STATEMENT OF PHYSICAL CHARACTERISTICS

LAND AT BURY FARM, MARCHWOOD, HANTS

1. BACKGROUND

1.1 Land on this 68.1 ha site was inspected on behalf of MAFF during June 1992 in connection with mineral extraction proposals. Previous Agricultural Land Classification (ALC) survey work had been carried out on the site in 1982 and 1983 during the preparation of the Hampshire Minerals Plan. This current and more detailed survey work supersedes this earlier work which was carried out prior to the introduction of the revised ALC guidelines and criteria for grading the quality of agricultural land (MAFF, 1988).

1.2 67 observations were made of soil and site characteristics over the land, including 4 soil inspection pits and 63 auger borings using 120 cm dutch pattern soil augers. At the time of survey the majority of land was in arable use (barley, wheat, peas) with smaller areas in grass. Dry soil conditions at the time of survey hampered survey work and did not enable all auger borings to be fully described.

2. PHYSICAL FACTORS AFFECTING LAND QUALITY

Climate

2.1 Climate data for the site was interpolated from a 5 km grid dataset (Met. Office, 1989) as follows:

Climate Interpolation

| Grid Reference | SU373114 | SU378106 |
|---|---|---|
| Altitude (m) | 12 | 10 |
| Accumulated Temperature (deg) | 1544 | 1547 |
| Average Annual Rainfall (mm) | 819 | 813 |
| Field Capacity Days | 171 | 169 |
| Moisture Deficit - wheat (mm) | 110 | 110 |
| Moisture Defecit - potatoes (mm) | 104 | 105 |

2.2 Climatic factors per se place no limitation on land quality at the site but do influence interactions between soil and climatic factors, namely soil wetness and droughtiness.

Relief

2.3 The site lies between about 10 and 12m AOD forming a very gently undulating tract of land with the highest lying towards the central areas of the site. Nowhere on the site do gradients form a limitation in terms of agricultural land quality.

Geology and Soils

2.4 The published 1:50,000 drift edition geology map covering the Marchwood area (BGS 1973) indicates the site as valley gravels, with Bracklesham Beds underlying and exposed to the south and southwest.

2.5 A semi-detailed soil map of the Southampton District has been produced by the Soil Survey and Land Research Centre (1989). This maps the majority of the site as the Kearby and Wickham Soil Series (both medium loamy over clayey) with smaller areas of the Dunkeswick series (again medium loamy over clayey) and the Efford series (medium loamy soils over gravel).

2.6 Detailed survey work on the site broadly confirms the soil types outlined above. Topsoils are typically medium clay loams, sandy loams or sandy clay loams, usually overlying similar textured upper subsoils passing to clays, gravels or stony horizons with depth. Soils are typically slowly permeable (typically wetness class III or IV) but some shallower soils over gravel are well drained (wetness clas I). Topsoil stone content is usually less than 5% v/v but increases toward the northeast of the site where some shallow stony soils are found. Subsoil stone content is very variable. Soil wetness and/or droughtiness form the main limitations to agricultural use.

3. AGRICULTURAL LAND CLASSIFICATION

3.1 The site is graded 3a and 3b; a breakdown of the grades in terms of area and relative extent is given below:

| Grade | Ha | % Agricultural Area |
|---|---|---|
| 3a | 33.30 | 50 |
| 3b | 33.50 | 50 |
| Non-Agricultural * | 1.25 | |
| Total | 68.05 | |

* Woodland

Grade 3a

3.2 Land of this quality occurs extensively on the site. Topsoils are typically medium clay loam or sandy clay loam (occasionally medium sandy loam) over similar textured or slightly heavier subsoils, usually passing into gleyed slowly permeable clays between 46 and 60 cm. Gleying in subsoil horizons above the clay is variable depending upon location. The clayey lower subsoil may become gravelly with depth restricting auger penetration. Soils typically have a slight to moderate wetness limitation (wetness class II or III) and some profiles with a gravelly subsoil are also limited by drought.

Grade 3b

3.3 Land graded 3b is of two types. Firstly are soils developed over gravel or stony subsoils. These typically have medium sandy loam topsoils passing to similar or slightly heavier stony subsoils. Topsoils range from slightly to moderately stony <5% v/v to over 15% v/v of flints (>2 mm), with subsoils comprising up to about 40% v/v of flints. Such land is principally limited by droughtiness due to the relatively low soil available water capacity, and is most extensive towards the northeastern corner of the site.

3.4 The second type of land graded 3b typically comprises very slightly stony medium clay loam, heavy clay loams and sandy clay loams passing to slowly permeable clay within about 46 cm of the surface, with gleying apparent above 40 cm in depth. This land is limited by wetness (wetness class IV) and is typically associated with the exposure of Bracklesham Beds along the southern and southwestern boundaries of the site.

## 4. SOIL RESOURCES

4.1 The pattern of soil resources on the site is illustrated by overlays accompanying the coloured ALC plan. These, together with the description of soil units given below, provide an indication of the soil resources on the site. It should be emphasized that this information should not be viewed solely in the context of soil stripping, but as an illustration of the soil resources available for restoration in the surveyed area.

4.2 When considering these details it is important to remember that soils were only sampled to a maximum depth of 120 cm during survey work. Due to the dry soil conditions at the time of survey many soil profiles could not be examined to the full 120 cm. Consequently this survey does not provide a fully comprehensive record of subsoil resources.

### Topsoil

4.3 Three topsoil units were identified during survey work based on different topsoil textural characteristics.

Topsoil Unit 1 typically comprises dark greyish brown to very dark greyish brown (10YR 4/2 - 3/2) medium clay loams or sandy clay loams with an average depth of 25.6 cm over a range in depth from 20 - 35 cm. Total topsoil stone content is typically less than 5% v/v of flints.

Topsoil Unit 2 comprises medium sandy loam, occasionally medium sandy silt loam topsoils, dark greyish brown (10YR 4/2) in colour. The average depth of the unit is 27.7 cm with a recorded range from 24 to 35 cm. Total topsoil stone content is variable ranging from less than 5% v/v of flints to around 16% v/v with typically 0 - 6% of flints >2 cm in size.

Topsoil Unit 3 is not extensive and comprises topsoils of heavy clay loam or clay which are gleyed, being dark grey (10YR 4/1) in colour with common ochreous mottles (commonly 10YR 5/8). The average depth of the unit is 25.8 cm with a recorded range of 25 - 28 cm. Total topsoil stone content is variable, ranging from stoneless to about 10% v/v of flints.

### Subsoil

4.4 Three subsoil units were distinguished as a result of survey work based primarily on the occurrence of gravelly or very stony horizons.

