A1

Hampshire Structure Plan Review
Land at Four Marks
Agricultural Land Classification
Reconnaissance Survey
ALC Map and Report
December 1995

AGRICULTURAL LAND CLASSIFICATION REPORT.

HAMPSHIRE STRUCTURE PLAN REVIEW
LAND AT FOUR MARKS
RECONNAISSANCE SURVEY

1. Summary

1.1 ADAS was commissioned by MAFF's Land Use Planning Unit to provide information on land quality for a number of 'areas of search' in connection with MAFF's input to the Hampshire Structure Plan Review.

1.2 Land at Four Marks comprises approximately 630 hectares of land centred around the village of Four Marks which is approximately 4 miles south west of Alton in Hampshire. An Agricultural Land Classification (ALC) survey was carried out between May and October 1995. The survey was completed at a reconnaissance level of detail, on a 'free' survey basis, as it was undertaken primarily to update the 1:63,360 scale provisional ALC maps for this area. Consequently the results are designed for strategic planning purposes only. For site specific proposals, further, more detailed surveys may be required. A total of 140 borings and eight soil inspection pits were assessed in accordance with MAFF's revised guidelines and criteria for grading the quality of agricultural land (MAFF, 1988). These guidelines provide a framework for classifying land according to the extent to which its physical or chemical characteristics impose long-term limitations on its use for agriculture. Information was also drawn from four existent surveys (ADAS Refs: 1502/06-09/95 inclusive) within the survey area.

1.3 The work was carried out by members of the Resource Planning Team in the Guildford Statutory Group of ADAS.

1.4 At the time of survey the agricultural land was under permanent grass, ley grass, winter cereals and stubble, together with some areas of set aside. Urban areas include individual and grouped dwellings and their gardens, farm buildings, hard sports areas, roads and tracks, a scrap yard and a cemetery. Recreational land, including a golf course, and scrub are shown as Non-Agricultural. The majority of the woodland in this area is mature and deciduous, although some comprises part of a coniferous plantation, the majority of which is beyond the boundary of the surveyed area.

1.5 The distribution of grades and subgrades is shown on the attached ALC map and the areas are given in Table 1 overleaf. The map has been drawn at a scale of 1:50,000. It is accurate at this scale, but any enlargement would be misleading.

1.6 Appendix I gives a general description of the grades, subgrades and land use categories identified in the survey. The main classes are described in terms of the type of limitation that can occur, the typical cropping range and the expected level and consistency of yield.

Table 1: Area of grades and other land

Grade/Other land	Area (hectares)	% surveyed area	% agricultural area
3a	138.6	22.0	27.9
3b	358.1	56.9	72.1
Urban	93.7	14.9	
Non-Agricultural	27.9	4.4	
Woodland	11.6	1.8	
Total survey area	496.7		100.0
Total site area	629.9	100.0	

1.7 Land quality in this 'area of search' ranges from good quality (Subgrade 3a), to moderate quality (Subgrade 3b). Principal limitations include soil wetness and to a lesser extent soil droughtiness and slope.

1.8 Land of Subgrade 3a quality is generally associated with the dry valley features and is limited by soil droughtiness. This is either due to gravelly subsoil horizons restricting the water holding capacity of the soil or, by solid chalk occurring at shallow to moderate depths, commonly on sloping land. Chalk has the effect of restricting plant rooting depth, such that there is a reduction in the available water capacity of the soil. Soil droughtiness causes plant growth to be adversely affected as water supply is insufficient for growth during all or part of the growing season. In view of the relatively wet local climate, such land is appropriately graded 3a.

1.9 The majority of the 'area of search' is affected by soil wetness due to slowly permeable clay subsoils which occur at shallow and moderate depths beneath medium loamy and silty topsoil and upper subsoil horizons. Soil wetness in the Four Marks area is exacerbated by the comparatively wet nature of the local climate. A soil wetness limitation affects plant growth and yield and reduces the opportunities for cultivations and/or grazing without causing structural damage to the soil. The majority of land of this type is located on the land of highest altitude and is graded 3b. Within this soil type there are also some areas of slightly better drained land which are appropriately graded 3a.

1.10 In some relatively small areas of the site, principally to the west and south, slope is the principal limiting factor. Gradients in the range 7-11° were measured. This limits land quality to Subgrade 3b as cultivation is compromised in terms of the safe and efficient use of farm machinery.

2. Climate

2.1 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.

2.2 The main parameters used in the assessment of an overall climatic limitation are average annual rainfall, as a measure of overall wetness, and accumulated temperature, as a measure of the relative warmth of a locality.

2.3 An assessment of the prevailing climate was made by interpolation from a 5km gridpoint dataset (Met. Office, 1989) for 20 points in the survey area. A representative sample are given in Table 2. These show that overall the site is climatically Grade 2 due to it being cool and moist as a result of being located at comparatively high altitudes. This means that Grade 2 is the highest land quality possible in this area. Also, according to unpublished Met. Office data (1971), this area is considered to be rather exposed, again because of the comparatively high altitude, especially for the south east England.

2.4 Due to the relatively small differences in climate over the surveyed area, the set of specific climatic variables chosen for the purposes of the survey (see table 3) was the median average of those obtained by interpolation from the total of 20 separate readings taken over the whole survey area. These are shown in bold type in Table 2 below.

Table 2: Climatic and altitude data

Factor	Units	Values	**Values**	Values
Grid reference	N/A	SU 654 347	**SU 658 360**	SU 685 346
Altitude	m, AOD	165	**195**	210
Accumulated Temperature	day°C	1353	**1319**	1301
Average Annual Rainfall	mm	917	**934**	962
Field Capacity Days	days	200	**202**	207
Moisture Deficit, Wheat	mm	82	**79**	76
Moisture Deficit, Potatoes	mm	69	**64**	59

2.5 Climatic and soil factors interact to influence soil wetness, workability and droughtiness limitations. Given the other limitations acting to affect land quality in this 'area of search', overall climate and exposure (see para. 2.3) do not have overriding significance. At this locality, average annual rainfall and field capacity days are high, in regional terms, reflecting the elevated altitude. Therefore the likelihood of soil wetness and/or workability limitations is increased

3. Relief

3.1 The 'area of search' lies between approximately 165 and 220m AOD. The land mostly comprises a plateau, dissected by dry valley features which commonly fall gently from the north towards the south or south west. Occasionally the slopes to these valley features have gradients which are significant in terms of land quality, ie gradients over 7° were occasionally measured (see para. 5.7).

4. Geology and Soils

4.1 The published geological information (BGS, 1975, 1:50,000 scale), shows the majority of the 'area of search' to be underlain by clay-with-flints, a drift deposit overlying Cretaceous Upper Chalk. In the smaller dry valley features Cretaceous Upper Chalk is mapped, often with the suffix 'clayey soil'. In the large dry valley feature, which runs approximately through the centre of the site from South Town in the north to Hawthorn in the south, river and valley gravel is shown as a drift deposit.

4.2 The published soils information (SSEW 1983 and 1984, 1:250,000 scale), shows the site to be underlain by soils from the Carstens and Upton Associations. The Carstens Association is mapped for the majority of the site and is described as, 'well drained fine silty over clayey, clayey and fine silty soils, often very flinty,' (SSEW, 1983). The Upton Association is mapped towards the west of the site, in one of the dry valley features. This is described as 'Shallow well drained calcareous silty soils over Chalk. Mainly on moderately steep, sometimes very steep land. Deeper fine silty calcareous soils in coombes and dry valley.' (SSEW, 1983). Within the 'area of search', the soils encountered were broadly of the types described above. In the areas coincident with clay with flints, soils were deep, with chalk not encountered with 1.2m and silty over clayey with a variable flint content. The soils in this area were moderately to poorly drained, the clay being slowly permeable (see para. 5.6). In the areas mapped as river and valley gravel the soils were considered to be deep but were very flinty and often impenetrable to the soil auger and spade. In the areas where soils are directly derived from Chalk, soil depth over Chalk rock was variable

5. Agricultural Land Classification

5.1 Paragraph 1.5 and Table 1 provide details of the area measurements for each grade. The distribution of each grade is shown on the attached ALC map.

5.2 The location of the soil observation points are shown on the attached sample point map.

Subgrade 3a

5.3 Land of good quality occurs over approximately 22% of the site. Principal limitations to land quality include soil droughtiness and soil wetness. Soils within this classification fall into three main groups. The first and most extensive is located at the base of, and on the lower slopes of, the dry valley features where

valley gravels are mapped. Such land is common throughout the 'area of search'. Typical profiles are well drained (Wetness Class I) and comprise a slightly to moderately stony (up to 20% v/v total flints, with up to 5% >2cm) non calcareous, medium silty clay loam, occasionally silt loam or medium clay loam topsoil. This passes to moderately stony (up to 25% v/v total flints) non calcareous medium silty clay loam or medium clay loam, occasionally silt loam upper subsoil horizon which was often impenetrable to the soil auger. This passes to a very stony (60% v/v total flints) heavy silty clay loam horizon passing to gravel as seen at the pit observation 7p. The flints in the profile reduce the water holding capacity of the soil such that, within the local climatic parameters there is a risk of drought stress affecting plant growth and yield consistency.

5.4 The second soil type generally occurs towards the head of the dry valley features and on slopes throughout the 'area of search'. It is principally limited by soil wetness. Associated soils commonly comprise a slightly stony (up to 10% v/v total flints) medium silty clay loam or medium clay loam topsoil. This commonly passes to a slightly gleyed, similarly stony, medium or heavy medium silty clay loam upper subsoil. This rests, at varying depths, on a slightly to moderately stony (up to 20% v/v total flints), gleyed or slightly gleyed, slowly permeable red or brownish clay. Soils in this group are similar to many graded 3b (see para. 5.6), but have a greater depth of loamy material above the clay and are not gleyed within 40cm. The depth at which the slowly permeable horizon occurs in the locally wet climate leads to Wetness Class III being applied. Subsequently Subgrade 3a is appropriate given the medium textured topsoils. Soil wetness affects plant growth and yield as well as restricting land utilisation in terms of the number of days when machinery cultivations and grazing by livestock can occur without causing structural damage to the soil.

5.5 The third, and least extensive, soil type graded 3a, occurs primarily towards the west of the site. This commonly comprises a slightly to moderately stony (up to 17% v/v total flints, 12%>2cm) medium silty clay loam topsoil, passing to a similarly stony medium or heavy silty clay loam upper subsoil. This lies directly over solid Chalk. Chalk has the effect of restricting plant rooting and consequently the available water capacity of the profile, such that from the pit observation 6p, roots were found to extend approximately 30cm into the substrate and as such the soil droughtiness calculation was stopped at this point. The restriction in rooting leads to a reduction in profile available water, such that Subgrade 3a is appropriate in the locally moist climate. Soil droughtiness affects plant growth and yield. Very occasional observations over Chalk were deeper and of a slightly better quality, these have not been mapped separately at this scale.

