# Granite Creek Expands Portfolio with Alaska Ultramafic Acquisitions and Partners with Cornell University to Study Geologic Hydrogen Potential under Department of Energy Grant

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Granite Creek Copper Ltd. (TSX.V:GCX) (OTCQB:GCXXF) ("Granite Creek" or the "Company") is pleased to announce the acquisition of an Alaskan project and the signing of a Letter of Intent ("LOI") to acquire a second project. Both projects have demonstrated critical minerals mineralization and are also prospective for carbon sequestration and geologic hydrogen production. Studies with respect to the latter are to be undertaken in cooperation with Cornell University under the guidance of Dr. Greeshma Gadikota. The Cornell team has recently been selected as a recipient of grant funding under the US Department of Energy's Advanced Research Projects Agency-Energy (ARPA-E) to study US-based geologic hydrogen.

The Company has acquired the Union Bay PGM-Ni project via staking, consisting of 20 unpatented claims located on the Cleveland Peninsula of southeastern Alaska, 35 miles northwest of Ketchikan.

Granite Creek has entered into an LOI signed October 23, 2024, with fellow Metallic Group of Companies member Stillwater Critical Minerals Inc ("SWCM") to acquire the Duke Island Cu-Ni-PGE project ("Duke Island") subject to entering into a definitive purchase agreement (see below for details of the proposed transaction). Duke Island consists of 31 unpatented claims that control the core area of copper-nickel-platinum-palladium (Cu-Ni-PGE) sulfide mineralization in the Duke Island ultramafic complex (see Figure 1 below.)

Granite Creek further announces it has engaged Mr. Greg Lynch P.Geo. to assist in reviewing and prioritizing further acquisitions with geologic hydrogen potential. Mr. Lynch has a PhD (Geology) from The University of Alberta, 1989, MSc (Geology) from Washington State University, 1985 and BSc (Geology) University of Ottawa, 1983 and is a lifetime member of the Canadian Energy Geoscience Association. With over 35 years experience in both oil and gas and hard rock geology Mr. Lynch has the ideal skill set to explore for geologic hydrogen straddling both resources industries.

Figure 1 - Project locations

Granite Creek President & CEO, Tim Johnson, stated, "We are very excited to have acquired these projects in Alaska and are proud to collaborate with Dr. Gadikota and her team at Cornell as we add geologic hydrogen to our critical mineral exploration efforts. This move follows the recent announcement regarding the Company's collaboration with New England Research Inc. (NER) to study the potential for geologic hydrogen production at our Star Ni-Cu-PGM project in British Columbia. We have begun putting the pieces in place, both in terms of projects and global expertise, to position ourselves among the select few first movers in this important new space."

Dr. Greeshma Gadikota stated, "Our team looks forward to this collaboration with Granite Creek on strategies to stimulate geologic hydrogen production, with an emphasis on exploring the ultramafic resources in Alaska. Stimulated geologic H2 can decarbonize the supply chain of fuels and can play a major role in the energy transition. We see the potential for multi-use approach to these types of projects including critical metal recovery, durable carbon storage, and geologic hydrogen production."

Geologic Hydrogen Workshop 2024 - Fairbanks, Alaska

Granite Creek President and CEO, Tim Johnson, will join Dr. Gadikota in giving presentations at a Geologic Hydrogen Workshop October 29-31, in Fairbanks, Alaska, and has assisted in development of the

conference program. The event, hosted by the US Arctic Research Commission and the University of Alaska Fairbanks Geophysical Institute, will discuss current research on geological hydrogen, assess Alaska's geological hydrogen potential, with a focus on the utility, economics, storage and transportation of hydrogen, as well as the policy and regulation needed for research, exploration, and development. Participants include international experts on geologic hydrogen and Alaska geology, representatives from private industry, Alaska Native Organizations, and government, including regulatory and resource management agencies and legislators.

