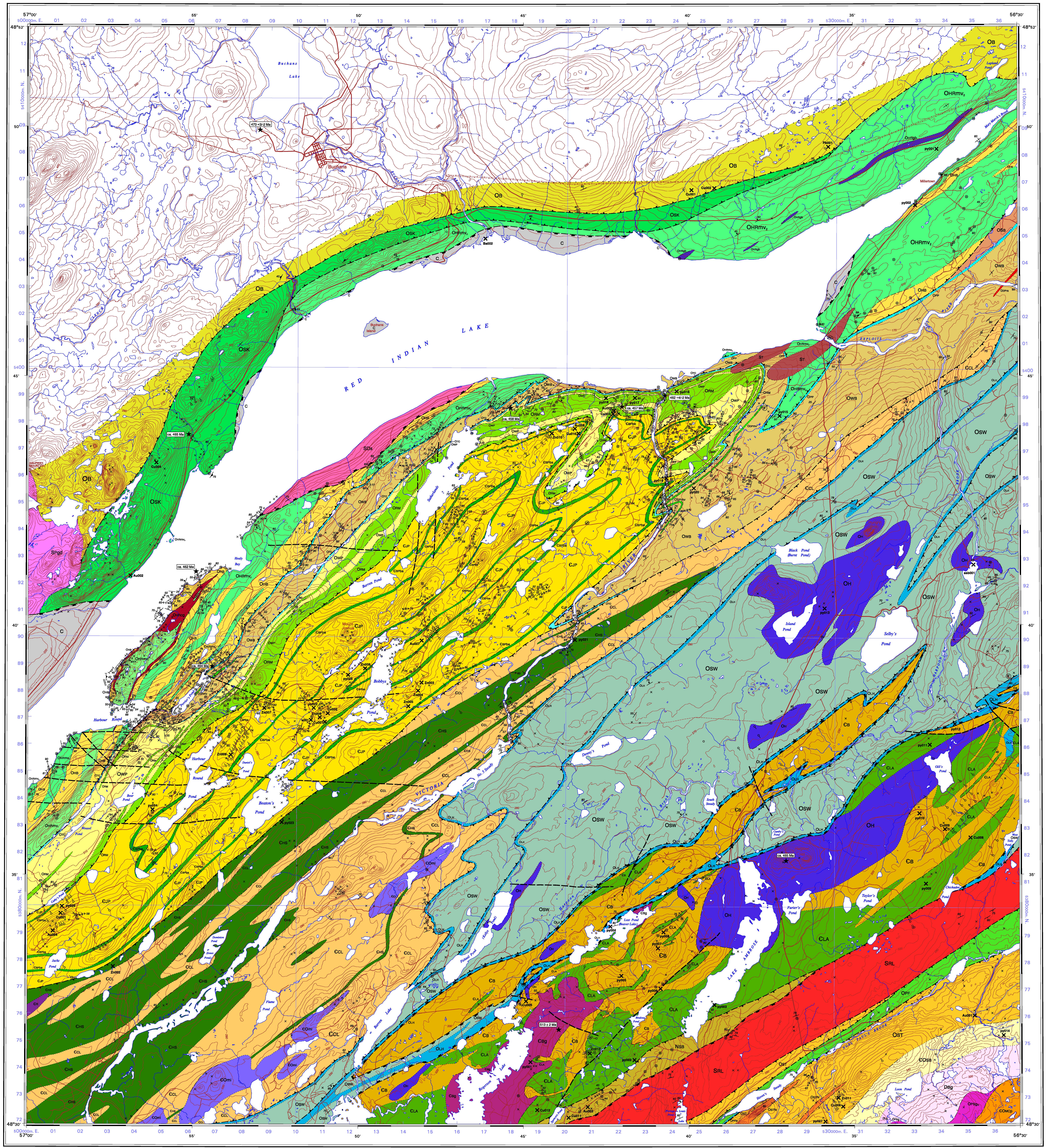
Natural Resources Canada / Ressources naturelles Canada
GEOLOGICAL SURVEY OF CANADA / COMMISSION GÉOLOGIQUE DU CANADA



LEGEND

(Ordovician and older rocks are generally foliated and metamorphosed, as are parts of the Silurian and Devonian sequences).

