

# Marshall Moor Lava Member

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## Marshall Moor Lava Member (**MALA**), Renfrewshire Hills, Carboniferous, Midland Valley of Scotland

The Marshall Moor Lava Member is part of the [Clyde Plateau Volcanic Formation](#).

### Name

Previously named the Marshall Moor Lavas (Paterson et al., 1990)<sup>[1]</sup>. Part of the ‘Lower Group’ of Richey (1928)<sup>[2]</sup> and ‘unit 4’ of Johnstone (1965)<sup>[3]</sup>. See also Monro (1999)<sup>[4]</sup>.

### Lithology

Macroporphyrritic mafic basalts; olivine-clinopyroxene-plagioclase-macrophyric basalt (‘Dunsapie’ type) and olivine-bearing plagioclase-macrophyric basalt (‘Markle’ type) with some olivine-pyroxene macrophyric basalt (‘Craiglockhart’ type or ‘ankaramite’).

### Stratotype

The type area includes the thickest part of the unit between Peockstone (NS 357 610) and Bridge of Weir (NS 388 655) (see Paterson et al., 1990)<sup>[1]</sup>.

### Lower and upper boundaries

Lavas of the Marshall Moor Lava Member are considerably more mafic than those of the underlying [Strathgryfe Lava Member](#). The abrupt change may imply a significant time interval between the two petrologically distinct volcanic episodes.

A marked petrographical change distinguishes the macroporphyric mafic basalts (‘Dunsapie’ and ‘Craiglockhart’ types) of the Marshall Moor Lava Member from the overlying microporphyric mafic basalts (mainly ‘Dalmeny’ type) of the [Kilbarchan Lava Member](#).

## Thickness

Up to 75 m.

## Distribution and regional correlation

In the south-eastern Renfrewshire Hills: the thickest development of the member occurs in the area between Peockstone (NS 357 610) and Bridge of Weir (NS 388 655) and it is well exposed around Marshall Moor (NS 375 625). To the north it becomes discontinuous in faulted outcrops between Yonderton (NS 390 667) and Barochan (NS 420 693). To the south, outliers occur around Lochwinnoch golf course (NS 344 597) and a single flow occurs beneath the Kilbarchan Lava Member between Glenlora and the Maich Water (NS 324 587). The most southerly outcrops are on the east side of the Maich Water around Ladyland (NS 325 578).

## Age

Mid Visean (Arundian to Asbian).

## References

- ↑  <sup>[o 1]</sup>  <sup>[1]</sup> Paterson, I B, Hall, I H S, and Stephenson, D. 1990. Geology of the Greenock district. *Memoir of the British Geological Survey*, Sheet 30W part 29E (Scotland)
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- ↑ Monro, S K. 1999. Geology of the Irvine district. *Memoir of the British Geological Survey*, Sheet 22W, part 21E (Scotland)

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