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DIGHEM identified a total of 225 discrete EM responses within the Rosebery East area (See Figures 2 - 4). These responses were computer modelled and manually interpreted by DIGHEM, Canada and divided into the following categories of most likely source:

<u>Conductor Model</u>	<u>No. of Responses</u>
Discrete bedrock conductor (B)	19
Conductive cover (S)	10
Rock unit or thick cover (H)	76
Edge of wide conductor (E)	10
Culture (L)	110
Questionable or indeterminate (X)	10

Prominent bedrock conductors were located over the Sterling Valley and western White Spur black shale sequences. Both areas have been tested, in part, by diamond drilling. The source of other bedrock conductors is not known and are currently being investigated. Numerous surficial responses apparently reflect conductive overburden, such as glacial scree covered or swampy terrain, particularly in the Stitt and Sterling Valleys. Most of the responses attributed to cultural sources have been related to Hydro Electric Commission transmission lines, steel casing in the Bastyan and Mackintosh dam walls and mineralized waste in the Bobadil Tailings Dam.

A high frequency of 7,200 Hz was used in the DIGHEM survey to enable the contoured resistivity map to be used to indicate areas of less resistive sedimentary horizons within the main volcanic sequence. The survey has shown that, in general, the Rosebery East area is made up of highly resistive rocks, with resistivities in excess of 2,000 ohm m. However, several discrete zones of low resistivity were identified, including Mt. Black, Sterling Valley, Stitt Valley and White Spur areas (See Figures 5 - 7). These areas are being progressively investigated by detailed exploration.

The contoured total field magnetics and enhanced magnetic maps have been used to identify separate lithological regimes (See Figures 8 - 13). They are particularly helpful for geological and structural interpretation. For example, the areal extent of