LIMERICK - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE Knockderc Quarry

Other names used for site

IGH THEME IGH11 Igneous Intrusions

TOWNLAND(S) Patrickswell NEAREST TOWN/VILLAGE Patrickswell

SIX INCH MAP NUMBER 32

ITM CO-ORDINATES 565370E 638090N (centre of quarry) 1:50,000 O.S. SHEET NUMBER 65 GSI BEDROCK 1:100,000 SHEET NO. 18

GIS CODE LK020

Outline Site Description

Large abandoned quarry

Geological System/Age and Primary Rock Type

Mississippian (Lower Carboniferous) syenite.

Main Geological or Geomorphological Interest

The Knockderc Quarry was excavated in an intrusion of syenite, a plutonic rock intermediate in composition between gabbro and granite. Although one other syenite intrusion has been mapped in Limerick, at Maddyboy, syenite is an uncommon rock type in Ireland. The Knockderc syenite is mapped as a near-circular intrusion, cutting across the contact between the Ballysteen Formation and the Ballynash Member of the same formation.

The syenite is a porphyritic rock, with white feldspar crystals in a pink groundmass. The quarry walls are cut by both vertical and near-flat-lying joints. The quarry is extensive, with large faces approximately 30m high. The floor of the quarry is substantially cleared and there is ready access to the faces.

Site Importance – County Geological Site

This site is a well-preserved quarry with clean faces that are ideal for study. It is the best exposure of syenite in Limerick and possibly in Ireland. It is recommended for designation as a County Geological Site.

Management/promotion issues

The quarry is on private land. Paths that run around it appear to be popular with walkers. The site is included within Glen Bog SAC (001430), a wet woodland on the site of a former lake. As such it is unlikely to face any development threat. As it is likely to be of interest mainly to geologists and researchers it does not require further promotion.



Knockderc Quarry, view to north from quarry entrance



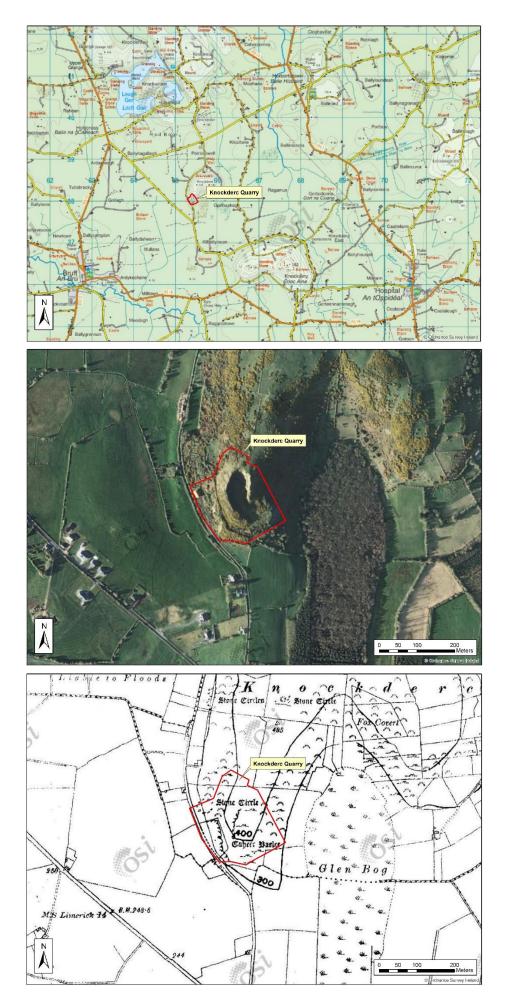


Pink syenite, with white feldspar phenocrysts

Close-up of quarry face showing jointing.



Exterior of quarry, beside road, showing original hillside and remaining quarry infrastructure



Meehan et al., 2021. Geological Survey Ireland.