ᓄᓇᙳᐊᓕᕆᓂᕐᒧᑦ ᖃᐅᔨᓴᖅᑏᑦ ᑲᓇᑕᒥ
ᑲᓇᑕᒥ ᓄᓇᓂᑦ ᖃᐅᔨᓴᓂᕐᒧᑦ ᓄᓇᙳᐊᖅ 253S ᓄᓇᕗᓪᓗ ᐅᔭᖅᑲᓂᑦ ᖃᐅᔨᓴᖅᑏᑦ ᑎᑎᕋᕐᕕᖓ ᒪᑐᐃᖓᔪᖅ ᓄᓇᖑᐊᖅ 2016-10S
ᓄᓇᓂ ᖃᐅᔨᓴᕐᓂᖅ

SYLVIA GRINNELL

LAKE (NORTH) ᕿᑭᖅᑖᓗᒃ, ᓄᓇᕗᑦ

ᐱᒋᐊᕐᓂᖓ

2016

ᓴᖅᑭᖅᑎᑕᐅᔪᑦ

ᓄᓇᖑᐊᑉ ᓈᓴᐅᑎᖓ

ᓄᓇᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᑲᓇᑕᒥ, ᓄᓇᙳᐊᓕᕆᓂᕐᒧᑦ ᖃᐅᔨᓴᖅᑏᑦ ᑲᓇᑕᒥ ᑲᓇᑕᒥ ᓄᓇᓂᑦ ᖃᐅᔨᓴᓂᕐᒧᑦ ᓄᓇᙳᐊᖅ 253S (ᐱᒋᐊᕐᓂᖓ), ᑲᓇᑕ ᓄᓇᕗᓪᓗ ᐅᔭᖅᑲᓂᑦ ᖃᐅᔨᓴᖅᑏᑦ ᑎᑎᕋᕐᕕᖓ
ᒪᑐᐃᖓᔪᖅ ᓄᓇᖑᐊᖅ 2016-10S

ᐊᑎᖓ

ᓄᓇᓂ ᖃᐅᔨᓴᕐᓂᖅ, Sylvia Grinnell Lake (north), ᕿᑭᖅᑖᓗᒃ, ᓄᓇᕗᑦ

ᐊᖏᓂᖓ
1:100 000

ᑎᑎᕋᖅᓯᒪᔪᑦ ᑐᑭᓯᒋᐊᕈᑎᖏᑦ
ᑎᑎᕋᖅᓯᒪᔪᑦ ᓈᓴᐅᑎᖓ. M183-1/253-2016S-PDF
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ᐊᔪᕆᑦᑕᐅᔭᕆᐊᖃᖏᑦᑐᑦ

© ᑯᐃᓐ ᑭᒡᒐᖅᑐᐃᓪᓗᓂ ᑲᓇᑕᒥ, ᑭᒡᒐᖅᑐᐃᔨᖃᖅᖢᓂ ᐊᑐᒃᑲᓐᓂᕈᓐᓇᖅᑐᓕᕆᓂᕐᒧᑦ ᒥᓂᔅᑕᒥ,
2016

ᑐᓴᒐᒃᓴᐅᑎᑕᐅᔪᑦ ᐅᕙᓂ ᐅᖃᓕᒫᒐᕐᒥ ᐅᕝᕙᓘᓐᓃᑦ ᐱᖁᑎᒦᑦᑐᖅ ᓴᕿᑎᑕᐅᒃᑲᓐᓂᕈᓐᓇᖅᑐᖅ, ᐃᓚᐃᓐᓇᖓᒍᑦ ᑕᒪᐃᑎᒍᓪᓘᓐᓃᑦ, ᐊᒻᒪᓗ ᖃᓄᑐᐃᓐᓇᖅ, ᐃᒻᒥᒧᑦ ᐅᕝᕙᓘᓐᓃᑦ ᑭᒃᑯᓕᒫᓄᑦ ᑮᓇᐅᔭᓕᐅᕋᓱᖕᓂᒃᑰᖏᒃᑯᑎᒃ, ᐊᑭᖃᖏᖢᓂ ᐅᕝᕙᓘᓐᓃᑦ ᐊᖏᖅᑕᐅᒃᑲᓐᓂᖏᒃᑲᓗᐊᕈ

ᐃᒪᓐᓇᐃᓕᐅᖁᔭᐅᕗᑎᑦ:

• ᓴᕿᑎᑦᑎᒃᑲᓐᓂᕐᓂᐊᕈᔅᓯ ᑕᒻᒪᖅᓯᒪᑎᖏᓪᓗᒋ ᑕᒪᒃᑯᓇᙶᖅᑐᓂ;
• ᓇᓗᓇᐃᕐᓗᒍ ᓴᕿᑎᒃᑲᓐᓂᖅᑕᕕᑦ ᑕᐃᒎᓯᖓ, ᐊᒻᒪᓗ ᑎᑎᕋᖅᑐᐃᑦ ᐊᑎᖏᑦ; ᐊᒻᒪᓗ
• ᓇᓗᓇᐃᕐᓗᑎᒃ ᓴᕿᑎᒃᑲᓐᓂᖅᑕᐃᑦ ᑕᕐᕋᑐᐃᓐᓇᐅᓂᖓᓂᑦ ᐱᓕᕆᔭᐅᓂᑯᓂᑦ ᐅᑯᓇᙵᑦ

ᐊᑐᒃᑲᓐᓂᕈᓐᓇᖅᑐᓕᕆᓂᕐᒧᑦ ᓄᓇᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᑲᓇᑕᒥ (NRCan) ᐊᒻᒪᓗ ᑖᓐᓇ ᓴᕿᑕᐅᔪᖅ ᓴᕿᑎᑦᑎᖃᑎᖃᕐᓂᕐᒨᖏᖢᓂ ᐅᑯᓂᖓ ᐅᕝᕙᓘᓐᓃᑦ ᐊᖏᖅᑕᐅᓯᒪᓂᕐᒧᑦ
ᐅᑯᓇᙵᑦ NRCan-ᑯᓐᓂᑦ.

ᐃᒪᓐᓇ ᐊᑐᖅᑕᐅᔭᕆᐊᖃᙱᑦᑐᖅ ᓴᕿᑎᑦᑎᒃᑲᓐᓂᕐᓂᖅ ᐊᒻᒪ ᑐᓂᐅᖃᐃᑲᑕᓕᕐᓂᖅ ᑮᓇᐅᔭᓕᐅᕋᓱᖕᓂᕐᒧᑦ ᑭᓯᐊᓂ ᑎᑎᖃᑎᒍ ᐊᖏᖅᑕᐅᓯᒪᒍᑎ NRCan-ᑯᓐᓂᑦ. ᖃᐅᔨᒋᐊᒃᑲᓐᓂᕈᒪᒍᔅᓯ, NRCan-ᖁᑦ ᖃᐅᔨᒋᐊᕐᕕᒋᓗᒋᑦ ᐅᕙᓂ nrcan.copyrightdroitdauteur.rncan@canada.ca.

ᐊᑐᓕᖁᔭᐅᔪᑦ ᐅᖃᖅᑕᐅᓯᒪᔪᑦ ᖃᐅᔨᒋᐊᕐᕖᓘᓐᓃᑦ

St-Onge, M.R., Weller, O.M., Dyck, B.J., Rayner, N.M., Chadwick T., ᐊ ᒻᒪ Liikane, D., 2016. ᓄᓇᓂ ᖃᐅᔨᓴᕐᓂᖅ, Sylvia Grinnell Lake (north), ᕿᑭᖅᑖᓗᒃ, ᓄᓇᕗᑦ; ᓄᓇᙳᐊᓕᕆᓂᕐᒧᑦ ᖃᐅᔨᓴᖅᑏᑦ ᑲᓇᑕᒥ, ᑲᓇᑕᒥ ᓄᓇᓂᑦ ᖃᐅᔨᓴᓂᕐᒧᑦ ᓄᓇᙳᐊᖅ 253S (ᐱᒋᐊᕐᓂᖓ); ᓄᓇᕗᓪᓗ ᐅᔭᖅᑲᓂᑦ ᖃᐅᔨᓴᖅᑏᑦ ᑎᑎᕋᕐᕕᖓ, ᒪᑐᐃᖓᔪᖅ ᓄᓇᖑᐊᖅ 2016-10S, ᐊᖏᓂᖓ 1:100 000. doi:10.4095/297963

ABSTRACT
This map summarizes the field observations for the Sylvia Grinnell Lake (north) map area following eight weeks of regional and targeted bedrock mapping on western Hall Peninsula. The 2015 field campaign completes a two-decade mission to update map coverage for the whole of Baffin Island south of latitude 70°N. The bedrock is dominated by a Paleoproterozoic metaplutonic suite, ranging in composition from gabbro to syenogranite, with crosscutting relations indicating a progression from mafic to silicic magmatism. Prevailing upper amphibolite to lower granulite facies metamorphic conditions overlap the stability limits of magnetite and orthopyroxene, which is consistent with equilibrium phase diagrams and regional aeromagnetic data. Metasedimentary rocks, including quartzite, pelite, marble, and metagreywacke, are present as screens and enclaves between and within plutonic bodies. An examination of the ‘ghost’ stratigraphy suggests that the metasedimentary rocks can be correlated with the middle Paleoproterozoic Lake Harbour Group in the south and Piling Group in the north. Two basaltic dyke swarms and shallowly dipping Ordovician limestone respectively crosscut and overly the Paleoproterozoic units.

ᐃᓱᒪᒋᔭᐅᔪᑦ

ᑖᓐᓇ ᓄᓇᖑᐊᖅ ᓇᓗᓇᐃᔭᐃᔪᖅ ᖃᐅᔨᓴᖅᑎᓪᓗᒋᑦ ᖃᐅᔨᔭᐅᔪᑦ Sylvia Grinnell Lake (north)
ᓄᓇᖑᐊᖅ 8−ᓂᑦ ᐱᓇᓱᐊᕈᓯᕐᓂᑦ ᐊᕕᑦᑐᖅᓯᒪᔪᒥᑦ ᐊᒻᒪ ᖃᐅᔨᓴᕐᓂᖃᓗᐊᓚᐅᖅᑐᑦ ᖁᐊᖑᐃᓐᓇᖅᑐᒥᑦ ᓄᓇᖑᐊᓕᐅᓂᕐᒥᑦᐱᖓᓐᓇᖓᓂ ᓴᐅᒥᒻᒥᑦ. 2015−ᒥ ᖃᐅᔨᓴᕐᓂᐅᔪᖅ ᐱᔭᕇᖅᓯᓚᐅᖅᑐᖅ ᐊᕐᕌᒍᓂᑦ ᐊᕙᑎᓂᑦ ᐱᓕᕆᐊᖑᔪᖅ ᐅᓪᓗᒥᒨᖓᓕᖅᑎᑕᐅᓪᓗᑎ ᓄᓇᖑᐊᑦᕿᑭᖅᑖᓗᒻᒥ ᓂᒋᓕᒫᖓᓂᑦ 70°N. ᖁᐊᖑᐃᓐᓇᖅᑐᖅ ᐃᓗᓕᖃᕐᓂᕆᔭᖓ Paleoproterozoic metaplutonic suite, ᐊᔾᔨᒌᖏᓐᓂᖃᖅᑐᑦ ᐃᓗᓕᖏᑦ ᐱᒋᐊᖅᑐᓂ gabbro ᑎᑭᑦᑐᒍ syenogranite, ᖁᓕᕉᕇᖃᑦᑕᐅᑎᓪᓗᑎ ᖃᓄᐃᓘᖃᑦᑕᐅᑎᓂᖏᑦᓇᓗᓇᐃᖅᓯᔪᖅ ᐱᕙᓪᓕᐊᓂᖓ mafic ᑎᑭᑦᑐᒍ silicic magmatism. ᒫᓐᓇᐅᔪᒥᑦ ᑕᑯᔅᓴᐅᔪᖅ ᖁᑦᑎᓂᖅᓴᖓᒍ amphibolite ᐊᑎᓐᓂᖓᓄᑦ granulite facies metamorphic ᖃᓄᐃᓐᓂᕆᔭᖏᑦ ᖁᓕᕇᖃᑦᑕᐅᑎᔪᑦ ᒪᑭᑕᑦᑎᐊᕈᓐᓇᕐᓂᖓ ᑭᓪᓕᖃᖅᑎᑦᑎᔪᖅ magnetite ᐊᒻᒪ orthopyroxene, ᒪᓕᓐᓂᖃᖅᑐᖅ ᓇᓕᒧᑦᑎᑦᑎᓂᕐᒦᑦᑐᓂᑦ ᐊᔾᔨᓐᖑᐊᑦ ᐊᒻᒪ ᐊᕕᑦᑐᖅᓯᒪᔪᒥᑦᖃᖓᑕᓲᒃᑯᑦ ᓂᐱᖅᑲᕐᓇᖃᕐᓂᖓᓄᑦ ᑐᑭᓯᒋᐊᕈᑏᑦ. Metasedimentary ᐅᔭᖅᑲᐃᑦ, ᐱᖃᓯᐅᑎᓪᓗᑎ quartzite, pelite, ᑐᓐᓅᔭᖅ, ᐊᒻᒪ ᐊᕕᑦᑐᖅ metagreywacke, ᑕᑯᔅᓴᐅᑎᑕᐅᔪᑦ ᐊᒻᒪ ᐊᕕᑦᑐᖅᓯᒪᔪᓂᑦ

ᐊᑯᓐᓂᖏᓐᓂ ᐃᓗᐊᓂᓗ plutonic ᐃᓗᓕᓖᑦ. ᖃᐅᔨᓴᖅᑕᐅᓂᕆᔭᖓ ‘ᑕᕐᕋᐃᑦᑐᖅ’ ᓄᓇᓕᕆᓂᕐᒧᑦ ᓇᓗᓇᐃᖅᓯᔪᖅ metasedimentary ᐅᔭᖅᑲᐃᑦ ᑲᑎᓐᖓᓂᖃᕈᓐᓇᖅᑐᑦ ᕿᑎᖓᓃᑦᑐᓂ Paleoproterozoic ᑭᒻᒥᕈᒻᒥ ᐱᓕᕆᔪᑦ ᓂᒋᖓᓂ ᐊᒻᒪ ᐳᑑᕆᔩᑦᐅᐊᓐᓇᖓᓂ. ᒪᕐᕉᒃ basaltic ᐅᔭᖅᑲᐃᑦ ᐊᒥᓲᔪᑦ ᐊᒻᒪᐃᒃᑲᑦᑐᒨᖓᔪᑦ Ordovician limestone ᖁᓕᕇᖃᑦᑕᐅᑎᔪᑦ ᐊᒻᒪ ᖁᓛᒍᑦ Paleoproterozoic ᑲᑎᓐᖓᔪᓂᑦ.

ᓄᓇᖑᐊᑉ ᒥᔅᓵᓄᑦ

ᑐᑭᓯᒋᐊᕈᑎᓪᓗᐊᑕᐃᑦ

ᑎᑎᕋᖅᑐᑦ: M.R. St-Onge, O.M. Weller, B.J. Dyck, N.M. Rayner, T. Chadwick, ᐊ ᒻᒪ D. Liikane

ᓄᓇᓂ ᖃᐅᔨᓴᖅᑎ M.R. St-Onge, O.M. Weller, B.J. Dyck, N.M. Rayner, T. Chadwick, ᐊᒻᒪ D. Liikane, ᓄᓇᙳᐊᓕᕆᓂᕐᒧᑦ ᖃᐅᔨᓴᖅᑏᑦ ᑲᓇᑕᒥ; S. Noble-Nowdluk, T. Milton, ᐊᒻᒪ T. Rowe, ᓄᓇᕗᑦ ᒐᕙᒪᒃᑯᑦ, 2015

ᓄᓇᒥ ᖃᐅᔨᓴᕐᓂᕐᒧ ᓇᓗᓇᐃᔭᐃᔪᖅ M.R. St-Onge ᐊᒻᒪ ᑎᑎᕋᖅᑕᐅᒃᑲᓐᓂᖅᑐᑦ ᐆᒧᖓ M.R. St-Onge ᐊᒻᒪ O.M. Weller, 2015

ᓄᓇᒥ ᖃᐅᔨᓴᓂᕐᒧᑦ ᒪᓕᓐᓂᐊᖅᑐᖅ ᐱᓕᕆᐊᒧᑦ ᖁᐊᖑᐃᓐᓇᖅᑐᓂᑦ ᑐᑭᓯᒋᐊᕈᑎᓂᑦ, ᕚᓯᖓ 2.6

ᓄᓇᖑᐊᓕᐊᖅᑏᑦ A. Morin, A. Ford, C. Gilbert, L. Robertson, G. Buller, ᐊ ᒻᒪ R. Buenviaje

ᓄᓇᙳᐊᓕᕆᔪᖅ N. Côté

ᑐᑭᓕᐅᕆᔭᐅᔪᖅ ᖃᓪᓗᓈᑎᑐ ᐃᓄᒃᑎᑐᒧᑦ Wintranslation; ᑐᑭᓕᐅᕆᓯᒪᔪᖅ ᓱᓕ ᓈᒻᒪᒃᑲᓗᐊᕆᐊᒃᓴᖅ ᐅᖃᐅᓯᐅᓯᒪᙱᑦᑐᖅ.

ᐅᓇ ᓄᓇᙳᐊᖅ ᐃᓚᒋᔭᖓ ᓄᓇᐅᑉ ᖃᓄᐃᓕᖓᓂᖓᓂᑦ ᓄᓇᙳᐊᓕᐅᕐᓂᕐᒧᑦ ᐅᑯᓄᖓ

ᐆᒻᒪᖁᑎᓕᕆᔨᒃᑯᑦ ᐊᒻᒪ ᐅᔭᕋᐅᔭᓕᕆᔨᒃᑯᓄᑦ (GEM) ᐱᓕᕆᐊᖑᔪᒥᑦ ᕿᑭᖅᑖᓗᒻᒥ ᑐᑭᒧᐊᖅᑎᑕᐅᓪᓗᓂ ᓄᓇᙳᐊᓕᕆᓂᕐᒧᑦ ᖃᐅᔨᓴᖅᑏᑦ ᑲᓇᑕᒥ (GSC) ᐱᓕᕆᖃᑎᖃᖅᖢᑎᑦ ᑲᓇᑕᒥ ᓄᓇᕗᓪᓗ ᓄᓇᐅᑉ ᖄᖓᓃᑦᑐᓂ ᖃᐅᔨᓴᖅᑐᓕᕆᔨᒃᑯᑦ ᑎᑎᕋᕐᕕᖓᓂ (CNGO), ᓄᓇᕗᒻᒥ ᓯᓚᑦᑐᖅᓴᕐᕕᒃ, ᑲᐅᕈᑕᓐ ᓯᓚᑦᑐᖅᓴᕐᕕᒃᔪᐊᖅ, ᓯᓚᑦᑐᖅᓴᕐᕕᒃᔪᐊᖓ ᐋᒃᕗᑦ, ᐊᒻᒪᓗ ᓄᓇᕗᑦ ᒐᕙᒪᒃᑯᑦ.

ᐃᖅᑲᓇᐃᔭᖅᑐᓕᕆᓂᕐᒧᑦ ᐃᑲᔪᖅᑐᑦ ᓯᓚᕐᔪᐊᒥ ᐅᑭᐅᑕᖅᑐᖓᓂ ᐱᓕᕆᐊᖅ ᐃᓚᒋᓪᓗᓂᐅᒃ ᑐᕌᒐᖏᓐᓂᑦ ᓴᖅᑭᔮᖅᑎᑎᒃᑲᓂᕐᓗᑎᑦ ᖃᐅᔨᓴᓂᕐᒧᑦ ᖃᐅᔨᓴᖅᑎᓄᑦ ᑲᓇᑕᐅᑉ ᐅᑭᐅᑕᖅᑐᖓᓂ. PCSP 05615

ᓄᓇᙳᐊᖅ ᖃᓄᐃᓕᖓᓂᖓᓄᑦ Universal Transverse Mercator, ᐊᕕᒃᑐᖅᓯᒪᓂᒃᑯᑦ 19. North American Datum 1983

ᓄᓇᙳᐊᑉ ᐆᒃᑐᕋᖅᑕᐅᓯᒪᓂᖓᒍᑦ 1:250 000 ᓄᓇᒥᐅᑕᓕᕆᔨᒃᑯᓐᓂᑦ ᑲᓇᑕᒥ, ᐋᖅᑭᒋᐊᖅᑕᐅᓯᒪᓪᓗᑎᑦ.
ᖁᕝᕙᓯᓐᓂᖓ ᒦᑕᓂᑦ ᖁᓛᒍᑦ ᑐᑭᖃᖅᑐᖅ ᐃᒪᐅᑉ ᓇᐅᒃᑰᕐᓂᖓᑕ ᖁᕝᕙᓯᖕᓂᖓ

ᑐᑭᑲᖅᑐᖅ ᓂᐱᓐᓇᖅᑐᖃᕐᓂᖓᑕ ᒥᑭᒡᓕᕙᓪᓕᐊᓂᖓ 2016, 29°15'W, ᒥᒃᖠᕙᓪᓕᐊᓪᓗᓂ 25.8' ᐊᕐᕌᒍᑕᒫᑦ.
ᓇᓃᓐᓂᖏᓐᓄᑦ ᖃᐅᔨᓇᓱᖕᓂᖅ ᐊᔾᔨᒌᖏᑦᑐᑦ ᐅᕙᙵ 28°42'W ᐱᖓᖕᓇᖅ ᐅᕙᓂ ᓂᒋᐊᑕ ᐱᖓᖕᓇᖅᐸᓯᐊᓂ ᑎᕆᖅᑯᐊᓂᑦ ᐅᕗᖓ 29°45'W ᐱᖓᖕᓇᖅ ᐅᕙᓂ ᐅᐊᖕᓇᖓᑕ ᑲᓇᖕᓇᖅᐸᓯᐊᑕ ᑎᕆᖅᑯᐊᓂ ᓄᓇᙳᐊᕐᒥᑦ.

ᐅᓇ ᓄᓇᙳᐊᖅ ᐊᑐᖅᑕᐅᔭᕆᐊᖃᙱᑦᑐᖅ ᑕᒻᒪᕇᒃᑯᑎᐅᓗᓂ ᓄᓇᑰᖅᑐᓂᑦ.

ᐊᔾᔨᓐᖑᐊᖅ ᐊᑎᖓ: ᐊᖏᔪᖅ ᒪᓃᑦᑐᓂ K-feldspar megacrystic biotite-garnet monzogranite, McKeand River, ᕿᑭᖅᑖᓗᒃ, ᓄᓇᕗᑦ. ᐊᔾᔨᓕᐅᕆᔪᖅ D. Brendan. 2015-123

ᓄᓇᙳᐊᓕᕆᓂᕐᒧᑦ ᖃᐅᔨᓴᖅᑏᑦ ᑲᓇᑕᒥ ᑐᙵᓱᒃᑎᑦᑎᔪᑦ ᐋᕿᒋᐊᕈᑎᓂᑦ ᐃᓚᒋᐊᕈᑎᓂᒡᓘᓐᓃᑦ ᑐᑭᓯᒋᐊᒃᑲᓐᓂᕈᑎᓂ ᐊᑐᖃᑦᑕᖅᑐᓄᑦ.

ᑐᑭᓯᒋᐊᕈᑎᖏᑦ ᐱᖃᓯᐅᔾᔨᔪᓐᓇᖅᑐᑦ ᑕᑯᔭᐅᒃᑲᓂᖅᑐᓂᑦ ᑕᑯᔅᓴᐅᑎᑕᐅᖏᑦᑐᓂᑦ ᓄᓇᙳᐊᕐᒥᑦ. ᑕᑯᓗᒍ ᑎᑎᕋᖅᓯᒪᔪᑦ ᐃᓚᓕᐅᔾᔭᐅᓯᒪᔪᑦ ᑖᒃᑯᓇᓂ ᑲᑎᕐᓱᒐᕐᓂ.
ᓇᓗᓇᐃᔭᖅᓯᒪᒃᑲᓂᕐᓂᖏᑦ ᑎᑎᕋᖅᓯᒪᔪᑦ, ᖃᐅᔨᒋᐊᕐᕖᑦ, ᐊᒻᒪ ᐊᔾᔨᓐᖑᐊᑦ ᓄᓇᖑᐊᒦᑦᑐᖅ ᑐᑭᓯᒋᐊᕈᑎᖏᓐᓂᑦ ᑎᑎᕋᖅᓯᒪᔪᓂᑦ.

