A1

# Land at Riddings Farm Headley, Hampshire
# Proposed Golf Course
# Agricultural Land Classification
# ALC Map and Report
# April 1993

# AGRICULTURAL LAND CLASSIFICATION
# LAND AT RIDDINGS FARM, HEADLEY, HAMPSHIRE

## 1. Summary

1.1 During April 1993, an Agricultural Land Classification (ALC) survey was carried out on 111.3 hectares of land at Riddings Farm, Headley in Hampshire. ADAS was commissioned by MAFF to determine the quality of land affected by proposals for a golf course development.

1.2 The survey was undertaken at a detailed level of approximately one boring per hectare. A total of 92 borings and four soil inspection pits were described 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 agricultural use.

At the time of survey, the majority of the site was under arable cropping (winter cereals and oilseed rape) with small areas of set-aside.

1.3 The distribution of grades and subgrades is shown on the attached ALC map and the areas and extent are given in the table below. The map has been drawn at a scale of 1:10,000. It is accurate at this scale, but any enlargement may be misleading.

Distribution of Grades and Subgrades

| | Area (ha) | % total agricultural area |
|---|---|---|
| Grade 2 | 21.4 | 21.7 |
| 3a | 31.4 | 31.8 |
| 3b | 45.3 | 45.9 |
| 4 | 0.5 | 0.6 |
| Total agricultural area | 98.6 | 100 |
| Non-agricultural | 2.7 | |
| Woodland | 8.3 | |
| Urban | 0.7 | |
| Agricultural Buildings | 1.0 | |
| Total area of site | 111.3 ha | |

1.4 Appendix 1 gives a general description of the grades and land use categories identified in this survey.

1.5 The land quality on the site ranges from very good quality, grade 2 land to poor quality, grade 4 land. In addition, areas of land in non-agricultural and urban use, and areas of woodland and farm buildings have been mapped. The ALC grading of the site is determined by a number of factors such as soil wetness and droughtiness, topsoil stone contents, steep gradients and flooding. Much of the site is affected by soil wetness and/or droughtiness limitations, the severity of which being dependent upon the relative depths to slowly permeable clay horizons or extremely stony

horizons. Topsoil stone and gradient limitations are more localised, resulting in land being assigned to grades 3a, 3b or 4. Flooding may act as a much less significant limitation adjacent to the River Enborne.

## 2. Climate

2.1 Estimates of climatic variables relevant to the assessment of agricultural land quality were obtained by interpolation from a 5km grid point dataset (Met. Office, 1989) for representative locations in the survey area.

Climatic Interpolations

| Grid Reference | SU545633 | SU532632 | SU545636 |
|---|---|---|---|
| Altitude, (m,AOD) | 60 | 70 | 85 |
| Accumulated Temperature (°days, Jan-June) | 1463 | 1452 | 1434 |
| Average Annual Rainfall (mm) | 718 | 733 | 733 |
| Field Capacity Days | 155 | 158 | 157 |
| Moisture deficit, wheat (mm) | 108 | 106 | 104 |
| Moisture deficit, potatoes (mm) | 101 | 98 | 96 |

2.2 Climatic factors are considered first when classifying land since climate can be overriding in the sense that adverse climatic conditions may restrict land quality irrespective of favourable site and soil conditions. The details in the table above show that there is no overall climatic limitation affecting this site. In addition, no local climatic factors such as exposure or frost risk affect the land quality.

2.3 However, climatic factors do interact with soil factors to influence soil wetness and droughtiness limitations.

## 3. Relief

3.1 The site lies at an altitude of approximately 60-85m AOD. The lowest land is found along the course of the River Enborne which runs partly along the north-western boundary of the site. The land rises gently towards Riddings Farm and the south. Across the north-eastern part of the site, the land rises more steeply from the River Enborne such that small areas are limited in their agricultural use by gradients in the range 8-12°, as measured by an optical reading clinometer.

## 4. Geology and Soils

4.1 British Geological Survey (1946) Sheet 268, Reading shows the site to be underlain by a variety of geological deposits. Adjacent to the River Enborne a band of Alluvium has been mapped. This is bordered to the south by Valley Gravel which gives way to London Clay around Riddings Farm; this extends to the southern boundary of the site. Across the north-eastern part of the site, Alluvium in the floodplain of the River Enborne passes to London Clay across the mid slopes, whilst Lower Bagshot Beds outcrop on the top of hill at the far north of the site.

4.2 Soil Survey of England and Wales, (1983), Sheet 6, Soils of South-East England shows two soil associations occurring across the site. To the north of the River Enborne Sonning 2 association has been mapped. These are described as, 'flinty, coarse loamy over gravelly typical paleo-argillic brown earths', (SSEW, 1984). South of the River Enborne, soils of the Wickham 4 association are mapped, these being described as, 'fine loamy or fine silty over clayey with slowly permeable sub-surface horizons', (SSEW, 1984).

4.3 Detailed field examination of the soils on the site revealed a more complex pattern of soils than that described by the Soil Survey, although broadly similar types were found. Deep, clayey soils of variable drainage status were observed in association with deposits of London Clay and Alluvium. In general terms, soils developed in Alluvium tended to be more poorly drained than those resting over London Clay. Variably stony soils have developed in deposits of Valley Gravel. Some soils were found to be relatively deep over gravelly horizons whilst others were very shallow and stony on the surface.

## 5. Agricultural Land Classification

5.1 Table 1 provides the details of the area measurements for each grade and 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.

Grade 2

5.3 Very good quality land accounts for just over one-fifth of the agricultural area surveyed and it is found in two different situations.

5.3.1 To the north-east of Flaggy Copse relatively deep, well drained soils have developed in Valley Gravel deposits. The land has minor soil droughtiness limitations. Profiles typically comprise very slightly to slightly stony, (2%-10% total stones) non-calcareous medium clay loam topsoils. These overlie similar textures, sandy clay loam or sandy loam in the upper subsoil and may pass to heavy clay loam or sandy clay in the lower subsoil. Stone contents in the subsoil range from 2-15% total by volume. Profiles are well drained, Wetness Class I, although occasional profiles are gleyed below 80 cm as a result of high ground water. The interaction of soil characteristics, such as textures, structures and stone contents, with climatic factors, (specifically moisture deficits), give rise to land which may be very slightly droughty.

5.3.2 Two other units of Grade 2 land have been mapped where soils are associated with deposits of London Clay and there is a minor soil wetness limitation as a consequence. Profiles comprise very slightly stony, (< 5% total stones), non-calcareous medium clay loam topsoils overlying similar textures, heavy clay loam or sandy clay loam in the subsoil which is usually gleyed, (ie, common ochreous and grey mottles) from 25-30 cm. Most profiles have no slowly permeable horizon, although occasionally poorly structured clay may be present below about 75 cm depth. Overall, soils are moderately well drained, Wetness Class II, and land is

slightly restricted by soil wetness. This may affect crop establishment and development and impose slight restrictions on cultivations and/or grazing by livestock

Subgrade 3a

5.4 Land of this quality has been mapped where soils are similar to those described in para 5.3 above, but their characteristics are such that they suffer a slightly greater degree of limitation to their agricultural use. For example, profiles may be shallow over gravel and/or more stony throughout and are therefore limited by soil droughtiness to 3a. Conversely, land limited to this subgrade by soil wetness is characterised by soils with shallower gleyed and slowly permeable horizons than those assigned to the better grade.

5.4.1 Where the land is limited by soil droughtiness, profiles typically comprise non-calcareous medium clay loam topsoils which may contain between 5 and 20% total stones by volume, (<15% of which are >2 cm in diameter). These overlie a similarly textured subsoil, or heavy clay loam or sandy clay loam. Occasionally deeper profiles pass to clay. However, most pass to very gravelly horizons between about 40 and 70 cm depth which are usually impenetrable, (to soil auger). Subsoils are variably stony having between 5 and 60% total stones by volume, although commonly they become more stony with depth. The combination of relatively shallow soil depth and profile stone contents causes these soils to have moderately reduced reserves of available water for plant growth. As a result crops may suffer drought stress particularly during the drier parts of the year.

5.4.2 Land may also be limited to Subgrade 3a on the basis of soil wetness. Typically topsoils were found to be non-calcareous, medium clay loam, or occasionally, medium silty clay loams containing 2-10% total stones by volume. These overlie medium or heavy clay loam, or occasionally sandy clay loam upper subsoils which are gleyed from 20-35 cm. Upper subsoils may contain up to 15% total stones and pass to slowly permeable clay or sandy clay lower subsoils below about 45 cm. These lower horizons are generally less stony than above. Drainage through these profiles is impeded by the slow permeability of the lower subsoil to the extent that gleying is evident above 40 cm. These drainage characteristics equate to a Wetness Class of III. Subgrade 3a is therefore appropriate given the topsoil texture and climatic regime at this site.
Occasional profiles, which were similar texturally, but which were not found to have slowly permeable horizons, (ie, Wetness Class II) were assigned to Subgrade 3a on the basis of a soil workability restriction arising as a result of heavy clay loam topsoil textures.

5.4.3 Very occasionally land was encountered which was assigned to Subgrade 3a on the basis of a topsoil stone limitation. Where topsoil stone contents in the range 10-15% > 2 cm were recorded, the land cannot be graded higher than 3a. The stones will act to restrict the range of crops as well as the use of certain modern farming techniques such as precision drilling. Crop establishment, growth and quality may also be affected.

Subgrade 3b

5.5 Land of this quality accounts for the largest proportion of the area surveyed and it has been assigned on the basis of a number of factors, most commonly soil wetness, and more locally topsoil stoniness, slope or soil droughtiness.

