

GALWAY - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Kanrawer Drumlin
Other names used for site	
IGH THEME	IGH7 Quaternary
TOWNLAND(S)	Kanrawer
NEAREST TOWN/VILLAGE	Tully
SIX INCH MAP NUMBER	9
ITM CO-ORDINATES	465200E 764200N
1:50,000 O.S. SHEET No. 37	GSI BEDROCK 1:100,000 SHEET NO. 10

Outline Site Description

Sea cliff exposures up to 15 m in height and more than 400 m in length, resting on a rock pavement.

Geological System/Age and Primary Rock Type

Diamict or glacial till comprised dominantly of schists, deposited as a drumlin during the last Ice Age (Late Pleistocene).

Main Geological or Geomorphological Interest

The Kanrawer drumlin is one of several drumlins deposited on the coastal area of the Renvyle peninsula. Deposition was from ice streams that flowed east to west onto the continental shelf from a lowland ice sheet. The drumlin is approximately 500 m in length. The site encompasses both the eastern (proximal) and western (distal) parts of the drumlin as exposed in a coastal cliff section exceeding 400 m in length. The sedimentology of the drumlin is considered to reflect the operation of high water pressures generated by shearing at the ice-substrate interface, which created a proximal-to-distal hydrostatic gradient that affected up to 60 % of the drumlin.

At the western or distal end, the drumlin is composed of massive diamict interbedded with cobble beds and lenses of sand and gravel. This reflects the original sedimentology of the drumlin. At the eastern end, proximal to the depositional source, the hydrostatic gradient and consequent through-flow of water led to large-scale sediment reorganization. This reorganization is reflected in a more complex sedimentology, including honeycomb-like structures, pods with upward-projecting off-shoots, lenses of laminated silts and sands and near-vertical dyke structures.

Site Importance – County Geological Site

The Kanrawer drumlin site comprises an excellent sea cliff exposure of the internal stratigraphy of a depositional drumlin. The marked variation in sedimentology from east to west, reflecting reorganization of sediment by throughflow of pore water, is well exposed. Numerous examples of internal structures can be viewed from readily accessible points along the cliffs. The drumlin rests on a near-horizontal rock platform, the surface of which is marked by many striations attesting to the passage of ice.

Management/promotion issues

The site itself is not within any designated heritage or conservation area but the adjacent marine area is part of the West Connacht Coast SAC. The site is entirely on the foreshore with access from the beach beside the ruined Renvyle Castle. Caution is required to avoid being cut off by incoming tide. The main threat to the site is from coastal erosion - erosion of the cliff face is ongoing, as attested to by landslips visible along its length. The site is likely to be of interest mainly to researchers and those with a specific interest in Quaternary geology so further promotion may not be warranted.



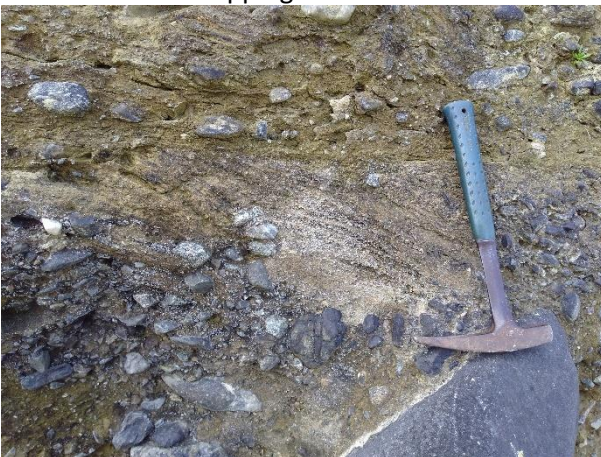
Eastern end of drumlin cliff exposure, view towards west. Note rock platform on right.



Base of drumlin resting on pavement of steeply dipping schists.



Gravels forming vertical structures (above hammer) in diamict.



Truncation of sand-silt laminae in diamict.



Collapsed section of cliff, c. 30 m west of eastern end of drumlin.

