

KERRY - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Inch West
Other names used for site	
IGH THEME	IGH10 Devonian, IGH7 Quaternary Geology
TOWNLAND(S)	Inch West, Ardroe
NEAREST TOWN/VILLAGE	Annascaul
SIX INCH MAP NUMBER	45
ITM CO-ORDINATES	463270E 600810N
1:50,000 O.S. SHEET NUMBER	70
GSI BEDROCK 1:100,000 SHEET NO.	20
GIS CODE	KY052

Outline Site Description

Rocky foreshore backed by high cliffs of glacial diamicton (till).

Geological System/Age and Primary Rock Type

The bedrock on the foreshore comprises a Middle to Upper Devonian succession. Conglomerates and sandstones of the Inch Conglomerate Formation (383-393 million years old) are unconformably overlain by conglomerate of the Lough Slat Formation, which in turn is overlain by sandstones of the Cappagh Sandstone Formation (both 360-370 million years old). The materials forming the cliffs are of Quaternary age, having been deposited during the last Ice Age (c. 20,000 years old).

Main Geological or Geomorphological Interest

The foreshore at Inch West is the type locality for the Inch Conglomerate and extends from Coosarone in the east, westwards to Bunnaturrish. Previously the type locality lay to the east but this is now covered by rock armour. The Inch Conglomerate is a highly distinctive breccio-conglomerate that is interpreted to have been deposited from alluvial fans in the Devonian Period. The alluvial fans developed following uplift in the mid-Devonian along a major fault or crustal lineament in the Dingle Bay area (the Dingle Bay Lineament), which exposed a basement complex. The conglomerate is polymict and includes both well-rounded and sub-angular clasts of metamorphic rocks, such as schist and gneiss, siltstone, quartz and granite, with a matrix of red sand. Interbedded with the conglomerates are some sandstone units that display cross-bedding. The large size of the clasts, some up to boulder size, and poor sorting indicate rapid deposition from high-density floods and debris flows. Dating of some conglomerate clasts indicate an age for the basement complex of 1.4 – 1.8 billion years ago.

At the western end of the site, at Bunnaturrish, the Inch Conglomerate is overlain slightly unconformably by the Lough Slat Conglomerate, which is characterized by smaller, scattered clasts predominantly of quartz. This formation is in turn overlain by the Cappagh Sandstone Formation, comprising thin-bedded purple sandstones.

The extensive cliff sections, up to 10 m high, that stretch westwards from Coosarone provide excellent exposure of a Quaternary-age diamicton (interpreted as glacial till).

Site Importance – County Geological Site; recommended for Geological NHA

This site is the type locality for the Inch Conglomerate Formation, an important stratigraphic horizon in the Dingle succession that records sedimentation along a fault scarp in the mid-Devonian and provides evidence for a 1.4 – 1.8 billion year-old basement that lay to the south.

Management/promotion issues

The majority of the site lies within Dingle Peninsula SPA (site code 0004153) while the entire site is within the Castlemaine Harbour SAC and proposed NHA (site code 000343), and faces no obvious threats. Access at Coosarone and Bunnaturrish is steep and requires some climbing. It should only be attempted at low tide. Further promotion of these localities is not advised.

Gallagher et al., 2026. Geological Survey Ireland.



View of Inch West site, looking westwards, showing foreshore outcrops of Inch Conglomerate backed by cliffs of Quaternary diamicton.



General view westward of outcrops of the Inch Conglomerate at its type locality on the foreshore at Coosarone; coarse breccio-conglomerate on the right with well-bedded sandstone on the left.



Very large boulder-size clasts in clast-supported breccio-conglomerate at Coosarone.



Close-up of clast-supported breccio-conglomerate at Coosarone, showing closely-packed clasts displaying imbrication and clast alignment reflecting flow direction during deposition.



Lough Slat Conglomerate at Bunnaturrish, showing predominant quartz clasts.



Lough Slat Conglomerate (right) overlain by Cappagh Sandstone Formation, at Bunnaturrish.