5.5.1 Land is subject to severe soil wetness restrictions where poorly drained soils which are gleyed and slowly permeable at shallow depth occur. Profiles typically comprise non-calcareous medium, or occasionally, heavy clay loam topsoils which are only very slightly stony, (ie <5% total stone). These overlie gleyed heavy clay loam or clay upper subsoils and pass to gleyed and slowly permeable clay within 42 cm of the surface. The poorly structured clay horizons will cause drainage to be significantly impeded such that Wetness Class IV is appropriate. The land is thereby limited in its agricultural use due to the restrictions on cropping and cultivations that the wet conditions will cause. Land cannot be graded higher than Subgrade 3b as a result.

5.5.2 Where soils have developed over Valley Gravel deposits which are very close to the surface, the land is limited to Subgrade 3b by soil droughtiness and/or topsoil stones. Profiles comprise moderately stony, medium clay loam topsoils which are usually impenetrable, (to soil auger) between 25 and 40 cm, although they may occasionally pass to sandy clay loam in the subsoil (which contains 15-50% total stones), and gravel at around 50-60 cm. Topsoil stones > 2 cm in the range 15-22%, (20-30% total) restrict the use of this land as described in para 5.4.3. In addition, the combination of high profile stone contents, and relatively shallow soil depth with climatic factors, (specifically moisture deficits) will mean that this land is prone to severe soil droughtiness.

5.5.3 Across the north-eastern part of the site, north of the River Enborne small parts of the site have been graded 3b on the basis of a gradient limitation. Slopes in the range 7-11° were measured using an optical reading clinometer. Such gradients will restrict the safe and efficient operation of farm machinery and there is an attendant risk of soil erosion.

Grade 4

5.6 Poor quality land has been mapped in one small unit at the far north-east of the site in association with steep gradients in excess of 11°. Slopes of 11-12° were recorded. These will act to severely restrict the use of farm machinery.

SOURCES OF REFERENCE


* British Geological Survey (1946) Sheet 268, Reading

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

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

* Soil Survey of England and Wales (1983) Sheet 6, Soils of South-East England.

* Soil Survey of England and Wales (1984) Bulletin 15, Soils and their use in South-East England.

## APPENDIX I

## DESCRIPTION OF THE GRADES AND SUBGRADES

The ALC grades and subgrades are described below in terms of the types of limitation which can occur, typical cropping range and the expected level and consistency of yield. In practice, the grades are defined by reference to physical characteristics and the grading guidance and cut-offs for limitation factors in Section 3 enable land to be ranked in accordance with these general descriptions. The most productive and flexible land falls into Grades 1 and 2 and Subgrade 3a and collectively comprises about one-third of the agricultural land in England and Wales. About half the land is of moderate quality in Subgrade 3b or poor quality in Grade 4. Although less significant on a national scale such land can be locally valuable to agriculture and the rural economy where poorer farmland predominates. The remainder is very poor quality land in Grade 5, which mostly occurs in the uplands.

Descriptions are also given of other land categories which may be used on ALC maps.

### 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 and horticultural crops can usually be grown but on some land in the 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.

### Grade 3 - good to moderate quality agricultural land

Land with moderate limitations which affect the choice of crops, timing and type of cultivation, harvesting or the level of yield. Where 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 level of yields. It is mainly suited to grass with occasional arable crops (eg. 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 very severe limitations which restrict use to permanent pasture or rough grazing, except for occasional pioneer forage crops.

**Descriptions of other land categories used on ALC maps**

**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/airfields. 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 (eg. 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 land cover types, eg buildings in large grounds, and where map scale permits, the cover types may be shown separately. Otherwise, the most extensive cover type will usually be shown.

## APPENDIX II

## FIELD ASSESSMENT OF SOIL WETNESS CLASS

### Definition of Soil Wetness Classes

| Wetness Class | Duration of Waterlogging[1] |
|---|---|
| I | The soil profile is not wet within 70 cm depth for more than 30 days in most years[2]. |
| 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 90 days, but not wet within 40 cm depth for more than 30 days in most years. |
| 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 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 and 90 days in most years. |
| IV | The soil profile is wet within 70 cm depth for more than 180 days but not within 40 cm depth for more than 210 days in most years *or*, if there is no slowly permeable layer within 80 cm depth, it is wet within 40 cm depth for 91-210 days in most years. |
| V | The soil profile is wet within 40 cm depth for 211-335 days in most years. |
| VI | The soil profile is wet within 40 cm depth for more than 335 days in most years. |

[1] The number of days specified is not necessarily a continuous period.

[2] 'In most years' is defined as more than 10 out of 20 years.

# APPENDIX III

## SOIL BORING AND SOIL PIT DESCRIPTIONS

Contents:

* Soil boring descriptions
* Soil pit descriptions
* Soil Abbreviations : Explanatory Note

## SOIL PROFILE DESCRIPTIONS : EXPLANATORY NOTE

Soil profile and pit information obtained during ALC surveys is held on a database. This has commonly used notations and abbreviations as set out below.

## BORING HEADERS

1. GRID REF : National grid square followed by 8 figure grid reference.

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

| | |
|---|---|
| ARA - arable | PAS/PGR - permanent pasture |
| WHT - wheat | RGR - rough grazing |
| BAR - barley | LEY - ley grassland |
| CER - cereals | CFW - coniferous woodland |
| OAT - oats | DCW - deciduous woodland |
| MZE - maize | SCR - scrub |
| OSR - oilseed rape | HTH - heathland |
| BEN - field beans | BOG - bog or marsh |
| BRA - brassicae | FLW - fallow |
| POT - potatoes | PLO - ploughed |
| SBT - sugarbeet | SAS - set-aside |
| FDC - fodder crops | OTH - other |
| FRT - soft and top fruit | LIN - linseed |
| HOR/HRT - *horticultural crops* | |

3. GRDNT : Gradient as measured by optical reading clinometer.

4. GLEY/SPL : Depth in centimetres (cm) to gleyed and/or slowly permeable horizons.

5. AP (WHEAT/POTS) : Crop-adjusted available water capacity. The amount of soil water (in millimetres) held in the soil profile that is available to a growing crop (wheat and potatoes are used as reference crops).

6. MB (WHEAT/POTS) : The moisture balance for wheat and potatoes obtained by subtracting the soil moisture deficit from the crop-adjusted available water capacity.

7. DRT: Grade according to soil droughtiness assessed against soil moisture balances.

8. M REL : Micro-relief )
   FLOOD : Flood risk )
   EROSN : Soil erosion )
   EXP : Exposure ) If any of these factors are considered significant in terms of the assessment of agricultural land quality a 'y' will be entered in the relevant column.
   FROST : Frost prone )
   DIST : Disturbed land )
   CHEM : Chemical limitation)

9. LIMIT : Principal limitation to agricultural land quality.
The following abbreviations are used:

OC - overall climate
AE - aspect
EX - exposure
FR - frost
GR - gradient
MR - micro-relief
FL - flooding
TX - soil texture
DP - soil depth
CH - chemical limitations
WE - wetness
WK - workability
DR - drought
ER - erosion
WD - combined soil wetness/soil droughtiness
ST - topsoil stoniness

## PROFILES & PITS

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

S - sand
LS - loamy sand
SL - sandy loam
SZL - sandy silt loam
ZL - silt loam
MZCL - medium silty clay loam
MCL - medium clay loam
SCL - sandy clay loam
HZCL - heavy silty clay loam
HCL - heavy clay loam
SC - sandy clay
ZC - silty clay
C - clay

For the sand, loamy sand, sandy loam and sandy silt loam classes, the predominant size of sand fraction may be indicated by the use of prefixes.

F - fine (more than $^2/_3$ of the sand less than 0.2 mm)
C - coarse (more than $^1/_3$ of sand greater than 0.6 mm)
M - medium (less than $^2/_3$ fine sand and less than $^1/_3$ coarse sand)

The sub-divisions of clay loam and silty clay loam classes according to clay content are indicated as follows:

M - medium (less than 27% clay)
H - heavy (27-35% clay)

Other possible texture classes include:

OL - organic loam
P - peat
SP - sandy peat
LP - loamy peat
PL - peaty loam
PS - peaty sand
MZ - marine light silts

2. MOTTLE COL : Mottle colour

3. MOTTLE ABUN : Mottle abundance

F - few - less than 2% of matrix or surface described
C - common - 2-20% of the matrix
M - many - 20-40% of the matrix
VM - very many - 40% + of the matrix

4. MOTTLE CONT : Mottle continuity

F - faint - indistinct mottles, evident only on close examination
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 : Stone lithology. One of the following is used.

HR - all hard rocks or stones
MSST - soft, medium or coarse grained sandstone
SI - soft weathered igneous or metamorphic
SLST - soft oolitic or dolomitic limestone
FSST - soft, fine grained sandstone
ZR - soft, argillaceous, or silty rocks
CH - chalk
GH - gravel with non-porous (hard) stones
GS - gravel with porous (soft) stones

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.

