

**Shropshire Minerals Local Plan
Objection 35/5114
Agricultural Land Classification
ALC Map and Report
April 1997**

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AGRICULTURAL LAND CLASSIFICATION REPORT
Shropshire Minerals Local Plan
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INTRODUCTION

1. This report presents the findings of a detailed Agricultural Land Classification (ALC) survey on 46.1 hectares of land. The results of this survey supersede any previous ALC information for this land. The land is located to the east of Morville near Bridgnorth. The survey was in connection with the Shropshire Minerals Local Plan.
2. The survey was undertaken in March and April 1997 by the Farming and Rural Conservation Agency (FRCA) on behalf of the Ministry of Agriculture, Fisheries and Food (MAFF). The work was conducted by members of the Resource Planning Team (RPT) in the Northern Region of FRCA.
3. The land has been graded in accordance with the publication "Agricultural Land Classification of England and Wales - Revised guidelines and criteria for grading the quality of agricultural land" (MAFF 1988).
4. At the time of survey the agricultural land on this site was either under cereals or fallow.

SUMMARY

5. The findings of the survey are shown on the enclosed ALC map. The map has been drawn at a scale of 1:10 000 with an average auger boring density of 1 per hectare. The ALC map is only accurate at this base map scale and any enlargement would be misleading.
6. The area and proportions of the ALC grades and subgrades on the surveyed land are summarised in Table 1.

Table 1: Area of grades and other land

Grade/Other land	Area (hectares)	% surveyed area	% site area
1	-	-	-
2	13.5	29	29
3a	29.1	63	63
3b	3.5	8	8
4	-	-	-
5	-	-	-
Agricultural land not surveyed	-	N/A	-
Other land	-	N/A	-
Total surveyed area	46.1	100	-
Total site area	46.1	-	100

7. The agricultural land on this site has been classified as Grade 2 (very good quality), Subgrade 3a (good quality) and Subgrade 3b (moderate quality), the key limitations being gradient, soil droughtiness and topsoil stone content.

8. The area of very good quality land is located in the centre and the north of the site. The soils have either a medium sandy loam or sandy clay loam topsoil overlying either sandy loam or sandy clay loam and loamy sand and sand to depth.

9. The area of good quality land is mapped in the east and west of the site. Here the soils have a sandy loam topsoil over loamy sand and sand to depth.

10. The area of moderate quality land is mapped in the west and south of the site. The soils in this area have a sandy loam topsoil overlying sandy loam and loamy sand to depth.

FACTORS INFLUENCING ALC GRADE

Climate

11. Climate affects the grading of land through the assessment of an overall climatic limitation and also through interactions with soil characteristics.

12. The key climatic variables used for grading this site are given in Table 2 and were obtained from the published 5km grid datasets using standard interpolation procedures (Meteorological Office, 1989).

Table 2: Climatic and altitude data

Factor	Units	Values
Grid reference	N/A	SO 679 941
Altitude	m, AOD	107
Accumulated Temperature	day°C (Jan-June)	1372
Average Annual Rainfall	mm	722
Field Capacity Days	days	172
Moisture Deficit, Wheat	mm	92
Moisture Deficit, Potatoes	mm	80
Overall climatic grade	N/A	Grade 1

13. The climatic criteria are considered first when classifying land as climate can be overriding in the sense that severe limitations will restrict land to low grades irrespective of favourable site or soil conditions.

14. The main parameters used in the assessment of an overall climatic limitation are average annual rainfall (AAR), as a measure of overall wetness, and accumulated temperature (AT0, January to June), as a measure of the relative warmth of a locality.

15. The combination of rainfall and temperature at this site means that there is no overall climatic limitation. The site is climatically Grade 1.

Site

16. The site lies at altitudes in the range 97-110m AOD. The land rises from the south and south west of the site towards the north.
17. Three site factors of gradient, microrelief and flooding are considered when classifying the land.
18. In the south west of the site (near Morville Farm) there are gradients of between 7° and 11° which limit the agricultural use of the land to Subgrade 3b.
19. The remaining factors do not impose any limitations on the agricultural use of this land.

Geology and soils

20. The solid geology of the area is comprised of Marls and Micaceous Sandstones. This is overlain with deposits of sands and gravels and boulder clay - British Geological Survey (1975).
21. The soils that have developed on this geology are generally of either a sandy clay loam or a sandy loam texture over loamy sand and sand.

Agricultural Land Classification

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

Grade 2

23. Land of very good quality occupies 13.5 hectares (29%) of the site area.
24. The soil has either a sandy loam or a sandy clay loam texture over sandy clay loam, sandy loam, loamy sand and sand to depth. The topsoils are slightly stony with the subsoils being slightly to very stony. Where the volume of topsoil stones greater than 2 cm in size is greater than 5% these soils are classified as Grade 2. The moisture balance places these soils in Grade 2.
25. The main limitations to the agricultural use of this land include topsoil stone content and soil droughtiness.

Subgrade 3a

26. Land of good quality occupies 29.1 hectares (63%) of the site area.

27. The soil has a sandy loam texture over loamy sand and sand to depth with few to common stones within the profile. There are areas within this grade where the volume of topsoil stones greater than 2cm in size places these soils in Subgrade 3a. The moisture balance places these soils in Subgrade 3a.

28. The main limitations to the agricultural use of this land include topsoil stone content and soil droughtiness.

Subgrade 3b

29. Land of moderate quality occupies 3.5 hectares (8%) of the site area.

30. The soil has a sandy loam texture overlying sandy loam and loamy sand to depth. The topsoils are moderately stony with the subsoils becoming very stony. The volume of topsoil stones greater than 2 cm in size places these soils in Subgrade 3b. Near Morville Farm these soils are found on slopes of between 7° and 11°. Here gradient limits the agricultural use of the land to Subgrade 3b.

31. The main limitations to the agricultural use of this land are gradient and topsoil stone content.

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SOURCES OF REFERENCE

British Geological Survey (1975) *Sheet 167, Dudley Solid and Drift Edition.*
1:50 000 Scale.

BGS: London.

Ministry of Agriculture, Fisheries and Food (1988) *Agricultural Land Classification of England and Wales: Revised guidelines and criteria for grading the quality of agricultural land.*

MAFF: London.

Meteorological Office (1989) *Climatological Data for Agricultural Land Classification.*

Meteorological Office: Bracknell.