

Notes on richter property EM16R resistivity survey.

During Sept 1989, MWH Geo-Surveys Ltd performed a test EM16R surface resistivity survey on the Richter property of Minnova Inc.

The EM16R system is essentially a 10 meter dipole resistivity meter. The unit uses VLF transmitter stations as a source and measures the three components of the electromagnetic field. From this, apparant resistivity and phase angle are derived.

The field area proved to consist of two resistive regimes:

- 1) homogeneous half space
- 2) two layer case, upper layer conductive overburden.

Where overburden was present, resistivities were on the order of 200 ohm meters lower than adjacent readings. The 2 layer case was indicated by phase angles of 60 degrees as opposed to 45 degrees for the single layer homogeneous half space model.

In order to compensate therefor, 200 ohm meters were added to all readings that showed a phase angle of roughly 60 degrees. The resultant numbers were then contoured in the hope that they reflected bedrock resistivities.

The simplified geology of the area consists of silica rich quartz veining (high resistivity) and altered gossanous areas (low resistivity)

Results were contoured using 300 ohm-meters as the dividing line between these 2 regimes. This is purely an empirical division.

Generally, the resistivity pattern appears to correlate well with the geological pattern. Line to line correlation is good.

Increased density of the readings to 50 meter lines would very likely clarify the geology, especially the faulting.

In addition, a gradiometer magnetic survey may give you some usefull information on exact location of contacts.

sincerely

Alan Wynne

