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MILTON KEYNES LOCAL PLAN
Potential Development Area 2

Agricultural Land Classification
Semi-Detailed Survey
ALC Map and Report

July 1997

Resource Planning Team
Eastern Region
FRCA Reading

RPT Job Number: 0304/083/97
FRCA Reference: EL 03/1621

AGRICULTURAL LAND CLASSIFICATION REPORT

MILTON KEYNES LOCAL PLAN, POTENTIAL DEVELOPMENT AREA 2

SEMI-DETAILED SURVEY

INTRODUCTION

1. This report presents the findings of a semi-detailed Agricultural Land Classification (ALC) survey of 273.5 ha of land at Fen Farm and Brooklands Farm on the eastern side of Milton Keynes in Buckinghamshire, which forms Potential Development Area 2 of the Milton Keynes Local Plan. The survey was carried out during June 1997.

2. The work was undertaken by the Farming and Rural Conservation Agency (FRCA)[1] on behalf of the Ministry of Agriculture, Fisheries and Food (MAFF), in connection with the Milton Keynes Expansion Study. This survey supersedes previous ALC information for this land.

3. The work was conducted by members of the Resource Planning Team in the Eastern Region of FRCA with assistance from N Duncan of NA Duncan and Associates. 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 land at the northern end of the site was under winter oilseed rape. To the south of this and to the north of the brook that crosses the site (see Kingston Bridge on the western side of the site), the land use is predominantly winter cereals, whilst to the south of the brook the agricultural land is under permanent grass and grazed by sheep. A field of winter cereals occupies the extreme south-east corner of the site. The areas mapped as 'Other' include narrow strips of newly planted woodland around the fields on the southern part of the site with two areas of mature woodland toward the northern end of the site. The area around Fen Farm comprises a lorry park and associated buildings together with a residential dwelling. To the east of Fen Farm is an area that is used as a tip for hardcore and soil. Another large block to the east of Fen Farm is indicated as 'Agricultural land not surveyed'; this comprises an area of grassland which is normally grazed by sheep but which is also used as a showground for heavy engineering equipment for a small period of the year. As such, some of the soils in this area are probably grossly disturbed.

SUMMARY

5. The findings of the survey are shown on the enclosed ALC map. The map has been drawn at a scale of 1:15,000; 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.

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[1] FRCA is an executive agency of MAFF and the Welsh Office

Table 1: Area of grades and other land

Grade/Other land	Area (hectares)	% surveyed area	% site area
2	81.3	35.6	29.7
3a	66.6	29.2	24.4
3b	80.5	35.2	29.4
Agricultural land not surveyed	11.8	N/A	4.3
Other land	33.3	N/A	12.2
Total surveyed area	228.4	100	83.5
Total site area	273.5	-	100

7. The fieldwork was conducted at an average density of 1 boring per 2 hectares. A total of 134 borings and 6 soil pits was described.

8. The central part of the site has been mapped as Grade 2, very good quality agricultural land. The major limitation associated with this area is droughtiness, especially for shallower rooting crops. The upper horizons of the soils are slightly to moderately stony, fine loamy deposits, which may overlie clayey or coarse loamy material at depth.

9. Five areas of Subgrade 3a, good quality agricultural land, have been mapped. The major limitation associated with this land is due to wetness and workability restrictions. The soils in these areas are typically fine loamy over clayey giving rise to moderate waterlogging.

10. The remaining agricultural land has been classified as Subgrade 3b, moderate quality agricultural land. These areas generally have a moderately severe wetness and workability limitation as a result of the heavy clay loam topsoil textures overlying slowly permeable clayey subsoils. The small central unit of Subgrade 3b identifies an area of sandy soils with very stony subsoils which experience a significant droughtiness limitation.

11. It should be noted that, given the very dry conditions during fieldwork, some of the soils could not be examined to depth. If the area was to be surveyed under better conditions and at a detailed scale, some localised changes to grades might occur, particularly in the Grade 2 unit. This, for example, adjoins an area of Subgrade 3a on land immediately to the west of the site, which was the subject of a detailed survey in 1992.

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 894 406	SP 905 397	SP 914 386
Altitude	m, AOD	60	65	70
Accumulated Temperature	day°C (Jan-June)	1421	1415	1410
Average Annual Rainfall	mm	619	620	616
Field Capacity Days	days	125	125	125
Moisture Deficit, Wheat	mm	112	111	110
Moisture Deficit, Potatoes	mm	105	104	103
Overall climatic grade	N/A	Grade 1	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 (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 affecting the site. The area is, however, relatively warm and dry and, consequently, the soils will need a moderately high available water capacity to avoid drought stress affecting the crops during parts of the growing season. The site is not particularly exposed or prone to increased frost risk and, consequently, there are also no local climatic restrictions to the grading of this land. The site is, therefore, climatically Grade 1.

Site

15. The site is divided in two by a minor road running due east from the A5130 which forms the western boundary to the site. The southern part of the site is crossed by a small stream, with the land falling gently toward the stream. Apart from this minor valley, the southern area is relatively level with only very gentle gradients occurring. The altitude over the southern half is approximately 60-65 m AOD. The northern half of the site is also relatively level, lying at an altitude of approximately 65 m AOD, with another small stream crossing the northern part of this area. Nowhere on the site do gradient, microrelief or flooding impose any limitation on the agricultural quality of the land.

Geology and soils

16. The published geology map for the area (BGS, 1992) shows all the land to the south of the stream that crosses the southern part of the site and a small area alongside the M1 motorway at the northern end to be underlain by Oxford Clay. The two valleys occupied by the streams referred to in paragraph 15 comprise alluvium, whilst the remaining land is underlain by Head and first and second terrace deposits.

17. The 1:250,000 scale reconnaissance soil map (SSEW, 1983) for the area shows that the areas underlain by Oxford Clay comprise soils of the Evesham 2 soil association. These soils are described as "slowly permeable calcareous clayey soils with some seasonally waterlogged non-calcareous clayey and fine loamy or fine silty over clayey soils" (SSEW, 1984). Fladbury 1 association has been mapped on the alluvium in the valleys. These soils are described as "stoneless clayey soils, calcareous in places and variably affected by groundwater" (SSEW, 1984). On the Head and terrace deposits, soils of the Bishampton 2 association have been mapped. Bishampton 2 soils are described as "deep fine loamy soils with slowly permeable subsoils and slight seasonal waterlogging" (SSEW, 1984). The soils found in the current survey correlate well with those described above.

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, page 2.

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. An area of Grade 2, very good quality agricultural land, has been mapped across the central part of the site correlating with the area mapped as Head and terrace deposits on the geology map and the Bishampton 2 soils described above. Due to the dry conditions prevailing at the time of survey, it was not possible to examine the soils to depth at all the auger borings. Three soil pits (1P, 3P and 5P; see Appendix II) were dug in this area to help describe the soils in greater detail. These pits indicate that the soils typically have a dark greyish brown medium clay loam topsoil with few hard stones overlying a sandy clay loam, medium clay loam or heavy clay loam upper subsoil with 5-10% flint stones and coarse subangular blocky structure. The lower subsoil is typically sandy clay loam or sandy clay with a coarse subangular blocky structure, becoming sandy loam with depth in some areas. In one soil pit (3P), slowly permeable, grey, Oxford Clay was encountered below 1 m depth. Two of the soil pits showed evidence of ochreous mottling in the subsoil horizons although no slowly permeable layers were present within 80 cm depth. These soils, occurring in this relatively low rainfall area, have been assessed as Wetness Class I or II. Moisture balance calculations for the two pits show that they are both slightly droughty for the shallower rooting crops such as potatoes, restricting the land quality to Grade 2.

Subgrade 3a

21. Five areas of Subgrade 3a, good quality agricultural land, have been mapped. The soils in these areas typically comprise fine loamy over clayey deposits having a moderate wetness and workability restriction. The soils typically have a dark brown medium clay loam or occasionally heavy clay loam topsoil overlying a greyish brown mottled heavy clay loam upper subsoil which has coarse subangular blocky structure. The lower subsoil, which is slowly permeable, is typically a light brownish grey or yellowish brown mottled clay, with coarse angular blocky structure. The clay tends to become more calcareous with depth with common calcareous nodules. These soils have been assessed as Wetness Class III or, occasionally, Wetness Class II. Under the prevailing climatic conditions, this wetness

limitation restricts the time when the soils are in a suitable condition and can be cultivated or trafficked by machinery or grazing livestock without resulting in structural damage. The severity of this limitation therefore restricts this land to Subgrade 3a.