Subsoil Unit 1 typically comprises sandy clay loam, medium clay loam and heavy clay loams passing into clay at variable depth. Subsoils are typically only slightly stony (<5% v/v of flints) and extend to at least 120 cm from the surface. In this unit subsoils exhibit varying degrees of gleying; the upper medium loams range in colour from dark greyish brown to brown/dark brown (10YR 4/2, 10YR 4/3, 10YR 5/3), frequently with ochreous mottling (typically 10YR 5/6, 10YR 5/8 or 7.5YR 4/6). The lower clay horizons are invariably gleyed with a wide range of colours from greys to greyish browns and greenish greys (eg 10YR 7/1, 2.5Y 5/2, 5Y 5/1) with ochreous mottling (typically 10YR 5/8, 10YR 6/8, 7.5YR 5/8, 7.5YR 4/6). Where examined, the medium loamy textures comprised moderately well developed medium to coarse subangular blocky structures of friable to firm consistence with <0.5% biopores. The lower clay horizons comprised moderately well developed coarse prismatic or massive structures of firm to very firm consistence having less than 0.5% biopores.

Subsoil Unit 2 comprises shallow upper subsoils which pass to gravel or very stony horizons within 50 cm from the surface. These thin upper subsoils typically comprise brown (10YR 4/3 - 5/3) to yellowish brown (10YR 5/4 - 4/4) medium sandy loams and medium clay loams (occasionally sandy clay loams and medium sandy silt loams) which have a variable total stone content from less than 5% v/v to around 20% v/v. These pass to stonier horizons (20 - 40% + v/v). Due to the dry conditions at the time of survey these lower stony horizons were extremely difficult to penetrate and consequently a detailed evaluation was not possible.

Subsoil Unit 3 comprises very similar soils to those described for unit 1 but pass into gravel or stony horizons, often in a clayey matrix, below 50 cm from the surface.

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## 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.

SOURCES OF REFERENCE

BRITISH GEOLOGICAL SURVEY (1973). 1:50,000 scale Drift Edition Geological Map Sheet No 131 (Southampton).

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

MET. OFFICE (1989) Climatological Datasets for Agricultural Land Classification.

SOIL SURVEY AND LAND RESEARCH CENTRE (1989) Applied Soil Mapping in the Southampton Area. Soil Survey Special Survey No 16. (Report and Map).

| SAMPLE NO. | GRID REF | USE | ASPECT | GRDNT | GLEY | SPL | WETNESS CLASS | WETNESS GRADE | WHEAT AP | WHEAT MB | POTS AP | POTS MB | M.REL DRT | M.REL FLOOD | EROSN EXP | FROST DIST | CHEM LIMIT | ALC | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | SU37201180 | PGR | SE | | 022 | 065 | 3 | 3A | 141 | 31 | 108 | 3 | 2 | | | | WE | 3A | MN CONCS 65cm + |
| 1P | SU37701130 | BAR | | | 060 | 060 | 3 | 3A | 0 | 0 | 0 | 0 | | | | | WE | 3A | IMP 100cm |
| 2 | SU37201170 | PGR | SE | | 020 | 065 | 3 | 3A | 132 | 22 | 107 | 2 | 2 | | | | WE | 3A | FE CONCS 75cm + |
| 2P | SU38111109 | PEA | | | 000 | | 1 | 1 | 67 | -43 | 71 | -34 | 3B | | | | DR | 3B | PIT AT BORING 35 |
| 3 | SU37301170 | PGR | E | | 038 | 053 | 3 | 3A | 96 | -14 | 97 | -8 | 3A | | | | WE | 3A | IMP 61cm |
| 3P | SU37901093 | PEA | SE | | 042 | 042 | 3 | 3A | 130 | 20 | 107 | 2 | 2 | | | | WE | 3A | PIT AT BORING 52 |
| 4 | SU37201160 | PGR | SE | | 035 | 050 | 3 | 3A | 95 | -15 | 97 | -8 | 3A | | | | WE | 3A | IMP 65cm |
| 4P | SU37281139 | LEY | | | 042 | 042 | 3 | 3A | 0 | 0 | 0 | 0 | | | | | WE | 3A | STREAM BANK EXPOSURE |
| 5 | SU37301160 | LEY | | | 035 | 045 | 4 | 3B | 94 | -16 | 104 | -1 | 3A | | | | WT | 3B | BORDERLINE 3A/3B |
| 6 | SU37401160 | LEY | | | 047 | 047 | 3 | 3A | 107 | -3 | 106 | 1 | 3A | | | | WD | 3A | IMP 90cm |
| 8 | SU37301150 | LEY | | | 046 | 046 | 3 | 3A | 119 | 9 | 104 | -1 | 2 | | | | WE | 3A | |
| 10 | SU37501150 | BAR | E | | 000 | | 1 | 1 | 64 | -46 | 64 | -41 | 3B | | | | DR | 3B | |
| 11 | SU37601150 | BAR | N | | 027 | | 2 | 1 | 77 | -33 | 77 | -28 | 3B | | | | DR | 3B | |
| 12 | SU37331140 | BAR | | | 025 | 045 | 3 | 3A | 0 | 0 | 0 | 0 | | | | | WE | 3A | BORDERLINE 3A/3B |
| 13 | SU37401140 | BAR | W | | 060 | 060 | 2 | 2 | 101 | -9 | 105 | 0 | 3A | | | | DR | 3A | |
| 14 | SU37501140 | BAR | N | | 035 | 035 | 4 | 3B | 86 | -24 | 95 | -10 | 3B | | | | WE | 3B | |
| 15 | SU37601140 | BAR | N | | 026 | 026 | 4 | 3B | 127 | 17 | 104 | -1 | 2 | | | | WT | 3B | |
| 16 | SU37701140 | BAR | N | | 000 | | 1 | 1 | 74 | -36 | 71 | -34 | 3B | | | | DR | 3B | |
| 17 | SU37401130 | BAR | SW | | 025 | 045 | 4 | 3B | 0 | 0 | 0 | 0 | | | | | WE | 3B | |
| 18 | SU37501130 | BAR | SW | | 050 | 050 | 3 | 3A | 127 | 17 | 104 | -1 | 2 | | | | WE | 3A | |
| 19 | SU37601130 | BAR | N | | 000 | | 1 | 1 | 72 | -38 | 69 | -36 | 3B | | | | DR | 3B | |
| 20 | SU37701130 | BAR | N | | 000 | | 1 | 1 | 81 | -29 | 78 | -27 | 3B | | | | DR | 3B | |
| 21 | SU37401120 | BAR | SW | | 025 | 040 | 4 | 3B | 0 | 0 | 0 | 0 | | | | | WE | 3B | |
| 22 | SU37501120 | BAR | SW | | 025 | 035 | 4 | 3B | 0 | 0 | 0 | 0 | | | | | WE | 3B | |
| 23 | SU37601120 | BAR | S | | 027 | | 2 | 2 | 76 | -34 | 73 | -32 | 3B | | | | DR | 3B | IMP 42cm |
| 24 | SU37701120 | BAR | SE | | 025 | | 2 | 2 | 70 | -40 | 67 | -38 | 3B | | | | DR | 3B | IMP 38cm |
| 25 | SU37801120 | BAR | SW | | 065 | 065 | 2 | 2 | 105 | -5 | 110 | 5 | 3A | | | | WE | 2 | |
| 26 | SU37901120 | BAR | | | 000 | | 1 | 1 | 57 | -53 | 57 | -48 | 4 | | | | DR | 3B | IMP 35cm |
| 27 | SU38001120 | BAR | S | | 000 | | 1 | 1 | 0 | 0 | 0 | 0 | | | | | DR | 3B | IMP 42cm |
| 28 | SU37401110 | BAR | SW | | 000 | 028 | 4 | 3B | 0 | 0 | 0 | 0 | | | | | WE | 3B | |
| 29 | SU37501110 | BAR | SW | | 060 | 060 | 3 | 2 | 135 | 25 | 107 | 2 | 2 | | | | WE | 2 | |
| 30 | SU37601110 | BAR | SE | | 022 | 065 | 3 | 3A | 130 | 20 | 112 | 7 | 2 | | | | WE | 3A | |
| 31 | SU37701110 | BAR | SE | | 024 | | 2 | 2 | 97 | -13 | 85 | -20 | 3A | | | | DR | 3B | IMP 38cm |
| 32 | SU37801110 | BAR | SE | | 000 | | 1 | 1 | 109 | -1 | 96 | -9 | 3B | | | | DR | 3B | IMP 50cm |
| 33 | SU37901110 | BAR | | | 000 | | 1 | 1 | 49 | -61 | 49 | -56 | 4 | | | | DR | 3B | IMP 30cm |
| 34 | SU38001110 | PGR | | | 000 | | 2 | 3B | 43 | -67 | 43 | -62 | 4 | | | | WE | 3B | IMP GRAVEL AT 25cm |
| 36 | SU38201110 | PEA | | | 000 | | 1 | 1 | 44 | -66 | 44 | -61 | 4 | | | | DR | 3B | IMP 36cm |
| 37 | SU37401100 | BAR | SW | | 000 | 025 | 4 | 3B | 0 | 0 | 0 | 0 | | | | | WE | 3B | |
| 38 | SU37501100 | BAR | S | | 027 | 040 | 4 | 3B | 0 | 0 | 0 | 0 | | | | | WE | 3B | |
| 39 | SU37601100 | BAR | SW | | 025 | 045 | 4 | 3B | 0 | 0 | 0 | 0 | | | | | WE | 3B | BORDERLINE 3A/3B |
| 40 | SU37701100 | BAR | SW | 01 | 025 | 025 | 4 | 3B | 0 | 0 | 0 | 0 | | | | | WE | 3B | IMP 80cm |
| 41 | SU37801100 | BAR | W | | 000 | | 1 | 1 | 82 | -28 | 70 | -25 | 3B | | | | DR | 3B | IMP 25cm |

