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## Some sedimentary features of the Silurian Liafjellet Group, south-central Scandinavian Caledonides

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Mt. Liafjellet in eastern Trøndelag (Fig. 1), south-central Norway is composed of a Silurian (Getz 1890; Hardenby 1980) metasedimentary sequence, which in current tectonostratigraphic scheme has been referred to the Middle Köli Nappes of the Caledonian Upper Allochthon of Scandinavia (Stephens & Gee 1985). According to the local terminology this succession occupies the easternmost thrust sheet (Meråker Nappe) of the Trondheim Nappe Complex (Wolff 1967, 1973; Guezou 1978) separated from the underlying units of the Seve-Köli Nappe Complex (Kulling 1972; Gee & Zachrisson 1979) by a regional thrust surface, the Grense Thrust (Roberts 1967). The distance of emplacement of all these different thrust sheets from their pre-orogenic position to that of today has been estimated at several hundred kilometres; for an overview see Gee et al. (1985).

The eastern part of the Trondheim Nappe Complex comprises a Cambrian(?) to Silurian succession of rocks divided into five groups (Hardenby 1980): the Fundsjø Group, Sulåmo Group, Kjølhaugan Group, Slågan Group and Liafjellet Group. This note deals with the upper part of the Liafjellet Group in the Liafjellet area and focusses in particular on lithostratigraphy and sedimentology, coupled with some observations on the dominating fold structures.

**Structure.** - Structural geology of the Liafjellet area has been treated previously by Hardenby (1980, 1982, 1983) who studied this folded sequence, vertical to overturned in the western limb of syncline, the axis of which passes through the top of Liafjellet (Fig. 1). Our study confirms Hardenby's interpretation and presents additional detailed information along a profile, measured by one of us (BE), from the Slågan valley in the northwest to the northwestern slopes of Liafjellet in the southeast (Fig. 2). Way-up evidence, such as normal grading, ripple cross-bedding, erosion surfaces and sole structures along the northwestern part of the section indicate that the younging direction is consistently eastwards; in the southeastern part of the section (i.e. in the eastern limb of the syncline) the sequence is right way-up. More than one hundred way-up observations were recorded along this profile to substantiate the interpretation on Fig. 2.

A west-dipping axial-surface cleavage accompanies a set of non-cylindrical folds plunging gently c. S25W (Fig. 2); they correspond to Hardenby's (1982) S<sub>2</sub> and F<sub>2</sub>, respectively. These folds appear to be the dominating structural feature in this area and are used for construction of Fig. 2. A later set of axial-surface cleavage, dipping 40-50° ESE and the associated kink-folds