Subgrade 3b

22. Subgrade 3b, moderate quality agricultural land, has been mapped on the alluvial soils of the southern valley and on the heavier textured soils developed on the Oxford Clay. The alluvial soils typically comprise non-calcareous clayey deposits, having a dark grey brown clay topsoil overlying a strongly gleyed, grey clay subsoil. These soils are assessed as Wetness Class III and as such have a moderately severe wetness and workability restriction. In addition, the low-lying nature of these soils mean that they are susceptible to groundwater inundation and occasional surface flooding limiting the agricultural potential of the area.

23. On the slightly higher land, the fine loamy over clayey soils developed on the Oxford Clay have also been mapped as this subgrade. These soils have dark brown, non-calcareous, heavy clay loam or occasionally clay topsoils overlying slowly permeable greyish brown clay subsoils which become calcareous with depth. A soil pit on the adjoining site immediately to the south of this site (FRCA reference number 0304/84/97) shows that the clays are slowly permeable restricting these soils to Wetness Class III. The heavy topsoil textures associated with the wetness limitation mean that these soils have a moderately severe workability restriction adversely affecting their management, limiting this land to Subgrade 3b.

24. Pit 4 is typical of some of the shallow impenetrable borings which are lighter in texture than elsewhere. Sandy loam topsoils overlie loamy sand subsoils with stone contents in the range 52-64%. This combination of textures and stone contents significantly reduces the amount of available water in the profile, causing drought stress at times during the growing season and in drier years.

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SOURCES OF REFERENCE

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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. **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 : MILTON KEYNES UDP AREA 2 Pit Number : 1P

Grid Reference: SP91533942 Average Annual Rainfall : 619 mm
Accumulated Temperature : 1421 degree days
Field Capacity Level : 125 days
Land Use : Set-aside
Slope and Aspect : degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 33	MCL	10YR33 00	1	3	HR					
33- 45	SCL	10YR44 00	0	10	HR				M	
45- 65	SCL	10YR53 00	0	3	HR	C	CSAB	FR	M	
65-120	MSL	10YR53 00	0	5	HR	C	MCSAB	FR	M	

Wetness Grade : 1 Wetness Class : I
Gleying :045 cm
SPL : No SPL

Drought Grade : 2 APW : 154mm MBW : 42 mm
APP : 110mm MBP : 5 mm

FINAL ALC GRADE : 2
MAIN LIMITATION : Droughtiness

SOIL PIT DESCRIPTION

Site Name : MILTON KEYNES UDP AREA 2   Pit Number : 2P

Grid Reference: SP91503840

Average Annual Rainfall : 619 mm
Accumulated Temperature : 1421 degree days
Field Capacity Level : 125 days
Land Use : Permanent Grass
Slope and Aspect : degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 28	MCL	10YR42 00	0	3	HR					
28- 40	HCL	10YR53 43	0	0		C	MDCSAB	FM	M	
40- 60	C	10YR52 53	0	0		M	MDVCAB	VM	P	
60- 85	C	25 Y62 00	0	0		M	MDCAB	FM	P	

Wetness Grade : 3A

Wetness Class : III
Gleying :028 cm
SPL :040 cm

Drought Grade : 3A

APW : 106mm MBW : -6 mm
APP : 107mm MBP : 2 mm

FINAL ALC GRADE : 3A
MAIN LIMITATION : Soil Wetness/Droughtiness

SOIL PIT DESCRIPTION

Site Name : MILTON KEYNES UDP AREA 2   Pit Number : 3P

Grid Reference: SP90703960   Average Annual Rainfall : 619 mm
Accumulated Temperature : 1421 degree days
Field Capacity Level : 125 days
Land Use : Wheat
Slope and Aspect : degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 36	MCL	10YR43 00	1	4	HR					
36- 65	HCL	10YR54 00	0	7	HR	C	MCSAB	FM	M	
65- 85	SC	10YR64 00	0	8	HR	C	MVCSAB	FM	M	
85-105	MSL	10YR65 00	0	10	HR				M	Y
105-120	C	05Y 62 00	0	2	HR	M			P	Y

Wetness Grade : 1   Wetness Class : I
Gleying :036 cm
SPL :105 cm

Drought Grade : 2   APW : 146mm MBW : 34 mm
APP : 113mm MBP : 8 mm

FINAL ALC GRADE : 2
MAIN LIMITATION : Droughtiness

SOIL PIT DESCRIPTION

Site Name : MILTON KEYNES UDP AREA 2 Pit Number : 4P

Grid Reference: SP91203950 Average Annual Rainfall : 619 mm
Accumulated Temperature : 1421 degree days
Field Capacity Level : 125 days
Land Use : Arable
Slope and Aspect : degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 28	MSL	10YR42 00	2	5	HR					
28- 40	MSL	10YR42 00	0	12	HR		MDCSAB	FM	M	
40- 50	LMS	10YR43 00	0	52	HR				M	
50- 60	LMS	10YR43 00	0	64	HR				M	
60- 71	LMS	10YR44 53	0	55	HR				M	

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

Drought Grade : 3B APW : 075mm MBW : -37 mm
APP : 072mm MBP : -33 mm

FINAL ALC GRADE : 3B
MAIN LIMITATION : Droughtiness

SOIL PIT DESCRIPTION

Site Name : MILTON KEYNES UDP AREA 2   Pit Number :   5P

Grid Reference: SP89804010   Average Annual Rainfall : 619 mm
Accumulated Temperature : 1421 degree days
Field Capacity Level   : 125 days
Land Use   : Ploughed
Slope and Aspect   :   degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 33	MSL	10YR42 00	1	3	HR					
33- 58	MCL	10YR43 00	0	5	HR		MDCSAB	FR	M	
58- 81	HCL	10YR53 00	0	30	HR		MDCSAB	FR	M	
81-120	SCL	10YR43 44	0	22	HR				M	Y

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

Drought Grade : 2   APW : 140mm MBW : 28 mm
APP : 113mm MBP : 8 mm

FINAL ALC GRADE : 2
MAIN LIMITATION : Droughtiness

SOIL PIT DESCRIPTION

Site Name : MILTON KEYNES UDP AREA 2   Pit Number :   6P

Grid Reference: SP90004030   Average Annual Rainfall : 619 mm
Accumulated Temperature : 1421 degree days
Field Capacity Level : 125 days
Land Use : Arable
Slope and Aspect :   degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 28	HCL	25Y 42 00	0	2	HR					
28- 90	C	25Y 52 53	0	2	HR	C	MDVCAB	FM	P	

