**Appendix DM1 Structures in the Dalradian host rocks of the SHSC**

The SHSC is emplaced in metasediments of the Dalradian Aberdeen Formation on the coast between Aberdeen and Findon (see Figure 2, main text). The Formation is well exposed along this stretch of coastline whereas inland exposure is generally poor (Munro 1986). The structures have been described by Munro (1986) and Harte et al. (1984, 1987). Three fold phases have been recognised at Cove, 1 km south of the SHSC, and within the granite vein complex (see main text) (Munro 1986; Kneller and Aftalion, 1987; Kneller and Gillen, 1987). A fourth phase appears at Findon 3km south of Cove, which becomes more important southwards as the Highland Border Downbend is approached (Harte et al., !984, 1987).

At Cove, the closest good quality outcrop to the SHSC, the earliest structures are rootless recumbent isoclinal folds (F1) transposed into the compositional banding which has produced the dominant composite fabric seen throughout the area. Asymmetric folds assigned to (F2) with amplitudes of several metres are the main folds affecting this fabric. The third phase is open folds with 5-10 m wavelengths (Munro 1986). The occurrence of three main fold phases in the area immediately surrounding the SHSC follows the general picture for the Aberdeen Formation and NE Scotland.

The nearest and most accessible exposures to the SHSC lie in a 400 m transect following the clifftop path immediately north of the complex. The metasediments are mainly finely banded (mm to cm scale) semi pelites with some pelitic bands. There is a dominant fabric which is generally flat lying but in places steeper dips up to 30 degrees occur, possibly linked to large scale open folding. Observable folds are small (cm-m) scale and sparsely developed. The earliest are rootless recumbent isoclinal folds (1 m amplitude) assigned to (F1) which are conformable with the compositional banding producing a composite S0/S1 fabric (the dominant fabric throughout the area). Cm scale microfolds of the composite fabric are assigned to F2. A third phase of folding is not seen here unless represented by the localised steeper dips.

References reported in main text.