CARBONIFEROUS

C — *SHANADITHIT FORMATION: mainly poorly indurated red and grey sandstone and conglomerate, minor limestone and siltstone.*

SILURIAN AND/OR DEVONIAN

SDs — *Red sandstone and conglomerate, minor siltstone.*

NOTRE DAME/DASHWOODS SUBZONES

SILURIAN

TOPSAILS INTRUSIVE SUITE (circa 429 Ma)

ST — *Undivided, granitic to granodioritic rocks.*

PUDDLE POND COMPLEX (circa 431 Ma)
Complex includes Main Gut and related intrusions.

SPgd — *Unfoliated to foliated, medium- to coarse-grained, orange to white biotite-hornblende tonalite to biotite granite. Biotite is often replaced by chlorite. Contains locally megacrysts of K-feldspar.*

LOWER–MIDDLE ORDOVICIAN

RED INDIAN LAKE GROUP (Arenig–Llanvirn)

OHB — *HEALY BAY FORMATION (Llanvirn): mainly light grey to white, ash to quartz crystal tuff, minor rhyolite, volcanogenic sandstone and shale. All lithologies are locally interlayered with red shale and/or chert.*

OHRgb, OHRcg, OHRmv1, OHRmv2 — *HARBOUR ROUND FORMATION (Llanvirn): mainly green to red haematized, pillow to massive basalt, pillow breccia, diabase, gabbro (OHRgb), and andesite. All lithologies are interlayered with red chert and shale, whereas the pillow basalt locally contains interstitial limestone. Basalt are divided into two members separated by a largely volcanogenic polymictic conglomerate (OHRcg). The basalt stratigraphically below the conglomerate exhibit predominantly island-arc to transitional island-arc/back-arc compositions (OHRmv$_1$). The upper basalt (OHRmv$_2$) is predominantly calc-alkaline.*

OSK — *SKIDDER FORMATION (Arenig–Llanvirn): mainly amygdaloidal and/or variolitic, green pillow, pillow breccia, and massive basalt. Minor trondhjemetic pods and dykes (circa 464 Ma) and red jasperitic chert. Basalt are island-arc to transitional island-arc/back-arc in composition; slight difference in trace element and REE characteristics distinguish this sequence from OHRmv$_1$.*

BUCHANS GROUP (Arenig)

OB — *Undivided; mainly felsic and mafic arc-related volcanic rocks and associated sedimentary rocks and massive and/or disseminated sulphide.*

EXPLOITS SUBZONE

SILURIAN

BOTWOOD GROUP

SRL — *ROGERSON LAKE FORMATION (Lower Silurian): mainly red to grey, polymictic conglomerate, and minor micaceous sandstone and siltstone. Rare limestone beds. Clasts are dominantly derived from underlying volcanic and plutonic rocks, but also include jasper, shale, and red sandstone. Locally includes diabase and gabbroic dykes.*

ORDOVICIAN–SILURIAN

BADGER GROUP (Caradoc–Llandovery)

OSB — *Grey to light brown sandstone, minor conglomerate, siltstone, and shale.*

CAMBRIAN–MIDDLE ORDOVICIAN

ЄOmi — *Medium- to coarse-grained gabbro and diabase.*

RED CROSS GROUP

OPF, OPFW — *PINE FALLS FORMATION (Llanvirn–Caradoc): mainly light greyish-green to green basalt and associated minor gabbro ranging in composition from MORB-like to island arc tholeiite-like to calc-alkaline. At least in part pillowed, interlayered with minor limestone and dark grey to black, graphitic shale and siltstone. The black shale locally contains thin felsic tuffaceous beds and is transformed into a broken formation or mélange with felsic volcanic blocks near major faults. The dark grey to black shale and siltstone are mapped as the Lake of the Woods Member (OPFW).*

OST, OSTfv — *STORM BROOK FORMATION (Arenig–Llanvirn): mainly felsic tuffaceous sandstone, conglomerate, siltstone, and shale, locally pyritiferous, rare limestone, quartz and feldspar porphyritic to aphyric felsic to intermediate volcanic rock (OSTfv), and minor basalt and associated gabbro ranging in composition from E-MORB-like to alkalic. The volcanic rocks are designated as the Carter Lake Member. The clastic sedimentary rocks are commonly graded and locally contain abundant dark grey to black quartz xenocrysts.*