| SAMPLE NO. | GRID REF | USE | ASPECT | GRDNT | GLEY | SPL | WETNESS CLASS | WETNESS GRADE | WHEAT AP | WHEAT MB | POTS AP | POTS MB | M.REL | FLOOD | EROSN | FROST | DIST | CHEM LIMIT | ALC | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 42 | SU37901100 | PEA | | | 000 | | 1 | 1 | 46 | -64 | 46 | -59 | 4 | | | | | DR | 3B | IMP 30cm |
| 45 | SU38201100 | PEA | | | 000 | | 1 | 1 | 53 | -57 | 53 | -52 | 4 | | | | | DR | 3B | IMP 35cm |
| 46 | SU38301100 | PEA | | | 000 | | 1 | 1 | 51 | -59 | 51 | -54 | 4 | | | | | DR | 3B | IMP 30cm |
| 47 | SU37401090 | HCL | SW | | 000 | 025 | 4 | 3B | 0 | 0 | 0 | 0 | | | | | | WE | 3B | |
| 48 | SU37501090 | BAR | SW | | 020 | 020 | 4 | 3B | 0 | 0 | 0 | 0 | | | | | | WE | 3B | |
| 49 | SU37601090 | BAR | S | | 028 | 060 | 3 | 3A | 0 | 0 | 0 | 0 | | | | | | WE | 3A | IMP GRAVEL AT 75cm |
| 50 | SU37701090 | BAR | W | | 060 | 070 | 2 | 1 | 141 | 31 | 110 | 5 | 2 | | | | | DR | 2 | |
| 51 | SU37801090 | WHT | N | | 028 | | 2 | 2 | 71 | -39 | 71 | -34 | 3B | | | | | DR | 3B | IMP 42cm |
| 53 | SU38001090 | PEA | | | 000 | | 1 | 1 | 57 | -53 | 57 | -48 | 4 | | | | | DR | 3B | IMP 35cm |
| 54 | SU38101090 | PEA | | | 000 | | 1 | 1 | 57 | -53 | 57 | -48 | 4 | | | | | DR | 3B | IMP 35cm |
| 55 | SU38201090 | PEA | | | 055 | 060 | 3 | 2 | 100 | -10 | 106 | 1 | 3A | | | | | DR | 3A | IMP 80cm |
| 56 | SU37501080 | BAR | W | | 030 | 040 | 4 | 3B | 0 | 0 | 0 | 0 | | | | | | WE | 3B | |
| 57 | SU37601080 | BAR | SW | | 020 | 020 | 4 | 3B | 0 | 0 | 0 | 0 | | | | | | WE | 3B | |
| 58 | SU37701080 | WHT | NW | | 035 | 035 | 4 | 3B | 99 | -11 | 102 | -3 | 3A | | | | | WE | 3B | IMP 80cm |
| 59 | SU37801080 | WHT | NW | | 027 | 060 | 3 | 3A | 101 | -9 | 109 | 4 | 3A | | | | | WE | 3A | IMP 75cm |
| 60 | SU37901080 | WHT | S | | 045 | 065 | 2 | 1 | 126 | 16 | 107 | 2 | 2 | | | | | DR | 2 | |
| 61 | SU38001080 | WHT | S | | 000 | | 1 | 1 | 62 | -48 | 62 | -43 | 3B | | | | | DR | 3B | IMP 36cm |
| 62 | SU38101080 | PEA | | | 025 | | 2 | 1 | 105 | -4 | 94 | -11 | 3B | | | | | DR | 3B | IMP 45cm |
| 63 | SU37601070 | WHT | NW | | 025 | 025 | 4 | 3B | 0 | 0 | 0 | 0 | | | | | | WE | 3B | |
| 64 | SU37701070 | WHT | N | | 042 | 058 | 3 | 2 | 98 | -12 | 101 | -4 | 3A | | | | | DR | 3A | IMP 63cm |
| 65 | SU37801070 | WHT | N | | 027 | | 2 | 1 | 0 | 0 | 0 | 0 | | | | | | DR | 4 | IMP 30cm |
| 66 | SU37901070 | WHT | SE | | 030 | 045 | 4 | 3A | 0 | 0 | 0 | 0 | | | | | | WE | 3A | IMP 100cm |
| 67 | SU38001070 | WHE | SE | | 000 | | 1 | 1 | 49 | -61 | 49 | -56 | 4 | | | | | DR | 3B | IMP 30cm |
| 68 | SU37801060 | WHT | SE | | 025 | 035 | 4 | 3B | 127 | 17 | 104 | -1 | 2 | | | | | WE | 3B | |
| 69 | SU37901060 | WHT | SE | | 030 | 030 | 4 | 3B | 127 | 17 | 104 | -1 | 2 | | | | | WE | 3B | |

