

GEOLOGICAL SURVEY OF CANADA



COMMISSION GÉOLOGIQUE DU CANADA

OPEN FILE 2145

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CANADA - NEW BRUNSWICK MINERAL DEVELOPMENT AGREEMENT, LIST OF OUTPUTS PRODUCED BY THE GEOLOGICAL SURVEY OF CANADA DURING THE YEARS 1984 THROUGH 1989

Mineral Development Program Office
Geological Survey of Canada

Contribution to the Canada - New Brunswick Mineral Development Agreement 1984-1989



Energy, Mines and
Resources Canada

Énergie, Mines et
Ressources Canada

Canada

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Natural Resources and Energy
New Brunswick

Ressources Naturelles et Énergie
Nouveau-Brunswick



Contribution to Canada-New Brunswick
Mineral Development Agreement 1984-89, a
subsidiary agreement under the Economic
and Regional Development Agreement.
Project funded by the Geological Survey of Canada.

Contribution à l'Entente auxiliaire
Canada/Nouveau-Brunswick sur l'Exploitation
minérale 1984-89 faisant partie de l'entente de
développement économique et régional. Ce projet
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Energy, Mines and
Resources Canada

Énergie, Mines et
Ressources Canada

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INTRODUCTION

The Canada - New Brunswick Mineral Development Agreement 1984-89 (MDA), signed by federal and provincial ministers in June 1984, is one of many subsidiary agreements under the Canada - New Brunswick Economic and Regional Development Agreement (ERDA).

To help strengthen and diversify New Brunswick's mineral industry, the Geological Survey of Canada (GSC) implemented a 5-year program of geoscientific projects that would provide new data and ideas to the mineral exploration community.

This Open File presents, in bibliographic form, the cumulative output of that program from 1984 through 1989. The Open File was compiled by D.G. Richardson and W.H. Poole and outputs have been assembled for each project under four categories: a) Publications, b) Open Files, c) Posters and d) Oral Presentations. Within each category, entries are arranged by fiscal year. Bibliographic information was obtained from project participants. A preliminary version of this unedited Open File has been examined by GSC participants. The name of the GSC project leader appears in brackets.

CANADA-NEW BRUNSWICK MINERAL DEVELOPMENT AGREEMENT
(1984-1989)

LIST OF OUTPUTS
PRODUCED BY GEOLOGICAL SURVEY OF CANADA
DURING YEARS 1984 through 1989

Outputs have been divided into:

a) Publications b) Open Files c) Posters d) Oral Presentations

1.1 METALLIC MINERAL DEPOSITS

1.1.1 Metallogeny of the central and southwest Miramichi Belt (G.P. Watson)

a) Publications

1986-87

Thomas, R.D., and Gleeson, C.F., Metallogeny of the Woodstock area, New Brunswick; in Current Research, Part A, Geological Survey of Canada, Paper 87-1A, p. 489-498, 1987.

b) Open Files

1987-88

Thomas, R.D., and Gleeson, C.F., Metallogeny of the Woodstock area, New Brunswick; Geological Survey of Canada, Open File 1726, 316 p., March 1988.

c) Posters

1985-86

Connell, M.D. and Hattie, D.W., Metallogeny of central and southwest Miramichi zone, New Brunswick, at the New Brunswick Dept. of Forests, Mines and Energy Annual Review of Activities, Fredericton, November 25-26, 1985; abstract published in New Brunswick Dept. of Forests, Mines and Energy, Information Circular 85-3, p.71, 1985.

1986-87

Thomas, R.D. and Gleeson, C.F., Field observations concerning the metallogeny of the Woodstock area, at the New Brunswick Department of Natural Resources and Energy Review of Activities, Fredericton, November 17-18, 1986; extended abstract published in New Brunswick Dept. of Natural Resources and Energy, Information Circular 86-2, p. 129-130, 1986.

Hattie, D.W. and Connell, M.D., Lithogeochemical study of red manganiferous slate and black slate-chert in Miramichi zone, New Brunswick, at the New Brunswick Dept. of Natural Resources and Energy Annual Review of Activities, Fredericton, November 17-18, 1986; extended abstract published in New Brunswick Department of Natural Resources and Energy Information Circular, 86-2, p. 116-119, 1986.

1987-88

Hattie, D.W. and Connell, M.D., Lithogeochemical study of red manganiferous slate and black slate-chert in Miramichi zone, New Brunswick, at the New Brunswick Dept. of Natural Resources and Energy Annual Review of Activities, Fredericton, November 23-24, 1987; extended abstract published in New Brunswick Dept. of Natural Resources and Energy, Information Circular 87-2, p. 126-129, 1987.

Stevens, K., Mineralogical and thermal zoning, Woodstock Mineral District, New Brunswick, at the New Brunswick Dept. of Natural Resources and Energy Annual Review of Activities, Fredericton, November 23-24, 1987; extended abstract published in New Brunswick Dept. of Natural Resources and Energy, Information Circular 87-2, p. 141-144, 1987.

1988-89

Connell, M.D. and Hattie, D.W., Lithogeochemical study of Ordovician chemical sedimentary rocks in the Miramichi Zone, New Brunswick, at the GAC/MAC/CSPG Joint Annual Meeting, St. John's, Newfoundland, May 24, 1988; abstract published in GAC/MAC/CSPG Program with Abstracts, v. 13, p. A24, 1988.

1.1.2 Metallogeny of the Chaleur Bay Belt (G.P. Watson)

a) Publications

1986-87

Watson, G.P., Regional metallogenic studies, Chaleur Bay Belt, New Brunswick; in New Brunswick Department of Natural Resources and Energy Annual Review of Activities, Information Circular 86-2, p. 136-138, 1986.

1987-88

Rencz, A.N. and Watson, G.P., Spatial relationship of mineral occurrences with geological and LANDSAT - derived lineaments, northeastern New Brunswick; in Current Research, Part B, Geological Survey of Canada, Paper 88-1B, p. 245-250, 1988.

1988-89

Watson, G.P. and Rencz, A.N., Application of geographic information systems to data integration studies in northeastern New Brunswick; in New Brunswick Dept. of Natural Resources and Energy Annual Review of Activities, Information Circular 88-2, p. 163-171, 1988.

Watson, G.P., Rencz, A.N. and Bonham-Carter, G.F., Computers assist prospecting: Geographic information systems are being applied to mineral resource assessment in northern New Brunswick; in GEOS, v.18, no. 1, p. 1-15, Winter 1989.

c) Posters

1985-86

Watson, G.P., Metallogeny of the Chaleur Bay belt, at the New Brunswick Dept. of Forests, Mines and Energy Annual Review of Activities, Fredericton, November 25-26, 1985; extended abstract published in New Brunswick Dept. of Forests, Mines and Energy, Information Circular 85-3, p. 75-80, 1985.

Watson, G.P., Mount Costigan breccia-pipe, New Brunswick, at the Geological Survey of Canada Current Activities Forum, Ottawa, January 1986; and at the 54th Annual General Meeting and Convention of the Prospectors and Developers Association of Canada, Toronto, March 1986.

1986-87

Rencz, A.N. and Watson, G.P., Remote sensing applications to metallogeny, northern New Brunswick, at the New Brunswick Department of Natural Resources and Energy, Review of Activities, Fredericton, November 17-18, 1986; at the Geological Survey of Canada's Current Activities Forum, Ottawa, January 1987; and at the 55th Annual General Meeting and Convention of the Prospectors and Developers Association of Canada, Toronto, March, 1987.

1987-88

Rencz, A.N., Display of data integration hardware and software, at the New Brunswick Dept. of Natural Resources and Energy Annual Review of Activities, Fredericton, November 23-24, 1987.

Watson, G.P. and Rencz, A.N., Application of biogeochemistry and remote sensing to gold exploration, northern New Brunswick, at the Third Decennial International Conference on Geophysical and Geochemical Exploration for Minerals and Groundwater, Exploration'87, Toronto, Canada, September 1987; abstract published in technical program abstracts, p. 41.

Watson, G.P., Regional metallogenic studies, Chaleur Bay belt, New Brunswick, at the New Brunswick Dept. of Natural Resources and Energy Annual Review of Activities, Fredericton, November 23-24, 1987; abstract published in New Brunswick Dept. of Natural Resources and Energy, Information Circular 87-2, p. 148-149, 1987.

Watson, G.P., Geochemistry of Silurian and Devonian volcanic rocks, Chaleur Bay Belt, New Brunswick, at the Geological Survey of Canada Current Activities Forum, Ottawa, January 1988.

