	30-50	c	10YR54 00					0	0	SLST	10		M			Y
	50-80	hc1	10YR66 00	10YR56 00	F			0	0	SLST	20		M			Y
31	0-30	hc1	10YR42 00					0	0	HR	15					Y
	30-40	hc1	10YR66 00					0	0	SLST	25		M			Y
32	0-30	c	10YR44 00					0	0	HR	15					Y
	30-50	c	10YR53 62					0	0	SLST	35		M			Y
33	0-30	c	10YR44 00					0	0	HR	10					Y
	30-60	c	10YR62 56					0	0	SLST	15		M			Y
34	0-30	c	10YR43 00					0	0	HR	10					Y
	30-110	c	10YR56 00					0	0	SLST	10		M			Y
35	0-30	c	10YR44 00					0	0	HR	10					Y
	30-60	c	10YR56 00					0	0	HR	10		M			Y
	60-100	c	10YR62 56	10YR58 00	C			0	0	SLST	35		M			Y
37	0-30	ms1	10YR42 00					0	0	HR	1					Y
	30-50	ms1	10YR54 00					0	0	SLST	15		M			Y
38	0-30	ms1	10YR42 00					0	0	HR	1					Y
	30-65	hc1	10YR54 00					0	0	SLST	10		M			Y
	65-90	1ms	25 Y54 00	10YR56 00	F			0	0		0		M			Y
39	0-30	ms1	10YR42 00					0	0	SLST	1					Y
	30-80	ms1	10YR54 00	10YR56 00	F			0	0	SLST	10		M			Y
	80-90	ms1	25 Y54 00					0	0		0		M			Y
40	0-30	hc1	10YR42 00					0	0	HR	10					Y
	30-70	c	10YR54 00					0	0	SLST	10		M			Y
	70-80	c	10YR66 00					0	0	SLST	20		M			Y



SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES-----			PED		----STONES----			STRUCT/ CONSIST	SUBS		SPL	CALC
				COL	ABUN	CONT	COL.	GLE	>2	>6	LITH		TOT	STR		
41	0-30	hc1	10YR53 00						0	0	HR	15				Y
	30-50	c	10YR54 00						0	0	SLST	15	M			Y
	50-60	c	10YR66 00						0	0	SLST	20	M			Y
42	0-30	hc1	10YR42 00						0	0	HR	15				Y
	30-50	c	10YR54 00						0	0	SLST	15	M			Y
	50-90	sc1	10YR66 00	10YR56 00	F				0	0	SLST	25	M			Y
43	0-30	c	10YR42 00						0	0	HR	15				Y
	30-50	c	10YR54 00						0	0	SLST	25	M			Y
44	0-30	hc1	10YR42 00						0	0	HR	15				Y
	30-60	c	10YR66 00						0	0	SLST	25	M			Y
45	0-30	c	10YR54 00						0	0	HR	15				Y
	30-50	c	10YR66 00						0	0	SLST	25	M			Y
46	0-30	hc1	10YR43 00						0	0	HR	10				Y
	30-50	hc1	10YR54 00	10YR56 00	F				0	0	SLST	10	M			Y
	50-60	c	10YR54 00	10YR56 00	C			S	0	0	SLST	10	M			Y
	60-90	c	25 Y66 00	10YR56 00	C			S	0	0	SLST	20	M			Y
47	0-30	hc1	10YR42 00						0	0	HR	10				Y
	30-60	c	10YR53 00	10YR56 00	F				0	0	SLST	10	M			Y
	60-80	c	10YR54 64	10YR56 00	C			Y	0	0	SLST	25	M			Y
48	0-30	hc1	10YR42 00						0	0	HR	10				Y
	30-65	c	10YR54 00						0	0		0	M			Y
	65-90	c	10YR53 54	10YR56 00	C			00M00 00	Y	0	0	0	M		Y	Y
49	0-30	mc1	10YR42 00						0	0	HR	10				Y
	30-90	ms1	10YR53 54	10YR56 00	C			Y	0	0		0	M			Y
