

Table of Contents

| | |
|---|-----|
| Minister's Message | iii |
| Herman V. Zwanzig, 2005 Winner of the Provincial Geologists Medal | v |
| 2005 Project Location Map..... | vi |
| Annual review by E.C. Syme..... | 1 |

FLIN FLON–SNOW LAKE

| | |
|--|----|
| GS-1 Physical description of the Bomber, 1920 and Newcor members of the Hidden formation, Flin Flon, Manitoba (NTS 63K16SW) by Y.M. DeWolfe and H.L. Gibson | 7 |
| GS-2 Gold metallogensis and tectonometamorphic history of selected deposits from the Snow Lake area and the southern flank of the Kisseynew Domain, west-central Manitoba (NTS 63J13, 63K10, 63K16 and 63N2) by S. Gagné, C.J. Beaumont-Smith, A. Hynes and A.E. Williams-Jones | 20 |
| GS-3 Manitoba's Precambrian Drillcore Libraries Program by D.E. Prouse..... | 28 |
| GS-4 Activities of the Manitoba Geological Survey's Flin Flon regional office by T.H. Heine | 30 |

SUPERIOR BOUNDARY ZONE, THOMPSON NICKEL BELT

| | |
|---|----|
| GS-5 Bedrock geology of northern and central Wintering Lake, Manitoba (parts of NTS 63P5 and 12) by C.O. Böhm..... | 32 |
| GS-6 Geochemistry, Sm-Nd isotope data and age constraints of the Bah Lake assemblage, Thompson Nickel Belt and Kisseynew Domain margin: relation to Thompson-type ultramafic bodies and a tectonic model (NTS 63J, O and P) by H.V. Zwanzig..... | 40 |
| GS-7 Northwestern Superior craton margin, Manitoba: an overview of Archean and Proterozoic episodes of crustal growth, erosion and orogenesis (parts of NTS 54D and 64A) by R.P. Hartlaub, C.O. Böhm, L.M. Heaman, and A. Simonetti..... | 54 |
| GS-8 Structural geology of the Mystery-Apussigamasi lakes area, Manitoba (parts of NTS 63P13 and 14) by Y.D. Kuiper, C.O. Böhm and S. Lin | 61 |
| GS-9 Pikwitonei–Snow Lake Manitoba transect (parts of NTS 63J, 63O and 63P), Trans-Hudson Orogen–Superior Margin Metalloctect Project: new results and tectonic interpretation by J.A. Percival, J.B. Whalen and N. Rayner..... | 69 |

FAR NORTH

- GS-10 Bedrock and surficial geological field investigations in the Nejanilini Lake area, northern Manitoba (parts of NTS 64P5, 12 and 13)
by S.D. Anderson, C.O. Böhm and G.L.D. Matile..... 92

SOUTHEASTERN MANITOBA

- GS-11 Preliminary results and economic significance of geological mapping in the Gem Lake area, southeastern Rice Lake belt, Manitoba (NTS 52L11 and 14), with emphasis on the Neoproterozoic Gem assemblage
by S.D. Anderson..... 104
- GS-12 Preliminary results of geological mapping and structural analysis of the Bird River greenstone belt, southeastern Manitoba (NTS 52L5 and 6)
by M. Duguet, S. Lin, H.P. Gilbert and M.T. Corkery 117
- GS-13 Geological investigations in the Bird River area, southeastern Manitoba (parts of NTS 52L5N and 6N)
by H.P. Gilbert 125
- GS-14 Preliminary results from geological mapping of the Bernic Lake Formation, Bird River greenstone belt, southeastern Manitoba (NTS 52L6)
by P.D. Kremer 140
- GS-15 Geological investigations of the Chrome property, Bird River Sill, southeastern Manitoba (NTS 52L5)
by C.A. Mealin 146
- GS-16 Platinum group element dispersion patterns in humus samples of the Mayville Igneous Complex, southeastern Manitoba (NTS 52L12): survey results and interpretation
by P. Theyer 150
- GS-17 Geology, structure and mineralization of the Ore Fault property, Bird River greenstone belt, southeastern Manitoba (parts of NTS 52L5NE and 52L6NW)
by L.A. Murphy and P. Theyer 156
- GS-18 Sulphide fragments in waste rock at the Maskwa open pit mine, southeastern Manitoba (NTS 52L6NW): investigations on petrogenesis, potential source rocks and mode of emplacement
by A.E. Stansell and P. Theyer 161
- GS-19 A new tree-ring network for studying drought in southeastern Manitoba and northwestern Ontario
by S. St. George..... 164
- GS-20 Phytoremediation and revegetation of mine tailings and bio-ore production: effects of paper mill sludge on plant growth in tailings from Central Manitoba (Au) minesite (NTS 52L13)
by S. Renault and S. Green..... 167

SOUTHWESTERN MANITOBA

- GS-21 Aggregate resources in the rural municipalities of Riverside and Turtle Mountain, southwestern Manitoba (NTS 62G3, 4, 5, 6 and 12)
by H.D. Groom..... 170

MANITOBA GENERAL

| | |
|---|-----|
| GS-22 Summary of investigations for the Sedimentary and Industrial Minerals Section by R.K. Bezys..... | 176 |
|---|-----|

PUBLICATIONS

| | |
|---|-----|
| Preliminary Maps | 181 |
| Publications Released November 2004 - November 2005 | 182 |
| External Publications | 188 |