

## CORK - COUNTY GEOLOGICAL SITE REPORT

<b>NAME OF SITE</b>	<b>Killumney Moraine</b>		
Other names used for site	Kilumney Moraine, Southern Irish End Moraine, Kerry-Cork Moraine		
<b>IGH THEME</b>	<b>IGH7 Quaternary</b>		
<b>TOWNLAND(S)</b>	<b>Garryhesty, Kilcrea, Farranavarra, Knockanemore, Ballygroman Lower, Killumney, Barnagore, Classes (ED Ovens), Grange</b>		
<b>NEAREST TOWN/VILLAGE</b>	<b>Killumney, Ballincollig</b>		
<b>SIX INCH MAP NUMBER</b>	<b>72, 73, 84, 85</b>		
<b>ITM CO-ORDINATES</b>	<b>552000E 569000N</b>		
<b>1:50,000 O.S. SHEET NUMBER</b>	<b>87</b>	<b>GS1 BEDROCK 1:100,000 SHEET NO.</b>	<b>25</b>
<b>GIS CODE</b>	<b>CK057</b>		

### **Outline Site Description**

Gently undulating topography consisting of thick accumulations of glacial sands and gravels occupying the floor of a flat valley.

### **Geological System/Age and Primary Rock Type**

The glacial deposits overlie bedrock comprising predominantly Lower Carboniferous (Mississippian) limestones and sandstones (Little Island Formation, Waulsortian, Old Head Formation) that occupy the core of an east-west trending syncline. The sediments were deposited roughly between 22,000 years and 14,000 years ago, during Quaternary times.

### **Main Geological or Geomorphological Interest**

The Kilumney moraine was previously considered the eastern ice limit of a solitary ice sheet, the Kerry-Cork Ice Sheet (also referred to in literature as the Kerry-Cork Ice Cap) which radiated outwards from an ice centre near the head of Kenmare River, between the Iveragh and Beara Peninsulas, but did not converge with any other major ice sheets. However, it is now widely accepted that the Kerry-Cork Ice Sheet coalesced with the ice sheet that covered all of the south of Ireland, and also extended onto the continental shelf to the south of the island. Whilst the eastern extent of the Kerry-Cork Ice sheet during the Late Glacial Maximum (LGM), around 22,000 years ago, remains the subject of research, the sediment accumulations associated with the Kilumney moraine may represent glaciofluvial terraces of what were once wide valleys (Bride, Lee, Dripsey) within a large meltwater river system. The 'moraine' line may also mark part of a stillstand of the retreating Kerry-Cork Ice sheet, after it split from the main ice sheet. The site is situated on the mainly limestone floored River Bride valley. The river flows eastwards, and is a tributary of the River Lee. The large accumulation of sediments consists of well-sorted, predominantly Old Red Sandstone pebble gravels and sands, the source of which lies to the west. Today, the sands and gravels that spread from Kilcrea eastwards to Ovens have been extensively quarried, though previously, in the 1950s, the topography was described as 'terrace-like', and other outlying sediment accumulation features were described as 'mounds' or 'kame and kettle-like'.

### **Site Importance – County Geological Site**

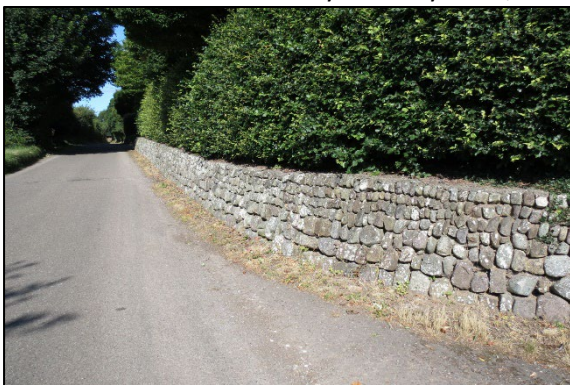
This important County Geological Site is host to Quaternary landforms that have been the subject of considerable research that has contributed significantly to improved understanding of Quaternary geology in the region. The site is located in the River Bride catchment, which is a sub-catchment of the Lee Catchment.

### **Management/promotion issues**

The glacial deposits between Kilcrea and Ovens have been intensely quarried and in places obliterated, both sedimentologically and topographically. The remainder of the sands and gravels along the interpreted line of the 'moraine' are relatively intact and well preserved.



Quarry at Garryhesta, looking south from road entrance.



Rounded moraine cobbles and boulders in roadside wall at Knockanemore.



Tillage on 'moraine' slopes at Kilcrea Friary.



Sand and gravel conveyor crosses under the road at Garryhesta. Looking north.



Road bounded by high sides cuts through the 'moraine' at Garryhesta.