50	0-30	ms1	10YR42 00						0	0	HR	10				Y
	30-70	ms1	10YR53 00	10YR56 00	F				0	0		0	M			Y
	70-90	ms1	10YR64 00	10YR56 00	C			Y	0	0	SLST	20	M			Y
51	0-30	hc1	10YR42 00						0	0	HR	10				Y
	30-60	c	10YR54 00						0	0	SLST	10	M			Y
	60-70	hc1	25 Y64 00	10YR56 00	C			Y	0	0	SLST	15	M			Y
52	0-30	hc1	10YR42 00						0	0	HR	15				Y
	30-70	c	10YR54 00						0	0	SLST	25	M			Y
53	0-30	hc1	10YR42 00						0	0	HR	15				Y
	30-45	c	10YR54 00						0	0	SLST	15	M			Y
	45-70	c	10YR66 00						0	0	SLST	25	M			Y

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES----			PED		----STONES----			STRUCT/ CONSIST	SUBS				
				COL	ABUN	CONT	COL.	GLE	>2	>6	LITH		TOT	STR	POR	IMP	SPL
54	0-25	hc1	10YR53 00						0	0	HR	15					Y
	25-50	c	10YR54 00						0	0	SLST	15		M			Y
	50-60	c	10YR66 00						0	0	SLST	25		M			Y
55	0-25	hc1	10YR42 00						0	0	HR	10					Y
	25-50	hc1	10YR54 00						0	0	SLST	10		M			Y
56	0-30	hc1	10YR42 00						0	0	HR	10					Y
	30-90	hc1	10YR54 00	10YR56 00	F				0	0	SLST	10		M			Y
57	0-30	ms1	10YR42 00						0	0	HR	10					Y
	30-70	ms1	10YR53 00	10YR56 00	C			Y	0	0		0		M			Y
	70-75	ms1	10YR74 00	10YR56 00	C			Y	0	0	SLST	20		M			Y
58	0-30	hc1	10YR42 00	10YR46 00	C			Y	0	0	HR	10					Y
	30-70	hc1	10YR53 00	10YR56 00	C			Y	0	0		0		M			Y
	70-90	ms1	10YR74 00	10YR56 00	C			Y	0	0		0		M			Y
59	0-30	hc1	10YR42 00						0	0	HR	15					Y
	30-50	c	10YR54 00						0	0	SLST	15		M			Y
	50-70	c	10YR66 64	10YR56 00	C			Y	0	0	SLST	25		M			Y
60	0-30	hc1	10YR42 00						0	0	HR	10					Y
	30-40	c	10YR54 00						0	0	SLST	15		M			Y
	40-70	hc1	25 Y64 74						0	0	SLST	25		M			Y
61	0-30	hc1	10YR42 00						0	0	HR	10					Y
	30-40	hc1	10YR54 00						0	0	SLST	10		M			Y
	40-80	hc1	25 Y64 74	10YR56 00	F				0	0	SLST	10		M			Y
63	0-30	ms1	10YR53 00						0	0		0					Y
	30-60	c	05Y 56 54	10YR56 00	C			Y	0	0		0		M			Y
	60-80	c	25 Y64 00	10YR56 00	C			Y	0	0	HR	10		M			Y
64	0-30	hc1	10YR42 00	10YR56 00	C			Y	0	0		0					Y
	30-80	hc1	10YR53 00	10YR56 00	C			Y	0	0		0		M			Y
65	0-30	hc1	10YR42 00						0	0	HR	10					Y
	30-60	c	10YR54 53	10YR56 00	C			Y	0	0	SLST	15		M		Y	Y
	60-70	c	10YR66 00	10YR56 00	C			Y	0	0	SLST	25		M			Y
66	0-30	hc1	10YR53 00						0	0	HR	10					Y
	30-70	c	10YR54 53	10YR56 00	C			Y	0	0	SLST	15		M			Y
67	0-30	hc1	10YR53 00						0	0	HR	10					Y
	30-60	c	10YR64 76	10YR56 00	C			Y	0	0	SLST	15		M			Y
