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## NWHG Ref. 039 — Loch Ailsh Intrusion

### Location, grid reference and photograph

The site covers an area of about 10 km<sup>2</sup> extending from within 750 m of the northern shore of Loch Ailsh and on either side of the Oykel valley for some 3 km, Grid Ref. [NC 330 115]–[NC 360 150]–[NC 330 160]–[NC 310 140]–[NC 310 125].

(Figure 37) Complex cross-cutting relationships in the Loch Ailsh syenites Glen Oykel. BGS Photo P506429 — K M Goodenough.

### GCR site reference, block, volume and notified feature of SSSI?

GCR Ref. 1221, Caledonian Igneous Block, Vol. 17. Notified as feature of Ben More Assynt SSSI.

### Description and geological significance

The Loch Ailsh intrusion is important because it includes a suite of unusually sodium- rich syenites considered to be unique in the British Isles. It is internationally important as it includes the type-locality for alkali feldspar syenite, or “perthosite”. The radiometric age and structural relationships are important for the timing of movements in the Moine Thrust Zone.

### Accessibility

The intrusion occupies a huge area of about 10 km<sup>2</sup> and can be accessed to some extent via unsurfaced forestry tracks within Glen Oykel. A considerable amount of walking over rough terrain and within forestry areas is required. There is no all abilities access.

### Conservation

Low conservation requirement due to the scale and location of the site area.

### Visibility and “clarity”

General views only of the associated terrain and mountainous landscape can be had from the north-east side of Loch Ailsh. Specialist knowledge is required in order to associate individual landscape features to the particular rock-types occurring within the intrusion.

### Interpretation and interpretation potential

The Loch Ailsh intrusion lies in a very remote area and is unlikely to be of interest to the general public as it requires specialist knowledge to interpret it. Nonetheless, it does represent an important locality for petrological studies and for examining the detailed timing of movements in the Moine Thrust Zone. There may be some potential, therefore, for developing the area as a teaching resource for geology students. The area should be listed in a future Geopark guide but guided walks specifically to see the key features would be inappropriate.

### Key references

PARSONS, I. 1999. Late Ordovician to mid-Silurian alkaline intrusions of the North-west Highlands of Scotland. In Stephenson, D., Bevins, R. E., Milward, D., Highton, A. J., Parsons, I., Stone, P. & Wadsworth, W. J. (eds) *Caledonian Igneous rocks of Great Britain*. Geological Conservation Review Series, 17, Chapman & Hall, 345–393 (site description page 366).



*(Figure 37) Complex cross-cutting relationships in the Loch Ailsh syenites Glen Oykel. BGS Photo P506429 — K M Goodenough.*