ᑖᓐᓇ ᓴᖅᑭᖅᑎᑕᐅᔪᖅ ᐊᑭᖃᖏᑐᑦ ᖃᕋᓴᐅᔭᒃᑯᑦ ᐊᑐᐃᓐᓇᐅᔪᑦ ᐅᑯᑎᒎᓇ
GEOSCAN (http://geoscan.nrcan.gc.ca/)
ᑲᓇᑕ ᓄᓇᕗᒻᒥᓗ ᐅᔭᖅᑲᓂᑦ ᖃᐅᔨᓴᖅᑏᑦ ᑎᑎᕋᕐᕕᖓ (http://cngo.ca/).

ᓴᖅᑭᑎᑕᐅᒋᐊᕐᖓᖅᓯᒪᔪᑦ ᑖᒃᑯᓂᖓ ᖃᐅᔨᓴᖅᑎᓄᑦ ᐋᖅᑭᒋᐊᖅᑕᐅᓯᒪᖏᑦᑐᑦ.

ᓄᓇᖑᐊᓂᑦ ᕿᒥᕐᕈᓂᕐᒧᑦ ᑎᑎᕋᖅᓯᒪᔪᑦ
ᓴᖅᑭᖅᑎᑕᐅᓯᒪᔪᖅ ᓄᓇᖑᐊᖅ ᑐᓂᐅᖅᑲᖅᑕᐅᔪᑦ ᖃᕋᓴᐅᔭᑎᒍᑦ ᕿᒥᕐᕈᔭᔅᓴᐅᓪᓗᓂ Portable

Document File (PDF)−ᖑᓪᓗᓂ, ᐊᒻᒪ ᐃᓗᓕᖃᕈᓐᓇᖅᑐᑦ ᓄᓇᒥᑦ ᖃᐅᔨᓴᓂᕐᒧᑦ ᑐᑭᓯᒋᐊᕈᑎᓕᒫᑦ ᐅᖃᓕᒫᕋᔅᓴᐅᑎᐊᕐᓂᖏᓐᓄᑦ ᐱᔾᔪᑎᒋᓪᓗᒍ ᓴᖅᑭᖅᑎᑕᐅᓂᖓᓄᑦ ᐊᖏᓂᖓᓄᑦ.

ᓄᓇᖑᐊᓕᐅᓂᕐᒧᑦ ᑕᑯᔅᓴᐅᑎᑕᐅᔪᑦ ᐊᑐᖅᑕᐅᔪᑦ ᓄᓇᖑᐊᒥᑦ
ᐅᓇ ᓄᓇᖑᐊᖅ ᐊᑐᖃᑦᑕᖅᑐᖅ ESRI ᓄᓇᖑᐊᓂᑦ ᑕᑯᔅᓴᐅᑎᑦᑎᓂᖏᑦ ᐊᑲᕆᔭᒥᓄᑦ ᐋᖅᑭᒍᓐᓇᓂᐊᕐᒪᒍ ᑕᑯᔅᓴᐅᓂᖓ ᐊᑐᖅᑕᐅᒐᔪᑦᑐᓂᑦ GSC ᓇᓗᓇᐃᒃᑯᑕᐃᑦ ᑕᑯᔅᓴᐅᓂᖓᒍᑦ ᓇᓗᓇᐃᖅᓯᒪᑦᑎᐊᕐᓗᓂ PDF−ᒥᑦ ᓄᓇᖑᐊᑐᐊᒥᑦ. ᖃᕋᓴᐅᔭᒃᑯᑦ ᑐᑭᓯᒋᐊᕈᑏᑦ ᐃᓗᓕᕆᔭᖏᔅᓱᓕ ᓇᓗᓇᐃᒃᑯᑕᕆᒋᐊᖓᓐᖓᖅᓯᒪᔭᖏᓐᓂᑦ ᐊᑐᖅᑕᐅᒐᔪᑦᑐᒥᑦ GSC ᓇᓗᓇᐃᒃᑯᑕᓄᑦ ᐋᖅᑭᔅᓯᒪᔪᑦ. ᐅᑯᐊ ᓇᓗᓇᐃᒃᑯᑕᐅᔪᑦ ᑕᑯᔅᓴᐅᑎᑦᑎᔪᖅ ᓄᓇᖑᐊᓕᐅᓂᕐᒧᑦ ᑕᑯᔅᓴᐅᑎᑕᐅᔪᑦ ᐊᑐᖅᑕᐅᓂᖓ:

Oblique-slip fault, normal, inferred Antiform, defined
Antiform, overturned, defined
Synform, defined
Synform, overturned, defined

ᐅᔭᖅᑲᓂᑦ ᖃᐅᔨᓴᓂᕐᒧᑦ

ᖃᓄᖅ ᐅᖃᓕᒫᕋᔅᓴᐅᒻᒪᖔᑦ ᓄᓇᖑᐊᖅ
ᑐᕌᒐᕆᔭᖏᑦ ᓄᓇᖑᐊᓕᐅᓂᕐᒧᑦ ᓂᒋᖓᓂ ᕿᑎᐊᓂ ᕿᑭᖅᑖᓗᒃ 2015 ᐱᐅᓯᑎᒋᐊᖅᑕᐅᓗᓂ ᐅᔭᖅᑲᓂᑦ ᖃᐅᔨᓴᓂᕐᒧᑦ ᖃᐅᔨᒪᔭᐅᔪᑦ ᑎᑎᕋᖅᑕᐅᓯᒪᔪᓪᓗ ᑮᓇᐅᔭᓕᐅᕋᓱᐊᕈᑎᔅᓴᐅᔪᓐᓇᖅᑐᓂᑦ ᐃᖃᓗᐃᑦ ᖃᓂᒋᔭᖓᓂᑦ. ᓄᓇᖑᐊᑦ ᑕᑯᔅᓴᐅᑎᑦᑎᔪᑦ ᓇᒦᓐᓂᖏᑦ ᓄᓇᖏᑦ ᖃᓄᐃᓕᖓᓂᖏᑦ, ᐱᖃᓯᐅᑎᓪᓗᑎ ᐊᔾᔨᒌᖏᑦᑐᑦ ᐅᔭᖅᑲᐃᑦ ᐊᒻᒪ ᓄᓇᐃᑦ ᑲᑎᓂᖏᑦ. ᓄᓇᒥᑦ ᖃᐅᔨᓴᕐᓂᖅ ᐊᔾᔨᒌᖏᑐᖏᓐᓇᐅᒐᓗᐊᖅᑎᓪᓗᒋᑦ ᐊᕕᑦᑐᖅᓯᒪᔪᓕᒫᓂᑦ, ᓄᓇᖑᐊᓕᒫᑦ ᐱᑕᖃᖅᑎᑦᑎᔪᑦ ᐊᑐᖅᑕᐅᒐᔪᑦᑐᓂᑦ: ᐊᒥᐊᓖᑦ ᐊᒻᒪ ᑎᑎᖅᑲᖏᑦ ᓇᓗᓇᐃᖅᓯᓪᓗᑎ ᖃᓄᐃᑦᑑᓂᖏᑦ ᐅᔭᖅᑲᐃᑦ ᓄᓇᐅᑉ ᖄᖓᓃᑦᑐᑦ, ᑎᑎᑯᑖᔅᓯᒪᔪᑦ ᑲᑯᔅᓴᐅᑎᑦᑎᓗᑎ ᖃᓄᐃᑦᑑᓂᖓ ᐊᒻᒪ ᓇᒦᓐᓂᖓ ᐊᑦᑐᕐᕕᒋᔭᖓ ᐊᒻᒪ ᓄᓇᐅᑉ ᑭᓪᓕᖏᑦ, ᑎᑎᑲᓪᓚᔅᓯᒪᔪᑦ ᑕᑯᔅᓴᐅᑎᑦᑎᓗᑎᑦ ᓇᒧᑦ ᖁᓕᕇᑦᑐᑦ ᐅᕕᖓᒻᒪᖔᑕ, ᓄᓇᖑᐊᕐᓗ ᓇᓗᓇᐃᒃᑯᑕᐃᑦ ᓇᓗᓇᐃᔭᐃᔪᑦ ᐊᒥᐊᖏᓐᓂᑦ ᐊᒻᒪ ᓇᓗᓇᐃᒃᑯᑕᖏᑦ ᐊᑐᖅᑕᐅᔪᑦ.

ᑕᑯᔅᓴᐅᓂᕆᔭᖏᑦ ᓄᓇᖑᐊᓂᑦ ᐊᒥᐊᖏᑦ. ᐊᑐᓂ ᐊᒥᐊᖏᑦ ᑭᒡᒐᖅᑐᐃᔪᑦ ᐊᔾᔨᒌᖏᑦᑐᓂᑦ ᓄᓇᓂᑦ ᖃᐅᔨᓴᓂᕐᒧᑦ ᐊᕕᑦᑐᖅᓯᒪᔪᑦ ᓄᓇᓂᑦ ᖃᐅᔨᓴᓂᕐᒧᑦ ᐊᕕᑦᑐᖅᓯᒪᔪᑦ ᐊᖏᓂᕆᔭᖓ ᓇᓗᓇᐃᖅᑕᐅᓯᒪᔪᒥᑦ ᐅᔭᖅᑲᐃᑦ ᖃᓄᐃᑦᑑᓂᖏᓐᓄᑦ ᐊᕐᕌᒍᖏᓪᓗ. ᓄᓇᓂᑦ ᖃᐅᔨᓴᓂᕐᒧᑦ ᐊᕕᑦᑐᖅᓯᒪᔪᑦ ᐊᑎᖃᐅᖅᑐᑦ ᐊᒻᒪ ᓇᓗᓇᐃᖅᑕᐅᓯᒪᔪᑦ ᐅᔭᖅᑲᓂᑦ ᖃᐅᔨᓴᖅᑎᓄᑦ ᓄᓇᖑᐊᓕᐅᖅᐸᑦᑐᑦ, ᑐᓐᖓᓂᐊᖅᑐᑎᑦ ᑕᑯᔭᐅᓂᖏᓐᓄᑦ ᐅᔭᖅᑲᐃᑦ ᖃᐅᔨᓴᕐᕕᐅᔪᓂᑦ ᐊᒻᒪ ᖃᐅᔨᓴᖅᑕᐅᓂᖏᓐᓄᒧᑦ ᐅᔭᖅᑲᐃᑦ ᐊᕐᕌᒍᖏᓐᓂᑦ. ᐃᓚᒋᐊᕐᓗᒍ ᐊᒥᐊᓕᓐᓄᑦ, ᐊᑐᓂ ᐊᕕᑦᑐᖅᓯᒪᔪᑦ ᑎᑎᖅᑲᖃᐅᖅᑎᑕᐅᔪᑦ ᐊᔾᔨᐅᖏᑦᑐᓂᑦ ᓄᓇᖑᐊᒥᑦ. ᓇᓄᓇᐃᒃᑯᑕᕆᒐᔪᑦᑕᖏᑦ ᐊᖏᔪᑦ ᑎᑎᖅᑲᐃᑦᑭᖑᓕᕆᓪᓗᓂᒋᑦ ᐊᖏᔫᑎᒃᑲᓐᓃᑦ ᑎᑎᖅᑲᐃᑦ ᒥᑭᔫᑕᐅᓂᖅᓴᐅᓗᑎᓘᓐᓃᑦ. ᓯᕗᓪᓕᖅᐹᖅ ᑎᑎᖅᑲᖅ ᐊᖏᔪᖅ ᑭᒡᒐᖅᑐᐃᔪᖅ ᐊᕐᕌᒍᖓᓂᑦ ᓄᓇᒥ ᖃᐅᔨᓴᓂᕐᒧᑦ ᐊᕕᑦᑐᖅᓯᒪᔪᖅ. ᓄᓇᓂᑦ ᖃᐅᔨᓴᖅᑕᐅᔪᑦ ᐊᑎᖃᐅᖅᑐᑦ ᐊᒻᒪ ᓇᓗᓇᐃᔭᖅᑕᐅᓯᒪᔪᑦ ᐅᔭᖅᑲᓂᑦ ᖃᐅᔨᓴᖅᑎᒧᑦ ᓄᓇᖑᐊᓕᐅᖃᑦᑕᖅᑐᖅ, ᑐᓐᖓᓂᖃᖅᑐᑎᑦ ᐅᔭᖅᑲᓂᑦ ᑕᑯᔭᖏᓐᓂᑦ ᖃᐅᔨᓴᕐᕕᐅᔪᒥᑦ ᖃᐅᔨᓴᖅᑕᐅᓪᓗᑎᓪᓗ ᐊᕐᕌᒍᖏᑦ ᐅᔭᖅᑲᐃᑦ. ᐃᓚᒋᐊᕐᓗᒍ ᐊᒥᐊᖏᓐᓄᑦ, ᖃᐅᔨᓴᕐᕕᐅᔪᑦ ᐊᕕᑦᑐᖅᓯᒪᔪᑦ ᑎᑎᖅᑲᖃᖅᑎᑕᐅᔪᑦ ᐊᔾᔨᐅᖏᑦᑐᒥᑦ ᓇᓗᓇᐃᒃᑯᖁᑕᖏᑦ. ᓇᓗᓇᐃᒃᑯᑕᕆᒐᔪᑦᑕᖏᑦ ᐊᖏᔪᑦ ᑎᑎᖅᑲᐃᑦ ᑭᖑᓂᐊᒍ ᐊᑕᐅᓯᖅ ᒪᕐᕉᓘᓐᓃᒃ ᐊᖏᔪᑦ ᑎᑎᖅᑲᐃᑦ ᒥᑭᓂᖅᓴᐃᓘᓐᓃᑦ ᑎᑎᖅᑲᐃᑦ. ᓯᕗᓪᓕᖅᐹᖅ ᐊᖏᔪᖅ ᑎᑎᖅᑲᖅ ᓇᓗᓇᐃᖅᓯᔪᖅ ᐊᕐᕌᖓᐅᔭᖅᑲᓂᑦ ᖃᐅᔨᓴᕐᕕᐅᔪᖅ. ᐅᔭᖅᑲᓂᑦ ᖃᐅᔨᓴᖅᑏᑦᐊᒡᒍᑐᖅᓯᒪᔭᖏᑦ ᓯᓚᕐᔪᐊᖅ ᖃᓄᐃᓘᖃᑦᑕᕐᓂᖓ ᐱᓕᐊᖏᓐᓃᑦᑐᓂᑦ ᐊᕐᕌᒍᖏᓐᓂᑦ. ᓇᓗᓇᐃᒃᑯᑕᓕᒫᑦ ᐊᖏᔪᓂᑦ ᑎᑎᖅᑲᓂᑦ ᐱᒋᐊᕐᓂᖃᖅᑐᑦ ᓇᓗᓇᐃᖅᓯᔪᑦ ᐊᕐᕌᒍᖏᑦ ᐱᓕᐊᖏᓐᓃᑦᑐᓂᑦ: ᐆᑦᑑᑎᒋᓗᒍ { (Paleoproterozoic – 2500 ᑎᑭᑦᑐᒍ 1600 ᒥᓕᐊᓐ ᐊᕐᕌᒍᐃᑦ), + (Neoproterozoic – 1000 ᑎᑭᑦᑐᒍ 541 ᒥᓕᐊᓐ ᐊᕐᕌᒍᐃᑦ), ᐅᕝᕙᓘᓐᓃᑦ / (Quaternary – 2.58 ᒥᓕᐊᓐ ᐊᕐᕌᒍᐃᑦ ᐅᓪᓗᒥᒧᑦ ᑎᑭᑦᑐᒍ). ᐊᖏᔪᑦ ᑎᑎᖅᑲᐃᑦ ᑭᖑᓂᐊᓃᑦᑐᑦ ᓇᓗᓇᐃᖅᓯᔪᑦ ᐊᑎᖓ ᐊᕕᑦᑐᖅᓯᒪᔪᖅ, ᐱᑕᖃᕈᓂ. ᒥᑭᓂᖅᓴᐃᑦ ᑎᑎᖅᑲᐃᑦ ᓇᓗᓇᐃᖅᓯᔪᑦᖃᓄᐃᑦᑑᓂᖏᑦ ᐅᔭᖅᑲᐃᑦ. ᓲᕐᓗ ᐅᔭᖅᑲᐃᑦ ᐊᑎᖃᖅᑐᑦ ᐊᕕᑦᑐᖅᓯᒪᔪᓂᑦ ᕿᑭᖅᑖᓗᒻᒥ metasedimentary

ᐅᔭᖅᑲᐅᔪᑦ ᑕᐃᔭᐅᔪᑦ "ᑭᒻᒥᕈᒻᒥ ᐱᓕᕆᔪᑦ". ᑕᐃᒪᐃᓐᓂᖓᓄᑦ {LHq ᓄᓇᖑᐊᒥᑦ ᓇᓗᓇᐃᒃᑯᑕᐅᒐᔭᖅᑐᖅ ᑭᒻᒥᕈᒻᒧᑦ ᐱᓕᕆᔪᓄᑦ ᐅᔭᖅᑲᖅ quartzite (ᓄᓇᒨᖅᓯᔪᑦ Paleoproterozoic−ᒥᑦ). ᐊᔾᔨᐸᓗᐊᓂᑦ, +d ᓇᓗᓇᐃᒃᑯᑕᐅᒐᔭᖅᑐᖅ ᐊᑎᖃᖅᑎᑕᐅᖏᑦᑐᓄᑦ ᐊᕕᑦᑐᖅᓯᒪᔪᓄᑦᐅᔭᖅᑲᐃᑦ diabase ᐃᓕᓯᒪᔪᑦ Neoproterozoic−ᖑᑎᓪᓗᒍ.

ᒪᕐᕉᒃ ᐊᔾᔨᒌᖏᑦᑐᑦ ᐅᔭᖅᑲᓖᑦ ᓴᓂᓕᕇᑦᑐᑎᑦ ᑕᐃᔭᐃᔪᑦ ᑲᑎᓐᓂᖓ, ᐊᒻᒪ ᑖᓐᓇ ᓇᓗᓇᐃᖅᑕᐅᔪᖅ ᐊᔾᔨᒋᖏᑕᖏᓐᓂᑦ ᑎᑎᖅᑕᐅᓯᒪᔪᓂᑦᓄᓇᖑᐊᒥᑦ. ᐊᔾᔨᒋᖏᓂᕆᔭᖏᓐᓄᑦᓅᑦᑕᐅᓯᒪᔪᑦ ᓴᓂᑦᑎᐊᖓᓄᑦ ᐃᒻᒥᓂᒃ ᑕᐃᒪᐃᓚᐅᖅᑎᓪᓗᒋᑦ ᑲᑎᓐᓂᖓ

ᐊᕕᒃᓯᒪᓂᖓᒍᑦ ᑲᑎᓐᓂᖃᖅᑐᖅ. ᐅᔭᖅᑲᐅᔪᖅ ᐊᓯᐊᓄᑦ ᐊᔭᐅᖅᑕᐅᒍᓂ (ᓲᕐᓗ ᐅᔭᖅᑲᐃᑦ granite ᐊᑦᑐᖃᑦᑕᐅᑎᒋᓪᓗᓂᐅᒃ sedimentary strata) ᐊᑦᑐᕐᓂᕆᔭᖏᑦ ᐊᐅᓚᔾᔭᐃᓂᖃᖅᑐᑦ ᐊᑦᑐᕐᓂᖓ. ᐊᓯᐊᑦᑕᐅᖅ ᑕᑯᔅᓴᐅᑎᑕᐅᔪᑦ ᑐᑭᓕᐊᖅᑐᑦ ᓄᓇᓄᑦ ᓄᓇᖑᐊᑦ ᐱᕆᒍᓐᓇᖅᑐᖅ. ᐃᓚᒋᐊᕐᓗᒍ ᓅᑦᑕᐅᓂᖏᓐᓄᑦ ᑲᑎᓐᓂᖏᓐᓄᑦ, ᓄᓇᓕᕆᓂᕐᒧᑦ ᐊᕕᑦᑐᖅᓯᒪᔪᑦ ᓂᐅᖓᓂᖃᕈᓐᓇᖅᑐᑦ ᓴᖑᖓᓂᖃᒻᒪᕆᓪᓗᑎᑦ. ᑐᑭᓕᐊᖅᑐᑦ ᑎᑎᕋᖅᑕᐅᓯᒪᔪᑦ ᖄᖓᒎᖅᑐᓘᓐᓃᑦᑕᐃᔭᐅᔪᖅ ᐊᑦᑐᕐᕕᖏᑦ. ᑲᑎᕝᕕᓪᓗᐊᕆᔭᖓᓂᑦ, ᑕᑯᔅᓴᐅᑎᑕᐅᔪᖅ ᑎᑎᑯᑖᔅᓯᒪᓪᓗᓂ, ᑭᓯᐊᓂ ᓇᓗᓇᐃᖅᓯᒪᑦᑎᐊᖏᑉᐸᑦ, ᑕᑯᔅᓴᐅᑎᑕᐅᔪᑦ ᑎᑎᖅᑕᐅᑲᐃᓐᓇᖃᑦᑕᖅᑐᓂ ᑐᑭᓕᐊᖅᑐᓂᑦ. ᑎᑎᑯᑖᔅᓯᒪᔪᑦ ᓄᓇᖑᐊᒥᑦ ᐊᓯᔾᔨᖅᑕᐅᔪᓐᓇᖅᑐᖅ ᐊᓯᖏᓐᓄᑦ ᓇᓗᓇᐃᒃᑯᑕᓄᑦ ᑎᑎᑯᑖᔅᓯᒪᔪᒥᑦ (ᐱᖓᓱᓂᑦ ᓴᓂᕋᓕᒃ, ᒥᑭᔪᑦ ᑎᑎᖅᓯᒪᔪᑦ, ᖃᔾᔪᓐᖑᐊᑦ, ᐊᓯᖏᓪᓗ) ᑐᑭᓯᒋᐊᕈᑎᖃᖅᑎᑦᑎᓂᖅᓴᐅᔪᑦ ᑎᑎᑯᑖᔅᓯᒪᔪᒧᑦ. ᐆᑦᑑᑎᒋᓗᒍ,
ᑲᑎᓐᓂᖏᑦ ᐱᖓᓱᑦ ᓄᓇᐃᑦ ᑕᑯᔅᓴᐅᑎᑦᑎᔪᖅ ᓴᓂᕋᖓ ᐱᖓᓱᓂᑦ ᓴᓂᕋᓕᓐᓂᑦ ᖁᕝᕙᕆᐊᖅᓯᒪᔪᖅ ᓴᓂᕌᓅᖅᑐᓂ ᐱᖓᓱᓂᑦ ᓴᓂᕋᓕᒻᒨᖏᑦᑐᖅ. ᐊᔾᔨᒌᖏᑦᑐᓕᒫᑦ ᓇᓗᓇᐃᒃᑯᑕᐃᑦ ᑎᑎᖅᓯᒪᔪᓂᑦ ᓇᓗᓇᐃᔭᖅᓯᒪᔪᑦ ᓄᓇᖑᐊᑉ ᓇᓗᓇᐃᒃᑯᑕᖏᑦ. ᐊᑎᖃᖅᑐᑦ ᖁᓕᕇᑦᑐᑦ ᑕᑯᔅᓴᐅᑎᑕᐅᔪᑦ ᓄᓇᖑᐊᒥᑦ ᑎᑎᑲᓪᓚᔅᓯᒪᔪᑦ ᕿᑭᖅᑕᑲᓪᓚᒥᓪᓗ ᓇᓗᓇᐃᒃᑯᑕᖓ. ᓇᓗᓇᐃᒃᑯᑕᐃᑦ ᐱᖓᓲᓕᖅᑲᖓᔪᑦ: ᑎᑎᑯᑖᔅᓯᒪᔪᖅ, ᓇᑦᑐᓂ ᑎᑎᖅᓯᒪᔪᖅ, ᐊᒻᒪᓗ ᓈᓴᐅᑎᖓ. ᑎᑎᑯᑖᔅᓯᒪᔪᖅ ᑕᐃᔭᐃᔪᖅ ᑎᑎᖅᑕᐅᑐᐃᓐᓇᖅᑐᖅ, ᐊᒻᒪ ᑕᑯᔅᓴᐅᑎᑦᑎᔪᖅ ᖁᓕᕇᑦᑐᑦ ᓄᓇᒧᑦ ᓇᓕᒧᓐᓂᖃᖅᑐᑦ. ᓅᔅᓯᒪᔪᓂᑦ ᓄᓇᐅᑉ ᖄᖓᓃᑦᑐᓂᑦ ᑐᕌᕐᓂᖃᖅᑐᖅ ᓄᓇᒧᑦ ᓇᓕᒧᓐᓂᖃᖅᑐᓂ, ᖃᓄᐃᑦᑐᑐᐃᓐᓇᐃᑦ ᐅᕕᖓᔪᓂᑦ ᑎᑎᖅᓯᒪᔪᑦ ᑐᕌᕐᓂᖃᖅᑐᑦ ᓄᓇᒧᑦ ᓇᓕᒧᓐᓂᖃᖅᑐᑎᑦ (ᐃᓱᒪᒋᓐᖑᐊᑲᐃᓐᓇᕈᒃ ᐱᓱᑦᑎᓪᓗᑎᑦ ᖃᖅᑲᔮᑉ ᓴᓂᕌᒍᑦ,ᐅᐸᒐᔅᓴᐅᓂᐊᓴᑐᐃᓐᓇᖅᑐᖅ ᖁᒻᒧᐊᒐᓂ ᐊᒻᒧᐊᒐᓂᓘᓐᓃᑦ, ᑭᓯᐊᓂ ᒪᑭᑕᑦᑎᐊᖅᑐᖅ). ᓇᐃᑦᑐᑦ ᑎᑎᖅᓯᒪᔪᑦ ᑕᐃᔭᐅᔪᑦ ᑎᑎᑲᓪᓚᔅᓯᒪᔪᑦ ᑐᑭᓕᐊᖅᑐᑦ, ᐊᒻᒪ ᑕᑯᔅᓴᐅᑎᑦᑎᔪᖅ ᖁᓕᕇᑦᑐᑦ ᖃᓄᑎᒋ ᓯᕕᖓᒻᒪᖔᑕ. ᓈᓴᐅᑎᖓ ᑕᐃᔭᐃᔪᑦ ᑎᑎᑲᓪᓚᔅᓯᒪᔪᖅ, ᐊᒻᒪ ᑕᑯᔅᓴᐅᑎᑦᑎᔪᖅ ᖁᓕᕇᑦᑐᑦ ᖃᓄᑎᒋ ᓯᕕᖓᒻᒪᖔᑕ, ᑎᕇᔅᑯᑎᒍᑦ, ᒪᓂᕋᑦᑐᒥᑦ. ᖁᑦᑎᓂᖅᓴᐅᑎᓪᓗᒍ ᓈᓴᐅᑎᖓ, ᓯᕕᖓᓂᖅᓴᐅᔪᖅ ᖁᓕᕇᓐᓂᖏᑦ, ᑎᑎᖅᑕᐅᑐᐃᓐᓇᖅᓯᒪᔪᑦ ᓇᓗᓇᐃᒃᑕᐃᑦ ᐋᖅᑭᒋᐊᖅᑕᐅᔪᓐᓇᖅᑐᑦ ᑐᑭᓯᒋᐊᕈᑎᖃᖅᑎᑦᑎᑲᓂᕐᓂᐊᕐᒪᑦ ᓯᕕᖓᔪᒥᑦ ᖁᓕᕇᑦᑐᓂᑦ ᑎᑎᑯᑖᔅᓯᒪᔪᑦ ᑕᐃᒪᐃᒍᓐᓇᑎᓪᓗᒋᑦ, ᐊᒻᒪ ᑖᒃᑯᐊ ᐊᓯᔾᔨᕈᑎᐅᔪᓐ ᓇᓗᓇᐃᔭᖅᓯᒪᔪᑦ ᓄᓇᖑᐊᑉ ᓇᓗᓇᐃᒃᑯᑕᖏᓐᓂ.