| 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 | 0-22 | scl | 10YR32 42 10YR56 00 F | | | | | Y | 0 | 0 | HR | 2 | | | | | | | |
| | 22-50 | msl | 10YR42 52 10YR56 00 C | | | | | Y | 0 | 0 | HR | 3 | | M | | | | | |
| | 50-65 | msl | 10YR53 00 10YR56 00 C | | | | 10YR62 00 | Y | 0 | 0 | | 0 | | M | | | | | |
| | 65-85 | scl | 10YR53 00 10YR66 00 M | | | | 10YR52 62 | Y | 0 | 0 | | 0 | | M | | Y | | | |
| | 85-120 | scl | 05GY61 00 10YR58 00 M | | | | | Y | 0 | 0 | HR | 5 | | P | | Y | | | |
| 1P | 0-35 | mcl | 10YR32 00 | | | | | | 1 | 0 | HR | 3 | Md CSB | Fr | M | | | | |
| | 35-60 | hcl | 10YR43 00 | | | | | | 0 | 0 | HR | 5 | Md CSB | Fm | M | | | | |
| | 60-100 | c | 25Y 63 00 10YR56 00 M | | | | | Y | 0 | 0 | HR | 2 | Md CP | VF | P | | Y | | |
| 2 | 0-20 | scl | 10YR22 32 10YR56 00 F | | | | | Y | 1 | 0 | HR | 2 | | | | | | | |
| | 20-45 | scl | 10YR42 00 10YR56 00 C | | | | 10YR52 62 | Y | 0 | 0 | HR | 2 | | M | | | | | |
| | 45-65 | scl | 05Y 52 53 75YR58 00 M | | | | | Y | 0 | 0 | | 0 | | M | | Y | | | |
| | 65-75 | sc | 05Y 52 53 75YR58 00 M | | | | | Y | 0 | 0 | | 0 | | P | | Y | | | |
| | 75-120 | c | 05Y 72 00 10YR58 00 M | | | | | Y | 0 | 0 | | 0 | | P | | Y | | | |
| 2P | 0-25 | msl | 10YR42 00 | | | | | | 6 | 0 | HR | 16 | Md CSB | Fr | | | | | |
| | 25-60 | mcl | 10YR43 00 | | | | | | 0 | 0 | HR | 40 | | M | | | | | |
| 3 | 0-20 | mcl | 10YR42 00 | | | | | | 0 | 0 | HR | 2 | | | | | | | |
| | 20-38 | mcl | 10YR43 00 10YR66 00 C | | | | | | 0 | 0 | HR | 3 | | M | | | | | |
| | 38-53 | hcl | 10YR53 00 10YR58 00 M | | | | 10YR62 00 | Y | 0 | 0 | HR | 1 | | M | | | | | |
| | 53-61 | c | 10YR54 00 10YR58 00 C | | | | 05Y 52 00 | Y | 0 | 0 | HR | 20 | | P | | Y | | | |
| | 61-120 | gh | 00XX00 00 | | | | | Y | 0 | 0 | | 0 | | P | | Y | | | |
| 3P | 0-22 | mcl | 10YR42 00 | | | | | | 0 | 0 | HR | 2 | Md CSB | Fr | | | | | |
| | 22-42 | mcl | 10YR43 00 | | | | | | 0 | 0 | | 0 | | M | | | | | |
| | 42-67 | c | 05 G51 00 75YR58 00 M | | | | | Y | 0 | 0 | HR | 2 | Md CP | Fm | P | | Y | | |
| | 67-120 | c | 05Y 72 00 75YR58 00 M | | | | | Y | 0 | 0 | | 0 | Md MP | Fm | P | | Y | | |
| 4 | 0-22 | mcl | 10YR42 00 10YR46 00 F | | | | | | 0 | 0 | HR | 2 | | | | | | | |
| | 22-35 | mcl | 10YR53 00 10YR56 00 C | | | | | Y | 0 | 0 | HR | 2 | | M | | | | | |
| | 35-50 | scl | 10YR53 00 10YR66 00 C | | | | 10YR62 00 | Y | 0 | 0 | HR | 10 | | M | | | | | |
| | 50-65 | sc | 05GY61 00 75YR58 00 M | | | | | Y | 0 | 0 | HR | 20 | | P | | Y | | | |
| | 65-120 | gh | 00XX00 00 | | | | | Y | 0 | 0 | | 0 | | P | | Y | | | |
| 4P | 0-23 | mcl | 00ZZ00 00 | | | | | N | 0 | 0 | HR | 5 | | | | | | | |
| | 23-26 | mcl | 00ZZ00 00 | | | | | N | 0 | 0 | HR | 25 | Md MSB | Fr | M | | | | |
| | 26-42 | hcl | 00ZZ00 00 | | | | | | 0 | 0 | HR | 5 | Md CSB | Fr | M | | | | |
| | 42-45 | c | 00ZZ00 00 | | | | | Y | 0 | 0 | HR | 5 | Massiv | | P | | Y | | MOIST / ANAEROBIC |
| 5 | 0-30 | mcl | 10YR42 00 | | | | | | 3 | 0 | HR | 4 | | | | | | | |
| | 30-35 | mcl | 10YR43 00 10YR76 00 C | | | | | | 0 | 0 | HR | 2 | | M | | | | | |
| | 35-45 | hcl | 10YR53 00 10YR66 00 C | | | | 10YR62 00 | Y | 0 | 0 | HR | 1 | | M | | | | | |
| | 45-60 | c | 10YR71 00 10YR58 68 C | | | | | Y | 0 | 0 | HR | 1 | | P | | Y | | | |
| | 60-68 | c | 10YR54 00 10YR58 00 C | | | | | Y | 0 | 0 | HR | 15 | | P | | Y | | | |
| 6 | 0-31 | scl | 10YR42 43 | | | | | | 0 | 0 | HR | 2 | | | | | | | |
| | 31-47 | hcl | 10YR44 00 10YR46 58 F | | | | | | 0 | 0 | HR | 2 | | M | | | | | |
| | 47-75 | c | 25Y 72 76 10YR58 00 M | | | | | Y | 0 | 0 | HR | 3 | | P | | Y | | | |
| | 75-90 | c | 25Y 72 62 10YR68 00 M | | | | | Y | 0 | 0 | HR | 15 | | 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 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8 | 0-28 | scl | 10YR33 00 | | | | | | 0 | 0 | HR | 3 | | | | | | | |
| | 28-46 | hcl | 10YR43 00 | | | | | | 0 | 0 | HR | 5 | | M | | | | | |
| | 46-72 | c | 10YR43 54 | 10YR68 | 00 | C | 10YR62 | 00 Y | 0 | 0 | HR | 3 | | P | | Y | | | |
| | 72-100 | c | 05Y 72 62 | 75YR58 | 68 | M | | Y | 0 | 0 | HR | 2 | | P | | Y | | | |
| | 100-110 | c | 05Y 72 62 | 10YR68 | 00 | M | | Y | 0 | 0 | HR | 10 | | P | | Y | | | |
| 10 | 0-28 | msl | 10YR42 00 | | | | | | 0 | 0 | HR | 2 | | | | | | | |
| | 28-40 | msl | 10YR44 46 | | | | | | 0 | 0 | HR | 3 | | M | | | | | |
| 11 | 0-27 | msl | 10YR42 43 | | | | | | 0 | 0 | HR | 2 | | | | | | | |
| | 27-39 | scl | 10YR42 00 | 10YR66 | 68 | F | 10YR62 | 00 Y | 0 | 0 | HR | 2 | | M | | | | | |
| | 39-45 | hcl | 10YR52 00 | 10YR68 | 58 | C | 10YR62 | 00 Y | 0 | 0 | HR | 5 | | M | | | | | |
| | 45-50 | scl | 75YR34 00 | | | | | Y | 0 | 0 | HR | 15 | | P | | | | | |
| 12 | 0-25 | scl | 10YR42 00 | | | | | | 5 | 0 | HR | 5 | | | | | | | |
| | 25-45 | scl | 10YR53 54 | 10YR58 | 00 | C | | Y | 0 | 0 | HR | 5 | | P | | | | | |
| | 45-60 | hcl | 10YR53 54 | 10YR58 | 00 | C | | Y | 0 | 0 | HR | 20 | | P | | Y | | | |
| 13 | 0-27 | scl | 10YR42 00 | | | | | | 3 | 0 | HR | 3 | | | | | | | |
| | 27-60 | scl | 10YR43 00 | | | | | | 0 | 0 | HR | 3 | | M | | | | | |
| | 60-70 | scl | 10YR64 54 | 10YR58 | 00 | C | | Y | 0 | 0 | HR | 3 | | P | | Y | | ? SPL | |
| | 70-120 | gh | 00ZZ00 00 | | | | | Y | 0 | 0 | | 0 | | P | | | | | |
| 14 | 0-28 | scl | 10YR42 00 | | | | | | 0 | 0 | HR | 2 | | | | | | | |
| | 28-35 | scl | 10YR43 42 | | | | | | 0 | 0 | HR | 3 | | M | | | | | |
| | 35-39 | c | 10YR42 00 | 10YR46 | 58 | C | | Y | 0 | 0 | HR | 4 | | P | | Y | | | |
| | 39-60 | c | 05YR58 00 | 05YR58 | 00 | M | 25Y 72 00 | Y | 0 | 0 | | 0 | | P | | Y | | | |
| | 60-65 | c | 05YR58 00 | 05YR58 | 00 | M | 05Y 72 00 | Y | 0 | 0 | HR | 10 | | P | | Y | | | |
| 15 | 0-26 | mcl | 10YR42 00 | | | | | | 0 | 0 | HR | 1 | | | | | | | |
| | 26-70 | c | 10YR42 00 | 75YR68 | 00 | M | 05Y 62 63 | Y | 0 | 0 | | 0 | | P | | Y | | | |
| | 70-120 | c | 05Y 72 00 | 75YR68 | 00 | M | | Y | 0 | 0 | | 0 | | P | | Y | | | |
| 16 | 0-27 | msl | 10YR42 00 | | | | | | 0 | 0 | HR | 5 | | | | | | | |
| | 27-42 | msl | 10YR43 44 | | | | | | 0 | 0 | HR | 6 | | M | | | | | |
| 17 | 0-25 | scl | 10YR42 00 | | | | | | 3 | 0 | HR | 3 | | | | | | | |
| | 25-45 | scl | 10YR53 54 | 10YR58 | 00 | C | | Y | 0 | 0 | HR | 3 | | M | | | | | |
| | 45-60 | c | 10YR71 00 | 10YR58 | 00 | M | | Y | 0 | 0 | | 0 | | P | | Y | | | |
| 18 | 0-27 | scl | 10YR42 00 | | | | | | 3 | 0 | HR | 3 | | | | | | | |
| | 27-50 | scl | 10YR43 00 | | | | | | 0 | 0 | HR | 3 | | M | | | | | |
| | 50-120 | c | 10YR71 00 | 10YR58 | 00 | M | | Y | 0 | 0 | | 0 | | P | | Y | | | |
| 19 | 0-26 | msl | 10YR42 00 | | | | | | 0 | 0 | HR | 3 | | | | | | | |
| | 26-40 | scl | 10YR43 44 | | | | | | 0 | 0 | HR | 6 | | M | | | | | |
| 20 | 0-27 | scl | 10YR32 00 | | | | | | 0 | 0 | HR | 4 | | | | | | | |
| | 27-50 | scl | 10YR42 00 | | | | | | 0 | 0 | HR | 15 | | P | | | | | |