More information on the event and ARC, respectively, can be found here and here: https://www.arctic.gov/

RE+ CHARGE H2 Event - Seattle, Washington

Tim Johnson and Dr. Gadikota will also be attending and presenting at the RE+ CHARGE H2 Event in Seattle, Washington November 20-21, a partnership event between RE+ Events and the Consortium for Hydrogen and Renewably Generated E-Fuels (CHARGE), bringing stakeholders together to discuss the key issues affecting the growth and development of emerging hydrogen hubs in the United States. The conference has been designed to serve and advance the hydrogen market by bringing together private industry, government, and research stakeholders driving growth in this burgeoning sector.

Founded by the Joint Center for Deployment and Research in Earth Abundant Materials (JCDREAM), CHARGE is an innovation cluster organization focused on green hydrogen and renewable e-fuels. We bring together changemakers from government, industry, academia/research, community and other key sectors to drive sustainable, equitable growth in the emergent hydrogen economy. The Pacific Northwest Hydrogen Hub (PNWH2 Hub) is one of the first U.S. Clean H2 Hubs to receive federal award funding - paving the way for the creation of a truly renewable, sustainable hydrogen economy in the PNW.

Geologic Hydrogen (or "White Hydrogen")

Geologic hydrogen, sometimes referred to as white, gold or natural hydrogen, refers to hydrogen gas that is found in its natural form beneath the Earth's surface. It is thought to be produced by high-temperature reactions between water and iron-ich minerals, by the breaking of water in radiologic settings, and through some biologic processes.

Economic amounts of geologic hydrogen were first discovered in Mali, West Africa in 1987, but its potential to decarbonize the energy sector has only recently recognised. A new energy sector is emerging focused on the exploration and development of sources of geologic hydrogen as well as developing the technology to produce hydrogen by direct injection of fluids into highly reactive geological strata to stimulate the production of hydrogen.

Figure 2 - Potential sources of geologic hydrogen

About Duke Island

The Duke Island property, located approximately 52 km southeast of Ketchikan within the Alexander Platinum belt, consists of 31 unpatented claims that control a core area of copper-nickel-platinum-palladium (Cu-Ni-PGE) sulfide mineralization discovered by previous operators. While several prospective zones have been discovered based on geologic mapping, surface geochemistry, surface and airborne geophysics, only one of these zones has been tested to date with 3,434 meters of drilling in 16 holes. This drilling has not tested the prospective basal contact of the intrusion where the highest grades of Cu-Ni-PGE sulphide mineralization are inferred to occur.

Terms of the Letter of Intent

The LOI signed October 23, 2024, outlines the proposed terms of the definitive agreement (the" Agreement"). Under the LOI, Granite Creek will acquire a 90% interest in the Duke Island project, subject to a 1% Net Smelter Royalty ("NSR"), under the following terms:

- Issuance of share units to SWCM with a deemed aggregate value of $150,000 CDN over a 3-year period subject to regulatory share pricing minimums,
- Units to consist of a share and a partial or full warrant with final warrant terms yet to be determined,
- A minimum work commitment of CAD $500,000 over 3 years,
- NSR royalty buy-down to 0.5% for $1,000,000,
- The Agreement will provide for the formation of a Joint Venture ("JV") based on the then legal and beneficial ownership levels in the Property, and,
- The Agreement is subject to final approval by the TSX Venture Exchange.

Although the company is confident in its ability to complete a transaction with SWCM it cautions that the final terms of the transaction are subject to change.

The proposed transaction is non-arms length due to Granite Creek and SWCM having a common director in Mr. Michael Rowley.

About Union Bay

The Union Bay project in southeastern Alaska is a classic "Ural-Alaska type" underlain by a zoned ultramafic-mafic complex, which ranges from dunite through wehrlite and magnetite-bearing olivine clinopyroxenite to hornblendite and gabbro on the margins. Exploration work completed on the project by previous owners included geological mapping and sampling, geophysical surveys and drilling which identified several high-grade platinum target areas.

