

MEATH - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Bellewstown
Other names used for site	
IGH THEME:	IGH 2 (Precambrian to Devonian Palaeontology)
TOWNLAND(S)	Bellewstown
NEAREST TOWN	Duleek
SIX INCH MAP NUMBER	27
NATIONAL GRID REFERENCE	307870 267130 = O07870 67130
1:50,000 O.S. SHEET NUMBER	43 1/2 inch Sheet No. 13

Outline Site Description

Working quarry and natural exposures in agricultural fields with rock close to surface beneath soil.

Geological System/Age and Primary Rock Type

Ordovician volcanic and sedimentary rocks.

Main Geological or Geomorphological Interest

This site exhibits a few exposures but has significant rocks below the soil surface of the Bellewstown site. This geological terrane represents volcanic and sedimentary rocks that existed as a volcanic island in the middle of an ancient ocean called Iapetus during the Ordovician Period about 460 million years ago. Brachiopod fossils within the sedimentary rocks are similar to other island faunas – part of a so called ‘Celtic’ brachiopod province. There is also a younger, thin limestone deposit which may represent a very long time period, perhaps ten million years. Even younger shales include fossils showing plate tectonics had moved the island closer to adjacent continents. The biogeographical and stratigraphical information of these fossiliferous rocks is important in understanding how Ireland has moved throughout geological time.

Site Importance

The ongoing quarry extension provides a new opportunity for significant improvement in knowledge of the detailed geology and stratigraphy of the Bellewstown Inlier. The additional exposures may yield a clearer picture of the relationships of different geological formations, enabling a more accurate interpretation of events during Ireland’s geological past. This will be recommended as an NHA.

Management/promotion issues

The site is a Kilsaran Concrete working quarry, with part of it extending into some privately owned adjacent farmland. A formal proposal for access by a geological research team for fossil collecting and research has been given positive response by Kilsaran Concrete, and is anticipated to provide a model of best practice for industry operators of extraction sites of geological heritage importance. The model may also include the future provision of interpretation panels and viewing areas to further promote geological heritage to the public, particularly within the context of active quarrying.



Left: Exposures of Hilltown Formation yielding ‘Celtic’ brachiopod fauna, with planned future excavations (late 2008).
Right: Looking northwards across quarry exposures of the Bellewstown Inlier volcanic sequence (late 2008).

Bellewstown