VICTORIA LAKE SUPERGROUP

WIGWAM BROOK GROUP (Arenig–Caradoc)

OWB, ODPmv, ODPrs — *Undivided, mainly grey to light brown, felsic volcanic rocks of the Dragon Pond Formation and volcaniclastic sandstone, siltstones, and minor shale of the Halfway Pond Formation. Minor locally pillowed, island-arc tholeiitic basalt (ODPmv), red to black, cherty, aphyric dacite and/or rhyolite, and interlayed red shale (ODPrs). Locally includes black shales typical of the Perriers Pond Formation.*

OPP — *PERRIERS POND FORMATION (Caradoc): black shale, locally calcareous, and minor interlayered volcanogenic siltstone and sandstone. In part transformed into broken formation or mélange.*

SUTHERLANDS POND GROUP (Llanvirn–Caradoc)

OTC — *TIMS CREEK FORMATION (Llanvirn–Caradoc): black shale, minor limestone and volcanogenic siltstone and sandstone. In part transformed into broken formation or mélange.*

ORM — *VICTORIA RIVER MOUTH FORMATION (Llanvirn–Caradoc): green, tholeiitic pillow basalt, compositionally E-MORB-like, locally interlayered with limestone. Contains minor rhyolite.*

OWP — *WEASEL POND FORMATION (Llanvirn–Caradoc): mainly light grey, rhyolitic breccias, minor aphyric to quartz and feldspar porphyritic flows and/or subvolcanic intrusions.*

HARPOON GABBRO SUITE (Arenig–Llanvirn)

OH — *Green, locally plagioclase-phyric gabbro, diorite and diabase.*

NOEL PAUL'S BROOK GROUP (Arenig–Caradoc)

OLH — *LAWRENCE HARBOUR FORMATION (Caradoc): black shale, locally interlayered with thin felsic ash tuff beds. In part transformed into broken formation or mélange.*

OSW — *STANLEY WATERS FORMATION (Arenig–Llanvirn): mainly volcanogenic sandstone and siltstone, minor chert and red shale. Locally includes some mafic and felsic volcanic rocks.*

ROEBUCKS INTRUSIVE SUITE (circa 495 Ma)

ЄR — *Undivided. Mainly massive to foliated quartz monzonite; diorite and/or gabbro.*

TULKS GROUP (Upper Cambrian)

ЄJP — *JACKS POND FORMATION: mainly light grey to brown quartz- and/or feldspar-phyric tuff, lapilli tuff, volcanic breccia (Daniels Pond pyroclastics) and aphyric, locally flow-banded rhyolite (Mount Joshua rhyolite); locally includes massive and/or disseminated sulphide mineralization.*

ЄBPba, ЄBPbe — *BOBBYS POND FORMATION: mainly light green, island arc-like tholeiitic basalt to andesite, locally pillowed. Divided into the Baxters Pond (ЄBPba) and Beaton's Pond (ЄBPbe) basalts on basis of their chemical composition.*

LONG LAKE GROUP (Middle–Upper Cambrian)

ЄCL — *COSTIGAN LAKE FORMATION: mainly white to light grey dacitic to rhyolitic, quartz and feldspar crystal tuffs; minor aphyric rhyolite. Locally includes graphitic shale, volcanogenic sandstone and siltstone and massive and/or disseminated sulphide mineralization.*

ЄHS — *HARMSWORTH STEADY FORMATION: mainly green, pillowed, tholeiitic to calc-alkaline basalt to andesite, diabase and minor breccia.*

TALLY POND GROUP (Lower–Middle Cambrian)

ЄB, ЄBg — *BINDONS POND FORMATION: mainly rhyolite, locally flow banded and/or quartz-phyric, rhyolite breccia, lapilli tuff, quartz porphyry, crystal tuff and subvolcanic granitic rocks (ЄBg).*

ЄLA — *LAKE AMBROSE FORMATION: mainly vesicular and amygdaloidal, generally pillowed basalt, mafic to andesitic tuff, and volcanic breccia.*

NEOPROTEROZOIC

CRIPPLEBACK INTRUSIVE SUITE (circa 564 Ma)
Suite includes Crippleback Lake, Valentine Lake, and Lemottes Lake intrusions.

