CONTENTS

A Special Issue Devoted to Barite and Zn-Pb-Ag Deposits in the Red Dog District, Western Brooks Range, Northern Alaska
Karen D. Kelley and Scott Jennings, Guest Editors

Preface
Karen D. Kelley and Scott Jennings

A Geologic Framework for Mineralization in the Western Brooks Range, Alaska
Lorne E. Young

Geochronology of the Western and Central Brooks Range, Alaska: Implications for the Geologic Evolution of the Anarraaq and Red Dog Zn-Pb-Ag Deposits
Cameron S. Rombach and Paul W. Layer

40Ar/39Ar Dating of Zn-Pb-Ag Mineralization in the Northern Brooks Range, Alaska
Melanie B. Werdon, Paul W. Layer, and Rainer J. Neumayer

Paleomagnetism of the Mesozoic Asik Mountain Mafic Complex in Northern Alaska: Implications for the Tectonic History of the Arctic Composite Terrane
Michael T. Lewchuk, Jamie Faucher, and R. Douglas Elmore

Depositional Settings, Correlation, and Age of Carboniferous Rocks in the Western Brooks Range, Alaska
Julie A. Dumoulin, Anita G. Harris, Charles D. Blome, and Lorne E. Young

Paleozoic Sedimentary Rocks in the Red Dog Zn-Pb-Ag District and Vicinity, Western Brooks Range, Alaska: Provenance, Deposition, and Metallogenic Significance
John F. Slack, Julie A. Dumoulin, Jeanine M. Schmidt, Lorne E. Young, and Cameron S. Rombach

Structure of the Red Dog District, Western Brooks Range, Alaska
J. de Vera, K. R. McClay, and A. R. King

Sulfur and Oxygen Isotopes in Barite Deposits of the Western Brooks Range, Alaska, and Implications for the Origin of the Red Dog Massive Sulfide Deposits
Craig A. Johnson, Karen D. Kelley, and David L. Leach

Nature of Hydrothermal Fluids at the Shale-Hosted Red Dog Zn-Pb-Ag Deposits, Brooks Range, Alaska
David L. Leach, Erin Marsh, Poul Embo, Cameron S. Rombach, Karen D. Kelley, and Mike Anthony

Multistage Hydrothermal Silicification and Fe-Ti-As-Sb-Ge-REE Enrichment in the Red Dog Zn-Pb-Ag District, Northern Alaska: Geochemistry, Origin, and Exploration Applications
John F. Slack, Karen D. Kelley, V. Michelle Anderson, Jeffrey L. Clark, and Robert A. Ayuso

Textural, Compositional, and Sulfur Isotope Variations of Sulfide Minerals in the Red Dog Zn-Pb-Ag Deposits, Brooks Range, Alaska: Implications for Ore Formation

Origin of the Red Dog Zn-Pb-Ag Deposits, Brooks Range, Alaska: Evidence from Regional Pb and Sr Isotope Sources

Paleomagnetism of the Red Dog Zn-Pb Massive Sulfide Deposit in Northern Alaska
Michael T. Lewchuk, David L. Leach, Karen D. Kelley, and David T. A. Symons

Re-Os Sulfide Geochronology of the Red Dog Sediment-Hosted Zn-Pb-Ag Deposit, Brooks Range, Alaska

The Anarraaq Zn-Pb-Ag and Barite Deposit, Northern Alaska: Evidence for Replacement of Carbonate by Barite and Sulfides
Karen D. Kelley, Julie A. Dumoulin, and Scott Jennings

Reviews

Explosive Subaqueous Volcanism (J. D. L. White, J. L. Smellie, and D. A. Clague, eds.)
David Huston

Superior Province: A Billion Year Record of Archean Craton Evolution and the Birth of Plate Tectonic Processes (GAC Howard Street Robinson Distinguished Lecture 2003) (J. Percival)
K. Howard Poulsen

Interesting Papers in Other Journals

Student Grants Announcement

Geologic Map of the Central Part of the Red Dog District, Northwest Alaska
Stuart Giles et al. In pocket