

Sample SC2/BF Sulphide Ro Tail/Table-Superpanner Conc

Size Fraction ( $\mu\text{m}$ )	Sn, %
+250	8.04
-250 +150	18.9
-150 + 75	31.9
- 75 + 53	26.4
- 53	37.1

## J2. PROCEDURE

Representative polished sections (PS22545-22564) were prepared of each size fraction and point-counted and/or gross-counted to quantify the mineral proportions and the locking characteristics of cassiterite.

Portions of the -250 +150  $\mu\text{m}$  and -75 +53  $\mu\text{m}$  fractions were acid-leached to remove 'acid-soluble tin' minerals, sulphides and iron oxides using separate attacks with nitric and hydrochloric acids. The residues were weighed and sized - using 150, 75 and 53  $\mu\text{m}$  screens for the residues of the -250 +150  $\mu\text{m}$  fractions and a 53  $\mu\text{m}$  screen for the residues of the -75 +53  $\mu\text{m}$  fractions. The various size fractions of the residues were examined briefly under a stereobinocular microscope and then analysed for tin (using the whole of the size fraction). The distribution of tin with particle size in the residues was calculated.

## J3. MINERALOGICAL COMPOSITIONS OF THE TABLE/SUPERPANNER CONCENTRATES

The mineralogical compositions of the various size fractions of the superpanner concentrates as determined by point-counting are given in Table J1.

An estimate was made of the cassiterite/stannite ratio and in all cases this was greater than 10 and in most cases greater than 30. Cassiterite is thus the dominant tin-bearing mineral in the table/superpanner concentrates.

## J4. LIBERATION OF CASSITERITE IN THE TABLE/SUPERPANNER CONCENTRATES

Table J2 summarises the liberation and locking characteristics of cassiterite in the table/superpanner concentrates. Liberation increases progressively down the size range and unliberated cassiterite is mainly locked with non-opaque gangue in all samples except SCl/BF, where substantial proportions are also locked with sulphide.