1988-89

Cox, N.D., Watson, G.P. and Sangster, D.F., Geology of the Mount Costigan Pb-Zn deposit, west-central New Brunswick, at the GAC/MAC/CSPG Joint Annual Meeting, St. John's, Newfoundland, May 24, 1988; abstract published in GAC/MAC/CSPG Program with Abstracts, v. 13, p. A27, 1988.

Watson, G.P. and Rencz, A.N., Confidence of biogeochemical and LANDSAT TM anomalies in northern New Brunswick, Canada : Application to gold exploration, at the 6th Thematic Conference on Remote Sensing for Exploration Geology, Houston, Texas, May 16-19, 1988; abstract published in Proceedings of the 6th Thematic Conference on Remote Sensing for Exploration Geology, v. 2, p. 561, 1988.

d) Oral Presentations

1988-89

Watson, G.P., Geological setting, mineralogy and alteration studies, Elmtree Au deposit, northeastern New Brunswick, at the GAC/MAC/CSPG Joint Annual Meeting, St. John's, Newfoundland, May 24, 1988; abstract published in GAC/MAC/CSPG Program with Abstracts, v. 13, p. A132, 1988.

Watson, G.P., Application of geographic information systems to data integration studies in northeastern New Brunswick, at the New Brunswick Dept. of Natural Resources and Energy Annual Review of Activities, Fredericton, November 14, 1988.

1.1.3 Metallogeny of Carboniferous terranes (G.P. Watson)

No outputs.

1.1.4 St. Stephen nickel-copper deposit (O.R. Eckstrand)

a) Publications

1985-86

Paktunc, A.D., St. Stephen mafic-ultramafic intrusion and related nickel-copper deposits, New Brunswick; in Current Research, Part A, Geological Survey of Canada, Paper 86-1A, p. 327-331, 1986.

1986-87

Paktunc, A.D., Nickel, copper, platinum and palladium relations in Ni-Cu deposits of the St. Stephen intrusion, New Brunswick; in Current Research, Part A, Geological Survey of Canada, Paper 87-1A, p. 543-553, 1987.

1989-90

Paktunc, A.D., Petrology of the St. Stephen intrusion and related nickel-copper sulfide deposits; Economic Geology, v. 84, 1989 (in press).

b) Open Files

1988-89

Paktunc, D., Geology of the Stephen intrusion, New Brunswick; Geological Survey of Canada, Open File 2023, 1 map (1:10,000 scale), May 1989.

c) Posters

1985-86

Paktunc, A.D., Geology of the nickel-copper deposits of the St. Stephen complex, New Brunswick, at the New Brunswick Dept. of Forests, Mines and Energy Annual Review of Activities, Fredericton, November 25-26, 1985; extended abstract published in New Brunswick Dept. of Forests, Mines and Energy, Information Circular 85-3, p. 72-74, 1985.

1986-87

Paktunc, A.D., Eckstrand, O.R. and Simpson, P.R., Nickel-copper deposits of the St. Stephen Intrusion: Sulphur isotope and Se/S relations, at the GAC/MAC/CGU Joint Annual Meeting, Ottawa, May 20, 1986; abstract published in GAC/MAC/CGU Program with Abstracts, v. 11, p. 111, 1986.

Paktunc, A.D., Nickel-copper deposits of the St. Stephen intrusion: Special reference to platinum-group element concentrations, at the New Brunswick Department of Natural Resources and Energy Review of Activities, Fredericton, November 17-18, 1986; extended abstract published in the New Brunswick Department of Natural Resources and Energy, Information Circular 86-2, p. 125-128, 1986.

1.1.5 Compilation and evaluation of uranium mineralization (V. Ruzicka)

a) Publications

1986-87

Ruzicka, V. and LeCheminant, G.M., Uranium investigations in Canada, 1986; in Current Research, Part A, Geological Survey of Canada, Paper 87-1A, p. 249-262, 1987.

b) Open Files

1987-88

Venugopal, D.V., Uranium occurrences in New Brunswick, 1985; Geological Survey of Canada, Open File 1444, 108 p. 1 map, May 1987.

1988-89

Hassan, H.H., Hale, W.E. and Chrzanowski, M., Geology of uranium and associated elements in New Brunswick; Geological Survey of Canada, Open File 1769, 82 p. 2 maps, May 1988.

Hassan, H.H. and McAllister, A.L., Geological, geochemical and geophysical favourabilities for polymetallic vein-type mineralization in the Long Lake area and in the Miramichi anticlinorium, New Brunswick; Geological Survey of Canada, Open File 1821, 137 p., June 1988.

c) Posters

1985-86

Hassan, H.H., Metallogeny of polymetallic uranium occurrences, New Brunswick, at the New Brunswick Dept. of Forests, Mines and Energy Annual Review of Activities, Fredericton, November 25-26, 1985.

1986-87

Hassan, H.H., Hale, W.E., McAllister, A.L. and Ruzicka, V., Metallogeny of uranium in New Brunswick, at the New Brunswick Department of Natural Resources and Energy Annual Review of Activities, Fredericton, November 17-18, 1986.

1987-88

Hassan, H., Potential for uranium and associated element potential in the Miramichi anticlinorium, at the New Brunswick Dept. of Natural Resources and Energy Annual Review of Activities, Fredericton, November 23-24, 1987; abstract published in New Brunswick Dept. of Natural Resources and Energy, Information Circular 87-2, p. 125, 1987.

1988-89

Hassan, H.H. and McAllister, A.L., Uranium metallogenesis in granitic rocks of the Miramichi anticlinorium, at the New Brunswick Dept. of Natural Resources and Energy Annual Review of Activities, Fredericton, November 14-15, 1988; abstract published in New Brunswick Dept. of Natural Resources and Energy, Information Circular 88-2, p. 147, 1988.

d) Oral Presenttions

1987-88

Hassan, H., Polymetallic vein-type uranium deposits, Long Lake Area, Victoria County, north-central New Brunswick, at the Atlantic Geoscience Society 1987 Symposium, Fredericton, February 6-7, 1987; abstract published in Maritime Sediments and Atlantic Geology, v. 23, no. 2, p. 99, 1987.

1.1.6 Analytical Support (A.G. Plant)

Analytical data/results were provided directly to project geologists.

1.1.7 Platinum group elements of mafic-ultramafic rocks, Bathurst-Newcastle area (O.R. Eckstrand)

a) Publications

1987-88

Paktunc, A.D., The Portage Brook troctolite, a layered intrusion in the New Brunswick Appalachians; in Current Research, Part B, Geological Survey of Canada, Paper 88-1B, p. 149-154, 1988.

Paktunc, A.D., Nickel-copper sulphide mineralization associated with the Goodwin Lake intrusion, northern New Brunswick; in Current Research, Part B, Geological Survey of Canada, Paper 88-1B, p. 155-161, 1988.

1988-89

Paktunc, A.D. and Ketchum, J.W.F., Petrology, structural geology, and gold mineralization of the Elmtree mafic body, northern New Brunswick; in Current Research, Part B, Geological Survey of Canada, Paper 89-1B, p. 75-82, 1989.

b) Open Files

1988-89

Paktunc, D., Ketchum, J.W.F. and Watanabe, D., Geology of the Mechanic intrusion, New Brunswick; Geological Survey of Canada, Open File 2024, 1 map (1:10,000 scale), May 1989.

c) Posters

1986-87

Paktunc, A.D., The Portage Brook Intrusion, Bathurst-Newcastle district, at the New Brunswick Department of Natural Resources and Energy, Review of Activities, Fredericton, November 17-18, 1986; extended abstract published in New Brunswick Department of Natural Resources and Energy, Information Circular 86-2, p. 121-124, 1986.

Paktunc, A.D., Platinum-group element concentrations of nickel-copper occurrences associated with mafic-ultramafic rocks in the New Brunswick Appalachians, at the 55th Annual General Meeting and Convention of the Prospectors and Developers Association of Canada, Toronto, March 1987.

1987-88

Paktunc, A.D., Platinum-group element environments in New Brunswick, at the New Brunswick Dept. of Natural Resources and Energy Annual Review of Activities, Fredericton, November 23-24, 1987; extended abstract published in New Brunswick Dept. of Natural Resources and Energy, Information Circular 87-2, p. 132-136, 1987.

Paktunc, A.D., Mafic-ultramafic rocks in the New Brunswick Appalachians: Special reference to the platinum group element concentrations, at the Geological Survey of Canada Current Activities Forum, Ottawa, January 1988; and at the 56th Annual General Meeting and Convention of the Prospectors and Developers Association of Canada, Toronto, March 1988.