| SAMPLE | DEPTH | TEXTURE | COLOUR | MOTTLES COL | MOTTLES ABUN | MOTTLES CONT | PED COL. | GLEY | STONES >2 | STONES >6 | STONES LITH | STRUCT/ TOT | STRUCT/ CONSIST | SUBS STR | SUBS POR | SUBS IMP | SUBS SPL | SUBS CALC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 21 | 0-25 | scl | 10YR42 00 | | | | | | 3 | 0 | HR | 3 | | | | | | |
| | 25-40 | scl | 10YR53 63 | 75YR46 00 | M | | | Y | 0 | 0 | HR | 3 | | | | | | |
| | 40-120 | c | 05Y 73 00 | 10YR58 00 | M | | | Y | 0 | 0 | | 0 | | | | | | Y |
| 22 | 0-25 | scl | 10YR42 00 | | | | | | 3 | 0 | HR | 3 | | | | | | |
| | 25-35 | hcl | 10YR53 00 | 10YR58 00 | C | | | Y | 0 | 0 | HR | 3 | | M | | | | |
| | 35-60 | c | 10YR71 00 | 10YR58 00 | M | | | Y | 0 | 0 | | 0 | | P | | | | Y |
| 23 | 0-27 | mcl | 10YR42 00 | | | | | | 0 | 0 | HR | 2 | | | | | | |
| | 27-42 | scl | 10YR43 00 | 10YR56 00 | F | | | Y | 0 | 0 | HR | 15 | | M | | | | |
| | 42-120 | gh | 00X00 00 | | | | | Y | 0 | 0 | | 0 | | P | | | | |
| 24 | 0-25 | scl | 10YR42 00 | | | | | | 0 | 0 | HR | 2 | | | | | | |
| | 25-38 | mcl | 10YR43 00 | 10YR56 00 | F | | | Y | 0 | 0 | HR | 10 | | M | | | | |
| | 38-120 | gh | 00X00 00 | | | | | Y | 0 | 0 | | 0 | | P | | | | |
| 25 | 0-25 | mcl | 10YR42 00 | | | | | | 2 | 0 | HR | 5 | | | | | | |
| | 25-50 | mcl | 10YR43 00 | | | | | | 0 | 0 | HR | 5 | | M | | | | |
| | 50-65 | hcl | 10YR43 00 | | | | | | 0 | 0 | HR | 5 | | M | | | | |
| | 65-80 | c | 25Y 64 00 | 10YR58 00 | C | | | Y | 0 | 0 | HR | 5 | | P | | | | Y |
| 26 | 0-35 | msl | 10YR42 00 | | | | | | 0 | 0 | HR | 5 | | | | | | |
| 27 | 0-32 | mcl | 10YR42 00 | | | | | | 0 | 0 | HR | 2 | | | | | | |
| | 32-42 | mcl | 10YR43 00 | | | | | | 0 | 0 | HR | 15 | | M | | | | |
| 28 | 0-28 | hcl | 10YR41 51 | 75YR46 00 | C | | | Y | 10 | 3 | HR | 10 | | | | | | |
| | 28-120 | sc | 05Y 73 00 | 10YR58 00 | M | | | Y | 0 | 0 | | 0 | | | | | | Y |
| 29 | 0-30 | msl | 10YR42 00 | | | | | | 1 | 0 | HR | 2 | | | | | | |
| | 30-60 | scl | 10YR43 00 | | | | | | 0 | 0 | HR | 2 | | M | | | | |
| | 60-80 | sc | 10YR43 00 | 75YR46 00 | M | | | Y | 0 | 0 | HR | 2 | | P | | | | Y |
| | 80-120 | msl | 25Y 56 00 | 10YR58 00 | M | | | Y | 0 | 0 | HR | 5 | | P | | | | Y |
| 30 | 0-22 | mcl | 10YR42 00 | | | | | | 0 | 0 | HR | 3 | | | | | | |
| | 22-65 | hcl | 10YR43 53 | 10YR56 00 | F | | | Y | 0 | 0 | HR | 5 | | M | | | | |
| | 65-75 | c | 10YR43 00 | 10YR66 00 | C | | 25Y 52 00 | Y | 0 | 0 | HR | 3 | | M | | | | Y |
| | 75-95 | c | 25Y 42 00 | 10YR58 00 | M | | | Y | 0 | 0 | HR | 10 | | P | | | | Y |
| | 95-120 | c | 25Y 72 00 | 10YR58 00 | M | | | Y | 0 | 0 | HR | 20 | | P | | | | Y |
| 31 | 0-24 | msl | 10YR42 00 | | | | | | 0 | 0 | | 0 | | | | | | |
| | 24-38 | msl | 10YR43 53 | 10YR56 00 | C | | | Y | 0 | 0 | | 0 | | M | | | | |
| | 38-40 | msl | 10YR43 53 | 10YR56 00 | C | | | Y | 0 | 0 | HR | 20 | | M | | | | |
| 32 | 0-25 | mcl | 10YR42 00 | | | | | | 0 | 0 | HR | 2 | | | | | | |
| | 25-50 | mcl | 10YR44 00 | 10YR46 56 | F | | | | 0 | 0 | HR | 5 | | M | | | | |
| 33 | 0-30 | msl | 10YR42 00 | | | | | | 0 | 0 | HR | 5 | | | | | | |

