MAYO - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE Other names used for site IGH THEME TOWNLAND(S) NEAREST TOWN/VILLAGE SIX INCH MAP NUMBER ITM CO-ORDINATES 1:50,000 O.S. SHEET NO. 32 GIS Code MO067 Kilkelly

IGH7 Quaternary Numerous townlands Kilkelly; Charlestown 72, 81 544110E 791410N (Kilkelly N17 road junction) GSI BEDROCK 1:100,000 SHEET NO. 11

Outline Site Description

An esker-crossed and hummocky landscape, with numerous gravel pits, immediately to the east of the Plains of Mayo.

Geological System/Age and Primary Rock Type

The features are Quaternary in age and are formed on bedrock of Carboniferous age, with some areas of Ordovician bedrock in the north part of the area. The features (eskers, pro-glacial channels, flood tracks, kames) formed at the northernmost edge of a southeastward retreating ice sheet during deglaciation, *c*. 15,000 years before present, towards the end of the last glaciation. The eskers are part of the Connaught Esker System.

Main Geological or Geomorphological Interest

The eskers of the Kilkelly area belong to the Connaught Esker System, which is one of the main esker systems in Ireland, along with the Midland Esker System, Lough Ree Esker System and the Ulster Esker System. This site is part of the Tuam-Kilkelly system, one of two major esker patterns within the Connaught Esker System. The large esker ridges at Kilkelly, and the Barcull esker to the east of Kilkelly village, extend northwards to the Knock moraine. Some 2km in length, the Barcull esker is interesting in that it climbs 60m upwards on the southeastern slopes of Shammerdoo hill (SW of Knock/Ireland West Airport). To the north of Kilkelly, two major flood channels meander northwestwards, the easternmost of the two skirting around the west end of the airport runway.

The Kilkelly eskers comprise mostly limestone clasts derived from the Carboniferous bedrock to the southeast. These clasts were carried by ice, released into the meltwater conduit on top of or within the ice, and then deposited at the ice margin as the flood waters flowed off the ice and flowed northwards.

Site Importance – County Geological Site

This County Geological Site includes excellent examples of a pro-glacial, ice marginal, flood channels and meltwater-deposited features.

Management/promotion issues

Whilst quarrying is on-going in places, disused quarry faces should be protected as these locations provide excellent sections through the pro-glacial landforms. It would be desirable to consider retaining disused quarry faces for geological purposes. However, maintaining faces of sand and gravel deposits is unrealistic as they quickly degrade and vegetate. Owing to health and safety concerns, disused quarries are not suitable for any general promotion. With regards to working gravel pits and quarries, the listing as a County Geological Site has no implications for the normal operation of the quarry, subject to standard permissions and conditions under planning and environmental legislation.



Gravel pit in Kilkelly, viewed looking north. St. Celsus RC Church visible in background.



Extraction pit in at Shammerbaun, north of Kilkelly.



Pit in Liscosker, east of Kilkelly, viewed from N17.



Hummocky topography on near Lough Shammerdoo.



Hennessy et al. 2014 (revised 2019). Geological Survey Ireland.