- <u>degree of development</u>

WK - weakly developed
MD - moderately developed
ST - strongly well developed

- ped size

F - fine
M - medium
C - coarse
VC - very coarse

- ped shape

S - single grain
M - massive
GR - granular
SB/SAB - sub-angular blocky
AB - angular blocky
PR - prismatic
PL - platy

8. CONSIST : Soil consistence is decribed 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

| 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 | SU54006360 | CER | NE | 01 | | | 1 | 1 | 000 | 0 | 000 | 0 | | | | | DR | 4 | IMP 38 |
| 1P | SU54406340 | CER | | | 032 | 060 | 3 | 3B | 102 | -6 | 109 | 8 | 3A | | | | WE | 3B | |
| 2 | SU54106360 | CER | NE | 01 | | | 1 | 1 | 000 | 0 | 000 | 0 | | | | | DR | 4 | IMP 35 |
| 2P | SU54006350 | CER | N | 01 | | | 1 | 1 | 121 | 13 | 113 | 12 | 2 | | | | DR | 2 | |
| 3 | SU54206360 | CER | NE | 01 | 027 | 045 | 3 | 3A | 110 | 2 | 108 | 7 | 3A | | | | WE | 3A | |
| 3P | SU53706340 | CER | N | 01 | 025 | 045 | 3 | 3A | 106 | -2 | 079 | -22 | 3A | | | | WD | 3A | |
| 4P | SU54806280 | CER | NW | 02 | 038 | | 2 | 2 | 144 | 36 | 117 | 16 | 1 | | | | WE | 2 | NO SPL |
| 5 | SU54606360 | CER | SW | 03 | 035 | 035 | 4 | 3B | 000 | 0 | 000 | 0 | | | | | WE | 3B | |
| 6 | SU54706360 | CER | S | 03 | 035 | 060 | 3 | 3A | 000 | 0 | 000 | 0 | | | | | WE | 3A | |
| 7 | SU54806360 | CER | S | 02 | 037 | 050 | 3 | 3A | 000 | 0 | 000 | 0 | | | | | WE | 3A | |
| 8 | SU53806350 | CER | | | 035 | 035 | 4 | 3B | 000 | 0 | 000 | 0 | | | | | WE | 3B | |
| 9 | SU53906350 | CER | S | 02 | | | 1 | 1 | 000 | 0 | 000 | 0 | | | | | | 1 | |
| 10 | SU54006350 | CER | N | 01 | | | 1 | 1 | 144 | 36 | 114 | 13 | 1 | | | | | 1 | |
| 11 | SU54106350 | CER | N | 02 | | | 1 | 1 | 075 | -33 | 072 | -29 | 3B | | | | DR | 3B | POSS 3A |
| 12 | SU54206350 | CER | NE | 01 | 027 | 027 | 4 | 3B | 096 | -12 | 099 | -2 | 3A | | | | WE | 3B | SPL 27 |
| 14 | SU54606350 | CER | SW | 04 | | 057 | 2 | 2 | 138 | 30 | 113 | 12 | 1 | | | | WE | 2 | |
| 15 | SU54706350 | CER | S | 03 | 030 | | 2 | 2 | 126 | 18 | 096 | -5 | 2 | | | | WD | 2 | |
| 16 | SU54806350 | CER | S | 02 | 027 | | 2 | 2 | 100 | -8 | 106 | 5 | 3A | | | | DR | 3A | IMP 70 |
| 18 | SU53306340 | CER | N | 01 | 030 | 030 | 4 | 3B | 137 | 29 | 114 | 13 | 2 | | | | WE | 3B | |
| 19 | SU53406340 | CER | N | 01 | | | 1 | 1 | 067 | -41 | 067 | -34 | 3B | | | | DR | 3B | IMP 48 |
| 20 | SU53506340 | CER | N | 01 | | | 1 | 1 | 056 | -52 | 056 | -45 | 4 | | | | ST | 3B | IMP 42 |
| 21 | SU53606340 | CER | N | 01 | | | 1 | 1 | 066 | -42 | 063 | -38 | 3B | | | | DR | 3B | IMP 42 |
| 22 | SU53706340 | CER | N | 02 | 030 | | 2 | 2 | 000 | 0 | 000 | 0 | | | | | TS | 3A | IMP 50 |
| 24 | SU53906340 | PGR | | | 020 | 020 | 4 | 3B | 101 | -7 | 106 | 5 | 3A | | | | WE | 3B | SPL 20 |
| 25 | SU54006340 | CER | S | 01 | | | 1 | 1 | 136 | 28 | 103 | 2 | 2 | | | | DR | 2 | |
| 26 | SU54106340 | CER | S | 01 | | | 1 | 1 | 104 | -4 | 112 | 11 | 3A | | | | DR | 3A | IMP 70 |
| 27 | SU54206340 | CER | NE | 01 | | | 1 | 1 | 137 | 29 | 112 | 11 | 2 | | | | DR | 2 | IMP 105 |
| 28 | SU54306340 | CER | NE | 01 | | | 1 | 1 | 091 | -17 | 099 | -2 | 3A | | | | DR | 3A | IMP 65 |
| 29 | SU54406340 | CER | | | 032 | 032 | 4 | 3B | 092 | -16 | 102 | 1 | 3A | | | | WE | 3B | |
| 34 | SU53206330 | CER | N | 01 | | | 1 | 1 | 060 | -48 | 060 | -41 | 3B | | | | ST | 3B | IMP 47 |
| 35 | SU53306330 | CER | N | 01 | | | 1 | 1 | 073 | -35 | 074 | -27 | 3B | | | | DR | 3B | IMP 52 |
| 36 | SU53406330 | CER | N | 01 | | | 1 | 1 | 061 | -47 | 061 | -40 | 3B | | | | DR | 3B | IMP 48 |
| 37 | SU53506330 | CER | N | 01 | | | 1 | 1 | 057 | -51 | 057 | -44 | 4 | | | | DR | 3B | IMP 42 |
| 38 | SU53606330 | CER | N | 02 | | | 1 | 1 | 057 | -51 | 054 | -47 | 4 | | | | DR | 4 | POSS 3B |
| 39 | SU53706330 | CER | N | 02 | 032 | | 2 | 2 | 000 | 0 | 000 | 0 | | | | | TS | 3B | IMP 40 |
| 40 | SU53806330 | CER | N | 02 | | | 1 | 1 | 000 | 0 | 000 | 0 | | | | | TS | 3B | IMP 30 |
| 42 | SU54006330 | CER | N | 01 | 029 | 050 | 3 | 3B | 085 | -22 | 093 | -8 | 3B | | | | WE | 3B | IMP 70 |
| 43 | SU54106330 | CER | S | 01 | 080 | 090 | 1 | 1 | 143 | 35 | 109 | 8 | 2 | | | | DR | 2 | |
| 44 | SU54206330 | CER | S | 01 | | | 1 | 1 | 153 | 48 | 115 | 19 | 1 | | | | | 1 | |
| 45 | SU54306330 | SA | N | 01 | | | 1 | 1 | 091 | -14 | 095 | -1 | 3A | | | | DR | 3A | IMP 60 |
| 46 | SU54406330 | LEY | N | 01 | 020 | 020 | 4 | 3B | 000 | 0 | 000 | 0 | | | | | WE | 3B | |
| 47 | SU54506330 | CER | | | 035 | 035 | 4 | 3B | 131 | 23 | 108 | 7 | 2 | | | | WE | 3B | |