| 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 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 34 | 0-25 | c | 10YR41 00 | 000C00 | 00 | C | | Y | 0 | 0 | | 0 | | | | | | | |
| 36 | 0-30 | msl | 10YR42 00 | | | | | | 0 | 0 | HR | 15 | | | | | | | |
| 37 | 0-25 | hcl | 10YR41 00 | 10YR58 | 00 | F | | Y | 1 | 0 | HR | 2 | | | | | | | |
| | 25-60 | c | 10YR51 53 | 10YR58 | 00 | M | | Y | 0 | 0 | HR | 2 | | | | | Y | | |
| | 60-120 | c | 10YR71 00 | 10YR58 | 00 | M | | Y | 0 | 0 | | 0 | | | | | Y | | |
| 38 | 0-27 | mcl | 10YR42 00 | | | | | | 2 | 0 | HR | 2 | | | | | | | |
| | 27-40 | hcl | 10YR53 43 | 10YR58 | 00 | C | | Y | 0 | 0 | HR | 2 | | | | | | | |
| | 40-60 | sc | 10YR52 53 | 10YR58 | 00 | M | | Y | 0 | 0 | | 0 | | | | | Y | | |
| 39 | 0-25 | mcl | 10YR42 00 | | | | | | 2 | 0 | HR | 2 | | | | | | | |
| | 25-45 | mcl | 10YR43 53 | 10YR58 | 00 | C | | Y | 0 | 0 | HR | 2 | | | | | | | |
| | 45-70 | c | 05GY61 00 | 10YR58 | 00 | M | | Y | 0 | 0 | | 0 | | | | | Y | | |
| | 70-75 | c | 05GY61 00 | 10YR58 | 00 | M | | Y | 0 | 0 | HR | 20 | | | | | Y | | |
| 40 | 0-25 | mcl | 10YR41 00 | | | | | | 0 | 0 | HR | 2 | | | | | | | |
| | 25-35 | c | 10YR51 53 | 75YR46 | 00 | M | | Y | 0 | 0 | | 0 | | P | | | Y | | |
| | 35-60 | c | 05GY61 00 | 10YR58 | 00 | M | | Y | 0 | 0 | | 0 | | P | | | Y | | |
| | 60-80 | c | 05GY61 00 | | | | | | 0 | 0 | HR | 40 | | P | | | | | IMP 80cm |
| 41 | 0-25 | msl | 10YR41 00 | | | | | | 5 | 0 | HR | 10 | | | | | | | |
| 42 | 0-30 | msl | 10YR42 00 | | | | | | 0 | 0 | HR | 10 | | | | | | | |
| 45 | 0-25 | msl | 10YR42 00 | | | | | | 0 | 0 | HR | 10 | | | | | | | |
| | 25-35 | msl | 10YR54 00 | | | | | | 0 | 0 | HR | 5 | | M | | | | | |
| 46 | 0-30 | mcl | 10YR42 00 | | | | | | 0 | 0 | HR | 5 | | | | | | | |
| 47 | 0-25 | hcl | 10YR41 00 | 10YR58 | 00 | C | | Y | 1 | 0 | HR | 2 | | | | | | | |
| | 25-40 | c | 10YR51 53 | 10YR58 | 00 | M | | Y | 0 | 0 | | 0 | | | | | Y | | |
| | 40-120 | c | 05GY61 00 | 10YR58 | 00 | C | | Y | 0 | 0 | | 0 | | | | | Y | | |
| 48 | 0-20 | mcl | 10YR42 00 | | | | | | 3 | 0 | HR | 3 | | | | | | | |
| | 20-120 | c | 05GY61 00 | 10YR58 | 00 | M | | Y | 0 | 0 | | 0 | | | | | Y | | |
| 49 | 0-28 | mcl | 10YR42 00 | | | | | | 2 | 0 | HR | 2 | | | | | | | |
| | 28-60 | hcl | 10YR53 00 | 10YR58 | 00 | M | | Y | 0 | 0 | HR | 2 | | | | | | | |
| | 60-75 | c | 05GY61 00 | 10YR58 | 00 | M | | Y | 0 | 0 | | 0 | | | | | Y | | |
| 50 | 0-30 | msl | 10YR42 00 | | | | | | 1 | 0 | HR | 1 | | | | | | | |
| | 30-60 | msl | 10YR43 00 | | | | | | 0 | 0 | HR | 1 | | M | | | | | |
| | 60-70 | scl | 25Y 64 00 | 75YR46 | 00 | C | | Y | 0 | 0 | HR | 1 | | M | | | | | |
| | 70-120 | sc | 05GY61 00 | 10YR58 | 00 | M | | Y | 0 | 0 | | 0 | | P | | | Y | | |
| 51 | 0-28 | mcl | 10YR42 00 | | | | | | 0 | 0 | HR | 2 | | | | | | | |
| | 28-42 | mcl | 10YR53 00 | 10YR56 | 00 | C | 10YR52 00 | Y | 0 | 0 | HR | 3 | | M | | | | | |

