

052

## 1. INTRODUCTION

Following the submission of a proposal by R. F. Loxton, Hunting and Associates on 1st May, 1978 and the receipt of acceptance by the Electrolytic Zinc Company of Australasia Limited, on 5th May, 1978, work commenced on a detailed photogeological study of an area extending north and south from Rosebery. The study area extends from approximately  $41^{\circ}31.6'S$  to  $41^{\circ}56.8'S$  and from  $145^{\circ}27.9'E$  to  $145^{\circ}45'E$ , and covers approximately 930 square kilometres. (see Fig.1)

Specific photogeological attention to the following was required:

- (a) Elucidation of structure within the Mt. Read Volcanics.
- (b) Attempted recognition of lithological units within the Mt. Read Volcanics; specifically sedimentary beds which could correspond with those acting as hosts to mineralisation at Rosebery and Hercules.
- (c) Attempted detailed photogeological elucidation of the litho-structure which constitutes the Colebrook Hill area, and adjacent ground.
- (d) Recognition of areas of glacial deposits and their extent thickness, distribution and provenance.

The project involved the study of two sets of panchromatic 23 x 23cm aerial photographs with a nominal scale of 1:40 000. Total number of photographs studied was 167, of which 123 covered the study area.

A hand-coloured photogeological map was to be produced at a scale of 1:50 000 showing all geology and relevant natural and cultural features such as roads and tracks, rivers and creeks, towns, railway lines and power lines and mines.

The project was completed within a period of 46 days. A total of twelve days was spent in the field, checking photogeological data, acquiring details of fact-mapping carried out by Electrolytic Zinc personnel, and liaising with relevant E.Z. geologists.