
Spireslack Locality 14: Underground mine workings and dyke

NGR: [274708 630420–274537 630321], [NS 274708 30420]–[NS 74537 30321]

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

Access: Good access to base of exposure (but danger of rock fall from above), easily accessible from roadway. Current safety: Potential for falling rocks and potentially unstable surface on scarp. Uneven footing. Measures to enhance site: Create viewing platform set back from wall to appreciate features.

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 14). Site boundary includes key rock exposures, from the underground coal workings to the trace of the dyke from locality 2.

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Site description

Geology

This locality encompasses three key features. The first feature is a section through old underground mine workings, which during operation, extracted the Muirkirk Nine Foot Coal. The old mine workings were left to collapse after extraction and the void which once contained the coal is now filled with packed mine waste — mostly brecciated and poorly sorted coal or other rock fragments. On this wall, the sandstone layer overlying the worked coal horizon is warped downward and fractured, due to settling of the strata above the collapsed mine workings. However, at least 3 pillars within the coal remain visible in the section; these are the rock pillars that were left in place during underground workings to stabilise the mine workings. The second key feature is the exposure of the dyke described in locality no. 2 — see description therein. The third key feature is the view provided at the far west end of this locality. From here the dip of strata within Spireslack in 3D can be appreciated.

Access and enhancement suggestions

Viewing platform to stand back and appreciate the broader internal structure of the mine (remaining pillars, collapsed workings, overlying strata collapse) and linking the dipping strata with the rocks on the scarp.

Site photographs

(Spireslack_14 P1): Eastward edge of old mine workings seen in the south wall. The thick 'pillars' of coal (P) beneath the sandstone bed were used to prop up the roof of the mine workings whilst the coal was extracted from between pillars. © BGS, NERC.

(Spireslack_14 P2): Western edges of old mine workings seen in the south wall. The random blocks of sandstone and coal can be seen to the left of the photo, this is infilling the space devoid of coal which has been extracted. The 'pillar' of

coal (P) can be seen to the right of these blocks. © BGS, NERC. P

(Spireslack_14 P3): The middle pillar of this section (P) can be seen in the middle of the photograph. The sandstone bed above the coal, on either side of the pillar, has collapsed after the coal was extracted. © BGS, NERC.

(Spireslack_14 P4): Viewing platform, facing west. Good place for visualising the true dip of the strata (wall facing photo) compared to the apparent dip of the strata (seen on the scarp). © BGS, NERC.

[References](#)



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(Spireslack_14 P1) Eastward edge of old mine workings seen in the south wall. The thick 'pillars' of coal (P) beneath the sandstone bed were used to prop up the roof of the mine workings whilst the coal was extracted from between pillars. © BGS, NERC.



(Spireslack_14 P2) Western edges of old mine workings seen in the south wall. The random blocks of sandstone and coal can be seen to the left of the photo, this is infilling the space devoid of coal which has been extracted. The 'pillar' of coal (P) can be seen to the right of these blocks. © BGS, NERC. P



(Spireslack_14 P3) The middle pillar of this section (P) can be seen in the middle of the photograph. The sandstone bed above the coal, on either side of the pillar, has collapsed after the coal was extracted. © BGS, NERC.



(Spireslack_14 P4) Viewing platform, facing west. Good place for visualising the true dip of the strata (wall facing photo) compared to the apparent dip of the strata (seen on the scarp). © BGS, NERC.