About Dr. Greeshma Gadikota
Dr. Greeshma Gadikota is an Associate Professor and Croll Sesquicentennial Fellow in the School of Civil and Environmental Engineering with a field appointment in the Smith School of Chemical and Biomolecular Engineering at Cornell University. Dr. Gadikota directs the Sustainable Energy and Resource Recovery Group. She held postdoctoral research associate appointments at Princeton University and Columbia University, and a research associate appointment at the National Institute of Standards and Technology (NIST). Her PhD in Chemical Engineering and MS degrees in Chemical Engineering and Operations Research are from Columbia University. Her BS in Chemical Engineering is from Michigan State University. She is a recipient of the DOE, NSF and ARO CAREER Awards, Sigma Xi Young Investigator Award, Cornell Engineering Research Excellence Award, Inaugural Cornell Rising Women Innovator Award, and AICHE Sabic Award for Young Professionals from the Particle Technology Forum. Dr. Gadikota received her PhD in Chemical Engineering and earned her MS degrees in Chemical Engineering and Operations Research, from Columbia University. Her BS in Chemical Engineering is from Michigan State University.

About ARPA-E

The Advanced Research Projects Agency-Energy (ARPA-E advances high-potential, high-impact energy technologies that are too early for private-sector investment. ARPA-E awardees are unique because they are developing entirely new ways to generate, store, and use energy. ARPA-E projects have the potential to radically improve U.S. economic prosperity, national security, and environmental well-being. We focus on transformational energy projects that can be meaningfully advanced with a small amount of funding over a defined period of time. Our streamlined awards process enables us to act quickly and catalyze cutting-edge areas of energy research.

ARPA-E empowers America's energy researchers with funding, technical assistance, and market readiness. Our rigorous program design, competitive project selection process, and active program management ensure thoughtful expenditures. ARPA-E Program Directors serve for limited terms to ensure a constant infusion of fresh thinking and new perspectives. To learn more visit: https://arpa-e.energy.gov/.

About Granite Creek Copper

Granite Creek Copper, a member of the Metallic Group of Companies, is focused on the exploration and development of critical minerals projects in North America. The Company's projects consist of its flagship 177 square kilometer Carmacks project in the Minto copper district of Canada's Yukon Territory on trend with the formerly operating, high-grade Minto copper-gold mine and the advanced stage LS molybdenum project and the Star copper-nickel-PGM project, both located in central British Columbia. More information about Granite Creek Copper can be viewed on the Company's website at www.gcxcopper.com.

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Qualified Person

Debbie James P.Geo, has reviewed and approved the technical information related to the Cu-Ni-PGM potential of the acquired projects contained in this news release. Ms. James is a Qualified Person as defined in NI 43-101. She is not independent of the Company because she has received employment income from the Company and holds stock in the Company.

Forward-Looking Statements

Forward Looking Statements: This news release includes certain statements that may be deemed "forward-looking statements" or "forward-looking information". All statements in this release, other than statements of historical facts including, without limitation, statements regarding expected use of proceeds from the private placement and future plans and objectives of the company are forward-looking statements that involve various risks and uncertainties. Although Granite Creek Copper believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements are not guarantees of future performance and actual results or developments may differ materially from those in the forward-looking statements. Forward-looking statements are based on a number of material factors and assumptions. Factors that could cause actual results to differ materially from those in forward-looking statements include failure to obtain necessary approvals, unsuccessful exploration results, changes in project parameters as plans continue to be refined, results of future resource estimates, future metal prices, availability of capital and financing on acceptable terms, general economic, market or business conditions, risks associated with regulatory changes, defects in title, availability of personnel, materials and equipment on a timely basis, accidents or equipment breakdowns, uninsured risks, delays in receiving government approvals, unanticipated environmental impacts on operations and costs to remedy same, and other exploration or other risks detailed herein and from time to time in the filings made by the companies with securities regulators. Readers are cautioned that mineral resources that are not mineral reserves do not have demonstrated economic viability. Mineral exploration and development of mines is an inherently risky business. Accordingly, the actual events may differ materially from those projected in the forward-looking statements. For more information on Granite Creek Copper and the risks and challenges of their businesses, investors should review their annual filings that are available at www.sedarplus.ca.



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