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 48 | SU54606330 | LEY | | | 032 | 032 | 4 | 3B | 101 | -7 | 106 | 5 | 3A | | | | WE | 3B | SPL 32 |
| 49 | SU54706330 | CER | | | 035 | 035 | 4 | 3B | 103 | -5 | 108 | 7 | 3A | | | | WE | 3B | SPL 35 |
| 50 | SU53206320 | CER | | | | | 1 | 1 | 057 | -51 | 057 | -44 | 4 | | | | DR | 3B | IMP 37 |
| 51 | SU53406320 | PLO | N | 02 | 030 | 030 | 4 | 3B | 112 | 4 | 103 | 2 | 3A | | | | WE | 3B | SPL 30 |
| 52 | SU53506320 | CER | N | 01 | | | 1 | 1 | 078 | -30 | 078 | -23 | 3B | | | | DR | 3B | IMP 48 |
| 53 | SU53606320 | CER | N | 02 | 030 | 030 | 4 | 3B | 129 | 21 | 107 | 6 | 2 | | | | WE | 3B | |
| 54 | SU53706320 | CER | N | 02 | | | 1 | 1 | 090 | -18 | 091 | -10 | 3A | | | | DR | 3A | IMP 60 |
| 54A | SU53656313 | CER | N | 02 | 030 | 048 | 3 | 3A | 134 | 26 | 110 | 9 | 2 | | | | WE | 3A | |
| 55 | SU53806320 | CER | N | 02 | | | 1 | 1 | 000 | 0 | 000 | 0 | | | | | TS | 3B | IMP 50 |
| 56 | SU53906320 | CER | N | 02 | | | 1 | 1 | 000 | 0 | 000 | 0 | | | | | TS | 3B | IMP 60 |
| 57 | SU54006320 | CER | N | 02 | | | 1 | 1 | 000 | 0 | 000 | 0 | | | | | TS | 3B | IMP 30 |
| 58 | SU54106320 | CER | N | 01 | | | 1 | 1 | 000 | 0 | 000 | 0 | | | | | TS | 3B | IMP 25 |
| 59 | SU54206320 | CER | N | 01 | 020 | 040 | 4 | 3B | 000 | 0 | 000 | 0 | | | | | WE | 3B | |
| 60 | SU54306320 | LEY | N | 01 | 020 | | 2 | 3A | 000 | 0 | 000 | 0 | | | | | WE | 3A | IMP 60 |
| 61 | SU54466320 | PGR | NW | 01 | 025 | 025 | 4 | 3B | 084 | -21 | 090 | -6 | 3B | | | | WE | 3B | |
| 62 | SU54566320 | PLO | NW | 01 | 030 | | 3 | 3A | 082 | -23 | 082 | -14 | 3B | | | | WE | 3A | IMP 50 |
| 64 | SU54006310 | CER | N | 01 | | | 1 | 1 | 094 | -11 | 099 | 3 | 3A | | | | DR | 3A | IMP 60 |
| 65 | SU54106310 | CER | N | 02 | 027 | | 1 | 1 | 153 | 48 | 115 | 19 | 1 | | | | WE | 2 | |
| 66 | SU54206310 | CER | N | 02 | | | 1 | 1 | 000 | 0 | 000 | 0 | | | | | DR | 3A | IMP 38 |
| 67 | SU54306310 | OSR | NW | 02 | | | 1 | 1 | 046 | -59 | 046 | -50 | 4 | | | | ST | 3A | IMP 30 |
| 69 | SU54476307 | OSR | | | | | 1 | 1 | 000 | 0 | 000 | 0 | | | | | ST | 3B | IMP 25 |
| 70 | SU54646312 | OSR | | | | | 1 | 1 | 000 | 0 | 000 | 0 | | | | | ST | 3B | IMP 30 |
| 72 | SU53906300 | OSR | N | 01 | 030 | 065 | 3 | 3A | 143 | 35 | 122 | 21 | 1 | | | | WE | 3A | SPL 65 |
| 73 | SU54006300 | CER | N | 03 | 029 | 050 | 3 | 3A | 000 | 0 | 000 | 0 | | | | | WE | 3A | |
| 74 | SU54106300 | CER | N | 02 | 029 | 075 | 2 | 2 | 123 | 18 | 118 | 22 | 2 | | | | WE | 2 | |
| 75 | SU54206300 | OSR | NW | 02 | 050 | 050 | 3 | 3A | 099 | -6 | 109 | 13 | 3A | | | | WE | 3A | |
| 76 | SU54306305 | OSR | | | | | 1 | 1 | 000 | 0 | 000 | 0 | | | | | ST | 3B | IMP 32 |
| 77 | SU54406305 | OSR | NW | 02 | | | 1 | 1 | 046 | -59 | 046 | -50 | 4 | | | | ST | 3A | IMP 30 |
| 78 | SU54406306 | OSR | | | | | 1 | 1 | 000 | 0 | 000 | 0 | | | | | ST | 3B | IMP 25 |
| 80 | SU54806300 | CER | NW | 02 | 032 | 032 | 4 | 3B | 088 | -17 | 094 | -2 | 3A | | | | WE | 3B | SPL 32 |
| 81 | SU53906290 | OSR | N | 01 | 030 | 030 | 4 | 3B | 106 | -2 | 104 | 3 | 3A | | | | WE | 3B | SPL 30 |
| 82 | SU54006290 | OSR | N | 01 | 105 | 105 | 1 | 1 | 099 | -9 | 084 | -17 | 3A | | | | DR | 3A | SPL 105 |
| 84 | SU54196285 | OSR | E | 02 | 040 | | 1 | 1 | 143 | 38 | 116 | 20 | 1 | | | | | 1 | |
| 85 | SU54306290 | OSR | NW | 02 | 030 | | 2 | 2 | 133 | 28 | 116 | 20 | 2 | | | | WE | 2 | IMP 100 |
| 86 | SU54406290 | CER | NW | 02 | 030 | | 2 | 3A | 104 | -1 | 116 | 20 | 3A | | | | WE | 3A | IMP 70 |
| 88 | SU54566289 | CER | NW | 02 | 028 | 028 | 4 | 3B | 086 | -19 | 092 | -4 | 3A | | | | WE | 3B | SPL 28 |
| 89 | SU54706289 | CER | NW | 03 | 030 | | 2 | 2 | 130 | 25 | 117 | 21 | 2 | | | | WE | 2 | IMP 95 |
| 90 | SU54806289 | CER | N | 03 | 025 | 060 | 3 | 3A | 111 | 6 | 116 | 20 | 2 | | | | WE | 3A | |
| 91 | SU53906280 | OSR | N | 01 | 027 | 027 | 4 | 3B | 094 | -14 | 099 | -2 | 3A | | | | WE | 3B | SPL 27 |
| 92 | SU54006280 | OSR | N | 01 | 055 | 063 | 2 | 2 | 117 | 9 | 092 | -9 | 2 | | | | DW | 2 | |
| 93 | SU54106280 | OSR | N | 01 | 045 | 045 | 3 | 3A | 120 | 12 | 099 | -2 | 2 | | | | WE | 3A | SPL 45 |
| 94 | SU54246275 | OSR | NE | 02 | 025 | 050 | 3 | 3A | 000 | 0 | 000 | 0 | | | | | WE | 3A | |

| SAMPLE NO. | GRID REF | USE | ASPECT | GRDNT | GLEY | SPL | --WETNESS-- CLASS | GRADE | -WHEAT- AP | MB | -POTS- AP | MB | M.REL DRT | FLOOD | EROSN EXP | FROST DIST | CHEM LIMIT | ALC | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 95 | SU54346277 | OSR | N | 02 | 030 | 070 | 3 | 3A | 124 | 19 | 116 | 20 | 2 | | | | WE | 3A | BORDER 2 |
| 97 | SU54506280 | CER | W | 04 | 030 | | 2 | 2 | 155 | 50 | 117 | 21 | 1 | | | | WE | 2 | NO SPL |
| 98 | SU54606280 | CER | NW | 04 | 030 | 050 | 3 | 3A | 099 | -6 | 111 | 15 | 3A | | | | WE | 3A | |
| 99 | SU54706280 | CER | NW | 03 | 025 | | 2 | 2 | 155 | 50 | 117 | 21 | 1 | | | | WE | 2 | NO SPL |
| 100 | SU54806280 | CER | N | 03 | 022 | 060 | 3 | 3A | 108 | 3 | 113 | 17 | 3A | | | | WE | 3A | |
| 101 | SU54506270 | CER | W | 04 | 030 | 080 | 2 | 2 | 129 | 24 | 120 | 24 | 2 | | | | WE | 2 | |
| 102 | SU54606270 | CER | N | 01 | 028 | 028 | 4 | 3B | 086 | -19 | 092 | -4 | 3A | | | | WE | 3B | SPL 28 |
| 103 | SU54706270 | CER | N | 01 | 020 | 020 | 4 | 3B | 083 | -22 | 089 | -7 | 3B | | | | WE | 3B | SPL 20 |
| 104 | SU54806270 | CER | N | 01 | 028 | 028 | 4 | 3B | 102 | -3 | 107 | 11 | 3A | | | | WE | 3B | |
| 105 | SU54906270 | CER | N | 01 | 028 | 050 | 3 | 3A | 102 | -3 | 114 | 18 | 3A | | | | WE | 3A | SPL 50 |
| 106 | SU54706260 | CER | N | 01 | 025 | 025 | 4 | 3B | 087 | -18 | 093 | -3 | 3A | | | | WE | 3B | SPL 25 |
| 107 | SU54806260 | CER | N | 01 | 030 | 040 | 4 | 3B | 089 | -16 | 095 | -1 | 3A | | | | WE | 3B | SPL 40 |
| 108 | SU54906260 | CER | N | 01 | 028 | 045 | 3 | 3A | 094 | -11 | 103 | 7 | 3A | | | | WE | 3A | SPL 45 |