70	0-25	hc1	10YR42 00						0	0		0					Y
	25-90	hc1	25 Y62 64	10YR56 00	C			Y	0	0		0		M			Y

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES-----			PED	----STONES----			STRUCT/	SUBS	CALC				
				COL	ABUN	CONT	COL.	GLY	>2	>6	LITH	TOT		CONSIST	STR	POR	IMP
71	0-30	hc1	10YR42 00					0	0	0						Y	
	30-60	hc1	10YR53 00	10YR56 00	C			Y	0	0	0	M				Y	
	60-65	hc1	10YR56 52	10YR58 52	C			Y	0	0	0	M				Y	
	65-90	c	10YR66 64					Y	0	0	SLST 18	M				Y	AUGD 90
72	0-30	mc1	10YR42 00					0	0	0						Y	
	30-80	c	10YR53 64	10YR56 00	C			Y	0	0	0	M		Y	Y	Y	AUGD 80
74A	0-30	hc1	10YR42 00					0	0	0						Y	
	30-50	c	10YR54 00	10YR56 00	F			0	0	0		M				Y	
	50-80	sc1	10YR54 00	00M00 00	F			0	0	0		M				Y	
	80-90	ms1	10YR54 00					0	0	0		M				Y	AUGD 90
75	0-30	hc1	10YR42 00					0	0	HR 10						Y	
	30-50	c	10YR54 00					0	0	SLST 15		M				Y	
	50-60	c	10YR66 64	10YR56 00	C			Y	0	0	SLST 25	M				Y	IMP, SLST

SAMPLE NO.	GRID REF	ASPECT USE	--WETNESS--				-WHEAT-		-POTS-		M.REL		EROSN	FROST	CHEM	ALC	COMMENTS
			GRDNT	GLEYS	SPL	CLASS	GRADE	AP	MB	AP	MB	DRT	FLOOD	EXP	DIST	LIMIT	
14P	SP73400960	SAS NW	01			1	2	107	-1	108	8	3A			DR	3A	ROOTS & DR 85
15P	SP73300950	SAS NW	01			1	2	062	-46	063	-37	3B			DR	3B	ROOTS & DR 65
16P	SP73400940	SAS				1	2	092	-16	091	-9	3A			DR	3A	ROOTS & DR 80
17P	SP73200940	SAS NW	01			1	2	078	-30	079	-21	3B			DR	3B	ROOTS & DR 60
18P	SP73300920	SAS				1	2	064	-44	064	-36	3B			DR	3B	ROOTS & DR 55
19P	SP73100920	SAS W	01			1	1	094	-14	093	-7	3A			DR	3A	ROOTS & DR 90
20P	SP72800900	SAS W	01			1	1	085	-23	086	-14	3B			DR	3B	ROOTS & DR 75
21P	SP73000900	SAS W	01	057		1	1	123	15	113	13	2			DR	2	ROOTS & DR 105
22P	SP72900890	SAS W	01	074		1	1	132	24	098	-2	2			DR	2	ROOTS & DR 120
23P	SP73000870	SAS W	01	053	065	2	2	135	27	114	14	2			WD	2	ROOTS & DR 120

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES----			PED COL.	----STONES----			STRUCT/ CONSIST	SUBS STR POR IMP	SPL	CALC	
				COL	ABUN	CONT		GLE	>2	>6					LITH
14P	0-27	hc1	10YR43 00					2	0	SLST	5			Y	
	27-40	c	10YR54 56					0	0	SLST	5	MDMSAB FM G		Y Common roots	
	40-60	c	10YR54 56					0	0	SLST	35	M		Y Common roots	
	60-85	hc1	25 Y72 73	10YR64	66	C		0	0	SLST	10	MASSVE FM P		Y Few roots	
	85-120	slst	25 Y72 00					0	0		0	P		Y Non-rootable	
15P	0-25	hc1	10YR43 00					3	0	SLST	8			Y	
