

AGRICULTURAL LAND CLASSIFICATION

BANK HOUSE FARM, KIRKBRIDE, CUMBRIA

SET-ASIDE MONITORING

MAFF

Leeds Regional Office

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MAP(S)

1. AGRICULTURAL LAND CLASSIFICATION

AGRICULTURAL LAND CLASSIFICATION REPORT

1.0 Introduction and Site Characteristics

1.1 Location

National Grid Reference:- NY380720

Location Details:- 17 Km east of Carlisle town centre, on the eastern edge of the village of Kirkbride

Site Size:- 66 ha.

1.2 Survey Methods

Date Surveyed:- 9/10/91

Boring Density and Spacing Basis:- Approximately one boring per four hectares carried out on free survey basis.

Sampling Method:- Free survey

Number of Borings:- 18

Number of Soil Pits (used for):- None

All land quality assessments were made using the methods described in "Agricultural Land Classification of England and Wales: Revised Guidelines and Criteria for grading the quality of agricultural land (MAFF 1988)".

1.3 Land Use:-

Mainly arable and turf production, with some areas of ley grassland.

1.4 Climate and Relief

Average Annual Rainfall (AAR):-

951 mm

Accumulated Temperature above 0°C (January-June):-

1,373 day °C

Field Capacity Days:-

228 days

Altitude average:-

10 m a.o.d.

maximum:-

12 m a.o.d.

minimum:-

5 m a.o.d.

Climatic limitation (based on interaction of rainfall and temperature values):-

Grade 2

Relief:- Flat to gently sloping

Slopes (°):- 0-30

Gradient Limitations:-

None

Limiting gradient(s):-

Grade(s)/subgrade(s):-

Occurrence on site:-



1.5 Geology and Soil

Solid Strata:- Triassic mudstones
Depth of solid rock from surface:- Greater than 1-00m.
Drift types:- Boulder clay, Warp terrace and alluvium.
Thickness of drift and distribution:- Greater than 1-00m across the whole site.

Soil Types and Distribution:- Medium and heavy-textured soils cover the entire site.

Soil Textures (topsoils and subsoils):- Generally silt loam, fine sandy silt loam or medium clay loam topsoils over silt loam, fine sandy silt loam, medium

Soil Series/Associations:-

On 1/25000 map:- Salop and Rockcliffe

Identified on site:- Salop and

Rockcliffe.

Soil Limitations and type:-

Soil wetness and workability are the main limitations on A.L.C. grade on this site.

1.6 Drainage

Soil type and Wetness Class:-

The warp terrace and alluvial soils fall within Wetness Class II while the boulder clay soils fall in Wetness class IV.

Drainage Limitations:-

No slowly permeable layers exist except in the small area of boulder clay in the west of the site (where they generally begin at depths of around 40cm), but the soils throughout the site are generally gleyed within 40cm of the soil surface.

2.0 Agricultural Land Classification Grades

The ALC grades occurring on the site are as follows:-

| <u>Grade/Subgrade</u> | <u>Hectares</u> | <u>Percentage of Agricultural Area</u> | <u>Percentage of Total Area</u> |
|------------------------|-----------------|--|-------------------------------------|
| 1 | | | |
| 2 | | | |
| 3a | 38 | 58.5 | 57.6 |
| 3b | 27 | 41.5 | 42.4 |
| 4 | | | |
| 5 | | | |
| Non Agricultural | | | |
| Agricultural Buildings | | | |
| + Urban | 1 | | |
| Other | | | |
| Total | <u>66</u> | <u>100</u> | <u>100</u> |