ᓄᓇᒧᑦ ᓄᓇᖑᐊᓕᒫᑦ ᑎᑎᕋᖅᓯᒪᔪᖃᐅᖅᑐᑦ ᑕᐃᔭᐅᔪᑦ ᓄᓇᖑᐊᒧᑦ ᓇᓗᓇᐃᒃᑯᑕᐃᑦ , ᓇᓗᓇᐃᒃᑯᑕᖏᓐᓂ, ᐊᒥᓕᒫᖏᑦ ᐊᒻᒪ ᓇᓗᓇᐃᒃᑯᑕᖏᑦ ᑕᑯᔅᓴᐅᑎᑕᐅᔪᑦ ᐊᒻᒪ ᓇᓗᓇᐃᔭᖅᑕᐅᓯᒪᓪᓗᑎᑦ. ᓄᓇᖑᐊᒧᑦ ᓇᓗᓇᐃᒃᑯᑕᐃᑦ ᐱᒋᐊᖅᓯᒪᔪᑦ ᑎᑎᕋᖅᓯᒪᔪᓂᑦ

ᑕᑯᔅᓴᐅᑎᑦᑎᔪᑦ ᐊᒥᐊᖓ ᑎᑎᖅᑲᖓᓗ ᐊᑐᓂ ᓄᓇᖑᐊᓕᒫᓂᑦ, ᐱᒋᐊᖅᓯᒪᓪᓗᓂ ᖁᓛᓂ ᐅᔭᖅᑲᖃᕈᕋᑖᕐᓂᖅᐹᖑᔪᑦ, ᐊᑎᖓᑦᑕᐅᑦ ᐃᓛᒃᑰᖓᓂᖓ (ᐱᑕᖃᕈᓂ) ᐊᒻᒪ ᓇᓗᓇᐃᔭᖅᓯᒪᒐᓛᓐᓂᖓᖃᓄᐃᑦᑑᓂᖏᑦ ᐅᔭᖅᑲᐃᑦ ᐊᕕᑦᑐᖅᓯᒪᔪᒥᑦ, ᐊᔾᔨᒌᖏᑦᑐᑦ ᖃᓄᐃᑦᑑᓂᖏᑦᓴᑎᑎᑯᑖᔅᓯᒪᔪᓂᑦ ᓄᓇᖑᐊᒥᑦ ᓇᓗᓇᐃᔭᖅᑕᐅᓯᒪᔪᑦ, ᐊᒻᒪ ᐊᔾᔨᒌᖏᑦᑐᓕᒫᑦ ᑎᑎᑲᓪᓚᔅᓯᒪᔪᑦ ᑐᑭᓕᐊᖅᑐᑎᑦ ᐊᒻᒪ ᑕᖅᓴᐅᔮᖅᑐᑦ ᓇᓗᓇᐃᒃᑯᑕᐃᑦ. ᓄᓇᖑᐊᒧᑦ

ᓇᓗᓇᐃᔭᖅᓯᒪᓂᖏᑦ ᓇᓗᓇᐃᔭᐃᓯᒪᓂᐊᕐᒥᔪᑦ ᖃᓄᐃᑦᑐᑐᐃᓐᓇᕐᓂᑦ ᐊᓯᖏᓐᓂᑦ ᓄᓇᒧᑦ

ᓇᓗᓇᐃᒃᑕᐃᑦ ᐊᑐᖅᑕᐅᔪᓂᑦ ᓄᓇᖑᐊᒥᑦ (ᐆᑦᑑᑎᒋᓗᒍ ᓇᒦᓐᓂᖏᑦ ᐅᔭᖅᑲᐃᑦ ᓇᓂᔭᐅᔪᑦ, ᓇᒦᓐᓂᖏᑦ ᓴᕕᕋᔭᑦᑎᐊᕙᐃᑦ, ᐊᒻᒪ ᐊᓯᖏᑦ ᓄᓇᖓᓂᑦ ᑕᑯᔅᓴᐅᑎᑦᑎᔪᑦ ᐱᒻᒪᕆᐅᔪᓐᓇᖅᑐᑦ ᐊᕕᑦᑐᖅᓯᒪᔪᒧᑦ ᑎᑎᕋᖅᑕᐅᓯᒪᔪᑦ ᓄᓇᖑᐊᒥᑦ). ᐱ−ᔪᑎᒋᓪᓗᒍ ᓄᓇᓕᕆᓂᐅᔪᖅ ᐊᕕᑦᑐᖅᓯᒪᔪᓕᒫᓂᑦ ᐊᔾᔨᒌᖏᑐᐃᓐᓇᐃᑦ, ᓄᓇᖑᐊᒧᑦ ᓇᓗᓇᐃᒃᑯᑕᐃᑦᐱᒻᒪᕆᐅᔪᖅ ᑐᑭᓯᑦᑎᐊᕐᓗᒍ
ᓄᓇᖑᐊᖅ.

ᖃᐅᔨᒪᕐᓂᐅᔪᖅ ᐊᒻᒪ ᓄᓇᖑᐊᓕᐅᕐᓂᖅ ᓂᒋᖓᓂ−ᕿᑎᐊᓂ ᕿᑭᖅᑖᓗᒃ ᓴᖅᑭᑎᑦᑎᓚᐅᖅᑐᑦ ᓇᒦᓐᓂᖏᓐᓂᑦ metasedimentary ᐅᔭᖅᑲᐃᑦ (ᑭᒻᒥᕈᒻᒥ ᐱᓕᕆᔪᑦ; ᕗᓴᖑᐊᑦ ᐃᓛᒃᑰᖓᔪᑦ {LHq, {LHc, {LHs, {LHp; ᐳᑑᕆᔩᑦ; ᐊᒡᒍᖅᓯᒪᔪᓂᑦ {PL) ᐊᓯᐊᓄᑦ ᐊᑦᑐᐊᓂᖃᕈᓐᓇᖅᑐᖅ ᐅᕝᕙᓘᓐᓃᑦ ᐅᔭᖅᑲᖃᖃᐅᖏᓪᓗᓂ Meta Incognita Peninsula−ᒥᑦ. ᐊᒥᓱᒐᓚᐃᑦ ᑲᑎᓐᖓᐅᖅᑐᑦ magmatic (sills) ᑎᑎᕋᖅᑕᐅᓚᐅᖅᑐᑦ ᐊᒻᒪ ᖃᐅᔨᓴᖅᑕᓪᓚᑐᐊᕆᔭᐅᓂᐊᖅᑐᑦ (ᓄᓇᖑᐊᑦ ᐊᒡᒍᖅᓯᒪᔪᑦ {LHu, {LHm, {LHd). ᑖᒃᑯᐊ ᑮᓇᐅᔭᓕᐅᕋᓱᐊᕈᑎᔅᓴᐅᔪᓐᓇᕐᓂᖏᓐᓄᑦ ᐱᒻᒪᕆᐅᔪᑦ ᐃᓗᓕᖃᐅᕐᒪᑕ ᓴᕕᕋᔭᔅᓴᓖᑦ ᐅᔭᕋᓐᓂᐊᕋᔅᓴᐅᔪᓐᓇᖅᑐᑦ (sulphides), ᐅᒻᒪ ᓴᖅᑭᖃᑦᑕᕐᓂᖏᑦ ᓇᓗᓇᐃᖅᓯᔪᓐᓇᖅᑐᑦ ᐱᑕᖃᕐᓂᐊᓂᑦ ᑮᓇᐅᔭᓕᐅᕋᓱᐊᕈᑎᔅᓴᐅᔪᓐᓇᖅᑐᓂᑦ ᓴᕕ?ᔭᖃᕐᓂᖓᓂᑦ. ᐱᖓᓱᑦ ᐅᔭᖅᑲᐃᑦᐊᔾᔨᒌᖏᑦᑐᓂᑦ ᐃᓗᓕᖃᐅᖅᑐᑦ ᐊᒻᒪ ᒪᕐᕈᐊᑎᖅᓯᒪᔪᖅ ᐆᓇᖅᓯᓂᒥᓂᖓ ᖃᐅᔨᔭᐅᓚᐅᖅᑐᑦ. ᑕᐃᒪᓐᓇᐃᑦᑐᑦ ᑲᑎᓐᖓᓂᖓᒍᑦ ᐊᐅᓚᔾᔭᖃᑦᑕᐅᑎᒍᓐᓇᖅᑐᑦ ᐊᔾᔨᐸᓗᐊᓂᑦ ᓄᓇ

ᓴᔪᑉᐱᓚᓐᓂᕆᓚᐅᖅᑕᖓ 1800 ᒥᓕᐊᓐ ᐊᕐᕌᒍᓕᖅᑐᑦ ᐊᒻᒪ ᑎᑎᕋᖅᑕᐅᓯ,ᒪᔪᖅ ᑕᒪᒃᑭᓐᓂ ᐊᓯᐊᓂᑦᑕᐅᖅ ᕿᑭᖅᑖᓗᒻᒥᓘᓐᓃᑦ ᐊᒻᒪ ᐅᐊᓐᓇᖓᓂᑦ ᑯᕋᐃᒃ. ᑖᒃᑯᐊ ᖃᐅᔨᓴᕈᑕᐅᔪᑦ ᐊᑐᖅᑕᐅᓂᐊᖅᑐᑦ ᐊᔾᔨᒌᓐᖑᐊᖅᑎᑕᐅᓗᑎᑦ ᐊᒻᒪ ᐱᐅᓯᑎᐱᐊᖅᑕᐅᓗᓂ ᐊᑐᖅᑕᐅᓂᖏᑦ ᑕᑯᔅᓴᐅᑎᑦᑎᔪᑦ ᐅᐊᑦᑎᐊᕈᒻᒪᕆᐊᓗᓂᑦ ᓄᓇᖓ ᐊᓯᔾᔨᐸᓪᓕᐊᓂᖓ ᓄᓇᕗᑦ.

ᓇᓗᓇᐃᔭᖅᓯᒪᓂᖏᑦ ᖃᐅᔨᒪᔭᐅᔭᕆᐊᓖᑦ
ᐱᒋᐊᕐᓂᖓ
ᓄᓇᖑᐊᓕᐅᕐᓂᖅ ᐊᐅᓚᔪᓐᓴᐅᑎᓕᕆᔨᒃᑯᓐᓄᑦ ᐅᔭᕋᓐᓂᐊᕋᔅᓴᓄᓪᓗ (GEM) ᐱᓕᕆᐊᖅ ᑐᕌᓚᐅᖅᑐᑦ ᓂᒋᖓᓂ−ᕿᑭᐊᓂ ᕿᑭᖅᑖᓗᒃ ᐊᑐᖅᑕᐅᓂᐊᖅᓯᒪᔪᓂᑦ, ᖁᒐᓛᒎᓕᒃᑯᑦ ᐃᑲᔪᖅᑕᐅᔪᑦ ᖁᐊᖑᐃᓐᓇᖅᑐᒥᑦ ᓄᓇᖑᐊᓕᐅᕐᓂᖅ 2015−ᒥᑦ (ᐊᐅᐸᖅᑐᖅ ᐱᖓᓱᓂᑦ ᐅᖓᑖᓂᓪᓘᓐᓃᑦ ᓴᓐᓂᕋᓖᑦ ᓇᓕᒧᓪᓗᐊᑐᐃᓐᓇᐅᓪᓗᑎᑦ, ᐊᔾᔨᓐᖑᐊᖅ 1). GEM ᐱᓕᕆᐊᖅ ᐱᑕᖃᖅᑎᑦᑎᔪᖅ ᐅᓪᓗᒥᒨᖑᔪᓂᑦ, ᑭᒃᑯᑐᐃᓐᓇᕐᓄᑦ ᐊᑐᐃᓐᓇᐅᔪᑦ, ᐊᕕᑦᑐᖅᓯᒪᔪᑎᒍᑦᐅᔭᖅᑲᓂᑦ ᖃᐅᔨᓴᓂᕐᒧᑦ ᖃᐅᔨᒪᔭᐅᔪᑦ ᑲᓇᑕᐅᑉ ᐅᑭᐅᑕᖅᑐᖓᓂ, ᐃᑲᔪᖅᑐᐃᔪᓂᑦ ᖃᐅᔨᔭᐅᓯᒪᔪᓂᑦ ᕿᓂᖅᑎᓪᓗᒋᑦ ᓄᑖᓄᑦ ᐊᐅᓚᔪᓐᓇᐅᑎᓄᑦ ᐅᔭᕋᓐᓂᐊᕋᔅᓴᐅᔪᓐᓇᖅᑐᓂᓪᓗ ᓄᓇᓕᒻᒥᐅᑕᓂᓪᓗ ᐅᑭᐅᑕᖅᑐᒥᑦ

ᐃᓱᒪᓕᐅᕈᓐᓇᖅᑐᑦ ᖃᐅᔨᒪᔭᐅᑎᑕᐅᑦᑎᐊᕐᓗᑎ ᓄᓇᖏᑕ ᒥᔅᓵᓅᖓᔪᓂᑦ, ᑮᓇᐅᔭᓕᕆᓂᕐᒧᑦ, ᐊᒻᒪ ᐃᓅᖃᑎᒌᓐᓂᕐᒧᑦ. 2015−ᒥ ᖃᐅᔨᓴᕐᓂᐅᔪᖅ ᐱᓗᐊᖅᑐᒥᑦ ᐱᒻᒪᕆᐅᓚᐅᖅᑐᖅ ᐅᓪᓗᒥᒨᖓᓕᖅᑎᑕᐅᒻᒪᑕ ᐊᕕᑦᑐᖅᓯᒪᔪᒥᑦ ᖁᐊᖑᐃᓐᓇᖅᑐᒥᑦ ᓄᓇᖑᐊᓕᐅᓂᕐᒥᑦ ᓂᒋᖓᓂ ᓇᑉᐸᖓᓂ ᕿᑭᖅᑖᓗᒃ (ᓂᒋᐊᓂ ᓄᓇᖑᐊᑎᒍᑦ 70°N), ᐊᑯᕈᓐᓇᑎᑦᑎᔪᖅ ᓄᑖᒥᑦ, ᐅᔭᖅᑲᓂᑦ ᖃᐅᔨᓴᓂᕐᒧᑦ ᖃᐅᔨᒪᔭᐅᔪᓂᑦ ᐊᕕᑦᑐᖅᓯᒪᔪᒧᑦ. ᖃᐅᔨᓴᕐᕕᐅᔪᖅ ᐊᕕᑦᑐᖅᓯᒪᔪᑦ (ᐃᓚᖏᑦ NTS ᐊᕕᑦᑐᖅᓯᒪᔪᑦ NTS 26-B, -C, -F, -G, -J and -K) ᑐᑭᒧᐊᖅᑎᑕᐅᓚᐅᖅᑐᑯᑦ ᑲᓇᑕᒥ ᐅ.ᖅᑲᓂᑦ ᖃᐅᔨᓴᓂᕐᒧᑦ ᖃᐅᔨᓴᕐᓂᖅ (GSC) ᐱᓕᕆᖃᑎᖃᖅᑐᑎᑦ ᑲᓇᑕ ᓄᓇᕗᓪᓗ ᐅᔭᖅᑲᓂᑦ ᖃᐅᔨᓴᖅᑏᑦ

ᑎᑎᕋᕐᕕᖓ (CNGO), ᐃᓚᐅᖃᑕᐅᔪᓪᓗ ᓄᓇᕗᒻᒥ ᓯᓚᑦᑐᓴᕐᕕᒃ, ᑲᐅᕈᑕᓐ ᓯᓚᑦᑐᓴᕐᕕᒃᔪᐊᖅ, ᓯᓚᑦᑐᓴᕐᕕᒃᔪᐊᖓ ᐋᒃᔅᕗᑦ, ᐊᒻᒪ ᓄᓇᕗᑦ ᒐᕙᒪᒃᑯᑦ.

ᖃᐅᔨᓴᖃᑦᑕᕐᓂᐅᔪᖅ ᓄᓇᓕᕆᓂᕐᒥ ᕿᑭᖅᑖᓘᑉ ᓂᒋᐊᓂ ᓴᓂᒧᑦ 66°N ᐱᓕᕆᐊᖑᓚᐅᖅᓯᒪᕗᖅ 1949-ᒥᑦ 1965-ᒧᑦ, ᑕᒪᒃᑯᐊ ᖃᐅᔨᔭᐅᕙᓪᓕᐊᔪᑦ ᑲᑎᑕᐅᕙᓪᓕᐊᓪᓗᑎᒃ ᐊᒻᒪ ᐋᕿᒃᑕᐅᓕᖅᖢᓂ ᐅᔭᕋᐃᑦ ᓇᓗᓇᐃᔭᖅᑕᐅᓯᒪᓪᓗᑎᒃ 18-ᓂ 1:250 000 NTS ᓄᓇᙳᐊᓕᐊᓂ ᐊᑐᖅᖢᑎᒃ (ᐸᓛᑲᑐᐊ, 1967 (Blackadar, 1967)). ᑖᒃᑯᐊ ᑭᖑᓂᐊᒍᑦ ᖁᓕᒥᒎᓕᒃᑯᑦ ᐱᓕᕆᖃᑕᒃᖢᑎᒃ ᕿᑭᖅᑖᓘᑉ ᕿᑎᐊᓂᑦ (ᓲᕐᓗ, Henderson, 1985). ᖃᓂᓐᓂᕐᓴᑯᓪᓕ, ᒫᓐᓇᓕᓴᐅᓕᖅᑐᓂᑦ ᓄᓇᒥ ᖃᐅᔨᓴᖅᑐᓕᕆᓂᕐᒧᑦ ᖃᐅᔨᒪᔭᐅᓯᒪᔪᓂ ᑐᓴᖅᑎᑕᐅᓯᒪᕗᑦ ᓄᓇᒥ ᖃᐅᔨᓴᕈᑎᐅᔪᒧᑦ ᖁᓕᒥᒎᓕᖕᒥ ᐊᑐᖅᐸᒃᖢᑎᒃ ᓄᓇᒥ ᐱᓱᑲᑕᒃᐸᒃᖢᑎᒃ ᒫᓂ: ᓂᒋᖅᐸᓯᐊᓂᑦ ᕿᑭᖅᑖᓘᑉ (1995-1997; ᐆᔭᐅᔭᐅᓪᓗᓂ, ᐊᔾᔨᖑᐊᖅ 1), ᕿᑭᖅᑖᓘᑉ ᓂᒋᐊᓂ ᐱᖓᖕᓇᖅᐸᓯᐊᓂ (2006; ᖁᖅᓱᖅᑎᕐᓯᒪᔪᖅ, ᐊᔾᔨᖑᐊᖅ 1), ᑎᓄᔾᔭᕐᕕᒃ (Cumberland Peninsula) (2009–2011; ᑲᔪᒐᓚᐅᓪᓗᑎᒃ, ᐊᔾᔨᖑᐊᖅ 1), ᕼᐋᓪ ᐸᓂᓐᓱᓚ (2012-2013; ᑐᖑᔪᖅᑐᖅ, ᐊᔾᔨᖑᐊᖅ 1), ᐊᒻᒪ ᒥᑕ ᐃᓐᑲᒡᓃᑕ ᐸᓂᓐᓱᓚ (2014 ᐳᐴᓪᓗᓂ, ᐊᔾᔨᖑᐊᖅ 1). 2015 ᐊᐅᔭᖓᑕ ᓯᕗᓂᐊᓂᑦ, ᐊᑕᐅᓯᑐᐊᖅ ᐱᐊᓂᒃᑕᐅᔭᕆᐊᖃᓕᓚᐅᖅᑐᖅ ᓄᑖᖑᕆᐊᖅᓯᒪᔪᖅ ᑕᒪᕐᒥ ᕿᑭᖅᑖᓘᑉ ᓂᒋᖓ ᓴᓂᒧᑦ 70°N: ᓂᒋᕐᒥᑦ-ᕿᑎᖅᐸᓯᐊᓂᑦ ᕿᑭᖅᑖᓘ ᐅᕙᓂ ᓯᐅᕕᐊ ᒍᕆᓄᓪ ᑕᓯᖅ-ᑭᓕᐅᕗᐊᑐ ᑲᖏᖅᖣ ᒥᒃᓵᓂᑦ (ᐊᐅᐸᖅᑐᑦ, ᐊᔾᔨᖑᐊᖅ 1).

