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MILTON KEYNES EXPANSION STUDY
AREA 5B (south)

Agricultural Land Classification
ALC Map and Report

November/December 1997

Resource Planning Team
Eastern Region
FRCA Reading

RPT Job Number: 0301/147/97
FRCA Reference: EL 03/1621

AGRICULTURAL LAND CLASSIFICATION REPORT

MILTON KEYNES EXPANSION STUDY
AREA 5B (south)

INTRODUCTION

1. This report presents the findings of a detailed Agricultural Land Classification (ALC) survey of 73 ha of land at Eaton Leys Farm, east of Bletchley, Milton Keynes. The survey was carried out during November/December 1997.

2. The survey was carried out by the Farming and Rural Conservation Agency (FRCA)[1] for the Ministry of Agriculture, Fisheries and Food (MAFF), in connection with its statutory input to the Aylesbury Vale Local Plan.. This survey supersedes previous ALC information for this land, including a 1982 survey, covering part of the land, which was undertaken in connection with road proposals (FRCA Ref: 0301/022/82).

3. The work was conducted by members of the Resource Planning Team in the Eastern Region of FRCA. The land has been graded in accordance with the published MAFF ALC guidelines and criteria (MAFF, 1988). A description of the ALC grades and subgrades is given in Appendix I.

4. At the time of survey the land use on the site was in both arable and grassland uses. The areas mapped as 'Other land' include an area of woodland (Galleylane Spinney), a wide grass track, and the buildings and dwelling at Eaton Leys Farm

SUMMARY

5. The findings of the survey are shown on the enclosed ALC map. The map has been drawn at a scale of 1:10,000; it is accurate at this scale but any enlargement would be misleading.

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

Table 1: Area of grades and other land

Grade/Other land	Area (hectares)	% surveyed area	% site area
3a	37.9	53.1	51.8
3b	32.8	46.0	44.9
4	0.6	0.9	0.8
Other land	1.8	N/A	2.5
Total surveyed area	71.3	100	97.5
Total site area	73.1	-	100

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

7. The fieldwork was conducted at an average density of one borings per hectare. A total of 77 borings and 6 soil pits was described.

8. Land of good quality (Subgrade 3a) is mapped over about half of the site, broadly in conjunction with areas mapped as river terrace deposits. Soils are typically fine loamy or fine loamy over clayey. Some subsoils horizons have a high stone content. The main limitation in terms of agricultural land quality is one of imperfect drainage, giving rise to soil wetness. At occaisional locations land quality is also limited to Subgrade 3a by a soil droughtiness limitation. Land of moderate quality (Subgrade 3b) is mapped across most of the remainder of the site on poorly drained clayey soils which are mainly coincident with deposits of Oxford Clay and alluvium. This land has a more severe wetness limitation than that graded Subgrade 3a. Limited areas fringing the River Ouzel may also be subject to flooding. All these soils have a degree of wetness limitation which may adversely affect crop growth and development, as well as limiting the flexibility of the land due to a reduction in the number of days when the soil is in a suitable condition for cultivation, trafficking by machinery or grazing by livestock.

9. There is a very small area of Grade 4 (poor quality) land sandwiched between the River Ouzel and the buildings at Eaton Leys Farm which is affected by a localised microrelief limitation. Here the land is at a lower level and is of a very uneven character possibly due to past disturbance. This uneveness will preclude many mechanised operations and restrict land use to grassland. In addition the area is believed to flood regularly.

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 885 331	SP 886 327	SP 891326
Altitude	m, AOD	70	70	75
Accumulated Temperature	day°C (Jan-June)	1413	1413	1408
Average Annual Rainfall	mm	640	643	643
Field Capacity Days	days	135	136	136
Moisture Deficit, Wheat	mm	108	108	108
Moisture Deficit, Potatoes	mm	101	101	100
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. Although the site is climatically Grade 1, unpublished data (Met. Office, 1969), indicates that the Ouzel valley is frost prone and this may slightly restrict the range of crops which could be successfully grown, particularly the more sensitive crops such as top fruit. This local climatic factor will mean that overall land quality is restricted to Grade 2. Other local climatic factors such as exposure are not considered to be a limitation. Climatic factors also interact with soil properties to influence soil wetness and droughtiness.

Site

15. The site lies within the valley of the River Ouzel at altitudes which range from just below 70m AOD to 75m AOD. The land is generally fairly flat and falls towards the River Ouzel from the north east of the site. Changes in gradient are most marked as the land falls towards the river floodplain close to the western boundary of the site. There is a very small area sandwiched between the River Ouzel and the buildings at Eaton Leys Farm affected by a localised microrelief limitation. Here the land is at a lower level and is of a very uneven character possibly due to past disturbance. This uneveness will preclude many mechanised operations and restrict land use to grassland. A field lying immediately to the south east of Eaton Leys Farm shows evidence of ridge and furrow microrelief. This is not considered to be a long term limitation in terms of agricultural land quality at this location, as it could easily be removed by cultivation

16. A narrow strip of lowlying land, immediately adjoining the River Ouzel, is considered to be at risk of flooding. This is contained within the 1947 flood line, the highest known flood for this location (Environment Agency, 1997), but there are currently no detailed records regarding annual/seasonal flood frequencies and extent. Local information suggests that some winter flooding, of limited extent, occurs in most years. This narrow strip of land is therefore limited to a maximum of Grade 3.

Geology and soils

17. The most detailed geological information for the site (BGS, 1992) shows the site to be underlain by the Oxford Clay formation, with overlying drifts of river terrace, alluvial and head deposits covering much of the area. The Oxford Clay is shown as exposed towards the centre and east of the site, with the river terrace deposits dominating towards the south, west and north of the area. Head deposits are inextensive being mapped as a small exposure at the south of the site. Alluvium is mapped as a narrow fringe by the River Ouzel along the western and south western site boundary.

18. The most detailed published soils information covering the area (SSEW, 1983) shows three soil associations. Most extensive is the Bishampton 2 soil association mapped in conjunction with the river terrace deposits. These are described as 'deep fine loamy and fine loamy over clayey soils with slowly permeable subsoils and slight seasonal waterlogging associated with similar slowly permeable seasonally waterlogged soils,' (SSEW, 1983). Soils

of the Oxpasture association are mapped overlying the Oxford Clay and are described as 'fine loamy over clayey and clayey soils with slowly permeable subsoils and slight seasonal waterlogging' (SSEW, 1983). Adjacent to the River Ouzel a small area of Fladbury 1 association is mapped. These are described as 'stoneless clayey soils, in places calcareous, variably affected by groundwater. Flat land. Risk of flooding.' (SSEW, 1983). Soils consistent with the above descriptions were observed across the site, although sandier and stonier variants were also found.