1988-89

Paktunc, A.D., Mafic-ultramafic rocks in New Brunswick and their platinum-group element potentials, at the New Brunswick Dept. of Natural Resources and Energy Annual Review of Activities, Fredericton, New Brunswick, November 14-15, 1988; abstract published in New Brunswick Dept. of Natural Resources and Energy, Information Circular 88-2, p. 152-155, 1988.

1989-90

Paktunc, A.D., Platinum-group element mineralization in the Mechanic intrusion of the Appalachian orogen, at IAGOD's 5th International Platinum Symposium, Espoo, Finland, August 1-3, 1989; abstract published in 5th International Platinum Symposium Abstracts, Bulletin of the Geological Society of Finland, no. 61, part 1, p. 33, 1989.

Paktunc, A.D., Walker, D.A. and Hulbert, L.J., Proton-microprobe analysis of platinum-group elements in sulfides from Bushveld and some Canadian nickel-copper sulfide occurrences, at IAGOD's 5th International Platinum Symposium, Espoo, Finland, August 1-3, 1989; abstract published in 5th International Platinum Symposium Abstracts, Bulletin of the Geological Society of Finland, no. 61, part 1, p. 54, 1989.

d) Oral Presentations

1988-89

Paktunc, A.D., Platinum-group elements associated with nickel-copper sulfide occurrences in some mafic-ultramafic intrusions of the Appalachian orogen, at the V.M. Goldschmidt Conference, Baltimore, Maryland, May 12, 1988; abstract in V.M. Goldschmidt Conference Program and Abstracts, p. 65, 1988.

1.2 REGIONAL GEOLOGY

1.2.1 Coldbrook Group and granites of the Caledonian Zone (K.L. Currie)

a) Publications

1986-87

Barr, S.M., Field relations, petrology and age of plutonic and associated metavolcanic and metasedimentary rocks, Fundy National Park area, New Brunswick; in Current Research, Part A, Geological Survey of Canada, Paper 87-1A, p. 263-280, 1987.

1987-88

Barr, S.M. and White, C.E., Field relations, petrology, and age of the northeastern Point Wolfe River pluton and associated metavolcanic and metasedimentary rocks, eastern Caledonian Highlands, New Brunswick; in Current Research, Part B, Geological Survey of Canada, Paper 88-1B, p. 55-67, 1988.

1988-89

Barr, S.M. and White, C.E., Petrochemistry of contrasting late Precambrian volcanic and plutonic associations, Caledonian Highlands, southern New Brunswick; Maritime Sediments and Atlantic Geology, v. 24, no.3, p. 353-372, 1988.

b) Open Files

1988-89

Barr, S.M., Geology of eastern Caledonian Highlands, New Brunswick; Geological Survey of Canada, Open File 1774, 1 map (1:50,000 scale) (NTS 21H/6, 10, 11, 14,15), May 1988.

Barr, S.M. and White, C.E., Revised geological maps of the central Caledonian Highlands, southern New Brunswick; Geological Survey of Canada, Open File 2071, 1 map (1:50,000 scale) (Parts of 21H/5, 6, 10, 11, 12, 14,15), July 1989.

c) Posters

1985-86

Barr, S.M. and White, C.E., Field relations, petrogenesis, age and economic potential of plutonic and associated metavolcanic rocks eastern Caledonia highlands, New Brunswick, at the New Brunswick Dept. of Forests, Mines, and Energy Annual Review of Activities, Fredericton, November 25-26, 1985; abstract published in New Brunswick Dept. of Forests, Mines and Energy, Information Circular 85-3, p.69, 1985.

1986-87

Barr, S.M. and White, C.E., Field relations, petrology, and age of granitoid rocks of the Point Wolfe pluton (eastern half) and associated metavolcanic and metasedimentary rocks, Caledonian Highlands, New Brunswick, at the New Brunswick Department of Natural Resources and Energy Annual Review of Activities, Fredericton, November 17-18, 1986; extended abstract published in New Brunswick Dept. of Natural Resources and Energy, Information Circular 86-2, p. 110-111, 1986.

1987-88

Barr, S.M. and White, C.E., Field relations, petrology, and age of the Point Wolfe River and Bonnell Brook plutons and associated metamorphic rocks, Caledonian Highlands, southern New Brunswick, at the New Brunswick Dept. of Natural Resources and Energy Annual Review of Activities, Fredericton, November 23-24, 1987; extended abstract published in New Brunswick Dept. of Natural Resources and Energy, Information Circular 87-2, p. 119-121, 1987.

Barr, S.M., White, C.E. and Macdonald, A.S., Metavolcanic and granitoid rocks of southeastern Cape Breton Island and southern New Brunswick: A comparison, at the Atlantic Geoscience Society, 1988 Colloquium, Antigonish, February 1988; abstract published in Maritime Sediments and Atlantic Geology, v. 24, no. 2, p. 186, 1988.

1988-89

Barr, S.M. and White, C.E., Field relations, petrology and economic potential of volcanic and plutonic rocks, eastern Caledonian Highlands, southern New Brunswick, at the New Brunswick Dept. of Natural Resources and Energy Annual Review of Activities, Fredericton, New Brunswick, November 14-15, 1988; abstract published in New Brunswick Dept. of Natural Resources and Energy, Information Circular 88-2, p. 131-133, 1988.

White, C.E. and Deveau, K.A., Petrology of the Brookville Gneiss and Golden Grove Intrusive Suite, southern New Brunswick, at the Atlantic Geoscience Society Colloquium on Current Research in the Atlantic Provinces, Amherst, Nova Scotia, February 3-4, 1989.

d) Oral Presentations

1985-86

Barr, S.M. and White, C.E., Geological mapping of plutonic and metavolcanic rocks, eastern Caledonian Highlands, New Brunswick, at the Atlantic Geoscience Society Colloquium, Amherst, January 17-18, 1986; abstract published in Maritime Sediments and Atlantic Geology, v. 22, no. 2, p. 177, 1986.

1987-88

Barr, S.M. and White, C.E., Petrology and tectonic setting of metavolcanic and granitoid rocks of the eastern Caledonian Highlands, southern New Brunswick, at the Geological Society of America, 23rd Annual Meeting, Northeastern Section, Portland, Maine, March 11, 1988.

1989-90

Barr, S.M. and Raeside, R.P., The Avalon Terrane of the northern Appalachian Orogen in Nova Scotia and New Brunswick, Canada, at the 28th International Geological Congress, Washington, D.C., July 18, 1989; abstract published in IGC Abstracts, v. 1, p. 1-91, 1989.

1.2.2 Welsford granite-volcanic complex (K.L. Currie)

a) Publications

1986-87

Payette, C., and Martin, R.F., The Welsford igneous complex, southern New Brunswick: Rift-related Acadian magmatism; in Current Research, Part A, Geological Survey of Canada, Paper 87-1A, p. 239-248, 1986.

b) Open Files

1987-88

Payette, C. and Martin, R.F., The Welsford anorogenic igneous complex, southern New Brunswick: Rift-related Acadian magmatism; Geological Survey of Canada, Open File 1727, 347 p., March 1988.

c) Posters

1985-86

Payette, C. and Martin, R.F., The Welsford granite-volcanic complex, at the New Brunswick Dept. of Forests, Mines and Energy Annual Review of Activities, Fredericton, November 25-26, 1985.

1986-87

Payette, C. and Martin, R.F., Mineralogy and geochemistry of the Welsford complex, southern New Brunswick, at the Geological Survey of Canada Current Activities Forum, Ottawa, January 1987.

d) Oral Presentations

1988-89

Martin, R.F. and Payette, C., The Welsford anorogenic complex, New Brunswick : Rift-related Acadian magmatism, at the GAC/MAC/CSPG Joint Annual Meeting, St. John's, Newfoundland, May 23, 1988; abstract published in GAC/MAC/CSPG Program with Abstracts, v. 13, p. A79, 1988.

1.2.3 Bathurst camp structure (C.R. van Staal)

a) Publications

1985-86

van Staal, C.R., Preliminary results of structural investigations in the Bathurst camp of northern New Brunswick; in Current Research, Part A, Geological Survey of Canada, Paper 86-1A, p. 193-204, 1986.

van Staal, C.R. and Williams, P.F., Structural interpretation of the Brunswick orebodies; in Geology in the real world - The Kingsley Dunham volume edited by R.W. Nesbitt and I. Nichol, Proceedings of the Dunham - Durham Reunion, April 14-17, 1985, presented by the Institution of Mining and Metallurgy, p. 451-462, 1986.

