

CONTENTS

Summary/Sommaire	1
Introduction	9
<i>P.K Hannigan</i>	
Subsurface structures in southern Northwest Territories and northern Alberta: Implications for mineral and petroleum potential	41
<i>D. W. Morrow, B.C. MacLean, W.F. Miles, P. Tzeng, and D. Panã</i>	
Origin of hydrothermal sulphide and dolomite mineralizing fluids in southern Northwest Territories and northern Alberta	61
<i>S.A. Gleeson and P. Gromek</i>	
Stable and radiogenic isotopic signatures of mineralized Devonian carbonate rocks of the northern Rocky Mountains and the Western Canada Sedimentary Basin	75
<i>S. Paradis, W.A. Turner, M. Coniglio, N. Wilson and J.L. Nelson</i>	
New thermal evidence related to carbonate-hosted metal ores in the Northwest Territories	105
<i>J.A. Majorowicz and P.K. Hannigan</i>	
Mississippi Valley-type (MVT) Pb-Zn potential in Middle and Upper Devonian carbonate deposits of northeastern Alberta, and implications for future exploration based on diagenesis and isotope geochemistry	117
<i>R.J. Rice and J. Lonnee</i>	
The sub-Phanerozoic basement surface under the Great Slave Plain of the Northwest Territories, and its influence on overlying strata.	149
<i>B.C. MacLean</i>	
Hydrodynamic study of Middle Devonian strata, southeastern Great Slave Plain, Northwest Territories	165
<i>E.P. Janicki</i>	
Distribution of Presqu'ile dolomite in the Great Slave Plain, Northwest Territories	179
<i>E.P. Janicki</i>	
Reassessment of Middle Devonian dolomite, Presqu'ile barrier, Northwest Territories	195
<i>M. Coniglio, D.W. Morrow, and N. Wilson</i>	
Microthermometric study of fluids associated with Pb-Zn mineralization in the vicinity of the Pine Point mining camp	221
<i>W.A. Turner</i>	

Brine springs of northern Alberta.....	241
<i>S. E. Grasby</i>	
Unravelling the structural control of Mississippi Valley-type deposits and prospects in carbonate sequences of the Western Canada Sedimentary Basin	255
<i>D. Panã</i>	
Synthesis of Mississippi Valley-type lead-zinc deposit potential in northern Alberta and southern Northwest Territories.....	305
<i>P.K. Hannigan</i>	