	25-35	c	10YR54 56					0	0	SLST	60	M		Y Common roots	
	35-65	slst	25 Y73 00					0	0		0	P		Y Few roots	
	65-120	slst	25 Y73 00					0	0		0	P		Y Non-rootable	
16P	0-34	hc1	10YR43 00					2	0	SLST	5			Y	
	34-50	c	10YR44 00					0	0	SLST	8	MDCSAB FM M		Y Common roots	
	50-80	slst	25 Y73 00					0	0		0	P		Y Few roots	
	80-120	slst	25 Y73 00					0	0		0	P		Y Non-rootable	
17P	0-28	hc1	10YR43 00					3	0	SLST	8			Y	
	28-45	hc1	25 Y64 74					0	0	SLST	35	MDMSAB FR G		Y Common roots	
	45-60	slst	25 Y73 00					0	0		0	P		Y Few roots	
	60-85	slst	25 Y73 00					0	0		0	P		Y Dense, no roots	
	85-120	slst	25 Y73 00					0	0		0	P		Y Hard, no roots	
18P	0-30	hc1	10YR43 44					0	0		0			Y	
	30-55	slst	25 Y73 00					0	0		0	P		Y Few roots	
	55-90	slst	25 Y73 00					0	0		0	P		Y Dense, no roots	
	90-120	slst	25 Y73 00					0	0		0	P		Y Hard, no roots	
19P	0-30	mc1	10YR43 00					2	0	SLST	5			Y	
	30-40	c	10YR54 56					0	0	SLST	45	MDMSAB FR G		Y Common roots	
	40-55	hc1	25 Y64 00	10YR56	00	C		0	0	SLST	15	MDCSAB FR M		Y Common roots	
	55-90	slst	25 Y63 00					0	0		0	P		Y Rootable	
	90-120	slst	25 Y73 00					0	0		0	P		Y Non-rootable	
20P	0-28	mc1	10YR43 00					0	0	SLST	2			Y	
	28-45	hc1	10YR54 56					0	0	SLST	5	MDCSAB FR M		Y Common roots	
	45-75	slst	05 Y72 00					0	0		0	P		Y Rootable	
	75-120	slst	25 Y73 00					0	0		0	P		Y Non-rootable	
21P	0-30	mc1	10YR42 00					0	0	SLST	2			Y	
	30-57	sc1	10YR54 56					0	0		0	WKCSAB FR M		Y Common roots	
	57-75	sc1	25 Y54 00	25 Y56	00	C	00M00 00 S	0	0		0	WKCSAB FR M		Y Few roots	
	75-105	lms	25 Y64 00	05 Y73	00	C	25 Y56 00 S	0	0		0	WKCOAB VF M		Y Few roots	
	105-120	slst	25 Y73 00					0	0		0	P		Y Non-rootable	
22P	0-30	mc1	10YR43 00					0	0	SLST	2			Y	
	30-45	hc1	25 Y55 64					0	0	SLST	5	MDCSAB FR M		Y	
	45-74	mc1	25 Y73 64					0	0	SLST	60	M		Y	
	74-95	sc1	05 Y64 00	25 Y56	00	C		Y	0	0	0	WKCOAB FR M		Y	
	95-120	hc1	25 Y64 66	25 Y66	00	C		Y	0	0	SLST	10	WKCOPL FR P		Y

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES-----			PED	----STONES----			STRUCT/	SUBS	SPL	CALC			
				COL	ABUN	CONT	COL.	GLE	>2	>6	LITH	TOT			CONSIST	STR	POR
23P	0-25	mc1	10YR33 00					0	0	SLST	2			Y			
	25-53	hc1	10YR54 56					0	0		0	MDCSAB	FR M	Y			
	53-65	hc1	25 Y54 00	25	Y56	00	C	S	0	0	SLST	5	MDCSAB	FR M	Y		
	65-120	c	25 Y64 00	10YR66	00	C		Y	0	0	SLST	10	WKCSAB	FM P	Y	Y	Y