

COUNTY: DERBYSHIRE

SITE NAME: FALL HILL QUARRY

DISTRICT: NORTH EAST DERBYSHIRE

SITE REF: 15 W9Z

Status: Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act 1981 as amended

Local Planning Authority: DERBYSHIRE COUNTY COUNCIL, North East Derbyshire District Council

National Grid Reference: SK 354624

Area: 3.9 (ha.) 9.6 (ac.)

Ordnance Survey Sheet 1:50,000: 119

1:10,000: SK 36 SE

Date Notified (Under 1949 Act): –

Date of Last Revision: –

Date Notified (Under 1981 Act): 1990

Date of Last Revision: –

Other Information:
New GCR site.

Description and Reasons for Notification:

Fall Hill Quarry is situated 0.5 kilometres to the south-east of Ashover in north-east Derbyshire.

The Ashover Old Vein, about 2 m in width, occupies a fault plane trending north-west to south-east through Fall Hill Quarry, and is well exposed in the south-east corner of the site. An adit and shaft on the vein occur to the north-west of the quarry and in the intervening ground there is much mine dump material of mineralogical interest, especially in the backfill at the north-west end of the quarry, which covers exposures of the vein.

The main mineral is fluorite, with cubes up to 75 mm in size developed. Fluorite originating from the bottom of the quarry can enclose unusual bright crystals of unaltered marcasite, but of particular interest are coatings of smithsonite and greenockite, which are presumably derived from decomposition of adjacent sphalerite. The greenockite, found coating sphalerite, is iridescent and can include the cubic dimorph hawleyite, which is unknown elsewhere in Britain.

Mafic igneous rock, locally known as toadstone, underlies the fault plane on the western side of the quarry and is veined with fibrous calcite. Bright brassy filaments of millerite associated with chalcopyrite are embedded in calcite, particularly in a prominent vein near the base of the backfill slope. Cubes of pyrite occur in the calcite veins but are also ubiquitous in the toadstone.

In addition to the mineralogical interest, in the form of hawleyite and greenockite, the site displays two contrasting styles of mineralization, that in the toadstone represents remobilisation of syngenetic components, presumably at the time of the main fault-controlled mineralization.