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- i) Whole rock data in published and un-published sources:- Jack (1989), CSIRO, AMIRA and Department of Mines.
- ii) Data from adjacent EL's released through joint venture or on open file.
- iii) Further sampling of drill core. A total of 89 samples collected and analysed for Cu, Pb, Zn, Ba, As, Ag, Cr, Ni, Ti, Zr, Mn, CaO, K₂O, MgO, Na₂O, Sr and Rb (results and locations are in Appendix 8).

is in progress. Samples have been taken from un-weathered drill core as initial studies (McNeill, 1990) indicated that weathering of surface samples and leached zones in drill core had a marked effect on some element abundances, most notably the alkali.

In an attempt to minimise primary compositional effects, samples were selected from five stratigraphic horizons within the QHV, e.g. within 10m of the base of the hangingwall basalt/andesite. The database now is up to date for the Top and base of the hangingwall basalt/andesite sequence. Data from these two horizons are presented in Appendix 8. Initial interpretation of the data is in progress and it is planned to apply statistical techniques such as trend surface analysis (Gannicott et al, 1979) to define alteration patterns.

3.5 Summary and Recommendations

Investigation of the various geochemical and geological aspects of the Que Hellyer Volcanics have shown promise as vector indicators for massive sulphide mineralisation. Some of the research and pilot studies are at an early stage and benefits are as yet not readily apparent. It is recommended that this approach to assist in the definition of more conceptual targets continue. More specifically;

- Continue support of higher degree research into palaeoenvironments at Mackintosh (J. Waters, G. Lees).
- Evaluate B. Gemmill's proposal for further research of Pb isotopes.
- Continue Rb-Sr studies of Hellyer hangingwall rocks and at Mount Charter.
- Evaluate Alisdair Cookes pilot structural study.
- Initiate a structured compilation of the comprehensive Mackintosh data base.
- Follow up lineament study by statistical analysis of soil data in conjunction with regional interpretation of geophysical data.