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0-23 | scl | 10YR41 42 | | | | | | 0 | 0 | HR | 15 | | | | | | |
| | 23-35 | msl | 10YR43 53 | | | | | | 0 | 0 | HR | 20 | | M | | | | |
| | 35-38 | msl | 10YR53 00 | | | | | | 0 | 0 | HR | 40 | | M | | | | |
| 1P | 0-26 | hcl | 10YR42 00 | | | | | | 0 | 0 | | 0 | | | | | | |
| | 26-32 | hcl | 10YR43 00 | | | | | | 0 | 0 | | 0 | MDCSAB | FR M | | | | |
| | 32-60 | hcl | 10YR52 00 | 75YR46 00 | M | | | Y | 0 | 0 | | 0 | MDCAB | FR M | | | | |
| | 60-75 | c | 25 Y51 00 | 10YR46 00 | M | | | Y | 0 | 0 | HR | 40 | WKCAB | FM P | Y | | Y | |
| 2 | 0-26 | mcl | 10YR42 00 | | | | | | 0 | 0 | HR | 10 | | | | | | |
| | 26-35 | scl | 10YR43 53 | | | | | | 0 | 0 | HR | 25 | | M | | | | |
| 2P | 0-28 | mcl | 10YR42 00 | | | | | | 0 | 0 | HR | 5 | | | | | | |
| | 28-65 | mcl | 10YR43 00 | | | | | | 0 | 0 | HR | 3 | MDCSAB | FR M | | | | |
| | 65-90 | mcl | 10YR44 54 | | | | | | 0 | 0 | HR | 2 | STCSAB | FM M | | | | |
| 3 | 0-27 | mcl | 10YR42 00 | | | | | | 0 | 0 | HR | 5 | | | | | | |
| | 27-45 | hcl | 10YR53 00 | 10YR46 00 | M | | | Y | 0 | 0 | | 0 | | M | | | | |
| | 45-90 | c | 10YR52 53 | 75YR46 56 | M | | | Y | 0 | 0 | | 0 | | P | | | Y | |
| 3P | 0-25 | mcl | 10YR42 00 | | | | | | 8 | 0 | HR | 20 | | | | | | |
| | 25-45 | c | 25 Y31 00 | 10YR46 00 | C | | | Y | 0 | 0 | HR | 25 | MDCSAB | FR M | | | | |
| | 45-72 | c | 10YR51 00 | 75YR58 00 | M | | | Y | 0 | 0 | HR | 50 | | P | | | Y | |
| | 72-120 | c | 10YR51 00 | 75YR58 00 | M | | | Y | 0 | 0 | | 0 | WKFNAB | FM P | Y | | Y | |
| 4P | 0-28 | mcl | 10YR43 00 | | | | | | 0 | 0 | HR | 1 | | | | | | |
| | 28-38 | mcl | 10YR54 00 | 10YR56 00 | C | 00MN00 00 | | | 0 | 0 | | 0 | | M | | | | |
| | 38-64 | mcl | 10YR53 52 | 10YR56 00 | M | 10YR53 00 | | Y | 0 | 0 | | 0 | MCSAB | FR M | Y | | | |
| | 64-120 | c | 10YR52 53 | 75YR56 00 | M | | | Y | 0 | 0 | | 0 | MCSAB | FR M | Y | | | |
| 5 | 0-28 | mcl | 10YR42 00 | | | | | | 0 | 0 | HR | 5 | | | | | | |
| | 28-35 | mcl | 10YR54 00 | | | | | | 0 | 0 | HR | 20 | | M | | | | |
| | 35-45 | c | 10YR53 00 | 75YR58 00 | C | 10YR71 00 | | Y | 0 | 0 | HR | 10 | | P | | | Y | |
| | 45-70 | c | 10YR53 00 | 75YR58 00 | M | 10YR71 00 | | Y | 0 | 0 | | 0 | | P | | | Y | |
| 6 | 0-28 | mcl | 10YR52 00 | | | | | | 0 | 0 | HR | 5 | | | | | | |
| | 28-35 | mcl | 10YR62 00 | | | | | | 0 | 0 | HR | 10 | | M | | | | Y |
| | 35-60 | mcl | 10YR62 00 | 10YR58 00 | C | 10YR71 00 | | Y | 0 | 0 | HR | 10 | | M | | | | Y |
| | 60-85 | c | 10YR71 00 | 75YR68 00 | M | | | Y | 0 | 0 | | 0 | | P | | | Y | |
| 7 | 0-27 | mcl | 10YR52 00 | | | | | | 0 | 0 | HR | 10 | | | | | | |
| | 27-37 | mcl | 10YR54 00 | | | | | | 0 | 0 | HR | 15 | | M | | | | |
| | 37-50 | mcl | 10YR62 00 | 75YR68 00 | C | 10YR62 00 | | Y | 0 | 0 | HR | 10 | | M | | | | |
| | 50-70 | c | 10YR63 00 | 75YR68 00 | M | 10YR72 00 | | Y | 0 | 0 | | 0 | | P | | | Y | |
| 8 | 0-35 | mcl | 10YR42-00 | | | | | | 0 | 0 | HR | 2 | | | | | | |
| | 35-70 | c | 10YR53-00 | 75YR58-00 | C | | | Y | 0 | 0 | HR | 2 | | 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 | SUBS CALC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9 | 0-29 | mcl | 10YR43 00 | | | | | | 0 | 0 | HR | 2 | | | | | | |
| | 29-55 | hcl | 10YR54 00 | | | | | | 0 | 0 | | 0 | | M | | | | |
| | 55-110 | hcl | 10YR54 00 | 75YR58 00 | F | | 10YR62 00 | | 0 | 0 | | 0 | | M | | | | |
| 10 | 0-33 | mcl | 10YR43 00 | | | | | | 2 | 0 | HR | 5 | | | | | | |
| | 33-60 | mcl | 10YR54 00 | | | | | | 0 | 0 | HR | 5 | | M | | | | |
| | 60-80 | hcl | 10YR54 00 | | | | | | 0 | 0 | | 0 | | M | | | | |
| | 80-120 | c | 75YR54 00 | | | | | | 0 | 0 | | 0 | | M | | | | |
| 11 | 0-28 | mcl | 10YR43 00 | | | | | | 8 | 0 | HR | 15 | | | | | | |
| | 28-45 | mcl | 10YR44 00 | | | | | | 0 | 0 | HR | 15 | | M | | | | |
| | 45-120 | gh | | | | | | | 0 | 0 | | 0 | | M | | | | |
| 12 | 0-27 | scl | 10YR31 32 | | | | | | 0 | 0 | HR | 5 | | | | | | |
| | 27-65 | c | 10YR52 00 | 10YR56 00 | M | | | Y | 0 | 0 | | 0 | | P | | | Y | |
| | 65-80 | sc | 10YR52 00 | 10YR56 00 | M | | | Y | 0 | 0 | HR | 5 | | P | | | Y | |
| 14 | 0-32 | mcl | 10YR43 00 | | | | | | 0 | 0 | HR | 7 | | | | | | |
| | 32-57 | hcl | 10YR54 00 | | | | | | 0 | 0 | HR | 5 | | M | | | | |
| | 57-120 | c | 75YR58 00 | 75YR68 00 | C | | 00MN00 00 | | 0 | 0 | | 0 | | M | | | Y | |
| 15 | 0-30 | mcl | 10YR42 00 | | | | | | 7 | 0 | HR | 15 | | | | | | |
| | 30-55 | mcl | 10YR51 00 | 75YR56 00 | C | | | Y | 0 | 0 | HR | 20 | | M | | | | |
| | 55-120 | scl | 10YR62 00 | 75YR56 00 | C | | 10YR71 00 | Y | 0 | 0 | HR | 25 | | M | | | | |
| 16 | 0-27 | mcl | 10YR52 00 | | | | | | 0 | 0 | HR | 10 | | | | | | |
| | 27-50 | mcl | 10YR52 62 | 10YR66 00 | C | | 10YR71 00 | Y | 0 | 0 | HR | 10 | | M | | | | |
| | 50-70 | hcl | 10YR62 00 | 75YR58 00 | M | | 10YR71 00 | Y | 0 | 0 | HR | 10 | | M | | | | |
| | 70-120 | gh | | | | | | Y | 0 | 0 | | 0 | | P | | | | |
| 18 | 0-30 | hcl | 10YR43 00 | | | | | | 2 | 0 | HR | 2 | | | | | | |
| | 30-120 | c | 10YR53 00 | 75YR56 00 | M | | 10YR61 00 | Y | 0 | 0 | HR | 5 | | P | | | Y | |
| 19 | 0-26 | hcl | 10YR42 00 | | | | | | 10 | 0 | HR | 15 | | | | | | |
| | 26-48 | hcl | 10YR43 53 | | | | | | 0 | 0 | HR | 25 | | M | | | | |
| 20 | 0-27 | mcl | 10YR42 00 | | | | | | 18 | 0 | HR | 24 | | | | | | |
| | 27-42 | mcl | 10YR43 53 | | | | | | 0 | 0 | HR | 25 | | M | | | | |
| 21 | 0-30 | mcl | 10YR43 00 | | | | | | 13 | 0 | HR | 18 | | | | | | |
| | 30-42 | scl | 10YR53 00 | | | | | | 0 | 0 | HR | 30 | | M | | | | |
| | 42-120 | gh | | | | | | | 0 | 0 | | 0 | | M | | | | |
| 22 | 0-30 | mcl | 10YR42 00 | | | | | | 10 | 0 | HR | 15 | | | | | | |
| | 30-50 | c | 10YR51 00 | 75YR56 00 | C | | | Y | 0 | 0 | HR | 20 | | M | | | | |
| 24 | 0-20 | hcl | 25Y 32 00 | 10YR46 00 | C | | | Y | 0 | 0 | | 0 | | | | | | |
| | 20-35 | c | 10YR41 00 | 75YR46 00 | C | | | Y | 0 | 0 | | 0 | | P | | | Y | |
| | 35-80 | c | 10YR51 00 | 75YR46 56 | 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 | SUBS IMP | SUBS SPL | SUBS CALC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 25 | 0-30 | mcl | 10YR43 00 | | | | | | 4 | 0 | HR | 10 | | | | | | |
| | 30-55 | mcl | 10YR54 00 | | | | | | 0 | 0 | HR | 15 | | M | | | | |
| | 55-120 | scl | 10YR54 00 | | | | | | 0 | 0 | HR | 15 | | M | | | | |
| 26 | 0-30 | mcl | 10YR43 00 | | | | | | 0 | 0 | HR | 5 | | | | | | |
| | 30-45 | scl | 10YR54 00 | | | | | | 0 | 0 | HR | 5 | | M | | | | |
| | 45-60 | mcl | 10YR54 00 | | | F | | | 0 | 0 | | 0 | | M | | | | |
| | 60-65 | hcl | 10YR54 00 | 75YR58 00 | F | | | | 0 | 0 | HR | 5 | | M | | | | |
| | 65-70 | c | 75YR56 00 | | | | | | 0 | 0 | HR | 10 | | M | | | | |
| | 70-120 | gh | | | | | | | 0 | 0 | | 0 | | M | | | | |
| 27 | 0-25 | mcl | 10YR42 43 | | | | | | 0 | 0 | HR | 2 | | | | | | |
| | 25-45 | scl | 10YR54 00 | | | | | | 0 | 0 | | 0 | | M | | | | |
| | 45-105 | scl | 10YR54 00 | 10YR52 00 | F | | | | 0 | 0 | | 0 | | M | | | | |
| 28 | 0-25 | mcl | 10YR43 00 | | | | | | 0 | 0 | HR | 5 | | | | | | |
| | 25-60 | mcl | 10YR54 00 | | | | | | 0 | 0 | HR | 10 | | M | | | | |
| | 60-65 | mcl | 10YR54 00 | | | | | | 0 | 0 | HR | 40 | | M | | | | |
| 29 | 0-32 | hcl | 10YR42 00 | | | | | | 0 | 0 | HR | 2 | | | | | | |
| | 32-55 | c | 10YR52 00 | 10YR46 00 | M | | | Y | 0 | 0 | | 0 | | P | | | Y | |
| | 55-70 | c | 25Y 52 00 | 10YR46 00 | M | | | Y | 0 | 0 | HR | 20 | | P | | | Y | |
| 34 | 0-27 | mcl | 10YR42 00 | | | | | | 17 | 0 | HR | 22 | | | | | | |
| | 27-47 | scl | 10YR54 00 | | | | | | 0 | 0 | HR | 30 | | M | | | | |
| 35 | 0-26 | mcl | 10YR42 00 | | | | | | 5 | 0 | HR | 10 | | | | | | |
| | 26-50 | scl | 10YR54 44 | | | | | | 0 | 0 | HR | 20 | | M | | | | |
| | 50-52 | scl | 10YR54 44 | | | | | | 0 | 0 | HR | 40 | | M | | | | |
| 36 | 0-28 | mcl | 10YR42 00 | | | | | | 12 | 0 | HR | 20 | | | | | | |
| | 28-45 | scl | 10YR43 00 | | | | | | 0 | 0 | HR | 30 | | M | | | | |
| | 45-48 | scl | 10YR43 53 | | | | | | 0 | 0 | HR | 60 | | M | | | | |
| 37 | 0-28 | mcl | 10YR42 00 | | | | | | 13 | 0 | HR | 21 | | | | | | |
| | 28-40 | mcl | 10YR44 00 | | | | | | 0 | 0 | HR | 25 | | M | | | | |
| | 40-42 | mcl | 10YR44 00 | | | | | | 0 | 0 | HR | 35 | | M | | | | |
| 38 | 0-28 | mcl | 10YR42 00 | | | | | | 15 | 0 | HR | 20 | | | | | | |
| | 28-32 | mcl | 10YR44 00 | | | | | | 0 | 0 | HR | 20 | | M | | | | |
| | 32-120 | gh | | | | | | | 0 | 0 | | 0 | | M | | | | |
| 39 | 0-32 | mcl | 10YR42 00 | | | | | | 18 | 0 | HR | 23 | | | | | | |
| | 32-40 | mcl | 10YR62 00 | 10YR58 00 | C | | 10YR61 00 | Y | 0 | 0 | HR | 25 | | M | | | | |
| 40 | 0-30 | mcl | 10YR43 00 | | | | | | 22 | 0 | HR | 30 | | | | | | |
| 42 | 0-29 | hcl | 10YR42 00 | | | | | | 5 | 0 | HR | 13 | | | | | | |
| | 29-43 | hcl | 10YR53 51 | 10YR46 00 | C | | | Y | 0 | 0 | HR | 15 | | M | | | | |
| | 43-50 | hcl | 25Y 51 00 | 10YR46 00 | M | | | Y | 0 | 0 | HR | 20 | | M | | | | |
| | 50-70 | sc | 10YR51 53 | 10YR56 00 | M | | | Y | 0 | 0 | HR | 30 | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 43 | 0-30 | mcl | 10YR42 00 | | | | | | 0 | 0 | HR | 5 | | | | | | |
| | 30-80 | msl | 10YR54 00 | | | | | | 0 | 0 | HR | 5 | | M | | | | |
| | 80-90 | scl | 10YR53 00 | 75YR56 00 | M | | 00MN00 00 | Y | 0 | 0 | | 0 | | M | | | | |
| | 90-120 | sc | 10YR53 00 | 75YR56 00 | M | | 00MN00 00 | Y | 0 | 0 | HR | 10 | | P | | | Y | |
| 44 | 0-29 | mcl | 10YR43 00 | | | | | | 2 | 0 | HR | 5 | | | | | | |
| | 29-50 | mcl | 10YR44 00 | | | | | | 0 | 0 | HR | 2 | | M | | | | |
| | 50-90 | hcl | 10YR44 00 | | | | | | 0 | 0 | | 0 | | M | | | | |
| | 90-120 | scl | 10YR44 00 | | | | | | 0 | 0 | | 0 | | M | | | | |
| 45 | 0-32 | mcl | 10YR43 00 | | | | | | 3 | 0 | HR | 5 | | | | | | |
| | 32-55 | hcl | 75YR56 00 | | | | | | 0 | 0 | HR | 2 | | M | | | | |
| | 55-60 | scl | 75YR56 00 | | | | | | 0 | 0 | HR | 50 | | M | | | | |
| 46 | 0-20 | hcl | 10YR42 00 | | | | | | 0 | 0 | HR | 5 | | | | | | |
| | 20-55 | c | 10YR53 00 | 10YR58 00 | C | | | Y | 0 | 0 | HR | 1 | | P | | | Y | |
| 47 | 0-26 | mzcl | 10YR42 00 | | | | | | 0 | 0 | HR | 2 | | | | | | |
| | 26-35 | hcl | 10YR42 00 | 10YR66 00 | F | | | | 0 | 0 | | 0 | | M | | | | |
| | 35-120 | c | 10YR61 53 | 10YR46 56 | M | | | Y | 0 | 0 | | 0 | | P | | | Y | |
| 48 | 0-32 | hcl | 10YR42 00 | 10YR56 00 | F | | | | 0 | 0 | HR | 2 | | | | | | |
| | 32-80 | c | 25Y 61 00 | 75YR46 56 | M | | | Y | 0 | 0 | | 0 | | P | | | Y | |
| 49 | 0-25 | mzcl | 10YR43 00 | | | | | | 0 | 0 | HR | 2 | | | | | | |
| | 25-35 | hcl | 10YR43 00 | | | | | | 0 | 0 | HR | 2 | | M | | | | |
| | 35-80 | c | 25Y 61 00 | 75YR46 56 | M | | | Y | 0 | 0 | | 0 | | P | | | Y | |
| 50 | 0-27 | mcl | 10YR42 00 | | | | | | 5 | 0 | HR | 10 | | | | | | |
| | 27-35 | hcl | 10YR53 00 | | | | | | 0 | 0 | HR | 15 | | M | | | | |
| | 35-37 | hcl | 10YR53 00 | | | | | | 0 | 0 | HR | 30 | | M | | | | |
| 51 | 0-30 | hcl | 10YR42 52 | | | | | | 0 | 0 | HR | 5 | | | | | | |
| | 30-50 | c | 10YR51 00 | 75YR56 00 | M | | | Y | 0 | 0 | | 0 | | P | | | Y | |
| | 50-100 | c | 10YR41 51 | 75YR56 00 | M | | | Y | 0 | 0 | | 0 | | P | | | Y | |
| 52 | 0-28 | hcl | 10YR42 00 | | | | | | 0 | 0 | HR | 3 | | | | | | |
| | 28-40 | hcl | 10YR44 00 | | | | | | 0 | 0 | HR | 5 | | M | | | | |
| | 40-48 | hcl | 10YR44 00 | | | | | | 0 | 0 | HR | 20 | | M | | | | |
| 53 | 0-30 | hcl | 10YR42 00 | | | | | | 6 | 0 | HR | 10 | | | | | | |
| | 30-120 | c | 10YR52 00 | 75YR58 68 | M | | | Y | 0 | 0 | HR | 10 | | P | | | Y | |
| 54 | 0-30 | mcl | 10YR42 00 | | | | | | 8 | 0 | HR | 13 | | | | | | |
| | 30-45 | mcl | 10YR53 00 | | | | | | 0 | 0 | HR | 10 | | M | | | | |
| | 45-60 | mcl | 10YR53 00 | | | | | | 0 | 0 | HR | 20 | | M | | | | |
| | 60-120 | gh | | | | | | | 0 | 0 | | 0 | | M | | | | |

