# AGRICULTURAL LAND CLASSIFICATION AND STATEMENT OF PHYSICAL CHARACTERISTICS

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PROPOSED SAND AND GRAVEL QUARRY AT DRYHAM LANE, NORTH CAVE, HUMBERSIDE

MAFF Leeds Regional Office

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AGRICULTURAL LAND CLASSIFICATION REPORT ON THE PROPOSED SAND AND GRAVEL QUARRY AT DRYHAM LANE, NORTH CAVE, HUMBERSIDE

#### INTRODUCTION

This 11.9 hectare site lies about 1 km north west of North Cave around National Grid Reference of SE 883332. Soils were surveyed in August 1990 by hand auger borings located at 18 points predetermined by the National Grid. In addition a soil profile pit was dug to examine soil characteristics in greater detail. Land quality assessments were made using the revised guidelines published by MAFF in 1988.

#### CLIMATE AND RELIEF

Salient climatic parameters at the site are as follows:-

Average Annual Rainfall (mm)	631
Accumulated Temperature (above 0°C) Jan-June	1399
Field Capacity Days	144
Moisture Deficit (mm) wheat	109
potatoes	101

The above combination of rainfall and accumulated temperature do not impose any climatic limitation on ALC grade.

The site is level at an altitude of 13 m a.o.d.

### GEOLOGY, SOILS AND DRAINAGE

Soils are developed upon a mixture of Glacial and Post Glacial light textured drift deposits. Topsoils consist usually of loamy medium or fine sand over loamy medium sand or occasionally medium sand upper subsoils. Below the upper subsoil is a chalky gravel deposit which occurs on average at 75 cm depth. Profiles occasionally show evidence of ground water gleying but contain no slowly permeable layer and all fall within Soil Wetness Class I. Droughtiness, however, is a significant limitation due to the very light texture. There is also a risk of wind erosion (blowing), especially in spring.

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LAND USE

All the site is currently in arable use growing cereals and sugar beet.

AGRICULTURAL LAND CLASSIFICATION

Subgrade 3b (11.9 hectares, 100% of total area)

All the site falls within subgrade 3b. Although these soils are freely drained and easy to work for most of the year they are significantly droughty and are liable to blow (wind erode). Consequently they can be graded no better than 3b.

Resource Planning Group Leeds Regional Office August 1990

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## STATEMENT OF PHYSICAL CHARACTERISTICS

One soil type occurs on the site, descriptions of which are given below. Topsoil and subsoil resources are shown on the accompanying maps along with soil depth and quantity information.

# TOPSOILS

The topsoil is a dark greyish brown loamy fine sand with a few small angular chalk stones. It is unmottled and has a moderately developed medium subangular blocky structure. This soil corresponds with unit T1 on the topsoil resource map.

### SUBSOIL

The upper subsoil is also very light textured, usually a yellowish brown loamy sand or occasionally sand. It is very slightly stony with a very weak fine subanglar blocky structure. This passes onto a chalky gravel deposit at about 75 cm depth. The upper subsoil corresponds with unit S1 on the subsoil resource map.

## DRYHAM LANE, NORTH CAVE

Soil Profile Description

Land Use	Arable
Slope	0°
Weather	Recently very dry

Horizon

(cm)

- 0-30 Dark greyish brown (10YR 4/2) unmottled, stoneless loamy fine sand; dry; moderately developed fine subangular blocky; many fine pores and fissures; moderately weak; many fine fibrous roots; sharp smooth boundary.
- 30-89 Yellowish brown (10YR 5/6) loamy medium sand; unmottled; very slightly stony with a few angular chalk stones; dry; weakly developed medium and fine subangular blocky structure; many fine pores and fissures; very weak soil strength; few fine fibrous roots; clear wavy boundary to chalky gravel.
- 89-120 Chalky gravel deposit.

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