1987-88

van Staal, C.R., Tectonic setting of the Tetagouche Group in northern New Brunswick: Implications for plate tectonic models of the northern Appalachians; Canadian Journal of Earth Sciences, v. 24, no. 7, p. 1329-1351, 1987.

van Staal, C.R., Winchester, J., and Cullen, R., Evidence for D1 - related thrusting and folding in the Bathurst-Millstream River area, New Brunswick; in Current Research, Part B, Geological Survey of Canada, Paper 88-1B, p. 135-148, 1988.

1988-89

Van der Pluijm, B.A. and van Staal, C.R., Characteristics and evolution of the Central Mobile Belt, Canadian Appalachians; Journal of Geology, v. 96, no. 5, p. 535-547, 1988.

van Staal, C.R., Langton, J.P. and Sullivan, R.W., A U-Pb zircon age for the ophiolitic Deveraux Formation, Elmtree terrane, northeastern New Brunswick; in Radiogenic Age and Isotopic Studies: Report 2, Geological Survey of Canada, Paper 88-2, p. 37-40, 1988.

van Staal, C.R. and Williams, P.F., Collision along an irregular margin: A regional plate tectonic interpretation of the Canadian Appalachians - Discussion; Canadian Journal of Earth Sciences, v. 25, p. 1912-1916, November 1988.

c) Posters

1985-86

van Staal, C.R., Bathurst camp structure, at the New Brunswick Dept. of Forests, Mines and Energy Annual Review of Activities, Fredericton, November 25-26, 1985.

1986-87

van Staal, C.R., Structural geology of the northern Miramichi zone (Bathurst camp) and the Elmtree Inlier, at the New Brunswick Department of Natural Resources and Energy Annual Review of Activities, Fredericton, November 17-18, 1986; abstract published in New Brunswick Dept. of Natural Resources and Energy, Information Circular 86-2, p. 131, 1986.

1987-88

van Staal, C.R., Structural mapping in the Tetagouche Group, northern Miramichi Zone, New Brunswick, at the New Brunswick Dept. of Natural Resources and Energy Annual Review of Activities, Fredericton, November 23-24, 1987.

van Staal, C.R., Geology and structure of the Elmtree ophiolite and its relationships to the Tetagouche Group in northern New Brunswick, at the Geological Survey of Canada Current Activities Forum, Ottawa, January 1988.

1988-89

Langton, J. and van Staal, C.R., The relationship between the Elmtree and Miramichi terranes, at the New Brunswick Dept. of Natural Resources and Energy Annual Review of Activities, Fredericton, New Brunswick, November 14-15, 1988; abstract published in New Brunswick Dept. of Natural Resources and Energy, Information Circular 88-2, p. 151, 1988.

d) Oral Presentations

1985-86

van Staal, C.R., Geologic setting and structural evolution of the Brunswick massive sulfide deposits, at the GAC/MAC Joint Annual Meeting, Fredericton, May 17, 1985; abstract published in GAC/MAC Program with Abstracts, v. 10, p. A65, 1985.

van Staal, C.R., Deformation and metamorphism of the Tetagouche Group rocks in the Brunswick Mines area, New Brunswick, and its implications for regional tectonic interpretations, at the GAC/MAC Joint Annual Meeting, Fredericton, May 17, 1985; abstract published in GAC/MAC Program with Abstracts, v. 10, p. A65, 1985.

van Staal, C.R., Preliminary results of structural investigation in the Bathurst mining camp of northern New Brunswick, at the Geological Survey of Canada Current Activities Forum, Ottawa, January 1986; abstract published in Geological Survey of Canada Paper 86-8, p. 8, 1986.

van Staal, C.R. and Williams, P.F., Structural interpretation of the Brunswick orebodies, at the Dunham - Durham Reunion, commemorating the 75th birthday of Sir Kingsley Dunham, Durham, U.K., April 14-17, 1985.

1986-87

van Staal, C.R., The Tetagouche Group: Record of a Cambrian-early Ordovician passive margin and Middle Ordovician back-arc basin, at the Atlantic Geoscience Society 1987 Symposium, Fredericton, February 6-7, 1987; abstract published in Maritime Sediments and Atlantic Geology, v. 23, no. 2, p. 109, 1987.

1987-88

van Staal, C.R., Reinterpretation of the Tetagouche Group: Implications for plate tectonic models of the northern Appalachians, at the GAC/MAC Joint Annual Meeting, Saskatoon, May 26, 1987; abstract published in GAC/MAC Program with Abstracts, v. 12, p.99, 1987.

van Staal, C.R., A new look at the structural history of the Silurian Chaleur Group of northern New Brunswick: Evidence for a complex polyphase deformation history and dextral shear associated with F_3 folding, at the Atlantic Geoscience Society, 1988 Colloquium, Antigonish, February 5, 1988; abstract published in Maritime Sediments and Atlantic Geology, v. 24, no.2, p. 216, 1988.

van Staal, C.R., The Tetagouche Group, New Brunswick: Remnants of the formation and destruction of a Cambrian-Early Ordovician passive margin and Middle Ordovician back-arc marginal basin, at the Geological Survey of Canada Current Activities Forum, Ottawa, January 20, 1988 and at the Geological Society of America, 23rd Annual Meeting, Northeastern Section, Portland, Maine, March 11, 1988; abstract published in GSA-Northeastern Section Abstracts with Programs 1988, v. 20, no.1, p. 76, 1988

1988-89

Van der Pluijm, B.A., van Staal, C.R. and Williams, P.F., Characteristics and evolution of the Central Mobile Belt, Canadian Appalachians, at the GAC/MAC/CSPG Joint Annual Meeting, St. John's, Newfoundland, May 24, 1988; abstract published in GAC/MAC/CSPG Program with Abstracts, v. 13, p. A128, 1988.

van Staal, C.R. and Langton, J.P., Correlation between the Elmtree and Miramichi terranes : Evidence for the Caledonian orogeny in north-eastern New Brunswick, at the GAC/MAC/CSPG Joint Annual Meeting, St. John's, Newfoundland, May 24, 1988; abstract published in GAC/MAC/CSPG Program with Abstracts, v. 13, p. A129, 1988.

Winchester, J.A. and van Staal, C.R., Middle Ordovician volcanicity in northern New Brunswick: Geochemistry and probable tectonic setting, at the GAC/MAC/CSPG Joint Annual Meeting, St. John's, Newfoundland, May 24, 1988; abstract published in GAC/MAC/CSPG Program with Abstracts, v. 13, p. A135, 1988.

1989-90

Langton, J.P. and van Staal, C.R., Geology of the Ordovician Elmtree Terrane, at the GAC/MAC Annual Meeting, Montreal, Québec, May 15, 1989; abstract published in GAC/MAC Program with Abstracts, v. 14, p. A11, 1989.

1.2.4 Granites of central New Brunswick (K.L. Currie)

a) Publications

1985-86

Whalen, J.B., A-type granites in New Brunswick; in Current Research, Part A, Geological Survey of Canada, Paper 86-1A, p. 297-300, 1986.

1986-87

Whalen, J.B., Geology of a northern portion of the central plutonic belt, New Brunswick; in Current Research, Part A, Geological Survey of Canada, Paper 87-1A, p. 209-217, 1987.

1987-88

Bevier, M.L., Pb isotopic ratios of Paleozoic granitoids from the Miramichi terrane, New Brunswick and implications for the nature and age of basement rocks; in Radiogenic Age and Isotopic Studies, Geological Survey of Canada, Paper 87-2, p. 43-50, 1987.

1988-89

Fyffe, L., Barr, S.M. and Bevier, M.L., Origin and U-Pb geochronology of amphibolite-facies metamorphic rocks, Miramichi Highlands, New Brunswick; Canadian Journal of Earth Sciences, v. 25, no. 10, p. 1674-1686, 1989.

Whalen, J.B., Granitic rocks of New Brunswick and Gaspé, Québec: An overview from some current studies; in Mineral Deposits Associated with Siluro-Devonian Plutonism in the New Brunswick-Gaspé Sector, Geological Association of Canada Annual Meeting, Field Trip Guidebook B5, p. 18-26, 1989.

1989-90

Bevier, M.L. and Whalen, J.B., U-Pb geochronology of Silurian granites, Miramichi terrane, New Brunswick; in Radiogenic Age and Isotopic Studies: Report 3, Geological Survey of Canada, Paper 89-2, (in press).