ᓂᖏᕐᒥᑦ-ᕿᑎᖅᐸᓯᐊᓂᑦ ᕿᑭᖅᑖᓗ ᓄᓇᖓ ᐃᓚᖃᖅᐳᖅ ᐅᐊᖕᓇᖅᐸᓯᖕᒥᑦ (ᑯᐸᐃᒃ-ᕿᑭᖅᑖᓗᒃ) ᓄᓇᐅᑉ ᐃᓚᒋᓪᓗᓂᐅᒃ ᑕᐅᔭᐅᔪᖅ Trans-Hudson Orogen (THO), ᑕᒪᓐᓇᓕ ᐃᒪᐅᑉ ᐊᑖᒎᖓᔪᖅ ᐊᖏᔪᐊᓘᓪᓗᓂ ᓴᖑᖓᓂᖃᖅᖢᓂ ᐅᐊᖕᓇᖅᐸᓯᕐᒥᑦ ᑲᓇᖕᓇᕐᒥ ᒪᐅᖓ ᓂᒋᖅᐸᓯᐊᓄᑦ ᕿᑎᖓᓂ ᓄᐊᑦ ᐊᒥᐊᓕᑲᐅ (Hoffman, 1988). ᐅᓇ THO ᐋᕿᖕᓂᑯᕕᓂᖅ ᑭᖑᓪᓕᖅᐹᒥ ᐅᓇ ᐱᕈᖅᐸᓪᓕᐊᑎᓪᓗᒍ Nuna supercontinent, ᐊᒻᒪᓗ sensu lato ᑎᑎᕋᐅᓯᖃᖅᓯᒪᔪᖅ ᒪᑐᓂᕕᓂᖓᓂᑦ ᐅᓇ Manikewan Ocean ᕿᑎᐊᓃᑦᑐᖅ ᒫᓂ ᐊᑦᑎᖕᓂᕐᓴᒥ ᓴᐱᐅᕆᔪᒥᑦ ᐊᒻᒪ ᖁᑦᑎᖕᓂᕐᓴᒥ ᓲᓯᐅᑉ ᓄᓇᖏᓐᓂᑦ ᒫᙵᑦ 1.92-ᒥᑦ 1.80-ᒧᑦ Ga. ᓇᓗᓇᐃᔭᐃᓯᒪᔪᑎᒍᑦ, THO ᓄᓇᐅᕗᖅ ᑐᓗᖅᓯᒪᓂᑰᓪᓗᓂ ᐊᔾᔨᒌᖏᑦᑑᑎᒃᑯᑦ ᓇᐃᓈᕐᓯᒪᔪᑎᒍ ᖃᓄᐃᑉᐸᓪᓕᐊᓂᕕᓂᖏ ᐊᖏᔫᑕᐅᓂᕐᓴᓂ 120 Myr ᑕᒪᓐᓇ ᐃᒪᐅᑉ ᐃᓂᖓ ᒪᑐᕙᓪᓕᐊᓂᖓᓂᑦ ᒫᓐᓇ ca 1920 ᐅᓄᖓ 1800 Ma (Corrigan et al., 2009; St-Onge et al., 2009). ᕿᑭᖅᑖᓘᑉ ᓂᒋᐊᓂ ᑲᓇᖕᓇᖅᐸᓯᐊᓂᑦ, ᑎᓴᒪᑦ ᓄᓇᕕᓃᑦ ᖁᓕᕇᓕᕐᓯᒪᔪᑦ ᓇᓗᓇᐃᖅᑕᐅᓯᒪᕗᑦ (ᐊᔾᔨᖑᐊᖅ 2). ᐊᑦᑎᖕᓂᖅᐹᖓᓂ ᖁᑦᑎᖕᓂᖅᐹᒧ ᐋᕿᒃᐸᓪᓕᐊᓂᓄ, ᐃᒪᐃᓕᖓᕙᓪᓕᐊᕗᖅ:

1) ᓄᓇᕕᓂᑐᖃᐃᑦ ᐱᒋᐊᕐᕕᖏ ᓴᓂᒨᖓᔪᑦ, ᑐᑭᓕᐅᕆᔭᐅᓯᒪᔪᑦ ᐅᑭᐅᖅᑕᖅᑐᕐᒥᑦ ᑲᔪᓯᕙᓪᓕᐊᓂᖓᓂ ᐅᓇ Superior ᐱᒋᐊᕐᕕᒋᓯᒪᔭᖓᓂᑦ, ᐊᒻᒪᓗ ᕿᑎᐊᓃᑦᑐᖅ ᐃᒪᐃᑦᑐᖃᖅᖢᓂ Paleoproterozoic supracrustal ᖄᖓᒍᑦ (Povungnituk Group; St-Onge et al., 1996;

2) ᕿᑎᐊᓃᑦᑐᑦ ᐅᔭᕋᐃᑦ Paleoproterozoic ᐃᒪᐃᑦᑑᓂᕐᓴᐅᓪᓗᑎᒃ monzogranitic ᐊᒻᒪ granodioritic orthogneiss, ᑐᑭᓕᐅᕆᔭᐅᓯᒪᔪᖅ ᐋᕿᑦᑎᐊᖅᓯᒪᑦᑎᐊᖏᓐᓂᖓᓂᑦ arc-magmatic terrane (Narsajuaq arc; Scott, 1997; St-Onge et al., 2009), ᐅᕝᕙᓘᓐᓃᑦ ᐃᒪᓐᓇ ᓇᕐᓴᕐᔪᐊᖅᑐᑦ-ᐊᑯᓂᐅᑎᒋᔪᖅ ᐱᖓᔪᒋᓕᖅᑕᖓᓂ ᖁᓕᕇᒃᑑᑎᓂᑦ (Corrigan et al., 2009);

3) ᓄᓇᕕᓂᑐᖃᐃᑦ ᐱᒋᐊᕐᕕᖏ ᓴᓂᒨᖓᔪᑦ ᐊᒻᒪ ᕿᑎᐊᓃᑦᑐᖅ Paleoproterozoic supracrustal ᖄᖓᒍᑦ (Lake Harbour Group), ᑲᑎᓯᒪᓪᓗᑎ ᑕᐃᔭᐅᓯᒪᔪᑦ ‘Meta Incognita microcontinent’ ᐆᒪᙵᑦ St-Onge et al. (2000a), ᑕᒪᒃᑯᐊᓗ ᓇᓗᓇᐃᖅᓯᓯᒪᔪᑦ ᒪᑯᓂᖓ crust rifted ᐅᕙᙵ the Rae ᐅᕝᕙᓘᓐᓃᑦ Superior craton, ᐅᕝᕙᓘᓐᓃᑦ ᑕᒪᐃᓐᓄᑦ ᐊᑐᖅᑕᐅᓯᒪᖏᓐᓂᑰᕗᑦ: ᐊᒻᒪ

4) ᓄᓇᕕᓂᑐᖃᐃᑦ ᐱᒋᐊᕐᕕᖏ ᓴᓂᒨᖓᔪᑦ, ᑐᑭᓕᐅᕆᔭᐅᓯᒪᔪᖅ ᓂᒋᕐᒥ ᑲᔪᓯᓯᒪᓂᖓᓂ ᐅᓇ Rae craton, ᐊᒻᒪ ᐅᓇ ᕿᑎᐊᓃᑦᑐᖅ Paleoproterozoic supracrustal ᖄᖓᓂ (Piling Group; Wodicka et al., 2014), ᐅᔭᕋᐃ ᐱᕈᕐᕕᐅᕙᓪᓕᐊᔪᓐᓇᖅᑐᑦ ᐊᔾᔨᒋᔭᖏᓐ ᐅᑯᓄᖓ Hoare Bay Group ᐅᕙᓂ Cumberland Peninsula.

ᖁᕝᕙᓯᓐᓂᖏᑦ 3 ᐊᒻᒪ 4 ᓈᒻᒪᒍᓐᓃᖅᑎᑦᑎᓯᒪᓗᐊᒧ ᐆᒧᖓ Cumberland batholith, ᑖᓐᓇ ᐊᔾᔨᒌᖏᑦᑑᑎᓂ ᐅᔭᕋᐅᔭᐅᖂᔨᔪᓂ ᓴᖅᑭᑉᐸᓪᓕᐊᓯᒪᔪᓂ ᐱᑕᖃᖅᐳᑦ ca. 1865–1845 Ma (Whalen et al., 2010). ᐅᓇ Cumberland batholith ᑐᑭᓕᐅᕆᔭᐅᓯᒪᔪᖅ ᐃᒪᓐᓇ Andean-type batholith (St-Onge et al., 2009), ᐅᕝᕙᓘᓐᓃ ᐱᔾᔪᑎᖃᖅᖢᓂ ᑲᑎᖃᑎᒌᖕᓂᑰᓂᖏᓐᓂᑦ ᐅᑯᐊ lithospheric delamination ᐊᒻᒪ ᓄᓇᐅᑉ ᕿᑎᐊᓃᑦᑐᖅ (Whalen et al., 2010). ᑕᒪᐃᓐᓂ ᖁᓖᕇᒃᐸᓪᓕᐊᔪᑦ ᐅᕘᓇ ca. 720 Ma basaltic ‘Franklin’ ᓴᐴᓕᑎᐅᔪᓂ, ᑭᓯᐊᓂᓕ ᐊᑭᓕᕇᒍᑎᑦᑎᐊᙱᑦᑐᑦ ᐅᕘᓇ Ordovician limestone strata (Blackadar, 1967).

ᑎᓴᒪᑦ ᓄᓇᐅᑉ ᖄᖏ ᐱᒋᐊᖅᓯᒪᕗ ᓂᒋᕐᒥ ᐅᐊᕐᓇᕐᒧᖓᐅᕙᓪᓕᐊᔪᓂᑦ ᐋᕿᑉᐸᓪᓕᐊᓪᓗᑎ ᐆᒧᖓ THO. ᓄᑕᐅᖏᓐᓂᖅᐹᖅ ᓄᓇᕕᓂᕐᓂᑦ, ᖁᓕᕇᒃᑐᓂᑦ 3–4 'ᕿᑭᖅᑖᓗᒃ ᐅᔭᖃᒐ', ᐃᓱᒪᒋᔭᐅᓯᒪᕗᖅ ᐱᒋᐊᕈᑎᖃᖅᓯᒪᔭᕆᐊᒃᓴᖓᓂᑦ ᐋᕿᒃᐸᓪᓕᐊᓂᕐᒧᑦ ᐅᓇ Meta Incognita microcontinent ᐅᕗᖓ Rae craton ᐊᕐᕌᒍᐃᑦ ᐊᑯᓐᓂᖓᓂ ᐅᑯᐊ ca. 1880-ᒥᑦ 1865-ᒧᑦ Ma (St-Onge et al., 2006). ᐅᓇ ᓄᓇ ᐋᕿᒃᐸᓪᓕᐊᓂᖓ ᐅᔾᔨᕐᓇᓗᐊᖅᓯᒪᙱᑦᑐᖅ ᐱᔾᔪᑎᖃᖅᖢᓂ ᓴᕿᑉᐸᓪᓕᐊᓂᖓᑕ ᓂᐱᕐᓇᖅᑐᖃᕐᓂᖓᓂ ᓴᕿᒍᑎᒋᓗᐊᙱᖢᓂᐅᒃ, ᑭᓯᐊᓂᓕ ᐱᑕᖃᖅᖢᓂ ᒥᑭᑦᑐᓂᑦ ᓄᓇᐅᑉ ᐱᕈᖅᐸᓪᓕᐊᓯᒪᓂᖓᓂᑦ (ᒪᓕᒃᖢᑎᒃ ᑕᒫᓂ ᐊᓯᖑᖅᐸᓪᓕᐊᓂᐅᔪᓂᑦ) ᑕᒫᓂ (St-Onge et al, 2009). ᐅᐊᖕᓇᖓᓂᑦ ᓄᓇᓕᕆᕝᐅᓂᐊᖅᑑᑉ ᐅᓇᐅᕗᖅ ᓂᒋᕐᒧᑦ ᓵᖓᓂ Piling Group, ᑖᓐᓇᓕ ᐃᓱᖃᕐᕕᖃᖅᑰᔨᔪᑦ, ᐃᒃᑲᑦᑐᓂ ᐃᒪᖃᕐᕕᐅᓂᑰᓪᓂ ᐅᔭᕋᒐᓚᐃᓪᓗ ᓱᕋᒃᑎᖅᐸᓪᓕᐊᓯᒪᓪᓗᑎᒃ, ᐊᑖᓃᖢᑎᒃ ᓄᓇᐅᑉ ᓱᐳᓂᑯᕕᓂᖏᓐᓂᑦ ᑖᒃᑯᐊᓗ ᐃᓚᖃᖅᖢᑎᒃ ᓴᕕᕋᔭᒃᓴᖑᖅᐸᓪᓕᐊᔪᓂᑦ. ᓂᒋᐊᓄᓪᓕ ᐱᓕᕆᕝᕕᐅᔪᒪᔫᑉ ᐅᓇᐅᕗᖅ ᐅᐊᖕᓇᕐᒧᑦ ᓵᖓᔪᖅ Lake Harbour Group, ᑖᓐᓇᑦᑕᐅᖅ ᐅᔭᕋᐅᔭᖃᐅᕆᓪᓗᓂ ᐃᓄᐊᓂᓱᖓᖅ ᑕᒫᓂ, ᑭᓯᐊᓂᓕ ᐅᔾᔨᕐᓇᖅᑐᖅᑕᖃᐅᓚᐅᖅᐳᖅ ᒪᑯᓂᖓ ᐱᑕᖃᐅᕐᓂᖏᓐᓂᑦᑕᐅᖅ basal orthoquartzite ᐊᒻᒪ ᐃᒪᐃᑦᑐᓂ ᐱᑕᖃᖏᖢᓂ iron-formation ᐊᒻᒪ metagreywacke. ᑕᒪᓐᓇ ᓄᓇ ᐅᔾᔨᕐᓇᖅᑐᖃᓚᐅᕐᒥᔪᖅ ᐊᑖᒍᑦ ᐃᓚᐅᕐᓯᒪᓚᐅᕐᓂᖏᓐᓂᑦ ᖁᓕᕇᓕᕐᓯᒪᓂᒃᑯᑦ ᐱᖓᔪᖓᓐᓂᑦ (level
3) ᓯᕗᓂᐊᓂᑦ ᓴᕿᑦᑐᕕᓃ ᐅᕙᓃᑦᑐᓂᑦ Cumberland batholith (St-Onge et al., 2007). 2015-ᒥ ᖃᐅᔨᓴᕐᓂᐅᔪᖅ ᕿᑭᖅᑖᓗᖕᒥ ᐱᓕᕆᐊᕆᔭᐅᔪᒪᔪᓂᑦ, ᐊᑕᐅᓯᖅ ᐊᖏᓂᖅᐹᖑᖃᑕᐅᔪᕐᓕ ᐱᓕᕆᐊᕆᔪᒪᓂᕐᒧᑦ ᖃᐅᔨᒋᐊᒃᑲᓐᓂᕐᓗᑎ ᑕᒪᑐᒥᖓ ᓄᓇᐅᑉ ᖃᓄᐃᑦᑑᓂᖓᓂᑦ.

ᖁᕝᕙᓯᓐᓂᖏᑦ 2–3 'ᓴᕐᐸ ᑰᒃ' (Soper River) ᓄᓇᖓ ᑎᑎᕋᐅᓯᐅᓯᒪᕗᖅ ᐊᖏᒡᓕᕙᓪᓕᐊᓂᖓᓂᑦ ᓇᕐᓴᖅᔪᐊᖅ ᐊᕿᓐᓂᕆᔭᖓ (magmatic arc) ᒪᐅᖓ Rae-Meta Incognita ᐃᓂᒋᔭᖓᑎᒍᑦ. ᑕᒪᓐᓇ ᐋᕿᒃᐸᓪᐊᓯᒪᓇᓱᒋᔭᐅᔪᖅ ᕿᑎᐊᓂᑦ 1845 Ma, ᑖᓐᓇ ᐅᑭᐅᑎᒍᑦ ᐱᒋᐊᓕᓵᖅᓯᒪᓃᑯᓪᓗᓂ ᑕᒫᓂ ᐊᕿᓐᓂᐅᔪᒥᑦ (Dunphy and Ludden, 1998), ᐊᒻᒪ

ca. 1842 Ma, ᑖᓐᓇᓕ ᐅᑭᐅᕆᔭᐅᓇᓱᒋᔪᖅ ᓄᑖᐅᙱᓛᒥ oldest Andean-type phase (Scott, 1997). ᐋᕿᒃᑎᐊᖅᓯᒪᖏᓐᓂᐅᔪᖅ ᓴᕐᐸ ᑰᖕᒥ ᐊᖏᔫᕗᖅ ᐊᒻᒪ ᐃᓗᐊᓄᐊᕐᓇᖅᖢᓂ, ᐊᒻᒪᓗ ᒪᑯᓂᖓ ᐅᔭᕋᖃᐅᖅᖢᓂ ᐊᓯᖑᖅᐸᓪᓕᐊᔪᓂᑦ syn-metamorphic amphibolite-facies ᒪᐅᖓ granulite-facies metamorphic foliation (St-Onge et al., 2007).

ᖁᕝᕙᓯᓐᓂᖏᑦ 1–2 ‘Bergeron’ ᓄᓇ ᐋᕿᒃᐸᓪᓕᐊᓂᑯ ᑐᓗᓚᐅᖅᑎᓪᓗᒍ ᐅᓇ Superior craton ᒪᑯᓂᖓ ᐃᓚᐅᖅᓯᒪᔪᓂᑦ ᐊᔾᔨᒌᖏᑦᑑᑎᓂᑦ ᖁᓛᓃᓐᓂᕐᓴᓃᑦᑐᓂᑦ (ᑲᑎᓯᒪᓪᓗᑎᒃ Churchill plate, ᐅᕝᕙᓘᓐᓃᑦ peri-Churchill collage), ᐊᒻᒪᓗ ᐃᓱᒪᒋᔭᐅᔪᖅ ᑕᐃᒪᐃᓐᓂᑰᔭᕆᐊᒃᓴᖓᓂᑦ ᐊᑯᓐᓂᖓᓂᑦ 1820 Ma, ᐅᑭᐅᐅᕆᔭᐅᔪᖅ ᓄᑖᖑᓛᒧᑦ ᓴᕿᑦᑐᓂᑦ ᓴᓂᕌᓂᑦ ᖃᖅᑲᐅᑉ (Scott and Wodicka, 1998), ᐊᒻᒪ 1795 Ma, ᐊᕐᕌᒍᒋᔭᐅᔪᕐᓕ ᐃᓗᑐᓂᐅᔫᑉ ᐊᖅᑯᓵᖅᓯᒪᔪᖅ ᓄᓇᒥᑦ (Wodicka and Scott, 1997). ᐅᓇ ᖃᓄᐃᓕᐅᕐᓂᐅᔪᖅ ᓴᕿᑎᑦᑎᔾᔪᑎᐅᓚᐅᖅᐳᖅ retrograde amphibolite-facies metamorphism ᒪᑯᓂᖓ ᐅᔭᕋᖕᓂ granulite-facies rocks ᖁᓪᓕᐅᓂᖅᓴᒦᑦᑐᓂ ᑐᓗᖅᑕᐅᕝᕕᕕᓂᕐᒥ ᕿᑭᖅᑖᓘᑉ ᓂᒋᐊᓂ ᒪᐅᓇ ᓴᕐᐸᐅᑉ ᐃᓂᒋᔭᖓᑕ ᐊᒻᒪᓗ ᐃᒪᐅᑉ ᐃᓂᒋᕙᒃᑕᖏᓐᓂᑦ (St-Onge et al., 2000b).

TECTONOSTRATIGRAPHIC ᐃᓛᒃᑰᖓᔪᐃ

ᐅᔭᕋᐃᑦ ᓄᓇᙳᐊᓕᐅᖅᑕᐅᔪᑦ ᐅᕙᓂ Sylvia Grinnell Lake–Clearwater Fiord ᓄᓇᖓᓂ ᐱᐊᓂᒃᑕᐅᓚᐅᖅᐳᖅ ᐱᓇᓱᐊᕈᓯᕐᓂ 8-ᓂ ᐱᓕᕆᑲᑕᖕᓂᒃᑯᑦ, ᖁᓕᒥᒎᓕᖕᒥ ᐊᑯᑲᑕᒃᖢᑎᒃ 2015 ᐊᐅᔭᖓᓂᑦ Archean crystalline ᑐᙵᕕᐅᔪᑦ ᑲᓇᖕᓇᖅᐸᓯᐊᓂ ᓄᓇᙳᐊᑉ ᐃᓚᖃᖅᐳᖅ ᒪᑯᓂᖓ tonalite ᐊᒻᒪ granodiorite gneiss ᑕᒫᙵ ᐃᓚᔭᐅᕙᓪᓕᐊᓪᓗᓂ monzogranite, ᑕᒪᓐᓇᓗ ᑕᒫᓂ ᓴᕿᓐᓂᑰᓪᓗᑎᒃ K-feldspar porphyritic.

Paleoproterozoic metasedimentary ᖃᓕᕇᒃᑑᑎᑦ ᐅᔭᕋᐃᑦ ᐃᓚᖃᖅᖢᑎᒃ ᒪᑯᓂᖓ quartzite, semipelite, pelite, marble, ᐊᒻᒪ greywacke ᓴᕿᖃᑦᑕᖅᑐᑦ ᐊᓂᖓᔪᑎᑐᑦ, enclaves, screens, ᐊᒻᒪ panels ᑕᒫᓂ ᐊᒻᒪ ᕿᑎᐊᓂ ᐊᔾᔨᒌᖏᑦᑑᑎᓂ ᓄᓇᐃᑦ ᐃᓂᖏᓐᓂᑦ. Mafic-ultramafic ᑎᒥᖏᑦ ᓴᕿᔮᖅᐳᑦ ᑐᖓᕕᐅᖂᔨᓪᓗᑎᒃ ᒪᑯᐊ ᐃᓗᐊᓂ metasedimentary strata.

ᑕᒫᓂ ᐅᔭᕋᐅᑉ ᐃᓂᖏᑦ ᐱᑕᖃᕐᓂᖅᓴᐅᕗᑦ ᐃᒪᐃᑦᑐᓂᑦ Paleoproterozoic metaplutonic ᐊᔾᔨᒌᖏᑦᑑᑎᐅᓪᓗᑎᒃ ᐃᒪᐃᑦᑐᓂᑦ gabbro ᐃᒪᐃᑦᑐᓄᑦ syenogranite. ᐊᖅᑯᓵᖅᓯᑲᑕᖕᓂᖅ ᑐᑭᖃᖅᐳᖅ ᐊᔾᔨᒌᖏᑦᑑᑎᑦ ᐋᕿᒃᐸᓪᓕᐊᓯᒪᓂᖏᓐᓂᑦ ᐊᕐᕌᒍᑦ ᐊᔾᔨᒌᖏᑦᑐᒃᑯᑦ, ᐊᒻᒪᓗ ᑕᒪᓐᓇ ᐃᓱᒪᖕᓇᖅᐳᖅ ᐊᓯᖑᖅᐸᓪᓕᐊᓂᕐᒥᑦ ᐃᒪᐃᑦᑐᒥᑦ mafic-ᒥ ᐃᒪᐃᑦᑑᓂᖅᓴᐅᓕᖅᖢᑎᒃ silicic compositions. ᐊᔾᔨᒌᖏᑦᑑᑎᑦ ᐅᔭᕋᐃᑦ ᐋᕿᒃᐸᓪᓕᐊᓂᖏ ᓇᓗᓇᐃᔭᖅᑕᐅᓯᒪᕗᑦ ᐊᕐᕌᒍᖏᑦᑎᒍᑦ ᐊᑖᒍᑦ, ᓴᕿᔮᖅᑎᑦᑎᓪᓗᑎᒃ ᓄᐊᑕᐅᔪᕕᓂᕐᓂᑦ ᐆᒧᖓ U-Pb ᐅᑭᐅᖏᑦᑎᒍᑦ ᖃᐅᔨᓇᓱᒃᖢᑎᒃ ᐱᓕᕆᕝᕕᖕᒥ ᐊᖁᓵᕐᓂᐅᖃᑦᑕᖅᑐᓂᑦ, ᐊᒻᒪᓗ ᑲᑎᑐᐃᓐᓇᕆᐊᖃᖅᑐᓂᑦ ᐆᒧᖓ Cumberland
batholith.