SANDY BROOK GROUP

NSB — *Undivided. Mainly felsic and mafic volcanic rocks, and minor siliciclastic sedimentary rocks. Felsic rocks include quartz-phyric rhyolite. The mafic volcanic rocks include compositionally island-arc-like and calc-alkaline basalt to andesite.*

MEELPAEG SUBZONE

DEVONIAN

NORTH BAY GRANITE SUITE

DBg — *Medium- to coarse-grained, generally light red to grey K-feldspar porphyritic to equigranular biotite granite (Buck Lake phase dated at circa 404 Ma) and granodiorite. Locally contains grey to white, equigranular hornblende-bearing quartz diorite to granodiorite and muscovite±garnet granite. Planar and linear structures are generally moderately to weakly developed or absent. Foliation is generally well developed close to shear zones. Locally includes patches of migmatite and screens of paragneiss.*

DLg — *Medium-grained, white muscovite-biotite leucogranite.*

CAMBRIAN–MIDDLE ORDOVICIAN

PETER STRIDES GRANITOID SUITE

OPSg — *Grey to light red, generally strongly foliated, medium-grained biotite granodiorite and granite (circa 467 Ma).*

GANDER GROUP (Cambrian–Lower Ordovician)

ЄOSB — *SPRUCE BROOK FORMATION: mainly light grey quartz-rich sandstone and minor shale. Includes locally mafic dykes.*

MEELPAEG COMPLEX (Cambrian–Devonian)

ЄOMCp — *Mainly amphibolite facies psammite and semipelite derived from the Cambro-Ordovician Gander Group, locally weakly migmatised by granitic and pegmatitic veins. Semipelite commonly contains sillimanite, but locally contains also staurolite and/or garnet. Contains amphibolite dykes. Is mainly amphibolite facies lithological equivalent of the Spruce Brook Formation. Is cut by the Peter Strides Suite.*

SYMBOLS

- *Geological boundary (approximate, assumed)*
- *Limit of mapping*
- *Fault, undefined (approximate or assumed)*
- *Thrust fault, (approximate or assumed)*
- *Unconformity (approximate or assumed)*
- *Outcrop: this study (single, area)*
- *Outcrop, compiled (Evans et al., 1994, Kean, 1979, and Thurlow and Swanson, 1981)*
- *Bedding, top known (inclined, overturned)*
- *Bedding, top unknown (inclined, vertical)*
- *Bedding, top known, from pillow lavas, dip if known (inclined, overturned)*
- *Foliation: S_1, main and/or composite (inclined, vertical)*
- *Foliation (generation – S_2, S_3)*
- *Lineation: main, mineral or extension*
- *Lineation: hinge or intersection (generation – L_2, L_3, L_4)*
- *S-fold, plunge and plunge direction (generation – unknown, F_1, F_2, F_3, F_4)*
- *Z-fold, plunge and plunge direction (generation – unknown, F_1, F_2, F_3, F_4)*
- *Dyke (inclined)*
- *Brittle fault (motion – unknown, normal, reverse, dextral)*
- *Shear zone (sense of motion – unknown, dextral)*
- *Fossil locality*
- *U-Pb zircon age determination* (513 ± 2 Ma)
- *Mineral occurrence; National Mineral Inventory Number* (Au002)
- *Drillhole, drillhole with surface projection*

ACKNOWLEDGMENTS

The authors wish to thank Crosshair Exploration & Mining Corporation and Rubicon Minerals Corporation for providing access to the unpublished Southern Golden Promise airborne geophysics (flown in 2003). In particular the contributions of Tim Froude (Crosshair Exploration & Mining) and David Copeland, (Rubicon Minerals). Altius Minerals Corporation are also thanked for providing access to unpublished interpretations and mapping of their South Tally Pond property, with particular acknowledgment going to the contribution of Dave Barber as their project leader.