Whalen, J.B., Geology of a northern portion of the central plutonic belt, New Brunswick; Geological Survey of Canada, Map 1751A (1:100,000 scale), (in press).

Whalen, J.B. and Theriault, R.J., K-Ar and Rb-Sr geochronology of granites, Miramichi terrane, New Brunswick; in Radiogenic Age and Isotopic studies: Report 3, Geological Survey of Canada, Paper 89-2, (in press).

b) Open Files

1988-89

Whalen, J.B., Geology of a northern portion of the central plutonic belt, New Brunswick (21O/1, 2, 7, 8); Geological Survey of Canada, Open File 1908, 1 map (1:50,000 scale), November 1988.

c) Posters

1985-86

Whalen, J.B., Study of granitoid rocks in New Brunswick, at the New Brunswick Dept. of Forests, Mines and Energy Annual Review of Activities, Fredericton, November 25-26, 1985; abstract published in New Brunswick Dept. of Forests, Mines and Energy, Information Circular 85-3, p. 70, 1985.

1986-87

Whalen, J.B. and Bevier, M.L., Studies of granitoid rocks in New Brunswick, at the New Brunswick Department of Natural Resources and Energy Annual Review of Activities, Fredericton, November 17-18, 1986; abstract published in New Brunswick Dept. of Natural Resources and Energy, Information Circular 86-2, p. 139-140, 1986.

1987-88

Whalen, J.B. and Bevier, M.L. Field, geochemical, and isotopic studies of granitic rocks in New Brunswick, at the Royal Society of Edinburgh and London, Conference on the Origin of Granites, Edinburgh, September 1987; and at the New Brunswick Dept. of Natural Resources and Energy Annual Review of Activities, Fredericton, November 23-24, 1987; and at the Geological Survey of Canada Current Activities Forum, Ottawa, January 1988; extended abstract published in New Brunswick Dept. of Natural Resources and Energy, Information Circular 87-2, p. 150-155, 1987.

1988-89

Bevier, M.L., U-Pb geochronologic studies of igneous rocks in New Brunswick, at the New Brunswick Dept. of Natural Resources and Energy Annual Review of Activities, Fredericton, November 14-15, 1988; extended abstract published in New Brunswick Dept. of Natural Resources and Energy, Information Circular 88-2, p. 134-140, 1988.

Whalen, J.B., Geological, geochemical and isotopic studies of granitic rocks in New Brunswick, at the New Brunswick Dept. of Natural Resources and Energy Annual Review of Activities, Fredericton, November 14-15, 1988; abstract published in New Brunswick Dept. of Natural Resources and Energy, Information Circular 88-2, p. 172-177, 1988.

d) Oral Presentations

1987-88

Bevier, M.L., Timing of Paleozoic plutonism in the Miramichi Terrane, New Brunswick, at the Geological Society of America, 23rd Annual Meeting, Northeastern Section, Portland, Maine, March 11, 1988; abstract published in GSA-Northeastern Section Abstracts with Programs 1988, v. 20, no. 1, p. 7, 1988.

1988-89

Bevier, M.L., Lead isotopic evidence for distinct sources of granite and for distinct basements in the northern Appalachians, New Brunswick, at the GAC/MAC/CSPG Joint Annual Meeting, St. John's, Newfoundland, May 23, 1988; abstract published in GAC/MAC/CSPG Program with Abstracts, v. 13, p. A10, 1988.

Bevier, M.L. and Whalen, J.B., Implications of Silurian magmatism for tectonic evolution of the Canadian Appalachians, at the GSA Annual Meeting, Denver, Colorado, November 2, 1988; abstract published in GSA Abstract with Programs, v. 20, no. 7, p. A3, 1988.

Roddick, J.C. and Bevier, M.L., Conventional and ion microprobe U-Pb ages of two Paleozoic granites, Miramichi Terrane, New Brunswick, at the GAC/MAC/CSPG Joint Annual Meeting, St. John's, Newfoundland, May 25, 1988; abstract published in GAC/MAC/CSPG Program with Abstracts, v. 13, p. A105, 1988.

Whalen, J.B., Granitic rocks of New Brunswick and Gaspé, Québec : A transect across the southern Canadian Appalachians, at the GAC/MAC/CSPG Joint Annual Meeting, St. John's, Newfoundland, May 25, 1988; abstract published in GAC/MAC/CSPG Program with Abstracts, v. 13, p. A133, 1988.

1989-90

Whalen, J.B., Hegner, E. and Jenner, G.A., Nature of Canadian Appalachian basement terranes as inferred from a Nd isotopic transect, at the Geological Society of America Annual General Meeting; abstract published in Program with Abstracts, v. 21, no. 7, (in press).

1.2.5 Albert Formation structure, diagenesis (K.L. Currie)

a) Publications

1986-87

Leger, A. and Williams, P.F., Transcurrent faulting history of southern New Brunswick; in Current Research, Part B, Geological Survey of Canada, Paper 86-1B, p. 111-120, 1986.

b) Open Files

1988-89

Chowdhury, A. and Noble, J.P.A., Provenance, diagenesis and geochemistry of the Albert Formation, eastern New Brunswick; Geological Survey of Canada, Open File 1997, 129 p., April 1989.

c) Posters

1985-86

Leger, A., The Belleisle Fault, southern New Brunswick, at the New Brunswick Dept. of Forests, Mines and Energy Annual Review of Activities, Fredericton, November 25-26, 1985.

1987-88

Chowdhury, A.H. and Noble, J.P.A., Diagenesis of the Albert Formation: Moncton subbasin, New Brunswick, at the New Brunswick Dept. of Natural Resources and Energy Annual Review of Activities, Fredericton, November 23-24, 1987; and at the 1988 Atlantic Geoscience Society Colloquium, Antigonish, Nova Scotia, February 1988; extended abstract published in New Brunswick Dept. of Natural Resources and Energy, Information Circular 87-2, p. 105-108, 1987; and in Maritime Sediments and Atlantic Geology, v. 24, no. 2, p. 190, 1988.

1988-89

Chowdhury, A.H. and Noble, J.P.A., Diagenesis of the Albert Formation, Moncton Sub-basin, New Brunswick, at the GAC/MAC/CSPG Joint Annual Meeting, St. John's, Newfoundland, May 23, 1988; abstract published in GAC/MAC/CSPG Program with Abstracts, v. 13, p. A20, 1988.

Chowdhury, A.H. and Noble, J.P.A., Sedimentology, diagenesis, and organic geochemistry of the Albert Formation, Moncton subbasin, New Brunswick, at the New Brunswick Dept. of Natural Resources and Energy Annual Review of Activities, Fredericton, November 14-15, 1988; abstract published in New Brunswick Dept. of Natural Resources and Energy, Information Circular 88-2, p. 141-144, 1988.

d) Oral Presentations

1988-89

Chowdhury, A.H., Diagenesis of Albert Formation, at the New Brunswick Dept. of Natural Resources and Energy Annual Review of Activities, Fredericton, New Brunswick, November 15, 1988.

Chowdhury, A.H., Fowler, M.G., Noble, J.P.A., Brooks, P. and Snowden, L.R., Petroleum geochemistry of the Albert Formation, Moncton Subbasin, New Brunswick, at the GAC/MAC Annual Meeting, Montreal, Québec, May 17, 1989; abstract published in GAC/MAC Program with Abstracts, v. 14, p. A132, 1989.

1.2.6 Tetagouche Group chemistry (K.L. Currie)

c) Posters

1988-89

Gariépy, C. and David, J., Lithogeochemistry of the Lower Tetagouche Group in the Woodstock area, central New Brunswick, at the New Brunswick Dept. of Natural Resources and Energy Annual Review of Activities, Fredericton, New Brunswick, November 14-15, 1988; abstract published in New Brunswick Dept. of Natural Resources and Energy, Information Circular 88-2, p. 145-146, 1988.

Gariépy, C. and David, J., Lithogeochemistry of the Lower Tetagouche Group in the Woodstock area, central New Brunswick, at the GAC/MAC Annual Meeting, Montreal, Québec, May 16, 1989; abstract published in GAC/MAC Program with Abstracts, v. 14, p. A87, 1989.

d) Oral Presentations

1988-89

David, J., Gariépy, C., Desbiens, H. and Godue, R., Trace and rare-earth element characterization of fine-grained sedimentary units from the northern Appalachians, at the GAC/MAC Annual Meeting, Montreal, Québec, May 15, 1989; abstract published in GAC/MAC Program with Abstracts, v. 14, p. A10, 1989.

