

All samples collected with 1 m hand augers and stored in calico bags. After drying, at about 45°C, they were sieved to obtain a -80# fraction (the +80# fraction was retained and stored at Mt. Lyell).

0.25 grams of sample was heated in 5 ml of 1:3 nitric acid/perchloric acid. After digestion the solution was topped up to 25 ml with distilled water and analysed by AAS for Cu, Pb, Zn, Ag, Mn and Co at Mt. Lyell. Detection limits were 10 ppm for Cu, Pb, Zn, Mn and Co, and 2 ppm for Ag.

Rock chip samples were crushed and pulverised in the Mt. Lyell sample preparation room. To prevent contamination from Mt. Lyell ore, several blanks, consisting of quartz sandstone from a road quarry near the Queenstown aerodrome, were used to clean out the crushers prior to crushing the exploration samples. The pulverised fraction was assayed at Mt. Lyell in the same manner as for soil samples. For fire assays 100 g of pulverised rock was used.

#### 4. GEOPHYSICS

##### (i) Gradient Array I.P.

TABLE 11

Selina Grid Gradient Array I.P. Coverage 1981-82

Array Number	Electrode Co-ordinates AMG		Line	Interval	Length
	West End	East End			
8	5365 940 mN 385 200 mE	5365 870 mN 387 410 mE	248N	200 mW - 1640 mE	1 840 m
			240N	20 mW - 1540 mE	1 560 m
			232N	100 mW - 1500 mE	1 600 m
			224N	40 mW - 1560 mE	1 600 m
7	5365 590 mN 385 340 mE	5365 090 mN 387 440 mE	216N	00 mW - 1580 mE	1 580 m
			208N	140 mE - 1620 mE	1 480 m
			200N	140 mE - 1620 mE	1 480 m
			192N	120 mE - 680 mE	560 m
TOTAL					11.70 km

#### I.P. EQUIPMENT

Transmitter : Scintrex 2.5/3 kW time domain I.P. transmitter  
 Receivers : Scintrex IPR-8 receivers  
 Cycle : Alternating square wave. 8 seconds per cycle  
 (2 second on-2 off-2 on, reverse polarity-2 off)  
 Receiver dipole : 20 m  
 Station Interval : 20 m  
 Plotting point : Mid point of receiver dipole  
 Survey dates : 25th November - 3rd December, 1981 (8 days)  
 Chargeability : Normalised intergration of decay curve 650-1170 ms after shut off