AGRICULTURAL LAND CLASSIFICATION

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

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

Subgrade 3a

21. Land of good quality is mapped over about half of the site, broadly in conjunction with areas mapped as river terrace deposits. The main limitation in terms of agricultural land quality is one of imperfect drainage, giving rise to soil wetness.

22. There is quite a range in soil characteristics within this mapping unit but the typical pattern is of a non- calcareous soil having very slightly stony (<5% total flints) medium clay loam (occasionally sandy clay loam or heavy clay loam) topsoil, overlying a medium clay loam, sandy clay loam or heavy clay loam upper subsoil, which is usually (but not exclusively) gleyed within 40cm. It typically has a total stone content of up to 10-15% flints and small ironstone fragments, although pit 4 represents a clayey variant with a much higher stone content (30% small gritty stones). Evidence from the 5 soil pits (pits 1 - 5) dug in this mapping unit suggests that the horizon is not slowly permeable as in all cases a moderately developed coarse subangular blocky structure was described. The upper subsoil passes into a gleyed lower subsoil which is often characterised by a higher flint (sometimes with ironstone) content than the horizons above it. Due to the high stone content this horizon was often impenetrable to the soil auger. These horizons were typically sandy clay loam, clay or sandy clay textured with a total flint content of around 20% to 50%. Despite the comparatively high flint content these horizons were found to be slowly permeable (see pits 1, 2 ,3 and 5). Lower horizons were either similar in texture and stone content, or passed into a less stony but more clayey material which was also gleyed and slowly permeable.

23. The majority of soils in this mapping unit were assessed as wetness class III, typically being gleyed within 40 cm of the surface and slowly permeable from 40cm to 60cm depth. Occasional profiles were not gleyed within 40cm and were placed in either wetness class II or III depending upon the depth to the slowly permeable layers; In combination with relatively dry local climate and the comparatively workable topsoil textures (medium clay loam and sandy clay loam), these soils are appropriately placed in Subgrade 3a due to wetness limitations. In some cases soils allocated to wetness class II had heavy clay loam topsoils (see pit 4). and these are also placed in Subgrade 3a. All these soils have a degree of wetness limitation which may adversely affect crop growth and development, as well as limiting the

flexibility of the land due to a reduction in the number of days when the soil is in a suitable condition for cultivation, trafficking by machinery or grazing by livestock.

24. At some locations high subsoil stone content reduces soil moisture holding capacity and results in a soil droughtiness limitation, which is additional to the wetness limitation described above. Moisture balance calculations indicate that a grading of Subgrade 3a is appropriate. A droughtiness limitation has the effect of reducing yields and their consistency from year to year.

Subgrade 3b

25. Land of moderate quality is mapped across most of the remainder of the site, mainly coincident with deposits of Oxford Clay and alluvium. This land has a more severe wetness limitation than that graded Subgrade 3a. Limited areas fringing the River Ouzel may also be subject to flooding.

26. Soils are fairly uniform in character and are non calcareous with very slightly stony (< 5% total flints) medium or heavy clay loam topsoils. The topsoils characteristically overlie a gleyed clay at shallow depth (between 20 and 38cm). The clay subsoils are poorly structured and slowly permeable (see pit 6). In some cases, mainly to the north of the site, the clay subsoils become gravelly at depth. Most of the soils in the Subgrade 3b mapping unit are placed in wetness class IV, which in combination with the fine loamy topsoils and the local climatic factors gives rise to land classification of Subgrade 3b. Occasional borings within the Ouzel floodplain are better drained and assigned to wetness class III. However, the heavy clay loam topsoils decreases workability and these soils are also appropriately placed in Subgrade 3b. As stated previously, this land will have more severe wetness and workability limitations than areas graded 3a, giving rise to reduced flexibility of cropping and stocking, with a consequential yield reduction.

27. Fringing the River Ouzel are areas which may be prone to flooding. Although detailed data is not available for this site (see paragraph 15) it is considered that the risk of flooding is insufficient to downgrade the land below Grade 3.

Grade 4

28. There is a very small area of poor quality land sandwiched between the River Ouzel and the buildings at Eaton Leys Farm which is affected by a localised microrelief limitation. Here the land is at a lower level and is of a very uneven character possibly due to past disturbance. This is further compounded as parts of this area may have been used in the past for disposal of inert wastes, and there is also part of an elevated drainage discharge pipe running from the farm to the River Ouzel. This uneveness will preclude many mechanised operations and restrict land use to grassland. In addition the area is believed to flood regularly.

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SOURCES OF REFERENCE

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

Soil Survey of England and Wales (1983) *Sheet 6, Soils of South-East England.* 1:250,000 scale. SSEW: Harpenden.

Soil Survey of England and Wales (1984) *Soils and their Use in South East England* SSEW: Harpenden

APPENDIX I

DESCRIPTIONS OF THE GRADES AND SUBGRADES

Grade 1: Excellent Quality Agricultural Land

Land with no or very minor limitations to agricultural use. A very wide range of agricultural and horticultural crops can be grown and commonly includes top fruit, soft fruit, salad crops and winter harvested vegetables. Yields are high and less variable than on land of lower quality.

Grade 2: Very Good Quality Agricultural Land

Land with minor limitations which affect crop yield, cultivations or harvesting. A wide range of agricultural or horticultural crops can usually be grown but on some land of this grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1 land.

Grade 3: Good to Moderate Quality Land

Land with moderate limitations which affect the choice of crops, the timing and type of cultivation, harvesting or the level of yield. When more demanding crops are grown, yields are generally lower or more variable than on land in Grades 1 and 2.

Subgrade 3a: Good Quality Agricultural Land

Land capable of consistently producing moderate to high yields of a narrow range of arable crops, especially cereals, or moderate yields of a wide range of crops including cereals, grass, oilseed rape, potatoes, sugar beet and the less demanding horticultural crops.

Subgrade 3b: Moderate Quality Agricultural Land

Land capable of producing moderate yields of a narrow range of crops, principally cereals and grass, or lower yields of a wider range of crops or high yields of grass which can be grazed or harvested over most of the year.