1.2.7 Passamaquoddy Bay volcanics (K.L. Currie)

a) Publications

1987-88

Van Wagoner, N.A. and Fay, V.K., Stratigraphy and volcanology of a portion of the Lower Devonian volcanic rocks of southwestern New Brunswick; in Current Research, Part B, Geological Survey of Canada, Paper 88-1B, p. 69-78, 1988.

1988-89

Van Wagoner, N.A., McNeil, W. and Fay, V., Early Devonian bimodal volcanic rocks of southwestern New Brunswick: Petrography, stratigraphy, and depositional setting; Maritime Sediments and Atlantic Geology, v. 24, no. 3, p. 301-319, 1988.

c) Posters

1986-87

Van Wagoner, N.A., Volcanic stratigraphy and physical volcanology of part of the Devonian volcanic sequence, Passamaquoddy Bay, southwest New Brunswick: A progress report, at the New Brunswick Department of Natural Resources and Energy Annual Review of Activities, Fredericton, November 17-18, 1986; extended abstract published in New Brunswick Dept. of Natural Resources and Energy, Information Circular 86-2, p. 132-135, 1986.

1987-88

Van Wagoner, N.A., McNeil, W., and Thicke, M., Volcanism of the eastern portion of the Devonian volcanic belt of Passamaquoddy Bay, southwestern New Brunswick: A progress report, at the New Brunswick Dept. of Natural Resources and Energy Annual Review of Activities, Fredericton, November 23-24, 1987; extended abstract published in New Brunswick Dept. of Natural Resources and Energy, Information Circular 87-2, p. 145-147, 1987.

1988-89

Van Wagoner, N.A., Baldwin, D. and Dadd, K., Volcanological studies of the early Devonian coastal volcanic belt of southwestern New Brunswick, at the New Brunswick Dept. of Natural Resources and Energy Annual Review of Activities, Fredericton, November 14-15, 1988; abstract published in New Brunswick Dept. of Natural Resources and Energy, Information Circular 88-2, p. 159-162, 1988.

d) Oral Presentations

1987-88

McNeil, W. and Van Wagoner, N.A., Stratigraphy and physical volcanology of the eastern portion of the Devonian volcanic belt of northern Passamaquoddy Bay, New Brunswick, at the Atlantic Geoscience Society, 1988 Colloquium, Antigonish, February 6, 1988; abstract published in Maritime Sediments and Atlantic Geology, v. 24, no. 2, p. 204, 1988.

Van Wagoner, N.A., McNeil, W. and Thicke, M., Volcanism of the eastern portion of the Devonian volcanic belt of Passamaquoddy Bay, southwestern New Brunswick, at the Geological Society of America, 23rd Annual Meeting, Northeastern Section, Portland, Maine, March 10, 1988; abstract published in GSA-Northeastern Section Abstracts with Programs 1988, v. 20, no. 1, p. 76, 1988.

1988-89

Baldwin, D.K., Physical volcanology of an Early Devonian volcanic sequence, Passamaquoddy Bay, southwestern New Brunswick, at the Atlantic Geoscience Society Colloquium on Current Research in the Atlantic Provinces, Amherst, Nova Scotia, February 3-4, 1989.

Dadd, K.A., Van Wagoner, N.A., Baldwin, D.K. and McNeil, W., Cyclic, bimodal volcanism in a Siluro-Devonian continental volcanic zone: The Eastport Formation, southwestern New Brunswick, at the Atlantic Geoscience Society Colloquium on Current Research in the Atlantic Provinces, Amherst, Nova Scotia, February 3-4, 1989.

Van Wagoner, N.A., Dadd, K., Baldwin, D.K. and McNeil, W., Eruptive mechanisms and depositional styles of basaltic rocks in the Siluro-Devonian Eastport Formation, southwestern New Brunswick, at the GAC/MAC Annual Meeting, Montreal, Québec, May 17, 1989; abstract published in GAC/MAC Program with Abstracts, v. 14, p. A122, 1989.

1.3 GEOCHEMISTRY

1.3.1 Selected areas (P.W.B. Friske)

a) Publications

1986-87

Friske, P.W.B., Reconnaissance stream sediment and water surveys and related studies in New Brunswick; in New Brunswick Dept. of Natural Resources and Energy, Information Circular 86-2, p. 112-115, 1986.

1987-88

Friske, P.W.B., Reconnaissance drainage-sediment and water surveys; at the New Brunswick Dept. of Natural Resources and Energy, Information Circular 87-2, p. 122-124, 1987.

b) Open Files

1986-87

Regional stream sediment and water geochemical reconnaissance data, New Brunswick (parts of 21O/9, 10, 11, 13, 14, 15, 16; 22B/1, 2); Geological Survey of Canada, Open File 1211, 88 p., 25 maps, July 1986.

1987-88

Regional stream sediment and water geochemical reconnaissance data, southeastern New Brunswick (parts of 21G/1, 8; 21H/4, 5, 6, 10, 11, 12, 14, 15); Geological Survey of Canada, Open File 1355, 120 p., 50 maps, June 24, 1987.

1988-89

Regional stream and lake sediment and water geochemical reconnaissance data, province of New Brunswick (parts of 21G and 21H); Geological Survey of Canada, Open File 1638, 80 p., 52 maps, August 9, 1988.

1989-90

Regional stream sediment and water geochemical reconnaissance data, New Brunswick (21O/8 (E 1/2), 21P/5 (W 1/2)); Geological Survey of Canada, Open File 1955, 60 p. 26 maps, August 17, 1989.

Regional stream sediment and water geochemical reconnaissance data, New Brunswick (21O/1 (E 1/2), 21P/4 (W 1/2)); Geological Survey of Canada, Open File 1954, 60p., 26 maps, August 17, 1989.

Regional stream sediment and water geochemical reconnaissance data, New Brunswick (21O/3); Geological Survey of Canada, Open File 1953, 60p., 26 maps, July 27, 1989.

c) Posters

1986-87

Friske, P.W. and McCurdy, M.W., Recent geochemical surveys and studies related to gold, tin and tungsten exploration in New Brunswick, at the Geological Survey of Canada Current Activities Forum, Ottawa, January 1987.

Friske, P.W.B. and McCurdy, M.W., Reconnaissance stream sediment and water surveys and related geochemical studies in New Brunswick, at the New Brunswick Department of Natural Resources and Energy Annual Review of Activities, Fredericton, November 17-18, 1986.

1.4 GEOPHYSICS

1.4.1 Airborne gamma ray spectrometer and VLF surveys (R.B.K. Shives)

a) Publications

1986-87

Geological Survey of Canada, Geophysical series maps of an airborne gamma ray spectrometric, VLF and magnetic survey, Miramichi Highlands, New Brunswick; Geological Survey of Canada, maps 36521(1)G-Big Bald Mountain; 36521(2)G-Serpentine Lake; 36521(7)G-Nepisiguit Lakes, 36521(8)G-California Lake; 36021(10)G-Hayesville (W'); 36021(15)G-Tuadook Lake; 36021(16)G-McKendrick Lake; scale 1:50 000 radiometric contour maps with accompanying 1:150,000 stacked profile booklets; and map 39002G, scale 1:250,000 VLF profile map of entire survey area, April 29, 1986.

1987-88

Geological Survey of Canada, Geophysical series maps of an airborne gamma ray spectrometer survey with VLF and magnetics, Campbellton-Bathurst Area, New Brunswick; 1:50,000 radiometric contour maps with accompanying 1:150,000 stacked profile booklets, including: 36521(9)G - Tetagouche Lake; 36521(10)G - Upsalquitch Forks; 36521(15)G - Atholville-Oak Bay; 36621(5)G - Nepisiguit Falls; 36621(12)G - Bathurst; 36621(13)G - Point Verte; and 1:250,000 VLF total field and quadrature profile maps of the entire survey area, October 27, 1987.

Geological Survey of Canada, Gamma ray spectrometry, Miramichi Highlands, New Brunswick, coloured radiometric contour maps 35003G and 35004G, scale 1:250,000, March 1988.

1988-89

Geological Survey of Canada, Airborne gamma ray spectrometric, VLF and magnetic surveys, Woodstock/Fredericton area, New Brunswick; 1:50,000 radiometric contour maps with accompanying booklets of stacked profiles, including: 35721(03)G-St. Stephen; 35721(06)G-Rollingdam; 35721(10)G-Fredericton Junction; 35721(11)G-McAdam; 35721(12)G-Forest City; 35721(13)G-Fosterville; 35721(14)G-Canterbury; 35721(15)G-Fredericton; 36021(02)G-Burtt's Corner; 36021(03)G-Millville; 36021(04)G-Woodstock; 36021(05)G-Florenceville; 36021(06)G-Coldstream; 36021(07)G-Napadogan; and, VLF total field, VLF quadrature and magnetic profile maps at 1:250,000 scale of entire survey area, July 27, 1988.

