GALWAY CITY - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE Fairlands Park

Other names used for site

IGH THEME IGH11 Igneous Intrusions

TOWNLAND(S) Newcastle
NEAREST TOWN/VILLAGE Galway
SIX INCH MAP NUMBER 82

ITM CO-ORDINATES 528700E 726665N

1:50,000 O.S. SHEET NUMBER 45 GSI BEDROCK 1:100,000 SHEET NO. 14

GISCODE GC002

Outline Site Description

Metamorphic outcrops situated in suburban estate on the west bank of the River Corrib.

Geological System/Age and Primary Rock Type

The bedrock comprises hornblende gneiss (metamorphosed igneous rock), part of the Ordovician MetaGabbro and Orthogneiss Suite of rocks of Connemara, and dated at around 470 million years.

Main Geological or Geomorphological Interest

The main body of MetaGabbro and Orthogneiss Suite rock in Galway City occurs as a triangular wedge fanning outwards from Dangan southwards to Grattan Beach and Renmore Barracks. However, surface exposures are rare and this outcrop represents an easily accessible window into the bedrock foundation of central Galway City. The Geological Survey Ireland 1st Edition Field Sheet 82, compiled in the mid-1800s, notes "hornblendic gneiss" in this locality, situated to the northwest of Newcastle Cottage and Rock Lodge.

This site exhibits easily accessible exposures of green-grey bedrock with distinct light-coloured banding. The rock's dark colour is largely due to the presence of dark green/black hornblende minerals and lesser amounts of biotite and pyroxene. The lighter coloured banding is dominated by minerals such as quartz and feldspar. Occupying the southeast corner of a public green space, the exposures are low-lying with relatively smooth surfaces.

Site Importance - County Geological Site

This County Geological Site is important because it provides an insight to the metamorphic rocks that underlie areas of Galway City along the west bank of the River Corrib, from Dangan to the Claddagh, and beneath 'old Galway'. Metamorphic exposures are rare in this otherwise built-up urban and suburban landscape.

Management/promotion issues

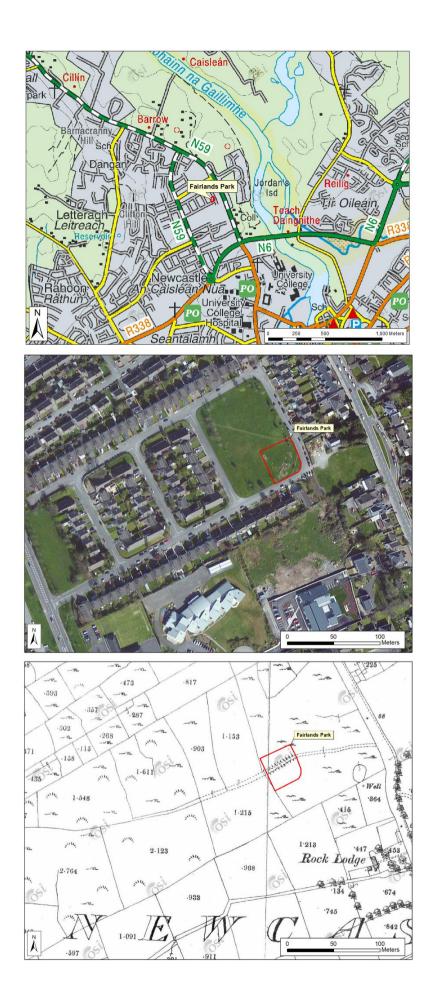
Situated in a public green space in a suburban housing estate close to NUI Galway, the outcrops are easily and safely accessible. Whilst the outcrops have remained largely intact since the development of the housing estate in the 1970s, encroaching moss, grass and low scrub cover could potentially conceal the exposures. Vegetation control and removal would help conserve the exposed bedrock surfaces. Due to the site's accessibility, this is an ideal location for schoolchildren and students to see metamorphic rocks up close, and also a place to appreciate the metamorphic foundation that underlies the central part of Galway City.



Gneiss outcrop exposed on the public green in Fairlands Park.



Characteristic banding is visible in the gneiss exposed in the Fairlands Park outcrops.



Hennessy et al., 2020. Geological Survey Ireland.