Subgrade 3b

5.6 The majority of the agricultural land in this area is shown as being of moderate quality. Principal limitations include soil wetness and slope (see para. 5.7). The majority of this area is affected by soil wetness. The associated soils typically comprise a slightly stony (up to approximately 10% v/v total flints), occasionally slightly gleyed medium silty clay loam or medium clay loam. This may pass to a similar, gleyed or slightly gleyed, medium or heavy silty clay loam or medium clay

loam upper subsoil. In many profiles this loamy upper subsoil is absent and the topsoil rests directly on a clay horizon. The upper subsoil, if present, or the topsoil passes at varying depths to a slightly or moderately stony (up to approximately 20% v/v total flints), gleyed or slightly gleyed, slowly permeable clay as seen in the pit observations 1p, 2p, 3p, 4p, 5p and 8p. This clay lower (sometimes upper) subsoil is typically red in colour with hues of 5YR or redder, and may not always exhibit prominent signs of wetness such as distinct mottles or pale ped faces. In general, such horizons as described as slightly gleyed, although it is believed that the intense red colour is masking the full expression of gleying. These red clay subsoils exhibit a compound structure with a coarse angular blocky primary structure and a medium angular blocky secondary structure. In terms of the wetness assessment, the primary structure (coarse angular blocky) is considered operative in terms of the wetness assessment. Following consultation with the SSLRC, it was agreed that these red subsoils were slowly permeable. The depth at which the slowly permeable horizon occurs in this locally moist climate regime leads to Wetness Class III or IV being applied. Subsequently Subgrade 3b is appropriate given the medium and heavy topsoils. Soil wetness affects plant growth and yield as well as restricting land utilisation in terms of the number of days when machinery cultivations and grazing by livestock can occur without causing structural damage to the soil.

5.7 In some areas of the site, primarily on the slopes of the dry valley features towards the west and south of the site, slopes were a significant factor in land classification. Gradients in these areas were measured, with an optical reading clinometer at between 7° and 11°. Slopes in this gradient range are sufficient to compromise the safe and efficient operation of farm machinery, particularly for cultivation and harvesting, to the extent that Subgrade 3b is appropriate, given the moderate degree of limitation this imposes.

SOURCES OF REFERENCE

ADAS (1995), East Hampshire Local Plan. Site 1133: Land at Lymington Bottom, Four Marks. Agricultural Land Classification Report. Reference 1502/006/95

ADAS (1995), East Hampshire Local Plan. Site 512: Land at Boyneswood Road, Four Marks. Agricultural Land Classification Report. Reference 1502/007/95

ADAS (1995), East Hampshire Local Plan. Site 683: Land between Brislands Lane and Winchester Road, Four Marks. Agricultural Land Classification Report. Reference 1502/008/95

ADAS (1995), East Hampshire Local Plan. Site 1083: Budgetts Farm, Four Marks. Agricultural Land Classification Report. Reference 1502/009/95

British Geological Survey (1975), Sheet 300, Alresford, 1:50,000. Drift Edition.

MAFF (1988), Agricultural Land Classification of England and Wales : Revised guidelines and criteria for grading the quality of agricultural land.

Meteorological Office (1971), Unpublished Climate data relating to Sheet 169, 1:63,360.

Meteorological Office (1989), Climatic datasets for Agricultural Land Classification.

Soil Survey of England and Wales (1983), Sheet No. 6, Soils of South-East England, 1:250,000, and Accompanying Legend.

Soil Survey of England and Wales (1984), Bulletin No.15, Soils and their use in South-East England.

Soil Survey and Land Research Centre (1995), Personal Communication with John Hollis.

APPENDIX I

DESCRIPTION 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.

Urban
Built-up or 'hard' uses with relatively little potential for a return to agriculture including: housing, industry, commerce, education, transport, religious buildings, cemeteries. Also, hard-surfaced sports facilities, permanent caravan sites and vacant land; all types of derelict land, including mineral workings which are only likely to be reclaimed using derelict land grants.

Non-agricultural
'Soft' uses where most of the land could be returned relatively easily to agriculture, including: private parkland, public open spaces, sports fields, allotments and soft-surfaced areas on airports. Also active mineral workings and refuse tips where restoration conditions to 'soft' after-uses may apply.

Woodland
Includes commercial and non-commercial woodland. A distinction may be made as necessary between farm and non-farm woodland.

Agricultural Buildings
Includes the normal range of agricultural buildings as well as other relatively permanent structures such as glasshouses. Temporary structures (e.g. polythene tunnels erected for lambing) may be ignored.

Open Water
Includes lakes, ponds and rivers as map scale permits.

Land Not Surveyed
Agricultural land which has not been surveyed.

Where the land use includes more than one of the above, e.g. buildings in large grounds, and where map scale permits, the cover types may be shown separately. Otherwise, the most extensive cover type will be shown.

APPENDIX II

DEFINITION OF SOIL WETNESS CLASS

Wetness Class I

The soil profile is not wet within 70 cm depth for more than 30 days in most years.

Wetness Class II

The soil profile is wet within 70 cm depth for 31-90 days in most years **or**, if there is no slowly permeable layer within 80 cm depth, it is wet within 70 cm for more than 180 days, but only wet within 40 cm depth for 31-90 days in most years.

Wetness Class III

The soil profile is wet within 70 cm depth for 91-180 days in most years **or**, if there is no slowly permeable layer present within 80 cm depth, it is wet within 70 cm for more than 180 days, but only wet within 40 cm depth for between 31-90 days in most years.

Wetness Class IV

The soil profile is wet within 70 cm depth for more than 180 days but not wet within 40 cm depth fro more than 210 days in most years **or**, if there is no slowly permeable layer present within 80 cm depth, it is wet within 40 cm depth for 91-210 days in most years.

Wetness Class V

The soil profile is wet within 40 cm depth for 211-335 days in most years.

Wetness Class VI

The soil profile is wet within 40 cm depth for more than 335 days in most years.

APPENDIX III

SOIL PIT AND SOIL BORING DESCRIPTIONS

Contents :

SOIL PROFILE DESCRIPTIONS : EXPLANATORY NOTE

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

Boring Header Information

1. **GRID REF** : national 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	**DCW** : Deciduous Wood
HTH : Heathland	**BOG** : Bog or Marsh	**FLW** : Fallow
PLO : Ploughed	**SAS** : Set aside	**OTH** : Other
HRT : Horticultural Crops		

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

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

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

6. **MB (WHEAT/POTS)** : Moisture Balance.

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

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

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

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

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

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	**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 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

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

6. **STONE LITH** : One of the following is used.

HR : all hard rocks and stones	**SLST** : soft oolitic or dolimitic limestone
CH : chalk	**FSST** : soft, fine grained sandstone
ZR : soft, argillaceous, or silty rocks	**GH** : gravel with non-porous (hard) stones
MSST : soft, medium grained sandstone	**GH** : gravel with non-porous (hard) stones

SI : soft weathered igneous/metamorphic rock
Stone contents (>2cm, >6cm and total) are given in percentages (by volume).

7. **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 **VC** : very coarse
   ped shape **S** : single grain **M** : massive **GR** : granular **AB** : angular blocky **SAB** : sub-angular blocky **PR** : prismatic **PL** : platy

8. **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

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

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

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

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

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

14. 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 : HANTS STRUCTURE 4 MARKS Pit Number : 1P

Grid Reference: SU65853470 Average Annual Rainfall : 932 mm
Accumulated Temperature : 1324 degree days
Field Capacity Level : 202 days
Land Use : Maize
Slope and Aspect : degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 27	MZCL	10YR43 00	1	8	HR					
27- 60	C	25YR46 00	0	3	HR	C	MDCSAB	FR	M	
60- 69	C	25YR46 00	0	3	HR	C	STCAB	FR	M	
69- 85	C	75YR54 64	0	2	HR	C	STCAB	FR	M	

Wetness Grade : 3B Wetness Class : IV
Gleying : 27 cm
SPL : 60 cm

Drought Grade : 1 APW : 111mm MBW : 32 mm
APP : 114mm MBP : 50 mm

FINAL ALC GRADE : 3B
MAIN LIMITATION : Wetness

SOIL PIT DESCRIPTION

Site Name : HANTS STRUCTURE 4 MARKS Pit Number : 2P

Grid Reference: SU66703648
Average Annual Rainfall : 932 mm
Accumulated Temperature : 1324 degree days
Field Capacity Level : 202 days
Land Use : Ley
Slope and Aspect : degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 27	MZCL	10YR43 00	6	10	HR	C				
27- 38	MZCL	75YR54 00	0	5	HR	C	MDCSAB	FR	M	
38- 70	C	05YR46 00	0	5	HR	C	MDCAB	FM	P	

Wetness Grade : 3B
Wetness Class : IV
Gleying :S 0 cm
SPL : 38 cm

Drought Grade : 2
APW : 92mm MBW : 13 mm
APP : 104mm MBP : 40 mm

FINAL ALC GRADE : 3B
MAIN LIMITATION : Wetness

SOIL PIT DESCRIPTION

Site Name : HANTS STRUCTURE 4 MARKS Pit Number : 3P

Grid Reference: SU68323465
Average Annual Rainfall : 932 mm
Accumulated Temperature : 1324 degree days
Field Capacity Level : 202 days
Land Use : Permanent Grass
Slope and Aspect : degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 21	MZCL	10YR42 43	2	5	HR					
21- 31	MZCL	10YR43 44	0	8	HR	C	MDCSAB	FR	M	
31- 46	MZCL	10YR63 00	0	10	HR	C	MDCSAB	FM	M	
46- 75	C	05YR46 00	0	15	HR	F	MDCAB	FM	P	
75- 90	C	05YR73 00	0	0		C			P	
90-120	SC	75YR68 00	0	0		C			P	

Wetness Grade : 3B
Wetness Class : IV
Gleying : 31 cm
SPL : 46 cm

Drought Grade :
APW : mm MBW : 0 mm
APP : mm MBP : 0 mm

FINAL ALC GRADE : 3B
MAIN LIMITATION : Wetness

SOIL PIT DESCRIPTION

Site Name : HANTS STRUCTURE 4 MARKS Pit Number : 4P

Grid Reference: SU66883578 Average Annual Rainfall : 932 mm
Accumulated Temperature : 1324 degree days
Field Capacity Level : 202 days
Land Use :
Slope and Aspect : degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 26	MZCL	10YR43 00	3	10	HR					
26- 40	C	05YR46 00	0	15	HR	C	MDCAB	FM	P	
40-120	C	05YR46 58	0	10	HR	C	MDCAB	FM	P	

Wetness Grade : 3B Wetness Class : IV
Gleying :S26 cm
SPL : 26 cm

Drought Grade : 1 APW : 129mm MBW : 50 mm
APP : 107mm MBP : 43 mm

FINAL ALC GRADE : 3B
MAIN LIMITATION : Wetness

SOIL PIT DESCRIPTION

Site Name : HANTS STRUCTURE 4 MARKS Pit Number : 5P

Grid Reference: SU66593550 Average Annual Rainfall : 932 mm
Accumulated Temperature : 1324 degree days
Field Capacity Level : 202 days
Land Use : Wheat
Slope and Aspect : 1 degrees W

