Statistical Treatment

For the purpose of determining 'threshold' approximations for the Cu, Pb and Zn results from the geochemical drainage sampling survey, the area of Cambrian Lewis River Volcanics, approximately 51 square kilometres, was treated as a single population.

The probability density distribution plots or 'cumulative frequency' plots of the log 10 concentrations of Cu, Pb and Zn were calculated in order to determine the threshold values or approximate dividing points between overlapping log normal distributions. The results are shown in Figure No 2.

The method of selection of thresholds is subjective as several assumptions are required; the most important being that the accuracy of assaying is as good as the reported figures imply.

In this case the cumulative frequency plots for the Cu, Pb and Zn results approximate to straight lines and the points of inflection are not altogether obvious. Cu and Zn both showed a single point of inflection (P1), however Pb in addition to the higher P1 threshold is also characterized by a P2 inflection point.

The following are the thresholds above which the values can be considered statistically anomalous. The number of values above the threshold is expressed as a percentage of the total (in brackets).

	Elliott Bay E.L. 27/76		Lewis River Volcanics
	Cu	Pb	Zn
P1	5ppm (3.0%)	130ppm (0.3%)	55ppm (2.0%)
P2		50ppm (2.0%)	