

MAYO - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Askillaun Spread
Other names used for site	Darraguil Bank
IGH THEME	IGH7 Quaternary
TOWNLAND(S)	Askillaun
NEAREST TOWN/VILLAGE	Louisburgh
SIX INCH MAP NUMBER	85, 86
ITM CO-ORDINATES	477120E 781520N
1:50,000 O.S. SHEET NO.30	GSI BEDROCK 1:100,000 SHEET NO. 10
GIS Code MO005	

Outline Site Description

A coastal section of high cliffs located on the south coast of Clew Bay between Louisburgh and Roonagh Quay.

Geological System/Age and Primary Rock Type

The cliff sediments are Pleistocene in age, deposited during Killard Point Stadial Readvance (17,500 to 16,500 years ago). The glaciomarine sediments overlie Silurian age bedrock of the Glen Pebbly Arkose Formation and Bunnamohaun Siltstone Formation.

Main Geological or Geomorphological Interest

The thick spread of sediments exposed in the coastal cliffs at Askillaun was deposited in marine tidewaters (glaciomarine deposition) immediately to the west of a major ice sheet margin. The sediments are comprised of stratified debris flows (diamicts) of up 1-2m thickness in places. Some of the major bedding planes dip (slope) gently westwards (~5°) towards the Atlantic Ocean and are continuous for more than 100m. The westward dipping sediment layers were laid down by progressive episodes of rapid sediment release into water from an ice margin located immediately to the east of Askillaun. The sediments comprise layers of gravel, sand, silt and clay, with large boulders (<1.5m across) and pockets of cobbles dispersed through the layers.

Whilst the location of the cliffs on the south coast of Clew Bay would suggest that this is an eroded drumlin, the cliffs at Askillaun expose the eroded remains of a spread of glaciomarine sediments that was deposited in tidewaters. Relative sea-level when the sediments were deposited is understood to have been in excess of 45m above present sea level. The cliffs are over 40m in height in places, and stretch for some 500m along the east-west trending coastline. The sediments at Askillaun were deposited during the Killard Point Stadial Readvance (c. 17,500 to 16,500 years ago) when ice-sheets advanced north-westwards across Clew Bay.

Site Importance – County Geological Site; may be recommended for Geological NHA

This County Geological Site is an excellent site in terms of Quaternary glaciomarine deposits. The site is unique because of the size of the exposure (~40m in height) and the excellent planar and channelled geometries, infilled with interbedded gravel to diamict facies. This is one of the best exposed sections in Ireland showing subaqueous deposition in an ice contact setting.

Management/promotion issues

Apart from the effects of natural coastal erosion processes, the site is not deemed to be under any significant threat. As the site is on a coastal section on the west of Ireland, caution should be exercised if visiting the site, and is advised only at low tide.



Askillaun cliffs viewed from low tide mark, approximately 60m north of cliff face - looking south.



Cliff section west of Askillaun cliffs, looking west, from old (partially eroded) concrete abutment, towards Bunatuckeen Strand.



Boulders and cobbles in the mud and sand matrix exposed at the foot of Askillaun cliffs.



Deposits of mud, sand, gravel, cobble and boulders after a cliff face collapse.



Askillaun cliffs - viewed from old (partially eroded) concrete abutment at the end of the farm track – looking east.