REFERENCES

Desnoyers, D.
1990: Victoria Mine prospect. *In* Metallogenic framework of base and precious metal deposits, central and western Newfoundland (editors H.S. Swinden, D.T.W. Evans, and B.F. Kean). Eighth IAGOD Symposium Field Trip Guidebook. Geological Survey of Canada, Open File 2156, p. 65–67.

Dunning, G.R., Kean, B.F., Thurlow, J.G., and Swinden, H.S.
1987: Geochronology of the Buchans, Roberts Arm and Victoria Lake Groups and Mansfield Cove Complex, Newfoundland; *in* Canadian Journal of Earth Sciences, v. 22, p. 1175–1184.

Dunning, G.R., Swinden, H.S., Kean, B.F., Evans, D.T.W., and Jenner, G.A.
1991: A Cambrian island arc in Iapetus: geochronology and geochemistry of the Lake Ambrose volcanic belt; Newfoundland Appalachians; *in* Geological Magazine, v. 128, p. 1–17.

Evans, D.T.W. and Kean, B.F.
2002: The Victoria Lake supergroup, central Newfoundland – its definition, setting and volcanogenic massive sulphide mineralization; Newfoundland Department of Mines and Energy, Geological Survey Branch, Open File NFLD/2790, 68 p.

Evans, D.T.W., Kean, B.F., and Dunning, G.R.
1990: Geological studies, Victoria Lake Group, central Newfoundland; *in* Current Research, Newfoundland Department of Mines and Energy, Geological Survey Branch, Report 90-1, p. 131–144.

Evans, D.T.W., Kean, B.F., and Mercer, N.L.
1994: Geology and mineral occurrences of Lake Ambrose. Map 94-223. Scale 1:50,000. Government of Newfoundland and Labrador, Department of Mines and Energy, Geological Survey Branch, Open File 012A/10/0686.

Kean, B.F.
1979: Buchans, Newfoundland. Map 79-125. Scale: 1:50,000. Government of Newfoundland and Labrador, Department of Mines and Energy, Mineral Development Division.

Kean, B.F. and Jayasinghe, N.R.
1980: Geology of the Lake Ambrose (12 A/10)–Noel Paul's Brook (12 A/9) map areas, central Newfoundland. Government of Newfoundland and Labrador, Department of Mines and Energy, Mineral Development Division. Report 80-02, 33 p., 2 maps.

Moore, P.J.
2003: Stratigraphic implications for mineralization: Preliminary findings of a metallogenic investigation of the Tally Pond volcanics, central Newfoundland; *in* Current Research, Newfoundland Department of Mines and Energy, Geological Survey Branch, Report 03-1, p. 241–257.

Oneschuk, D., Tod, J., and Kilfoil, G.
2001: Red Indian Line Airborne Geophysics Compilation (Part 1), central Newfoundland. Geological Survey of Canada, Open File 3923, Government of Newfoundland and Labrador, Department of Mines and Energy, Geological Survey Branch, Open File 12A/0911. CD-ROM.

Oneschuk, D., Tod, J., and Kilfoil, G.
2002: Red Indian Line Airborne Geophysics Compilation (Part 2), central Newfoundland. Geological Survey of Canada, Open File 4254, Government of Newfoundland and Labrador, Department of Mines and Energy, Geological Survey Branch, Open File NFLD/2773. CD-ROM.

Pollock, J.C. and Wilton, D.H.C.
2001: Metallogenic studies of the Tally Pond belt, Victoria Lake Group: trace-element geochemistry and lead-isotope data from the Exploits Subzone, Newfoundland; *in* Current Research, Newfoundland Department of Mines and Energy, Geological Survey Branch, Report 2001-1, p. 247–266.

Rogers, N.
2004: Geochemical Database, Red Indian Line Project, central Newfoundland. Geological Survey of Canada, Open File 4605, 1 CD-ROM.

Rogers, N. and van Staal, C.R.
2002: Toward a Victoria Lake supergroup: a provisional stratigraphic revision of the Red Indian to Victoria lakes area, central Newfoundland; *in* Current Research, Newfoundland Department of Mines and Energy, Geological Survey Branch, Report 02-1, p. 185–195.

