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## Spireslack Locality 6: Fault cut by dyke

NGR: [274784 630568] [NS 74784 30568]

Key category of interest	Rarity	Quality
1. Structural geology	3	5
2. Igneous rocks	4	4
3. 3D visualization	3	4

**Access:** Good access to base of exposure, easily accessible from roadway.

**Current safety:** Little evidence of recent falling blocks observed on limestone pavement, uneven surfaces

**Measures to enhance site:** Flatten area at base of exposure as viewing area

Key categories in order of interest (1 = primary interest); Rarity, 5 = only example in Spireslack, 1 = many examples in Spireslack; Quality 5 = exceptional preservation in Spireslack, easy access/viewing potential 1 = average preservation in Spireslack, difficult access/viewing potential

### Photograph overview with polygon boundary

(Overview of Locality 6). Site boundary includes key rock exposures, immediate access to site and viewpoints to the site. Photo taken from scarp, looking north.

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## Site description

### Geology

At this locality a fault displaces the McDonald Limestone pavement down c. 2 m to the east. The fault displays well preserved slickenlines along the fault plane, indicating a sinistral sense of movement. A 1 m wide dolerite dyke cuts through the fault plane, thus proving the dykes that intrude the strata across Spireslack were emplaced after faulting had ceased. This is vital evidence for deciphering the geological history of the area. The same fault is observed on the scarp, providing a 3D perspective for fault networks across Spireslack.

### Access and enhancement suggestions

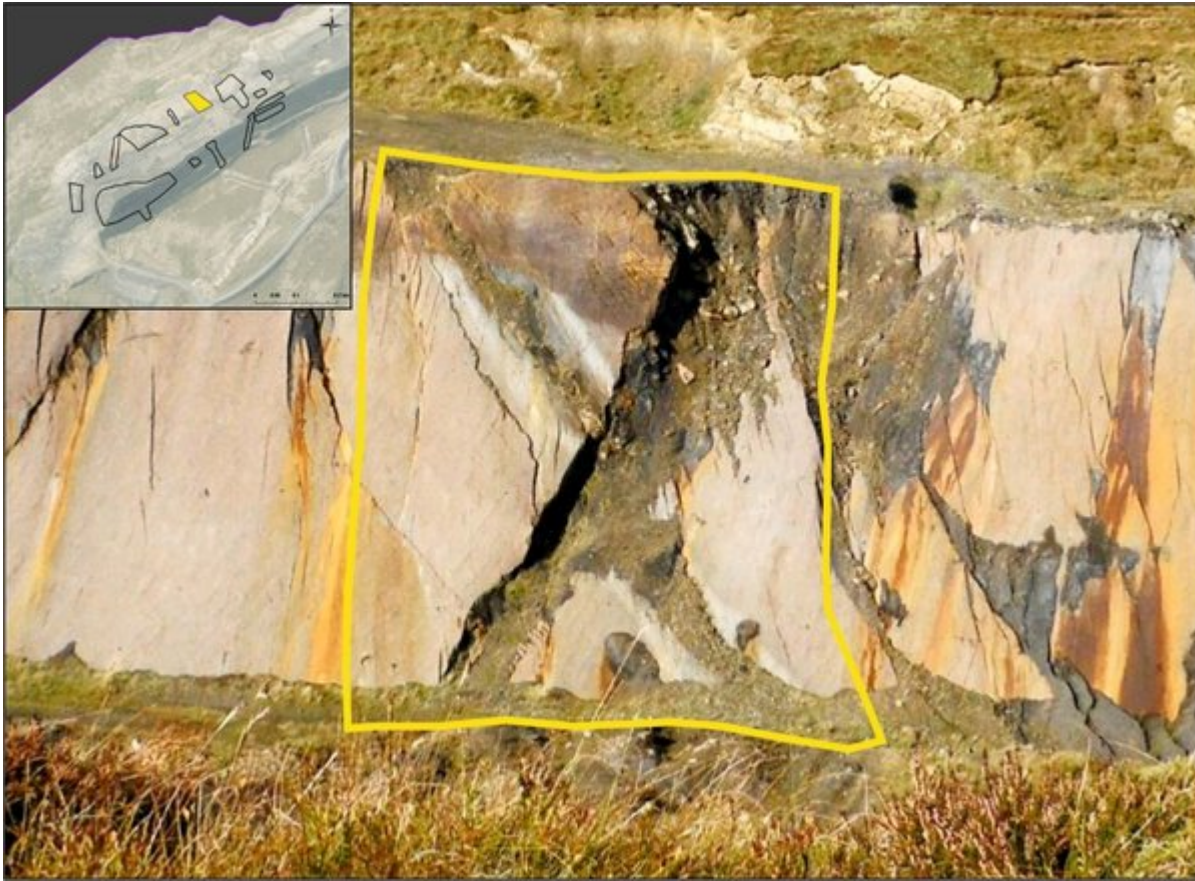
The fault is easily accessible from existing roadways and the face is clean. A post or board indicating the direction of the equivalent fault in the scarp would aid in 3D visualisation appreciation.

### Site photographs

(Spireslack\_6 P1): Fault plane with well-preserved slickenlines and smearing of limestone layers across fault plane. The dyke cross cutting the fault is indicated with an arrow. © BGS, NERC.

(Spireslack\_6 P2): The same fault observed in the scarp, where it is seen in section cutting mudstones, coal and sandstones. © BGS, NERC. This fault is best observed from the northern limestone pavement as its features are obscured up close.

### [References](#)



*(Overview of Locality 6). Site boundary includes key rock exposures, immediate access to site and viewpoints to the site. Photo taken from scarp, looking north.*



*(Spireslack\_6 P1) Fault plane with well-preserved slickenlines and smearing of limestone layers across fault plane. The dyke cross cutting the fault is indicated with an arrow. © BGS, NERC.*





*(Spireslack\_6 P2) The same fault observed in the scarp, where it is seen in section cutting mudstones, coal and sandstones. © BGS, NERC. This fault is best observed from the northern limestone pavement as its features are obscured up close.*