ᑭᖑᓕᖅᐹᕐᓕ, ᒥᑭᑦᑐᑯᓗᐃᑦ ᐊᑰᓵᕐᓂᐅᔪᑦ ᐅᕘᓇ mafic dykes ᐊᒻᒪ ᖁᓛᓃᑦᑐᑦ ᐅᔭᕋᐃ Ordovician limestone ᓄᓇᙳᐊᕐᒥ ᐋᕿᒃᓱᖅᑕᐅᖕᒥᔪᑦ ᒫᓂ Sylvia Grinnell Lake–Clearwater
Fiord area.

Archean crystalline basement (ᐃᓛᒃᑰᖓᔪᐃ 0t–0mm)
ᑕᒪᓐᓇ ᓄᓇ ᐊᓯᖑᖅᐸᓪᓕᐊᓂᖓ ᓴᕿᑎᑦᑎᓯᒪᕗᖅ ᐅᔭᕋᖕᓂ ᖃᐅᔨᓴᕐᓂᕐᒥᑦ ᐅᕙᓂ Hall Peninsula ᐊᒻᒪᓗ ᑲᓇᖕᓇᖅᐸᓯᐊᓂ Sylvia Grinnell Lake–Clearwater Fiord ᓄᓇᙳᐊᓕᐅᕐᕕᖕᒥᑦ. ᐅᔭᕋᐅᔭᐃᑦ ᕿᓪᓕᒐᓚᒃᑐᑦ ᐊᔾᔨᒌᖏᑦᑑᑎᓂᑦ ᒪᐅᖓ ᐅᖃᐅᔭᐅᓕᖅᑰᔨᓯᒪᔪᓂᑦ, ᓯᐅᕋᑦᑐᐊᕚᓗᖕᒥ ᐊᖏᔫᑎᐅᓂᕐᓴᓄᑦ biotite±hornblende tonalite ᒪᐅᖓ granodiorite ᐃᓚᖃᒡᒍᔪᑦ ᖁᓕᕇᒃᑑᑎᓂᑦ diorite ᒪᐅᖓ quartz diorite. ᐊᖏᓪᓗᓂ ᐱᕈᖅᐸᓪᓕᐊᓂᐊᕐᓂᖓ, ᓯᐅᕋᐃᑦ ᐊᖏᓂᕐᓴᑦ biotite±magnetite monzogranite, locally K-feldspar porphyritic, ᐊᖅᑰᓵᖅᓯᒪᓂᐅᔪᑦ ᒪᑯᓂᖓ pegmatitic syenogranite veins.

Paleoproterozoic metasedimentary (ᐃᓛᒃᑰᖓᔪᐃ {LHq–{PL)
Quartzite, semipelite ᐊᒻᒪ pelite, psammite (ᐃᓛᒃᑰᖓᔪᐃ {LHq–{LHp) ᖁᓕᕇᓕᑦᑎᐊᖅᓯᒪᔪᑦ ᐊᒻᒪ ᖃᑯᖅᑕᐃᑦ ᐅᖂᓕᕐᓯᒪᔪᑦ ᓯᓚᒧᑦ quartzite ᓴᕿᖃᑦᑕᖅᐳᑦ ᐃᒪᐃᑦᑐᑎᑐᑦ panels ᐃᔾᔪᓂᖃᓕᖅᐸᒃᖢᑎᒡᓘᓐᓃᑦ 100 ᒦᑕᓂᑦ ᑕᒪᒃᑯᓇᓂᑦ monzogranite (ᐊᔾᔨᖑᐊᖅ 3a, b), ᐊᒻᒪᓗ ᐃᓚᖏᒍᑦ ᖄᖓᓃᑐᖃᕆᕗᖅ ᒪᑯᓂᖓ interbedded psammite, semipelite, ᐊᒻᒪ/ᐅᕝᕙᓘᓐᓃᑦ pelite (ᐊᔾᔨᖑᐊᖅ 3b). ᒪᑯᐊ Quartzite ᖁᓕᕇᒃᑑᑎᑦ ᐃᒪᓐᓇᐃᑦᑑᖄᑎᒋᕗᑦ ᒫᙵᑦ orthoquartzite ᒪᐅᖓ feldspathic quartzite, ᖄᖏᒍᑦ ᐃᓚᐅᒃᑲᓐᓂᖅᓯᒪᕗᑦ ᐊᒻᒪᓗ ᐃᓛᓐᓂᒃᑯᑦ ᐃᓚᖃᖅᖢᑎᒃ garnet-ᒥᑦ. Pelite horizons ᐃᓚᖃᖅᑐᐃᑦ assemblage biotite-garnet-sillimanite-K-feldspar-melt (ᐊᔾᔨᖑᐊᖅ 3c), ᐊᒻᒪᓗ ᓴᕿᒡᒍᓪᓗᑎᒃ ᖁᓕᕇᒃᑑᑎᓂᑦ ᑭᓱᖃᙱᓐᓂᖅᓴᐅᔪᓂᑦ ᐅᑯᑎᒎᓇᖅ biotite±garnet psammitic ᐅᕝᕙᓘᓐᓃᑦ biotite±garnet±sillimanite semipelitic migmatite. ᐱᒋᐊᕈᑎᐅᓯᒪᔪᑦ ᑲᑎᑉᐸᓪᓕᐅᓂᐅᔪᓂ ᐃᓚᖃᖅᓯᒪᕗᑦ 20 vol. % ᐊᖏᔫᑎᐅᓂᕐᓴᓂ ᓯᐅᕋᕐᓂᑦ leucosome, ᐃᒪᐃᑦᑑᓂᕋᖅᑕᐅᔪᓂᑦ crystallised melt, ᐃᓚᖃᖅᖢᓂ patch to stromatic metatexite textures, ᐊᒻᒪᓗ ᒪᑯᓂᖓ ᐱᑕᖃᖏᖢᑎᒃ muscovite, ᐃᓚᖃᖅᖢᑎᒃ ᒪᑯᓂᖓ peak metamorphic conditions ᒪᑯᓂᖓ ᐊᒥᓲᓂᕐᓴᐅᓪᓗᑎᒃ muscovite-dehydration (St-Onge et al., 2007; Dyck and St-Onge, 2014). Cordierite ᐱᑕᖃᙱᒻᒥᔪᖅ ᐅᑯᓇᙵᑦ metasedimentary assemblages ᑲᑎᓯᒪᐅᖅᑐᓂᑦ, ᐃᒪᐃᑦᑐᖃᕐᓂᖅᓴᐅᓇᓱᒋᔭᐅᓪᓗᓂ paleopressures ᐅᖓᑖᓃᑦᑐᓂᑦ 6 kbar. Gossanous horizons ᐱᑕᖃᒡᒍᕗᑦ ᒪᑯᓇᓂᑦ siliciclastic units, ᑖᒃᑯᐊᓕ ᐃᓂᒋᔭᐅᓂᕐᓴᐅᕙᒃᖢᑎᒃ ᒪᑯᓂᖓ chalcopyrite, graphite, ᐊᒻᒪ pyrite. ᑕᑯᔭᐅᔪᓐᓇᑐᐃᓐᓇᕋᓗᐊᖅᑎᓪᓗᒍ ᐊᑐᐃᓐᓇᐅᙱᑦᑐᓂ ᐃᒐᓛᓂᑦ, ᒪᑯᐊ the siliciclastic ᐃᓂᖏᑦ ᖃᐅᔨᓴᖅᑕᐅᕙᓪᓕᐊᔪᒦᑦᑐᑦ ᐋᕿᒃᓯᒪᓂᖏᑦ ᐊᔾᔨᒋᔭᖃᖅᐳᑦ ᐅᑯᓄᖓ metasedimentary strata ᒫᓂ ᐊᒃᑐᐊᐅᕗᓂᑦ Lake Harbour Group ᐃᓂᖃᕐᕕᐅᓂᖏᑦᑎᑐᑦ (St-Onge et al., 1996, 1998; Scott et al., 1997).

Marble and calc-silicate (ᐃᓛᒃᑰᖓᔪᖅ {LHc)
ᐅᔭᕋᐃᑦ ᐊᕿᑦᑐᑦ ᐊᑭᓐᓇᑎᑑᓕᖃᑦᑕᖅᐳᑦ ᐃᔾᔪᖅᑎᕈᓐᓇᖅᖢᑎᒃ 100 ᒦᑕᔅᓂ ᒪᑯᓇᓂ monzogranite, ᐊᒻᒪᓗ ᐊᖏᓂᖃᖅᓯᒪᓪᓗᑎᒃ 10 ᑭᓚᒦᑕᔅᓂᑦ ᑕᒫᓂ (ᐊᔾᔨᖑᐊᖅ 3d). ᐅᔭᕋᐃᑦ ᓯᐅᕋᐅᓂᖏᑦ ᐊᖏᓂᖅᓴᐅᔪᑦ ᐊᒻᒪ ᐊᖏᓂᖅᓴᐅᒃᑲᓐᓂᖅᖢᑎᒃ ᐊᒻᒪ ᑕᒫᓃᖢᑎᒃ ᖃᓕᕇᒃᑎᓯᒪᔪᑎᓐᓂ ᓇᓗᓇᖏᖢᓂ ᖃᓄᐃᑦᑑᕙᓪᓕᐊᓂᖏᑦ ᐅᑯᓂᖓ apatite, calcite, diopside, humite, forsterite, magnetite, phlogopite, scapolite, spodumene, titanite, ᐊᒻᒪ tremolite (ᐊᔾᔨᖑᐊᖅ 3e). ᑕᒪᒃᑯᐊ ᐊᕿᒡᓕᔭᑦᑐᑦ ᐅᔭᕋᐃ ᐃᓱᒪᒋᔭᐅᔪᑦ ᐃᒪᐃᑦᑐᖃᕐᓂᖅᓴᐅᔭᕆᐊᒃᓴᖓᓂᑦ

tectonostratigraphically ᖁᑦᑎᖕᓂᕐᓴᒥ ᐅᕙᓂ Lake Harbour Group ᒪᑯᓇᙵᐅᓂᖏᓐᓂᒡ siliclastic units ᖁᓛᒍᑦ ᓇᓗᓇᐃᖅᑕᐅᓯᒪᔪᓂᑦ.

Metagreywacke (ᐃᓛᒃᑰᖓᔪᖅ {PL)
Metagreywacke ᑎᑎᕋᐅᓯᐅᓯᒪᔪᖅ ᐅᐊᖕᓇᖓᓂ ᑲᓇᖕᓇᖅᐸᓯᐊᓂ ᖃᐅᔨᓴᖅᑕᐅᕕᐅᔪᒥᑦ, ᓴᖑᖓᔪᑎᑐᑦ ᐅᑯᐊ ᐃᓗᐊᒍᑦ biotite monzogranite (ᐊᔨᖑᐊᖅ 3f). ᖁᓛᒍᑦ ᑎᑎᕋᖅᑕᐅᓯᒪᔪᑎᑐᑦ, greywacke ᐱᑕᖃᙱᑦᑐᖅ ᐅᕙᓂ Lake Harbour Group ᐅᔭᕋᐃᑦ ᖃᓄᐃᑦᑑᓂᖏᓐᓂᑦ, ᑭᓯᐊᓂᓕ ᐱᑕᖃᕐᓂᖅᓴᐅᓪᓗᓂ ᐅᕙᓂ Longstaff Bluff ᐋᕿᒃᓱᖅᓯᒪᓂᖓᓂ ᐅᕙᓂ Piling Group ᓄᓇᙳᐊᒦᑦᑐᑦ ᐅᐊᓈᖓᓂ (Wodicka et al., 2014), ᐊᓯᔾᔨᖅᐸᓪᓕᐊᓂᕆᔭᖓᓂᑦ granitoid-ᒥ
ᐅᔭᕋᖕᓂᑦ.

Paleoproterozoic mafic-ultramafic sills (ᐃᓛᒃᑰᖓᔪᐃ {LHu–{LHd)
ᐅᔭᕋᐃᑦ ᓵᑦᑑᑎᐅᔪᑦ ᒪᑯᓇᙵᑦ ᓯᐅᕋᕐᓂ ᐊᖏᓂᖅᓵᕐᔪᖕᓂ ᐊᖏᔫᑎᓅᖓᔪᓄᑦ ᐃᒪᐃᓕᖃᑦᑕᖅᐳᑦ, mafic-ᒥᑦ ᐅᕗᖓ ultramafic rocks ᐅᔭᕋᖕᓄᑦ ᐅᕙᓂ ᕗᕉᐱᓱ ᐃᓂᒋᔭᖓᓂᑦ (Liikane et al., 2015) ᑕᐃᒪᐃᑉᐸᒃᖢᑎᒡᓗ ᒪᐅᓇᓕᒫᖅ siliciclastic strata ᕿᑭᖅᑖᓘᑉ ᓂᒋᐊᓂ ᕿᑎᐸᓗᐊᓂᑦ. ᐃᒻᒥᒃᑰᖓᔪᑦ ᐃᔾᔪᓂᖃᖃᑦᑕᖅᐳᑦ 10-20 ᒦᑕᔅᓂᑦ, ᐃᓚᖏᓪᓕ ᐊᖏᒡᓕᔪᓐᓇᖅᖢᑎᒃ 100 ᒦᑕᔅᓂ ᐃᔾᔪᓂᖃᓕᕐᓗᑎᒃ, ᐊᒻᒪᓗ ᖁᒻᒧ ᑭᓛᒥᑕᔅᒐᓚᖕᓂ ᖁᑦᑎᒃᓯᓯᒪᔪᓐᓇᖅᖢᑎᒃ. ᒪᑯᐊ mafic ᐊᒻᒪ ultramafic rocks ᐃᐱᒃᑑᑎᐅᕗᑦ ᓴᕿᔮᖃᑎᖃᖅᖢᑎᒃ ᐅᑯᓂᖓ their host metasedimentary units, ᐊᒻᒪᓗ ᐃᓱᒪᖕᓇᖅᖢᑎᒃ ᑐᙵᕕᐅᔭᕆᐊᒃᓴᖏᓐᓂᑦ. ᐊᖏᓂᕐᓴᐃᑦ ᐅᔭᕋᐃᑦ ᖁᓕᕇᒃᑐᑕᐅᕗᑦ, ᐊᔾᔨᒌᖏᑦᑑᑎᐅᓪᓗᑎ ᐃᒪᓐᓇ ᑲᑎᓯᒪᐅᖅᑐᓂᑦ clinopyroxene-orthopyroxene±hornblende metapyroxenite ᑐᙵᕕᖓᓂᑦ (ᐊᔾᔨᖑᐊᖅ 4a), ᑮᖑᓂᐊᒍᑦ ᐃᒪᓕᖓᓪᓗᑎᒃ olivine-clinopyroxene-orthopyroxene metaperidotite ᐊᒻᒪ metagabbro ᒪᐅᖓ metaleucogabbro up section (ᐊᔾᔨᖑᐊᖅ 4b). ᐃᓚᒋᕙᕗᑦ, ᓖᑲᓂ, ᐱᓕᕆᓕᒪᓂᕐᓴᖅ ᐃᓕᓐᓂᐊᖅᑎᐅᔪᖅ ᖃᐅᔨᓴᖅᑎᓂᑦ ᐃᑲᔪᖅᑎ ᐱᓕᕆᐊᖃᖅᐳᖅ ᐆᒥᖓ MSc thesis ᑎᑎᕋᐅᓯᖃᕐᓂᐊᕐᓗᓂ ᒪᑯᓂᖓ petrology, geochemistry, ᐊᒻᒪ geochronology ᒪᑯᓂᖓ ᖁᓕᕇᒃᑎᓯᒪᔪᓂᑦ ᐅᔭᕋᖕᓂᑦ ᑯᐸᐃᒃ ᑕᕐᕋᖓᓂᑦ ᐊᒃᑐᐊᓂᖃᖅᖢᑎᒃ ᐅᑯᓂᖓ Raglan Ni-Cu deposit (ᐊᔾᔨᖑᐊᖅ 2). ᐅᖃᐅᓯᖃᒃᑲᓐᓂᖅᓯᒪᔪᑦ ᐆᒥᖓ mafic-ultramafic ᐅᔭᕋᖕᓂ ᐅᕙᓃᑉᐳᑦ Liikane et al. (2015).

Paleoproterozoic metaplutonic suite (ᐃᓛᒃᑰᖓᔪᐃ {g–{sb)
Gabbro (ᐃᓛᒃᑰᖓᔪᖅ {g)
ᖃᔅᓯᒐᓴᐃᑦ ᓯᐅᕋᐅᖂᔨᔪᑦ ᐃᒪᐃᑦᑐᓂ pegmatitic, kilometre-scale, layered biotite-clinopyroxene-magnetite±hornblende gabbro plutons ᐱᑕᖃᖅᐳᑦ ᐱᖓᖕᓇᖅᐸᓯᐊᓂ Sylvia Grinnell Lake–Clearwater Fiord ᐃᓂᒋᔭᖓᑕ. ᐃᓚᖏᑦᑎᒍᑦ, ᑕᒪᒃᑯᐊ plutons ᐃᒪᖃᖅᑐᑦ ᒪᑯᓂᖓ clinopyroxene-bearing anorthosite.

Quartz diorite (ᐃᓛᒃᑰᖓᔪᖅ {d)
Quartz diorite ᓴᖅᑭᖃᑦᑕᖅᑐᑦ ᒪᓂᕋᑦᑐᑎᑦ, ᕿᓐᓂᖅᑐᑎᑦ, ᐊᖏᔪᒻᒪᕇᑦ ᑕᑯᔅᓴᐅᖏᑎᑕᐅᔪᑦ ᐃᓛᒃᑰᖓᔪᒥᑦ ᐃᓗᓕᖃᖅᑐᖅ ᑲᑎᓐᖓᔪᓂᑦ biotite-clinopyroxene-orthopyroxene±hornblende. ᑕᑯᔅᓴᐅᔪᑦ ᑕᑯᔅᓴᐅᑎᐊᕐᓇᑎ ᐅᔭᖅᑲᓂᑦ plutons iᐱᖓᓐᓇᖓᓂ ᐃᓚᖓᓂᑦ ᖃᐅᔨᓴᕐᕕᐅᔪᒥᑦ, ᐊᒻᒪᓗ ᐊᔾᔨᒋᖏᑕᖏᑦ ᓴᓂᐊᓃᑦᑐᓂᑦ ᐃᓗᐊᓂ ᐃᓛᒃᑰᖓᔪᓕᒫᓂᑦ ᑲᓇᓐᓇᒧᑦ (ᐊᔾᔨᓐᖑᐊᖅ 5a).

ᓄᓇᖑᐊᖅ−ᐊᖏᓂᖓ ᓴᓇᓯᒪᓂᖓ ᓇᓗᓇᐃᖅᓯᔪᖅ ᐃᓛᒃᑰᖓᔪᖅ ᓴᖅᑭᖃᑦᑕᖅᑐᑦ ᖃᓂᒋᔭᖏᓐᓂ ᖁᓕᕇᑦᑐᓂᑦ ᐅᔭᖅᑲᓂᑦ ᑐᓐᖓᕕᖓ metaplutonic.

Biotite granodiorite (ᐃᓛᒃᑰᖓᔪᖅ {go)
ᐊᖏᔫᖏᑦᑐᖅ, ᐊᖏᒧᐊᓘᒐᔪᑦᑐᖅ, biotite±hornblende±magnetite granodiorite
ᑎᑎᕋᖅᑕᐅᓯᒪᔪᑦ ᐅᐊᓐᓇᖓ ᐱᖓᓐᓇᖓᓂ ᖃᐅᔨᓴᕐᕕᐅᔪᒥᑦ. ᕿᓐᓂᕋᔪᑦᑐᑦ ᐊᒻᒪᕿᑎᐊᓃᑦᑐᓂ ᒪᓃᓐᓂᖓ.

K-feldspar megacrystic biotite monzogranite (ᐃᓛᒃᑰᖓᔪᐃ {mo, {ms, {mh) ᐊᐅᐸᔮᖓᔪᖅ ᐊᐅᐸᕈᔪᑦᑐᒧᑦ ᓯᓇᖓᓄᒃ, ᕿᑎᐊᓂ ᑎᑭᑦᑐᒍ ᒪᓃᓐᓂᖓ, ᐊᖏᔪᕐᔪᐊᒥᑦ ᓵᑦᑑᑕᓄᑦ biotite±orthopyroxene±magnetite±garnet monzogranite ᓇᓗᓇᕋᑎ K-feldspar megacrysts ᓴᖅᑭᖃᑦᑕᖅᑐᑦ ᐊᖏᔪᒥᑦ ᐃᓚᖏᓐᓂᑦ ᓂᒋᐊᓂ ᕿᑎᐊᓂᓗ ᕿᑭᖅᑖᓗᒃ. K-feldspar phenocrysts ᐃᔨᑎᑐᑦ ᐊᖏᓂᖃᖅᑐᑦ ᑎᑭᓯᒪᔪᑦ 10 cm ᓴᓂᒧᑦ, ᓄᓇᓕᒻᒥ ᑕᑯᔅᓴᐅᑎᑕᐅᔪᑦ rapakivi ᖃᓄᐃᑦᑑᓂᖏᑦ (ovoid alkali feldspar ᑕᕐᕆᑕᐅᓯᒪᔪᑦ plagioclase feldspar; ᐊᔾᔨᓐᖑᐊᖅ 5b). ᐃᓛᒃᑰᖓᔪᖅ ᐃᖅᑲᓇᐃᔮᖑᒃᑲᓂᖅᑐᖅ ᑭᓚᒦᑕᑎᑐᑦ ᐊᖏᓂᖃᖅᑐᓂ ᐅᐊᓐᓇᒨᖓᔪ ᐊᕕᑦᑐᖅᓯᒪᔪᖅᐅᐊᓐᓇᖅᐸᓯᖓᓂᑦ ᐃᓚᖓᓂᑦ ᖃᐅᔨᓴᕐᕕᐅᔪᒥᑦ, ᐃᓚᒋᓪᓗᓂᐅᒃ σ-porphyroclasts ᐅᑯᓇᓂ ᓇᓗᓇᐃᔭᐃᔪᖅ ᖁᓛᓂ ᓂᒋᐊᓂ.

