Mineral Inventory Activities on Mainland Nova Scotia, 2005

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Targeted Geoscience Initiative Phase 2

The Targeted Geoscience Initiative (Phase 2, TGI-2), was the second phase of a joint federal-provincial government program designed to assist and promote mineral and energy exploration in selected areas of the country (Naylor *et al.*, 2005). In Nova Scotia, funding and field work on the program began in 2003 and ended April 1, 2005. The work carried out consisted, among other things, of geological mapping, mineral deposit studies and geological resource evaluation focused primarily on NTS map areas 11E/06 and 11E/07. As part of TGI-2, the Mineral Inventory Project carried out an evaluation and update of mineral occurrences in the study area. Inclusion of this information in the Mineral Occurrence Database was completed in the early summer of 2005 and released as Version 8 of the Mineral Occurrence Database (see below).

In addition to the updating of mineral occurrence information in the TGI-2 area, Mineral Inventory staff conducted a field examination of mafic and felsic intrusions hosted by Carboniferous sediments along the Cobequid-Chedabucto Fault Zone. This system of regional east-west fault structures is known to have associated deposits of Cu-Co-Au with affinities to the very economically significant iron oxide-copper-gold (IOCG) class of mineral deposits. Field examination of the intrusive rocks, in part, assessed the role that this plutonism may have played in formation of the mineral deposits. The results of these field observations can be found in O'Reilly (2005).

Version 8 of the Mineral Occurrence Database

The Mineral Inventory Project released Version 8 of Digital Product ME-001b, Mineral Occurrence Database, in July 2005. This release is an upgrade of Version 7 of the database and includes 24 mineral occurrences not previously in the database, as well as substantial information updates for 130 mineral occurrences that were already in the database. For the most part, the additions are for mineral occurrences found on NTS map area 11E/06 and 11E/07 and are the result of field checks and research done as part of TGI-2. With Version 8, the Mineral Occurrence Database now has information on 1,248 metallic mineral occurrences, 950 industrial mineral occurrences and 6 coal occurrences (Fig. 1).

The computer program used to browse and query the Mineral Occurrence Database is Mineral Occurrence Query Program Version 2.1, Digital Product ME-001a. Both the Mineral Occurrence Query Program (DP-ME-001a) and Version 8 of the Mineral Occurrence Database files (DP-ME-001b) are available as free-of-charge downloads on the Mineral Resources Branch web site (www.gov.ns.ca/natr/meb/pubs/pubs3db.htm#mo).

Other Activities

A decision was made by the Mineral Resources Branch to discontinue maintaining an active storage facility in the Debert industrial park, Colchester County. As a result, the sample and drillcore holdings there had to be evaluated and either discarded or catalogued and transferred to the Stellarton Core Storage Facility. The Mineral Inventory Project had considerable sample holdings in Debert and these were re-evaluated during the summer. This resulted in a reduction of the collection and those samples retained have been catalogued and transferred to Stellarton.

A presentation discussing the levels of radionuclides present within the rocks, groundwater and air throughout Nova Scotia was prepared and presented at the annual Mining Matters Conference in November 2005. This

O'Reilly, G. A. 2006: *in* Mineral Resources Branch, Report of Activities 2005; Nova Scotia Department of Natural Resources, Report ME 2006-1, p. 135-136.