| SAMPLE | DEPTH | TEXTURE | COLOUR | ----MOTTLES----- COL | ABUN | CONT | PED COL. | GLEY | ----STONES---- >2 | >6 | LITH | TOT | STRUCT/ CONSIST | SUBS STR | POR | IMP | SPL | CALC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 54A | 0-30 | mcl | 10YR43 00 | | | | | | 3 | 0 | HR | 10 | | | | | | |
| | 30-48 | scl | 10YR53 00 | 75YR68 00 | C | | 10YR61 00 | Y | 0 | 0 | HR | 5 | | M | | | | |
| | 48-120 | c | 10YR61 00 | 75YR56 46 | M | | | Y | 0 | 0 | | 0 | | P | | | Y | |
| 55 | 0-32 | mcl | 10YR42 00 | | | | | | 15 | 0 | HR | 20 | | | | | | |
| | 32-50 | scl | 10YR54 00 | | | | | | 0 | 0 | HR | 50 | | M | | | | |
| | 50-120 | gh | | | | | | | 0 | 0 | | 0 | | M | | | | |
| 56 | 0-30 | mcl | 10YR42 00 | | | | | | 16 | 0 | HR | 20 | | | | | | |
| | 30-45 | mcl | 10YR43 00 | | | | | | 0 | 0 | HR | 20 | | M | | | | |
| | 45-60 | scl | 10YR43 53 | | | | | | 0 | 0 | HR | 15 | | M | | | | |
| 57 | 0-30 | mcl | 10YR42 00 | | | | | | 18 | 0 | HR | 23 | | | | | | |
| 58 | 0-25 | mszl | 10YR31 00 | | | | | | 20 | 5 | HR | 25 | | | | | | |
| 59 | 0-20 | mcl | 10YR43 00 | | | | | | 0 | 0 | HR | 3 | | | | | | |
| | 20-40 | hcl | 10YR51 00 | 75YR46 00 | M | | | Y | 0 | 0 | | 0 | | M | | | | |
| | 40-75 | c | 25 Y64 00 | 75YR58 00 | M | | 10YR71 00 | Y | 0 | 0 | | 0 | | P | | | Y | |
| 60 | 0-20 | hcl | 10YR42 00 | | | | | | 0 | 0 | HR | 2 | | | | | | |
| | 20-55 | mcl | 25 Y52 00 | 75YR58 00 | M | | | Y | 0 | 0 | | 0 | | M | | | | |
| | 55-65 | c | 25 Y52 00 | 75YR58 00 | M | | | Y | 0 | 0 | | 0 | | M | | | | |
| 61 | 0-25 | hcl | 10YR32 00 | | | | | | 0 | 0 | HR | 1 | | | | | | |
| | 25-60 | c | 25Y 52 00 | 000C00 00 | M | | | Y | 0 | 0 | | 0 | | P | Y | | Y | |
| 62 | 0-30 | mcl | 10YR42 00 | | | | | | 0 | 0 | HR | 2 | | | | | | |
| | 30-50 | hcl | 10YR52 00 | 000C00 00 | C | | | Y | 0 | 0 | HR | 10 | | M | | | | |
| 64 | 0-29 | mcl | 10YR43 00 | | | | | | 0 | 0 | HR | 1 | | | | | | |
| | 29-50 | mcl | 10YR44 54 | | | | | | 0 | 0 | HR | 2 | | M | | | | |
| | 50-60 | mcl | 10YR44 54 | | | | | | 0 | 0 | HR | 10 | | M | | | | |
| 65 | 0-27 | mcl | 10YR43 53 | | | | | | 0 | 0 | | 0 | | | | | | |
| | 27-55 | scl | 10YR53 00 | 75YR58 00 | M | | 10YR71 00 | Y | 0 | 0 | | 0 | | M | | | | |
| | 55-65 | mcl | 10YR53 00 | 75YR58 00 | M | | 10YR71 00 | Y | 0 | 0 | | 0 | | M | | | | |
| | 65-85 | hcl | 10YR53 00 | 75YR58 00 | M | | 10YR71 00 | Y | 0 | 0 | | 0 | | M | | | | |
| | 85-120 | scl | 10YR53 00 | 75YR58 00 | M | | 10YR71 00 | Y | 0 | 0 | | 0 | | M | | | | |
| 66 | 0-30 | mcl | 10YR42 00 | | | | | | 2 | 0 | HR | 5 | | | | | | |
| | 30-38 | mcl | 10YR44 00 | | | | | | 0 | 0 | HR | 25 | | M | | | | |
| 67 | 0-30 | mcl | 10YR42 00 | | | | | | 11 | 0 | HR | 15 | | | | | | |
| 69 | 0-30 | mcl | 10YR42-00 | | | | | | 16 | 0 | HR | 20 | | | | | | |
| 70 | 0-30 | mcl | 10YR42-00 | | | | | | 21 | 0 | HR | 25 | | | | | | |