Biotite monzogranite (ᐃᓛᒃᑰᖓᔪᖅ {mb)
ᐅᖃᐅᔭᖃᐅᖅᑐᐃᑦ biotite±orthopyroxene±magnetite±hornblende±garnet monzogranite ᓄᓇᐅᑉ ᐊᑖᓃᑦᑑᑎᐅᕗᑦ ᕿᑭᖅᑖᓘᑉ ᓂᒋᐊᑕ ᕿᑎᐊᓂᑦ. ᐃᓂᖓᓪᓕ ᓯᐅᕋᖃᕐᓂᖅᓴᖅ ᐊᖏᔫᑎᐅᓂᕐᓴᓂᑦ, ᖃᑯᕈᔪᒃᖢᑎᒃ ᐊᐅᐸᔪᕈᔪᒃᖢᑎᒡᓗ ᓯᓚᒧᑦ. ᑕᒪᒃᑯᐊ ᐃᓂᖏᔭᐅᕙᒃᑐᑦ ᐊᔾᔨᒌᖃᑦᑕᖏᑦᑐᑦ ᒫᙵᑦ magnetite-rich ᐊᒻᒪ magnetite-free ᐃᓂᒋᔭᐅᔪᓂᑦ, ᐊᒻᒪ ᐃᓚᖃᖅᖢᑎᒃ ᒪᑯᓂᖓ hornblende ᐅᐊᖕᓇᖓᑕ ᐱᖓᖕᓇᖅᐸᓯᐊᓂ ᑕᒫᓂ ᖃᐅᔨᓴᕐᕕᐅᔪᒥᑦ. ᐃᓚᖏᓐᓂᑦ, ᐱᕈᖅᑐᐃᑦ ᑕᑯᔭᐅᓯᒪᕗᑦ ᐃᒪᓐᓇ axial planar-ᒥᑦ ᐊᑕᐅᓯᕐᒨᖅᐸᓪᓕᐊᔪᓂᑦ ᐃᓂᖏᓐᓂᑦ (ᐊᔾᔨᖑᐊᖅ 5c), ᓇᓗᓇᕈᓐᓃᖅᓯᒪᓪᓗᓂ ᐊᒥᓱᒻᒪᕆᐅᓂᖏᓐᓂᑦ ᒥᒃᖠᒋᐊᕐᓂᐅᔪᑦ ᑕᒫᓂ.

Garnet-biotite monzogranite (ᐃᓛᒃᑰᖓᔪᖅ {mg)
ᖃᑯᖅᓯᓯᒪᓕᖅᑐᑦ ᓯᓚᒧᑦ, ᐊᖏᔪᒻᒪᕇᑦ ᐱᕈᕐᕕᐅᔪᓐᓇᖅᑐᑦ, ᓯᐅᕋᑦᑎᐊᕙᖕᒥ ᐊᖏᓂᕐᓵᕐᔪᖕᓄᑦ ᐅᔭᕋᐃᑦ garnet-biotite±magnetite monzogranite ᓴᕿᖃᑦᑕᖅᓯᒪᕗᑦ ᖃᐅᔨᓴᕐᕕᐅᔫᑉ ᑲᓇᖕᓇᖅᐸᓯᐊᓂᑦ. ᑕᒪᓐᓇ ᐃᓂᖃᕐᕕᐅᔪᖅ ᓴᕿᔮᖅᐳᖅ ᐃᓗᑐᓂᖅᑎᑐᑦ ᐊᒻᒪ ᑐᖓᕕᒃᑎᑐᑦ ᒫᓂ K-feldspar megacrystic monzogranite (ᐊᔾᔨᖑᐊᖅ 3d), ᐊᒻᒪ ᐋᕿᒍᑎᐅᓪᓗᓂ ᒪᑯᓂᖓ plutons-ᓂ ᐃᓚᓕᐅᑎᔭᑦᑐᓂᑦ ᒪᑯᓂᖓ biotite monzogranite. Garnet ᐱᑕᖃᖅᑐᐃᑦ ᐃᒪᓐᓇᐅᓕᖓᓪᓗᑎᒃ 2– 30 mm burgundy coloured phenocrysts, ᑕᒪᒃᑯᐊᓗ ᐱᖃᑎᖃᒡᒍᓐᓪᓗᑎᒃ ᒪᑯᓂᖓ (ᐃᓗᐊᓃᓐᓂᕐᓴᖅ, ᐊᔾᔨᖑᐊᖅ 5d).

Garnet-sillimanite leucogranite (ᐃᓛᒃᑰᖓᔪᖅ {LHw)
Garnet-sillimanite leucogranite ᓴᖅᑭᖃᑦᑕᖅᐳᑦ ᐃᒪᓐᓇ ᐃᓗᑐᔪᓂ ᐊᐳᖃᑎᖃᖅᐸᒃᖢᑎᒃ ᒪᑯᓂᖓ garnet-biotite monzogranite ᐅᕝᕙᓘᓐᓃᑦ ᓄᓇᙳᐊᑦ ᓇᓗᓇᐃᒃᑯᑎᖏᑦᑎᒍᑦ plutons ᐊᒃᑐᐃᓂᖃᖅᓯᒪᔪᑦ ᒪᑯᓂᖓ garnet-biotite monzogranite ᑲᓇᖕᓇᖅᐸᓯᐊᓂᑦ ᖃᐅᔨᓴᖅᑕᐅᔫᑉ. ᐃᓂᒋᔭᐅᕙᒃᑐᖅ ᓯᐅᕋᑦᑎᐊᕙᐅᓂᖅᓴᐅᖃᑦᑕᖅᐳᑦ, ᐃᓚᖃᖅᖢᑎᒃ 1–5 mm ᐆᔭᐅᔭᕈᔪᖕᒥ

ᑕᖅᓴᖃᖅᑐᓂᑦ garnet phenocrysts ᐊᒻᒪ ᒪᑯᐊ sillimanite (ᐊᔾᔨᖑᐊᖅ 5e). ᐱᑕᖃᕐᓂᐅᔪᖅ ᒪᑯᓂᖓ sillimanite ᐃᓱᒪᖕᓇᖅᐳᖅ ᒪᑯᐊ leucogranite ᓴᕿᓐᓂᑰᔭᕆᐊᒃᓴᖏᓐᓂᑦ ᒪᑯᓇᙵᑦ muscovite-dehydration ᐊᐅᒃᐸᓪᓕᐊᕙᓪᓕᐊᓂᖏᓐᓄᑦ ᒪᑯᓂᖓ metasedimentary units ᑎᑎᕋᖅᑕᐅᓯᒪᓂᖏᑦᑎᒍᑦ ᐊᓯᐊᒍᑦ ᕿᑭᖅᑖᓘᑉ ᓂᒋᐊᓅᖓᔪᓂᑦ (ᓲᕐᓗ, Dyck and St-Onge, 2014), ᐃᒪᓐᓇᐅᙱᖔᖅᑐᖅ ᐃᓚᒋᑎᑕᐅᔭᕆᐊᒃᓴᖓᓂᑦ ᒪᑐᒧᖓ plutonic suite.

Biotite syenogranite (ᐃᓛᒃᑰᖓᔪᖅ {sb)
ᓯᐅᕋᐃᑦ ᐊᖏᔫᑎᐅᓂᕐᓵᕐᔪᑦ ᐃᒪᐃᑦᑐᙳᖅᑐᑦ pegmatitic, ᐊᐅᐸᔪᖑᖅᓯᒪᓪᓗᑎᒃ ᓯᓚᒧᑦ biotite syenogranite ᐃᒪᐃᑦᑐᖑᖅᑎᑦᑎᓯᒪᕗᑦ anastomosing dykes ᐃᓚᖏᓐᓂᑦ ᐃᓂᒋᔭᐅᔪᓂᑦ (ᐊᔾᔨᖑᐊᖅ 5f). ᐃᓚᖏᓐᓂᑦ ᐃᓂᒋᔭᐅᔪᓂᑦ ᒪᑯᐊ syenogranite ᐱᕈᕐᕕᐅᓯᒪᔪᑦ, ᑭᓯᐊᓂᓕ ᐃᓂᒋᔭᐅᔪᑦ ᐃᓕᖁᓯᖏᓐᓃᑦᑐᓐᓃᖃᑦᑕᖅᑐᑦ ᐊᒻᒪ ᐊᐳᕐᕕᖃᓕᖅᖢᑎᒃ ᐱᕈᖅᑐᓂᑦ (ᐊᔾᔨᖑᐊᖅ 5a). ᖃᑯᑎᒃᑯᓪᓕ ᑕᒪᒃᑯᐊ ᐃᓗᑐᓂᐅᔪᑦ ᐱᑕᖃᖃᑦᑕᖅᐳᑦ ᒪᑯᓂᖓ phenocrysts of garnet ᐊᒻᒪ tourmaline.

ᐊᓯᖏᑦ ᐃᓛᒃᑰᖓᔪᓂᑦ

Basaltic dykes (ᐃᓛᒃᑰᖓᔪᐃ 4Cd, +d)
ᒪᕐᕉ ᐃᓂᒋᔭᐅᔫ ᒥᑭᑦᑐᓂᑦ 1–20 m ᓯᓕᖕᓂᖃᖅᑐᓂᑦ ᐅᕕᖓᓪᓗᑎᒃ ᓯᐅᕋᑦᑎᐊᕙᐅᕗᑦ ᐊᖏᓂᕐᓴᐅᓪᓗᑎᒃ ᐃᓚᖏᑦ basaltic dykes containing 1–2 mm plagioclase phenocrysts ᐱᑕᖃᕆᕗᑦ ᕿᑭᖅᑖᓘᑉ ᓂᒋᐊᑕ ᕿᑎᖅᐸᓯᐊᓂᑦ (ᐊᔾᔨᖑᐊᖅ 4c). ᑕᒪᒃᑯᐊ ᐃᓗᑐᔫᑏᑦ ᓂᐱᓐᓇᖅᑐᖃᖅᐳᑦ ᐊᒻᒪᓗ ᑕᐃᒪᐃᓯᒪᓪᓗᑎᒃ ᒫᓂ 110–120° (Tschirhart et al., 2015), ᐅᕝᕙᓘᓐᓃ ᒫᓂᐸᓗᒃ ᐅᐊᖕᓇᖓᓂᑦ ᐅᐊᖕᓇᖓᑕ ᑲᓇᖕᓇᖅᐸᓯᐊᓂᑦ. ᓯᕗᓪᓕᐅᔪᑦ ᒫᓃᓐᓂᕐᓴᐅᕗᑦ Neoproterozoic (ca. 720 Ma) Franklin dyke suite (Heaman et al., 1992), ᑕᒪᒃᑯᐊᓕ ᐊᐃᑉᐸᖏᑦ ᑲᑎᓯᒪᐅᖅᓯᒪᕗᑦ ᐱᐅᓗᐊᙱᑦᑐᓂᑦ Mesoproterozoic–Cenozoic Kekertaluk swarm of Buchan and Ernst (2013).

Limestone (ᐃᓛᒃᑰᖓᔪᖅ _A)
ᐃᒃᑲᑦᑐᒦᑦᑐᑦ (<10°) limestone (Blackadar, 1967) ᒫᓃᑦᑐᑦ ᕿᑎᐊᓂᑦ Ordovician Amadjuak Formation ᐱᑕᖃᓕᖃᑦᑕᖅᐳᑦ ᓄᓇ ᐊᐅᓚᔾᔭᒃᐸᓪᓕᐊᓂᖓᓂᑦ ᒫᓂ ᓂᒋᖅᐸᓯᐊᓂᑦ ᐱᖓᖕᓇᖓᓂᑦ ᐃᓚᖓᓂ ᐆᒪ Sylvia Grinnell Lake–Clearwater Fiord area (ᐊᔾᔨᖑᐊᖅ 2). ᐃᓚᖏᓐᓂᑦ ᓄᓇᓂ, ᒪᑯᐊ limestone ᓴᓂᓕᖃᖃᑦᑕᖅᐳᑦ ᒪᑯᓂᖓ plutonic suite ᐃᒪᓐᓇ ᐅᐊᖕᓇᕐᒥ ᐱᖓᖕᓇᖅᐸᓯᖕᒥ ᖃᓄᐃᓕᐅᕈᓗᔭᓕᕌᖓᑕ, ᑕᐃᒪᐃᓐᓂᖅᓴᐅᓂᑰᓪᓗᑎ Paleocene rifting ᐊᑐᖅᑎᓪᓗᒍ ᒫᓂ Davis Strait (Clarke et al., 1989). ᒪᑯᐊ limestone ᒪᑯᓂᖓ ᐱᒋᐊᕈᑎᖃᖃᑦᑕᖅᑐᑦ medium grey lime ᒪᕋᕐᒥ, ᐊᒻᒪᓗ ᓂᕐᔪᑎᑦᕕᓂᕐᓄᑦ ᐃᓂᖃᕐᕕᐅᓂᑰᓂᖏᓐᓂ ᓇᓗᓇᙱᖢᑎᒃ, ᐊᔾᔨᒌᖏᑦᑑᑎᓂ ᐃᓚᐅᕐᓯᒪᓂᖏᓐᓂᑦ ᐃᓚᖃᖅᑐᓂᑦ ᒪᑯᓂᖓ maclurites, gastropods, cephalopods, brachiopods, coral fragments, ᐊᒻᒪ crinoid stems (ᐊᔾᔨᖑᐊᖅ 4d).

EQUILIBRIUM PHASE DIAGRAMS

Phase equilibria modelling ᖃᐅᔨᔾᔪᑎᐅᓇᔭᖅᑐᓂ ᒪᑯᓂᖓ monzogranite ᕿᑭᖅᑑᓘᑉ ᓂᒋᐊᓂᑦ ᐱᓕᕆᐊᖑᓚᐅᖅᓯᒪᕗᑦ ᖃᐅᔨᓴᕋᓱᒃᖢᑎᒃ ᖃᓄᐃᖃᑦᑕᕆᐊᒃᓴᖏᓐᓂᑦ ᐃᖏᕐᕋᕙᓪᓕᐊᔪᑦ ᓄᓇᐃᑦ, ᐆᓇᕐᓂᖏᓪᓗ ᐊᒻᒪ ᖃᓄᐃᓕᖓᓂᖏᑦ. (P, T, and X) ᒫᓂ metamorphic mineral

assemblage in felsic granitoid units (Weller et al., 2015). ᑕᒪᒃᑯᐊ ᖃᓄᐃᑦᑑᓂᖏᑦᑎᒍᑦ ᐊᔾᔨᒌᒍᑎᖏ ᖃᐅᔨᓴᖅᑕᐅᓯᒪᔪᑦ ᒫᓂ P-T space, ᕿᑎᐊᓃᓯᒪᓪᓗᓂ ᑎᑎᕋᐅᓯᐅᓯᒪᔪᑦ ᑕᒫᓂ metamorphic conditions of 6–8 kbar ᐊᒻᒪ 700–800°C (St-Onge et al., 2007), ᐃᓱᒪᒋᔭᖃᖅᖢᑎᒃ ᐅᖓᓯᒌᒃᑑᑎᐅᓂᖏᓐᓂᑦ ᑎᑎᕋᖅᑕᐅᓯᒪᔪ ᒪᑯᓄᖓ metagranitoid units, ᐃᒪᓐᓇᐅᖏᖔᖅᑐᖅ ᐋᕿᒋᐊᖅᓯᒃᑲᓐᓂᖏᖢᑎᒃ P-T ᐃᓱᒪᒋᔭᐅᓯᒪᔪᑦ. ᑕᒪᐃᓐᓂ P-T ᐊᒻᒪ T-X phase-ᒧᑦ ᑎᑎᕋᐅᔭᖅᓯᒪᔪᑦ ᐋᕿᒃᓱᖅᑕᐅᓯᒪᓂᑯᑦ ᐃᒪᐃᑦᑐᒥ ᐊᑐᖅᖢᑎᒃ THERMOCALC v3.40 ᐊᒻᒪᓗ ᓄᐊᑕᐅᕙᓪᓕᐊᖏᓐᓇᖅᑐᓄᑦ dataset tc-ds55 (Holland and Powell, 1998; ᐋᕿᒋᐊᖅᑕᐅᓂᑯᑦ ᐋᒐᓯ 2004-ᒧᑦ). ᓇᓗᓇᐃᒃᑯᑎᖃᕈᑎᖃᓚᐅᖅᑐᑦ 11-ᐅᔪᓂ ᐱᓕᕆᐊᖑᔪᓂᑦ MnO-Na2O-CaO-K2O-FeO-MgO-Al2O3-SiO2-H2O-TiO2-Fe2O3 ᐊᑐᖅᓯᒪᓪᓗᑎᒃ ᐆᓇᒻᒪᕆᒃᑐᓂ ᐊᑐᕐᓂᒃᑯᑦ, ᐃᓱᒪᒋᔭᐅᓯᒪᓂᑯ ᐅᕙᓂ Weller et al. (2016). ᖃᓄᑎᒋ ᓴᖏᓂᖃᕆᐊᒃᓴᖏᓐᓂᑦ ᐋᕿᒃᓱᖅᓯᒪᐅᖅᑐᐃᑦ ᐃᒪᓐᓇᐅᓪᓗᐊᖅᐳᑦ ±1 kbar at the 2σ level (Powell and Holland, 2008; Palin et al., 2015). ᐊᖏᔪᑦ ᐅᔭᕋᐃᑦ ᖃᐅᔨᓴᖅᑕᐅᓚᐅᖅᑐᑦ ᓄᑖᖑᕆᐊᖅᑎᑦᑎᓪᓗᑎᒃ ᐅᔭᕋᖕᒥ ᐊᔾᔨᓕᐅᕆᔪᓐᓇᖅᑐᒧᑦ ᓄᐊᑕᐅᓯᒪᔪᓂᑦ ᐆᒪ ᓴᕿᓐᓂᑯᖏᑦ Thériault et al. (2001) ᐅᔭᕋᐅᔭᕐᓂ ᓄᐊᑕᕕᓂᖏᓐᓂᑦ ᕿᑭᖅᑖᓘᑉ ᓂᒋᐊᓂᑦ (95-D078B), ᒪᓕᓚᐅᖅᑎᓪᓗᒋ ᖃᓄᐃᓕᐅᕈᓯᐅᓂᑯᒥᑦ ᐆᒪ Weller et al. (2013).

A P-T ᑎᑎᕋᐅᔭᖅᓯᒪᔪᖅ ᐋᕿᒃᑕᐅᓂᑯ ᓴᕿᔮᖅᑎᑦᑎᔾᔪᑎᐅᓇᓱᒃᖢᓂ ᒪᑯᓂᖓ monzogranite sample (sample 95-D078B from Thériault et al., 2001; Figure 6a) ᓴᕿᑎᑦᑎᓯᒪᕗᖅ ᖃᔅᓯᐊᕐᔪᑯᓗᖕᓂ ᖃᓄᐃᓕᒍᑎᐅᔪᓂᑦ ᒪᑯᓇᙵ high variance assemblages ᐊᖏᕈᓘᔭᖅᑐᒥᑦ ᓄᓇᒥ P-T space, ᐃᒪᓐᓇ ᐅᔭᕋᐅᓂᖏᓐᓂᑦ metagranitoid rocks, ᒪᑯᐊᑐᐊᖅ magnetite (ᑐᖑᔪᖅᑐᑦ ᑐᑭᓕᐊᕆᓯᒪᔪᑦ) ᐊᒻᒪᓗ orthopyroxene (ᐆᔭᐅᔭᖅ ᑐᑭᓕᐊᕆᓯᒪᔪᑦ) ᐋᕿᒃᑕᐅᓯᒪᕗ ᑕᐃᒪᓐᓇ ᐊᔪᕐᓇᕐᓂᖅᓴᐅᓂᖓᓂᑦ ᐃᒪᓐᓇ ᐊᑐᖔᕐᓂᕐᒥᑦ sub-solidus conditions. ᑎᑎᕋᖅᑕᐅᓯᒪᔪᒃᑯᑦ, ᑕᒪᐃᓐᓂ orthopyroxene ᐊᒻᒪ magnetite ᐱᑕᖃᑦᑎᐊᕐᓂᖏ ᐃᓱᖃᖅᓯᒪᕗᑦ ᒫᓂ P-T range ᐊᑑᑎᖃᕐᓂᖅᓴᓂᑦ ᕿᑭᖅᑖᓘᑉ ᓂᒋᐊᓂᑦ ᕿᑎᖅᐸᓯᐊᓂᑦ (ᖃᑯᖅᑕᑦ ᑐᓯᓕᐅᕆᓯᒪᔪᑦ ᓇᐃᓈᕐᓯᒪᓪᓗᑎᒃ), ᐃᓚᖃᖅᖢᑎᒃ ᖃᐅᔨᓴᕈᑎᕕᓂᕐᓂᑦ ᐱᓱᑲᑕᖕᓂᒃᑯ ᐱᓕᕆᐊᖑᔪᓐᓃᖅᓯᒪᔪᕕᓂᕐᓂᑦ ᑕᒪᐃᑎᒍᑦ ᐱᓕᕆᐊᓂ ᑕᒫᓂ.

ᖃᐅᔨᓴᕐᓂᐊᕐᓗᓂ ᐊᒃᑐᐃᒍᑎᐅᔪᓂ ᐃᒪᐅ (H2O) ᑕᒫᓃᑦᑐᒥᑦ, T-MH2O ᑎᑎᕋᐅᔭᖅᓯᒪᔪᑦ ᕿᑎᐊᓃᖢᓂ ᓴᖏᓂᖓᓂᑦ (7 kbar), with MH2O varying from 0 to 1 mol. % (ᐊᔾᔨᖑᐊᖅ 6b). ᐅᓇ ᑎᑎᕋᐅᔭᖅᓯᒪᔪᖅ ᓴᕿᑎᑦᑎᓯᒪᕗᖅ ᐊᖏᒡᓕᕙᓪᓕᐊᑎᓪᓗᒍ ᐃᒪᖃᕐᓂᖓ H2O content, ᐆᓇᕐᓂᖓ ᐅᑯᐊ orthopyroxene-in (ᐆᔭᐅᔭᖅ ᑐᑭᓕᐊᖅᓯᒪᔪᖅ) ᓱᒃᑲᔪᒥᑦ ᐆᓇᖅᓯᕙᓪᓕᐊᖃᑦᑕᖅᐳᖅ ᒫᙵᐸᓗᒃ 640°C -ᒥᑦ ᒪᐅᖓ 810°C-ᒧᑦ, ᐊᒻᒪᓗ ᑎᓯᓂᕆᔭᖓ ᐅᓇᕈᓐᓃᖅᐹᓪᓕᖃᑦᑕᖅᐳᖅ ᒫᙵ 810°C-ᒥᑦ ᒪᐅᖓ 640°C-ᒧᑦ. ᐆᓇᕐᓂᕆᓂᖅᓴᐅᖃᑦᑕᖅᑕᖓ ᐃᓱᒪᒋᓪᓗᒍ 600–800°C, ᐱᑕᖃᕐᓂᐅᔪᖅ ᐅᑯᓂᖓ orthopyroxene ᐊᒻᒪ ᐱᑕᖃᙱᓐᓂᐅᔪᖅ ᐊᐅᒃᐸᓪᓕᐊᓂᑯᓂ ᑕᒫᓂ metagranitoid rocks ᓴᕿᑎᑦᑎᓯᒪᕗᖅ ᐱᑕᖃᑐᐃᓐᓇᕆᐊᖃᕐᓂᖓᓂ ᐊᖏᔪᒥᑦ (anhydrous bulk composition (0.1 mol. % H2O; orange line, Figure 6b) ᓈᒻᒪᒃᓂᖅᓴᐅᓇᔭᖅᐳᖅ. ᑕᐃᒪᐃᔾᔪᑎᒋᔭᖓᓕ ᐱᑕᖃᖅᓯᒪᓂᖓᓂᑦ ᐃᒪᐃᑦᑐᓂᑦ rapakivi textures ᑕᒫᓂ ᖃᐅᔨᓴᖅᑕᐅᔪᒥᑦ (ᐊᔾᔨᖑᐊᖅ 5b), ᑕᒪᓐᓇᓗ ᐃᓱᒪᒋᔭᐅᓚᐅᖅᑐᖅ ᐱᑕᖃᕆᐊᖃᕐᓂᖓᓂᑦ ᒪᑯᓂᖓ H2O-undersatured conditions ᓴᕿᑉᐸᓪᓕᐊᓗᑎᒃ (Nekvasil, 1991). ᑭᓯᐊᓂᓕ, ᑎᑎᕋᐅᔭᖅᓯᒪᔪᖅ ᓴᕿᑎᑦᑎᓯᒪᒋᕗᖅ ᒪᑯᓄᖓᓕ moderately anhydrous bulk ᐅᔭᕋᒐᓚᖕᓄᑦ (<0.2 mol. % H2O), ᒪᑯᐊ silicate ᐊᐅᖕᓂᑯᕕᓃᑦ ᑎᓯᓕᕈᓐᓇᕋᔭᙱᒻᒪ ᒫᓂ <800°C, ᑕᒪᐃᓐᓂ

orthopyroxene ᐊᒻᒪ magnetite (ᑐᖑᔪᖅᑐᖅ ᑐᑭᓕᐊᖅᓯᒪᔪᖅ) ᐊᒃᑐᖅᑕᐅᑲᐅᖅᑐᔭᑦᑐᑦ ᐃᒪᐃᑦᑐᒧᑦ MH2O. ᑕᐃᒪᐃᓐᓂᖓᓄᑦ, ᐊᒻᒪᑦᑕᐅᖅ ᐊᒃᑐᐃᓂᐊᕐᓗᓂ ᐊᕕᒃᑐᖅᓯᒪᓂᒃᑯᑦ ᒪᑯᐊ P-T ᐊᔾᔨᒌᖏᓐᓂᐅᔪᑦ ᐅᖃᐅᓯᐅᓯᒪᔪᑦ ᖁᓛᒍᑦ, ᐃᒪᐅᑉ ᐊᓯᖑᑳᓪᓚᖕᓂᖓ ᒫᓂ typical granitoid composition ᐊᑕᐅᑦᑎᒃᑯᑦᑕᐃᓐᓇ P-T ᖃᓄᐃᑦᑑᓂᖓᒍᑦ ᐊᒻᒪ ᐊᒃᑐᐃᒍᑎᐅᓯᒪᕗᖅ ᑕᒪᐃᓐᓄᑦ
ᐱᓕᕆᐊᖑᓂᑯᓄᑦ.

