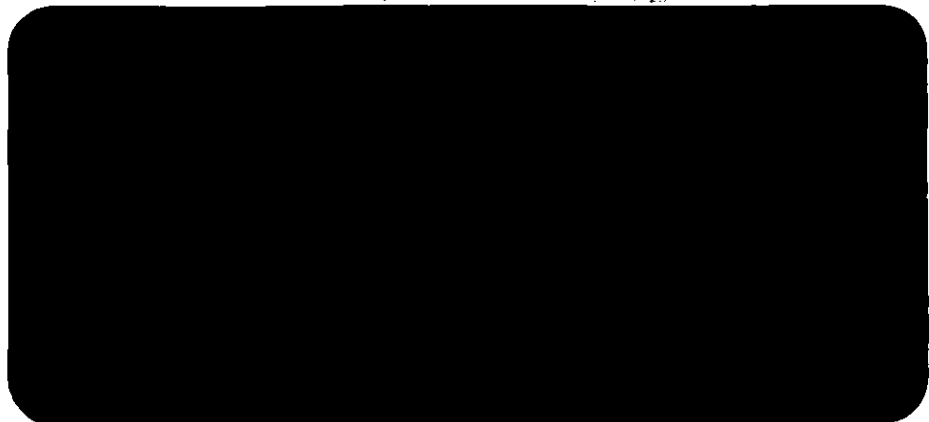


FRCA



FARMING AND RURAL CONSERVATION AGENCY
An Executive Agency of the Ministry of Agriculture, Fisheries and Food and the Welsh Office

**MARSDEN QUARRY EXTENSION
WHITBURN**

**Statement of Physical Characteristics
Report and Map**

MARCH 1999

**Resource Planning Team
Northern Region
FRCA, Leeds**

**RPT Job Number: 10/99
MAFF Reference: EL 30/07
LURET Job Number: ME3LNPP**

STATEMENT OF PHYSICAL CHARACTERISTICS REPORT

MARSDEN QUARRY EXTENSION, WHITBURN

INTRODUCTION

1. This report presents the findings of a Statement of Physical Characteristics survey of a 16.9 ha extension to Marsden Quarry, Whitburn. The survey was carried out in February 1997 by ADAS Statutory with additional work by FRCA in 1999. A separate ALC report for the site was produced by ADAS Statutory in 1997.
2. The survey was carried out by the Farming and Rural Conservation Agency (FRCA), formerly ADAS Statutory, in connection with the proposal to quarry limestone from the site.
3. The work was conducted by members of the Resource Planning Team in the Northern Region of FRCA.
4. At the time of survey the agricultural land on the site was all under grass and used for the grazing of horses. The site also contains a poultry unit and a number of redundant, concrete, military buildings erected over 50 years ago. South of Hillhead Farm the military structures occur within grazing areas at a high density and they form a significant limitation to any potential intensive agricultural use such as arable cropping. These structures are also likely to cause problems when soils are stripped prior to quarrying.

SUMMARY

5. The findings of the survey are shown on the enclosed maps. The maps have been drawn at a scale of 1:5,000. They are accurate at this scale but any enlargement would be misleading.
6. The fieldwork was conducted at an average density of one boring per hectare. A total of 17 borings and 2 soil pits were described.
7. One soil type was identified on the site. It is medium textured and generally shallow with the subsoil absent except in the south east. Topsoil and subsoil resources are shown on the accompanying maps, along with soil thickness and volume information. Representative pit descriptions are given in Appendix I.
8. Topsoil (Unit T1)

The topsoil is medium in texture and generally slightly stony with 6% to 15% limestones. It has a strongly developed structure and abundant fine fibrous roots. Its mean depth is 25 cm but this figure disguises a wide range in depths found across the site, from a minimum of 20 cm to a maximum of 35 cm. This unit cover all agricultural land on the site.

9. Subsoil (Unit S1)

Subsoils are generally absent on the site. Although they do occur sporadically across the site where soils are deeper, they were only mapped in a uniform unit in the south east. The subsoil is medium in texture with common to many limestones (6% to 35%). It has a moderately developed structure and common fine fibrous roots. It is 45 cm deep on average.

10. It may, with care, be possible to obtain some soil resources from within some of the grassed areas between the concrete buildings shown as containing none or disturbed soil resources on the attached map.

RPT File: 20,146
Resource Planning Team
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Soil Maps

APPENDIX I

Soil Profile Descriptions

Soil Type 1 (T1) No Subsoil

Location: NZ 4010 6390

Land Use: Grazing

Slope: 2° NE

Recent Weather: Cold, wet and windy (4/2/97)

Depth (cm)	Horizon description
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0-22	Very dark greyish brown (10YR 3/2) medium clay loam; unmottled; 12% limestones (5% >2cm 0% >6m); moist; strongly developed medium subangular blocky; friable; abundant fine fibrous roots; gradual wavy boundary.
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22-34	Dark yellowish brown (10YR 4/4) unmottled; medium silty clay loam; 20% limestones; moist; strongly developed fine subangular blocky; friable; common fine fibrous roots; gradual wavy boundary.
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34+	Weathering limestone
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Soil Type 2 (T1/S1) Subsoil present

Location: NZ 4015 6360

Land Use: Grazing

Slope: 3° SE

Recent Weather: Cool and dry (25/2/99)

Depth (cm) Horizon description

0-30 Dark greyish brown (10YR 3/2) unmottled; medium silty clay loam; 5% limestones (1% >2cm 0% >6m); moist; strongly developed medium subangular blocky; friable; abundant fine fibrous roots; gradual wavy boundary.

30-65 Dark greyish brown (10YR 4/2) unmottled; medium silty clay loam; 6% limestones; moist; moderately developed medium subangular blocky; firm; common fine fibrous roots; gradual wavy boundary.

65+ Weathering limestone