Wetness Grade : 3B   Wetness Class : III
Gleying :028 cm
SPL :028 cm

Drought Grade : 3A   APW : 105mm MBW : -7 mm
APP : 103mm MBP : -2 mm

FINAL ALC GRADE : ~~3A~~ 3b.
MAIN LIMITATION : Wetness

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	SP89504060	ARA	NW	01	035	035	3	3A		0		0					WE	3A	
1P	SP91533942	SAS			045		1	1	154	42	110	5	2				DR	2	
2	SP89404050	ARA	SE	01					056	-56	056	-49	4				DR	4	I35 FLINTS
2P	SP91503840	PGR			028	040	3	3A	106	-6	107	2	3A				WD	3A	
3P	SP90703960	WHT			036	105	1	1	146	34	113	8	2				DR	2	
4	SP89604050	ARA			035	035	3	3B	097	-15	099	-6	3A				WE	3B	
4P	SP91203950	ARA					1	1	075	-37	072	-33	3B				DR	3B	AT AB 96
5P	SP89804010	PLO					1	1	140	28	113	8	2				DR	2	AT AB 26
6	SP89504040	ARA			025	025	2	3A		0		0					WE	3B	I45 FLINTS
6P	SP90004030	ARA			028	028	3	3B	105	-7	103	-2	3A				WE	3A	
7	SP89604040	ARA			035	035	3	3B	096	-16	101	-4	3A				WE	3B	
8	SP89704040	ARA			030	030	3	3A	096	-16	101	-4	3A				WE	3A	
10	SP89904040	ARA			030	030	3	3B	095	-17	100	-5	3A				WE	3B	
11	SP89604030	PLO					1	1	096	-16	102	-3	3A				DR	2	I60 SEE 5P
13	SP89804030	ARA			035	045	3	3A	092	-20	102	-3	3B				WE	3A	I70 FLINTS
15	SP90004030	ARA			030	030	3	3B	098	-14	103	-2	3A				WE	3B	SEE 6P
16A	SP90174027	ARA	SE	03	035	035	3	3A	097	-15	102	-3	3A				WE	3A	
18	SP89704020	PLO					1	1	096	-16	102	-3	3A				DR	2	I60 SEE 5P
20	SP89904020	ARA			030	030	3	3B	079	-33	084	-21	3B				WE	3B	
22	SP90104020	ARA			050	070	2	2	125	13	110	5	2				WD	2	
24	SP90304020	WHT			028	028	3	3B	078	-34	078	-27	3B				WE	3B	I50 FLINTS
25	SP89634008	PLO					1	1	100	-12	084	-21	3A				DR	3A	
26	SP89804010	PLO					1	1	095	-17	101	-4	3A				DR	2	I60 SEE 5P
28	SP90014012	ARA			045	045	2	3A	101	-11	106	1	3A				WE	3A	
30	SP90204010	WHT					1	1	058	-54	058	-47	4				DR	3A	I35 SEE 5P
32	SP90404010	WHT			025	025	3	3B	070	-42	070	-35	3B				WE	3B	IMPQWE
34	SP89704000	PLO					1	1	093	-19	098	-7	3A				DR	3A	I65 SEE 4P
36	SP89904000	ARA						1	083	-29	083	-22	3B				DR	2	I50 SEE 5P
38	SP91003960	ARA			030	050	3	3A	106	-6	105	0	3A				WE	3A	I88STONE
40	SP90304000	ARA			030	045	3	3A	107	-5	105	0	3A				WE	3A	
42	SP90504000	CER			032		3	3B		0		0					WE	3B	GWATER
44	SP90704000	CER			030	030	3	3B	121	9	097	-8	2				WE	3B	GWATER
45	SP89803988	PGR					1	1	072	-40	072	-33	3B				DR	3B	I50 SEE 4P
47	SP90003990	PGR			037		2	2	130	18	110	5	2				WD	2	QWCSPL
49	SP90203990	ARA			049		1	1	095	-17	101	-4	3A				DR	2	I60 SEE 5P
51	SP90383990	ARA			028	068	2	2	134	22	112	7	2				WD	2	
55	SP90803990	CER			030	030	3	3B	128	16	105	0	2				WE	3B	
59	SP90103980	WHT			025		2	2	087	-25	090	-15	3B				WE	2	QWC
61	SP90303980	WHT			028	028	3	3A	093	-19	105	0	3A				WE	3A	QTSTEXT
63	SP90503980	WHT			030		2	3A	094	-18	100	-5	3A				WE	3A	IMP60QWE
65	SP90703980	CER	N	01			1	1		0		0					DR	2	IMP 70
67	SP90903980	CER	N	01	033	033	3	3A	129	17	105	0	2				WE	3A	

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
69	SP91103980	CER			035		2	2	143	31	115	10	1				WE	2	SEE PIT3
70	SP90203970	WHT			030		2	2	085	-27	085	-20	3B				WE	2	QWC
72	SP90403970	WHT					1	1	053	-59	053	-52	4				DR	2	IMPSEEPIT1&2
74	SP90603970	WHT			050		2	2	088	-24	092	-13	3B				WE	2	IMPQDR
76	SP90803970	CER	N	01	055	065	2	2	138	26	114	9	2				WE	2	DR
78	SP91003970	CER	N	01	035		2	2	152	40	114	9	2				WE	2	DR
80	SP91203970	CER			030		2	2	095	-17	104	-1	3A				DR	2	SEE PIT3
81	SP91323970	ARA			028	055	2	2	130	18	106	1	2				WD	2	
83	SP90503960	WHT			028		2	2	099	-13	108	3	3A				WE	2	QWC
85	SP90703960	CER	N	01	050		1	1	107	-5	114	9	3A				DR	2	SEE PIT3
87	SP90903960	WHT					1	1	053	-59	053	-52	4				DR	4	QDR
89	SP91103960	WHT					1	1	053	-59	053	-52	4				DR	4	QDR
91	SP91303960	WHT					1	1	053	-59	053	-52	4				DR	4	QDR
93	SP91503960	ARA			035	058	2	2		0		0					WD	2	
94	SP91003950	WHT					1	1	053	-59	053	-52	4				DR	4	QDR
96	SP91203950	ARA			035		2	1	068	-44	068	-37	3B				DR	2	
98	SP91403950	ARA			035		1	1	100	-12	104	-1	3A				DR	3A	I75 SEE 4P
99	SP91503950	ARA			035	065	2	2	134	22	111	6	2				WD	2	
100	SP90603940	BAR					1	1	062	-50	062	-43	4				DR	2	IMPPIT1
101	SP90703940	BAR					1	1	062	-50	062	-43	4				DR	2	IMPX2PIT1
103	SP90903940	BAR					1	1	050	-62	050	-55	4				DR	3B	I30 SEE 4P
105	SP91103940	BAR					1	1	053	-59	053	-52	4				DR	2	PIT1
107	SP91303940	WHT					1	1	051	-61	051	-54	4				DR	3B	I30 SEE 4P
108	SP91403940	WHT					1	1	053	-59	053	-52	4				DR	2	PIT1
109	SP91503940	SAS					1	1	052	-60	052	-53	4				DR	2	PIT1
111	SP91703940	BAR	S	01			1	1	067	-45	067	-38	3B				DR	2	PIT1
113	SP90603930	BAR					1	1	067	-45	067	-38	3B				DR	2	IMPX2PIT1
115	SP90803930	BAR					1	1	067	-45	067	-38	3B				DR	2	IMPX2PIT1
117	SP91003930	BAR					1	1	067	-45	067	-38	3B				DR	2	IMPX2PIT1
119	SP91203930	WHT					1	1	053	-59	053	-52	4				DR	2	IMPX2PIT1
121	SP91403930	WHT					1	1	056	-56	056	-49	4				DR	2	IMPX2PIT1
123	SP91603930	BAR					1	2	053	-59	053	-52	4				WK	3B	IMPX2QWD
125	SP91803930	BAR					1	3A	051	-61	051	-54	4				WK	3B	IMPX2QWE
127	SP90703920	BAR			045		2	2	090	-22	093	-12	3B				WE	2	IMPQWD
127A	SP90703920	BAR			035	070	2	2	117	5	117	12	3A				WD	2	IMP90
129	SP90903920	BAR					1	1	075	-37	075	-30	3B				DR	2	IMPPIT1
131	SP91103920	CER	S	01			1	1	078	-34	078	-27	3B				DR	2	SEE PIT1
133	SP91303920	CER	S	01			1	1	086	-26	090	-15	3B				DR	2	SEE PIT1
135	SP91503920	CER	S	02	030	045	3	3A	141	29	108	3	2				WE	3A	NEAR 3B
137	SP91703920	CER	S	02	028	028	3	3A	126	14	103	-2	2				WE	3A	CALC
139	SP91903920	CER			030	030	3	3B	116	4	103	-2	3A				WE	3B	IMP 105
141	SP90703910	BAR					1	1	087	-25	090	-15	3B				DR	2	IMPPIT1

