

3. Mt. Selina In-fill

In-fill lines totalling 5.08 line-km were cut over the Mt. Selina Geochemical Anomaly Zone (Table 7). The new lines were pegged at 20 m intervals both sides of the baseline. An error in the line bearing resulted in a 6° vergence between the new and old lines.

2.2.3 Geology

1. Introduction

Geological mapping was conducted in conjunction with geochemical sampling traverses along lines 248N-192N of the northern extension, and lines 132N-108N of the Mt. Selina Geochemical Anomaly Zone.

Figure 15 shows the interpreted geology of the Selina area as well as sampling locations of rock specimens which are stored at Mt. Lyell. Data from previous mapping (McKibben, 1972 Map 10), geophysical surveys and airphoto interpretation were used in compiling Figure 15.

Major lithological units recognised in the Selina area are:

QUATERNARY	- Moraine, alluvium, scree
ORDOVICIAN	- Owen Conglomerate
CAMBRO-ORDOVICIAN	- Jukes Formation
	- Dora Conglomerate correlate
CAMBRIAN	- Granitic intrusives
	- Central Volcanic Sequence
LOWER CAMBRIAN	- Success Ck. Group correlate
PRECAMBRIAN	- Quartzite, quartz-mica schist.

2. Precambrian Quartzite

The Sticht Range, east of the Selina Grid, is composed of Precambrian quartzites and quartz-mica schists. The Selina Grid does not extend east over the contact between the Precambrian rocks and the Lower Cambrian sediments but outcropping quartzite was noted near the eastern gradient array #7 electrode and previous mapping (McKibben, 1972, Map 10) has recorded the approximate position of the contact.

3. Lower Cambrian Sediments

The sequence of pebble conglomerate, quartz sandstone, siltstone and black shale, resting unconformably on the Precambrian quartzites and correlated with the success Ck Group, was found to continue along the eastern flank of the northern extension. In the north-flowing creek immediately east of the 1400 mE sub-baseline, black shales have been strongly sheared into graphic schists.

The contact between these sediments and the overlying tuffs is gradational and outcrops in the Anthony River north of line 224N show a mixture of the two lithological units over a width of at least 20 m.