ᑕᒪᒃᑯᐊ ᐃᓱᒪᒋᓂᐊᕐᓗᒋᑦ ᐊᒃᑐᐃᓂᑰᒍᑎᐅᕙᒃᑐᑦ ᐆᒧᖓ XFe3+ ᑲᑎᕐᖓᐅᖅᑐᓂᑦ, ᐃᒪᐃᑦᑐᒥ T-XFe3+ ᑎᑎᕋᐅᔭᖅᓯᒪᔪᒥᑦ ᓴᓇᓚᐅᖅᐳᑦ ᑕᒪᐅᓇᑦᑕᐃᓐᓇᖅ ᓴᖏᓂᖃᖅᑎᑕᐅᓪᓗᓂ (7 kbar), with XFe3+ varying from 0.0 to 0.5 (ᐊᔾᔨᖑᐊᖅ 6c). ᐅᓇ ᑎᑎᕋᐅᔭᖅᓯᒪᔪᖅ ᓴᕿᑎᑦᑎᓯᒪᕗᖅ ᑕᒪᐃᓐᓂ magnetite (ᑐᖑᔪᖅᑐᖅ ᑐᑭᓕᐊᕆᓯᒪᔪᖅ) ᐊᒻᒪ orthopyroxene (ᐆᔭᐅᔭᕐᒥ ᑐᑭᓕᐊᕆᓯᒪᔪᖅ) ᓴᖏᖕᓂᖃᖅᐳᑦ ᐅᕘᓇ XFe3+, ᐃᒪᓐᓇᐅᕙᓵᖅᖢᓂ ᐊᔾᔨᒌᖏᔾᔪᑎᐅᔪᑦ ᐅᕙᓂ XFe3+ ᐃᓚᒍᑎᐅᓕᖅᓯᒪᑐᐃᓐᓇᕆᐊᖃᖅᐳᖅ ᓈᒻᒪᖏᓕᐅᕈᑎᓂᑦ ᓄᓇᙳᐊᕐᒥᑦ ᑕᒪᐃᓐᓂ ᐱᓕᕆᐊᓂ. ᐊᖏᔪᖅ ᖃᓄᐃᓕᓂᐅᕙᒃᑐᖅ ᐅᑯᓄᖓ magnetite- ᐊᒻᒪ orthopyroxene-bearing metagranitoid ᐅᔭᕋᖕᓂ ᑕᐃᒪᐃᑦᑐᖃᖅᑐᓂᑦ ᓴᕿᑎᑦᑎᓯᒪᕗᖅ ᒪᑯᐊ ᓇᓗᓇᐃᒃᑯᑏ XFe3+ = 0.05–0.25 ᓈᒻᒪᓛᖑᓂᖏᓐᓂᑦ (ᓄᓇ ᐃᓚᖃᖅᓯᒪᔪᖅ ᐆᒥᖓ assumed value of 0.1; ᐊᐅᐸᔮᖅᑐᓂ ᑐᑭᓕᐊᕆᓯᒪᔪᓂᑦ) ᑕᒪᐃᓐᓂ ᐱᓕᕆᐊᖑᔪᑦ ᐋᕿᒃᑕᐅᓕᑕᐃᓐᓇᕋᔭᖅᐳᑦ ᐃᓱᒪᒋᔭᐅᔪᒥᑦ ᐆᓐᓇᕐᓂᐅᓇᔭᖅᑐᒥᑦ.

ᐊᕕᒃᑐᖅᓯᒪᓂᒃᑯᑦ ᒪᑯᐊ aeromagnetic ᑎᑎᖃᑦ ᓄᐊᑕᐅᕙᓪᓕᐊᔪᑦ ᓴᕿᑎᑦᑎᓯᒪᕗᑦ ᐊᔾᔨᒌᖏᑦᑑᑎᒻᒪᕆᖕᓂ ᓂᐱᓐᓇᖅᑐᖃᖅᑐᓂᑦ ᑕᒫᓂ ᐅᔭᕋᒐᓚᖕᓂ ᐱᓕᕆᕝᕕᐅᔪᒥᑦ (ᓲᕐᓗ, ᐊᔾᔨᖑᐊᖅ 6d; Kiss and Tschirhart, 2015a–r). ᓄᓇᒥ ᖃᐅᔨᓴᕈᑎᕕᓃᑦ ᓴᕿᑎᑦᑎᓯᒪᕗᑦ ᐱᔾᔪᑎᐅᓗᐊᕋᓱᒋᔭᐅᓪᓗᓂ ᐊᔾᔨᒌᖏᑦᑑᓂᐅᓂᕐᒥᑦ ᒪᑯᓄᖓ ᐊᔾᔨᒌᖏᑦᑐᓄᑦ ᓂᐱᓐᓇᖅᑐᖃᖅᑐᓄᑦ magnetite, ᒫᓃᓐᓂᖅᓴᐅᕙᒃᖢᑎᒃ homogeneous plutons (Tschirhart et al., 2015). ᖃᐅᔨᔭᐅᕙᓪᓕᐊᔪᑦ ᑕᒪᑐᒥᖓ ᒪᓕᒃᓯᒪᑲᑕᒃᐳᑦ, ᓴᕿᔮᖅᑎᑦᑎᓂᖏᓐᓂᑦ ᐊᓯᖑᕈᑎᕕᓂᕐᓂᑦ ᐅᕙᓂ P, T, ᐊᒻᒪ X-ᒥ ᖃᐅᔨᒪᔭᐅᔾᔪᑎᐅᓂᐊᖅᑐᓂᑦ ᐅᔭᕋᖕᓄᑦ (ᐊᒻᒪᓗ orthopyroxene) ᐃᓂᖏᔭᐅᖄᑎᒋᔪᑦ, ᐱᓕᕆᓂᒃᓴᐃᑦ ᓱᓕ ᓱᖁᓯᓗᐊᖅᓯᒪᑎᓐᓇᒋᑦ.

ᖃᓄᐃᓕᖓᓂᖏᑦ ᐊᓯᔾᔨᐸᓪᓕᐊᓂᖏᑦ ᐊᒻᒪ ᐊᓯᔾᔨᕐᓂᖏᑦ ᖃᓄᐃᓕᖓᓂᖏᑦ ᐅᔭᖅᑲᐃᑦ
D1 ᖃᓄᐃᓕᖓᓂᖏᑦ ᐊᓯᔾᔨᖅᐸᓪᓕᐊᓂᖏᑦ ᐊᒻᒪ M1 ᐊᓯᔾᔨᕐᓂᖏᑦ ᖃᓄᐃᓕᖓᓂᖏᑦ ᐅᔭᖅᑲᐃᑦ Paleoproterozoic tectonostratigraphic ᐃᓛᒃᑰᖓᔪᑦ ᓇᓗᓴᐃᔭᖅᓯᒪᔪᑦ ᖁᓛᓂ ᓇᓗᓴᐃᖅᑕᐅᓯᒪᒐᔪᑦᑐᑦ ᐱᕙᓪᓕᐊᑎᑕᐅᓂᖓᓄᑦ ᓯᐊᒻᒪᐸᓪᓕᖓᓂᖓ ᒥᓕᒦᑕᒥᑦ ᓯᐊᓐᑕᒦᑕᓄᑦ ᐃᓗᓕᖏᑦ ᖁᓕᕇᓐᓂᖏᑦ (S1) ᐃᒃᑲᑑᓪᓗᓂ ᑯᑐᖅᑐᖅ, ᐊᒻᒪ ᓇᓕᒧᐃᓐᓇᖅᑐᓂ ᐅᔭᖅᑲᐃᑦ ᑲᑎᓐᓂᕆᔭᖏᓐᓂᑦ ᐊᑯᓐᓂᖏᓐᓂ supracrustal ᐊᒻᒪ plutonic ᐃᓛᒃᑰᖓᔪᑦ. metasedimentary strata,−ᒥᑦ S1 ᓇᓗᓇᐃᖅᑕᐅᔪᖅ ᖁᓕᕇᓐᓂᖏᓐᓄᑦ ᓇᓕᒧᑦᑐᓂᑦ M1 biotite, sillimanite, ᐊᒻᒪ garnet, ᖁᓕᕇᒃᑲᓐᓂᖃᑦᑕᖅᑐᑦ ᐱᓗᐊᖅᑐᓂ plagioclase, K-feldspar ᐊᒻᒪ quartz. garnet ᐅᔭᕋᑦᑎᐊᕙᐃᑦ ᒥᓕᒦᑕᖏᓐᓃᒍᓐᓇᖅᑐᑦ ᐊᖏᓂᖏᑦ ᐊᒻᒪ ᑕᑯᔅᓴᐅᓂᖃᖅᑐᑎᑦ poikiloblastic. metasedimentary ᐃᓛᒃᑰᖓᔪᓂᑦ, S1 ᓇᓗᓇᐃᖅᑕᐅᔪᖅ ᐅᔭᖅᑲᐃᓄᑦ ᐊᓯᔾᔨᕆᐊᕈᑎᖏᑦ ᐱᓗᐊᖅᑐᒥᑦ ᓄᓴᐅᑉ ᐃᑭᖓᓂ (S0). foliated mafic−ᒥᑦ ᐊᒻᒪ felsic plutonic −ᓂᑦ, S1 ᓇᓗᓇᐃᖅᑕᐅᔪᖅ ᓇᒧᓐᖓᖃᑦᑕᑲᓐᓂᕐᓂᖏᓐᓄᑦ ᐱᓗᐊᖅᑐᒥᑦ ferromagnesian-rich ᖁᓕᕇᑦᑐᑦ ᐃᓗᓕᕆᓪᓗᓂᒋᑦ granoblastic, ᒥᓕᒦᑕᓂᑦ ᐊᖏᓂᓕᒃ. M1 orthopyroxene, biotite, magnetite, clinopyroxene, hornblende, ᐊᒻᒪ/ᐅᕝᕙᓘᓐᓃᑦ garnet, ᐊᒻᒪ ᖁᓕᕇᑦᑐᑦ ᐃᓗᓕᖃᖅᑐᑦ

ᐱᓗᐊᖅᑐᒥᑦ plagioclase ᐊᒻᒪ quartz±K-feldspar. ᓇᓕᒧᓐᓂᕆᔭᖏᑦ orthopyroxene, biotite, clinopyroxene, ᐊᒻᒪ hornblende ᓇᓗᓇᐃᖅᓯᔪᑦ S1 ᓵᑦᑐᓂᑦ metaplutonic ᐃᓛᒃᑰᖓᔪᓂᑦ ᐱᑕᖃᖅᑎᓪᓗᒋᑦ. S1 ᓵᑦᑐᑦ ᑕᑯᓐᓇᖅᑕᐅᔪᑦ axial-planar ᑎᑭᑦᑐᒍ ~100 m ᐊᖏᓂᖓ
isoclinal ᐱᕆᓐᓂᖏᑦ ᐃᒃᑲᑦᑐᒥᑦ ᐅᐊᓐᓇᖓᓂ ᐊᓂᒋᖓᓂ ᐊᒻᒧᐊᐸᓪᓕᖓᔪᑦᐱᕆᓐᓂᖏᑦ (Dyck and St-Onge, 2014).

ᐅᔭᕋᐅᔭᒐᓚᐅᑦ ᒪᑯᐊ granulite-facies M1 metamorphism ᒫᓃᑦᑐᑦ ᑭᒻᒥᕈᒻᒥ ᕿᓂᖅᑐᓂᑦ ᒥᑕ ᐃᓐᑲᒡᓃᑕ ᐸᓂᓐᓱᓚᐅᑉ ᐱᖓᖕᓇᖅᐸᓯᐊᓃᑦᑐᖅ ᐅᕙᓂ ca. 1.84 Ga by St-Onge et al (2007). ᓄᓇᐅᑉ ᖃᓄᐃᓕᖓᓂᖓᒍᑦ ᐊᒻᒪ ᑭᓱᑕᖃᕐᓂᖓᒍᑦ ᖃᐅᔨᓴᕐᓂᖅᑕᖃᕐᓂᐊᕐᑐᖅ ᑕᒪᒃᑯᐊᑦᑕᐃᓐᓇᖅ ᐅᔭᕋᐅᔭᐃᑦ ᐱᑕᖃᕐᒪᖔᑕ ᒫᓐᓇ ᓄᓇᙳᐊᓕᐅᕐᕕᖕᒥᑦ.

D2 ᖃᓄᐃᓕᖓᓂᖏᑦ ᐊᓯᔾᔨᖅᐸᓪᓕᐊᓂᖏᑦ
Ptarmigan Fiord−ᒥᑦ, D2 ᓯᓚᑎᖓ ᐃᔾᔪᔪᖅ ᐱᖃᓯᐅᔾᔨᔪᖅ ᐊᕐᕌᒍᒐᓵᓗᓐᓂᑦ ᑐᓐᖓᕕᖓ ᐅᔭᖅᑲᐃᑦ orthogneiss ᐊᒻᒪ Paleoproterozoic supracrustal ᐅᔭᖅᑲᐃᑦ (Chadwick et al., 2015). ᑕᒪᒃᑮᓐᓂᒃᐃᓗᐊᓂ ᐊᒻᒪ ᓯᓚᑖᓂ ᐊᔭᐅᖅᓯᓂᖅ ᓴᖅᑭᖃᑦᑕᖅᑐᖅ. D2 ᐊᔭᐅᖅᓯᓂᖓ ᖁᓕᕇᖃᑦᑕᐅᑎᔪᑦ ᓇᓗᓇᐃᖅᑕᐅᔪᑦ ᖁᕝᕙᓯᑦᑐᒥᑦ mylonitic ᐊᑦᑐᖅᑕᐅᔪᑦ ᐊᑯᓐᓂᖏᓐᓂ supracrustal ᐅᔭᖅᑲᐃᑦ ᐊᒻᒪ ᐋᖅᑭᔅᓯᒪᓂᖓ ᖁᓛᓃᑦᑐᑦ ᐊᑖᓂ. L2 ᐅᔭᕋᓐᓂᐊᕋᔅᓴᐅᔪᓐᓇᖅᑐᓂᑦ ᑐᑭᓕᐊᕐᓂᖓ, ᐊᒻᒪᓗ S2 ᖃᓪᓗᓈᖅᑕᔭᐅᔮᖅᑐᑦ ᓇᓕᒧᓐᓂᖃᖅᑐᑦ ᐊᔭᐅᖅᑕᐅᒧᒧᑦ ᓴᓇᓯᒪᑦᑎᐊᖅᑐᑦ. ᐃᔾᔪᓂᖏᑦ ᐃᒻᒥᑰᖅᑐᑦ ᐋᖅᑭᔅᓯᒪᔪᑦ ᖁᓕᕇᑦᑐᑎᑦ ᐱᒋᐊᖅᑐᓂ ~100 ᑎᑭᑦᑐᒍ 800 m ᐊᒻᒪ ᑕᑭᓛᕆᔪᓐᓇᖅᑕᖓ ᐃᒻᒥᑰᖅᑐᑦ ᖁᓕᕇᖃᑦᑕᐅᑎᔪᑦ ᐋᖅᑭᔅᓯᒪᔪᒦᑦᑐᖅ ~25 km.

D1 ᑭᓱᕈᓘᔭᐃᑦ (ᐃᓚᐅᓪᓗᑎᒃ ᐅᓇ S1 foliation) ᐊᒻᒪ D2 ᖁᓕᕇᖂᔨᓯᒪᓪᓗᑎ ᐊᒻᒪ ᐋᕿᒋᐊᒃᑲᓐᓂᕐᓯᒪᓪᓗᑎᒃ ᐅᐊᖕᓇᕐᒧ ᐅᐊᖕᓇᐅ ᐱᖓᖕᓇᖓᓄᖓᐅᕙᓪᓕᐊᓂᐅᔪᒥᑦ ᐆᒧᖓ D2 ᐃᒧᓯᒪᓂᖓᓄᑦ. ᐅᓇ D2 ᐃᒧᓯᒪᓂᐅᔪᖅ ᓇᓗᓇᐃᖅᑕᐅᓯᒪᔪᖅ ᓄᓇᙳᐊᑎᒍᑦ ᐊᒻᒪ ᓴᕿᔮᖅᑎᑦᑎᓪᓗᓂ ᒪᑭᑕᔪᓂ ᑲᓇᖕᓇᖅᐸᓯᒧᐊᖓᔪᓂᑦ ᖁᓕᕇᒃᑑᑎᓂᑦ. ᐃᒪᐃᑦᑐᓂ mesoscopic ᐱᑕᖃᖏᑦᑐᖅ ᐊᒃᑐᐊᔪᓂᑦ ᐆᒥᖓ D2 ᖃᓕᕇᓕᖅᓯᒪᓂᖏᓐᓂᑦ ᑎᑎᕋᐅᓯᐅᓯᒪᔪᑦ.

ᐅᐊᓐᓴᖓᓂ ᑯᐸᐃᒃ, ᓄᓇᐅᑉ ᖄᖓᓂ−ᐊᖏᓂᖓᓄᑦ D2 ᐱᕆᖃᑦᑕᖅᑐᑦ ᓴᓇᓯᒪᓂᖓ ᖁᕝᕙᓯᓐᓂᖓ 1 ᐊᒻᒪ 2 ᑭᓪᓕᖃᖅᑎᑕᐅᔪᖅ ca. 1.76 Ga (Lucas and St-Onge, 1992). Lucas and Byrne (1992) ᐱᔪᒪᓚᐅᖅᑐᑦ orogen-ᓇᓕᒧᓐᓂᖓ ᐱᕆᔾᔪᑎᖃᖅᓯᒪᔪᖅ ᑲᔪᓰᓐᓇᖅᑐᓂᑦ ᓄᓇᒧᑦ ᓇᓕᒧᑦᑐᓂᑦ ᓄᓇᐃᑦ ᓯᓚᕐᔪᐊᒥᑦ ᐊᐳᖃᑦᑕᐅᑎᑎᓪᓗᒋᑦ ᓇᐃᓪᓕᒋᐊᖅᓯᒪᔪᖅ ᐅᐊᓐᓇᖓᑕ ᑲᓇᓐᓇᖓᓂ Trans-Hudson Orogen.−ᒥᑦ.

D3 ᖃᓄᐃᓕᖓᓂᖏᑦ ᐊᓯᔾᔨᖅᐸᓪᓕᐊᓂᖏᑦ
ᒪᑭᑕᓪᓗᐊᖅᑐᑦ ᐱᕆᖃᑦᑕᖅᑐᑦ ᐱᑐᖃᐅᓂᖅᓴᓄᑦ ᐃᓗᓕᕆᔭᖏᓐᓂᑦ ᑲᓇᓐᓇᖓᓂ ᐅᐊᓐᓇᖓᓄ ᑲᓇᓐᓇᖓᓅᖅᐸᓪᓕᐊᔪᖅ D3 ᐱᕆᓐᓂᖏᑦ ᐱᕆᓐᓂᖓᓂ ᐸᕝᕕᓴᐃᓯᒪᔪᖅ, ᓄᓇᖑᐊᖅ ᑕᑯᔅᓴᐅᓛᖑᔪᖅ ᓂᒋᐊᓂ ᐊᒻᒪ ᑲᓇᓐᓇᖓᓂ Sylvia Grinnell Lake–Clearwater Fiord−ᒧᑦ. ᐸᕝᕕᓴᐃᔪᑦ D2 ᐊᒻᒪ D3 ᐱᕆᔅᓯᒪᔪᑦ ᓴᓇᓯᓴᓂᖓ ᖃᐅᔨᓴᕈᓐᓇᑎᑦᑎᓯᒪᔪᖅ ᓄᓇᐅᑉ ᐃᑭᖓᓂ ᓂᒋᐊᓂ ᕿᑭᖅᑖᓗᒃ, ᐱᖃᓯᐅᑎᓪᓗᑎ ᐱᖓᓱᑦ ᓴᓇᓯᒪᓪᓗᐊᑕᕆᔭᖏᑦ ᖁᕝᕙᓯᓐᓂᖏᑦ ᑕᑯᔅᓴᐅᔪᑦ ᐅᓪᓗᒥ ᓄᖑᑎᖅᐸᓪᓕᖓᓂᖓᓄ ᓄᓴᐅᑉ ᖄᖓ (ᐊᔾᔨᓐᖑᐊᖅ 2). D3 ᐱᕆᓐᓂᖓ ᐅᐊᓐᓇᖓᓂ ᑯᐸᐃᒃ ᕿᑎᐊᓃᑦᑐᖅ 1.76 ᐊᒻᒪ 1.74 Ga (Lucas and St-Onge, 1992).

ᑮᓇᐅᔭᓕᕆᓂᕐᒧᑦ ᐃᓱᒪᒋᔭᐅᔭᕆᐊᓖᑦ
ᐊᒥᓱᒐᓚᐃᑦ ᐅᔭᖅᑲᐃᑦ ᖃᓄᐃᓕᖓᓂᖏᑦ ᐊᑦᑐᐊᓂᓖᑦ ᐊᒻᒪ ᓴᖅᑭᖃᑦᑕᕐᓂᖏᑦᑮᓇᐅᔭᓕᕆᔾᔪᑎᔅᓴᓄᑦ ᐊᑦᑐᐃᓂᖃᕈᓐᓇᖅᑐᑦ ᓇᓗᓇᐃᖅᑕᐅᓚᐅᖅᑐᑦ 2015−ᒥ ᓇᓗᓇᐃᖅᑕᐅᓯ ᒪᔪᓂᑦ ᑐᕌᖅᑕᐅᔪᓂᓪᓗ ᓄᓇᖑᐊᓕᐅᓚᐅᖅᑐ Sylvia Grinnel Lake–Clearwater Sound area. ᖁᓕᕇᑦᑐᑦ mafic-ultramafic sills ᐃᓗᐊᓃᑦᑐᑦ sulphidic siliciclastic ᐅᔭᖅᑲᐃᑦ ᖁᓕᖀᑦᑐᑦ ᐅᔭᖅᑲᐃᑦ ᖃᓄᐃᓕᖓᓂᖏᑦ ᐊᔾᔨᐸᓗᒋᔭᖏᑦ Ni–Cu–platinum-ᐃᓚᖏᑦ ᐃᓗᓕᖏᑦ ᐅᔭᕋᓐᓂᐊᕋᔅᓴᐅᔪᓐᓇᖅᑐᑦ ᐊᓯᖓᓂ Trans-Hudson Orogen (ᓲᕐᓗ Raglan ᐅᔭᖅᑲᐃᑦ ᑲᓇᓐᓇᖓᓂ Cape Smith Belt oᐅᐊᓐᓇᖓᓂ ᑯᐸᐃᒃ; St-Onge and Lucas, 1994; Lesher, 2007). ᖃᐅᔨᓴᕐᕕᐅᔪᒥᑦ ᖃᓄᐃᓕᖓᓂᖏᑦ ᐅᔭᖅᑲᐃᑦ ᓇᓗᓇᐃᔭᖅᑎᓴᑦᑎᐊᓂᖅᓴᐃᑦ ᓖᑲᐃᓐ Liikane et al. (2015). ᐅᒃᑯᓯᔅᓴᕈᖅᓯᒪᔪᑦ ᐅᔭᖅᑲᐃᑦ ᓇᓗᓇᐃᖅᑕᐅᓯᒪᔪᑦ ᐊᒥᓱᒐᓚᓐᓂᑦ ᓇᒦᓐᓂᖏ ᓄᓇᖑᐊᒥᑦ, ᐃᓚᖏᑦ ᓴᓇᖑᐊᒐᔅᓴᐅᒍᓐᓇᑐᐃᓐᓇᕆᐊᓖᑦ ᐊᓯᖏᑦ ᓴᖅᑭᖃᑦᑕᖅᑐᑦ ᐱᔪᒥᓇᖅᑐᑦ sulphide-bearing gossans; ᐊᒻᒪ magnetite ᐊᒻᒪ ᐱᐅᔪᑦ ᐅᔭᕋᓐᓂᐊᕋᔅᓴᐅᔪᓐᓇᖅᑐᑦᑐᓐᓅᔭᐃᑦ, ᐱᖃᓯᐅᑎᓪᓗᑎᐅᔭᕋᑦᑎᐊᕙᐅᔪᓐᓇᖅᑐᑦ apatite ᐊᒻᒪ diopside.

