WLGS 4 East Kirkton Quarry (GCR, Geological SSSI, RIGS) [NS 9901 6913] (Figure 22) (Figure 25)

WLC site description

Part of the Strathclyde Group sites

Other designations: AGLV

East Kirkton Quarry exposes the Upper Viséan East Kirkton Limestone, a laterally impersistent sedimentary sequence within a thick succession of basaltic lavas and tuffs. The succession consists of limestones overlain by black mudstones. Within the limestones are contorted horizons with common spherulitic structures and chert nodules — these are interpreted as having formed in a hot spring environment. The site has yielded the world's earliest known terrestrial tetrapods. Specimens include the first complete articulated amphibians found in the Scottish Carboniferous this century — seven species have been recognised so far, with the commonest a form of primitive temnospondyl (ancestors of modern frogs and toads). Two or possibly three species of anthracosaur have been found including the first articulated anthracosaur skeleton from the Scottish Lower Carboniferous. Anthracosaurs are known from both aquatic and terrestrial forms and recent work suggests a link between these amphibians, early reptiles and amniotes. Another new species is the earliest known loxommatid. This group are poorly known, and there is an important possibility of finding the first ever articulated skeleton at this site during future research. Recent research has also revealed a wealth superbly preserved arthropods, particularly scorpions and eurypterids. New eurypterid material from East Kirkton is also under study, as are superb scorpion remains. By far the best complete Lower Carboniferous scorpions (internationally) are currently being studied. The oldest harvestman (opilionid) known was found here. East Kirkton Quarry is a Geological Conservation Review (GCR) (Arthropoda and Carboniferous–Permian Fish/Amphibians) site.

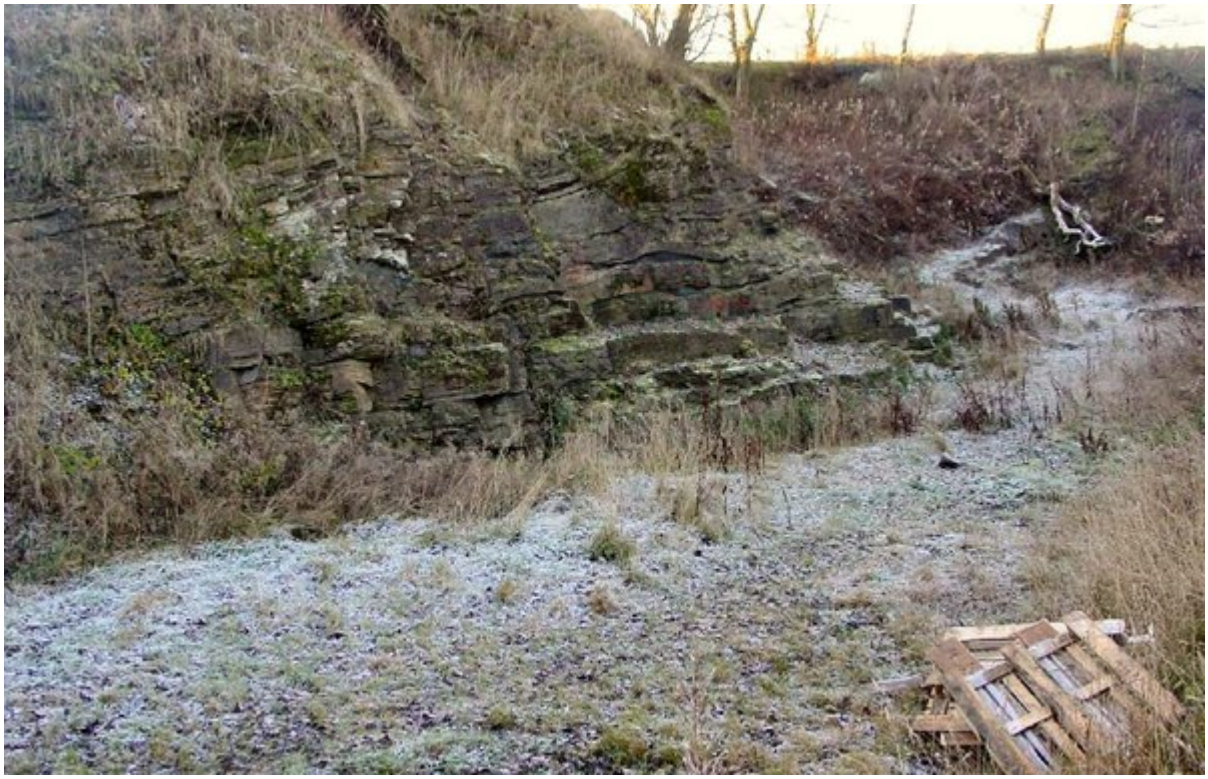
(Figure 22) Sign beside entrance gate [NS 9895 6891] to East Kirkton Quarry, Bathgate (WLGS 4).

(Figure 24) Quarry face in East Kirkton Quarry [NS 9901 6913], East Kirkton Limestone, West Lothian Oil Shale Formation (WLGS 4).

(Figure 25) The same face as (Figure 24), taken in 1994. BGS Photograph P2882 © NERC. WLGS 4.

(Figure 22) Sign beside entrance gate [NS 9895 6891] to East Kirkton Quarry, Bathgate (WLGS 4).

(Figure 25) The same face as (Figure 24), taken in 1994. BGS Photograph P2882 © NERC. WLGS 4.



(Figure 24) Quarry face in East Kirkton Quarry [NS 9901 6913], East Kirkton Limestone, West Lothian Oil Shale Formation (WLGS 4).