Squires, G.C. and Moore, P.J.
2004: Volcanogenic massive sulphide environments of the Tally Pond volcanics and adjacent area: Geological, lithogeochemical and geochronological results; *in* Current Research, Newfoundland Department of Mines and Energy, Geological Survey Branch, Report 04-1, p. 63–91.

Table 1. U-Pb geochronology

Sample number	NL geochron database	UTM (zone 21, NAD 83) easting	northing	Crystallization age / Ma	Year of analysis	Laboratory	Reference
83-GD-08	8034	523661	5398885	462 +4/-2	1987	ROM	Dunning et al. (1987)
84-GD-13	8032	508569	5408818	473 +3/-2	1987	ROM	Dunning et al. (1987)
DE-85-97	8120	519769	5375418	513 ± 2	1990	ROM	Dunning et al. (1991)
JP-01-99-gc (z7525)		528198	5381717	ca. 465	2002	GSC	McNicoll and Pollock, unpublished
MRB01-06 (z7098)		521960	5398445	ca. 457	2002	GSC	McNicoll and Rogers, unpublished
VL02-A294 (z7522)		506085	5397449	ca. 465	2003	GSC	Zagorevski and McNicoll, unpublished
RAX00-903 (z6679)		506997	5388889	ca. 464	2001	GSC	McNicoll and Rogers, unpublished
RAX01-904 (z7157)		517905	5398510	ca. 458	2002	GSC	McNicoll and Rogers, unpublished
RAX01-908 (z7097)		506248	5392154	ca. 462	2002	GSC	McNicoll and Rogers, unpublished

GSC – Geological Survey of Canada, Ottawa, Canada
ROM – Royal Ontario Museum, Toronto, Canada