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 23	MZCL	10YR43 00	3	10	HR					
23- 30	HZCL	75YR54 56	0	10	HR	C		FM	P	
30- 95	C	05YR46 00	0	8	HR	C	STCAB	FM	M	

Wetness Grade : 3B Wetness Class : IV
Gleying :S23 cm
SPL : 23 cm

Drought Grade : 1 APW : 113mm MBW : 34 mm
APP : 110mm MBP : 46 mm

FINAL ALC GRADE : 3B
MAIN LIMITATION : Wetness

SOIL PIT DESCRIPTION

Site Name : HANTS STRUCTURE 4 MARKS Pit Number : 6P

Grid Reference: SU65223551
Average Annual Rainfall : 932 mm
Accumulated Temperature : 1324 degree days
Field Capacity Level : 202 days
Land Use : Permanent Grass
Slope and Aspect : 2 degrees W

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 14	MZCL	10YR43 00	3	8	HR					Y
14- 25	HZCL	10YR44 00	0	8	HR				M	Y
25- 55	CH	10YR81 00	0	2	HR				P	Y
55-120	CH	10YR81 00	0	2	HR				P	Y

Wetness Grade : 2
Wetness Class : I
Gleying : cm
SPL : cm

Drought Grade : 3A
APW : 69mm MBW : -10 mm
APP : 71mm MBP : 7 mm

FINAL ALC GRADE : 3A
MAIN LIMITATION : Droughtiness

SOIL PIT DESCRIPTION

Site Name : HANTS STRUCTURE 4 MARKS Pit Number : 7P

Grid Reference: SU67263367 Average Annual Rainfall : 932 mm
Accumulated Temperature : 1324 degree days
Field Capacity Level : 202 days
Land Use : Permanent Grass
Slope and Aspect : degrees W

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 20	MZCL	10YR42 43	5	8	HR					
20- 40	MZCL	10YR44 00	0	18	HR		MDCSAB	FR	M	
40- 60	HZCL	10YR44 00	0	60	HR			FR	M	

Wetness Grade : 2 Wetness Class : I
Gleying : cm
SPL : cm

Drought Grade : 3A APW : 75mm MBW : -4 mm
APP : 78mm MBP : 14 mm

FINAL ALC GRADE : 3A
MAIN LIMITATION : Droughtiness

SOIL PIT DESCRIPTION

Site Name : HANTS STRUCTURE 4 MARKS Pit Number : 8P

Grid Reference: SU66443386 Average Annual Rainfall : 932 mm
Accumulated Temperature : 1324 degree days
Field Capacity Level : 202 days
Land Use : Permanent Grass
Slope and Aspect : 2 degrees S

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 25	MZCL	10YR43 44	3	8	HR					
25- 38	HCL	75YR56 00	0	10	HR	C	MDCAB	FR	M	
38- 70	C	75YR58 00	0	8	HR	C	MDMPR	FM	P	

Wetness Grade : 3B Wetness Class : IV
Gleying :S25 cm
SPL : 25 cm

Drought Grade : APW : mm MBW : 0 mm
APP : mm MBP : 0 mm

FINAL ALC GRADE : 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	SU65023502	PGR			S30	55	3	4		0		0					WE	4	SEE 2P
1P	SU65853470	MZE			27	60	4	3B	111	32	114	50	1				WE	3B	PIT 85
2	SU65023526	PGR			45	45	3	3B		0		0					WE	3B	SEE 1P
2P	SU66703648	LEY			S 0	38	4	3B	92	13	104	40	2				WE	3B	PIT 70
3	SU65003550	PGR	W	1	S45	45	3	3B		0		0					WE	3B	SEE 4P
3P	SU68323465	PGR			31	46	4	3B		0		0					WE	3B	PIT 65 AUG 120
4	SU65573460	PGR	SW	2	S50	50	3	3B		0		0					WE	3B	SEE 4P
4P	SU66883578	NA			S26	26	4	3B	129	50	107	43	1				WE	3B	FACE TO 200cm
5	SU65853475	PGR			S25	45	3	3A		0		0					WE	3A	SEE 2P/1P
5P	SU66593550	WHT	W	1	S23	23	4	3B	113	34	110	46	1				WE	3B	PIT IMP 95
6	SU65733518	MZE	W	1	25	45	4	3B		0		0					WE	3B	SEE 3P
6P	SU65223551	PGR	W	2			1	2	69	-10	71	7	3A				DR	3A	30cm CH ROOT
7	SU65533490	PGR	W	3			1	3A		0		0					WK	3A	SEE 6P
7P	SU67263367	PGR	W				1	2	75	-4	78	14	3A				DR	3A	PIT IMP 65
8	SU65603476	PGR	W	3	S25	43	3	3A		0		0					WE	3A	SEE 2P
8P	SU66443386	PGR	S	2	S25	25	4	3B		0		0					WE	3B	PIT 70 AUG 100
9	SU66053500	PGR	E	2	28	28	4	3B		0		0					WE	3B	SEE 1P
10	SU65183507	PGR	E	4			1	2	57	-22	57	-7	3B				DR	3A	IMP 35 SEE 7P
11	SU66293512	PGR					1	2	49	-30	49	-15	3B				DR	3A	IMP 25 SEE 7P
12	SU66003632	PGR	N	2	S30	30	4	3B		0		0					WE	3B	SEE 4P
13	SU66243626	WHT	W	2	30	30	4	3B		0		0					WE	3B	SEE 1P
14	SU66183605	BNS	W	1	30	30	4	3B		0		0					WE	3B	SEE 1P
15	SU68123467	PGR			55	70	3	3A		0		0					WE	3A	SEE 3P
16	SU68303467	PGR			35	50	4	3B		0		0					WE	3B	SEE 3P
17	SU68423475	PGR			S25	25	4	3B		0		0					WE	3B	SEE 4P
18	SU68403491	PGR	N	3			1	2	52	-27	52	-12	3B				DR	3A	IMP 30 SEE 7P
19	SU68623468	PGR	SE	2	55		2	3A		0		0					WE	3A	IMP FLINTS 70
20	SU68503452	PGR	SE	2			1	2	53	-26	53	-11	3B				DR	3A	IMP 30 SEE 7P
21	SU66953545	PGR	NW	3			1	2	36	-43	36	-28	3B				DR	3A	IMP 20 SEE 7P
22	SU66903550	PGR	W	2			1	2	43	-36	43	-21	3B				DR	3A	IMP 25 SEE 7P
23	SU66823552	PGR	SE				1	2	34	-45	34	-30	3B				DR	3A	IMP 25 SEE 7P
24	SU66123598	SAS	SW		S25	25	4	3B	59	-20	59	-5	3A				WE	3B	IMP 40 SEE 4P
25	SU66023582	SAS	SW		S55	55	3	3B		0		0					WE	3B	SEE 4P
26	SU66303595	LEY	S	2			1	2	52	-27	52	-12	3B				DR	3A	IMP 30 SEE 7P
27	SU66423601	LEY	S	1			1	2		0		0					DR	3A	IMP 25 SEE 7P
28	SU66553607	PGR	SE	2			1	2		0		0					DR	3A	IMP 37 SEE 7P
29	SU66653614	PGR	S	2			1	2		0		0					DR	3A	IMP 39 SEE 7P
30	SU68353391	PGR	W	5			1	2	50	-29	50	-14	3B				DR	3A	IMP 30 SEE 7P
31	SU68303382	PGR	W	3			1	2		0		0					DR	3A	IMP 35 SEE 7P
32	SU66573565	WHT	NW	2	28	35	4	3B		0		0					WE	3B	IMP 55 SEE 2P
33	SU66453551	WHT	W	2	S30	30	4	3B		0		0					WE	3B	IMP 90 SEE 2P
34	SU66313560	WHT	W	1			1	2		0		0					DR	3A	IMP 30 SEE 7P

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
35	SU66283563	WHT	SE	2	S30	30	4	3B		0		0					WE	3B	IMP 30 SEE 4P
36	SU66353550	RGR	W	1			1	2	34	-45	34	-30	3B				DR	3A	IMP 20 SEE 7P
37	SU66453520	WHT	SW	2			1	2	41	-38	41	-23	3B				DR	3A	IMP 25 SEE 7P
38	SU66393534	WHT	SW	2	S35	35	4	3B		0		0					WE	3B	IMP 55 SEE 2P
39	SU66593550	WHT	W	1	S28	35	4	3B		0		0					WE	3B	IMP 35 SEE 4P
40	SU67393594	PGR			S25	25	4	4		0		0					WE	4	IMP 75 SEE 4P
41	SU67433565	PGR	SE	2	25	45	4	3B		0		0					WE	3B	SEE 3P
42	SU67693371	PGR	S	5	S25	25	4	4		0		0					WE	4	IMP 70 SEE 4P
43	SU67863393	PGR	E	2	25	45	4	3B		0		0					WE	3B	IMP 65 SEE 3P
44	SU68073400	PGR	SE	4	0	50	4	3B		0		0					WE	3B	IMP 65 SEE 3P
45	SU68203382	PGR	E	5	25	45	4	3B		0		0					WE	3B	SEE 3P
46	SU67963380	PGR	SE	3			1	2	88	9	91	27	2				WD	2	IMP 55 SEE 7P
47	SU67823375	PGR	SE	2	25	25	4	3B		0		0					WE	3B	IMP 35 SEE 1P
48	SU67853365	PGR	SE	5			1	2	90	11	96	32	2				WD	2	SEE 6P
49	SU67013341	PGR	N	2	20	35	4	3B		0		0					WE	3B	IMP 40 SEE 3P
50	SU67343325	STB	N	1	25		3	3A		0		0					WE	3A	IMP 90 NO CLAY
51	SU67233335	STB	N	1	25	25	4	3B		0		0					WE	3B	SEE 1P
52	SU67013322	STB	N	1	S25	25	4	3B		0		0					WE	3B	IMP 80 SEE 8P
53	SU67003342	PGR	NW	1	25		3	3A		0		0					DR	3A	IMP 40 SEE 7P
54	SU67183348	PGR	N	3	25		3	3A		0		0					WD	3A	IMP40 SEE7P/3P
55	SU67153358	PGR	N	4	23	23	4	3B		0		0					WE	3B	IMP 50 SEE 1P
56	SU67423348	STB	N	2	S28	28	4	3B		0		0					WE	3B	IMP 80 SEE 4P
57	SU68053492	PGR	E	1	25	35	4	3B		0		0					WE	3B	SEE 3P
58	SU68503380	LEY	NW	3	S30	30	4	3B		0		0					WE	3B	SEE 4P
59	SU68423359	PGR	W	1	S23	23	4	3B		0		0					WE	3B	SEE 4P
60	SU68163344	RGR	SW	2	S25	25	4	3B		0		0					WE	3B	IMP 65 SEE 4P
61	SU68153356	RGR	NW	3	25	25	4	3B		0		0					WE	3B	IMP 70 SEE 8P
62	SU68273347	RGR	NW	5	23	23	4	3B		0		0					WE	3B	IMP 55 SEE 8P
63	SU67263367	PGR					1	2	65	-14	65	1	3A				DR	3A	IMP 40 SEE 7P
64	SU67233375	PGR	SE	3	S25	25	4	3B		0		0					WE	3B	SEE 4P
65	SU67343385	PGR	SE	2	25	25	4	3B		0		0					WE	3B	IMP 85 SEE 1P
66	SU67513407	PGR			S 0	25	4	3B		0		0					WE	3B	SEE 4P
67	SU67653434	PGR			S25	25	4	3B		0		0					WE	3B	SEE 4P
68	SU67773432	PGR	SW	3			1	2	77	-2	77	13	3A				DR	3A	IMP 50 SEE 7P
69	SU67973435	PGR	S	2	S25	45	3	3A		0		0					WE	3A	SEE 2P
70	SU67813426	PGR	W	5	S25	65	3	3A		0		0					WE	3A	SEE 2P
71	SU66533322	PLO	N	2	30	30	4	3B		0		0					WE	3B	SEE 1P
72	SU66173312	PLO	NE	1			1	2	105	26	118	54	2				WD	2	IMP 70 SEE 7P
73	SU66203341	PLO	N	1			1	2	65	-14	65	1	3A				DR	3A	IMP 40 SEE 7P
74	SU66273369	PLO	N	1	30	30	4	3B		0		0					WE	3B	IMP 70 SEE 1P
75	SU66523370	PLO	N	2	30		3	3A	92	13	103	39	2				WD	3A	IMP70 SEE7P/3P
76	SU66613351	PLO	NE	1			1	2	70	-9	70	6	3A				DR	3A	IMP 50 SEE 7P