Geological Survey of Canada, Airborne gamma ray spectrometric, VLF and magnetic survey, Andover-Riley Brook area, New Brunswick, 1:50,000 radiometric contour maps (7 parameters) with accompanying stacked profile booklets (11 parameters), including 36521(06)G-E 1/2-Sisson Branch Reservoir; 36521(03)G-Riley Brook; 36521(04)G-E 1/3-Grand Falls; 36021(13)G-Aroostock; 36021(14)G-Plaster Rock; 36021(12)G-Perth-Andover; 36021(11)G-(West half)Juniper; and, 1:50,000 VLF total field VLF quadrature and magnetic profile maps, December 7, 1988.

c) Posters**1986-87**

Shives, R.B.K., Broome, J., Holman, P.B., Carson, J.M. and Grant, J.A., New Brunswick ternary radioelement mapping, at the New Brunswick Department of Natural Resources and Energy Annual Review of Activities, Fredericton, November 17-18, 1986.

1987-88

Shives, R.B.K., Gamma ray spectrometer maps, New Brunswick, at the New Brunswick Dept. of Natural Resources and Energy Annual Review of Activities, Fredericton, November 23-24, 1987.

1988-89

Shives, R.B.K., Airborne gamma ray spectrometry surveys in New Brunswick, at the New Brunswick Dept. of Natural Resources and Energy Annual Review of Activities, Fredericton, New Brunswick, November 14-15, 1988.

1989-90

Ford, K.L., Shives, R.B.K., Carson, J.M., Grant, J.A., Holman, P.B. and Hetu, R., Application of regional airborne gamma ray spectrometry in the Appalachian region of Canada, at the 28th International Geological Congress, Washington, D.C., July 11, 1989; abstract published in IGC Abstracts, vol. 1, p. 1-500, 1989.

1.4.2 Aeromagnetic gradiometer and VLF surveys (E.E. Ready)

a) Publications

1986-87

Geological Survey of Canada, High resolution aeromagnetic total field and vertical gradiometer surveys in the Bathurst area, New Brunswick; Geological Survey of Canada maps: 21142G to 21158G, scale 1:20,000 - Aeromagnetic Total field; 41142G to 41158G, scale 1:20,000 - Vertical Gradient; C21159G to C21165G, scale 1:50,000 - combined Aeromagnetic Total field and VLF EM total field profiles; C41165G to C41165G, scale 1:50,000 - combined aeromagnetic vertical gradient and VLF EM quadrature profiles, December 1986.

Geological Survey of Canada, High resolution aeromagnetic total field and vertical gradiometer surveys in the Tobique River area, New Brunswick, Geological Survey of Canada maps 21293G to 21305G - scale 1:20,000 - Aeromagnetic Total field; and 41293G to 41305G, scale 1:20,000 - Vertical Gradient, May 1987.

1987-88

Geological Survey of Canada, High resolution aeromagnetic total field maps and vertical gradient maps in New Brunswick; maps: C21306G to C21310G (1:50,000 scale aeromagnetic total field); C41306G to C41310G (1:50,000 scale vertical gradient), 1987.

Geological Survey of Canada, High resolution aeromagnetic total field and vertical gradiometer surveys in the Tobique River area, New Brunswick, aeromagnetic total field maps 21293G to 21305G (scale 1:20,000) and vertical gradient maps 41293G to 41305G (scale 1:20,000); May 26, 1987.

1988-89

Ellis, B., Teskey, D.J. and Ready, E.E., Aeromagnetic total field, gradiometer, and VLF-EM survey of an area southwest of Bathurst, New Brunswick; in Current Research, Part B, Geological Survey of Canada, Paper 89-1B, p. 107-113, 1989.

Geological Survey of Canada, High resolution aeromagnetic total field and vertical gradiometer surveys in New Brunswick (Part of 21P/4, 21O/1, 21O/2, 21O/7, 21O/8 and 21O/10), 1:20,000 aeromagnetic total field maps (21395G to 21411G); 1:20,000 vertical gradient maps (41395G to 41411G), June 1988.

Geological Survey of Canada, High resolution aeromagnetic total field and vertical gradiometer surveys in the Bathurst area, New Brunswick, 1:50,000 scale combined aeromagnetic (residual total field) and VLF-EM total field profiles, maps C21413G-NTS 21O/1; C21310G (edition 2)-NTS 21O/2; C21414G-NTS 21O/7; C21159G (edition 2)-NTS 21O/8; C21415G-NTS 21O/10; C21412G-NTS 21P/4 (west), October 24, 1988.

Teskey, D., Ready, E.E. and Ellis, B., Aeromagnetic, gradiometer, VLF survey Bathurst, New Brunswick, 1986-1987; in New Brunswick Dept. of Natural Resources and Energy, Information Circular 88-2, p. 156-158, 1988.

c) Posters

1987-88

Aeromagnetic contract survey group at the Geological Survey of Canada, Aeromagnetic total field, gradiometer, VLF surveys: New Brunswick, at the Geological Survey of Canada Current Activities Forum, Ottawa, January 1988.

Ready, E., Ellis, B. and Teskey, D., Aeromagnetic total field, gradiometer, VLF surveys, New Brunswick, at the New Brunswick Dept. of Natural Resources and Energy Annual Review of Activities, Fredericton, November 23-24, 1987; abstract published in New Brunswick Dept. of Natural Resources and Mines, Information Circular 87-2, p. 137-140, 1987.

1988-89

Ready, E.E., Ellis, B.M. and Teskey, D.J., New Brunswick MDA-Aeromagnetic total field, gradiometer, VLF survey 1986-87, at the Geological Survey of Canada Current Activities Forum, Ottawa, Ontario, January 16-18, 1989.

1.4.3 Miramichi earthquake epicentre gamma ray and VLF (R.B.K. Shives)

b) Open Files

1987-88

Geological Survey of Canada, Airborne gamma ray spectrometric colour maps and VLF-EM profile maps, Holmes Lake Area, New Brunswick (parts of 21 J/15, 21 O/2); Open File 1548, September 24, 1987.

1.4.4 Compilation, gamma ray flown area (R.B.K. Shives)

a) Publications

1986-87

Geological Survey of Canada, Geophysical series maps of an airborne gamma ray spectrometer, VLF and magnetic survey, St. George-Saint John Region, New Brunswick; Geological Survey of Canada, maps 35721(1)G, 35721(2)G 35721(7)G and 35721(8)G, scale 1:50,000 radiometric contour maps with accompanying 1:150,000 stacked profile booklets; and map 39003G, scale 1:250,000 VLF profile map of entire survey area, May 28, 1986.

1.4.5 Follow-up of airborne gamma ray and VLF (R.B.K. Shives)

b) Open Files

1988-89

Geological Survey of Canada, Detailed airborne gamma ray spectrometric, VLF and magnetic survey, Mount Pleasant caldera, New Brunswick (Parts of 21G/7 and 10); Geological Survey of Canada, Open File 1946, 77p., 11 colour maps (1:100,000 scale); 3 profile maps; flight line map; combined geology and topographic base clear overlay; geology legend, notes and index maps; and 114 stacked profiles, March 29, 1989.

c) Posters

1987-88

Burton, D.M. and Shives, R.B.K., Application of airborne gamma spectrometer surveys to mineral exploration in northern New Brunswick, at the Atlantic Geoscience Society, 1988 Colloquium, Antigonish, February 1988; abstract published in Maritime Sediments and Atlantic Geology, v. 24, no. 2, p. 188, 1988.

1.5 SURFICIAL GEOLOGY AND TILL GEOCHEMISTRY

1.5.1 Drift prospecting (M. Lamothe, UQAM)

a) Publications

1985-86

Rappol, M., Ice movements in Madawaska and Victoria Counties, northwestern New Brunswick; in Contributions to the Quaternary Geology of Northern Maine and Adjacent New Brunswick, edited by Kite, J.S., Lowell, T.V., and Thompson, W.B., Maine Geological Survey, Bulletin 37, p. 103-111, 1986.

1986-87

Lamothe, M., Reconnaissance geochemical sampling of till, south-central Miramichi zone, New Brunswick; in Current Research, Part B, Geological Survey of Canada, Paper 86-1B, p. 279-287, 1986.

