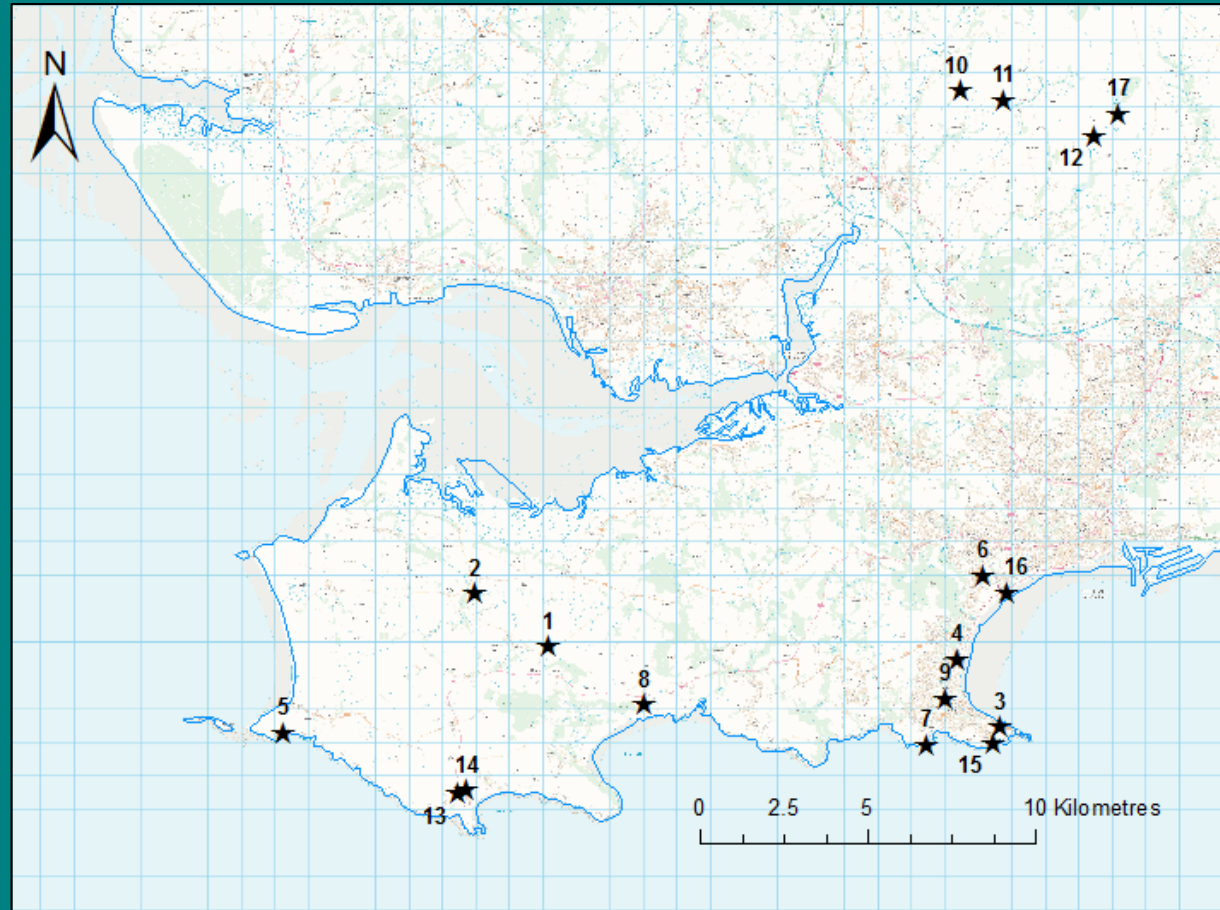




The South Wales RIGS Audit of 2012 listed nine RIGS sites in the Swansea area. A further desk study in 2016 identified a further 17 potential sites from Swansea and the Gower Peninsula. The sites are mainly of interest for Carboniferous and Pleistocene deposits, as well as geomorphological features, and some mineralogy.



From the initial list, a selection of eight have been identified as being of interest for a project starting in January 2017 in conjunction with the City and County of Swansea Council. Six site visits have so far have been undertaken to assess their suitability for registering as a RIGS. The project is still ongoing with further site visits being planned. Details of the first four of these sites are given here.

Limeslade Bay is proposed as a RIGS site for a large calcite vein rich in haematite-goethite iron minerals, which were mined between 1845 and 1899. The minerals are still present within the Carboniferous rocks on the beach. Most of the Iron Ore mining took place, in the mid/late 1800s, in 'The Cut' – a 700m long north-south feature, now much filled in, although evidence can still be found at the south end of Limeslade Bay.

On the beach, the mineralisation comprises a faulted zone around 6m wide and several tens of metres long. Within this zone are at least three N-S veins with near vertical Carboniferous Limestone between. Northwards the cut can be traced behind some bushes to a blocked up adit and reddened Limestone; beyond this the workings have been infilled.

The West Cross pericline is proposed as an easily accessible example of a small eroded anticline in the Upper Carboniferous. The axis runs east-west, at right angles to the shore, and is the only foreshore exposure of Upper Carboniferous rocks in Swansea.

The shales and sandstones reveal evidence of changing depositional environments from low-energy, off shore deposits to high-energy flood events. It is suggested this exposure belongs to the upper part of the Bishopston Formation (Late Namurian).



Cefn Bryn quarry is proposed as a RIGS as it is the only easily accessible location of the Old Red Sandstone on the Gower. It is an important location in understanding the stratigraphy of the ORS. Cefn Bryn is a long periclinal ridge, forming the back-bone of the Gower peninsula. The quarry exposes 5m of fining upward cycles of quartz-sandstones. Exposed at the base of the sequence there is a 0.6 m bed of conglomerate. This gives support to the view that the Brownstones and Quartz-conglomerates are part of the same sequence.



Killay Brick Pit is proposed as a RIGS for its industrial history. Clay for brick making was extracted from the quarry during much of the 19th century and first half of the 20th century. The pit reveals strata from the Lower Coal Measures, Farm Vein horizon. Ripple bedded sandstones, shales, clay iron-stones and fireclays are present, telling a story of changing depositional environments over time. Beneath the seat-earth is a band of silty shale containing non-marine bivalve fossils.