CORK - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	**Relane Point**		
Other names used for site			
IGH THEME	**IGH8 Lower Carboniferous, IGH7 Quaternary**		
TOWNLAND(S)	**Dromclogh, Boolteenagh**		
NEAREST TOWN/VILLAGE	**Bantry**		
SIX INCH MAP NUMBER	**118**		
ITM CO-ORDINATES	**495640E 546885N**		
1:50,000 O.S. SHEET NUMBER	**85**	**GSI BEDROCK 1:100,000 SHEET NO.**	**24**
GIS CODE	**CK075**		

Outline Site Description
Coastal section comprising wave-cut platform, folded strata, sand/shingle beach, a wave-cut platform, and partly eroded 'soft-sediment' cliff-face.

Geological System/Age and Primary Rock Type
Bedrock geology comprises Upper Devonian sandstone of the Old Head Sandstone Formation and Lower Carboniferous (Mississippian) mudstone and siltstone of the Ardaturrish Member (Kinsale Formation). Coastal erosion has exposed the internal structure of a circular subglacial bedform, which is a Quaternary feature that was deposited during the final stages of the last glaciation, around 14,000 years ago.

Main Geological or Geomorphological Interest
Bedrock at the site comprises fine-grained sandstone, siltstone and mudstone that were deposited around the time of transition from the Upper Devonian to the Lower Carboniferous. Of particular interest are the west-southwest plunging meso-scale folds (syncline and anticlines) visible on the wave-cut platforms at low tide. A strongly developed cleavage fabric is visible in rock outcrops above high tide mark, such as in a folded (anticline) outcrop of Old Head Sandstone Formation siltstones at the north end of the accessible beach. Small-scale folding is also visible in the flaser-bedded sandstones and mudstones exposed in the small cove north of the accessible beach.

The cliff at Relane Point formed due to coastal erosion of an ENE-WSW oriented circular subglacial bedform. The 'soft sediment' comprising it, which is a diamicton interpreted as a glacial till, comprises boulders, cobbles, pebbles and sand in a predominantly blue-grey clay-silt matrix. Of particular interest are the limestone erratic boulders, some of which have karstified upper surfaces which are likely to be post-glacial erosive features. A local origin has been attributed to these limestone boulders (similar to limestone identified in a borehole dug underneath the airstrip at Beach) even though no limestones are exposed at the surface in the bay area. Deep north-south oriented erosional grooves traverse the wave-cut platform at Relane Point. These erosive features are indicative of the direction (southward) of ice flow during the last glaciation.

Site Importance – County Geological Site; recommended for Geological NHA
This is an important site because it exhibits easy-to-observe features relating to meso-scale structural folding in the Bantry area, and evidence of glacial erosion and deposition. The site is important because the features serve to improve our understanding of the geological history and development of the landscape around Bantry Bay and West Cork.

Management/promotion issues
The beach can be accessed from the L4702 road via a path near the Dromclogh-Boolteenagh townland boundary. The wave-cut platform is best viewed at low tide. The geological heritage of the site is suitable for public promotion in local educational or tourism-related publications.

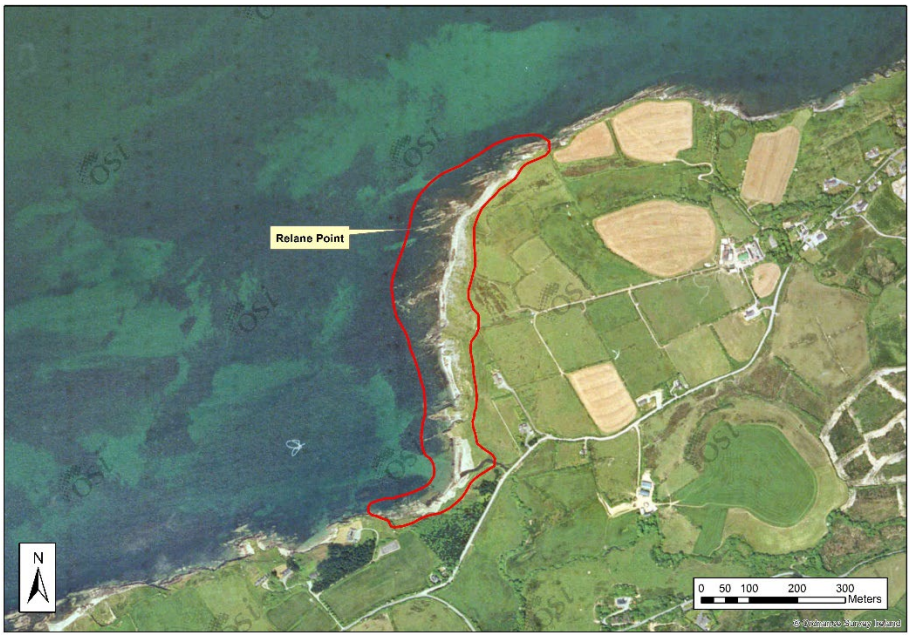
Plunging fold (Old Head Sandstone Formation) exposed on wave-cut platform at low tide. View west towards Bantry Bay. Bere Island and Hungry Hill are visible in the far distance.

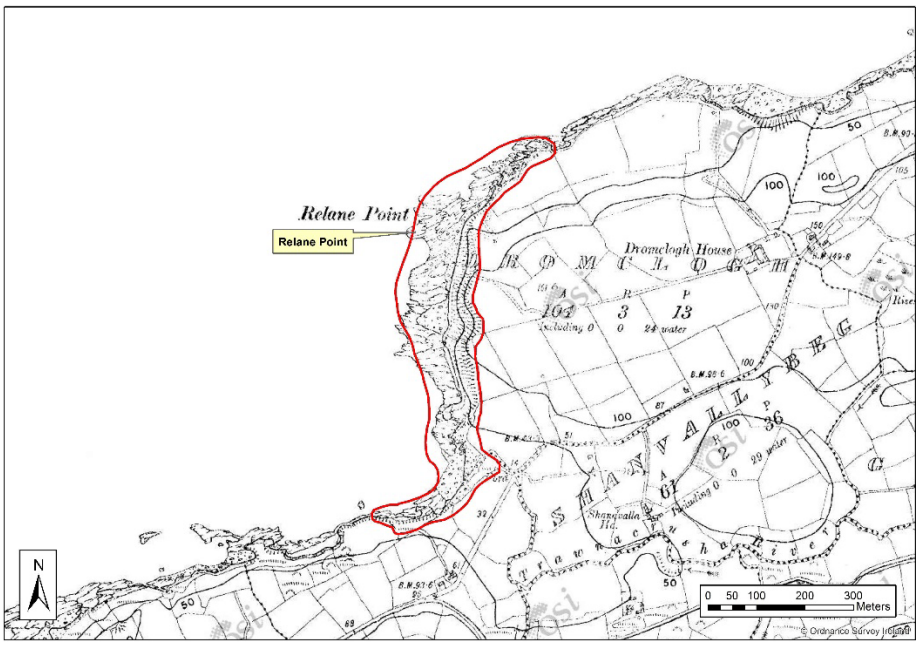
Small-scale folding in Old Head Sandstone Formation.

Karstified limestone erratic boulder at foot of the cliff. (Yellow fishing net buoy for scale).

View northwards at low tide towards Whiddy Island over wave-cut platform and Ardaturruish Member (Kinsale Formation) beds. Erosional grooves oriented north-south indicate southward-flow of icesheet. Coastal erosion has exposed Quaternary soft-sediments in the cliff-face.

Hennessy et al., 2023. Geological Survey Ireland.





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