| SAMPLE | DEPTH | TEXTURE | COLOUR | ----MOTTLES----- COL | ABUN | CONT | PED COL. | GLEY | ----STONES---- >2 | >6 | LITH | TOT | STRUCT/ CONSIST | SUBS STR | POR | IMP | SPL | CALC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 72 | 0-30 | mzcl | 10YR42 00 | | | | | | 0 | 0 | HR | 2 | | | | | | |
| | 30-45 | mzcl | 10YR53 00 | 10YR56 00 | C | | | Y | 0 | 0 | | 0 | | M | | | | |
| | 45-65 | hzcl | 10YR63 00 | 10YR46 56 | M | | | Y | 0 | 0 | | 0 | | M | | | | |
| | 65-120 | c | 10YR63 00 | 10YR56 46 | M | | | Y | 0 | 0 | | 0 | | P | | | Y | |
| 73 | 0-29 | mcl | 10YR53 00 | | | | | | 0 | 0 | HR | 1 | | | | | | |
| | 29-50 | hcl | 10YR63 00 | 10YR58 00 | M | | 10YR71 00 | Y | 0 | 0 | HR | 2 | | M | | | | |
| | 50-80 | c | 75YR62 00 | 75YR58 00 | M | | 10YR71 00 | Y | 0 | 0 | | 0 | | P | | | Y | |
| 74 | 0-29 | mcl | 10YR43 00 | | | | | | 0 | 0 | | 0 | | | | | | |
| | 29-75 | hcl | 10YR53 00 | 10YR58 68 | M | | 10YR72 00 | Y | 0 | 0 | | 0 | | M | | | | |
| | 75-90 | c | 10YR53 00 | 75YR58 00 | M | | 10YR72 00 | Y | 0 | 0 | | 0 | | P | | | Y | |
| 75 | 0-30 | mcl | 10YR42 00 | | | | | | 0 | 0 | HR | 2 | | | | | | |
| | 30-50 | hcl | 10YR54 00 | 000C00 00 | F | | | | 0 | 0 | | 0 | | M | | | | |
| | 50-70 | hcl | 10YR53 54 | 000C00 00 | C | | | Y | 0 | 0 | | 0 | | P | Y | | Y | |
| 76 | 0-32 | mcl | 10YR43-00 | | | | | | 17 | 0 | HR | 20 | | | | | | |
| 77 | 0-30 | mcl | 10YR42 00 | | | | | | 11 | 0 | HR | 15 | | | | | | |
| 78 | 0-25 | mcl | 10YR42-00 | | | | | | 23 | 0 | HR | 25 | | | | | | |
| 80 | 0-32 | hcl | 10YR42 00 | | | | | | 0 | 0 | | 0 | | | | | | |
| | 32-60 | c | 10YR62 00 | 000C00 00 | M | | | Y | 0 | 0 | | 0 | | P | Y | | Y | |
| 81 | 0-30 | mcl | 10YR42 00 | | | | | | 0 | 0 | HR | 3 | | | | | | |
| | 30-90 | c | 05GY71 00 | 10YR68 00 | M | | | Y | 0 | 0 | | 0 | | P | | | Y | |
| 82 | 0-28 | mcl | 10YR42 00 | | | | | | 0 | 0 | HR | 15 | | | | | | |
| | 28-55 | mcl | 10YR53 00 | 10YR56 00 | F | | | | 0 | 0 | HR | 20 | | M | | | | |
| | 55-105 | lms | 10YR53 00 | | | | | | 0 | 0 | HR | 50 | | M | | | | |
| | 105-120 | c | 25Y 62 00 | 10YR46 00 | M | | 00MN00 00 | Y | 0 | 0 | HR | 5 | | P | | | Y | |
| 84 | 0-30 | mzcl | 10YR42 00 | | | | | | 0 | 0 | HR | 2 | | | | | | |
| | 30-40 | mcl | 10YR54 00 | 10YR58 00 | C | | | | 0 | 0 | HR | 1 | | M | | | | |
| | 40-60 | hcl | 25 Y64 00 | 10YR58 00 | C | | | Y | 0 | 0 | HR | 1 | | M | | | | |
| | 60-120 | mcl | 10YR54 00 | | | | | Y | 0 | 0 | HR | 25 | | M | | | | |
| 85 | 0-30 | mcl | 10YR42 00 | | | | | | 0 | 0 | HR | 2 | | | | | | |
| | 30-55 | hcl | 10YR53 00 | 000C00 00 | C | | | Y | 0 | 0 | HR | 2 | | M | | | | |
| | 55-100 | hcl | 10YR52 00 | 000C00 00 | C | | | Y | 0 | 0 | HR | 2 | | M | | | | |
| 86 | 0-30 | hcl | 10YR42 00 | | | | | | 0 | 0 | HR | 2 | | | | | | |
| | 30-70 | hcl | 25Y 52 00 | 000C00 00 | C | | | Y | 0 | 0 | HR | 2 | | M | | | | |
| 88 | 0-28 | hcl | 10YR42 00 | | | | | | 0 | 0 | | 0 | | | | | | |
| | 28-60 | c | 25Y 63 00 | 000C00 00 | M | | | Y | 0 | 0 | | 0 | | P | Y | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 89 | 0-30 | mcl | 10YR42 00 | | | | | | 0 | 0 | HR | 1 | | | | | | |
| | 30-95 | hcl | 10YR53 52 | 000C00 | 00 | M | | Y | 0 | 0 | HR | 1 | | M | | | | |
| 90 | 0-25 | mzcl | 10YR42 00 | | | | | | 0 | 0 | HR | 1 | | | | | | |
| | 25-60 | hcl | 75YR42 00 | 000C00 | 00 | C | 00MN00 | 00 Y | 0 | 0 | | 0 | | M | | | | |
| | 60-80 | c | 75YR53 00 | 000C00 | 00 | C | | Y | 0 | 0 | | 0 | | P | Y | | Y | |
| 91 | 0-27 | mcl | 10YR41 42 | | | | | | 0 | 0 | HR | 5 | | | | | | |
| | 27-55 | c | 25Y 71 00 | 75YR58 | 00 | M | | Y | 0 | 0 | HR | 10 | | P | | | Y | |
| | 55-80 | c | 25Y 61 71 | 75YR58 | 00 | M | | Y | 0 | 0 | | 0 | | P | | | Y | |
| 92 | 0-23 | mcl | 10YR41 42 | | | | | | 0 | 0 | HR | 15 | | | | | | |
| | 23-55 | scl | 10YR52 00 | 10YR66 | 00 | F | | | 0 | 0 | HR | 20 | | M | | | | |
| | 55-63 | fsl | 10YR53 00 | 10YR56 | 00 | M | | Y | 0 | 0 | HR | 40 | | M | | | | |
| | 63-120 | c | 25Y 62 00 | 75YR58 | 00 | M | | Y | 0 | 0 | HR | 5 | | P | | | Y | |
| 93 | 0-26 | mcl | 10YR41 42 | | | | | | 0 | 0 | HR | 15 | | | | | | |
| | 26-45 | mcl | 10YR53 00 | 10YR66 | 00 | F | | | 0 | 0 | HR | 5 | | M | | | | |
| | 45-120 | c | 25Y 52 00 | 75YR58 | 00 | M | | Y | 0 | 0 | HR | 10 | | P | | | Y | |
| 94 | 0-25 | mcl | 10YR42 00 | | | | | | 0 | 0 | HR | 1 | | | | | | |
| | 25-50 | scl | 25 Y64 00 | 10YR58 | 00 | C | | Y | 0 | 0 | | 0 | | M | | | | |
| | 50-70 | sc | 25 Y62 00 | 75YR58 | 00 | M | | Y | 0 | 0 | | 0 | | P | | | Y | |
| 95 | 0-30 | mcl | 10YR42 00 | | | | | | 0 | 0 | HR | 2 | | | | | | |
| | 30-70 | mcl | 25 Y64 00 | 10YR58 | 00 | C | | Y | 0 | 0 | HR | 2 | | M | | | | |
| | 70-95 | c | 25 Y64 00 | 75YR58 | 00 | C | | Y | 0 | 0 | HR | 2 | | P | | | Y | |
| 97 | 0-30 | mcl | 10YR43 00 | | | | | | 0 | 0 | HR | 2 | | | | | | |
| | 30-55 | mcl | 10YR53 00 | 000C00 | 00 | C | | Y | 0 | 0 | | 0 | | M | | | | |
| | 55-120 | hcl | 75YR53 00 | 000C00 | 00 | C | | Y | 0 | 0 | | 0 | | M | | | | |
| 98 | 0-30 | mcl | 10YR42 00 | | | | | | 0 | 0 | HR | 1 | | | | | | |
| | 30-50 | hcl | 10YR53 00 | 000C00 | 00 | C | | Y | 0 | 0 | | 0 | | M | | | | |
| | 50-70 | c | 75YR53 00 | 000C00 | 00 | C | | Y | 0 | 0 | | 0 | | P | Y | | Y | |
| 99 | 0-25 | mcl | 10YR42 00 | | | | | | 0 | 0 | HR | 1 | | | | | | |
| | 25-60 | hcl | 10YR62 00 | 000C00 | 00 | M | | Y | 0 | 0 | | 0 | | M | | | | |
| | 60-120 | hcl | 10YR63 00 | 000C00 | 00 | M | | Y | 0 | 0 | | 0 | | M | | | | |
| 100 | 0-22 | mcl | 10YR42 00 | | | | | | 0 | 0 | HR | 1 | | | | | | |
| | 22-60 | hcl | 10YR53 00 | 000C00 | 00 | C | 00MN00 | 00 Y | 0 | 0 | | 0 | | M | | | | |
| | 60-80 | c | 75YR53 00 | 000C00 | 00 | C | 00MN00 | 00 Y | 0 | 0 | | 0 | | P | Y | | Y | |
| 101 | 0-30 | mzcl | 10YR42 00 | | | | | | 0 | 0 | HR | 1 | | | | | | |
| | 30-80 | mcl | 10YR53 00 | 000C00 | 00 | C | | Y | 0 | 0 | | 0 | | M | | | | |
| | 80-95 | c | 75YR53 00 | 000C00 | 00 | C | | Y | 0 | 0 | | 0 | | P | Y | | Y | |

