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Front cover photos

Main photo: Mike Burke with the Yukon Geological Survey writing geological field notes in the mountains of the Hart River area. Photo by Ken Galambos.

Photo in title tab: Aquamarine and quartz crystals on True North Gems Inc.'s True Blue property, Quiet Lake map area. Photo by T.J. Adell and Son Photography, Vancouver, British Columbia.

PREFACE

The Yukon Geology Program became the **Yukon Geological Survey** in April of 2003, when the Northern Affairs Program of Indian and Northern Affairs Canada devolved to the Yukon Government. The Geological Survey consists of the same group of people as its predecessor, and will function out of the same locations. Yukon Exploration and Geology (YEG) will continue to be our main publication. The current YEG, the 26th volume of the series, will have the same look and feel as previous editions.

YEG 2003 contains up-to-date information on mining and mineral exploration activity, studies by industry, and results of recent geological field studies. Information in this volume comes from prospectors, exploration and government geologists, mining companies and students who are willing to collectively benefit the Yukon's mineral industry. Their assistance and patience is sincerely appreciated.

Sincere appreciation is extended to co-editor Lara Lewis for providing continuity to the YEG editorial process, and for her diligence and encouragement. Appreciation is also extended to Maurice Colpron of the Yukon Geological Survey for his able assistance in the review of French translations of abstracts. Several geologists also contribute by critically reviewing YEG manuscripts; this year we thank Don Murphy, Lee Pigage, Craig Hart, Maurice Colpron, Bill LeBarge, Alain Plouffe and Charlie Roots for their help. Wynne Krangle and Peter Long of K-L Services also continue to provide excellent service in putting this production together, including editing suggestions, design of diagrams, volume layout, and working under the pressure of a tight deadline. Sherry Aldridge of the Queen's Printer ensured that the printing process went smoothly.

The 2003 volume has four parts. The first – **Mineral Industry** – includes overviews of mining and exploration in the territory, as well as prospecting and exploration activity documented as part of the Yukon Mining Incentives Program. The second part – **Government** – outlines the activities and organization of the Yukon Geological Survey, and includes announcements of the fifth Mining Land Use Reclamation Awards, the Robert E. Leckie Awards, as well as a summary of the regional mineral potential of the Yukon, defined by deposit model. The third part – **Geological Fieldwork** – contains reports describing regional mapping, and more detailed geoscience studies. The last part – **Property Descriptions** – is a collection of geological reports of mineral occurrences with recent exploration advances or detailed studies, and is authored by industry and government geologists, as well as university students.

We welcome any input or suggestions that you may have to improve future YEG publications. Please contact me at (867) 667-3203 or by email at diane.emond@gov.yk.ca.

Diane Emond

PRÉFACE

Le Service de géologie du Yukon a été renommé **la Commission géologique du Yukon** en avril 2003, lorsque le Programme des affaires du Nord du Ministère des Affaires indiennes et du Nord canadien a été délégué au gouvernement du Yukon. Les mêmes personnes y travaillent dans les mêmes locaux. Yukon Exploration and Geology (YEG) en demeurera la publication principale. Ce volume, le 26^e de la série, conserve la même présentation que les précédents.

YEG 2003 contient une mise-à-jour sur l'exploitation minière et l'exploration minérale, les études réalisées par l'industrie et les résultats des travaux géologiques exécutés récemment sur le terrain. L'information est fournie par des prospecteurs, des géologues d'exploration et du gouvernement, des sociétés minières et des étudiants qui veulent en faire bénéficier l'ensemble de l'industrie minière du Yukon. Nous apprécions leur aide et leur dévouement.

Nous tenons à remercier la co-rédactrice Lara Lewis d'avoir assuré la continuité de la publication et nous saluons sa diligence et son encouragement. Nous remercions également Maurice Colpron de la Commission géologique du Yukon pour son aide précieuse à réviser les traductions des résumés en français. Il faut souligner la contribution de plusieurs géologues à la révision critique des manuscrits : Don Murphy, Lee Pigage, Craig Hart, Maurice Colpron, Bill LeBarge, Alain Plouffe et Charlie Roots. Wynne Krangle et Peter Long de K-L Services ont une fois de plus fourni un excellent service de production, incluant des suggestions de révision, le tracé des diagrammes, la mise en page et le respect d'échéances serrées. Sherry Aldridge de l'Imprimeur de la Reine a, pour sa part, veillé au bon déroulement de l'impression.

Le volume de 2003 comprend quatre parties. La première – **Industrie minérale** – inclut des survols de l'exploitation minière et de l'exploration minérale au Yukon ainsi que des activités de prospection et d'exploration documentées dans le cadre du Programme d'encouragement pour l'exploration minérale. La deuxième partie – **Gouvernement** – décrit dans les grandes lignes les activités et l'organisation de la Commission géologique du Yukon, présente les cinquièmes prix Robert E. Leckie récompensant les meilleurs travaux de restauration minière, et aussi un résumé des études du potentiel minéral régional pour des modèles géologiques spécifiques. La troisième partie – **Travaux géologiques sur le terrain** – contient des rapports décrivant la cartographie régionale et des études géoscientifiques plus détaillées. La dernière partie – **Descriptions des propriétés** – regroupe des rapports géologiques sur les indices minéraux qui ont donné lieu récemment à des progrès en matière d'exploration ou des études plus détaillées. Ces rapports ont été rédigés par des géologues de l'industrie et du gouvernement ainsi que par des étudiants universitaires.

