

Electromagnetic prospecting for massive sulphide deposits

M.E. Best¹ and P. Keating²

¹*Geological Survey of Canada, P.O. Box 6000, Sidney, British Columbia V8L 4B2, Canada*

²*Geological Survey of Canada, 3 Observatory Crescent, Ottawa, Ontario K1A 0Y3, Canada*

The objective of the course is to provide students with a basic knowledge of airborne electromagnetic (EM) interpretation. It focuses on helicopter electromagnetic (HEM) interpretation in anticipation of the data from the helicopter multi-parameter geophysical survey carried out in the Bathurst Mining Camp last fall, scheduled for release this summer.

The course is divided into two sections. The first section presents the basic principles of EM prospecting and

discusses the relationship between physical parameters and EM responses. Examples of ground and airborne responses over ore deposits and graphitic conductors in the Bathurst Mining Camp and graphitic conductors in the Timmins clay belt are shown. Some interpretation pitfalls are discussed as well. The second section focuses on helicopter EM interpretation using examples from existing surveys. Data presentation and interpretation techniques are illustrated using maps and sections from these surveys.