

**AGRICULTURAL LAND CLASSIFICATION
CHESHIRE MINERALS LOCAL PLAN
SILICA SAND, SITE 4**

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**AGRICULTURAL LAND CLASSIFICATION REPORT FOR
CHESHIRE MINERALS LOCAL PLAN
SILICA SAND, SITE 4**

1 SUMMARY

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

Grade/Subgrade	ha	% of site
2	2.2	12
3a	14.5	76
3b	0.8	4
Other land	1.6	8

- 1.2 The main limitation to the agricultural use of land in Grade 2 is soil droughtiness.
- 1.3 The main limitation to the agricultural use of land in Subgrade 3a is soil wetness.
- 1.4 The main limitations to the agricultural use of land in Subgrade 3b are soil wetness and gradient.

2 INTRODUCTION

- 2.1 The site was surveyed by the Resource Planning Team in January 1996. An Agricultural Land Classification 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 The 19.1 ha site is situated to the south of Arclid, bounded to the north and east by the A50 and to the west by Hemmingshaw Lane. The land surrounding the site is predominantly in agricultural use.
- 2.3 The survey was requested by MAFF in connection with the Cheshire Minerals Local Plan.
- 2.4 At MAFF Land Use Planning Unit's request this was a detailed grid survey at 1:10000 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 the survey the site was largely under permanent grass. The field in the north west of the site had recently been harvested for sugar beet.

3 CLIMATE

3.1 The following interpolated data are relevant for the site (SJ 790 616) :

Average Annual Rainfall (mm)	770
Accumulated Temperature above 0°C January to June (day °C)	1376

3.2 There is no overall climatic limitation on the site

3.3 Other relevant data for classifying land include:

Field Capacity Days (days)	185
Moisture Deficit Wheat (mm)	88
Moisture Deficit Potatoes (mm)	75

4 SITE

4.1 Three site factors of gradient, micro relief and flooding are considered when classifying land.

4.2.1 Limitations due to gradient do impose constraints on the agricultural use of the land. Gradients of up to 11° were identified on the spur of land between the two stream courses, limiting this land to Subgrade 3b.

4.2.2 The streams that cross the site are deeply incised and bank side gradients are in excess of 18°. These areas are mapped as non agricultural.

4.2.3 Micro-relief and flooding do not impose any limitations on the agricultural use of the land.

5 GEOLOGY AND SOILS

5.1 The solid geology of the area is comprised of Upper Mottled Keuper Saliferous Beds - British Geological Survey Sheet 110, Macclesfield, 1 Inch. This is overlain with deposits of Quaternary Boulder Clay, fluvio-glacial sand and gravel and alluvium.

5.2 The underlying geology influences the soils which are very variable, but generally have a sandier texture north of the stream and a clayey texture across the rest of the site.

6 AGRICULTURAL LAND CLASSIFICATION

- 6.1 Grade 2 - occupies 2.2 ha (12%) of the survey area and is found in the north of the site.
 - 6.1.1 These soils typically have a sandy loam texture overlying sandy clay loam and sand to depth, with few or no stones within the profile. The moisture balance places these soils into Grade 2.
 - 6.1.2 Within this area profiles of Grade 1 quality were identified, but are too small to map separately.
 - 6.1.3 The main limitation to the agricultural use of this land is soil droughtiness.
- 6.2 Subgrade 3a - occupies 14.5 ha (76%) of the survey area and is found across the majority of the site.
 - 6.2.1 The soil has a clay loam or sandy clay loam topsoil texture over sandy clay loam and clay to depth. Observations of gleying and depth to the slowly permeable layer place these soils into either Wetness Class II or III.
 - 6.2.2 The main limitation to the agricultural use of this land is soil wetness.
- 6.3 Subgrade 3b - occupies 0.8 ha (4%) of the survey area and is found on the spur of land between the division of the two streams.
 - 6.3.1 The soil has a clay loam texture over clay to depth. Observations of gleying and the depth to the slowly permeable layer place these soils in Wetness Class IV.
 - 6.3.2 Gradients of up to 11° were identified across this area.
 - 6.3.3 The main limitations to the agricultural use of this land are soil wetness and gradient.
- 6.4 Other land occupies 1.6 ha (8%) of the site and is found as non-agricultural land bordering the deeply incised stream courses.

6.5 SUMMARY OF AGRICULTURAL LAND CLASSIFICATION GRADES

Grade/Sub-grade	Area in Hectares	% of Survey Area	% of Agricultural Land
2	2.2	12	13
3a	14.5	76	83
3b	0.8	4	4
Other land	1.6	8	-
Totals	19.1	100	100