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
141A	SP90643910	BAR			050		1	1	101	-11	110	5	3A				DR	2	IMPPIT1
142	SP90803910	BAR					1	1	062	-50	062	-43	4				DR	2	IMPPIT1
144	SP91003910	CER			023	023	3	3B	123	11	100	-5	2				WE	3B	
146	SP91203910	CER			030	030	3	3B	126	14	103	-2	2				WE	3B	
148	SP91403910	CER	S	02	070		1	1	113	1	115	10	3A				DR	3A	
150	SP91603910	CER	S	01	030	055	3	3B	136	24	113	8	2				WE	3B	NEAR 3A
152	SP91803910	CER			035	035	3	3B	109	-3	107	2	3A				WE	3B	IMP 90
154	SP90703900	CER			030	030	3	3B	126	14	103	-2	2				WE	3B	ALLUVIUM
156	SP90903900	SET	N	02	028	028	3	3B	124	12	105	0	2				WE	3B	GVLY 80
158	SP91103900	PGR	N	01		027	3	3B	126	14	103	-2	2				WE	3B	
160	SP91303900	PGR	N	02	026	026	3	3B	126	14	103	-2	2				WE	3B	
164	SP91703900	PGR			030	030	3	3B	109	-3	103	-2	3A				WE	3B	IMP 95GW
166	SP91903900	PGR				027	3	3B	102	-10	102	-3	3A				WE	3B	GWATER
168	SP90803890	SET	NW	02	025	025	3	3B	127	15	104	-1	2				WE	3B	
170	SP91003890	PGR	N	01	022	022	3	3B	081	-31	087	-18	3B				WE	3B	IMP 60
172	SP91203890	PGR	N	01	060	060	2	2	135	23	112	7	2				WE	2	DR
174	SP91403890	PGR	NE	02	025	025	3	3A	111	-1	102	-3	3A				WE	3A	STONE 99CALC
178	SP91803890	PGR	E	01	030	030	3	3B	083	-29	089	-16	3B			Y	WE	3B	IMP 60
180	SP92003890	PGR							076	-36	076	-29	3B			Y	DR	3B	IMP 50
181	SP90903880	SET	SW	02	023	023	3	3B	122	10	099	-6	2				WE	3B	
185	SP91303880	PGR			024	024	3	3A	106	-6	100	-5	3A				WE	3A	STONE 95
189	SP91703880	PGR	N	01	040	040	2	3A	128	16	105	0	2				WE	3A	NEAR 3B
191	SP91903880	PGR			035	035	3	3B	103	-9	101	-4	3A			Y	WE	3B	NO TSOIL
195	SP91203870	PGR	W	01	035	047	3	3A	117	5	109	4	3A				WE	3A	
197	SP91403870	PGR			045	045	2	2	130	18	107	2	2				WE	2	DR
201	SP91803870	PGR	E	01	030	050	3	3B	131	19	108	3	2				WE	3B	
203	SP92003870	CER	E	01	030	075	3	3B	125	13	102	-3	2				WE	3B	SPL 30
205	SP91003860	PGR				030	3	3B	128	16	105	0	2				WE	3B	
206	SP91103860	PGR				026	3	3B	106	-6	101	-4	3A				WE	3B	IMP 95
208	SP91303860	PGR			030	060	3	3A	135	23	111	6	2				WE	3A	
214	SP91903860	PGR	NE	02	050	050	2	3A	130	18	107	2	2				WE	3A	LIKE 3B
216	SP92103860	CER			035	035	3	3B	100	-12	105	0	3A				WE	3B	IMP 80
217	SP91003850	SGR			035	035	3	3B	129	17	106	1	2				WE	3B	
219	SP91203850	PGR	W	02	045	045	2	3A	117	5	103	-2	3A				WE	3A	DR
221	SP91403850	PGR	S	01	035	060	3	3B	135	23	112	7	2				WE	3B	NEAR 3A
225	SP91803850	PGR	NE	02	025	025	3	3B	126	14	103	-2	2				WE	3B	
227	SP92003850	CER	E	01	028	028	3	3B	125	13	102	-3	2				WE	3B	
229	SP92203850	CER			030	030	3	3B	127	15	103	-2	2				WE	3B	
230	SP90903840	PGR			027	045	3	3B	105	-7	103	-2	3A				WE	3B	IMP 90
232	SP91103840	PGR			030	030	3	3B	124	12	103	-2	2				WE	3B	
234	SP91303840	PGR	S	02	045	045	2	3A	131	19	108	3	2				WE	3A	NEAR 3B
236	SP91503840	PGR			030	045	3	3A	129	17	106	1	2				WE	3A	PIT2

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
238	SP91703840	PGR	E	01	030	065	2	3A	135	23	113	8	2				WE	3A	LIMED
240	SP91903840	CER	E	02	030	030	3	3A	129	17	106	1	2				WE	3A	CALC
242	SP92103840	CER			030	030	3	3B	125	13	103	-2	2				WE	3B	
244	SP92303840	CER			028	028	3	3B	125	13	102	-3	2				WE	3B	
246	SP91003830	PGR			028	028	3	3A	124	12	101	-4	2				WE	3A	NEAR 3B
248	SP91203830	PGR			030	030	3	3B	128	16	105	0	2				WE	3B	ALLUVIAL
250	SP91403830	PGR	SW	02	035	055	3	3B	113	1	112	7	3A				WE	3B	IMP 90
252	SP91603830	PGR			035	055	3	3A	138	26	112	7	2				WE	3A	
254	SP91803830	PGR	E	01	030	045	3	3A	131	19	107	2	2				WE	3A	
256	SP90903820	PGR			027	045	3	3A	131	19	108	3	2				WE	3A	
258	SP91103820	PGR			030	045	2	2	130	18	107	2	2				WE	2	NEAR 3A
260	SP91303820	PGR			025	025	3	3B	113	1	104	-1	3A				WE	3B	IMP 100
262	SP91503820	PGR			030	045	3	3B	113	1	108	3	3A				WE	3B	IMP 95
263	SP91003810	PGR			035	065	2	2	136	24	113	8	2				WE	2	DR

				----MOTTLES-----			PED		----STONES----				STRUCT/	SUBS					
SAMPLE	DEPTH	TEXTURE	COLOUR	COL	ABUN	CONT	COL.	GLEY	>2	>6	LITH	TOT	CONSIST	STR	POR	IMP	SPL	CALC	
1	0-35	mcl	10YR33 00						0	0	HR	10							
	35-60	c	25 Y52 00	10YR58 00	M			Y	0	0	HR	10		P			Y		
1P	0-33	mcl	10YR33 00						1	0	HR	3							
	33-45	scl	10YR44 00						0	0	HR	10		M					
	45-65	scl	10YR53 00	10YR46 00	C			S	0	0	HR	3	CSAB FR	M					
	65-120	msl	10YR53 00	10YR46 00	C			Y	0	0	HR	5	MCSAB FR	M					
2	0-35	mcl	10YR33 00						3	0	HR	12							
2P	0-28	mcl	10YR42 00						0	0	HR	3							
	28-40	hcl	10YR53 43	10YR58 00	C			Y	0	0		0	MDCSAB FM	M					
	40-60	c	10YR52 53	75YR58 00	M			Y	0	0		0	MDVCAB VM	P	Y		Y		
	60-85	c	25 Y62 00	10YR66 00	M			Y	0	0		0	MDCAB FM	P	Y		Y		
3P	0-36	mcl	10YR43 00						1	0	HR	4							
	36-65	hcl	10YR54 00	75YR66 00	C		00MN00 00	S	0	0	HR	7	MCSAB FM	M					
	65-85	sc	10YR64 00	10YR66 00	C			Y	0	0	HR	8	MVCSAB FM	M					
	85-105	msl	10YR65 00				00MN00 00	S	0	0	HR	10		M				Y	
	105-120	c	05Y 62 00	10YR56 00	M			Y	0	0	HR	2		P	Y		Y	Y	
4	0-25	c	25 Y43 00						2	0	HR	5							
	25-35	c	25 Y53 00						0	0	HR	8		M					
	35-85	c	25 Y53 00	10YR68 00	C			Y	0	0	HR	5		P			Y		
4P	0-28	msl	10YR42 00						2	0	HR	5							
	28-40	msl	10YR42 00						0	0	HR	12	MDCSAB FM	M					
	40-50	lms	10YR43 00						0	0	HR	52		M					
	50-60	lms	10YR43 00						0	0	HR	64		M					
	60-71	lms	10YR44 53						0	0	HR	55		M					
5P	0-33	msl	10YR42 00						1	0	HR	3							
	33-58	mcl	10YR43 00						0	0	HR	5	MDCSAB FR	M					
	58-81	hcl	10YR53 00						0	0	HR	30	MDCSAB FR	M					
	81-120	scl	10YR43 44						0	0	HR	22		M				Y	+ 15% Chalk
6	0-25	c	10YR42 00						0	0	HR	6							
	25-45	c	10YR52 00	10YR58 00	M			Y	0	0	HR	10		P					IMP NOT SPL
6P	0-28	hcl	25Y 42 00						0	0	HR	2							
	28-90	c	25Y 52 53	10YR58 00	C			Y	0	0	HR	2	MDVCAB FM	P	Y		Y		
7	0-35	hcl	10YR33 00						3	0	HR	6							
	35-80	c	10YR52 00	10YR58 00	C			Y	0	0	HR	10		P			Y		
8	0-30	hcl	10YR42 00						3	0	HR	6							
	30-80	c	25 Y52 00	75YR58 00	M			Y	0	0	HR	5		P			Y		

