

DONEGAL - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Columbkille Lough
Other names used for site	Tullyhorky Lough
IGH THEME	IGH 6 (Mineralogy)
TOWNLAND(S)	Cashelard
NEAREST TOWN/VILLAGE	Cashelard
SIX INCH MAP NUMBER	108
ITM CO-ORDINATES	594103E, 863298N
1:50,000 O.S. SHEET NOS. 16, 17	GS1 BEDROCK 1:100,000 SHEET NOS. 3, 4
GIS Code DL009	

Outline Site Description

This site lies on peaty upland and comprises a small, partially flooded disused quarry and rocky exposures some 400m northeast of Columbkille Lough.

Geological System/Age and Primary Rock Type

Psammites and semi-pelitic schists (pre-Dalradian or very oldest Dalradian) of the Precambrian Sliswood Division (Lough Derg inlier) are here intruded by granitic pegmatites containing coarse feldspar crystals.

Main Geological or Geomorphological Interest

Psammitic and semi-pelite have been intruded by several granitic pegmatite bodies up to 3m in thickness. Pegmatite veins occur throughout the Lough Derg inlier and were emplaced at a late stage in its evolution, causing localized thermal metamorphism along their sharp contacts with enclosing rocks. At Columbkille Lough, muscovite-rich pegmatites contain potassium feldspar (microcline) crystals up to 50cm in length. The feldspars show visible exsolution textures such as perthite.

Southwest of the quarry, the semi-pelite country rocks contain some calc-silicate layers. Where these have been intruded by pegmatite, large crystals of actinolite (up to 25cm in length) have developed as a consequence of contact metamorphism.

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

The site provides excellent exposure of late-stage pegmatites, showing the development of unusually large actinolite crystals where the pegmatites have intruded calc-silicate lithologies. This small quarry was formerly mined for feldspar, an important component of pottery clays and glazes. It is less than 5 km from the Belleek pottery and may have been a short-lived source of feldspar for manufacture there, to supplement a now disused quarry at Larkhill, Co. Fermanagh.

Management/promotion issues

The site is on rough, peaty pasture with partial access along a farm lane; access may involve passing close to grazing cattle. In the course of the site visit for this audit, the present owner of the farm expressed support for public access to the site. The site is likely to be of interest mainly to mineralogists and those studying the geology of the Lough Derg inlier, although the possible connection with the Belleek pottery opens the possibility of broader interest in the site.



View to northwest of Columbkille Lough site, with pegmatite outcrops in foreground and quarry in mid-distance.



Large white feldspars (left) and outcrop of feldspar-bearing pegmatite (right) (length of camera case approximately 100mm).



Disused, overgrown quarry previously worked for feldspar.