Table 2. Mineral occurrences – 12 A/10

Mineral occurrence[1]	UTM (zone 21, NAD 83) easting	northing	Name	Alternate name	Commodity	Status
asb001	535125	5392750	Harpoon Brook		asb	Indication
Au001	535230	5376000	Balloon Pond Northeast		Au, py	Showing
Au002	503800	5392250	Halfway Mountains		Au, Ag, Pb, py	Showing
Au003	520860	5372550	Spencers Pond		Au, py	Showing
Au004	500950	5379050	Jacks Pond West		Au, py, Pb	Showing
Au005	521750	5398400	Victoria Mine Gold		Au	Showing
Au006	520300	5397750	Victoria Mine West Inco		Au	Showing
Au007	514630	5389860	Hoffs Pond Gold	Bobbys Pond	Au	Showing
Cu001	501240	5379700	Jacks Pond		Cu, Pb, Zn, pr	Developed Prospect
Cu002	511150	5387150	Bobbys Pond West Copper #1		Cu, pr, Au	Indication
Cu003	521710	5398300	Victoria Mine		Cu, Pb, Zn, pr	Developed Prospect
Cu004	504750	5396450	Skidder Prospect		Cu, Zn, pr	Developed Prospect
Cu005	518550	5376525	Rogerson Lake		Cu, pr	Indication
Cu006	530350	5372600	Loon Lake		Cu, po, pr	Indication
Cu007	511040	5386830	Bobbys Pond West Copper #2		Cu, Pb, Zn	Indication
Cu008	535050	5382610	Gills Pond South Copper #1		Cu, pyr, Pb, Zn	Showing
Cu009	534100	5382920	Gills Pond South Copper #2		Cu, Pb, Zn	Showing
Cu010	520430	5397570	Victoria Mine West		Cu, pr	Showing
Cu011	520150	5372150	Spencers Pond East Copper		Cu, Pb, Au	Showing
Cu012	518980	5372430	Spencers Pond West Copper		Cu, Pb, Au, Ag, pr	Showing
py001	518725	5374210	Rogerson Lake East #1		py	Indication
py002	522590	5374300	Rogerson Lake East #2		py, Cu	Indication
py003	525300	5376450	Lake Ambrose		py, Cu	Indication
py004	521650	5379150	Beaver Lake		py, Cu	Indication
py005	522090	5377425	Beaver Lake South #1		py	Indication
py006	523550	5376950	Lake Ambrose West		py	Indication
py007	523450	5378475	Beaver Lake East #1		py	Indication
py008	523650	5379050	Beaver Lake East #2		py	Indication
py009	533400	5380890	Chickadee Lake West		py	Indication
py010	533150	5383500	Gill's Pond South Pyrite		py, Cu	Indication
py011	533525	5386050	Gill's Pond North Pyrite #1		py	Indication
py012	534450	5386825	Gill's Lake North Pyrite #2		py	Indication
py013	529600	5391100	Island Pond		py	Indication
py014	536310	5375275	Loon Lake Northeast		py, po, Cu	Indication
py015	527900	5398250	Victoria River East #1		py	Indication
py016	524075	5399150	Red Indian Lake East		py	Indication
py017	522525	5398900	Red Indian Lake Southeast #1		py	Indication
py018	521450	5398890	Red Indian Lake Southeast #2		py	Indication
py019	523700	5395925	Victoria River #1		py, Cu	Indication
py020	524725	5395550	Victoria River East #2		py, Cu	Indication
py021	520325	5389900	Victoria River #2		py	Indication
py022	510625	5387350	Bobbys Pond West Pyrite		py	Indication
py023	509450	5383100	Beaton's Pond		py, Cu	Indication
py024	504700	5383500	Harbour Round Pond		py	Indication
py025	511900	5388580	North Pond		py	Showing
py026	501290	5379960	Cathys Pond		py, Au, Cu	Showing
py027	529700	5372000	Havens Steady (Road Zone)		py, Zn	Indication
s001	510520	5386900	Bobbys Pond West Sulfur		S	Showing
Zn001	514630	5389860	Hoffs Pond	Bobbys Pond	Zn, Pb, Cu	Prospect
Zn002	503190	5377730	Side of the Hill		Zn, Pb, Cu, py	Showing
Zn003	514630	5388300	Bobbys Pond East Zinc #1		Zn, py, Cu	Prospect
Zn004	514500	5388000	Bobbys Pond East Zinc #2		Zn, Cu, Au	Prospect
Zn005	514140	5387420	Bobbys Pond East Zinc #3		Zn, py	Prospect
Zn006	510850	5387000	Bobbys Pond West Zinc #1		Zn, Pb	Showing
Zn007	508790	5387340	Bobbys Pond West Zinc #2	Parking Lot Showing	Zn, Cu, Pb	Showing
Zn008	512530	5388820	Bobbys Pond West Zinc #3		Zn, Pb, Ag, Cu	Showing
Zn009	507550	5385600	Daniels Pond		Zn, Ag, Pb, Cu, Au, py	Prospect
Zn010	519440	5397570	Sutherlands Pond East		Zn, Pb, Cu, asp, Fe, py, pph, Au	Showing
Zn011	530180	5372940	Havens Steady		Zn, Au, Ag, Cu, Pb, py	Prospect
Zn012	520930	5374540	Lemarchant		Zn, Cu, Au, Pb, Ag	Prospect

Notes:
Modified after the Mineral Occurrence Data System (MODS) of the Geological Survey of Newfoundland and Labrador.
[1]National Mineral Inventory Number has the form 012A/10/asb001

Table 3. Mineral occurrences – 12 A/15

Mineral occurrence[1]	UTM (zone 21, NAD 83) easting	northing	Name	Alternate name	Commodity	Status
Ba002	516950	5404800	Buchan's River Delta Tailings	Buchans Brook Delta Tailings	Ba	Prospect
Cu001	524600	5406625	Little Sandy Prospect		Cu, py	Developed prospect
Cu002	525450	5406700	Little Sandy Prospect East		Cu, py	Indication
Pb001	529675	5408250	Connel Option		Pb, Zn	Developed prospect
py001	533700	5408190	Mary March Zone		py, Pb, Zn	Prospect
py002	532910	5406100	Mary March Zone #2		py, Cu	Showing

Notes:
Modified after the Mineral Occurrence Data System (MODS) of the Geological Survey of Newfoundland and Labrador.
[1]National Mineral Inventory Number has the form 012A/15/Ba002

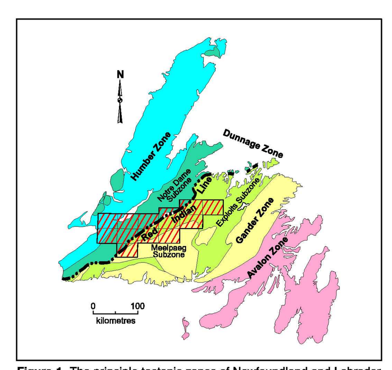


Figure 1. The principle tectonic zones of Newfoundland and Labrador and the position of the Red Indian Line.