Pour tout commentaire ou suggestion pour améliorer les futures publications, vous être priés de m'appeler au (867) 667-3203 ou par courriel à l'adresse suivante : diane.emond@gov.yk.ca

Diane Emond



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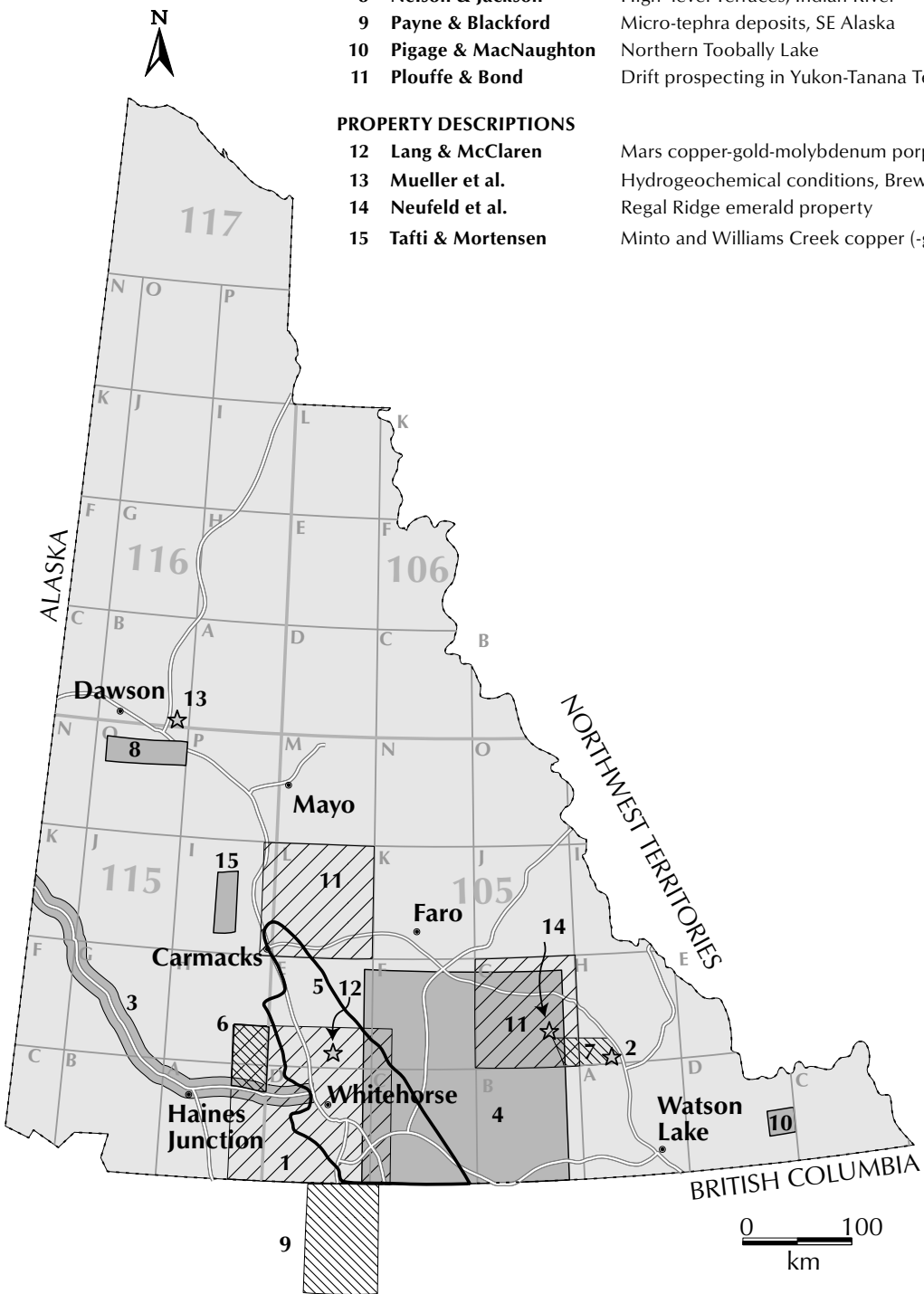
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GEOLOGICAL FIELDWORK

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Dedications



AL KAPTY passed away in October, 2003 after a valiant battle with cancer. Al started Trans North Air with three other partners in 1967, and it was as Trans North's general manager that many of us in government and industry came to know him. Whether you were the owner of a large company, a politician, or a first year geology student, Al always had a smile and a friendly word to say. On a professional level, his reputation as a faithful and vocal supporter of the Yukon's economy, particularly the mining and aviation industries, was well-deserved. As chairman of the Yukon Placer Committee, which set the standards for placer mining under the Yukon Placer Authorization, he played an important role to the Yukon's placer mining industry. In this capacity, his personality served him well as he provided balance and perspective, facilitating agreements between parties with vastly differing opinions. His loss is felt deeply by all of us at the Yukon Geological Survey, as well as in the Yukon and throughout the North and Canada.



JOEL CLARKSTON was tragically killed in a helicopter crash near Mayo in September 2003. It is some small consolation that he passed on while doing the job he loved, and serving the needs of the Yukon's mining industry. Joel was an excellent pilot who flew many of us at the Yukon Geological Survey during his tenure as Trans North's base pilot in Mayo. He was always adaptable to changing schedules, and willing to literally go that extra mile for us. His friendly smile, his calm, confident and easy going nature, and his high degree of flying skill made him a pleasure to work with. Joel will be sadly missed by all those who had an opportunity to fly with him.



