

# CARLOW - COUNTY GEOLOGICAL SITE REPORT

<b>NAME OF SITE</b>	<b>Ballyellin Quarry</b>
Other names used for site	Ballyellen Limestone Flour Works
<b>TOWNLAND(S)</b>	Ballyellin, Tomdarragh
<b>NEAREST TOWN</b>	Goresbridge
<b>SIX INCH MAP NUMBER</b>	19
<b>NATIONAL GRID REFERENCE</b>	268800 154700 = S 6880 5470
<b>1:50,000 O.S. SHEET NUMBER</b>	68 <b>1/2 inch Sheet No.</b> 19

## Outline Site Description

A large working quarry.

## Geological System/Age and Primary Rock Type

Carboniferous Limestone includes a 15m solution pipe 15m+ deep, with clays and round quartz gravel probably derived from Tertiary weathering of the Leinster Granite.

## Main Geological or Geomorphological Interest

A conical pipe 15m in diameter was unexpectedly discovered, in Carboniferous Limestone at Ballyellin quarry. The pipe, found below 8m of glacial till, extends for 15m width at the surface and is thought to continue to a greater depth. Below a 2m cap of quartzose sand and gravel, micaceous clays were found infilling the pipe. These clays originated from the Mount Leinster Granite, less than a mile east of the location and were transported to their current site via a stream possibly some time during the Tertiary (Mitchell 1980). The pipe was able to protect the granitic debris that was stripped by glaciers everywhere else in the area during the Ice age. The contact between the limestone and the pipe displayed heavy iron and manganese staining, a probable affect of weathering.

In an area where much of the Carboniferous geology is covered by quaternary deposits, Ballyellin Quarry also provides a unique exposure of the Ballysteen Formation.

## Site Importance

The site is of possible National importance and may be proposed for NHA designation under the IGH 12 Mesozoic and Cenozoic theme of the GSI's IGH Programme when it completes its work.

## Management/promotion issues

The site is a large working quarries, mainly producing limestone flour for agricultural use. No management issues arise, except if the quarry were to close; then maintaining access for geologists would be desirable. As a working quarry it is not suitable for promotion to general visitors, other than at the instigation of the operators.

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A view of the pipe from distance.



A close up view of the pipe infill.

# BALLYELLIN QUARRY

