INTRODUCTION

A DIGHEM^{III} survey totalling 360 line-km was flown with a 250 m line-spacing for Amax Australia Ltd., from January 6 to 7, 1984, in the Sheffield area of Tasmania (Figure 1).

The VH-BQT Lama turbine helicopter flew at an average airspeed of 115 km/h with an EM bird height of approximately 42 m. Ancillary equipment consisted of a Sonotek PMH 5010 magnetometer with its bird at an average height of 27 m, a Sperry radio altimeter, a Geocam sequence camera, RMS GR33 analog recorder, Sonotek SDS 1200 digital data acquisition system and a DigiData 1130 9-track 800-bpi magnetic tape recorder. The analog equipment recorded four channels of EM data at approximately 900 Hz, two channels of EM data at approximately 7200 Hz, two ambient EM noise channels (for the coaxial and coplanar receivers), two channels of magnetics (coarse and fine count), and a channel of radio altitude. The digital equipment recorded the EM data with a sensitivity of 0.2 ppm and the magnetic field to one nT.

Appendix A provides details on the data channels, their respective sensitivities, and the flight path recovery procedure. Noise levels of less than 2 ppm are generally maintained for wind speeds up to 35 km/h. Higher winds may cause the system to be grounded because excessive