

# CONTENTS

Page

## REGIONAL GEOLOGY—LABRADOR

1. **A. Cadman, D. Harris and B. Ryan** An investigation of some metamorphosed mafic dykes of the Nain area, Labrador: Part 1..... 1
2. **C.F. Gower, T. van Nostrand, V. Peckham and J. Anderson** Geology of the Upper St. Lewis River map region, southeast Labrador..... 17
3. **D.T. James, D.H. Johnston and L. Crisby-Whittle** Geology of the Eastern Churchill Province in the Smallwood Reservoir area, western Labrador..... 35
4. **D.T. James and K.L. Mahoney** Geology of the Archean Ashuanipi Complex, west of Labrador City, Labrador..... 51
5. **B. Ryan** Further results of mapping gneissic and plutonic rocks of the Nain area, Labrador ..... 61
6. **R.J. Wardle, M.J. Van Kranendonk, F. Mengel, D. Scott, S. Schwarz, B. Ryan and D. Bridgwater** Geological mapping in the Torngat Orogen, northernmost Labrador: Report 2. .... 77
7. **D.H.C. Wilton, R.A. Churchill and J.K. Saunders** Stratigraphy and metallogeny of the Cod Island and Calm Cove formations, Mugford Group, northern Labrador..... 91

## TERRAIN SCIENCES

8. **M. Batterson and B. McGrath** Quaternary geology of the Deer Lake and Pasadena map areas (NTS 12H/3 and 12H/4)..... 103
9. **D. Bragg** Alkali-aggregate reactivity in Newfoundland: field and laboratory investigations ..... 113
10. **D. Liverman and H. Vatcher** Surficial geology of the Cavers and Hollinger lake areas (NTS 23J/9 and 16), Labrador..... 127
11. **C. MacKenzie and N.R. Catto** Quaternary geology of the Botwood (NTS 2E/3) map area ..... 139
12. **M. Munro and N. Catto** Quaternary geology of the Carmanville map area (NTS 2E/8)..... 149
13. **M.J. Ricketts and F. House** Granular aggregate-resource mapping of the west and northern tip of the Great Northern Peninsula, Newfoundland..... 161
14. **D.M. Taylor and S. Vatcher** Late Wisconsinan deglacial ice-flow patterns in west-central Newfoundland ..... 175

## REGIONAL GEOLOGY—NEWFOUNDLAND

15. **W.D. Boyce, J.S. Ash and S.P. Colman-Sadd** Trilobite-based age determination of the Riches Island Formation (Baie d'Espoir Group) in the St. Alban's map area (NTS 1M/13), central Newfoundland ..... 181
16. **W.D. Boyce, J.S. Ash and W.L. Dickson** The significance of a new bivalve fauna from the Gander map area (NTS 2D/15) and a review of Silurian bivalva-bearing faunas in central Newfoundland ..... 187
17. **T. Dec, W.D. Boyce and F.H.C. O'Brien** Sedimentology, paleontology, provenance and revised stratigraphic status of polymictic, deep-sea conglomerates in the area of Point Leamington, Notre Dame Bay..... 195

|     |  |     |
|-----|--|-----|
| 18. | <b>W.L. Dickson</b> Geology of the Mount Peyton map area (NTS 2D/14), central Newfoundland .....   | 209 |
| 19. | <b>R.E. Holdsworth, R.S. D'Lemos, M.A. McErlean and S.J. O'Brien</b> Deformation of the Cape Freels Granite related to dextral displacements along the Dover Fault, northeast Newfoundland .....                               | 221 |
| 20. | <b>R.E. Holdsworth and S.J. O'Brien</b> A reconnaissance structural study along the Gander–Avalon Zone boundary between Terra Nova Lake and the Ackley Granite, Newfoundland .....   | 229 |
| 21. | <b>A. Kerr, W.L. Dickson, J.P. Hayes and B.J. Fryer</b> Devonian postorogenic granites on the southeastern margin of the Newfoundland Appalachians: A review of geology, geochemistry, petrogenesis and mineral potential..... | 239 |
| 22. | <b>B.H. O'Brien</b> A mapper's guide to Notre Dame Bay's folded thrust faults: evolution and regional development.....   | 279 |
| 23. | <b>S.J. O'Brien</b> A preliminary account of geological investigations in the Clode Sound–Goose Bay region, Bonavista Bay, Newfoundland (NTS 2C/5 NW and 2D/8 NE).....   | 293 |
| 24. | <b>S.H. Williams</b> More Ordovician and Silurian graptolites from the Exploits subzone.....   | 311 |

