

Preface

Exploration, the prerequisite to the development of any mining industry, provides the means whereby a country determines its mineral wealth. During 1977 the non-fuel sector of the mining industry in Canada produced more than \$7 billion dollars of new wealth, a significant fraction of the country's gross national product. Mining also generates a demand for a wide range of goods and services, and expenditures by the mining industry have a multiplier effect throughout the economy. Mines demand an infrastructure of new roads, electric power and communications. This can have a major effect on the growth of a region or even a whole country. Thus establishment of a mining industry is often the first step in the development of a country.

Mineral exploration today is highly dependent on the application of geophysics and geochemistry. The relevant knowledge and technology is expanding rapidly, becoming more and more specialized, and expensive to apply. The ever increasing costs must be paid for by society as a whole in the price paid for mineral products. Thus the public interest is served by providing those involved in exploration with up-to-date reviews of the state-of-the-art to assist them in their task. In 1970, the Geological Survey of Canada published the *Proceedings of the 1967 Conference on Mining and Groundwater Geophysics*; the demand for this volume proved to be so great that three reprintings were required. It is therefore appropriate that the Geological Survey of Canada publish the successor to this volume not only as a contribution to increasing the efficiency and effectiveness of exploration but also as a measure of the advances made during the past decade.

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