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
77	SU66423330	PLO	N	2	30	45	4	3B		0		0					WE	3B		IMP 90 SEE 3P
78	SU66693323	PGR	NW	2	28	28	4	3B		0		0					WE	3B		IMP 70 SEE 1P
79	SU66793316	PGR	N	1	25	25	4	3B		0		0					WE	3B		SEE 1P
80	SU66883353	PGR	N	4			1	2	57	-22	57	-7	3B				DR	3A		IMP 30 SEE 7P
81	SU66753644	LEY			S 0	29	4	3B		0		0					WE	3B		IMP 55 SEE 2P
82	SU66663664	LEY					1	2	54	-25	54	-10	3B				DR	3A		IMP 30 SEE 7P
83	SU66633676	LEY			S 0	29	4	3B		0		0					WE	3B		SEE 4P
84	SU66193672	LEY			S25	25	4	3B		0		0					WE	3B		SEE 4P
85	SU66433665	PGR			S50	50	3	3A		0		0					WE	3A		SEE 3P
86	SU66253655	PGR			S50	65	3	3A		0		0					WE	3A		SEE 2P
87	SU66383642	PGR			S27	40	4	3B		0		0					WE	3B		SEE 2P
88	SU66553639	PGR			S 0	50	3	3A		0		0					WE	3A		IMP 60 SEE 2P
89	SU66823632	LEY			S30	30	4	3B		0		0					WE	3B		IMP 40 SEE 4P
90	SU66113650	PGR					1	2	78	-1	78	14	3A				DR	3A		IMP 50 SEE 7P
91	SU66123648	PGR					1	2	49	-30	49	-15	3B				DR	3A		IMP 30 SEE 7P
92	SU65983651	WHT			S27	27	4	3B		0		0					WE	3B		IMP 30 SEE 4P
93	SU65883665	WHT			S 0	45	4	3B		0		0					WE	3B		SEE 2P
94	SU65423482	PGR	W	6			1	2		0		0					DR	3A		SEE 6P
95	SU65683528	MZE			50	60	3	3A		0		0					WE	3A		SEE 3P
96	SU65943528	PGR	E	1	20	40	4	3B		0		0				Y	WE	3B		LARGE TSTNS 1P
97	SU66123532	GRA	E	3	25	25	4	3B		0		0				Y	WE	3B		LARGE TSTNS 1P
98	SU65853387	PLO			30		3	3A		0		0					WE	3A		IMP 80 SEE 3P
99	SU65763404	PLO			30	50	4	3B		0		0					WE	3B		SEE 3P
100	SU65893425	PLO			S30	65	3	3A		0		0					WE	3A		IMP 80 SEE 2P
101	SU66063436	PGR			S25	25	4	3B		0		0					WE	3B		IMP 75 SEE 4P
102	SU65763436	PLO			S28	28	4	3B		0		0					WE	3B		IMP 70 SEE 4P
103	SU66183391	PGR	S	1			1	2	50	-29	50	-14	3B				DR	3A		IMP 30 SEE 7P
104	SU66303402	PGR	SE	1	25	35	4	3B		0		0					WE	3B		SEE 3P
105	SU66493392	PGR	S	1	25	25	4	3B		0		0					WE	3B		IMP 55 SEE 1P
106	SU66443386	PGR	SW	5	S25	25	4	3B		0		0					WE	3B		SEE 4P
107	SU66573385	PGR	S	4	S25	25	4	3B		0		0					WE	3B		IMP55 SEE7P/2P
108	SU66653372	PGR					1	2		0		0					DR	3A		IMP 25 SEE 7P
109	SU65473577	PGR	W	2	S30	30	4	3B		0		0					WE	3B		SEE 4P
110	SU65323573	PGR	W	2			1	2	86	7	90	26	2				WD	2		SEE 6P
111	SU65223564	PGR	SW	2			1	2	80	1	83	19	3A				DR	3A		SEE 6P
112	SU65243575	PGR	SW	2			1	2	49	-30	49	-15	3B				DR	3A		IMP 30 SEE 7P
113	SU65223551	PGR	W	4			1	2	65	-14	65	1	3A				DR	3A		SEE 6P
114	SU65253535	PGR	SW	2			1	2	60	-19	60	-4	3A				DR	3A		IMP 35 SEE 7P
115	SU65153525	PGR	E	4	S70	70	3	3A		0		0					WE	3A		IMP 90 SEE 3P
116	SU65163537	PGR	E	4	S25	25	4	3B		0		0					WE	3B		SEE 5P
117	SU65173550	PGR					1	2	106	27	119	55	2				WD	2		IMP 70 SEE 7P
118	SU65103562	PGR					1	2	102	23	101	37	2				WD	2		SEE 6P

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
119	SU65963580	PLO	E	2	60	60	3	3A		0		0					WE	3A	IMP 100 SEE 2P
120	SU65713583	PLO			50	50	3	3A		0		0					WE	3A	SEE 3P
121	SU68503452	PGR	NE	1	30	55	4	3B		0		0					WE	3B	IMP 90 SEE 3P
122	SU68283391	PGR	SW	5			1	2	53	-26	53	-11	3B				DR	3A	IMP 30 SEE 7P
123	SU68293391	PGR	SW	5	S30	30	4	3B		0		0					WE	3B	IMP 30 SEE 8P
124	SU68283381	PGR	SW	5			1	2	87	8	89	25	2				WD	2	IMP 55 SEE 7P
125	SU68573414	PGR			S28	28	4	3B		0		0					WE	3B	IMP 105 SEE 8P
126	SU67413455	PGR			S45	45	3	3A	133	54	111	47	1				WE	3A	SEE 2P
127	SU66903392	LEY			55	65	3	3A		0		0					WE	3A	SEE 3P
128	SU67003407	LEY			S25	25	4	3B		0		0					WE	3B	SEE 5P/8P
129	SU66873410	LEY	NW	3	S30	30	4	3B		0		0					WE	3B	IMP 90 SEE 4P
130	SU67353466	PGR	NW	3	S35	55	3	3A		0		0					WE	3A	SEE 2P/3P
131	SU67253457	PGR	NW	1			1	2	45	-34	45	-19	3B				DR	3A	IMP 25 SEE 7P
132	SU67113452	PGR	SE	3	S28	45	3	3A		0		0					WE	3A	IMP 80 SEE 2P
133	SU67023445	PGR	SE	3	25	33	4	3B		0		0					WE	3B	IMP 75 SEE 2P
134	SU67073439	PGR	SE	3			1	2	56	-23	56	-8	3B				DR	3A	IMP 35 SEE 7P
135	SU67113432	PGR	NW	4	S30	30	4	3B		0		0					WE	3B	SEE 4P
136	SU67613472	PGR			S45	45	3	3A		0		0					WE	3A	IMP 65 SEE 2P
137	SU67623480	PGR	N	3	55		2	3A	105	26	118	54	2				WE	3A	IMP 70 SEE 2P
138	SU67553490	PGR	NW	1			1	2	43	-36	43	-21	3B				DR	3A	IMP 25 SEE 7P
139	SU67593500	PGR	S	3	45		2	3A	90	11	96	32	2				WD	3A	IMP 60 SEE 7P
140	SU66363600	PGR	S	2	S30	30	4	3B		0		0					WE	3B	IMP 80 SEE 4P