#### ECONOMIC GEOLOGY

|     |  |     |
|-----|--|-----|
| 25. | <b>R.A. Churchill, D.H.C. Wilton and D.T.W. Evans</b> Geology, alteration assemblages and geochemistry of the Duder Lake gold showings, northeastern Newfoundland..... | 317 |
| 26. | <b>M. Emory-Moore, L. Davis and W.J. Scott</b> Gold placer occurrences in coastal Newfoundland: Will they pan out?.....  | 335 |
| 27. | <b>D.T.W. Evans</b> Gold mineralization in the eastern Dunnage Zone, central Newfoundland.....   | 339 |
| 28. | <b>A.F. Howse</b> Kyanite and related minerals in western Newfoundland.....  | 351 |
| 29. | <b>J. Meyer and E. Montague</b> Soapstone reconnaissance survey in the Okak area, northern Labrador.....   | 357 |
| 30. | <b>R.R. Miller</b> Rare-metal mineralization in the Nuiklavik volcanic rocks of the Flowers River Igneous Suite.....   | 363 |
| 31. | <b>F. Santaguida and M. Hannington</b> Preliminary results on gold mineralization in volcanogenic massive sulphide deposits, central Newfoundland.....                 | 373 |
| 32. | <b>C.M. Saunders</b> Volcanic metallogenic database—an update.....   | 383 |
| 33. | <b>S. Scott</b> Placer gold in quaternary glaciofluvial and raised marine deposits of the Comfort Cove map area (NTS 2E/7).....  | 387 |
| 34. | <b>H.S. Swinden and F. Santaguida</b> Argillite-hosted sulphide occurrences in the eastern part of the Labrador Trough.....  | 401 |

#### GEOCHEMISTRY / GEOPHYSICS

|     |  |     |
|-----|--|-----|
| 35. | <b>T.K. Christopher, P.H. Davenport and E.T. Burden</b> The effect of urban and industrial development on the geochemistry of the watersheds in the St. John's area: Preliminary results ..... | 419 |
| 36. | <b>C. Finch</b> Methods of water analysis by inductively coupled plasma-emission spectrometry .....  | 435 |

37. **G.J. Kilfoil, P.A. Bruce and P. Honarvar** Reclaiming geophysical data from mineral-assessment reports: an update..... 443
38. **J.W. McConnell** Aspects of stream-sediment and water surveys in northern Labrador..... 451

## GENERAL TOPICS

39. **A. Harris and S. Cochrane** Core storage program, 1992..... 463
40. **C. Patey and J. Gillespie** GEOSCAN—the national database for geological information: the Newfoundland contribution..... 469
41. **G. Stapleton, C.F. O'Driscoll, W.K. Parsons, J. Smith and D. King** Mineral occurrence data system..... 471

## GEOLOGICAL SURVEY OF CANADA—ABSTRACTS

42. **K. Benn, M. Genkin, C.R. van Staal and S. Lin** Structure and anisotropy of magnetic susceptibility of the Rose Blanche Granite, southwestern Newfoundland: kinematics and relative timing of emplacement..... 477
43. **J.L. Burgess, M. Brown and C.R. van Staal** Pressure-temperature conditions and a P-T path for the Port aux Basques area, southwest Newfoundland..... 478
44. **P.A. Cawood and J.A.M. van Gool** Stratigraphic and structural relations within the western Dunnage Zone, Glover Island region, western Newfoundland..... 479
45. **K.L. Currie** Ordovician—Silurian stratigraphy between Gander Bay and Birchy Bay, Newfoundland ..... 480
46. **B. Dubé, K. Lauzière and H.K. Poulsen** The Deer Cove deposit: an example of 'thrust'-related breccia-vein type gold mineralization in the Baie Verte Peninsula, Newfoundland..... 481
47. **S. Lin, C.R. van Staal and C. Lee** The Harbour le Cou Group and its correlation with the Bay du Nord Group, southwestern Newfoundland..... 482
48. **D.I. Schofield, J.A. Winchester and C.R. van Staal** The Isle aux Morts metabasalt, southwest Newfoundland..... 483
49. **D.J. Scott, N. Machado, M. Van Kranendonk, R. Wardle and F. Mengel** A preliminary report of U—Pb geochronology of the northern Torngat Orogen, Labrador..... 484
50. **M.J. Van Kranendonk, L. Godin, F.C. Mengel, D.J. Scott, R.J. Wardle, L.C. Campbell and D. Bridgwater** Geology and structural development of the Archean to Paleoproterozoic Burwell domain, northern Torngat Orogen, Labrador and Quebec..... 485
51. **J.B. Whalen, K.L. Currie and M.A.J. Piasecki** A re-examination of relations between Dunnage subzones in southwest Newfoundland..... 486
52. **H. Williams** Stratigraphy and structure of the Botwood Belt and definition of the Dog Bay Line in northeastern Newfoundland..... 487

## ERRATUM

- S.H. Williams, B.H. O'Brien, S.P. Colman-Sadd and F.H.C. O'Brien** Dunnage Zone graptolites; an extension of the age range and distribution of certain Ordovician formations of the Exploits Subzone..... 488