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 53 | 0-25 | msl | 10YR42 00 | | | | | | 0 | 0 | HR | 5 | | | | | | |
| | 25-35 | msxl | 10YR54 00 | | | | | | 0 | 0 | HR | 5 | | M | | | | |
| 54 | 0-25 | msl | 10YR42 00 | | | | | | 0 | 0 | HR | 5 | | | | | | |
| | 25-35 | msxl | 10YR54 00 | | | | | | 0 | 0 | HR | 5 | | M | | | | |
| 55 | 0-25 | msl | 10YR42 00 | | | | | | 0 | 0 | HR | 5 | | | | | | |
| | 25-40 | msl | 10YR54 00 | | | | | | 0 | 0 | HR | 5 | | M | | | | |
| | 40-55 | mcl | 10YR54 00 | | | | | | 0 | 0 | HR | 2 | | M | | | | |
| | 55-60 | c | 10YR53 00 | 000C00 | 00 | C | | Y | 0 | 0 | HR | 2 | | P | | | Y | |
| | 60-80 | c | 10YR53 00 | 000C00 | 00 | C | | Y | 0 | 0 | HR | 2 | | P | Y | | Y | |
| 56 | 0-30 | mcl | 10YR42 00 | | | | | | 0 | 0 | | 0 | | | | | | |
| | 30-40 | hcl | 10YR53 00 | 10YR58 | 00 | C | | Y | 0 | 0 | | 0 | | | | | | |
| | 40-80 | c | 10YR51 52 | 10YR58 | 00 | M | | Y | 0 | 0 | | 0 | | | | | Y | |
| | 80-120 | sc | 05GY61 00 | 10YR58 | 00 | M | | Y | 0 | 0 | | 0 | | | | | Y | |
| 57 | 0-20 | mcl | 10YR41 00 | | | | | | 2 | 0 | HR | 2 | | | | | | |
| | 20-100 | c | 05GY61 00 | 75YR46 | 00 | M | | Y | 0 | 0 | | 0 | | | | | Y | |
| 58 | 0-27 | mcl | 10YR42 00 | | | | | | 0 | 0 | | 0 | | | | | | |
| | 27-35 | hcl | 10YR43 00 | 10YR56 | 00 | C | | | 0 | 0 | | 0 | | M | | | | |
| | 35-55 | c | 25Y 52 00 | 10YR56 | 00 | C | | Y | 0 | 0 | HR | 1 | | P | | | Y | |
| | 55-65 | hcl | 05Y 52 00 | 75YR58 | 00 | M | | Y | 0 | 0 | HR | 30 | | P | | | Y | |
| | 65-75 | c | 05Y 62 00 | 75YR58 | 00 | M | | Y | 0 | 0 | | 0 | | P | | | Y | |
| | 75-80 | c | 05Y 62 00 | 10YR68 | 00 | M | | Y | 0 | 0 | HR | 15 | | P | | | Y | |
| 59 | 0-27 | mcl | 10YR42 00 | | | | | | 0 | 0 | HR | 2 | | | | | | |
| | 27-45 | mcl | 10YR43 53 | 10YR56 | 00 | F | 10YR61 00 | Y | 0 | 0 | HR | 3 | | M | | | | |
| | 45-60 | hcl | 10YR52 00 | 10YR56 | 00 | C | | Y | 0 | 0 | HR | 10 | | M | | | | |
| | 60-75 | c | 10YR52 00 | 10YR68 | 00 | C | 05Y 52 00 | Y | 0 | 0 | HR | 15 | | P | | | Y | |
| 60 | 0-26 | msl | 10YR42 00 | | | | | | 0 | 0 | HR | 2 | | | | | | |
| | 26-45 | msl | 10YR43 00 | 10YR56 | 00 | F | | | 0 | 0 | HR | 3 | | M | | | | |
| | 45-65 | hcl | 10YR53 00 | 10YR68 | 00 | C | | Y | 0 | 0 | HR | 5 | | M | | | | |
| | 65-120 | c | 05Y 52 00 | 75YR58 | 00 | M | | Y | 0 | 0 | HR | 15 | | P | | | Y | |
| 61 | 0-26 | mcl | 10YR42 00 | | | | | | 0 | 0 | HR | 2 | | | | | | |
| | 26-35 | mcl | 10YR43 00 | | | | | | 0 | 0 | HR | 3 | | M | | | | |
| | 35-36 | mcl | 10YR43 00 | | | | | | 0 | 0 | HR | 1 | | M | | | | |
| 62 | 0-25 | msxl | 10YR42 00 | | | | | | 0 | 0 | HR | 5 | | | | | | |
| | 25-35 | msxl | 10YR53 00 | 000C00 | 00 | M | | Y | 0 | 0 | HR | 5 | | M | | | | |
| | 35-45 | hcl | 10YR53 00 | 000C00 | 00 | M | | Y | 0 | 0 | HR | 5 | | M | | | | |
| 63 | 0-25 | mcl | 10YR42 00 | | | | | | 1 | 0 | HR | 1 | | | | | | |
| | 25-120 | c | 05GY61 00 | 10YR58 | 00 | M | | Y | 0 | 0 | | 0 | | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 64 | 0-26 | msl | 10YR42 00 | | | | | | 0 | 0 | | 0 | | | | | | |
| | 26-42 | mcl | 10YR43 00 | 10YR56 00 | F | | | | 0 | 0 | HR | 2 | | M | | | | |
| | 42-58 | hcl | 10YR53 00 | 10YR58 00 | C | | | Y | 0 | 0 | HR | 3 | | M | | | | |
| | 58-63 | c | 25Y 52 00 | 10YR68 00 | M | | | Y | 0 | 0 | HR | 20 | | P | | | Y | |
| 65 | 0-27 | msl | 10YR42 00 | | | | | | 0 | 0 | HR | 2 | | | | | | |
| | 27-30 | msl | 10YR53 00 | 10YR56 00 | F | | | Y | 0 | 0 | | 0 | | M | | | | |
| 66 | 0-30 | msl | 10YR42 00 | | | | | | 0 | 0 | | 0 | | | | | | |
| | 30-45 | hcl | 10YR53 00 | 75YR58 00 | C | | 05Y 72 00 | Y | 0 | 0 | | 0 | | M | | | | |
| | 45-75 | c | 10YR53 00 | 75YR58 00 | M | | 05Y 72 00 | Y | 0 | 0 | | 0 | | P | | | Y | |
| | 75-95 | c | 05GY61 00 | 75YR58 46 | M | | | Y | 0 | 0 | | 0 | | P | | | Y | |
| | 95-100 | c | 05GY61 00 | 75YR58 46 | M | | | Y | 0 | 0 | HR | 5 | | P | | | Y | |
| 67 | 0-30 | msl | 10YR42 00 | | | | | | 0 | 0 | HR | 5 | | | | | | |
| 68 | 0-25 | mcl | 10YR42 00 | | | | | | 0 | 0 | HR | 1 | | | | | | |
| | 25-35 | mcl | 10YR53 00 | 75YR46 00 | F | | 10YR62 00 | Y | 0 | 0 | HR | 5 | | M | | | | |
| | 35-120 | c | 05Y 52 00 | 10YR58 00 | M | | | Y | 0 | 0 | HR | 2 | | P | | | Y | |
| 69 | 0-24 | mcl | 10YR42 00 | | | | | | 0 | 0 | | 0 | | | | | | |
| | 24-30 | mcl | 10YR43 00 | | | | | | 0 | 0 | HR | 5 | | M | | | | |
| | 30-55 | c | 25Y 52 00 | 10YR68 00 | M | | | Y | 0 | 0 | | 0 | | P | | | Y | |
| | 55-120 | c | 05Y 52 00 | 75YR58 00 | M | | | Y | 0 | 0 | | 0 | | P | | | Y | |

