AGRICULTURAL LAND CLASSIFICATION

POTTERIC CARR, DONCASTER
SOUTH YORKSHIRE

MAFF
Leeds Regional Office

APRIL 1992
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AGRICULTURAL LAND CLASSIFICATION REPORT,

1.0 Introduction and Site Characteristics

1.1 Location

National Grid Reference:-	SK 600 990
Location Details:-	1km NW of Rossington Colliery immediately south of the M18
Site Size:-	64.3 ha

1.2 Survey Methods

Date Surveyed:-	9th April 1992
Boring Density and Spacing Basis:-	1 boring per hectare at 100m intervals on a grid pattern predetermined by the National Grid
Sampling Method:-	Hand auger borings to a depth of 1 metre
Number of Borings:-	62
Number of Soil Pits (used for):-	1 soil pit was dug to examine soil structure and permeability

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:-	At the time of survey most agricultural land was under cereal production
1.4	Climate and Relief	
	Average Annual Rainfall (AAR):-	593 mm
	Accumulated Temperature above 0°C (January-June):-	1415 day °C
	Field Capacity Days:-	121 days
	Altitude average:-	5 m a.o.d.
	maximum:-	8 m a.o.d.
	minimum:-	4 m a.o.d.
	Climatic limitation (based on interaction of rainfall and temperature values:-	
	Relief:-	Virtually level
	Slopes (°):-	0-1°
	Gradient Limitations:-	None

1.5 Geology and Soil

Solid Strata:-	Triassic sandstone.
Depth of solid rock from surface:-	Considerably greater than 1 metre.
Drift types:-	Clayey alluvium and peat with some sandy patches.
Thickness of drift and distribution:-	Drift thickness is greater than 1 metre peaty deposits are widespread in the east. Heavier sometimes clayey material is common in the centre and west. Sandy patches occur locally.
Soil Types and Distribution:-	Medium/heavy soils predominate in the south becoming somewhat lighter in the north and more organic and peaty towards the east.
Soil Textures (topsoils and subsoils):-	The light soils in the north consist of medium sandy loams over loamy medium sands with clayey horizons at depth. Towards the south of the site textures are commonly medium or heavy clay loams, often with a high organic content over clay or silty clay. The eastern side of the site is dominated by peaty loams often with sandy or clayey subsoil horizons. in this area there are also patches of disturbed or made ground possibly associated with construction of the M18.

Soil Series/Associations:-	Conway, Adventurers and
On 1/250000 map:-	Foggathorpe
Identified on site:-	
Soil Limitations and type:-	

1.6 Drainage

Soil type and Wetness Class:-	The light and deeper peaty soils fall within Wetness Class I. the medium/heavy soils fall within Wetness Class III.
Drainage Limitations:-	Slowly permeable subsoils on the heavier land.

2.0 Agricultural Land Classification Grades

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

Grade/Subgrade	Hectares	Percentage of Agricultural Area	Percentage of Total Area
1	0.9	1.6	1.4
2	23.2	39.3	36.0
3a	34.2	57.8	53.2
3b	0.8	1.3	1.2
4			
5			
Non Agricultural	1.3		2.0
Agricultural Buildings	0.5		0.8
Urban	3.4		5.4
Other			
Total	64.3	100	100

Grade 1

Distribution on site:-	A small area on the eastern edge of the site.
Soil Type(s) and Texture(s):-	Peaty loam.
Depth to Slowly Permeable Layers:-	None present.
Wetness and Drainage Class:-	Wetness Class I - well drained.
Stone Percentage and Type:-	Stoneless.
Grade Limiting Factors:-	-

Grade 2

Distribution on site:-	Large areas of this grade occur in the west around Potteric Carr Farm spreading east towards the colliery. It is also widespread in the east between the mineral railway and the M18.
Soil Type(s) and Texture(s):-	Light or medium topsoils consisting of medium sandy loam, sandy clay loam peaty loam or organic medium clay loam over heavier subsoils usually of heavy clay loam, clay or silty clay.

Depth to Slowly Permeable Layers:- 25-50 when present.

Wetness and Drainage Class:-	Wetness Class I to III - well to imperfectly drained.
Stone Percentage and Type:-	0-5% hard rocks and stones.
Grade Limiting Factors:-	Slight soil wetness.

Subgrade 3a

Distribution on site:-	Widespread especially in the western 2/3rds of the site. Also included is an area of disturbed or made ground near the eastern boundary.
Soil Type(s) and Texture(s):-	Topsoils consist of medium sandy loam in the north becoming heavier with organic medium and heavy clay loams in the south and east. Subsoils vary from loamy medium sand in the north to clay or silty clay in the south and east.

Depth to Slowly Permeable Layers:- 25-50cm where present.

Wetness and Drainage Class:-	Wetness Class I (well drained) on permeable soils. Wetness Class III (imperfectly drained) on slowly permeable soils.
Stone Percentage and Type:-	0-8% hard rocks and stones.
Grade Limiting Factors:-	*Soil droughtiness on the light sandy soils* in the north. Soil wetness on the heavier clayey soils in the south.

Subgrade 3b

Distribution on site:-	Two small patches at the eastern end of the site. Both consist of disturbed land formed of tipped material and ditch excavations.
Soil Type(s) and Texture(s):-	Heavy soils consisting of heavy clay loam topsoils over clay subsoils.
Depth to Slowly Permeable Layers:-	30cm.
Wetness and Drainage Class:-	Wetness Class III - imperfectly drained.
Stone Percentage and Type:-	5%.
Grade Limiting Factors:-	Soil wetness and workability problems.

Non Agricultural

Type and location of land included:-	Two small areas in the east of the site consisting of a drainage ditch, embankment and scrub land.

Agricultural Buildings

Type and location of building included:-	Barns at Potteric Carr Farm in the north western corner of the site.

Urban

Type of land use included:-	Access roads and an industrial compound.

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