

STATEMENT OF PHYSICAL CHARACTERISTICS  
AND  
AGRICULTURAL LAND CLASSIFICATION

WEST HILLS FARM, ALLERTON, BRADFORD

PROPOSED LAND FILL SITE

ADAS  
Leeds Regional Office

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Lds.AL2.West.Hill

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## 1. STATEMENT OF PHYSICAL CHARACTERISTICS

### A. GENERAL INTRODUCTION

This 5 ha site is located 5 km WNW of Bradford City Centre south of the B6144 (National Grid reference SE 108 347), between Wilsden and Thornton.

The site was surveyed in September 1990 when soils were examined by hand auger borings at a density of one boring per hectare at points predetermined by the National Grid. Additional auger borings were located where necessary to refine grade boundaries.

#### Land Use

Agricultural land on the whole site is under permanent pasture.

#### Climate and Relief

Average annual rainfall is approximately 938 mm per year and the accumulated temperature above 0°C (January to June) is 1131 day 0°C. The site is at field capacity for 224 days per year. The rainfall and temperature figures together with altitude of 255 m impose a climatic limitation on agricultural land use, the best grade being 3b.

#### Geology and Soils

The site is underlain by Carboniferous mudstones and sandstones over which there is a cover of glacial till. The soils formed on this drift deposit consist of sandy loam to sandy clay loam topsoils over medium clay loam subsoils.

#### Drainage

Soils are all imperfectly or poorly drained and fall within Wetness Class III and IV.

## B. SOIL PROPERTIES

The site contains two soil types related to the prominent landscape features on the area:-

1. On the higher ground soils consist of sandy loams or sandy clay loams over clay loams at depth.
2. In the low lying depression in the east silty clay loam topsoils overlie silty clay loam subsoils.

## C. SOIL RESOURCES

The topsoil and subsoil resources on the site are shown on the accompanying maps along with soil depth information.

### 1. Topsoils

#### Unit T1

This unit covers most of the site and consists of moderately structured medium sandy loam with a mean thickness of 25 cm.

#### Unit T2

This unit occurs in the depression and consists of weakly structured medium silty clay loam with a mean thickness of 30 cm.

### 2. Subsoils

#### Unit S1

This unit covers a major portion of the site and consists of moderately structured sandy clay loam or medium clay loam extending to depth of at least 100 cm.

Unit S2

This unit consists of medium textured medium silty clay loam which is poorly structured and extends to a depth of at least 100 cm. This medium textured unit differs from Unit S1, only in having a high silt content and could if required be merged with S1.

## 2. SOIL PROFILE DESCRIPTION

Dominant soil type:- Light over medium textured drift soil, West Hills Farm, Allerton

### Horizons

(cm)

- |        |  |
|--------|--|
| 0-30   | Very dark grey (10YR31) medium sandy loam; unmottled; stoneless; slightly moist; moderately developed; subangular blocky structure; many fine fibrous roots; clear wavey boundary. |
| 30-65  | Yellowish brown (10YR54) stony sandy clay loam; common distinct ochreous mottling; moderately developed angular blocky structure; common fine fibrous roots; clear wavey boundary. |
| 65-100 | Yellowish brown (10YR 54) stony medium clay loam; many prominent mottles; moderately developed angular blocky structure; few fine fibrous roots.                                   |

### 3. AGRICULTURAL LAND CLASSIFICATION

#### Sub Grade 3b (4.7 ha)

Land in this grade covers most of the site. Topsoils consist of sandy loam over sandy clay loam to clay loam subsoils. Climatic factors and soil wetness are the main restrictions on ALC grade.

#### Grade 4 (0.5 ha)

The two small areas in the centre of the site are limited to Grade 4 by slopes of 12-15° which will restrict the use of agricultural machinery. The small low lying area in the east is restricted to this grade by severe wetness problems.

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