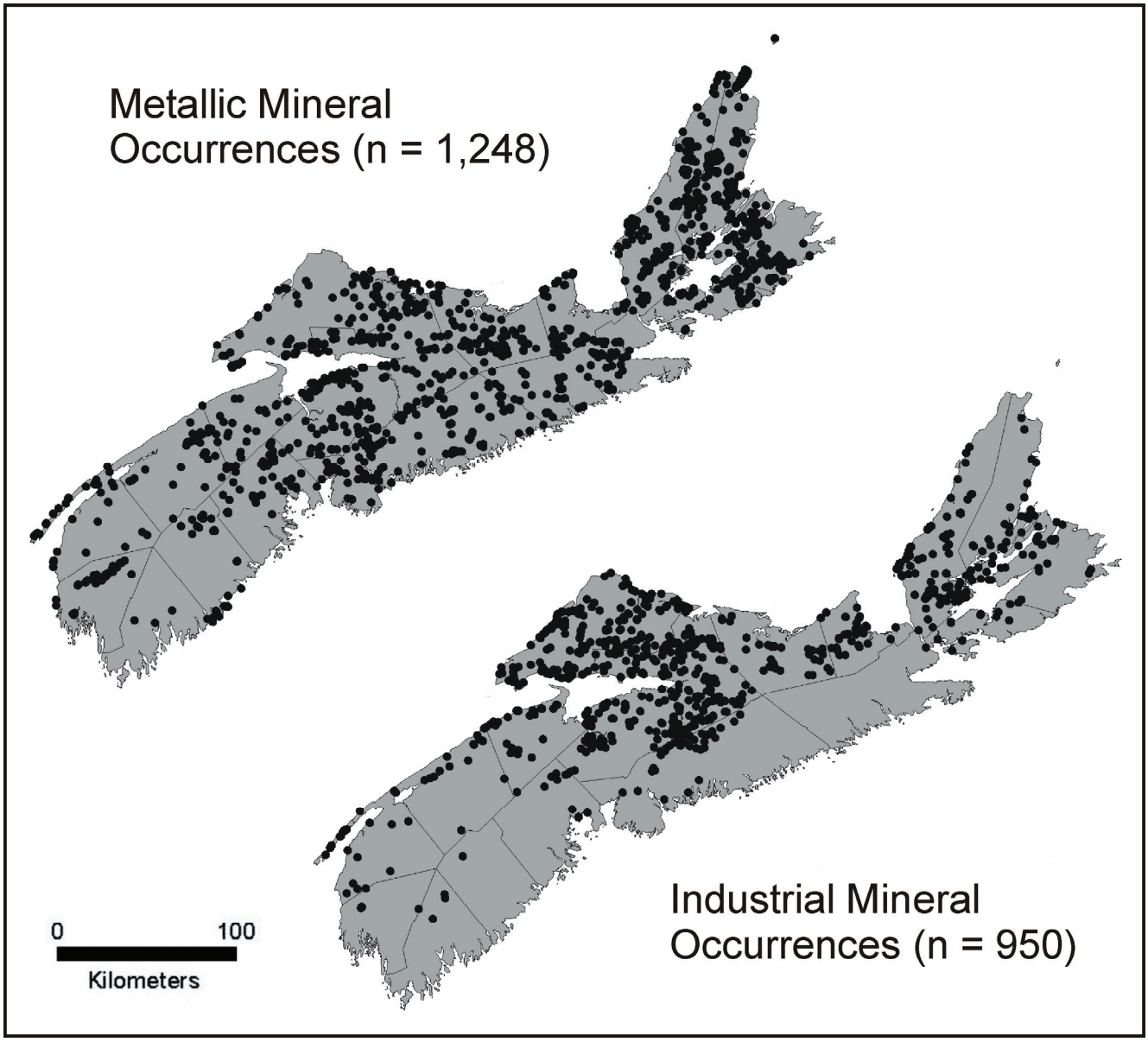

Figure 1. Maps showing the distribution of metallic and industrial mineral occurrences in Nova Scotia that are found in Version 8 of Digital Product ME-001b, Mineral Occurrence Database.

presentation discussed the geological environments of the province where uranium deposits are known, and where elevated levels of uranium and radon are found in groundwater and elevated levels of radon are found in homes..

References

Naylor, R. D., Brisco, D. C., Fisher, B. E., Giles, P. S., Goodwin, T. A. and Kontak, D. J. 2005: A summary report on the work undertaken for the Nova Scotia component of the Targeted Geoscience Initiative (Phase 2); *in* Mineral Resources Branch Report of Activities 2004, ed. D. R. MacDonald; Nova Scotia Department of Natural Resources, Report ME 2005-1, p. 69-72.

O'Reilly, G. A. 2005: Mafic and felsic intrusions in Carboniferous rocks of central Nova Scotia; *in* Mineral Resources Branch Report of Activities 2004, ed. D. R. MacDonald; Nova Scotia Department of Natural Resources, Report ME 2005-1, p. 73-92.