The Targeted Geoscience Initiative is a federally funded program of the Geological Survey of Canada (GSC), carried out with the collaboration and in-kind support of the Geological Survey of Newfoundland and Labrador (GSNL).

The Red Indian Line Project has been conducted by the GSC in areas previously mapped by the GSNL and the GSC. Results of the project have been combined with existing geological and geophysical maps, and unpublished industry data, to produce a new compilation of the geology.

LOCATION MAP

Authors: N. Rogers, C.R. van Staal, V.J. McNicoll, G.C. Squires, J. Pollock, and A. Zagorevski

New geology and interpretation by N. Rogers, C.R. van Staal, and G.C. Squires (2000–2003)

Additional unpublished geochemical and geochronological data from J. Pollock (2000–2002), A. Zagorevski (2003), and V.J. McNicoll (2000–2003)

Geological compilation by N. Rogers (2003)

Pre-existing geological data presented on map compiled from Evans et al. (1994), Kean (1979), and Thurlow and Swanson (1981)

Geological boundaries locally based on unpublished data obtained from Altius Minerals Corporation (South Tally Pond Project)

Distribution of units and position of geological boundaries in part inferred from geophysical data (Oneschuk et al., 2001, 2002) and unpublished airborne geophysics provided by Crosshair Exploration & Mining Corporation and Rubicon Minerals Corporation (Southern Golden Promise Project)

Canada

OPEN FILE 4544
GEOLOGY

LAKE AMBROSE AND PART OF BUCHANS

NEWFOUNDLAND AND LABRADOR

Scale 1:50 000/Échelle 1/50 000

kilometres 1 0 1 2 3 4 kilomètres

Universal Transverse Mercator Projection
North American Datum 1983
© Her Majesty the Queen in Right of Canada 2005

Projection transverse universelle de Mercator
Système de référence géodésique nord-américain, 1983
© Sa Majesté la Reine du chef du Canada 2005

Digital cartography by P. Corrigan, Earth Sciences Sector Information Division (ESS Info)

This map was produced from processes that conform to the ESS Info Publishing Services Subdivision Quality Management System, registered to the ISO 9001: 2000 standard

Any revisions or additional geological information known to the user would be welcomed by the Geological Survey of Canada

Digital base map from data compiled by Geomatics Canada, modified by ESS Info

Some geographical names subject to revision

Mean magnetic declination 2005, 21°37'W, decreasing 10.5' annually

Elevations in metres above mean sea level

12 B/16	12 A/13	12 A/14	12 A/15	12 A/16 OF4546	2 D/13 OF4545
12 B/9 OF4921	12 A/12 OF1668	12 A/11 OF1669	12 A/10 OF4544	12 A/9 OF4547	2 D/12
12 B/8 OF1666	12 A/5 OF1664	12 A/6 OF1667	12 A/7 OF4597	12 A/8	2 D/5
12 B/1	12 A/4 OF1665	12 A/3	12 A/2	12 A/1	2 D/4

NATIONAL TOPOGRAPHIC SYSTEM REFERENCE AND INDEX TO ADJOINING GEOLOGICAL SURVEY OF CANADA MAPS

OPEN FILE
DOSSIER PUBLIC
4544
GEOLOGICAL SURVEY OF CANADA
COMMISSION GÉOLOGIQUE DU CANADA
2005

Open files are products that have not gone through the GSC formal publication process.

Les dossiers publics sont des produits qui n'ont pas été soumis au processus officiel de publication de la CGC.

Recommended citation:
Rogers, N., van Staal, C.R., McNicoll, V.J., Squires, G.C., Pollock, J., and Zagorevski, A.
2005: Geology, Lake Ambrose and part of Buchans, Newfoundland and Labrador; Geological Survey of Canada, Open File 4544, scale 1:50 000.