				----MOTTLES-----			PED		----STONES----				STRUCT/	SUBS					
SAMPLE	DEPTH	TEXTURE	COLOUR	COL	ABUN	CONT	COL.	GLEY	>2	>6	LITH	TOT	CONSIST	STR	POR	IMP	SPL	CALC	
10	0-30	c	10YR42 00						2	0	HR	4							
	30-80	c	25 Y52 00	10YR66 00	C			Y	0	0	HR	3		P			Y		
11	0-35	mszl	10YR32 00						1	0	HR	3							
	35-49	hcl	10YR43 00						0	0	HR	5		M					
	49-60	hcl	10YR53 00						0	0	HR	10		M					IMP FLINTS
13	0-35	mcl	10YR33 00						3	0	HR	6							
	35-45	mcl	10YR42 00	10YR58 00	C			Y	0	0	HR	8		M					
	45-70	c	10YR52 00	10YR58 00	C			Y	0	0	HR	15		P			Y		
15	0-30	hcl	10YR33 00						2	0	HR	4							
	30-80	c	25 Y52 00	10YR68 00	M			Y	0	0	HR	3		P			Y		
16A	0-35	mcl	10YR33 00						3	0	HR	6							
	35-80	c	10YR53 00	10YR58 00	M			Y	0	0	HR	8		P			Y		
18	0-30	mszl	10YR32 00						1	0	HR	3							
	30-45	mcl	10YR43 00						0	0	HR	3		M					
	45-60	hcl	25Y 54 00						0	0	HR	5		M					IMP FLINTS
20	0-30	hcl	10YR33 00						3	0	HR	7							
	30-60	c	10YR53 00	10YR58 00	C			Y	0	0	HR	15		P			Y		
22	0-35	mcl	10YR43 00						3	0	HR	6							
	35-50	scl	10YR54 00						0	0	HR	8		M					
	50-70	hcl	10YR63 00	10YR68 00	C			Y	0	0	HR	7		M					
	70-110	c	25 Y53 00	10YR68 00	C			Y	0	0	HR	6		P			Y		
24	0-28	hcl	10YR42 00						0	0	HR	2							
	28-50	c	10YR53 00	000C00 00	C			Y	0	0	HR	1		P	Y		Y		
25	0-40	msl	10YR32 00						2	0	HR	5							
	40-120	lms	10YR43 00						0	0	HR	15		M					
26	0-30	mszl	10YR43 00						1	0	HR	3							
	30-45	mcl	10YR43 00						0	0	HR	5		M					
	45-60	hcl	10YR53 00						0	0	HR	5		M					IMP FLINTS
28	0-45	hcl	10YR42 00						3	0	HR	7							
	45-80	c	10YR53 00	75YR58 00	M			Y	0	0	HR	8		P			Y		
30	0-28	mcl	10YR32 00						0	0	HR	5							
	28-35	mcl	10YR42 00						0	0	HR	10		M					
32	0-25	hcl	10YR42 00						8	0	HR	15							
	25-50	c	25Y 52 00	000C00 00	C			Y	0	0	HR	5		P	Y		Y		

				----MOTTLES-----			PED		----STONES----				STRUCT/	SUBS					
SAMPLE	DEPTH	TEXTURE	COLOUR	COL	ABUN	CONT	COL.	GLEY	>2	>6	LITH	TOT	CONSIST	STR	POR	IMP	SPL	CALC	
34	0-40	msl	10YR32 00						3	0	HR	6							
	40-65	msl	10YR43 00						0	0	HR	10		M					IMP FLINTS
36	0-35	mcl	10YR42 00						1	0	HR	3							
	35-50	hcl	25Y 54 00						0	0	HR	10		M					IMP FLINTS
38	0-30	mcl	10YR42 00						2	0	HR	5							
	30-50	mcl	10YR42 00	10YR68	00	C	00MN00 00	Y	0	0	HR	10		M					
	50-80	c	05Y 62 00	10YR68	00	M		Y	0	0	HR	5		P			Y		
	80-88	zc	05Y 61 00	10YR68	00	M		Y	0	0	SLST	5		P			Y	Y	
40	0-30	mcl	10YR32 00						2	0	HR	5							
	30-45	mcl	25Y 53 00	10YR68	00	C		Y	0	0	HR	10		M					
	45-90	c	05Y 62 00	10YR68	00	M		Y	0	0	SLST	5		P			Y	Y	
42	0-32	hcl	10YR43 00						0	0	HR	2							
	32-45	hcl	25Y 53 00	10YR56	00	C	00MN00 00	Y	0	0	HR	20		M					
44	0-30	c	10YR43 00						0	0		0							
	30-40	c	10YR53 00	10YR66	00	C		Y	0	0		0		P			Y		
	40-70	hcl	25Y 53 00	10YR66	00	C	00MN00 00	Y	0	0	HR	8		P			Y		
	70-80	scl	10YR56 00	00MN00	00	M		Y	0	0	HR	10		M			Y		
	80-105	msl	10YR65 00					Y	0	0	HR	15		M			Y		
45	0-30	msl	10YR32 00						6	0	HR	10							Q DISTURBED
	30-50	msl	10YR42 00						0	0	HR	15		M					IMP V. FLINTY
47	0-25	mcl	10YR33 00						0	0	HR	2							
	25-37	scl	10YR43 00						0	0	HR	2		M					
	37-100	scl	10YR53 00	10YR56	00	C	00MN00 00	Y	0	0	HR	2		M					
49	0-49	mcl	10YR42 00						4	0	HR	5							
	49-60	mcl	10YR43 00	10YR58	00	C		S	0	0	HR	5		M					IMP FLINTS
51	0-28	mcl	10YR42 00						1	0	HR	5							
	28-48	mcl	10YR42 00	10YR68	00	C		Y	0	0	HR	5		M					
	48-68	hcl	25Y 42 00	10YR68	00	C		Y	0	0	HR	5		M					
	68-120	c	05Y 62 00	10YR68	00	C		Y	0	0	SLST	5		P			Y		
55	0-30	hcl	10YR43 00						0	0	HR	2							
	30-45	c	25Y 54 00	10YR66	00	C		Y	0	0		0		P			Y		
	45-80	c	05Y 63 00	25Y 56	00	C		Y	0	0		0		P			Y	Y	
	80-120	c	05Y 51 61	25Y 56	00	C		Y	0	0		0		P			Y	Y	
59	0-25	mcl	10YR33 00						0	0	HR	2							
	25-55	hcl	10YR52 53	10YR56	00	C		Y	0	0	HR	5		M					
61	0-28	mcl	10YR42 00						0	0	HR	1							
	28-70	c	10YR52 00	10YR56	00	C		Y	0	0		0		P	Y		Y		