Grade 1

Distribution on site:-

Soil Type(s) and Texture(s):-

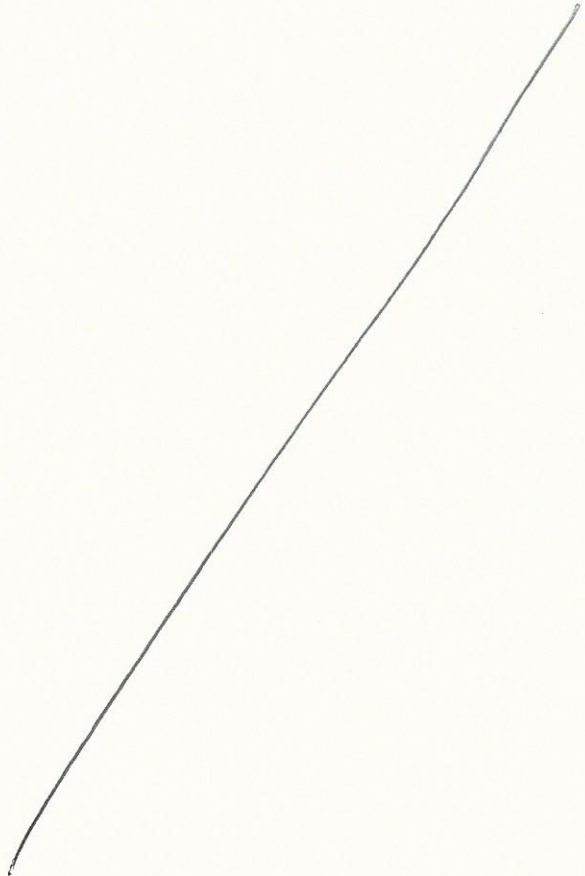
Depth to Slowly Permeable Layers:-

Wetness and Drainage Class:-

Stone Percentage and Type:-

Grade Limiting Factors:-

Other Limiting Factor(s):-



Grade 2

Distribution on site:-

Soil Type(s) and Texture(s):-

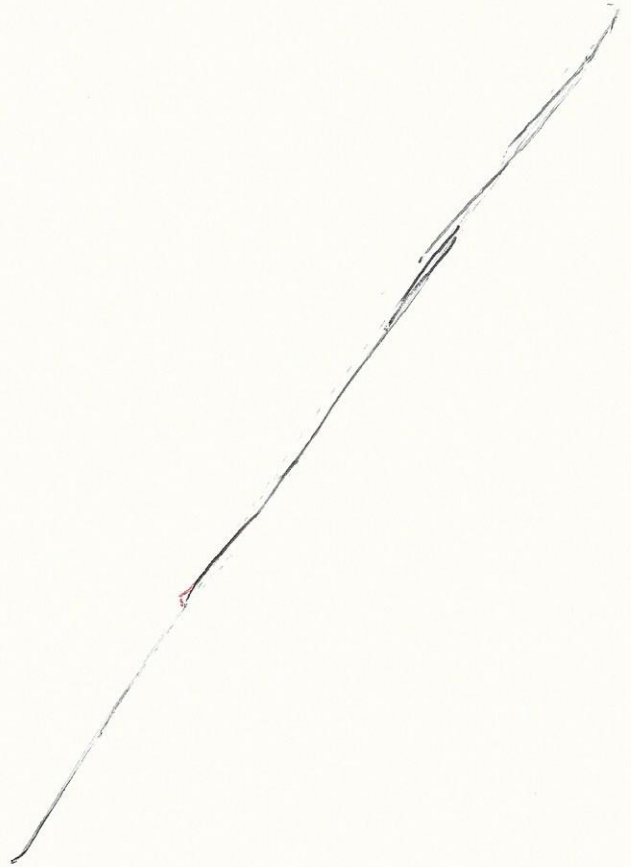
Depth to Slowly Permeable Layers:-

Wetness and Drainage Class:-

Stone Percentage and Type:-

Grade Limiting Factors:-

Other Limiting Factor(s):-



3a
Subgrade 2a

Distribution on site:- Mainly in the east and south of the site.

Soil Type(s) and Texture(s):- Light-textured soils with fine sandy silt loam topsoils over similar subsoils.

Depth to Slowly Permeable Layers:- No slowly permeable layers occur.

Wetness and Drainage Class:- The soils are gleyed within 40cm of the soil surface and fall within wetness class II

Stone Percentage and Type:- The soils are generally stoneless.

Grade Limiting Factors:- Soil wetness and workability.

Other Limiting Factor(s):-

Subgrade 3b

Distribution on site:- Land in this subgrade occurs in the north and west of the site.

Soil Type(s) and Texture(s):- Light and medium-textured topsoils (silt loam, fine sandy silt loam and medium clay loam) over similar-textured subsoils.

Depth to Slowly Permeable Layers:- Slowly permeable layers generally start at about 40 cm where they occur.

Wetness and Drainage Class:- Most of the land in this subgrade falls in Wetness Class II (moderately well drained soils) but slowly permeable layers in the west of the site place these soils in Wetness Class IV (poorly drained soils).

Stone Percentage and Type:- The top soils are generally stoneless and the boulder clay soils very slightly stony, often with around 5% hard rock.

Grade Limiting Factors:- Soil wetness and workability.

Other Limiting Factor(s):- Flood risk limits the A.L.C. grade in the case of the low-lying land alongside the River Wampool in the north of the site, and in a hollow in the centre of the site.

