

## THE PAST PRESIDENTS' MEDAL FOR 1986 TO DONALD F. SANGSTER

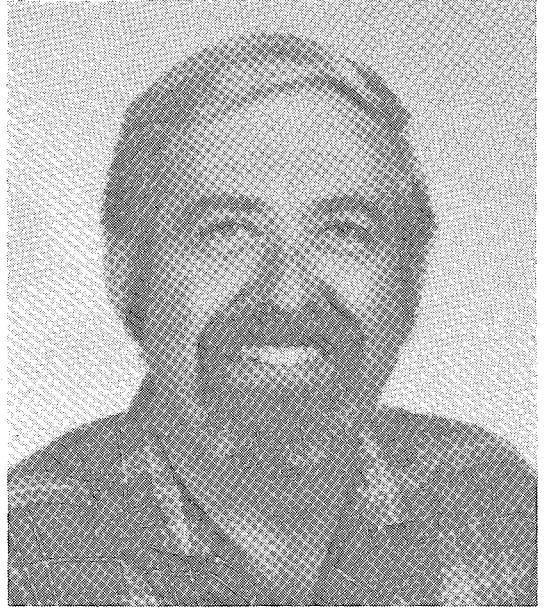
Mr. President, members of the Mineralogical Association of Canada, and guests:

It is my pleasant duty today to present the Mineralogical Association of Canada's Past Presidents' Medal for 1986 to Donald F. Sangster. Our Association's Past Presidents' Medal is a relatively new award, first presented in Winnipeg to the late Len Berry in 1982. It is awarded for excellence in research in order to recognize outstanding contributions to the "mineralogical sciences" in Canada. These, as you all know and appreciate, cover the fields of geochemistry, crystallography, mineral deposits, and petrology, in addition to mineralogy.

I first met Don in 1959 at McGill University, where our paths mainly crossed at graduate student social events. I was involved in learning about mineral exploration, and Don was developing thermochemical experiments on iron minerals in a dark corner of the Department of Geological Sciences' basement. On completion of his M.Sc. in 1961, Don left McGill for UBC, where he opted for more field-oriented research, though still concerned with iron-bearing minerals. Following the award of his Ph.D., Don returned east where he was employed by the Geological Survey of Canada and where he eventually focussed on lead-zinc deposits. Don's steady progression at the Geological Survey to the top of the Survey's scientific ranking, including a brief inevitable period as section head, is a reflection of his career in mineral-deposits geology.

Don has made outstanding contributions to our understanding of lead-zinc deposits, as a result of his work and through communications with others working on such deposits. His 1972 review of the characteristics of volcanogenic massive sulfide deposits (GSC Paper 72-22) ranks as a landmark and is one of the Survey's all time best-sellers. His comments about the importance of "mill rock" (coarse rhyolite fragmental rock) in the recognition of the massive sulfide environment is typical of the value of his down-to-earth approach to scientific matters, making his contributions noticed and appreciated by students as well as by seasoned professional explorationists worldwide.

In addition to his solid and productive research, Don has acted effectively as a stimulator and a catalyzer for colleagues both in the mineral-deposits community at large and inside the Survey. He is recognized as a world authority and as a scientist who has turned his innovative and energetic hand successfully to a variety of problems in mineral-deposits geology, *e.g.*, carbonate-hosted, sandstone-hosted,



DONALD F. SANGSTER

and shale-hosted lead-zinc deposits, volcanogenic massive-sulfide deposits, and the applications of lead isotopes to an understanding of the environment of formation of these deposits. His achievements have already been recognized by the award of the Geological Association of Canada's Duncan R. Derry Gold Medal, the Society of Economic Geologists' Silver Medal Award, and as Distinguished Lecturer by both the Canadian Institute of Mining and Metallurgy and the Society of Economic Geologists.

Time does not permit me to go on acknowledging Don's achievements, but I cannot conclude without mentioning some of Don's contributions to our Association, such as his organization of the very successful MAC Short Course on sediment-hosted stratiform lead-zinc deposits and his Vice-Chairmanship of this year's annual meeting. President Greenwood, it is my honor and certainly a great pleasure to present Don Sangster, one of Canada's best-known, loved and respected mineral-deposits geologists, with the 1986 Mineralogical Association of Canada's Past Presidents' Medal.

Citation prepared and read by Louis J. Cabri  
Chairman, Past Presidents' Medal Committee

Ladies and gentlemen,

My association with MAC has been a short one and began with an invitation to become a member about ten years ago. Upon application, much to my surprise (and, I assume, everyone else's), I was accepted. Surely the Membership Committee was aware of the pathetic status of my mineralogical qualifications for membership in this revered Association. An example might suffice to illustrate that it is not for my mineralogical expertise that I have been awarded this honour. The exposé came about during a visit to a stratiform zinc deposit in the Grenville when, in the middle of an outcrop lecture emphasizing the reducing nature of the original depositional environment as evidenced by the presence of disseminated graphite in the marbles, it was not-so-quietly pointed out to me that the so-called graphite was, in fact, molybdenite!

I am, therefore, extremely grateful that the Mineralogical Association of Canada chose not to restrict the Past Presidents' Medal to distinguished mineralogists and crystallographers because, had it done so, it is very obvious I would not be standing here today. Those of us who receive *The Canadian Mineralogist* know that the front cover of the journal lists "mineral deposits" among its five areas of interest. Today is not the day to quibble over the fact that "mineral deposits" is listed last among the five; that comment had best perhaps wait for a more appropriate occasion! Fortunately for me, and for other economic geologists who will receive this award in the future, mineral deposits research is one of MAC's fields of interest and Louis has elegantly and graciously summarized the reasons why the Association has awarded me this honor.

There is little doubt that mineral deposits research

has been the focus of my geoscientific career for nearly 25 years. I have been fortunate that my employer, the Geological Survey of Canada, for reasons apparent only to that organization, has provided me with many, many unique opportunities to examine lead-zinc deposits in several parts of the world. During the course of these trips, and at numerous conferences such as we are attending today, I became acutely aware of the nature and extent of mineral deposits research being conducted both within and outside Canada. Over the course of two-and-a-half decades, this awareness aroused within me both optimism and concern with respect to this topic. As many of you are aware, my views have been publicly expressed in several ways and, from the responses to these viewpoints, I know that many other researchers share my concerns although sometimes differing in detail.

My own research has striven to bring mineral deposits research "in from the cold" and into line with the rest of the geosciences. These efforts have been aided and abetted by a very definite trend over the past two decades toward acceptance of mineral deposits as a normal component of geological events. It is especially gratifying to see the occurrence and distribution of mineral deposits being used in the interpretation of regional geology rather than solely the reverse, as once was the case.

In accepting the Mineralogical Association of Canada's Past Presidents' Medal, I am grateful not only to the Association for the honor so implied but to my many colleagues in government, university and, especially, the mining industry, who helped me in so many ways to be here today.

Donald F. Sangster