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES----- COL	ABUN	CONT	PED COL.	GLEY	----STONES---- >2	>6	LITH	TOT	STRUCT/ CONSIST	SUBS STR	POR	IMP	SPL	CALC
63	0-30	hcl	10YR42 00						0	0	HR	2						
	30-60	hcl	10YR52 00	10YR56 00	C			Y	0	0	HR	2		M				
65	0-35	mcl	10YR43 00						2	0	HR	5						
	35-70	hcl	10YR54 00	00MN00 00	F				0	0	HR	6		M				
67	0-33	mcl	10YR43 00						1	0	HR	3						
	33-60	c	25Y 63 00	10YR56 66	C		00MN00 00	Y	0	0		0		P			Y	
	60-80	sc	25Y 53 54	10YR58 00	M			Y	0	0	HR	10		P			Y	
	80-120	c	05Y 62 00	25Y 56 00	C			Y	0	0		0		P			Y	Y
69	0-35	mcl	10YR44 00						0	0	HR	3						
	35-50	hcl	10YR54 55	10YR56 00	F			S	0	0	HR	3		M				
	50-75	hcl	10YR53 54	75YR46 00	C			Y	0	0	HR	4		M				
	75-100	scl	10YR64 00	10YR68 00	C		00MN00 00	Y	0	0		0		M				
	100-120	lms	10YR66 00	00MN00 00	C			Y	0	0		0		M				
70	0-30	mcl	10YR33 00						0	0	HR	2						
	30-50	hcl	10YR53 00	10YR46 00	C		00MN00 00	Y	0	0	HR	1		M				
72	0-30	mcl	10YR33 00						0	0	HR	1						
74	0-30	mcl	10YR43 00						0	0	HR	2						
	30-50	hcl	10YR44 00						0	0	HR	2		M				
	50-55	c	10YR54 00	10YR58 00	C		10YR53 00	Y	0	0	HR	1		M				
76	0-35	mcl	10YR43 00						1	0	HR	3						
	35-55	mcl	10YR55 00	00MN00 00	F				0	0	HR	3		M				
	55-65	hcl	25Y 64 00	10YR56 00	F			S	0	0	HR	3		M				
	65-120	c	25Y 63 64	10YR66 00	M			Y	0	0		0		P			Y	Y
78	0-35	mcl	10YR43 00						1	0	HR	4						
	35-65	hcl	25Y 53 54	10YR66 00	C			Y	0	0	HR	4		M				
	65-120	scl	10YR54 00	10YR66 00	M			Y	0	0	HR	3		M				
80	0-30	mcl	10YR43 00						2	0	HR	5						
	30-45	hcl	10YR44 45	10YR56 00	F			S	0	0	HR	6		M				
	45-65	hcl	10YR53 00	10YR56 00	C			Y	0	0	HR	8		M				
81	0-28	mcl	10YR43 00						1	0	HR	3						
	28-55	hcl	25Y 54 00	10YR68 00	C			S	0	0	HR	10		M				
	55-120	zc	05GY61 00	10YR68 00	M			Y	0	0	SLST	5		P			Y	Y
83	0-28	mcl	10YR33 00						0	0	HR	2						
	28-65	hcl	10YR53 00	10YR56 00	C		00MN00 00	Y	0	0	HR	1		M				
85	0-35	mcl	10YR43 00						0	0	HR	4						
	35-50	hcl	10YR54 00	00MN00 00	F				0	0	HR	5		M				
	50-75	hcl	10YR54 00	10YR56 00	C			S	0	0	HR	5		M				

				----MOTTLES-----			PED		----STONES----				STRUCT/	SUBS					
SAMPLE	DEPTH	TEXTURE	COLOUR	COL	ABUN	CONT	COL.	GLEY	>2	>6	LITH	TOT	CONSIST	STR	POR	IMP	SPL	CALC	
87	0-30	mcl	10YR43 00						0	0	HR	2							
89	0-30	mcl	10YR43 00						0	0	HR	2							
91	0-30	mcl	10YR43 00						0	0	HR	2							
93	0-35	mcl	25Y 42 00						1	0	HR	3							
	35-58	hcl	25Y 43 00	10YR58 00	M		00MN00 00	S	0	0	HR	5		M					
	58-120	zc	05GY61 00	10YR68 00	M			Y	0	0	SLST	5		P			Y	Y	
94	0-30	mcl	10YR43 00						0	0	HR	2							
96	0-35	mszl	10YR32 00						2	0	HR	5							
	35-40	msl	10YR42 00	75YR46 00	C			Y	0	0	HR	40		M					IMP V. FLINTY
98	0-35	msl	10YR32 00						2	0	HR	5							
	35-65	msl	10YR43 53	75YR68 00	C			S	0	0	HR	5		M					
	65-75	lms	10YR43 00	75YR68 00	C			Y	0	0	HR	15		M					IMP FLINTS
99	0-35	mcl	10YR42 00						1	0	HR	3							
	35-65	hcl	25Y 54 00	10YR58 00	M		00MN00 00	Y	0	0	HR	10		M					
	65-120	zc	05GY61 00	10YR68 00	M			Y	0	0	SLST	5		P			Y	Y	
100	0-35	mcl	10YR43 00						0	0	HR	2							
101	0-35	mcl	10YR43 00						0	0	HR	2							
103	0-30	msl	10YR43 00						0	0	HR	2							
105	0-30	mcl	10YR43 00						0	0	HR	2							
107	0-30	msl	10YR43 00						0	0	CH	1							
108	0-30	mcl	10YR43 00						0	0	HR	2							
109	0-20	mcl	10YR43 00						0	0		0							
	20-30	mcl	10YR43 44						0	0		0		M					
111	0-20	mcl	10YR43 00						0	0	HR	2							
	20-40	mcl	10YR43 44	10YR56 00	F				0	0		0		M					
113	0-38	mcl	10YR43 00						0	0	HR	2							
115	0-38	mcl	10YR43 00						0	0	HR	2							
117	0-38	mcl	10YR43 00						0	0	HR	2							
119	0-30	mcl	10YR43 00						0	0	HR	1							

				----MOTTLES-----			PED		----STONES----				STRUCT/	SUBS				
SAMPLE	DEPTH	TEXTURE	COLOUR	COL	ABUN	CONT	COL.	GLEY	>2	>6	LITH	TOT	CONSIST	STR	POR	IMP	SPL	CALC
121	0-30	mzcl	10YR43 00						0	0	HR	1						
123	0-30	hcl	10YR42 00						0	0	HR	1						
125	0-30	c	10YR42 00	000C00 00	C			Y	0	0	HR	1						
127	0-38	mcl	10YR43 00						0	0	HR	2						
	38-45	mcl	10YR53 00						0	0	HR	2		M				
	45-55	sc	10YR53 00	000C00 00	C			Y	0	0	HR	1		M				
127A	0-35	mcl	10YR43 00						0	0	HR	2						
	35-60	hcl	10YR42 00	10YR46 00	C			Y	0	0	HR	2		M				
	60-70	c	10YR52 00	10YR56 00	C			Y	0	0	HR	1		M				
	70-90	c	10YR52 00	10YR56 00	C			Y	0	0	HR	1		P	Y		Y	
129	0-30	mcl	10YR43 00						0	0	HR	2						
	30-45	scl	10YR54 00						0	0	HR	2		M				
131	0-30	scl	10YR43 00						0	0	HR	4						
	30-50	scl	10YR44 00						0	0	HR	5		M				
133	0-35	scl	10YR43 00						0	0	HR	6						
	35-60	scl	10YR54 55	75YR46 00	F				0	0	HR	10		M				
135	0-30	mcl	10YR43 00						1	0	HR	3						
	30-45	hcl	25Y 53 54	10YR56 00	C			Y	0	0	HR	3		M				
	45-80	c	05Y 61 63	10YR56 00	C			Y	0	0		0		P			Y	Y
	80-105	msl	10YR56 00					Y	0	0		0		M			Y	Y
	105-120	c	05Y 61 00					Y	0	0		0		P			Y	Y
137	0-28	hcl	10YR43 00						0	0	HR	2						Y
	28-60	c	25Y 53 00	10YR56 00	C			Y	0	0	HR	2		P			Y	Y
	60-120	c	05Y 63 62	25Y 56 61	C			Y	0	0		0		P			Y	Y
139	0-30	c	10YR43 00						0	0		0						
	30-50	c	25Y 53 00	10YR56 00	C			Y	0	0		0		P			Y	
	50-105	c	05Y 51 00	75YR46 00	M			Y	0	0		0		P			Y	
141	0-30	mcl	10YR42 00						0	0	HR	2						
	30-55	scl	10YR54 00						0	0	HR	2		M				
141A	0-30	mcl	10YR33 00						3	0	HR	5						
	30-50	scl	10YR43 00						0	0	HR	2		M				
	50-70	sc	10YR53 00	10YR56 00	C			Y	0	0	HR	2		M				
142	0-35	mcl	10YR43 00						0	0	HR	2						
144	0-23	c	10YR43 00						0	0		0						
	23-50	c	25Y 51 52	75YR46 00	C			Y	0	0		0		P			Y	Y
	50-120	c	05Y 51 00	75YR46 00	M			Y	0	0		0		P			Y	

