

GALWAY - COUNTY GEOLOGICAL SITE REPORT

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| NAME OF SITE | Claddaghduff Barnahallia Lough |
| Other names used for site | Barnahallia Lough |
| IGH THEME | IGH6 Mineralogy, IGH11 Igneous intrusions, IGH15 Economic Geology |
| TOWNLAND(S) | Barnahallia |
| NEAREST TOWN/VILLAGE | Claddaghduff |
| SIX INCH MAP NUMBER | 22 |
| ITM CO-ORDINATES | 459170E 755850N |
| 1:50,000 O.S. SHEET NO. 37 | GSI BEDROCK 1:100,000 SHEET NO. 10 |

Outline Site Description

Large outcrops in grassed and wetland / blanket bog area beside oligotrophic lake.

Geological System/Age and Primary Rock Type

Dalradian marbles, psammites and pelites of the Lakes Marble and Streamstown Formations intruded by the late-Caledonian Omev Granite.

Main Geological or Geomorphological Interest

The Omev Granite is in contact with a small area of Lakes Marble Formation skarns on the northwestern side of Barnahallia Lough. On the east side of the lake, the skarns give way to rocks of the Streamstown Formation. Exploration here in the 1970s and 1980s led to the discovery of minor tungsten mineralization within the skarns. Sharp contacts are observed between granite and country rocks but the contact zone is also marked by extensive brecciation of granite and skarn, with accompanying alteration and locally abundant if discontinuous tungsten (scheelite) mineralization.

The presence of scheelite in skarn is not unusual in this part of Galway but the brecciation and alteration of the contact zone between the Omev Granite and the Lakes Marble Formation is uncommon.

The small area underlain by the Lakes Marble Formation has notably less acid soil that supports a distinctive green grass vegetation, contrasting with the wetland / bog habitat of the rest of the site.

Site Importance – County Geological Site

The relatively good exposure, presence of locally abundant scheelite mineralization and the extensive zones of brecciation and alteration warrant County Geological Site status for this site.

Management/promotion issues

The site is largely within the Barnahallia Lough SAC. Barnahallia Lough is an oligotrophic lake with rare aquatic plant species. The land is used for low-intensity sheep grazing. There are no apparent threats to the site. Promotion is not required as the site is likely to be of interest mainly to specialist researchers.



General view of Barnahallia Lough site, looking north. Approximate contacts between Omev Granite and Lakes Marble Formation (LMF) and between latter and Streamstown Formation are shown.



Diopside-wollastonite-grossular skarn.



Brecciation, veining of Omev Granite and Lakes Marble Formation near contact.

