AGRICULTURAL LAND CLASSIFICATION
Bramshill Camp, Lower Loxley

N. Wallace
Resource Planning Team
ADAS Statutory Group
Wolverhampton

ADAS Ref:025/RPT/0495
Job No. 26/94
MAFF Ref:37/00076

AGRICULTURAL LAND CLASSIFICATION REPORT FOR BRAMSHILL CAMP, LOWER LOXLEY

1. SUMMARY

1.1 The Agricultural Land Classification (ALC) Survey of this site shows that the following proportions of grades are present:

Grade/Subgrade	Area (ha)	% of the site
1	-	-
2	-	-
3a	2.3	8.0
3b	24.6	79.0
4	-	-
Other land		
Non - agricultural	0.7	2.0
woodland	1.9	6.0
Open water	-	-
Urban	1.6	5.0

1.2 The main limitation to the agricultural use of land on the site is soil wetness.

2 INTRODUCTION

2.1 The site was surveyed by the Resource Planning Team in March 1994. An ALC survey was undertaken according to the guidelines laid down in the "Agricultural Land Classification of England and Wales - Revised Guidelines and Criteria for Grading the Quality of Agricultural Land."(MAFF, 1988)

2.2 This 31.1ha site is situated to the north west of the disused railway line and the A518 near Lower Loxley. The land is bounded to the south by agricultural land. The site is 5Km to the west of Uttoxeter.

2.3 The survey was requested by MAFF in connection with a proposal for a landfill site by Leigh Environmental. This detailed survey is a follow up to a reconnaisance survey carried out in February 1993 by the Resource Planning Team.

2.4 At the request of MAFF an Agricultural Land Classification (ALC) survey was undertaken at a scale of 1 : 10 000 with a minimum auger boring density of 1 per hectare. The attached map is only accurate at the base map scale and any enlargement would be misleading.

2.5 At the time of survey the land was under permanent grass and in fallow, formerly beans and grass.

3 CLIMATE

3.1 The following interpolated data are relevant for the site:

Average Annual Rainfall (mm)	765
Accumulated Temperature above 0° C for January to June (day °C)	1332

3.2 The site is limited to grade 2 due to climatic factors.

3.3 Other relevant climatic data for agricultural land classification are:

Field Capacity Days (days)	187
Moisture Deficit Wheat (mm)	86
Moisture Deficit Potatoes (mm)	72

4 SITE

4.1 When classifying land three site factors are taken into consideration; gradient, microrelief and flooding.

4.2 These factors do not impose any limitations on the agricultural use of this land.

5 GEOLOGY AND SOILS

5.1 The solid geology of the area consists of Keuper Marl, (British Geological Survey Sheet 140, scale 1 inch).

5.2 The underlying geology influences the soils which consist predominantly of clay loam textured topsoils over clay.

6 AGRICULTURAL LAND CLASSIFICATION

6.1 Sub -grade 3a occupies 2.3ha (8%) of the survey area and is found as a narrow strip in the north west of the site.

6.1.1 These soils typically have a slightly stoney clay loam topsoil which overlie a heavy clay loam upper subsoil over a clay.

6.1.2 The main limitation to the agricultural use of this land is soil wetness.

6.1.3 Isolated profiles of Grade 2 occur within this grade but were too small to map separately at this scale.

6.2 Subgrade 3b occupies 24.6ha (79%)of the survey area and accounts for the majority of the site.

6.2.1 These soils typically have a clay loam texture overlying clay. Occasionally a heavy clay loam upper subsoil is present. These soils fall into Wetness Class IV.

6.2.2 In limited areas slightly stonier and sandier horizons occured within some profiles.

6.2.3 Small areas of disturbed land are located in the immediate vicinity of the disused M.O.D. buildings. The profile appears disturbed at depth with gravel, coal and brick present.

6.2.4 The main limitation to the agricultural use of this land is soil wetness.

6.3 Other land includes urban land occupying 1.6ha (5%) of the site and comprising of disused M.O.D. buildings and roads. Non agricultural land occupied 0.7ha (2%) and is disturbed. Woodland comprises 1.9ha (6%) of the site.

6.4 Summary of Agricultural Land Classification Grades

Grade/ sub - grade	Area (ha)	% of survey area	% of agricultural land
3a	2.5	8.0	9.0
3b	24.6	79.0	91.0
4	-	-	-
Other land			
Urban	1.6	5.0	-
Non - agricultural	0.7	2.0	-
Woodland	1.9	6.0	-
Totals	31.1	100	100

SOIL RESOURCE REPORT

1. The Resource Planning Team identified two soil units in this site.However the soil profiles are generally uniform across the whole site and variability is only encountered in the depth to the clay subsoil or the absence or presence of an upper subsoil.

1.1 **Soil Unit A** is mapped in three areas across the site and accounts for 13.3 ha.and 43% of the area .Typically 25-35cm of brown (10YR4/2,4/3 or 75YR4/2, 4/3) medium clay loam overlies a brown/reddish brown (05YR4/3 or 75YR5/3, 5/4) moderately mottled (75YR5/8) heavy clay loam. The lower reddish, brown clay subsoil (05YR5/3 or 25YR4/3.) is encountered between 40-50cm in most profiles and runs to 120cm depth. Mottles are few to common in the clay (75YR5/6 or 75YR6/1).

1.2 **Soil Unit B** is mapped as a central unit and as a block along the southern part of the site. This soil unit accounts for 14ha and 45% of the area. Typically 25-35cm of slightly stoney brown (10YR4/2, 4/3 or 75YR4/2, 4/3) medium clay loam overlies a reddish brown clay (05YR4/3, 5/3 or 25YR4/3, 4/4). Mottles are few to common in the clay (75YR5/6, 5/8).

2. **Pit Descriptions**

2.1 **Pit 1-**

0-30 10YR4/3 medium clay loam, weakly developed fine/medium subangular blocky(ploughed in straw), few hard rounded stones present and common roots.

30-38 05YR5/3, 75YR6/1sandy clay loam, (no structure recorded) few hard rounded stones present, common roots (variable depth to clay around the periphery of pit) common mottles 05YR5/8.

38-80 25YR5/3 clay, coarse prismatic, few roots present and few mottles, 75YR5/8 .

2.2 **Pit 2-**

0-30 05YR3/3 medium clay loam, moderately developed medium subangular blocky, firm consistency, roots common to 40cm, few to 50cm, few stones.

30-45 75YR5/3 heavy clay loam, weakly developed coarse prismatic, firm consistency, few stones, many mottles 75YR5/6.

45-80 05YR4/4 clay, moderately developed coarse prismatic, porosity < 5%.

2.3 In the vicinity of the disused M.O.D. buildings areas of disturbed land were encountered, accounting for 3.8ha or 12.2% of the site. These profiles were disturbed at depth and have been mapped out separately with the buildings and roads to avoid mixing while stripping.

3. Soil Stripping

3.1 The soils are sufficiently similar to strip the topsoils as a single unit across the site. However the subsoils vary between soil unit A and B and should be stripped separately.The heavy clay loam upper subsoil of soil unit A should be stripped to 45cm and the lower subsoil of clay to 120cm. The subsoil of soil unit B can be treated as a single layer and stripped to 120cm.

Resource Planning Team
ADAS Statutory Group
Wolverhampton
April 1994