

MEATH - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Benhead
Other names used for site	Ben Head moraine, Ben Head/Galtrim moraine
IGH THEME:	IGH 7 (Quaternary)
TOWNLAND(S)	Richardstown
NEAREST TOWN	Balbriggan
SIX INCH MAP NUMBER	28
NATIONAL GRID REFERENCE	317635 268570 = O 176 685
1:50,000 O.S. SHEET NUMBER	43 1/2 inch Sheet No. 13

Outline Site Description

A high coastal cliff face.

Geological System/Age and Primary Rock Type

Quaternary deposits of clay, sand, and gravel (boulder clay).

Main Geological or Geomorphological Interest

This small stretch of coastal cliff section at Benhead displays a cross sectional view of a recessional moraine. This was formed when Quaternary glaciers moving from north to south along the Irish coast deposited material at their leading edge as they began to melt. A recessional moraine represents a point where the ice front once existed but has later retreated due to melting. The moraine is composed of a dark grey to black, very stiff clay, containing gravel and occasional boulders. At first glance it may be mistaken for a mudstone due to the stiffness and structure of the clay.

Site Importance

The Ben Head section is one of the type-sites for the 'Ben Head/Galtrim moraine' which was thought to demarcate the ice margin's retreat to the north. This 'moraine line' has been traced from Galtrim northeastwards to Benhead, although there is less evidence for the ridge and ice contact features at the latter locality. The feature at Benhead contains small and large scale structures that have allowed geologists to determine the direction of ice flow in this part of Ireland during the last Ice Age. This site is an excellent teaching locality and is recommended as a County Geological Site.

Management/promotion issues

The cliff face at Benhead can be accessed via the beach. Although this is a public beach it is beside a military base. Care should be taken when the red flags are flying, as they indicate live firing in operation. Coastal erosion is the major threat to this site and the quality of the exposure has deteriorated through the years.



Left: Cross sectional view of the recessional moraine at Benhead showing shear structures and slumping.
Right: Coastal cliff section exposing the feature at Benhead, viewed from the south.

Benhead