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES----- COL	ABUN	CONT	PED COL.	GLEY	----STONES---- >2	>6	LITH	TOT	STRUCT/ CONSIST	SUBS STR	POR	IMP	SPL	CALC
146	0-30	c	10YR43 00						0	0		0						
	30-50	c	25Y 52 00	75YR56 00	C			Y	0	0		0		P			Y	
	50-120	c	05Y 51 00	75YR46 00	M			Y	0	0		0		P			Y	
148	0-30	mcl	10YR43 00						1	0	HR	3						
	30-70	hcl	10YR54 55						0	0	HR	3		M				
	70-80	hcl	10YR53 00	75YR56 00	C			Y	0	0	HR	3		M				
150	0-30	hcl	10YR44 00						0	0	HR	1						
	30-55	hcl	25Y 54 00	10YR56 00	C			Y	0	0		0		M				
	55-80	c	05Y 51 52	05YR46 00	M			Y	0	0		0		P			Y	
	80-120	hcl	05Y 63 62	10YR66 00	M			Y	0	0		0		P			Y	
152	0-35	hcl	10YR43 00						1	0	HR	3						
	35-60	c	25Y 52 53	10YR56 00	M			Y	0	0		0		P			Y	
	60-90	c	25Y 51 00	05YR46 00	M			Y	0	0		0		P			Y	
154	0-30	c	10YR33 00						0	0		0						
	30-50	c	25Y 52 00	75YR46 00	C			Y	0	0		0		P			Y	
	50-120	c	05Y 51 00	05YR46 00	M			Y	0	0		0		P			Y	
156	0-28	hcl	25Y 42 00						0	0	HR	1						
	28-45	c	25Y 53 00	10YR56 00	C			Y	0	0		0		P			Y	
	45-80	c	05Y 53 63	10YR56 00	C			Y	0	0		0		P			Y	Y
	80-120	c	05Y 63 56					Y	0	0	HR	15		P			Y	Y
158	0-27	hcl	25Y 42 00	75YR46 00	C			Y	0	0	HR	2						
	27-45	c	25Y 53 00	10YR56 00	C			Y	0	0	HR	3		P			Y	
	45-120	c	05Y 62 63	25Y 66 00	C			Y	0	0		0		P			Y	Y
160	0-26	hcl	10YR43 00						0	0	HR	2						
	26-60	c	25Y 53 00	10YR56 00	C			Y	0	0	HR	1		P			Y	
	60-120	c	05Y 63 00	10YR56 00	M			Y	0	0		0		P			Y	Y
164	0-30	c	10YR32 00						0	0		0						
	30-70	c	10YR51 00	10YR56 00	M			Y	0	0		0		P			Y	
	70-95	c	25Y 52 00	75YR56 00	M			Y	0	0		0		P			Y	
166	0-27	hcl	10YR42 00	10YR46 00	C			Y	0	0		0						
	27-55	hcl	25Y 53 00	10YR68 00	M			Y	0	0	HR	1		P			Y	
	55-80	scl	10YR66 00					Y	0	0	HR	10		M			Y	
168	0-25	hcl	10YR43 00						0	0		0						
	25-120	c	05Y 62 63	25Y 66 00	C			Y	0	0		0		P			Y	Y
170	0-22	hcl	10YR43 00						1	0	HR	3						
	22-60	c	05Y 63 53	10YR56 00	C			Y	0	0	HR	3		P			Y	Y

				----MOTTLES-----			PED		----STONES----				STRUCT/	SUBS				
SAMPLE	DEPTH	TEXTURE	COLOUR	COL	ABUN	CONT	COL.	GLEY	>2	>6	LITH	TOT	CONSIST	STR	POR	IMP	SPL	CALC
172	0-27	mcl	10YR43 00						1	0	HR	3						
	27-60	hcl	25Y 54 00						0	0	HR	2		M				
	60-80	c	05Y 63 62	10YR68 00	M			Y	0	0		0		P			Y	Y
	80-120	c	05Y 62 72	10YR56 00	M			Y	0	0		0		P			Y	Y
174	0-25	hcl	10YR43 00						1	0	HR	3						Y
	25-100	c	05Y 63 62	10YR66 56	M			Y	0	0		0		P			Y	Y
178	0-30	c	10YR33 00						0	0	HR	2						
	30-55	c	25Y 52 00	10YR58 00	M			Y	0	0		0		P			Y	
	55-60	mcl	05Y 36 00					Y	0	0		0		P			Y	
180	0-30	mcl	10YR43 00						0	0	HR	4						
	30-50	hcl	10YR54 00	00MN00 00	F				0	0	HR	25		M				
181	0-23	c	10YR43 00						0	0		0						
	23-65	c	25Y 53 52	10YR56 00	M			Y	0	0	HR	3		P			Y	
	65-120	c	05Y 63 62	25Y 66 00	C			Y	0	0		0		P			Y	
185	0-24	mcl	10YR43 00						1	0	HR	3						
	24-60	c	25Y 54 00	25Y 56 00	C			Y	0	0	HR	3		P			Y	
	60-95	c	05Y 53 00	10YR56 61	M			Y	0	0		0		P			Y	Y
189	0-20	c	10YR43 00						0	0		0						
	20-40	c	25Y 54 00	00MN00 00	F				0	0		0		M				Y
	40-75	c	25Y 53 00	25Y 56 00	C			Y	0	0	CH	2		P			Y	Y
	75-120	c	05Y 53 00	25Y 56 61	M			Y	0	0	CH	3		P			Y	Y
191	0-35	c	25Y 52 00						0	0	CH	10						Y
	35-50	c	25Y 63 00	10YR68 61	M			Y	0	0	CH	8		P			Y	Y
	50-90	c	10YR54 00	10YR56 00	C			S	0	0	HR	5		P			Y	
195	0-35	mcl	10YR43 00						2	0	HR	3						
	35-47	hcl	10YR53 00	75YR56 00	C			Y	0	0	HR	5		M				
	47-95	c	25Y 64 00	10YR66 61	C			Y	0	0		0		P			Y	Y
	95-100	lms	10YR66 00					Y	0	0	HR	20		M			Y	
197	0-23	mcl	10YR43 00						1	0	HR	3						
	23-45	hcl	10YR55 00	00MN00 00	F				0	0	HR	2		M				
	45-70	c	25Y 63 00	10YR56 61	C			Y	0	0		0		P			Y	Y
	70-120	c	05Y 63 61	10YR56 00	C			Y	0	0		0		P			Y	Y
201	0-30	c	25Y 43 00						1	0	HR	2						
	30-50	c	25Y 53 54	10YR56 00	C			Y	0	0		0		M				
	50-120	c	05Y 63 00	25Y 56 61	M			Y	0	0		0		P			Y	Y
203	0-30	c	10YR43 00						0	0	HR	2						
	30-75	c	25Y 53 00	10YR58 61	M			Y	0	0		0		P				
	75-120	c	25Y 63 62	75YR68 00	M			Y	0	0		0		P			Y	Y