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES----- COL	ABUN	CONT	PED COL.	GLEY	----STONES---- >2	>6	LITH	TOT	STRUCT/ CONSIST	SUBS STR	POR	IMP	SPL	CALC	
1	0-30	c	10YR43 00						0	0	HR	5							SEE 2P
	30-55	c	10YR44 00	10YR58 00	M		00MN00 00	S	0	0	HR	5		M					SLIGHTLY GLEYED
	55-100	c	10YR53 52	10YR58 00	M		00MN00 00	Y	0	0	HR	5		P			Y		
	100-120	c	05Y 51 00	10YR58 00	M		05YR58 00	Y	0	0	HR	5		P			Y		
1P	0-27	mzcl	10YR43 00						1	0	HR	8							
	27-60	c	25YR46 00	75YR53 00	C		00MN00 00	Y	0	0	HR	3	MDCSAB	FR M	Y		Y		
	60-69	c	25YR46 00	75YR53 00	C			Y	0	0	HR	3	STCAB	FR M	Y		Y		
	69-85	c	75YR54 64	05YR56 00	C		00MN00 00	S	0	0	HR	2	STCAB	FR M	Y		Y		SLIGHTLY GLEYED
2	0-27	hcl	10YR43 00						0	0	HR	5							SEE 1P
	27-45	c	10YR58 00	00MN00 00	F				0	0	HR	10		M					
	45-60	c	10YR53 54	10YR58 00	M		00MN00 00	Y	0	0	HR	10		P			Y		
	60-75	c	10YR44 00	00MN00 00	M		10YR58 00	Y	0	0	HR	20		P			Y		
2P	0-27	mzcl	10YR43 00	10YR56 00	C			S	6	0	HR	10							SLIGHTLY GLEYED
	27-38	mzcl	75YR54 00	75YR58 00	C			S	0	0	HR	5	MDCSAB	FR M					SLIGHTLY GLEYED
	38-70	c	05YR46 00	05YR58 00	C			S	0	0	HR	5	MDCAB	FM P	Y		Y		SLIGHTLY GLEYED
3	0-25	hcl	10YR43 00						0	0	HR	5							SEE 4P
	25-45	c	10YR44 00	00MN00 00	F				0	0	HR	10		M					
	45-100	c	75YR54 56	05YR58 00	C		00MN00 00	S	0	0	HR	10		P			Y		SLIGHTLY GLEYED
3P	0-21	mzcl	10YR42 43						2	0	HR	5							
	21-31	mzcl	10YR43 44			C	00MN00 00		0	0	HR	8	MDCSAB	FR M					
	31-46	mzcl	10YR63 00	10YR68 00	C		00MN00 00	Y	0	0	HR	10	MDCSAB	FM M					
	46-75	c	05YR46 00	75YR58 00	F		00MN00 00	S	0	0	HR	15	MDCAB	FM P	Y		Y		BREAKS TO STMAB
	75-90	c	05YR73 00	05YR68 00	C			Y	0	0		0		P			Y		AUGERED ONLY
	90-120	sc	75YR68 00	10YR74 00	C			Y	0	0		0		P			Y		AUGERED ONLY
4	0-25	hcl	10YR43 00						0	0	HR	7							SEE 4P
	25-50	c	75YR58 00	00MN00 00	M				0	0	HR	5		M					
	50-65	c	25YR46 56	10YR53 63	F		00MN00 00	S	0	0	HR	5		M			Y		
	65-70	c	25YR46 56	10YR53 63	C		00MN00 00	Y	0	0	HR	5		P			Y		
4P	0-26	mzcl	10YR43 00						3	0	HR	10							
	26-40	c	05YR46 00	75YR58 00	C			S	0	0	HR	15	MDCAB	FM P	Y		Y		BREAKS TO STMAB
	40-120	c	05YR46 58	00MN00 00	C		05YR46 00	S	0	0	HR	10	MDCAB	FM P	Y		Y		SLIGHTLY GLEYED
5	0-25	mzcl	10YR43 00						0	0	HR	5							SEE 2P/1P
	25-45	mzcl	10YR44 00	10YR56 00	C			S	0	0	HR	15		M					SLIGHTLY GLEYED
	45-55	c	10YR53 00	75YR58 00	C		00MN00 00	Y	0	0	HR	5		P			Y		
	55-80	c	25YR46 56	10YR53 00	C		00MN00 00	Y	0	0	HR	5		P			Y		
	80-100	c	25YR46 56	10YR53 00	M			Y	0	0		0		P			Y		
5P	0-23	mzcl	10YR43 00						3	0	HR	10							
	23-30	hzcl	75YR54 56	75YR58 00	C			S	0	0	HR	10		FM P			Y		SLIGHTLY GLEYED
	30-95	c	05YR46 00	75YR58 00	C		00MN00 00	Y	0	0	HR	8	STCAB	FM M	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	
6	0-25	mzcl	10YR43 00						2	0	HR	7							SEE 3P
	25-45	hzcl	10YR53 00	10YR58 00	C		00MN00 00	Y	0	0	HR	10		M					
	45-90	c	05YR46 00	10YR53 00	C		00MN00 00	Y	0	0	HR	3		P			Y		
6P	0-14	mzcl	10YR43 00						3	0	HR	8						Y	
	14-25	hzcl	10YR44 00						0	0	HR	8		M				Y	
	25-55	ch	10YR81 00						0	0	HR	2		P				Y	
	55-120	ch	10YR81 00						0	0	HR	2		P		Y		Y	NO ROOTING VISIBLE
7	0-23	hcl	10YR43 00						0	0	HR	5							SEE 6P
	23-42	c	05YR46 00	00MN00 00	F				0	0		0		M					
	42-80	ch	10YR81 00						0	0	HR	5		P					IMP HARD CH 70
7P	0-20	mzcl	10YR42 43						5	2	HR	8							
	20-40	mzcl	10YR44 00						0	0	HR	18	MDCSAB	FR M					
	40-60	hzcl	10YR44 00						0	0	HR	60		FR M					IMP FLINTS 65
8	0-25	mzcl	10YR43 00						0	0	HR	5							SEE 2P
	25-43	hzcl	10YR54 00	10YR58 00	C		00MN00 00	S	0	0	HR	5		M					SLIGHTLY GLEYED
	43-90	c	25YR46 56	75YR53 00	C		00MN00 00	Y	0	0	HR	3		P			Y		
8P	0-25	mzcl	10YR43 44						3	0	HR	8							
	25-38	hcl	75YR56 00	75YR58 68	C		00MN00 00	S	0	0	HR	10	MDCAB	FR M	Y		Y		SLIGHTLY GLEYED
	38-70	c	75YR58 00	05YR58 00	C		75YR54 00	S	0	0	HR	8	MDMPR	FM P	Y		Y		SLIGHTLY GLEYED
9	0-28	mzcl	10YR43 00						0	0	HR	5							SEE 1P
	28-55	c	10YR63 00	10YR58 00	C		00MN00 00	Y	0	0	HR	10		M			Y		
	55-90	c	05YR46 00	75YR53 00	C		00MN00 00	Y	0	0	HR	3		M			Y		
10	0-28	mzcl	10YR43 53						0	0	HR	10							SEE 7P
	28-35	mzcl	10YR54 00						0	0	HR	25		M					IMP FLINTS
11	0-20	zl	10YR43 53						0	0	HR	10							SEE 7P
	20-25	zl	10YR54 00						0	0	HR	30		M					IMP FLINTS
12	0-30	mzcl	10YR43 53						0	0	HR	5							SEE 4P
	30-70	c	75YR56 00	75YR53 00	F		00MN00 00	S	0	0	HR	12		P			Y		
	70-90	c	75YR53 00	75YR58 00	C		00MN00 00	Y	0	0	HR	5		P			Y		
	90-120	c	05YR58 00	75YR53 00	C		00MN00 00	Y	0	0	HR	5		P			Y		
13	0-30	mzcl	10YR43 00						0	0	HR	5							SEE 1P
	30-55	c	75YR53 54	05YR46 00	C		00MN00 00	Y	0	0	HR	5		P			Y		
	55-70	c	05YR46 00	75YR68 00	F		00MN00 00	S	0	0	HR	5		P			Y		SLIGHTLY GLEYED
14	0-30	mcl	10YR43 00						0	0	HR	7							SEE 1P
	30-50	c	75YR58 00	75YR53 00	C		00MN00 00	Y	0	0	HR	10		P			Y		
	50-70	c	05YR56 00	75YR53 00	C		00MN00 00	Y	0	0	HR	10		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	
15	0-25	mzcl	10YR43 00						0	0	HR	3							SEE 3P
	25-55	mzcl	10YR54 00	10YR56 00	F		00MN00 00		0	0	HR	5		M					
	55-70	hzcl	10YR63 00	10YR56 00	C		00MN00 00	Y	0	0	HR	3		M					
	70-120	c	25Y 62 00	75YR56 00	C			Y	0	0	HR	5		P			Y		
16	0-28	mzcl	10YR43 00						0	0	HR	3							SEE 3P
	28-35	mzcl	10YR43 44	00MN00 00	C				0	0	HR	5		M					
	35-50	mzcl	10YR63 53	10YR56 00	C		00MN00 00	Y	0	0	HR	5		M					
	50-65	c	05YR46 00	25Y 53 00	C		00MN00 00	Y	0	0	HR	10		P			Y		
17	0-25	mzcl	10YR43 00	10YR56 00	F				0	0	HR	3							SEE 4P
	25-45	c	75YR56 00	05YR46 00	C		10YR63 00	S	0	0	HR	10		P			Y		SLIGHTLY GLEYED
	45-80	c	25Y 62 00	75YR58 00	C			Y	0	0	HR	5		P			Y		
	80-120	scl	25Y 62 00	05YR58 00	M			Y	0	0	HR	5		P			Y		
18	0-30	mzcl	10YR43 00						0	0	HR	10							IMP FLINTS SEE 7P
19	0-25	mzcl	10YR43 00						0	0	HR	3							
	25-55	mzcl	10YR44 00	10YR56 00	F				0	0	HR	5		M					
	55-65	scl	10YR53 00	75YR58 00	C			Y	0	0	HR	5		M					
	65-70	msl	10YR53 00	75YR58 00	C			Y	0	0	HR	10		M					IMP FLINTS 70
20	0-25	mzcl	10YR43 00						0	0	HR	5							SEE 7P
	25-30	mzcl	10YR44 00	00MN00 00	F				0	0	HR	10		M					IMP FLINTS
21	0-20	mzcl	10YR43 00						3	0	HR	10							IMP FLINTS SEE 7P
22	0-25	mzcl	10YR43 00						4	0	HR	10							IMP FLINTS SEE 7P
23	0-20	mzcl	10YR43 00						3	0	HR	10							IMP FLINTS SEE 7P
24	0-25	hcl	10YR44 00						4	1	HR	10							SEE 4P
	25-40	c	75YR46 56	00MN00 00	F				0	0	HR	25		P			Y		IMP FLINTS
25	0-28	hcl	10YR43 44						3	0	HR	8							SEE 4P
	28-55	c	75YR56 00						0	0	HR	20		M					
	55-75	c	75YR56 00	10YR54 00	C		00MN00 00	S	0	0	HR	10		P			Y		SLIGHTLY GLEYED
	75-120	hzcl	10YR63 00	10YR58 00	M		00MN00 00	Y	0	0	HR	10		M			Y		
26	0-25	mzcl	10YR43 00						2	0	HR	7							SEE 7P
	25-30	mzcl	10YR44 00						0	0	HR	10		M					IMP FLINTS
27	0-25	mzcl	10YR43 00						2	0	HR	8							IMP FLINTS SEE 7P
28	0-22	mzcl	10YR43 00						3	0	HR	8							SEE 7P
	22-35	hzcl	10YR43 44	00MN00 00	F				0	0	HR	15		M					
	35-37	c	10YR44 00	00MN00 00	F				0	0	HR	25		M					IMP FLINTS