SOIL PIT DESCRIPTION

Site Name : MARCHWOOD HANTS  Pit Number : 1P

Grid Reference: SU37701130
Average Annual Rainfall : 0 mm
Accumulated Temperature : 0 degree days
Field Capacity Level : 170 days
Land Use : Barley
Slope and Aspect : degrees

| HORIZON | TEXTURE | COLOUR | STONES >2 | TOT.STONE | MOTTLES | STRUCTURE |
|---|---|---|---|---|---|---|
| 0- 35 | MCL | 10YR32 00 | 1 | 3 | | Md CSB |
| 35- 60 | HCL | 10YR43 00 | 0 | 5 | | Md CSB |
| 60-100 | C | 25Y 63 00 | 0 | 2 | M | Md CP |

Wetness Grade : 3A
Wetness Class : III
Gleying :060 cm
SPL :060 cm

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

FINAL ALC GRADE : 3A
MAIN LIMITATION : Wetness

ALCMENU

ALC DATA ENTRY - MENU

ENTER JOB NO. YEAR

A BLANK JOB NUMBER WILL DISPLAY THE JOBS FOR THE ENTERED YEAR

SOIL PIT DESCRIPTION

Site Name : MARCHWOOD HANTS Pit Number : 2P

Grid Reference: SU38111109 Average Annual Rainfall : 0 mm
Accumulated Temperature : 0 degree days
Field Capacity Level : 170 days
Land Use :
Slope and Aspect : degrees

| HORIZON | TEXTURE | COLOUR | STONES >2 | TOT.STONE | MOTTLES | STRUCTURE |
|---|---|---|---|---|---|---|
| 0- 25 | MSL | 10YR42 00 | 6 | 16 | | Md CSB |
| 25- 60 | MCL | 10YR43 00 | 0 | 40 | | |

Wetness Grade : 1 Wetness Class : I
Gleying :000 cm
SPL : No SPL

Drought Grade : 3B APW : 67 mm MBW : -43 mm
APP : 71 mm MBP : -34 mm

FINAL ALC GRADE : 3B
MAIN LIMITATION : Droughtiness

SOIL PIT DESCRIPTION

Site Name : MARCHWOOD HANTS  Pit Number : 3P

Grid Reference: SU37901093  Average Annual Rainfall : 0 mm
Accumulated Temperature : 0 degree days
Field Capacity Level : 170 days
Land Use :
Slope and Aspect : degrees SE

| HORIZON | TEXTURE | COLOUR | STONES >2 | TOT.STONE | MOTTLES | STRUCTURE |
|---|---|---|---|---|---|---|
| 0- 22 | MCL | 10YR42 00 | 0 | 2 | | Md CSB |
| 22- 42 | MCL | 10YR43 00 | 0 | 0 | | |
| 42- 67 | C | 05 G51 00 | 0 | 2 | M | Md CP |
| 67-120 | C | 05Y 72 00 | 0 | 0 | M | Md MP |

Wetness Grade : 3A  Wetness Class : III
Gleying :042 cm
SPL :042 cm

Drought Grade : 2  APW : 130mm MBW : 20 mm
APP : 107mm MBP : 2 mm

FINAL ALC GRADE : 3A
MAIN LIMITATION : Wetness

# SOIL PIT DESCRIPTION

Site Name : MARCHWOOD HANTS  Pit Number : 4P

Grid Reference: SU37281139
Average Annual Rainfall : 0 mm
Accumulated Temperature : 0 degree days
Field Capacity Level : 170 days
Land Use : Ley
Slope and Aspect : degrees

| HORIZON | TEXTURE | COLOUR | STONES >2 | TOT.STONE | MOTTLES | STRUCTURE |
|---|---|---|---|---|---|---|
| 0- 23 | MCL | 00ZZ00 00 | 0 | 5 | | |
| 23- 26 | MCL | 00ZZ00 00 | 0 | 25 | | Md MSB |
| 26- 42 | HCL | 00ZZ00 00 | 0 | 5 | | Md CSB |
| 42- 45 | C | 00ZZ00 00 | 0 | 5 | | Massiv |

Wetness Grade : 3A
Wetness Class : III
Gleying :042 cm
SPL :042 cm

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

FINAL ALC GRADE : 3A
MAIN LIMITATION : Wetness