ᐊᔾᔨᓐᖑᐊᖅ 1. ᓇᓗᓇᐃᔭᖅᓯᒪᓂᖏᑦ ᖁᐊᖑᐃᓐᓇᖅᑐᒥᓂᑦ ᓄᓇᖑᐊᓕᐅᕐᓂᖅᐱᓕᕆᐊᖑᔪᑦ ᕿᑭᖅᑖᓗᒃ, ᓄᓇᕗᑦ. ᓇᒦᓐᓂᖓ 2015−ᒥ ᓂᒋᐊᓂ−ᕿᑎᐊᓂ ᕿᑭᖅᑖᓗᒻᒥ ᑕᑯᔅᓴᐅᑎᑕᐅᔪᖅ ᐊᐅᐸᖅᑐᖅ ᑐᑭᓕᐊᖅᑐᑦ ᓴᓂᕋᖏᑦ, ᐱᔭᕇᖅᑕᐅᓪᓗᓂᓗ ᐅᓪᓗᒥᒨᖓᔪᓂᑦ ᓄᓇᖑᐊᓂᑦ ᓂᒋᐊᓂ 70 °N. ᕿᕐᓂᓂᖅᓴᐃᑦ ᓈᓴᐅᑏᑦ ᓇᓗᓇᐃᖅᓯᔪᑦ ᓄᓇᖑᐊᒧᑦ ᖃᐅᔨᒋᐊᕈᑏᑦ ᐋᖅᑭᓱᖅᓯᒪᓪᓗᑎᑦ ᐊᒻᒪ ᑎᑎᕋᖅᓯᒪᔪᑦ ᐊᑖᓂ. ᐊᒥᐊᓖᑦ ᓇᓗᓇᐃᖅᓯᔪᑦ ᓇᒦᓐᓂᖏᑦ ᐊᒻᒪ ᐊᕐᕌᒍ(ᐃᑦ) ᖃᐅᔨᓴᖅᑕᐅᕋᑖᖅᓯᒪᔪᑦ. ᓈᓴᐅᑎᓖᑦ ᑎᑎᖅᑲᖃᖅᑐᑎᑦ ᓇᓗᓇᐃᖅᓯᔪᑦ ᑲᓇᑕᒥ ᓄᓇᖑᐊᓕᐅᓂᕐᒧᑦ ᓄᓇᖑᐊᑦ.

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ᐊᔾᔨᓐᖑᐊᖅ 2. ᑐᑭᓯᓇᖅᓯᑎᑕᐅᑦᑎᐊᖅᓯᒪᔪᖅ ᓄᓇᐅᖑᑉ ᓄᓇᖓᓂ ᓄᓇᖑᐊᖅ ᑯᐸᐃᒃ−ᕿᑭᖅᑖᓗᒃ ᐃᓚᒋᔭᖓ Trans-Hudson Orogen (ᐋᖅᑭᒋᐊᖅᑕᐅᓯᒪᔪᖅ ᑭᖑᓂᐊᒍᑦ St-Onge ᐱᓕᕆᖃᑎᖏᓪᓗ., 2007), ᑕᑯᔅᓴᐅᑎᑦᑎᔪᖅᑎᓴᒪᑦ ᐋᖅᑭᔅᓯᒪᓂᖏᑦ ᖁᓕᕇᓐᓂᖏᑦ ᐱᖓᓱᑦ ᓄᓇᐃᑦ ᑲᑎᓐᓂᖏᑦ. ᓄᓇᖑᐊᖅ ᑕᑯᔅᓴᐅᑎᑦᑎᔪᖅ ᐊᕕᑦᑐᖅᓯᒪᔪᓂᑦ ᓄᓇᐃᑦ ᐊᐅᓚᓂᕆᕙᑦᑕᖏᑦ ᓂᒋᐊᓄᑦ−ᕿᑎᐊᓂ ᕿᑭᖅᑖᓗᒃ, ᓇᓗᓇᐃᖅᑕᐅᓯᒪᔪᑦ ᕿᕐᓂᓴᐅᓪᓗᑎ.

ᐊᔾᔨᓐᖑᐊᖅ 3. ᐊᔾᔨᓐᖑᐊᖅ ᑕᑯᔅᓴᐅᑎᑦᑎᔪᖅ ᐃᖅᑲᖓᓃᑦᑐᑦ Sylvia Grinnell Lake–Clearwater Fiord. ᑎᑎᖅᑲᑲᖅᑐᑎᑦ ᓈᓴᐅᑎᓖᑦ ᑕᓕᖅᐱᐊᓂ ᑎᑭᖅᑯᐊᓂ ᐊᑐᓂ ᐊᔾᔨᓐᖑᐊᓂᑦ ᓇᓗᓇᐃᖅᓯᒍᑎᐅᔪᑦ 15SAB-

ᖃᐅᔨᓴᕐᕕᒃ. a) 10 m ᑕᑯᔅᓴᖅ ᓯᓚᒦᓐᓂᑯ quartzite ᐅᔭᖅᑲᒃ biotite−ᒦᑦᑐᓂ ᐅᔭᖅᑲᐃᑦ. b) ᖁᓕᕇᑦᑎᐊᖅᑐᑦ quartzite ᐃᓗᐊᓃᑦᑐᑦ ᐃᖅᑲᖓᑕ ᒪᕐᕋᓂ ᐃᓗᐊᓂᓘᓐᓃᑦ. c) ᑕᑯᔅᓴᐅᑎᑦᑎᔪ 1–2 cm ᐊᐅᐸᖅᑐᑦ ᐅᔭᕋᑦᑎᐊᕙᐃᑦᐊᓯᔾᔨᐸᓪᓕᐊᔪᓂᑦ ᐅᔭᖅᑲᓂᑦ ᐃᒧᓯᒪᓪᓗᑎᑦ ᓵᑦᑐᓂᑦ ᐊᒡᒍᖅᓯᒪᔪᑦ ᐃᓗᓕᖃᖅᑐᑦ biotite ᐊᒻᒪ sillimanite. d) ᖃᕕᑦᑐᖅᓯᒪᔪᒥᑦ ᓇᓗᓇᖏᓐᓂᖓ ᑐᓐᓅᔭᐃᑦ ᐅᔭᖅᑲᐃᑦ ᐃᓗᐊᓂ biotite-orthopyroxene monzogranite. e) ᓴᐅᒥᒻᒥ: ᓂᐱᖅᑲᕐᓇᓖᑦ ᑐᓐᓅᔭᐃᑦ ᐅᔭᖅᑲᐃᑦ ᓄᓇᐅᑉ ᖄᒐᒍᑦ ᑐᓐᓅᔭᖅ, ᑕᓕᖅᐱᐊᓂ: ᑲᑎᓐᓂᖃᖅᑐᑦ ᒫᑉᐳᓪ ᐊᔾᔨᒌᖏᔾᔪᑎᖓ ᖃᐅᓯᕐᓂᖓᓄᑦ, diopside ᐊᒻᒪ phlogopite. f) ᓇᓗᓇᐃᖅᓯᒪᓂᖏᑦ metagreywacke ᐃᓗᐊᓂ biotite monzogranite.

ᐊᔾᔨᓐᖑᐊᖅ 4. ᐊᔾᔨᓐᖑᐊᑦ ᐊᓯᖏᓐᓂᑦ ᐊᕕᑦᑐᖅᓯᒪᔪᓂᑦ Sylvia Grinnel Lake–Clearwater Fiord−ᒥᑦ. ᐊᑦᑐᐊᓂᖃᖅᑎᓪᓗᒍ, ᑎᑎᖅᑲᐃᑦ ᓈᓴᐅᑎᖃᖅᑐᑦ ᑕᓕᖅᐱᒻᒥ ᖁᓛᓂ ᑎᑭᖅᑯᖏᓐᓂ ᐊᑐᓂ ᐊᔾᔨᓐᖑᐊᑦ ᓇᓗᓇᐃᖅᓯᔪᑦ 15SAB- ᖃᐅᔨᓴᕐᕕᒻᒧᑦ. a) ᖃᓂᓈᖅᓯᒪᔪᖅ metaclinopyroxenite ᐊᓪᓕᖅᐹᖓᓂᑦ ᖁᓕᕇᑦᑐᓂᑦ mafic sill. ᕿᓐᓂᓂᖅᓴᐃᑦ ᓇᓗᓇᐃᖅᓯᔪᑦ ᒥᑭᔪᒥᑦ ᖃᓄᐃᓕᖓᓂᕆᓚᐅᖅᑕᖓᓄᑦ ᐅᑎᖅᑎᑕᐅᓂᖓ hornblende−ᒧᑦᖅ. b) ᕿᑎᐊᓂ −ᖁᓛᓂ ᖁᓕᕇᑦᑐᓂᑦ mafic sill, ᑕᑯᔅᓴᐅᑎᑦᑎᔪᖅ ᑲᔪᕈᔪᒻᒥᑦ metaperidotite ᖁᓕᖃᖅᑐᓂ ᑲᔪᕈᔪᒻᒥᑦ metaleucogabbro. ᖃᐅᔨᓴᖅᑏᑦ ᐊᖏᓂᖓᓄᑦ (ᖃᔾᔪᓐᖑᐊᓕᒃ) 1.8 m ᑕᑭᓂᖓ. c) ᑭᒻᒥᕈᒻᒥ ᐱᓕᕆᔪᑦ psammite ᖁᓕᕇᖃᑦᑕᐅᑎᔪᑦ ᐊᕕᔅᓯᒪᓂᖏᑦ Franklin dyke, ᑯᑯᑎᑐᑦ ᑲᔪᕈᔪᖃᕐᓂᖃᖅᑐᖅ ᐊᒻᒪᓗ ᐃᓚᖓ ᑲᑎᑦᑎᑦᑎᔪᑦ ᐅᐊᑦᑎᐊᕉᓂᖅᓴᐅᔪᓂᑦ. ᓯᒥᔅᓯᒪᓂ ᖃᓂᒋᔭᐸᓗᐊᓂ 10m ᓴᓂᒧᑦ. d) ᕿᐱ[ᓯᒪᒐᔪᑦᑐᑦ ᓴᖑᖓᓪᓗᑎ ᓄᓇᐅᑉᖁᓛᓂ0 limestone, ᑕᑯᔅᓴᐅᑎᑦᑎᔪᖅ ᐅᐊᑦᑎᐊᕈᕐᓂᓴᕐᓂᑦ ᓯᐊᒻᒪᖅᓯᒪᓂᖅᓴᒥᑦ ᓄᓇᒥᑦ. ᖃᐅᔨᓴᕐᕕᐅᔪᖅ ᑕᑯᔅᓴᐅᓂᖓ ᓯᕗᓂᐊᓂ 50 cm.

ᐊᔾᔨᓐᖑᐊᖅ 5. ᓇᓗᓇᐃᖅᓯᒪᔪᑦ ᐊᔾᔨᓐᖑᐊᑦ metagranitoid−ᓂᑦ Sylvia Grinnell Lake–Clearwater Fiord−ᒥᑦ. ᑎᑎᖅᑲᑲᖅᑐᑎᑦ ᓈᓴᐅᑎᓖᑦ ᖁᓛᓂ ᑕᓕᖅᐱᐊᓂ ᑎᑭᖅᑯᐊᓂ ᐊᑐᓂ ᐊᔾᔨᓐᖑᐊᓂᑦ ᓇᓗᓇᐃᖅᑕᐅᔪᑦ 15SAB- ᖃᐅᒡᓴᕐᕕᒃ. a) ᓇᓗᓇᐃᔭᖅᓯᒪᔪᑦ ᐱᕆᔅᓯᒪᔪᑦ ᐊᒻᒪ ᐅᔭᒻᑕᐃᑦ quartz diorite ᐊᖏᔪᒻᒪᕆᐅᓪᓗᑎ grained biotite syenogranite. b) ᖃᓂᒨᖅᑐᖅ K-feldspar megacrystic monzogranite ᑕᑯᔅᓴᐅᑎᑦᑎᔪᖅ 3–6 ᓯᐊᓐᑕᒦᑕᐃᑦ ᑕᑯᔅᓴᐅᑎᑦᑎᔾᓂ rapakivi ᖃᓄᐃᓕᖓᓂᖓ. c) ᐊᔾᔨᒌᓂᓕᓐᓂ ᓂᐱᖅᑲᕐᓇᓖᑦ ᐱᕆᓯᒪᔪᑦ biotite-orthopyroxene monzogranite. d) ᐊᖏᔪᒻᒪᕆᒃ K-feldspar megacrystic monzogranite ᑲᑎᔅᓯᒪᔪᑦ ᐊᒥᓱᒐᓚᓐᓄᑦᖁᓕᕇᖃᑦᑕᐅᑎᔪᓂᑦ biotite-garnet monzogranite ᓯᒥᑦᑕᐅᓯᒪᔪᓂᑦ. ᖃᐅᔨᓴᖅᑎᒧᑦ ᐊᖏᓂᖓ ᐅᓇᐅᔪᖅ 1.8 m ᑕᑭᓂᖓ. ᐊᔾᔨᓐᖑᐊᖅ: ᖃᓂᓈᖅᓯᒪᔪᖅ biotite-garnet monzogranite ᖃᐅᔨᓴᕋ[ᓴᖅ, ᑕᑯᔅᓴᐅᑎᑦᑎᔪᖅ 1–3 ᓯᐊᓐᑕᒦᑕᐃᑦᐊᐅᐸᕈᔪᑦᑐᖅ ᐊᒥᐊᖓ garnet phenocrysts ᐊᒻᒪ ᓵᑦᑐᓂᑦ ᐊᒡᒍᕋᔅᓴᐅᓇᓂ ᓇᓗᓇᐃᖅᑕᐅᔪᖅ ᐆᒧᖓ sub-parallel biotite flakes. e) ᖃᓂᓈᖅᓯᒪᔪᖅ garnet-sillimanite leucogranite, ᑕᑯᔅᓴᐅᔪᑦ ᐊᒥᓱᑦ ᒥᖅᑯᑎᐅᑉ ᓄᕗᖓᑎᑐᑦ ᐊᖏᓂᖃᖅᑐᑦᓕᓛᒃ ᐊᒥᐊᓖᑦ ᐅᔭᖅᑕᐃᑦ. f) ᐊᖏᔪᒻᒪᕆᒃ biotite-orthopyroxene monzogranite ᑲᑎᓐᖓᔪᑦ ᐊᒥᓱᒐᓚᓐᓄᑦ ᑲᑎᓐᓂᖃᕐᕕᖏᑦ biotite syenogranite ᓯᒥᑦᑕᐅᓯᒪᔪᑦ. ᐊᖏᓂᖑᐊᖓ ᐅᓇᐅᔪᖅ 35 cm ᑕᑭᓂᖓ.

ᐊᔾᔨᓐᖑᐊᖅ 6. ᓇᓕᒧᑦᑎᑦᑎᓂᕐᒥᑦ ᐊᔾᔨᓐᖑᐊᑦ ᑕᑯᔅᓴᐅᑎᑦᑎᔪᑦ ᖃᐅᔨᓴᕋᔅᓴᓂᑦ monzogranite, ᕿᓂᖅᑐᑎᑦ metagranitoid amphibolite-granulite ᓇᒦᓐᓂᖓ ᐊᑦᑐᐊᓂᓖᑦ: a) P-T ᐊᔾᔨᓐᖑᐊᖅ; b) T-MH2O ᐊᔾᔨᓐᖑᐊᖅ; c) T-XFe3+ ᐊᔾᔨᓐᖑᐊᖅ; d) ᑲᑎᑦᑐᒋᑦ ᖃᐅᔨᓴᕐᕕᐅᔪᓂᑦ biotite±magnetite±orthopyroxene monzogranite
ᖃᐅᔨᓴᕐᕕᐅᔪᒥᑦ.

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ᐊᓯᖏᑦ ᑐᓴᐅᒪᔭᐅᔭᕆᐊᖃᖅᑐᑦ
ᑐᓴᒐᒃᓴᒃᑲᓐᓂᐅᑎᑕᐅᔪᑦ ᐅᕙᓂ ᖃᕋᓴᐅᔭᒃᑰᖓᔪᑦ ᓄᓇᐅᑉ ᖃᓄᐃᓕᖓᓂᖓᓂᑦ ᓇᓗᓇᐃᔭᐃᒃᑲᓐᓂᕐᓯᒪᔪ ᓴᕿᔮᖏᑦᑐᓂᑦ PDF-ᒥ ᓄᓇᙳᐊᕐᒧᑦ, ᐃᓚᐅᑎᑕᐅᖏᑦᑐᑦ ᐅᕙᓂ ᓄᓇᙳᐊᕐᒧᑦ ᑎᑎᕋᖅᑕᐅᓯᒪᔪᓂᑦ, ᐅᕝᕙᓘᓐᓃᑦ ᐃᓚᐅᑎᑕᐅᓯᒪᖏᑐᓂ ᓄᓇᙳᐊᓕᕆᓂᒃᑯᑦ ᓄᐊᑦᑎᕝᕕᖕᒥᑦ. ᑐᓴᒐᒃᓴᒃᑲᓐᓂᐅᑎᑕᐅᔪᖅ ᑎᑎᕋᕐᓯᒪᓂᖓᓄᑦ Excel® ᑎᑎᕋᕐᕕᒃᓴᖏᓐᓂᑦ ᓄᓇᙳᐊᑉ ᖃᓄᐃᓕᖓᓂᖓᓂᑦ.

ᑎᑎᕋᖅᑐᖅ ᖃᐅᓕᒋᐊᕐᕕᖓ

ᐊᐱᖅᑯᑏᑦᒪ ᐅᖃᖅᑕᐅᔪᑦ, ᐊᒻᒪ ᐅᖃᐅᓯᔅᓴᐃᑦ ᐱᔾᔪᑎᖃᖅᑐᑦᓄᓇᓂᑦ ᖃᐅᔨᓴᓂᕐᒧᑦ ᑐᑭᓯᒋᐊᖓᕈᑎᖏᑦ ᐃᓗᐊᓃᑦᑐᑦ ᑐᕌᖓᑎᑕᐅᔭᕆᐊᓖᑦ ᐅᕗᖓ:

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ᓇᒦᓐᓂᖏᓐᓄᑦ ᐊᑐᖅᑕᐅᔪᑦ
ᑕᑯᔅᓴᐅᑎᑦᑎᔪᑦ: Universal Transverse Mercator ᐊᑐᖅᑕᐅᔪᑦ: ᒦᑕᐃᑦ
ᐊᕕᑦᑐᖅᓯᒪᓂᖓ: 19
ᓴᓂᒧᑦ ᐱᒋᐊᕐᕕᖓ: NAD83
ᑐᑭᒧᑦ ᐱᒋᐊᕐᕕᖓ: ᑐᑭᖃᖅᑐᖅ ᐃᒪᕐᒧᑦ ᓇᓕᒧᓐᓂᖓ

ᓯᕗᒧᐊᒋᐊᖅᑐᑦ ᓇᒦᓐᓂᖏᑦ
ᐱᖓᓐᓇᖓᓂ ᑐᑭᒧᑦ: 70°00’00”W
ᑲᓇᓐᓇᖓᓂ ᑐᑭᒧᑦ: 68°00’00”W
ᐅᐊᓐᓇᖓᓂ ᓴᓂᒧᑦ: 65°00’00”N
ᓂᒋᖓᓂ ᓴᓂᒧᑦ: 64°30’00”N

ᖃᕋᓴᐅᔭᒧᑦ ᐃᓚᒃᓴᑰᖅᓯᒪᔪᖅ

ᓄᐊᑕᐅᓯᒪᔪᑦ ᐋᕿᓱᖅᓯᒪᓚᐅᖅᓯᒪᔪᑦ ᐊᑐᖅᑕᐅᔪᓐᓇᖅᖢᑎᒃ ᐃᒪᐃᑦᑐᒃᑯᑦ ArcGISTM ᑭᐳᒥᐅᑕᓅᖓᔪᓄ 10.1 ᐋᕿᒃᑕᐅᓂᑯᑦ ESRI®.

ᑐᑭᓯᒋᐊᕈᑏᑦ ᐊᑐᖅᑕᐅᔪᑦ ᑐᑭᓯᒋᐊᕈᑎᓄᑦ
ᓄᓇᓂᑦ ᖃᐅᔨᓴᓂᕐᒧᑦ ᑐᑭᓯᒋᐊᕈᑏᑦ ᐊᔾᔨᒌᖏᑦᑐᓂᑦ ᐃᓗᓕᖃᐅᖅᑐᑦ ᐱᖃᓯᐅᑎᓯᒪᔪᑦ ᑕᕝᕙᓂ ᓴᖅᑭᖅᑎᑕᐅᔪᓂᑦ ᒪᓕᓐᓂᖃᖅᑐᖅ GSC−ᑯᑦᐱᓕᕆᐊᖅ ᖁᐊᖑᐃᓐᓇᖅᑐᒥᑦ ᐸᕐᓇᑕᐅᓯᒪᔪᑦ

(ᓴᖅᑭᖅᑎᑕᐅᓚᐅᖅᑎᓐᓇᒋᑦ 2.6). ᑎᑎᕋᖅᓯᒪᔪᖅ ᓇᓗᓇᐃᔭᐃᓪᓗᓂ ᖃᓄᐃᑦᑑᓂᖓᒍᑦ ᐋᕿᒃᑕᐅᓯᒪᖕᒪᖔᑦ ᐃᓂᖏᓐᓂᒡᓗ ᐊᑐᐃᓐᓇᐅᓂᖓᓂ ᐅᕙᓂ…\Data\DataModelInfo.

ᓴᓇᓯᒪᓂᖓ XML ᐃᖅᑲᓇᐃᔭᕐᕕᒃ ᐊᑕᖐᓐᓇᓂ ᒪᓕᓐᓂᖃᖏᑦᑐᖅ ᑕᐃᒃᑯᓂᖓ ᖃᓄᐃᓕᖓᓂᖏᓐᓂᑦ. ᐊᑐᒡᒐᓇᕐᓂᐊᖏᓪᓗᓂ, ᖃᓄᐃᑦᑑᓂᖏᑦ ᑎᑎᕋᖅᓯᒪᔪᑦ ᐱᔭᐅᖃᑦᑕᖅᑐᑦ ᖁᐊᖑᐃᓐᓇᖅᑐᓂᑦ ᑐᑭᓯᒋᐊᕈᑎᖏᓐᓂᑦ ᖃᓄᐃᑦᑑᓂᖏᑎᒍᑦ.

ᓚᐃᓴᓯ ᐊᑐᐃᓐᓇᐅᔪᖅ ᖃᓪᓗᓈᑎᑐᑦ ᐅᒡᕙᓘᓐᓃᑦ ᐅᐃᕕᖅᑎᑐᑦ.

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