				----MOTTLES-----			PED		----STONES----				STRUCT/	SUBS				
SAMPLE	DEPTH	TEXTURE	COLOUR	COL	ABUN	CONT	COL.	GLEY	>2	>6	LITH	TOT	CONSIST	STR	POR	IMP	SPL	CALC
205	0-30	hcl	10YR43 00	75YR46 00	C			Y	0	0	HR	1						
	30-65	c	25Y 53 54	10YR68 00	C			Y	0	0	HR	1		P			Y	
	65-120	c	05Y 53 51	10YR68 00	M			Y	0	0		0		P			Y	Y
206	0-26	c	10YR33 00	75YR46 00	C			Y	0	0		0						
	26-85	c	25Y 53 52	10YR56 00	C			Y	0	0		0		P			Y	
	85-95	sc	25Y 53 00	10YR68 00	M			Y	0	0	HR	25		P			Y	
208	0-30	mcl	10YR43 00						2	0	HR	4						
	30-60	hcl	25Y 53 00	75YR56 00	C			Y	0	0	HR	3		M				
	60-80	c	25Y 63 00	10YR58 00	M			Y	0	0	HR	2		P			Y	
	80-120	c	05Y 62 64	10YR58 00	C			Y	0	0		0		P			Y	Y
214	0-20	c	10YR43 00						1	0	HR	3						
	20-50	c	25Y 54 00	00MN00 00	F				0	0		0		M				
	50-90	c	25Y 63 00	10YR68 00	M			Y	0	0		0		P			Y	Y
	90-120	c	05Y 61 62	25Y 56 00	M			Y	0	0		0		P			Y	Y
216	0-35	c	10YR43 00						0	0		0						
	35-70	c	25Y 53 00	10YR56 00	C			Y	0	0		0		P			Y	
	70-80	c	25Y 53 52	10YR56 00	M			Y	0	0	HR	5		P			Y	
217	0-35	hcl	10YR44 00						1	0	HR	3						
	35-45	c	25Y 54 00	10YR66 00	C			Y	0	0	HR	5		P			Y	
	45-90	c	05Y 63 00	10YR66 61	M			Y	0	0		0		P			Y	Y
	90-120	c	05Y 61 00	10YR68 00	M			Y	0	0		0		P			Y	Y
219	0-30	hcl	10YR43 00						1	0	HR	5						Y
	30-45	scl	10YR56 00						0	0	HR	10		M				
	45-65	c	25Y 63 00	10YR56 00	M			Y	0	0	HR	3		P			Y	
	65-80	sc	10YR56 00	00MN00 00	C			S	0	0	HR	3		P			Y	
	80-120	lms	10YR56 00					Y	0	0	HR	15		M			Y	
221	0-35	hcl	10YR43 00						1	0	HR	3						
	35-60	hcl	25Y 53 54	75YR58 00	M			Y	0	0	HR	5		M				
	60-120	c	05Y 62 63	10YR56 00	M			Y	0	0	HR	1		P			Y	Y
225	0-25	hcl	10YR43 00						0	0	HR	2						
	25-50	c	25Y 53 00	10YR56 00	C			Y	0	0		0		P			Y	Y
	50-120	c	05Y 62 63	25Y 56 61	C			Y	0	0		0		P			Y	Y
227	0-28	c	10YR43 00						0	0		0						
	28-90	c	25Y 53 00	10YR56 00	C			Y	0	0		0		P			Y	
	90-120	c	05Y 63 00	10YR68 61	C			Y	0	0		0		P			Y	Y
229	0-30	c	10YR43 00						0	0		0						
	30-75	c	25Y 53 00	10YR56 00	M			Y	0	0		0		P			Y	
	75-120	sc	25Y 53 00	10YR56 00	M			Y	0	0	HR	10		P			Y	Y

SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES COL	ABUN	CONT	PED COL.	GLEY	STONES >2	>6	LITH	TOT	STRUCT/ CONSIST	SUBS STR	POR	IMP	SPL	CALC
230	0-27	hcl	10YR43 00						1	0	HR	3						
	27-45	c	25Y 53 00	10YR56	00	C		Y	0	0		0		P				
	45-90	c	05Y 63 00	10YR66	61	C		Y	0	0		0		P			Y	Y
232	0-30	c	10YR43 00						0	0		0						
	30-50	c	25Y 53 00	10YR56	00	C		Y	0	0		0		P			Y	
	50-85	c	25Y 52 00	10YR56	00	M		Y	0	0		0		P			Y	
	85-120	c	25Y 54 00	10YR68	61	M		Y	0	0	HR	8		P			Y	
234	0-30	hcl	10YR43 00						1	0	HR	3						
	30-45	hcl	25Y 54 00	00MN00	00	F			0	0	HR	5		M				
	45-70	c	05Y 63 00	25Y 66	00	C		Y	0	0		0		P			Y	Y
	70-120	c	05Y 61 63	25Y 66	00	M		Y	0	0		0		P			Y	Y
236	0-30	mcl	10YR43 00						2	0	HR	5						Y
	30-45	hcl	25Y 53 00	10YR58	00	C		Y	0	0	HR	4		M				
	45-65	c	25Y 53 00	75YR56	00	C		Y	0	0	HR	3		P			Y	
	65-120	c	25Y 63 00	75YR56	61	M		Y	0	0	HR	3		P			Y	Y
238	0-30	hcl	10YR43 00						1	0	HR	4						Y
	30-65	hcl	10YR54 00	10YR56	00	C		S	0	0	HR	3		M				
	65-95	c	25Y 52 53	75YR56	00	C		Y	0	0	HR	3		P			Y	
	95-120	c	25Y 63 00	10YR68	61	M		Y	0	0	HR	3		P			Y	Y
240	0-30	hcl	10YR43 00						0	0		0						Y
	30-50	c	25Y 54 00	10YR56	00	F		S	0	0		0		P			Y	Y
	50-90	c	05Y 63 62	25Y 56	00	C		Y	0	0		0		P			Y	Y
	90-120	c	05Y 61 62	10YR56	00	M		Y	0	0		0		P			Y	Y
242	0-30	c	10YR43 00						0	0		0						
	30-65	c	25Y 53 00	10YR56	00	C		Y	0	0	V	0		P			Y	
	65-120	c	25Y 52 53	10YR58	00	M		Y	0	0	HR	2		P			Y	
244	0-28	c	10YR43 00						0	0		0						
	28-65	c	25Y 53 00	10YR56	00	C		Y	0	0		0		P			Y	Y
	65-120	c	05Y 52 00	75YR56	00	M		Y	0	0		0		P			Y	Y
246	0-28	mcl	10YR43 00						1	0	HR	3						
	28-55	c	25Y 53 00	75YR56	00	M		Y	0	0	HR	8		P			Y	
	55-95	c	05Y 63 00	25Y 66	61	M		Y	0	0	HR	1		P			Y	Y
	95-120	sc	05Y 63 56					Y	0	0	HR	15		P			Y	Y
248	0-30	hcl	10YR43 00						0	0	HR	2						
	30-75	c	25Y 53 00	10YR66	00	C		Y	0	0		0		P			Y	
	75-120	hcl	25Y 54 00	10YR68	00	M		Y	0	0		0		P			Y	
250	0-35	hcl	10YR43 00						1	0	HR	4						
	35-55	c	25Y 53 00	10YR58	00	C		Y	0	0		0		M				Y
	55-90	c	05Y 63 00	25Y 66	61	M		Y	0	0	HR	2		P			Y	Y

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES----- COL	ABUN	CONT	PED COL.	GLEY	----STONES---- >2	>6	LITH	TOT	STRUCT/ CONSIST	SUBS STR	POR	IMP	SPL	CALC
252	0-35	mcl	10YR43 00						0	0	HR	2						
	35-55	hcl	25Y 53 54	75YR56	00	C		Y	0	0	HR	3		M				
	55-85	sc	25Y 62 63	10YR58	00	M		Y	0	0	HR	3		P			Y	
	85-120	c	05Y 63 00	10YR68	61	M		Y	0	0		0		P			Y	Y
254	0-30	mcl	10YR43 00						2	0	HR	5						
	30-45	hcl	10YR53 00	10YR58	00	C		Y	0	0	HR	4		M				
	45-60	c	25Y 53 00	10YR66	00	C		Y	0	0		0		P			Y	Y
	60-70	sc	25Y 54 00	10YR56	00	M		Y	0	0	HR	2		P			Y	
	70-120	hcl	25Y 64 74	10YR68	71	M		Y	0	0		0		P			Y	
256	0-27	mcl	10YR43 00						1	0	HR	3						
	27-45	hcl	25Y 53 00	10YR66	00	C		Y	0	0	HR	3		M				
	45-60	c	05Y 63 62	10YR56	00	C		Y	0	0		0		P			Y	
	60-120	c	05Y 63 00	10YR56	61	C		Y	0	0		0		P			Y	Y
258	0-30	mcl	10YR43 00						1	0	HR	3						
	30-45	hcl	25Y 54 00	10YR66	00	F		S	0	0	HR	5		M				
	45-80	c	05Y 63 00	10YR68	00	M		Y	0	0	HR	2		P			Y	Y
	80-120	c	05Y 61 00	10YR68	00	M		Y	0	0		0		P			Y	Y
260	0-25	hcl	10YR43 00	75YR56	00	F			0	0		0						
	25-50	c	25Y 63 00	10YR66	00	C		Y	0	0		0		P			Y	
	50-100	c	05Y 62 63	75YR58	00	M		Y	0	0		0		P			Y	
262	0-30	hcl	10YR43 00						0	0	HR	4						
	30-45	hcl	25Y 54 00	10YR56	00	C		Y	0	0	HR	3		M				
	45-95	c	25Y 63 64	25Y 68	61	C		Y	0	0	CH	2		P			Y	Y
263	0-35	mcl	10YR43 00						2	0	HR	5						
	35-65	hcl	10YR53 00	10YR68	00	M		Y	0	0	HR	4		M				Y
	65-120	c	05Y 53 00	10YR66	61	C		Y	0	0		0		P			Y	Y