Rappol, M., Aspects of ice flow patterns, glacial sediments, and stratigraphy in northwest New Brunswick; in Current Research, Part B, Geological Survey of Canada, Paper 86-1B, p. 223-237, 1986.

1987-88

Rappol, M., Glacial dispersal of Deboullie syenite, northern Maine, into western New Brunswick; in Current Research, Part B, Geological Survey of Canada, Paper 88-1B, p. 49-53, 1988.

1988-89

Pronk, A.G. and Lamothe, M., Quaternary geology, till geochemistry and gold exploration in northern New Brunswick; in Proceedings of the 8th International Symposium on Prospecting in Areas of Glaciated Terrain, CIM-IMM, Halifax, Nova Scotia, p. 81-101, 1988.

b) Open Files

1988-89

Lamothe, M., Till geochemistry over the northern part of the Miramichi zone and vicinity (New Brunswick): A progress report; Geological Survey of Canada, Open File 1909, 80 p., 7 maps, October 1988.

Lamothe, M., Till geochemistry over the central part of the Miramichi zone and vicinity, New Brunswick : A progress report; Geological Survey of Canada, Open File 1967, 70 p., 6 maps (1:250,000), January 31, 1989.

c) Posters

1985-86

Lamothe, M., Rappol, M., and Shilts, W.W., Till geochemistry project, Miramichi Zone, New Brunswick, at the New Brunswick Dept. of Forests, Mines and Energy, Fredericton, November 25-26, 1985.

1986-87

Lamothe, M. and Plouffe, A., A progress report on the surficial geology and till geochemistry project, Miramichi Zone, New Brunswick, at the New Brunswick Department of Natural Resources and Energy Annual Review of Activities, Fredericton, November 17-18, 1986; extended abstract published in New Brunswick Dept of Natural Resources and Energy, Information Circular 86-2, p. 119-120, 1986.

1987-88

Lamothe, M., Drift prospecting over the Miramichi Zone: A summary of activities, 1985-1987, at the New Brunswick Dept. of Natural Resources and Energy Annual Review of Activities, Fredericton, November 23-24, 1987; abstract published in New Brunswick Dept. of Natural Resources and Energy, Information Circular 87-2, p. 130-131, 1987.

Lamothe, M., Preliminary results of Rotasonic overburden drilling, backhoe trenching and geochemical till sampling, Miramichi Zone, New Brunswick, M. Lamothe, at the Geological Survey of Canada Current Activities Forum, Ottawa, January 1988.

1988-89

Lamothe, M., Geochemistry of gold in till, northern and central Miramichi zone and its vicinity, New Brunswick, at the New Brunswick Dept. of Natural Resources and Energy Annual Review of Activities, Fredericton, November 14-15, 1988; abstract published in New Brunswick Dept. of Natural Resources and Energy, Information Circular 88-2, p. 148-150, 1988.

d) Oral Presentations**1986-87**

Lamothe, M., Quaternary geology and till geochemistry in central and northern New Brunswick, at the Geological Survey of Canada Current Activities Forum, Ottawa, January 20-21, 1987; abstract published in Geological Survey of Canada, Paper 87-7, p. 2, 1987.

Lamothe, M., Shilts, W.W., and Plouffe, A., Till depositional processes and mineral exploration, central New Brunswick, at the GAC/MAC/CGU Joint Annual Meeting, Ottawa, May 19, 1986; abstract published in GAC/MAC/CGU, Program with Abstracts, v. 11, p. 93, 1986.

1987-88

Bobrowsky, P.T., Lamothe, M. and Shilts, W.W., Late Quaternary glaciation and deglaciation in the Baie des Chaleurs area, northern New Brunswick, at the GAC/MAC Joint Annual Meeting, Saskatoon, May 26, 1987; abstract published in GAC/MAC, Program with Abstracts, v. 12, p. 26, 1987.

Lamothe, M. and Gagnon, L., The nature and distribution of gold in till, central and northern New Brunswick, at the 89th Annual General Meeting of CIM, Toronto, May 5, 1987; abstract published in CIM Bulletin, v. 80, no. 899, p. 65, 1987.

Lamothe, M., Plouffe, A., and Sacre, J., Stratigraphy, lithology and geochemistry of till in the vicinity of tin-bearing granites; central New Brunswick, at the International Union for Quaternary Research, XII International Congress, Ottawa, August 1, 1987; abstract published in INQUA 1987, Programme with Abstracts, p. 206, 1987.

1988-89

Lamothe, M., Parent, M. and Shilts, W.W., Early Wisconsinan events in the St. Lawrence Lowlands and in the Appalachians of southern Québec, at the GSA Annual Meeting, Denver, Colorado, October 30, 1988; abstract published in GSA Abstract with Programs, v. 20, no. 7, p. A3, 1988.

Pronk, A.G. and Lamothe, M., Quaternary geology, till geochemistry and gold exploration in northern New Brunswick, at the 8th International Symposium on Prospecting in Areas of Glaciated Terrain, Halifax, Nova Scotia, September 2, 1988.

1989-90

Lamothe, M., Le relief géochimique des dépôts glaciaires de surface, zone de Miramichi, Nouveau-Brunswick, at the GAC/MAC Annual Meeting, Montreal, Quebec, May 17, 1989; abstract published in GAC/MAC Program with Abstracts, v. 14, p. A112, 1989.

1.6 OVERHEAD

1.6.1 Overhead cost (W.H. Poole)

No outputs.

1.7 TRANSFER TO PROVINCE

1.7.1 Heath Steele structure (J.L. Davies, NBDNRE)

Project implemented by New Brunswick Dept. of Natural Resources and Energy with joint funding. See New Brunswick Dept. of Natural Resources and Energy for outputs.

1.7.2 Data acquisition on metallic minerals in EDP format (G.P. Watson)

Project implemented by New Brunswick Dept. of Natural Resources and Energy with shared funding. See New Brunswick Dept. of Natural Resources and Energy for outputs.

1.7.3 Age and isotopic character of plutonic rocks from the Miramichi and related terranes, New Brunswick (K.L. Currie)

Project implemented by New Brunswick Dept. of Natural Resources and Energy with transferred federal funds. Outputs included in project C1.2.4.

PUBLIC INFORMATION, EVALUATION AND ADMINISTRATION

Co-ordination of federal geoscience program (W.H. Poole)

c) Posters

1984-85

Mineral Development Program Office, Index map showing location of GSC projects within New Brunswick MDA during 1984-85, at the New Brunswick Dept. of Natural Resources Annual Review of Activities, Fredericton, November 27-28, 1984.

1985-86

Mineral Development Program Office, Index map showing location of GSC projects within New Brunswick MDA during 1985-86, at the New Brunswick Dept. of Natural Resources and Energy Annual Review of Activities, Fredericton, November 25-26, 1985.

1986-87

Mineral Development Program Office, Index map showing location of GSC projects within New Brunswick MDA during 1986-87, at the New Brunswick Dept. of Natural Resources and Energy Annual Review of Activities, Fredericton, November 17-18, 1986.

1987-88

Mineral Development Program Office, Index map showing location of GSC projects within New Brunswick MDA during 1987-88, at the New Brunswick Dept. of Natural Resources and Energy Annual Review of Activities, Fredericton, November 23-24, 1987.

1988-89

Mineral Development Program Office, Index map showing location of GSC projects within New Brunswick MDA during 1988-89, at the New Brunswick Dept. of Natural Resources and Energy Annual Review of Activities, Fredericton, November 14-15, 1988.

d) Oral Presentations

1984-85

Anderson, F.D., GSC projects within the New Brunswick MDA during 1984-85, at the New Brunswick Dept. of Natural Resources Annual Review of Activities, Fredericton, November 27-28, 1984

1985-86

Anderson, F.D., GSC projects within the New Brunswick MDA during 1985-86, at the New Brunswick Dept. of Natural Resources and Energy Annual Review of Activities, Fredericton, November 25, 1985.

1986-87

Anderson, F.D., GSC projects within the New Brunswick MDA during 1986-87, at the New Brunswick Dept. of Natural Resources and Energy Annual Review of Activities, Fredericton, November 17, 1986.

1987-88

Poole, W.H., GSC projects within the New Brunswick MDA during 1987-88, at the New Brunswick Dept. of Natural Resources and Energy Annual Review of Activities, Fredericton, November 23, 1987.

1988-89

Currie, K., GSC projects within the New Brunswick MDA during 1988-89, at the New Brunswick Dept. of Natural Resources and Energy Annual Review of Activities, Fredericton, November 14, 1988.

