Abstract

First observed 30 years ago, high temperature hot springs in the modern oceans are precipitating sulfide-sulfate-silica mounds and columnar edifices (“chimneys”) of copper, zinc, lead, silver, gold and other major and minor elements. Some deposits are of sufficient size and metal content to be considered for mining. The speaker is a pioneer in the study of these seafloor massive sulfide (SMS) deposits and is the co-discoverer of the Solwara site in the eastern Manus basin offshore Papua New Guinea that the Toronto headquartered company, Nautilus Minerals, intends to mine in 2010. He will present an overview of this new type of mineral resource, the proposed technologies for their recovery, environmental issues and prospects for commercialization.