Grade 4

Distribution on site:-

Soil Type(s) and Texture(s):-

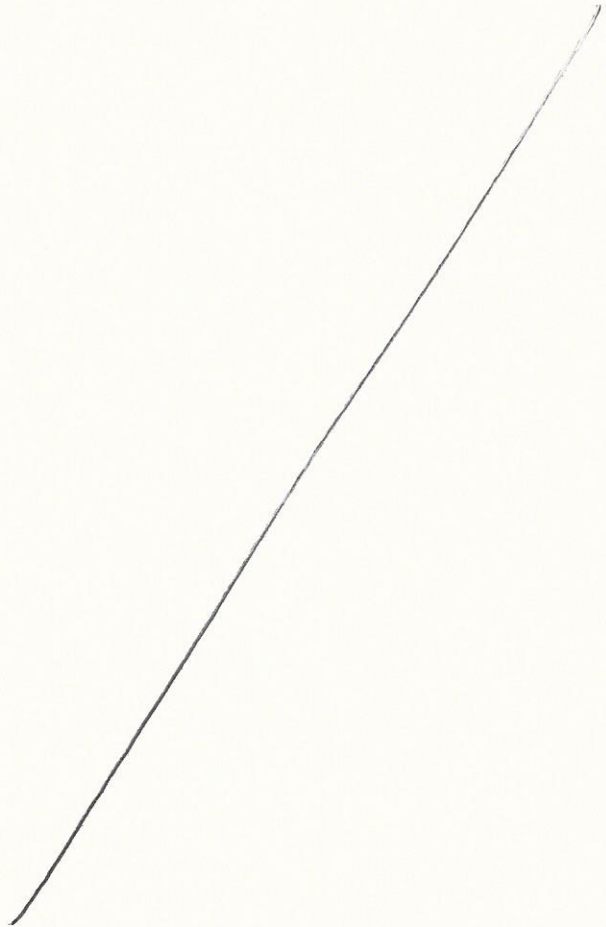
Depth to Slowly Permeable Layers:-

Wetness and Drainage Class:-

Stone Percentage and Type:-

Grade Limiting Factors:-

Other Limiting Factor(s):-



Grade 5

Distribution on site:-

Soil Type(s) and Texture(s):-

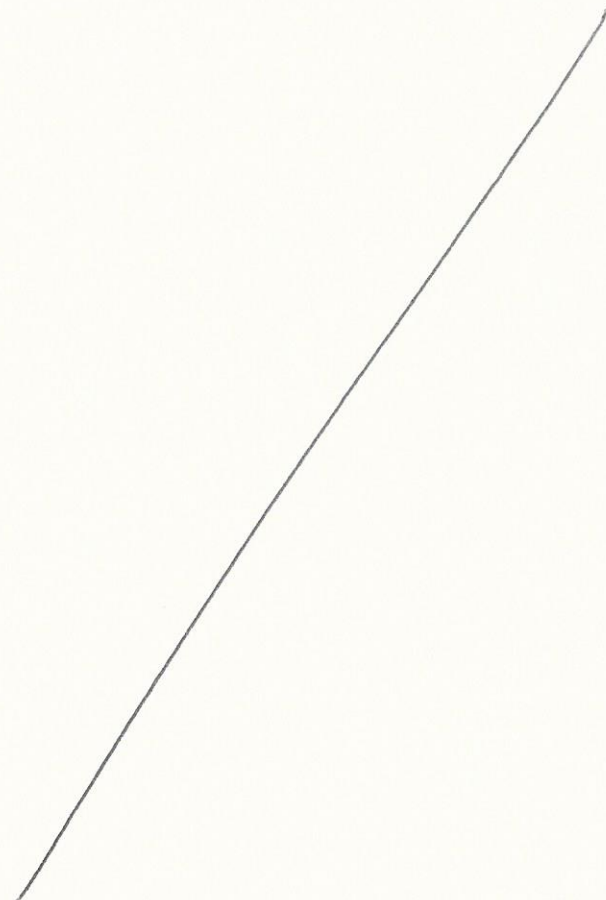
Depth to Slowly Permeable Layers:-

Wetness and Drainage Class:-

Stone Percentage and Type:-

Grade Limiting Factors:-

Other Limiting Factor(s):-



Non Agricultural

Type and location of land included:-

A disused railway line in the east of the site

Agricultural Buildings

Type and location of building included:-

The farmhouse and buildings at Bank House, in the north-west of the site.

Urban

Type of land use included:-

