

PREFACE

It is a privilege for me, as Director of the Geological Survey, to preface the 2015 edition of Current Research. The Geological Survey of Newfoundland and Labrador, as the geoscience division of the Government of Newfoundland and Labrador, is tasked with collecting, interpreting and disseminating geoscience data, enhancing our Province's geoscience knowledge-base. The data generated by the Geological Survey provide a comprehensive and up to date understanding of the geology of the Province. These new data are primarily used by the mineral resource industry in the Province to inform and enhance their exploration and investment efforts. A strong mineral resource sector provides both direct and indirect employment opportunities and wealth throughout Newfoundland and Labrador. The Geological Survey is proud of the role that we have played in fostering and promoting this industry over the past decades, a role we will continue to play well into the future. Geological Survey data are also increasingly in demand from other Provincial Government departments to inform policy (as with hazard mapping within municipalities, and coastal vulnerability studies), to assist in health and safety initiatives (as in identifying groundwater contaminants derived from bedrock), and developing new economic initiatives (such as enhancing the geotourism potential of the Province). Current Research is a major delivery product for our data, in addition to Open File reports and maps, all of which can be freely accessed *via* the Geological Survey website (http://www.nr.gov.nl.ca/nr/mines/geoscience/reports_maps.html).

This volume of Current Research celebrates work conducted during the 150th Anniversary of the Geological Survey, and reflects the wide range of activities undertaken, both as a result of field work and office-based projects. There are 15 separate reports on field work conducted either on the Island of Newfoundland or in Labrador. The list of authors reflects the many collaborative efforts undertaken by Geological Survey geologists, with 12 non-Survey authors, and indicates our strong ties with Memorial University and the Geological Survey of Canada.

On the Island, there are reports on the geology and genesis of the Keating Hill Fe–Ti–V prospect (John Hinchey), hydrocarbon potential of parts of the Humber Zone (Alana Hinchey *et al.*), lithogeochemistry of mafic rocks on the Bonavista Peninsula (Andrea Mills), till geochemistry and surficial geology in south-central Newfoundland (Denise Brushett), drift dispersal from the Newfoundland Ice Cap (Samantha Primmer *et al.*) and the monitoring of areas vulnerable to coastal erosion (Melanie Irvine); this latter project is supported by funding from the Office of Climate Change and Energy Efficiency.

In Labrador, there are reports on high-grade iron-ore deposits in western Labrador (James Conliffe), lithogeochemistry of granites at Strange Lake (Andy Kerr), age and petrochemistry of rocks from the Aucoin prospect (Hamish Sandeman), uranium mineralization within the Central Mineral Belt (Greg Sparkes), mineralization in the Cape Caribou River allochthon (Anthony Valvasori *et al.*), lithogeochemistry of rocks in the Ashuanipi Complex (Tim van Nostrand), and lake-sediment geochemistry data from western Labrador and the Kyfanan Lake area of southeastern Labrador (Steve Amor).

Office-based projects contribute significantly to our provincial geoscience knowledge base. The Mineral Occurrence Data System (Greg Stapleton *et al.*) provides descriptions of more than 6700 mineral occurrences in the Province and is a valuable resource to the mineral resource industry. Data from this and other projects are delivered through the Geological Survey's GeoScience Online webmapping application (<http://gis.geosurv.gov.nl.ca/>). This site was significantly redesigned in 2014 (Pauline Honarvar *et al.*). This interactive resource atlas makes geoscience resources available online and freely accessible anywhere in the world to an ever-expanding clientele. I encourage you to explore this website – it contains a wealth of information!

The 2015 field season represents a new phase of research for the Geological Survey, the first year of our 2015-2020 planning cycle. Budgets have yet to be finalized, but bedrock mapping projects are planned in the Ashuanipi area of western Labrador and in eastern Newfoundland, mineral deposits studies in the Central Mineral Belt of Labrador (uranium) and throughout Newfoundland (base metal and gold), plus surficial mapping and till geochemistry in north-central Newfoundland, and ongoing coastal monitoring around the Province.

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Director

Readers who would like to write a rebuttal to, or discussion of, any report contained in this volume are invited to submit it to the editor by November 1, 2015, to be considered for inclusion in Report 2016-1.