SAMPLE	DEPTH	TEXTURE	COLOUR	---MOTTLES--- COL	ABUN	CONT	PED COL.	GLEY	----STONES---- >2	>6	LITH	TOT	STRUCT/ CONSIST	SUBS STR	POR	IMP	SPL	CALC
29	0-25	mzcl	10YR43 00						1	0	HR	5						SEE 7P
	25-36	mzcl	10YR44 00	00MN00	00	F			0	0	HR	5		M				
	36-39	hzcl	10YR44 00	00MN00	00	F			0	0	HR	20		M				IMP FLINTS
30	0-22	mzcl	10YR43 00						2	0	HR	8						SEE 7P
	22-30	hzcl	75YR44 00						0	0	HR	15		M				IMP FLINTS
31	0-23	mzcl	10YR43 00						4	0	HR	10						SEE 7P
	23-35	mzcl	10YR44 00	00MN00	00	F			0	0	HR	15		M				IMP FLINTS
32	0-28	mzcl	10YR43 00						0	0	HR	5						SEE 2P
	28-35	mzcl	10YR53 00	10YR56 00	C			Y	0	0	HR	5		M				
	35-55	c	05YR46 00	75YR58 00	C		00MN00 00	S	0	0	HR	5		P		Y		SL GLEYED IMP FLINT
33	0-25	zl	10YR43 00						0	0	HR	5						SEE 2P
	25-30	mzcl	10YR44 00	10YR56 00	F				0	0	HR	5		M				
	30-90	c	05YR46 56	75YR58 00	C			S	0	0	HR	10		P		Y		SL GLEYED IMP FLINT
34	0-25	mzcl	10YR43 00						2	0	HR	10						IMP FLINTS SEE 7P
35	0-30	mzcl	10YR43 00						2	0	HR	10						SEE 4P
	30-45	c	05YR46 00	75YR56 00	C		00MN00 00	S	0	0	HR	15		P		Y		IMP FLINTS
36	0-20	mzcl	10YR43 00						2	0	HR	10						IMP FLINTS SEE 7P
37	0-25	mzcl	10YR43 00						3	0	HR	15						IMP FLINTS SEE 7P
38	0-25	mzcl	10YR43 00						0	0	HR	10						SEE 2P
	25-35	mzcl	10YR53 00	10YR56 00	F				0	0	HR	5		M				
	35-55	c	05YR46 56	75YR56 00	C		00MN00 00	S	0	0	HR	10		P		Y		SL GLEYED IMP FLINT
39	0-28	mzcl	10YR43 00						0	0	HR	10						SEE 4P
	28-35	c	05YR46 00	75YR56 00	C		00MN00 00	S	0	0	HR	10		P				IMP FLINTS
40	0-25	hzcl	10YR43 00						0	0	HR	5						SEE 4P
	25-65	c	05YR46 00	75YR56 00	C		00MN00 00	S	0	0	HR	10		P		Y		SLIGHTLY GLEYED
	65-75	c	05YR56 00	75YR56 00	M		00MN00 00	S	0	0	HR	5		P		Y		SL GLEYED IMP FLINT
41	0-25	mzcl	10YR43 00						0	0	HR	5						SEE 3P
	25-45	hzcl	25Y 53 00	75YR58 00	M			Y	0	0	HR	5		M				
	45-80	c	05YR46 00	75YR53 58	M			Y	0	0	HR	10		P		Y		
42	0-25	hcl	10YR43 00						3	0	HR	10						SEE 4P
	25-38	c	05YR46 00	10YR66 00	F		00MN00 00		0	0	HR	10		P		Y		
	38-70	c	05YR46 00	10YR58 00	C		00MN00 00	S	0	0	HR	5		P		Y		SL GLEYED IMP FLINT
43	0-25	mzcl	10YR43 00						0	0	HR	5						SEE 3P
	25-45	mzcl	10YR53 00	10YR56 00	C			Y	0	0	HR	10		M				
	45-65	c	05YR56 46	75YR56 00	C		00MN00 00	S	0	0	HR	10		P		Y		IMP FLINT

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES----- COL	ABUN	CONT	PED COL.	GLEY	----STONES---- >2	>6	LITH	TOT	STRUCT/ CONSIST	SUBS STR	POR	IMP	SPL	CALC	
44	0-30	mzcl	10YR41 00	10YR56 00	C			Y	0	0	HR	5							SEE 3P
	30-50	mzcl	10YR53 54	10YR56 00	C			Y	0	0	HR	10		M					
	50-65	c	05YR46 56	75YR56 58	C			S	0	0	HR	10		P		Y			IMP FLINT
45	0-25	mzcl	10YR42 43	00MN00 00	F				0	0	HR	5							SEE 3P
	25-45	hzcl	10YR53 54	10YR56 00	C			Y	0	0	HR	10		M					
	45-55	c	05YR46 00	75YR56 00	C		00MN00 00	S	0	0	HR	15		P		Y			SLIGHTLY GLEYED
46	0-25	mzcl	10YR42 00						0	0	HR	5							SEE 7P
	25-55	mzcl	10YR53 54	10YR56 00	F				0	0	HR	10		M					IMP FLINTS
47	0-25	mzcl	10YR42 00						0	0	HR	8							SEE 1P
	25-35	c	05YR46 00	00MN00 00	M			Y	0	0	HR	20		P		Y			IMP FLINTS
48	0-25	mzcl	10YR42 00						0	0	HR	5							SEE 6P
	25-40	c	75YR46 00						0	0	HR	10		M					
	40-70	ch	10YR81 00						0	0	HR	5		P			Y		
49	0-20	mzcl	10YR42 00						0	0	HR	5							SEE 3P
	20-35	hzcl	10YR43 53	10YR56 00	C			Y	0	0	HR	10		M					
	35-40	c	75YR44 00	75YR58 00	C			S	0	0	HR	20		P		Y			SL GLEYED IMPFLINTS
50	0-25	mzcl	10YR42 00						0	0	HR	3							
	25-35	mzcl	10YR53 54	10YR56 66	C			Y	0	0	HR	3		M					
	35-70	hzcl	25Y 52 00	10YR58 68	M			Y	0	0	HR	5		M					
	70-90	hzcl	25Y 52 00	75YR68 00	M			Y	0	0	HR	10		M					IMP FLINTS
51	0-25	mzcl	10YR43 00						0	0	HR	5							SEE 1P
	25-60	c	05YR46 00	75YR58 53	C			Y	0	0	HR	5		P		Y			
	60-120	c	75YR68 00	05YR46 00	C		25Y 63 00	Y	0	0	HR	10		P		Y			SLIGHTLY GLEYED
52	0-25	mzcl	10YR43 00						0	0	HR	3							SEE 8P
	25-40	hzcl	75YR58 00	05YR46 00	C		00MN00 00	S	0	0	HR	5		M		Y			SLIGHTLY GLEYED
	40-80	c	75YR53 00	75YR68 00	M		00MN00 00	Y	0	0	HR	8		P		Y			IMP FLINT
53	0-25	mzcl	10YR43 00						0	0	HR	5							SEE 7P
	25-40	mzcl	10YR53 54	10YR56 00	C			Y	0	0	HR	15		M					IMP FLINT
54	0-25	mzcl	10YR43 00						0	0	HR	5							SEE 7P/3P
	25-40	mzcl	10YR53 54	10YR56 00	C			Y	0	0	HR	15		M					IMP FLINTS
55	0-23	mzcl	10YR42 43						0	0	HR	5							SEE 1P
	23-50	c	75YR56 00	75YR53 00	C		00MN00 00	Y	0	0	HR	10		P		Y			IMP FLINTS
56	0-28	mzcl	10YR43 00						3	0	HR	10							SEE 4P
	28-80	c	75YR56 00	05YR46 00	C			S	0	0	HR	25		P		Y			SL GLEYED IMPFLINTS
57	0-25	mzcl	10YR43 00						0	0	HR	5							SEE 3P
	25-35	hzcl	10YR53 00	75YR58 00	C			Y	0	0	HR	5		M					
	35-70	c	05YR46 00	75YR58 00	C			S	0	0	HR	10		P		Y			SLIGHTLY GLEYED
	70-100	c	05YR46 00	25Y 64 00	C			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
58	0-30	mzcl	10YR43 00					0	0	HR	5						SEE 4P
	30-55	c	75YR58 00	05YR46 00 C		25Y 63 00	S	0	0	HR	5		P		Y		SLIGHTLY GLEYED
	55-90	c	75YR58 00	05YR46 00 M		10YR68 00	S	0	0	HR	10		P		Y		SLIGHTLY GLEYED
	90-120	c	05YR56 00	75YR58 00 M		10YR68 00	S	0	0		0		P		Y		SLIGHTLY GLEYED
59	0-23	mcl	10YR43 00					0	0	HR	3						SEE 4P
	23-55	c	05YR56 00	75YR58 00 C			S	0	0	HR	5		P		Y		SLIGHTLY GLEYED
	55-120	scl	05YR58 00	10YR68 00 C		25Y 64 00	S	0	0		0		M		Y		SLIGHTLY GLEYED
60	0-25	mzcl	10YR42 00					0	0	HR	5						SEE 4P
	25-65	c	75YR54 00	05YR46 00 C		75YR58 68	S	0	0	HR	5		P		Y		SL GLEYED IMP FLINT
61	0-25	mcl	10YR43 00					0	0	HR	5						SEE 8P
	25-50	hcl	75YR58 00	10YR53 00 C			Y	0	0	HR	5		M		Y		
	50-70	c	75YR58 00	05YR46 00 C		25Y 64 00	Y	0	0	HR	10		P		Y		IMP FLINT
62	0-23	mcl	10YR43 44					0	0	HR	5						SEE 8P
	23-45	hcl	75YR56 00	25Y 64 00 C		00MN00 00	Y	0	0	HR	5		M		Y		
	45-55	c	75YR58 00	05YR46 00 C		00MN00 00	S	0	0	HR	20		P		Y		SL GLEYED IMP FLINT
63	0-25	mcl	10YR43 00					0	0	HR	5						SEE 7P
	25-40	hcl	10YR44 54					0	0	HR	10		M				IMP FLINTS
64	0-25	mcl	10YR43 00					0	0	HR	5						SEE 4P
	25-55	c	05YR46 00	75YR58 00 C		00MN00 00	S	0	0	HR	5		P		Y		SLIGHTLY GLEYED
	55-80	c	75YR58 00	10YR68 00 C			S	0	0	HR	5		P		Y		SLIGHTLY GLEYED
65	0-25	mcl	10YR43 00					0	0	HR	5						SEE 1P
	25-70	c	75YR58 00	25Y 63 00 C		05YR46 00	Y	0	0	HR	10		P		Y		
	70-85	c	05YR46 00	75YR58 00 M		25Y 64 00	S	0	0	HR	3		P		Y		SL GLEYED IMPFLINTS
66	0-25	mcl	10YR43 00	10YR56 00 C			S	0	0	HR	5						SL GLEYED SEE 4P
	25-70	c	05YR46 00	75YR58 00 M			S	0	0	HR	5		P		Y		SLIGHTLY GLEYED
67	0-25	mcl	10YR43 00					0	0	HR	3						SEE 4P
	25-35	c	75YR58 00	75YR68 00 C		00MN00 00	S	0	0	HR	5		P		Y		SLIGHTLY GLEYED
	35-120	c	05YR46 00	05YR58 00 C			S	0	0	HR	5		P		Y		SLIGHTLY GLEYED
68	0-25	mcl	10YR43 00					0	0	HR	5						SEE 7P
	25-50	mzcl	10YR44 54					0	0	HR	20		M				IMP FLINTS
69	0-25	mzcl	10YR43 00					0	0	HR	5						SEE 2P
	25-45	hcl	10YR54 00	75YR58 00 C			S	0	0	HR	5		M				SLIGHTLY GLEYED
	45-90	c	05YR46 00	75YR58 00 F		00MN00 00	S	0	0	HR	10		P		Y		SLIGHTLY GLEYED
70	0-25	mzcl	10YR43 00					0	0	HR	8						SEE 2P
	25-65	hcl	10YR54 00	10YR56 00 C		00MN00 00	S	0	0	HR	5		M				SLIGHTLY GLEYED
	65-80	c	05YR46 00	75YR58 00 C		00MN00 00	S	0	0	HR	15		P		Y		SLIGHTLY GLEYED

SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES COL	MOTTLES ABUN	MOTTLES CONT	PED COL.	PED GLEY	STONES >2	STONES >6	STONES LITH	STONES TOT	STRUCT/ CONSIST	SUBS STR	SUBS POR	SUBS IMP	SUBS SPL	SUBS CALC	
71	0-30	hzcl	10YR43 44						0	0	HR	5							SEE 1P
	30-70	c	05YR46 00	75YR58	53	C	00MN00	00 Y	0	0	HR	5		P		Y			
72	0-30	mzcl	10YR43 00						0	0	HR	5							SEE 7P
	30-50	mzcl	10YR54 44						0	0	HR	5		M					
	50-70	hzcl	10YR54 53	10YR56	00	F			0	0	HR	10		M					IMP FLINTS
73	0-30	mzcl	10YR43 00						3	0	HR	10							SEE 7P
	30-40	mzcl	10YR44 00						0	0	HR	25		M					IMP FLINTS
74	0-30	mzcl	10YR43 00						2	0	HR	8							SEE 1P
	30-55	c	75YR58 00	10YR54	53	C	00MN00	00 Y	0	0	HR	2		P		Y			
	55-70	c	05YR46 00	75YR58	00	C	00MN00	00 Y	0	0	HR	5		P		Y			IMP FLINT
75	0-30	mzcl	10YR43 00						5	0	HR	12							SEE 7P/3P
	30-70	hzcl	10YR54 00	10YR56	63	C	00MN00	00 Y	0	0	HR	25		M					IMP FLINTS
76	0-25	mzcl	10YR43 00						12	0	HR	20							SEE 7P
	25-45	mzcl	10YR44 00						0	0	HR	25		M					
	45-50	mzcl	10YR56 66						0	0	HR	40		M					IMP FLINTS
77	0-30	mzcl	10YR43 00						0	0	HR	5							SEE 3P
	30-45	hzcl	10YR53 54	10YR56	00	C	00MN00	00 Y	0	0	HR	3		M					
	45-90	c	05YR56 00	75YR58	00	C	25Y 64	00 Y	0	0	HR	5		P		Y			
78	0-28	mzcl	10YR43 00						0	0	HR	5							SEE 1P
	28-65	c	75YR56 00	10YR53	00	C		Y	0	0	HR	3		P		Y			
	65-75	c	75YR56 00	10YR53	00	C		Y	0	0	HR	10		P		Y			IMP FLINT
79	0-25	mzcl	10YR43 00	10YR46	00	F			0	0	HR	3							SEE 1P
	25-40	c	75YR58 00	10YR53	00	C	05YR56	00 Y	0	0	HR	3		P		Y			
	40-120	c	05YR46 00	75YR58	00	F	00MN00	00 S	0	0	HR	8		P		Y			SLIGHTLY GLEYED
80	0-25	mcl	10YR43 00						0	0	HR	1							SEE 7P
	25-35	mzcl	10YR44 54						0	0	HR	30		M					IMP FLINTS
81	0-29	mzcl	10YR43 00	10YR56	00	C		S	8	0	HR	10							SL GLEYED SEE 2P
	29-55	c	75YR54 00	75YR58	00	C		S	0	0	HR	10		P		Y			SL GLEYED IMPFLINTS
82	0-30	mzcl	10YR43 00						0	0	HR	5							IMP FLINTS SEE 7P
83	0-29	mzcl	10YR43 00	10YR56	00	C		S	0	0	HR	5							SL GLEYED SEE 4P
	29-70	c	05YR44 00	05YR58	00	C		S	0	0	HR	5		P		Y			SLIGHTLY GLEYED
84	0-25	mzcl	10YR53 00	00MN00	00	F			0	0	HR	5							SEE 4P
	25-80	c	05YR46 00	75YR68	74	C		S	0	0	HR	2		P		Y			SLIGHTLY GLEYED
85	0-30	mzcl	10YR54 00						0	0	HR	5							SEE 3P
	30-50	hzcl	10YR56 00						0	0	HR	2		M					
	50-90	c	05YR46 00	05YR58	00	C	00MN00	00 S	0	0	HR	2		P		Y			SLIGHTLY GLEYED

SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES COL	MOTTLES ABUN	MOTTLES CONT	PED COL.	PED GLEY	STONES >2	STONES >6	STONES LITH	STONES TOT	STRUCT/ CONSIST	SUBS STR	SUBS POR	SUBS IMP	SUBS SPL	SUBS CALC	
86	0-30	mzcl	10YR54 00						0	0	HR	5							SEE 2P
	30-50	mzcl	10YR56 00						0	0	HR	2		M					
	50-65	hzcl	10YR56 00	10YR58 00	C		00MN00 00	S	0	0	HR	2		M					SLIGHTLY GLEYED
	65-100	c	75YR56 00	75YR58 00	C		00MN00 00	S	0	0	HR	2		P		Y			SLIGHTLY GLEYED
87	0-27	mzcl	10YR54 00						6	0	HR	10							SEE 2P
	27-40	hzcl	10YR56 00	10YR58 00	C			S	0	0	HR	10		M					SLIGHTLY GLEYED
	40-60	c	05YR46 00	05YR58 00	C			S	0	0	HR	10		P		Y			SLIGHTLY GLEYED
88	0-30	mzcl	10YR43 44	10YR56 00	C			S	0	0	HR	5							SL GLEYED SEE 2P
	30-50	mzcl	10YR56 00						0	0	HR	5		M					
	50-60	c	05Y 46 00	10YR58 00	C		00MN00 00	S	0	0	HR	10		P		Y			SLIGHTLY GLEYED
89	0-30	mzcl	10YR43 00						8	0	HR	12							SEE 4P
	30-40	c	05YR46 00	05YR58 00	C		00MN00 00	S	0	0	HR	15		P		Y			SL GLEYED IMPFLINTS
90	0-30	mzcl	10YR54 00						8	0	HR	12							SEE 7P
	30-45	mcl	10YR56 00	00MN00 00	C				0	0	HR	15		M					
	45-50	mcl	10YR56 00	00MN00 00	F				0	0	HR	20		M					IMP FLINTS
91	0-30	mzcl	10YR54 00						11	0	HR	15							IMP FLINTS SEE 7P
92	0-27	mzcl	10YR54 00						5	0	HR	10							SEE 4P
	27-30	c	05YR56 00	75YR58 00	C			S	0	0	HR	10		P		Y			SL GLEYED IMPFLINTS
93	0-30	mzcl	10YR44 00	10YR56 00	C			S	5	0	HR	8							SL GLEYED SEE 2P
	30-45	hcl	10YR54 00	00MN00 00	F			S	0	0	HR	10		M					SLIGHTLY GLEYED
	45-65	c	05YR46 00	75YR58 00	C			S	0	0	HR	10		P		Y			SLIGHTLY GLEYED
94	0-23	zl	10YR42 00						12	4	HR	17						Y	SEE 6P
	23-35	mzcl	10YR43 00						0	0	CH	50		M				Y	
	35-65	ch	10YR81 00						0	0	HR	2		P				Y	
95	0-25	zl	10YR43 00						7	3	HR	10							SEE 3P
	25-40	mzcl	10YR44 00						0	0	HR	10		M					
	40-50	mzcl	10YR46 00						0	0	HR	10		M					
	50-60	mzcl	10YR46 53			C		Y	0	0		0		M					
	60-90	c	10YR56 53			C		Y	0	0	HR	5		P		Y			
96	0-20	zl	10YR43 00						10	5	HR	12							SEE 1P
	20-40	c	75YR56 00	10YR53 58	C			Y	0	0	HR	20		P		Y			
	40-80	c	05YR46 00	05YR58 00	C			Y	0	0	HR	20		P		Y			DISTURBED PROFILE
97	0-25	mzcl	10YR43 00						10	5	HR	12							SEE 1P
	25-65	c	75YR56 58	10YR53 00	C			Y	0	0	HR	12		P		Y			
	65-70	c	75YR56 00	75YR58 00	C		10YR53 00	Y	0	0	HR	20		P		Y			DISTURBED PROFILE
98	0-30	mzcl	10YR43 00						2	0	HR	5							SEE 3P
	30-80	hzcl	10YR53 44	10YR56 00	C		00MN00 00	Y	0	0	HR	5		M					IMP FLINT

SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES COL	MOTTLES ABUN	MOTTLES CONT	PED COL.	PED GLEY	STONES >2	STONES >6	STONES LITH	STONES TOT	STRUCT/ CONSIST	SUBS STR	SUBS POR	SUBS IMP	SUBS SPL	SUBS CALC	
99	0-30	mzcl	10YR43 00						0	0	HR	5							SEE 3P
	30-50	hzcl	10YR53 54	10YR56 00	C		00MN00 00	Y	0	0	HR	3		M					
	50-100	c	10YR53 54	10YR56 00	M		00MN00 00	Y	0	0	HR	5		P		Y			
100	0-30	mzcl	10YR43 00						0	0	HR	5							SEE 2P
	30-65	hzcl	10YR54 00	10YR56 00	C		00MN00 00	S	0	0	HR	8		M					SLIGHTLY GLEYED
	65-80	c	75YR58 00	75YR53 00	C			Y	0	0	HR	5		P		Y			IMP FLINT
101	0-25	mzcl	10YR43 00						0	0	HR	5							SEE 4P
	25-75	c	05YR46 56	75YR56 54	C		00MN00 00	S	0	0	HR	5		P		Y			SL GLEYED IMP FLINT
102	0-28	mzcl	10YR43 00						0	0	HR	5							SEE 4P
	28-70	c	05YR46 56	75YR54 56	C		00MN00 00	S	0	0	HR	5		P		Y			SL GLEYED IMP FLINT
103	0-25	mzcl	10YR43 00						0	0	HR	10							SEE 7P
	25-30	mzcl	10YR46 00						0	0	HR	20		M					IMP FLINTS
104	0-25	mzcl	10YR43 53						0	0	HR	3							SEE 3P
	25-35	mzcl	25Y 53 00	10YR56 00	C		00MN00 00	Y	0	0	HR	3		M					
	35-120	c	05YR46 00	75YR58 53	C		00MN00 00	Y	0	0	HR	5		P		Y			
105	0-25	mzcl	10YR43 00						0	0	HR	5							SEE 1P
	25-55	c	75YR58 68	75YR53 00	C		05YR58 00	Y	0	0	HR	10		P		Y			IMP FLINT
106	0-25	mzcl	10YR43 00						0	0	HR	5							SEE 4P
	25-45	c	75YR56 00	75YR66 00	C		00MN00 00	S	0	0	HR	3		P		Y			SLIGHTLY GLEYED
	45-120	c	75YR56 00	75YR58 00	M		00MN00 00	S	0	0	HR	3		P		Y			SLIGHTLY GLEYED
107	0-25	mzcl	10YR43 00						0	0	HR	5							SEE 7P
	25-55	hzcl	75YR54 00	75YR58 00	C		00MN00 00	S	0	0	HR	20		M		Y			SL GLEYED
108	0-25	mzcl	10YR42 00						0	0	HR	15							IMP FLINTS SEE 7P
109	0-30	mcl	10YR44 00						0	0	HR	5							SEE 4P
	30-60	c	75YR58 00	75YR54 00	C		00MN00 00	S	0	0	HR	5		P		Y			SLIGHTLY GLEYED
	60-90	c	05YR58 00	75YR58 53	M		00MN00 00	Y	0	0	HR	5		P		Y			
	90-120	c	75YR58 00	75YR53 00	M		00MN00 00	Y	0	0		0		P		Y			
110	0-25	mzcl	10YR44 00						0	0	CH	5					Y		SEE 6P
	25-35	c	75YR58 00						0	0	HR	5		M			Y		
	35-65	ch	10YR81 00						0	0	HR	5		P			Y		
111	0-30	mzcl	10YR43 42						0	0	HR	5					Y		SEE 6P
	30-60	ch	10YR81 00						0	0	HR	5		P			Y		
112	0-30	mzcl	10YR43 00						0	0	HR	15							IMP FLINTS SEE 7P
113	0-15	mzcl	10YR41 42						0	0	CH	5					Y		SEE 6P
	15-20	mzcl	10YR44 00						0	0	HR	5		M			Y		
	20-50	ch	10YR81 00						0	0	HR	5		P			Y		

SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES COL	MOTTLES ABUN	MOTTLES CONT	PED COL.	PED GLEY	STONES >2	STONES >6	STONES LITH	STONES TOT	STRUCT/ CONSIST	SUBS STR	SUBS POR	SUBS IMP	SUBS SPL	SUBS CALC	
114	0-25	mzcl	10YR43 00						0	0	HR	5							SEE 7P
	25-35	hzcl	10YR44 00						0	0	HR	15		M					IMP FLINTS
115	0-25	mzcl	10YR43 00						0	0	HR	5							SEE 3P
	25-55	hzcl	10YR44 46	00MN00	00	F			0	0	HR	5		M					
	55-70	c	10YR44 54						0	0	HR	15		M					
	70-85	c	10YR54 00	75YR58	00	C	00MN00	00 S	0	0	HR	5		P		Y			SLIGHTLY GLEYED
	85-90	c	75YR46 58	05YR46	00	F	00MN00	00 S	0	0	HR	35		P		Y			SL GLEYED IMPFLINTS
116	0-25	mzcl	10YR43 00						0	0	HR	5							SEE 5P
	25-55	hzcl	75YR56 00	75YR53	00	C		S	0	0	HR	15		M		Y			
	55-75	c	75YR56 00	75YR53	00	C	00MN00	00 Y	0	0	HR	20		P		Y			
	75-120	c	75YR58 00	05YR46	00	C	00MN00	00 Y	0	0	HR	3		P		Y			
117	0-30	mzcl	10YR43 00						0	0	HR	3							SEE 7P
	30-65	hzcl	10YR44 54						0	0	HR	5		M					
	65-70	hzcl	10YR54 00						0	0	HR	25		M					IMP FLINTS
118	0-25	mzcl	10YR43 00						0	0	HR	5							SEE 6P
	25-48	c	75YR58 00						0	0	HR	5		M					
	48-80	ch	10YR81 00						0	0	HR	5		P			Y		
119	0-30	mzcl	10YR43 00						0	0	HR	3							SEE 2P
	30-60	hzcl	10YR44 54						0	0	HR	3		M					
	60-70	c	05YR56 00	75YR53	58	C	00MN00	00 Y	0	0	HR	5		P		Y			
	70-100	c	75YR58 00	75YR53	00	C	00MN00	00 Y	0	0	HR	25		P		Y			IMP FLINTS
120	0-30	mzcl	10YR43 00						0	0	HR	3							SEE 3P
	30-50	hzcl	10YR54 00	75YR56	00	F	00MN00	00	0	0	HR	3		M					
	50-75	c	75YR56 00	75YR53	00	C	00MN00	00 Y	0	0	HR	10		P		Y			
	75-120	c	05YR58 00	75YR58	00	M		S	0	0		0		P		Y			SLIGHTLY GLEYED
121	0-30	mzcl	10YR43 00						0	0	HR	5							SEE 3P
	30-55	hzcl	10YR56 00	10YR53	00	C		Y	0	0	HR	3		M					
	55-90	c	05YR58 00	75YR56	00	C		S	0	0		0		P		Y			SLIGHTLY GLEYED
122	0-25	mzcl	10YR43 00						0	0	HR	5							SEE 7P
	25-30	hzcl	10YR54 00						0	0	HR	30		M					IMP FLINTS
123	0-25	mzcl	10YR43 00						0	0	HR	5							SEE 8P
	25-30	c	75YR58 00	00MN00	00	F		S	0	0	HR	30		P		Y			IMP FLINTS
124	0-23	mzcl	10YR42 00						0	0	HR	5							SEE 7P
	23-50	mzcl	10YR54 00						0	0	HR	10		M					
	50-55	mzcl	10YR54 00						0	0	HR	30		M					IMP FLINTS
125	0-28	mzcl	10YR43 00						0	0	HR	3							SEE 8P
	28-50	c	75YR58 00	75YR54	56	C		S	0	0	HR	5		P		Y			SLIGHTLY GLEYED
	50-100	c	05YR56 00	75YR58	00	C		S	0	0	HR	3		P		Y			SLIGHTLY GLEYED
	100-105	c	05YR56 00	75YR68	00	M	00MN00	00 S	0	0	HR	15		P		Y			SL GLEYED IMPFLINTS

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	
126	0-30	mzcl	10YR43 00						0	0	HR	3							SEE 2P
	30-45	hzcl	10YR54 00	75YR58 00	F				0	0	HR	5		M					
	45-120	c	05YR56 00	75YR56 00	C			S	0	0	HR	5		P			Y		SLIGHTLY GLEYED
127	0-30	mzcl	10YR43 00						0	0	HR	3							SEE 3P
	30-55	hzcl	10YR54 00						0	0	HR	3		M					
	55-65	hzcl	10YR53 54	75YR56 00	C		00MN00 00	Y	0	0		0		M					
	65-120	c	05YR56 00	75YR58 53	M			Y	0	0		0		P			Y		
128	0-25	mzcl	10YR43 00						3	0	HR	7							SEE 5P/8P
	25-35	hzcl	75YR58 00	10YR56 00	C			S	0	0	HR	5		M			Y		SLIGHTLY GLEYED
	35-85	c	05YR46 56	75YR54 00	C			S	0	0	HR	20		P			Y		SLIGHTLY GLEYED
	85-120	c	05YR56 00	75YR58 00	M			S	0	0	HR	3		P			Y		SLIGHTLY GLEYED
129	0-30	mzcl	10YR43 00						3	0	HR	8							SEE 4P
	30-60	c	05YR56 00	75YR66 00	C		00MN00 00	S	0	0	HR	10		P			Y		SLIGHTLY GLEYED
	60-90	c	05YR56 00	75YR54 56	C		00MN00 00	S	0	0	HR	10		P			Y		SL GLEYED IMPFLINTS
130	0-25	mzcl	10YR43 00						0	0	HR	5							SEE 2P/3P
	25-35	mzcl	10YR54 00						0	0	HR	5		M					
	35-55	hzcl	10YR54 00	75YR56 00	C			S	0	0	HR	5		M					SLIGHTLY GLEYED
	55-120	c	05YR58 00	75YR58 00	C		00MN00 00	S	0	0	HR	10		P			Y		SLIGHTLY GLEYED
131	0-25	mzcl	10YR43 00						0	0	HR	5							IMP FLINTS SEE 7P
132	0-28	mzcl	10YR43 00						0	0	HR	5							SEE 2P
	28-45	hzcl	10YR54 00	75YR56 00	C			S	0	0	HR	10		M					SLIGHTLY GLEYED
	45-80	c	05YR56 00	75YR54 56	C		00MN00 00	S	0	0	HR	20		P			Y		SL GLEYED IMPFLINTS
133	0-25	mzcl	10YR43 00						0	0	HR	5							SEE 2P
	25-33	hzcl	10YR53 54	75YR56 00	C			Y	0	0	HR	5		M					
	33-75	c	05YR56 58	75YR54 56	C			S	0	0	HR	10		P			Y		SL GLEYED IMPFLINTS
134	0-25	mzcl	10YR43 00						0	0	HR	10							SEE 7P
	25-35	mzcl	10YR54 00						0	0	HR	25		M					IMP FLINTS
135	0-30	mzcl	10YR43 00						0	0	HR	5							SEE 4P
	30-70	c	05YR58 00	75YR56 00	C			S	0	0	HR	10		P			Y		SLIGHTLY GLEYED
	70-120	c	05YR46 00	75YR58 00	M			S	0	0	HR	10		P			Y		SLIGHTLY GLEYED
136	0-25	mzcl	10YR43 53						0	0	HR	5							SEE 2P
	25-45	mzcl	10YR54 00	75YR56 00	F				0	0	HR	8		M					
	45-65	c	05YR56 00	75YR56 00	C		00MN00 00	S	0	0	HR	10		P			Y		SL GLEYED IMPFLINTS
137	0-30	mzcl	10YR43 00						0	0	HR	5							SEE 2P
	30-55	mzcl	10YR54 00						0	0	HR	5		M					SEE 7P
	55-70	hzcl	10YR53 00	10YR58 00	C			Y	0	0	HR	10		M					IMP FLINTS

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES----- COL	ABUN	CONT	PED COL.	GLEY	>2	>6	LITH	TOT	STRUCT/ CONSIST	SUBS STR	POR	IMP	SPL	CALC	
138	0-25	mzcl	10YR42 00						0	0	HR	10							IMP FLINTS SEE 7P
139	0-25	mzcl	10YR43 53						0	0	HR	5							SEE 7P
	25-45	mzcl	10YR54 00	00MN00	00	F			0	0	HR	15		M					
	45-60	hzcl	75YR53 00	75YR58	00	C	00MN00	00 Y	0	0	HR	15		M					IMP FLINTS
140	0-30	mzcl	10YR43 00						0	0	HR	5							SEE 4P
	30-50	c	05YR46 00	75YR58	00	C	00MN00	00 S	0	0	HR	5		P		Y			SLIGHTLY GLEYED
	50-80	c	05YR56 00	75YR56	00	C	00MN00	00 S	0	0	HR	10		P		Y			SL GLEYED IMPFLINTS