

GALWAY - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Shannapheasteen Quarry
Other names used for site	
IGH THEME	IGH6 Mineralogy, IGH11 Igneous intrusions
TOWNLAND(S)	Shannapheasteen
NEAREST TOWN/VILLAGE	Costelloe
SIX INCH MAP NUMBER	77
ITM CO-ORDINATES	503600E 732870N (centre of quarry)
1:50,000 O.S. SHEET No. 45	GSI BEDROCK 1:100,000 SHEET NO. 14

Outline Site Description

A working quarry extracting granite as a building stone.

Geological System/Age and Primary Rock Type

The Shannapheasteen Granite is one distinct granite body within the Galway Granite Batholith. All of the various bodies comprising this batholith were intruded over a period of 30 million years but the main period occurred at approximately 400 million years ago.

Main Geological or Geomorphological Interest

The Shannapheasteen Granite itself is a large body within the Megacrystic Granite of the Central Block of the Galway Granite. It is mainly fine grained but is poorly known compared to some better studied areas.

The principal interest at Shannapheasteen Granite Quarry lies in the mineralogy. The quarry exposes a dark coloured intrusive dyke, and some other dykes of various colours and silica rich rocks, but a large mineral vein which has been exposed, yields a rich and complex assemblage of minerals, dominated by fluorite. The vein runs approximately north-south across the middle of the quarry. Extensive purple fluorite mineralisation has been recovered, but clear and green fluorite also occurs. In addition, the lead mineral galena is present as large cubic crystals. There are sheet veins of the green mineral epidote, and rock crystal quartz, sphalerite (zinc sulphide), molybdenum and some chalcopryrite. Other minerals have been reported. There are unusual habits and great variety in the ways the minerals occur, and there is considerable research potential here for understanding the mineral deposits and how they were formed. Active research projects are underway (in 2019) with a number of different mineralogists involved in characterising the deposit.

Site Importance – County Geological Site

The rich mineralogical assemblage makes this site clearly deserving of County Geological Site status. When comparisons are made on a national basis it could well be put forward for Geological NHA designation.

Management/promotion issues

The quarry is a commercially operating business (Connemara Granite) and there is no access without express permission of the operators. The operators have generously donated mineral specimens to the National Museum of Ireland, but the quarry owners view the fluorite specimens as a by-product of their main business. They recover the specimens themselves and have private arrangements for its distribution to selected mineral dealers. Specimens are available for purchase on the open market.



View of Shannapheasteen Quarry with dolerite dyke in centre of view.



View of quarry faces in the zone of the mineral vein, with multicoloured surfaces from traces of different minerals and their weathering products.