Grade 4: Poor Quality Agricultural Land

Land with severe limitations which significantly restrict the range of crops and/or the level of yields. It is mainly suited to grass with occasional arable crops (e.g. cereals and forage crops) the yields of which are variable. In moist climates, yields of grass may be moderate to high but there may be difficulties in utilisation. The grade also includes very droughty arable land.

Grade 5: Very Poor Quality Agricultural Land

Land with severe limitations which restrict use to permanent pasture or rough grazing, except for occasional pioneer forage crops.

APPENDIX II

SOIL DATA

Contents:

SOIL PROFILE DESCRIPTIONS: EXPLANATORY NOTE

Soil pit and auger boring information collected during ALC fieldwork is held on a computer database. This uses notations and abbreviations as set out below.

Boring Header Information

1. **GRID REF**: national 100 km grid square and 8 figure grid reference.

2. **USE**: Land use at the time of survey. The following abbreviations are used:

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

3. **GRDNT**: Gradient as estimated or measured by a hand-held optical clinometer.

4. **GLEY/SPL**: Depth in centimetres (cm) to gleying and/or slowly permeable layers.

5. **AP (WHEAT/POTS)**: Crop-adjusted available water capacity.

6. **MB (WHEAT/POTS)**: Moisture Balance. (Crop adjusted AP - crop adjusted MD)

7. **DRT**: Best grade according to soil droughtiness.

8. If any of the following factors are considered significant, 'Y' will be entered in the relevant column:

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

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

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

Soil Pits and Auger Borings

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

S:	Sand	**LS**:	Loamy Sand	**SL**:	Sandy Loam
SZL:	Sandy Silt Loam	**CL**:	Clay Loam	**ZCL**:	Silty Clay Loam
ZL:	Silt Loam	**SCL**:	Sandy Clay Loam	**C**:	Clay
SC:	Sandy Clay	**ZC**:	Silty Clay	**OL**:	Organic Loam
P:	Peat	**SP**:	Sandy Peat	**LP**:	Loamy Peat
PL:	Peaty Loam	**PS**:	Peaty Sand	**MZ**:	Marine Light Silts

For the sand, loamy sand, sandy loam and sandy silt loam classes, the predominant size of sand fraction will be indicated by the use of the following prefixes:

F: Fine (more than 66% of the sand less than 0.2mm)
M: Medium (less than 66% fine sand and less than 33% coarse sand)
C: Coarse (more than 33% of the sand larger than 0.6mm)

The clay loam and silty clay loam classes will be sub-divided according to the clay content:
M: Medium (<27% clay) **H**: Heavy (27-35% clay)

2. **MOTTLE COL**: Mottle colour using Munsell notation.

3. **MOTTLE ABUN**: Mottle abundance, expressed as a percentage of the matrix or surface described:

F: few <2% **C**: common 2-20% **M**: many 20-40% **VM**: very many 40% +

4. **MOTTLE CONT**: Mottle contrast:

F: faint - indistinct mottles, evident only on close inspection
D: distinct - mottles are readily seen
P: prominent - mottling is conspicuous and one of the outstanding features of the horizon

5. **PED. COL**: Ped face colour using Munsell notation.

6. **GLEY**: If the soil horizon is gleyed a 'Y' will appear in this column. If slightly gleyed, an 'S' will appear.

7. **STONE LITH**: Stone Lithology - one of the following is used:

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

Stone contents (>2cm, >6cm and total) are given in percentages (by volume).

8. **STRUCT**: the degree of development, size and shape of soil peds are described using the following notation:

Degree of development	**WK**:	weakly developed	**MD**:	moderately developed
	ST:	strongly developed		
Ped size	**F**:	fine	**M**:	medium
	C:	coarse		
Ped shape	**S**:	single grain	**M**:	massive
	GR:	granular	**AB**:	angular blocky
	SAB:	sub-angular blocky	**PR**:	prismatic
	PL:	platy		

9. **CONSIST**: Soil consistence is described using the following notation:

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

10. **SUBS STR**: Subsoil structural condition recorded for the purpose of calculating profile droughtiness: **G**: good **M**: moderate **P**: poor

11. **POR**: Soil porosity. If a soil horizon has less than 0.5% biopores >0.5 mm, a 'Y' will appear in this column.

12. **IMP**: If the profile is impenetrable to rooting a 'Y' will appear in this column at the appropriate horizon.

13. **SPL**: Slowly permeable layer. If the soil horizon is slowly permeable a 'Y' will appear in this column.

14. **CALC**: If the soil horizon is calcareous, a 'Y' will appear in this column.

15. Other notations:

APW: available water capacity (in mm) adjusted for wheat
APP: available water capacity (in mm) adjusted for potatoes
MBW: moisture balance, wheat
MBP: moisture balance, potatoes