| AMPLE | DEPTH | TEXTURE | COLOUR | ----MOTTLES----- COL | ABUN | CONT | PED COL. | GLEY | ----STONES---- >2 | >6 | LITH | TOT | STRUCT/ CONSIST | SUBS STR | POR | IMP | SPL | CALC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 102 | 0-28 | mcl | 10YR42 00 | | | | | | 0 | 0 | HR | 1 | | | | | | |
| | 28-60 | c | 10YR53 00 | 000C00 | 00 | M | | Y | 0 | 0 | | 0 | | P | Y | | Y | |
| 103 | 0-20 | mzcl | 10YR42 00 | | | | | | 0 | 0 | HR | 1 | | | | | | |
| | 20-60 | c | 10YR52 00 | 000C00 | 00 | M | | Y | 0 | 0 | HR | 1 | | P | Y | | Y | |
| 104 | 0-28 | mzcl | 10YR42 00 | | | | | | 0 | 0 | HR | 1 | | | | | | |
| | 28-80 | c | 75YR53 52 | 000C00 | 00 | M | | Y | 0 | 0 | | 0 | | P | Y | | Y | |
| 105 | 0-28 | mzcl | 10YR42 00 | | | | | | 0 | 0 | HR | 1 | | | | | | |
| | 28-50 | c | 75YR53 00 | 000C00 | 00 | M | | Y | 0 | 0 | | 0 | | M | | | | |
| | 50-70 | c | 75YR63 00 | 000C00 | 00 | M | | Y | 0 | 0 | | 0 | | P | Y | | Y | |
| 106 | 0-25 | mzcl | 10YR42 00 | | | | | | 0 | 0 | HR | 1 | | | | | | |
| | 25-60 | c | 10YR53 00 | 000C00 | 00 | M | | Y | 0 | 0 | | 0 | | P | Y | | Y | |
| 107 | 0-30 | mcl | 10YR42 00 | | | | | | 0 | 0 | HR | 1 | | | | | | |
| | 30-40 | hcl | 10YR53 00 | 000C00 | 00 | M | | Y | 0 | 0 | | 0 | | M | | | | |
| | 40-60 | c | 10YR63 00 | 000C00 | 00 | M | | Y | 0 | 0 | | 0 | | P | Y | | Y | |
| 108 | 0-28 | mcl | 10YR42 00 | | | | | | 0 | 0 | HR | 1 | | | | | | |
| | 28-45 | hcl | 10YR53 00 | 000C00 | 00 | C | | Y | 0 | 0 | | 0 | | M | | | | |
| | 45-60 | c | 10YR53 00 | 000C00 | 00 | M | | Y | 0 | 0 | | 0 | | P | Y | | Y | |
| | 60-65 | c | 25Y 63 00 | 000C00 | 00 | M | | Y | 0 | 0 | | 0 | | P | Y | | Y | |

SOIL PIT DESCRIPTION

Site Name : RIDDINGS FM, GOLF COURSE  Pit Number : 1P

Grid Reference: SU54406340  Average Annual Rainfall : 718 mm
Accumulated Temperature : 1463 degree days
Field Capacity Level : 158 days
Land Use : Cereals
Slope and Aspect : degrees

| HORIZON | TEXTURE | COLOUR | STONES >2 | TOT.STONE | MOTTLES | STRUCTURE |
|---|---|---|---|---|---|---|
| 0- 26 | HCL | 10YR42 00 | 0 | 0 | | |
| 26- 32 | HCL | 10YR43 00 | 0 | 0 | | MDCSAB |
| 32- 60 | HCL | 10YR52 00 | 0 | 0 | M | MDCAB |
| 60- 75 | C | 25 Y51 00 | 0 | 40 | M | WKCAB |

Wetness Grade : 3B  Wetness Class : III
Gleying :032 cm
SPL :060 cm

Drought Grade : 3A  APW : 102mm  MBW : -6 mm
APP : 109mm  MBP : 8 mm

FINAL ALC GRADE : 3B
MAIN LIMITATION : Wetness

SOIL PIT DESCRIPTION

Site Name : RIDDINGS FM, GOLF COURSE  Pit Number : 2P

Grid Reference: SU54006350  Average Annual Rainfall : 718 mm
Accumulated Temperature : 1463 degree days
Field Capacity Level : 158 days
Land Use : Cereals
Slope and Aspect : 01 degrees N

| HORIZON | TEXTURE | COLOUR | STONES >2 | TOT.STONE | MOTTLES | STRUCTURE |
|---|---|---|---|---|---|---|
| 0- 28 | MCL | 10YR42 00 | 0 | 5 | | |
| 28- 65 | MCL | 10YR43 00 | 0 | 3 | | MDCSAB |
| 65- 90 | MCL | 10YR44 54 | 0 | 2 | | STCSAB |

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

Drought Grade : 2  APW : 121mm  MBW : 13 mm
APP : 113mm  MBP : 12 mm

FINAL ALC GRADE : 2
MAIN LIMITATION : Droughtiness

SOIL PIT DESCRIPTION

Site Name : RIDDINGS FM, GOLF COURSE  Pit Number : 3P

Grid Reference: SU53706340
Average Annual Rainfall : 718 mm
Accumulated Temperature : 1463 degree days
Field Capacity Level : 158 days
Land Use : Cereals
Slope and Aspect : 01 degrees N

| HORIZON | TEXTURE | COLOUR | STONES >2 | TOT.STONE | MOTTLES | STRUCTURE |
|---|---|---|---|---|---|---|
| 0- 25 | MCL | 10YR42 00 | 8 | 20 | | |
| 25- 45 | C | 25 Y31 00 | 0 | 25 | C | MDCSAB |
| 45- 72 | C | 10YR51 00 | 0 | 50 | M | |
| 72-120 | C | 10YR51 00 | 0 | 0 | M | WKFNAB |

Wetness Grade : 3A
Wetness Class : III
Gleying :025 cm
SPL :045 cm

Drought Grade : 3A
APW : 106mm MBW : -2 mm
APP : 079mm MBP : -22 mm

FINAL ALC GRADE : 3A
MAIN LIMITATION :

SOIL PIT DESCRIPTION

Site Name : RIDDINGS FM; GOLF COURSE  Pit Number : 4P

Grid Reference: SU54806280
Average Annual Rainfall : 718 mm
Accumulated Temperature : 1463 degree days
Field Capacity Level : 158 days
Land Use : Cereals
Slope and Aspect : 02 degrees NW

| HORIZON | TEXTURE | COLOUR | STONES >2 | TOT.STONE | MOTTLES | STRUCTURE |
|---|---|---|---|---|---|---|
| 0- 28 | MCL | 10YR43 00 | 0 | 1 | | |
| 28- 38 | MCL | 10YR54 00 | 0 | 0 | C | |
| 38- 64 | MCL | 10YR53 52 | 0 | 0 | M | MCSAB |
| 64-120 | C | 10YR52 53 | 0 | 0 | M | MCSAB |

Wetness Grade : 2
Wetness Class : II
Gleying :038 cm
SPL : No SPL

Drought Grade : 1
APW : 144mm MBW : 36 mm
APP : 117mm MBP : 16 mm

FINAL ALC GRADE : 2
MAIN LIMITATION : Wetness