SAMPLE NO.	GRID REF	ASPECT USE		GRDNT	--WETNESS-- GLEY	SPL	CLASS	GRADE	-WHEAT- AP	MB	-POTS- AP	MB	M.REL DRT	FLOOD	EROSN EXP	FROST DIST	CHEM LIMIT	ALC	COMMENTS
1	SP88503310	PGR	W	1	25	25	4	3B	89	-19	95	-6		Y		Y	WE	3B	SEE PIT 6
2	SP88503300	PGR			29		3	3A	67	-41	67	-34				Y	WE	3A	SEE PIT 3
3	SP88603290	PGR	SW	1	25		3	3A	73	-35	73	-28				Y	WE	3A	SEE PIT 3
4	SP88709300	CER	W	1	25	25	4	3B	89	-19	99	-2					WE	3B	IMP STONES P6
5	SP88523292	PGR	SW	1	40		3	3A	72	-36	72	-29				Y	WE	3A	SEE PIT 1
6	SP88603290	PGR			25	43	3	3A	83	-25	83	-18					WD	3A	IMP50CM SEE3P
7	SP88703290	CER	W	1	35	58	3	3A	128	20	110	9					WE	3A	
8	SP88803290	CER	W	1	28	28	4	3B	104	-4	100	-1					WE	3B	SEE 6P
9	SP88903290	CER	W	1	25	25	4	3B	93	-15	98	-3					WE	3B	SEE 6P
10	SP89003290	CER			35	35	4	3B	102	-6	107	6	3A				WE	3B	See 6P
11	SP89103290	CER			30	30	4	3B	86	-22	92	-9	3B				WE	3B	SEE 6P
12	SP88403280	PGR			44		3	3A	81	-27	85	-16		Y	Y	Y	MR	4	M-R & FLOOD
13	SP88503280	PGR			25		2	2	66	-42	66	-35				Y	WE	3A	SEE PIT 1
14	SP88603280	PGR			24		2	2	84	-24	84	-17				Y	WE	3A	SEE PIT 1
15	SP88703280	PGR			24	24	4	3B	84	-24	84	-17				Y	WE	3B	SEE PIT 6
16	SP88803280	CER	W	1	28	50	3	3A	98	-10	110	9					WE	3A	
17	SP88903280	CER	W	1	25	40	3	3A	108	0	106	5					WE	3A	BORDER 3B
18	SP89003280	CER	W	1	25	45	3	3A	86	-22	90	-11					WD	3A	SEE 3P
19	SP89103280	CER			37	37	3	3A	106	-2	111	10	3A				WE	3A	BORDER 3B
20	SP89203280	PGR			32	32	4	3B	93	-15	105	4	3A				WE	3B	See 6P
21	SP88403270	PGR	W	1	42	100	1	1	122	14	87	-14	3A			Y	DR	3A	
22	SP88503270	PGR			25	50	3	3A	99	-9	107	6				Y	WE	3A	SEE PIT 1
23	SP88603270	PGR			25	48	3	3A	90	-18	94	-7				Y	WE	3A	SEE PIT 1
24	SP88703270	PGR			24	57	3	3A	122	14	113	12				Y	WE	3A	SEE PIT 1
25	SP88803270	CER	SE	1	25	40	3	3A	96	-12	108	7					WE	3A	BORDER 3B
26	SP88903270	CER	W	1	25	35	4	3B	94	-14	106	5					WE	3B	
27	SP89003270	CER	NW	1	28	28	4	3B	107	-1	105	4					WE	3B	
28	SP89103270	CER			27		2	3A	80	-28	80	-21	3B				WE	3A	See 4P
29	SP89203270	CER					2	3A	68	-40	68	-33	3B				WE	3A	See 4P
30	SP88403260	PGR	W	1	39	39	3	3A	84	-24	86	-15				Y	WE	3A	SEE PIT 1
31	SP88513260	PGR	W	1			2	2	83	-25	83	-18				Y	DR	2	SEE PIT 1
32	SP88603260	PGR	W	1			2	2	83	-25	88	-13				Y	DR	2	WORKABILITY
33	SP88703260	PGR	E	1	24		3	3A	91	-17	95	-6				Y	WE	3A	SEE PIT 1
33A	SP88763257	PGR			15	25	4	3B	83	-25	89	-12					WE	3B	ORG MCL TS
34	SP88803260	CER			33	33	4	3B	82	-26	82	-19					WE	3B	AT 6P
35	SP88903260	CER	W	1	23	23	4	3B	83	-25	89	-12					WE	3B	
36	SP89003260	CER	SW	2	25	25	4	3B	77	-31	81	-20					WE	3B	POSS WC3 3A
37	SP89103260	CER			35	35	4	3B	101	-7	106	5	3A				WE	3B	
38	SP89203260	CER			27	27	4	3B	98	-10	104	3	3A				WE	3B	
39	SP88303250	PGR			27	27	4	3B	92	-16	101	0		Y		Y	WE	3B	FLOOD
40	SP88403250	PGR	W	1	27	40	3	3A	145	37	105	4	2			Y	WE	3A	SEE 1P
41	SP88503250	PGR	W	1	35	35	4	3B	93	-15	105	4					WE	3B	BORD 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
42	SP88603250	PGR					3	3A	72	-36	72	-29					WE	3A	IMP 45CM see2P
43	SP88703250	ARA	N	1	25	25	4	3B	91	-17	103	2					WE	3B	
44	SP88803250	CER	N	1	25	25	4	3A		0		0					WE	3B	
45	SP88893247	CER			28	28	4	3B	86	-22	92	-9					WE	3B	
46	SP89003250	CER	SW	2	29	29	4	3B		0		0					WE	3B	
47	SP89103250	CER	SW	1	29	29	4	3B		0		0					WE	3B	
48	SP88203240	PGR			25	25	4	3B	82	-26	88	-13		Y		Y	WE	3B	FLOOD
49	SP88303240	PGR	W	1	23		3	3A	81	-27	81	-20				Y	WE	3A	SEE PIT 1/2
50	SP88403240	PGR	W	1	29	42	3	3A	116	8	112	11				Y	WD	3A	SEE PIT 2
51	SP88503240	PGR	W	1	45	45	3	3A	139	31	111	10					WE	3A	
52	SP88603240	PGR			45	45	3	3A	79	-29	81	-20					WD	3A	IMP 55CM see1P
53	SP88703240	ARA			37	52	3	3A	112	4	106	5					WE	3A	IMP 90CM
54	SP88803240	LEY			32	32	4	3B		0		0					WE	3B	
55	SP88903240	LEY			28	28	4	3B		0		0					WE	3B	
56	SP89003240	CER	SW	1	29	29	4	3B	95	-13	103	2	3A				WE	3B	
57	SP88203230	PGR	W	1	29		4	3B	69	-39	69	-32		Y		Y	WE	3B	FLOOD
58	SP88303230	PGR			37	45	3	3A	92	-16	101	0		Y		Y	WE	3A	FLOOD
59	SP88383230	PGR	W	1	27	50	3	3A	86	-22	89	-12				Y	WD	3A	SEE 1P
60	SP88503230	PGR	W	1	25	47	3	3A	95	-13	102	1					WE	3A	IMP 75CM
61	SP88603230	PGR			32	45	3	3A	78	-30	80	-21					WD	3A	IMP 55 SEE1P
62	SP88703230	LEY					2	2	98	-10	104	3	3A				WE	2	See 1P
63	SP88803230	LEY			27	40	3	3A		0		0					WE	3A	See 5P
64	SP88903230	LEY			25	25	4	3B		0		0					WE	3B	
65	SP88303220	PGR			27	50	3	3B	93	-15	102	1		Y		Y	WE	3B	FLOOD
66	SP88403220	LEY	SW	5	25	25	4	3B	88	-20	100	-1					WE	3B	
66A	SP88463214	LEY			25	25	4	3B	77	-31	77	-24		Y			WE	3B	?FLOOD
67	SP88503220	LEY	W	1	25	25	4	3B	53	-55	53	-48					WD	3B	POSS 3A SEE4P
68	SP88603220	LEY			25	45	3	3A	86	-22	95	-6					WE	3A	IMP 70CM
69	SP88703220	LEY			30	55	3	3A	134	26	112	11	2				WE	3A	See 5P
70	SP88803220	LEY			27	52	3	3A		0		0					WE	3A	See 5P
71	SP88503210	LEY	SW	2	27	27	4	3B		0		0					WE	3B	
72	SP88603210	LEY			30	30	4	3B		0		0					WE	3B	
73	SP88503200	LEY	SW	4	30	55	3	3B	123	15	114	13	2	Y			WE	3B	FLOOD ?
74	SP88403210	LEY			25	25	4	3B		0		0					WE	3B	
75	SP88903300	CER			20	30	4	3B	77	-31	77	-24	3B				WE	3B	See 6P
1P	SP88703270	PGR			43	43	3	3A	119	13	95	-5	2			Y	WE	3A	PIT 1 AT AB24
2P	SP88403240	PGR			45	45	3	3A	127	19	101	2	2			Y	WE	3A	PIT 2 AT AB50
3P	SP88503300	PGR			26	46	3	3A	110	2	91	-10	3A				WD	3A	auger 120cm
4P	SP89103270	CER			29	90	2	3A	128	20	99	-2	2				WE	3A	Dug80Aug120Imp
5P	SP88803230	LEY			27	40	3	3A	131	23	106	5	2				WE	3A	Dug70Aug120
6P	SP88823262	CER	W	1	33	33	4	3	81	-27	81	-20					WE	3B	AUGER 80

SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES COL	MOTTLES ABUN	MOTTLES CONT	PED COL.	GLEY	STONES >2	STONES >6	STONES LITH	STONES TOT	STRUCT/ CONSIST	SUBS STR	SUBS POR	SUBS IMP	SUBS SPL	SUBS CALC	
1	0-25	HCL	10YR42						0	0	HR	5							
	25-42	C	25Y52	75YR56	C			Y	0	0	HR	15			P		Y		
	42-78	C	05GY63	10YR56	C			Y	0	0	HR	10			P		Y		
2	0-29	MCL	10YR42						0	0	HR	5							PIT 3
	29-40	C	25Y52	75YR56	C			Y	0	0	HR	10			P				imp stones
3	0-25	MCL	10YR42						0	0	HR	5							
	25-30	HCL	25Y52	75YR46	C			Y	0	0	HR	10			M				
	30-45	C	10YR44	10YR56	C			S	0	0	HR	5			P				imp stones
4	0-25	HCL	10YR42						1	0	HR	1						N	
	25-60	C	10YR53	75YR56	M	D		Y	0	0		0			P		Y		
	60-70	C	10YR53	75YR56	M	D		Y	0	0	HR	30			P		Y		
5	0-28	SCL	10YR42						0	0	HR	5							
	28-40	SCL	10YR43						0	0	HR	15			M				
	40-50	SCL	10YR52	10YR56	C			Y	0	0	HR	30			P		Y		imp stones
6	0-25	MCL	10YR42						0	0		0							
	25-43	HCL	10YR52	10YR56	C	F		Y	0	0		0			M				
	43-50	C	25Y52	10YR56	M	F		Y	0	0		0			P		Y		imp stones
7	0-28	MCL	10YR42						1	0	HR	1						N	
	28-35	HCL	10YR44						0	0	HR	1			M				
	35-58	HCL	10YR52	10YR56	C	F		Y	0	0	HR	1			M				
	58-120	C	10YR53	10YR56	M	D		Y	0	0	HR	20			P		Y		
8	0-28	HCL	10YR42						1	0	HR	2						N	
	28-55	C	10YR52	10YR56	C	D		Y	0	0		0			P		Y		
	55-95	C	10YR53	75YR56	M	D		Y	0	0	HR	20			P		Y		
9	0-25	HCL	10YR42						1	0	HR	1						N	
	25-80	C	10YR53	75YR	M	D		Y	0	0	HR	10			P		Y		
10	0-35	MCL	10YR33						0	0	HR	1							
	35-65	C	25Y53	10YR58	C	D		Y	0	0	HR	2			P		Y		+FSand Plastic
	65-120	C	10GY6	10YR56	M	D		Y	0	0	HR	1			P		Y		Plastic Firm
11	0-30	MCL	10YR43						0	0	HR	1							+FSand
	30-60	C	25Y52	75YR58	M	D	00MN00	Y	0	0		0			P		Y		FirmPlasticImp
12	0-24	MCL	10YR42						0	0	HR	5							
	24-44	SCL	10YR44						0	0	HR	20			M				
	44-60	SCL	10YR43	75YR46	C			S	0	0	HR	20			P		Y		imp stones
13	0-25	MCL	10YR42						0	0	HR	10							
	25-40	MCL	10YR52	75YR46	M			Y	0	0	HR	5			M				imp stones

SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES COL	MOTTLES ABUN	MOTTLES CONT	PED COL.	GLEY	STONES >2	STONES >6	STONES LITH	STONES TOT	STRUCT/ CONSIST	SUBS STR	SUBS POR	SUBS IMP	SUBS SPL	SUBS CALC	
14	0-24	MCL	10YR42						0	0	HR	2							
	24-34	MCL	10YR52	75YR46	C			Y	0	0	HR	5		M					
	34-50	MCL	25Y52	10YR56	C			Y	0	0	HR	5		M					imp stones
15	0-24	MCL	10YR42						0	0	HR	2							
	24-40	C	10YR51	75YR46	C			Y	0	0	HR	5		P		Y			
	40-50	C	25Y51	75YR46	M			Y	0	0	HR	5		P		Y			
16	0-28	MCL	10YR42						1	0	HR	1							
	28-50	HCL	10YR52	10YR66	C	F		Y	0	0	HR	1		M					
	50-70	C	10YR51	10YR66	C	D		Y	0	0	HR	5		P		Y			
17	0-25	MCL	10YR42						2	0	HR	2							
	25-40	HCL	10YR52	10YR66	C	F		Y	0	0	HR	5		M					
	40-90	C	10YR53	10YR56	C	D		Y	0	0		0		P		Y			
18	0-25	MCL	10YR42						1	0	HR	1						N	
	25-45	HCL	10YR52	10YR56	C	F		Y	0	0	HR	1		M					
	45-60	C	10YR53	10YR56	C	F		Y	0	0	HR	30		P		Y			
19	0-38	MCL	10YR34						0	0		0							+FSand
	38-58	C	25Y53	10YR58	C	D		Y	0	0		0		P		Y			
	58-70	C	25Y53	10YR56	C	D		Y	0	0	HR	10		P		Y			+HardFeStone
	70-80	MCL	10YR53	10YR56	C	D		Y	0	0	HR	15		P		Y			Imp Stones
20	0-20	HCL	10YR43						0	0		0							+FSand
	20-32	C	10YR44						0	0		0		M					
	32-120	C	25Y53	10YR58	M	D	00MN00	Y	0	0		0		P		Y			Plastic Firm
21	0-27	SCL	10YR43						0	0	HR	2							
	27-42	SCL	25Y53	75YR46	F				0	0	HR	2		M					
	42-80	LMS	10YR56	10YR72	C			Y	0	0	HR	1		M					
	80-100	MSL	25Y72	10YR56	M			Y	0	0	HR	1		G					
	100-120	C	05BG72	10YR56	M			Y	0	0	HR	5		P		Y			
22	0-25	MCL	10YR42						0	0	HR	2							
	25-50	MCL	10YR53	75YR46	C			Y	0	0	HR	10		M					
	50-68	SCL	25Y63	10YR56	C			Y	0	0	HR	10		P		Y			imp stones-SEE1P
23	0-25	MCL	10YR42						0	0	HR	2							
	25-48	SCL	10YR53	75YR46	C			Y	0	0	HR	10		M					
	48-60	SCL	10YR72	10YR56	C			Y	0	0	HR	10		P		Y			imp stones
24	0-24	MCL	10YR42						0	0	HR	2							+FSand
	24-57	MCL	10YR53	75YR46	C			Y	0	0	HR	5		M					
	57-75	SCL	10YR52	10YR56	C			Y	0	0	HR	10		P		Y			
	75-98	C	10YR62	75YR43	M			Y	0	0	HR	10		P		Y			imp stones

SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES COL	MOTTLES ABUN	MOTTLES CONT	PED COL.	GLEY	STONES >2	STONES >6	STONES LITH	STONES TOT	STRUCT/ CONSIST	SUBS STR	SUBS POR	SUBS IMP	SUBS SPL	CALC	
25	0-25	MCL	10YR42						1	0	HR	1						N	? HCL
	25-40	HCL	10YR53	10YR56	C	F		Y	0	0		0		M					
	40-70	C	10YR51	10YR56	M	D		Y	0	0		0		P		Y			
26	0-25	HCL	10YR42						2	0	HR	2						N	
	25-35	HCL	25Y 53	10YR66	C	F		Y	0	0		0		M					
	35-70	C	25Y 63	10YR56	C	D		Y	0	0		0		P		Y			
27	0-28	HCL	10YR42						1	0	HR	1							
	28-65	C	10YR53	10YR56	C	F		Y	0	0		0		P		Y			
	65-90	C	25Y 71	10YR56	M	D		Y	0	0		0		P		Y			
28	0-27	HCL	10YR34						0	0	HR	2							
	27-40	C	10YR53	10YR58	C	D		Y	0	0	HR	10		M					+HardFeStone
	40-50	MCL	10YR53	10YR58	C	D		Y	0	0	HR	15		M					Imp Stone
29	0-28	HCL	10YR34						0	0	HR	2							
	28-40	C	10YR43	10YR56	C	D		S	0	0	HR	5		M					BrickFragsImp
30	0-24	MCL	10YR43						0	0	HR	2							
	24-39	MCL	10YR44						0	0	HR	5		M					
	39-55	SCL	25YR73	10YR56	C			Y	0	0	HR	15		P		Y			
31	0-30	MCL	10YR42						0	0	HR	2							
	30-40	SCL	10YR43						0	0	HR	5		M					
	40-50	SCL	10YR53						0	0	HR	15		M					imp stones
32	0-18	MCL	10YR42						0	0	HR	2							
	18-40	SCL	10YR53						0	0	HR	10		M					
	40-60	SCL	10YR54						0	0	HR	15		M					
33	0-24	MCL	10YR42						0	0	HR	2							
	24-40	MCL	10YR53	75YR46	C			Y	0	0	HR	5		M					
	40-58	MCL	10YR52	10YR56	C			Y	0	0	HR	10		M					
33A	0-15	OMCL	10YR41						0	0		0							
	15-25	MCL	10YR53	10YR56	C	F		Y	0	0		0		M					
	25-60	C	25Y53	10YR56	C	D		Y	0	0		0		P		Y			
34	0-33	HCL	25Y32						0	0		0							
	33-50	C	25Y52	10YR56	C	D		Y	0	0		0		P		Y			
35	0-23	HCL	10YR42						1	0	HR	1						N	
	23-60	C	25Y53	10YR66	C	F		Y	0	0		0		P		Y			
36	0-25	MCL	10YR42						1	0	HR	1						N	
	25-35	C	25Y 53	10YR66	C	F		Y	0	0		0		P		Y			
	35-60	C	10YR52	10YR56	C	D		Y	0	0	HR	30		P		Y			

SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES COL	MOTTLES ABUN	MOTTLES CONT	PED COL.	GLEY	STONES >2	STONES >6	STONES LITH	STONES TOT	STRUCT/ CONSIST	SUBS STR	SUBS POR	SUBS IMP	SUBS SPL	CALC
37	0-35	HCL	10YR33						0	0	HR	2						
	35-60	C	25Y53	10YR58	C	D		Y	0	0	HR	2		P		Y		+FSand
	60-80	C	25Y53	10YR58	C	D		Y	0	0	HR	5		P		Y		Imp Flint
38	0-27	MCL	10YR34						0	0	HR	1						
	27-65	C	10YR53	10YR58	C	D		Y	0	0		0		P		Y		+FSand
	65-80	C	25Y53	75YR58	C	D		Y	0	0	HR	8		P		Y		+MSandImpFlint
39	0-27	HCL	10YR42						0	0	HR	2						
	27-50	C	10YR52	10YR56	C			Y	0	0	HR	5		P		Y		
	50-65	C	10YR52	10YR56	M			Y	0	0	HR	25		P		Y		
40	0-27	MCL	10YR43						0	0	HR	2						
	27-40	SCL	10YR52	10YR56	C			Y	0	0	HR	2		M				
	40-60	SCL	10YR53	10YR56	C			Y	0	0	HR	2		P		Y		
	60-85	SCL	25Y73	10YR56	M			Y	0	0	HR	2		P		Y		
	85-120	MSL	10YR62	10YR56	M			Y	0	0	HR	2		M				
41	0-24	MCL	10YR43						0	0	HR	2						
	24-35	HCL	10YR54	10YR56	C	F		S	0	0	HR	2		M				
	35-70	C	25Y63	10YR56	M	D		Y	0	0		0		P		Y		firm
42	0-26	MCL	10YR43						0	0	HR	5						
	26-45	HCL	10YR44	10YR56	F	F			0	0	HR	10		M				imp stones
43	0-25	HCL	25Y42						0	0	HR	1						
	25-70	C	25Y53	10YR56	M	D		Y	0	0		0		P		Y		
44	0-25	HCL	25Y42						0	0	HR	1						
	25-70	C	25Y53	10YR56	M	D		Y	0	0	HR	1				Y		
45	0-28	HCL	10YR42						0	0	HR	1						
	28-60	C	25Y53	10YR56	C	D		Y	0	0		0		P		Y		
46	0-29	HCL	25Y33						0	0	HR	2						
	29-120	C	25Y53	10YR58	C	D	00MN00	Y	0	0	HR	5		P		Y		+FSand Plastic
47	0-29	HCL	25Y33						0	0	HR	2						
	29-120	C	25Y53	75YR58	M	D	00MN00	Y	0	0	HR	5		P		Y		Plastic
48	0-25	C	10YR42	75YR46	C			Y	0	0		0						
	25-44	C	10YR52	75YR46	M			Y	0	0		0		P		Y		
	44-60	C	10YR51	75YR46	M			Y	0	0		0		P		Y		
49	0-23	MCL	10YR42						0	0	HR	2						
	23-50	SCL	10YR52	10YR56	C			Y	0	0	HR	5		M				imp stones
50	0-29	MCL	10YR42	75YR46	C			Y	0	0	HR	2						
	29-42	HCL	10YR43	10YR56	C			S	0	0	HR	2		M				
	42-65	SC	10YR53	10YR56	C			Y	0	0	HR	2		P		Y		
	65-90	C	10BG63	10YR56	M			Y	0	0		0		P		Y		

SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES COL	MOTTLES ABUN	MOTTLES CONT	PED COL.	GLEY	STONES >2	STONES >6	STONES LITH	STONES TOT	STRUCT/ CONSIST	SUBS STR	SUBS POR	IMP	SPL	CALC	
51	0-28	MCL	10YR43						0	0	HR	2							
	28-45	HCL	10YR44						0	0	HR	5		M					
	45-78	SCL	10YR63	10YR46	M	D		Y	0	0	HR	5		M		Y			
	78-120	C	25Y63	10YR58	M	D		Y	0	0		0		P		Y			
52	0-28	MCL	10YR42						0	0	HR	2							
	28-45	SCL	10YR53						0	0	HR	20		M					
	45-55	SCL	10YR53	10YR46	M	D		Y	0	0	HR	30		M		Y			inp stones
53	0-28	MCL	10YR42						0	0	HR	2							and sand
	28-37	SCL	10YR44						0	0	HR	2		M					
	37-52	SCL	10YR53		C	F		Y	0	0	HR	2		M					
	52-80	SCL	10YR53	10YR56	M	D		Y	0	0	HR	10		P		Y			
	80-90	CSL	10YR53	10YR56	M	D		Y	0	0	HR	30		M		N			v. gritty
54	0-32	HCL	25Y33						0	0	HR	2							
	32-65	C	25Y53	75YR58	M	D	00MN00	Y	0	0	HR	3		P		Y			+FSand
	65-80	C	05GY5	10YR58	M	D		Y	0	0	HR	3		P		Y	Y		Plastic
55	0-28	HCL	25Y33						0	0	HR	1							
	28-60	C	25Y52	75YR58	M	D	00MN00	Y	0	0	HR	2		P		Y			Firm Plastic
56	0-29	HCL	25Y33						0	0	HR	1							
	29-45	C	25Y52	10YR56	C	D		Y	0	0		0		P		Y			+FSand Moist
	45-55	C	25Y53	10YR56	C	D		Y	0	0	HR	15		P		Y			+MSand
	55-120	C	05GY5	10YR58	M	D		Y	0	0	HR	2		P		Y	Y		
57	0-29	HCL	10YR42						0	0	HR	2							
	29-40	C	10YR52	75YR46	C			Y	0	0		0		P					imp stones
58	0-26	MCL	10YR42						0	0	HR	2							
	26-37	HCL	10YR43	75YR46	F				0	0	HR	5		M					
	37-45	HCL	10YR52	10YR56	M			Y	0	0	HR	5		M					
	45-65	C	10YR52	10YR56	M			Y	0	0		0		P		Y			
59	0-27	MCL	10YR42						0	0	HR	2							
	27-50	SCL	10YR53	75YR46	C			Y	0	0	HR	2		M					
	50-55	SCL	10YR53	75YR46	C			Y	0	0	HR	2		P		Y			imp stones-SPL?
60	0-25	MCL	10YR32						1	0	HR	1							
	25-47	SCL	10YR53	10YR56	C	D		Y	0	0		0		M					
	47-75	C	10YR53	10YR56	M	D		Y	0	0	HR	20		P		Y			
61	0-32	SCL	10YR43						5	1	HR	5							
	32-45	SCL	10YR53	10YR56	C			Y	0	0	HR	10		M					
	45-55	SCL	10YR53	10YR58	M			Y	0	0	HR	20		P		Y			imp stones-SPL?
62	0-35	MCL	10YR33						0	0	HR	1							+MSand
	35-50	MCL	10YR43						0	0	HR	10		M					+MSand
	50-65	MSL	10YR44						0	0	HR	15		G					Imp Stone

SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES COL	MOTTLES ABUN	MOTTLES CONT	PED COL.	GLEY	STONES >2	STONES >6	STONES LITH	STONES TOT	STRUCT/ CONSIST	SUBS STR	SUBS POR	SUBS IMP	SUBS SPL	SUBS CALC	
63	0-27	MCL	10YR33						0	0	HR	2							
	27-40	SCL	10YR53	10YR58	C	D		Y	0	0		0		M					
	40-68	C	25Y52	10YR58	M	D		Y	0	0	HR	2		P		Y			Plastic+Sand
	68-120	C	05GY4	10YR56	C	D		Y	0	0		0		P		Y			Firm
64	0-25	HCL	25Y33						0	0	HR	1							
	25-50	C	25Y52	10YR56	C	D		Y	0	0	HR	2		P		Y			Plastic Firm
	50-120	C	05G5	10YR56	M	D	00MN00	Y	0	0	SLST	2		P		Y	Y		Firm
65	0-27	HCL	10YR42						0	0	HR	2							
	27-50	HCL	10YR43	75YR46	C			Y	0	0	HR	5		M					
	50-65	C	10YR41	75YR46	M			Y	0	0	HR	20		P		Y			
66	0-25	HCL	10YR32						3	0	HR	3							
	25-70	C	25Y53	10YR56	C	D		Y	0	0	HR	5		P		Y			
66A	0-25	HCL	10YR32						0	0	HR	2							
	25-50	C	25Y53	10YR56	C	D		Y	0	0		0		P		Y			extends 50+
67	0-25	HCL	10YR42						12	2	HR	15							
	25-40	C	10YR53	10YR56	C			Y	0	0	HR	30		P		Y			spl imp stones
68	0-25	SCL	10YR32						0	2	HR	10							
	25-45	SCL	10YR53	75YR58	C			Y	0	0	HR	10		M					
	45-70	SC	25Y53	10YR58	C			Y	0	0	HR	10		P		Y			imp stones
69	0-30	MCL	10YR32						0	0		0							+FSand
	30-55	SCL	10YR53	10YR58	C	D		Y	0	0	HR	2		M					+MSand
	55-120	C	25Y53	75YR56	M	D	00MN00	Y	0	0	HR	2		P		Y			QuerySC
70	0-27	MCL	10YR33						0	0	HR	2							
	27-52	SCL	25Y53	10YR58	C	D		Y	0	0	HR	2		M					Clayey
	52-120	C	25Y53	10YR58	M	D	00MN00	Y	0	0	HR	2		P		Y			SandyPockets
71	0-27	MCL	10YR33						1	0	HR	3							+FSand
	27-40	C	25Y53	10YR58	C	D		Y	0	0	HR	10		P		Y			+FSand Dense
	40-120	C	25Y52	10YR56	M	D		Y	0	0	HR	5		P		Y	Y		
72	0-30	MCL	10YR42						0	0	HR	2							+MSand
	30-70	C	25Y53	10YR58	C	D		Y	0	0	HR	2		P		Y			+MSand
	70-80	C	25Y53	10YR58	M	D		Y	0	0	HR	2		P		Y			Imp Stone
73	0-30	HCL	10YR33						1	0	HR	3							
	30-55	HCL	10YR42	10YR56	C	D			0	0		0		M					
	55-75	MCL	10YR42	75YR46	C	D		Y	0	0	HR	10		M		Y			+MSand?SCL
	75-85	HCL	25Y41	10YR46	C	D		Y	0	0	HR	10		P		Y			+MSand?SCL
	85-95	C	25Y42	10YR56	M	D		Y	0	0	HR	5		P		Y			ImpFlint

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES----- COL	ABUN	CONT	PED COL.	GLEY	----STONES---- >2	>6	LITH	TOT	STRUCT/ CONSIST	SUBS STR	POR	IMP	SPL	CALC	
74	0-25	HCL	10YR32	10YR56	F	D			4	2	HR	6							
	25-45	C	10YR52	10YR56	C	D		Y	0	0	HR	5		M			Y		+FSand
	45-80	C	25Y52	10YR58	M	D	00MN00	Y	0	0		0		P			Y		Plastic Moist
75	0-20	MCL	10YR34						0	0	HR	2							+FSand
	20-30	HCL	10YR53	10YR58	C	D		Y	0	0		0		M					
	30-120	C	25Y52	75YR58	M	D		Y	0	0		0		P			Y		Plastic Firm
1P	0-17	MCL	10YR42						1	0	HR	2							SCL PSD?
	17-43	MCL	10YR43	75YR46	C			S	0	0	HR	10	MDCSAB	FR	M				POSS. SCL?
	43-63	SCL	10YR53	75YR58	M			Y	0	0	HR	30	WKCSAB	FM	P		Y		HR=SMALL GRIT
	63-95	SC	10YR52	75YR46	M			Y	0	0	HR	10	MDCAB	FM	P		Y		
	95-120	SC	10YR53	75Y46	M			Y	0	0	HR	30			P		Y		
2P	0-27	MCL	10YR42						2	0	HR	4							
	27-45	HCL	10YR43	75YR46	C			S	0	0	HR	8	MDCSAB	FR	M		N		
	45-65	SC	10YR53	10YR56	C			Y	0	0	HR	20	MDCPR	FM	P		Y		very gritty
	65-120	C	10BG63	10YR46	M			Y	0	0		0	WKVCAB	VF	P		Y		pit90cm auger120c
3P	0-26	MCL	10YR42						1	0	HR	3						N	
	26-46	HCL	10YR52	10YR56	C	F		Y	0	0	HR	15	MDCSAB	FR	M				
	46-70	C	25Y 52	10YR56	C	F		Y	0	0	HR	45	WKCAB	FM	P		Y		
	70-120	SC	10YR52	10YR56	M	D		Y	0	0	HR	50			M		N		
4P	0-29	HCL	10YR54						0	0	HR	1							DT105.augto120
	29-56	SC	10YR53	10YR58	C	D		Y	4	0	HR	30	MDCSAB	FM	M				Tending PR
	56-90	MSL	10YR53	10YR58	C	D		Y	7	0	HR	27	WKCSAB	FR	G				Tending AB
	90-105	C	05GY6	75YR58	M	D		Y	0	0		0		FM	P		Y		WithSPStructure
	105-110	MS	25Y53	10YR56	C	D		Y	0	0	HR	5		FR	G				WithSPStructure
5P	0-27	MCL	10YR33						1	0	HR	3							
	27-40	SCL	25Y53	10YR58	C	D		Y	0	0	HR	10	MDCSAB	FR	M				LrgeRoundFlints
	40-65	SC	25Y5253	10YR58	M	D		Y	0	0	HR	8	MDCAB	FR	M		Y		Tending PR
	65-120	C	05G5	10YR56	M	D		Y	0	0		0		FM	P		Y		Calc at 90cm
6P	0-33	HCL	25Y32						1	0	HR	1							
	33-50	C	25Y52	10YR56	C	D		Y	0	0		0	MDCAB	FM	P		Y		Auger 80