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Fireweed Zinc Acquires Mactung Tungsten Project Expands Critical Minerals Portfolio

Vancouver, British Columbia: FIREWEED ZINC LTD. ("Fireweed" or the "Company") (TSXV: FWZ; OTCQB: FWEDF) is pleased to announce the signing of a binding Letter of Intent (LOI) for the acquisition of 100% interest in the Mactung Tungsten Project located in Yukon and Northwest Territories, Canada, immediately adjacent to its Macmillan Pass Zinc-Lead-Silver Project.

Highlights

- Mactung is one of the largest and highest-grade tungsten deposits in the world and one of the few potential sources of scale for this critical metal outside of China.
- Approximately 38,000 m of historic drilling¹ outlined a large, high-grade tungsten resource and produced a positive historic feasibility study².
- Mactung is located within the traditional territories of the Kaska Dena and First Nation of Na-Cho Nyäk Dun, and the Sahtú Settlement Area.
- Fireweed hold a right to a 100% interest in the Mactung project through a binding LOI with the Government of the Northwest Territories ("GNWT").
- The Mactung deposit is 13 kilometres north of Fireweed's Tom deposit and is also accessible by the North Canol Highway providing potential for future synergies.

Executive Statements

Fireweed CEO Brandon Macdonald commented, "While Macmillan Pass continues to be our flagship project, the recent staking of Gayna River and the addition of Mactung turns Fireweed into one of the leading critical mineral exploration companies. We now have not only one of the largest undeveloped zinc resources in the world at our Macmillan Pass Project, but also one of the world's largest and highest-grade undeveloped tungsten projects at the advanced stage Mactung Project. With both zinc and tungsten being designated as critical minerals by Canada, the US, and the EU, Fireweed is positioned to leverage the transition to a sustainable green economy. We are excited to be advancing both projects under the Fireweed umbrella to not just maximize value for Fireweed shareholders, but to also create increased opportunities for local Indigenous groups and the people of both Yukon and Northwest Territories."

Mactung Project Overview

Mactung is one of the largest and highest-grade tungsten deposits in the world. It is an advanced stage project with extensive drilling, engineering, metallurgy, geotechnical, and environmental baseline data collected by previous owners that supported a Feasibility study in 2009². Skarn mineralization is developed in carbonate rocks near the contact with a granite intrusion. Historic 2007 indicated resources¹ totaled 33.0 million tonnes grading 0.88% WO₃ (tungsten trioxide) plus historic inferred resources of 11.8 million tonnes grading 0.78% WO₃. The 37.6 km² property is located adjacent to Fireweed's Macmillan Pass Property (Figure 1) and accessed by the same road providing potential for future project synergies.

Mactung Deposit Location & History

The Mactung Property adjoins Fireweed's Macmillan Pass Property and straddles the boundary between the Yukon and Northwest Territories . The Mactung tungsten deposit is located 13 km north of the Tom deposit (Figure 1). The Mactung Property can be reached by an access road that joins the North Canol Highway 230 km from Ross River, or by the government-maintained Macmillan Pass airstrip near the Tom deposit.

Mactung was discovered and staked in 1962 by an Amax geologist. Extensive drilling, metallurgical testing, and multiple historical resource estimates were completed over the next twenty years. The property changed ownership several times and was subsequently acquired by the North American Tungsten Corporation (NATC) in 1997. In 2007 NATC published updated mineral resources (see below) and in 2009 published a positive feasibility study (available at <u>www.sedar.com</u> under the NATC profile). The Yukon Environmental and Socio-economic Assessment Board issued a positive screening report for the Mactung Project in June 2014 and recommended it proceed to licensing without review, subject to terms and conditions, which were subsequently adopted and supplemented by the Yukon Government in its September 2014 Decision Document. However, in June 2015 NATC filed for and was granted creditor protection mainly related to operation of their Cantung mine located further south. The GNWT purchased the Mactung Project for \$4.5 million in the fall of 2015, and subsequently obtained a Class 4 Mining Land Use Approval in 2020. Fireweed Zinc has now signed a binding LOI for acquisition of the Mactung Project with the GNWT (see details below).

Sustainability Context

Fireweed respectfully acknowledges that the Mactung Project is located within the traditional territories of the Kaska Dena and First Nation of Na-Cho Nyäk Dun, and the Sahtú Settlement Area. For the benefit of present and future generations, Fireweed will conduct mineral development activities in a sustainable manner by working collaboratively with Indigenous groups and local communities, establishing a respectful and safe working environment, achieving a high standard of environmental stewardship, and undertaking studies and implementing measures to address local interests and issues.

Mactung Geology & Mineralization

Mactung is a tungsten skarn deposit located on the eastern margin of the Selwyn basin in the Canadian Cordillera's Tombstone-Tungsten Belt (TTB). The mid-Cretaceous TTB spans Alaska, Yukon, and NWT, and hosts many other significant mineral deposits. The Mactung deposit is associated with Tungsten suite intrusions that intruded late Precambrian to Palaeozoic, variably metamorphosed clastic and interbedded carbonate rocks of the Selwyn basin. The tungsten mineralization at Mactung is comprised mostly of scheelite (CaWO₄) and is dominated by calcic mineral assemblages associated with abundant pyrrhotite that developed within permeable limestone units of the Cambrian-Ordovician host rocks. Although the previous feasibility study considered only underground development, the vast majority of tungsten mineralization at Mactung can be found within 200 m from surface.

Mactung Historic Drilling and Historic Estimates

Geological mapping and surface sample programs were conducted in the early and mid-1960's, with drilling beginning in 1968. To date, approximately 38,000 m of drilling in 312 holes have been completed on the property, in addition to multiple historic resource estimates. An adit was opened in 1973 to enable underground exploration and bulk sampling; at least 1,200 metres of lateral underground development has occurred, including bulk samples of 270 tonnes in 1973, 3.5 tonnes in 1979, 650 tonnes in 1983, and 79 tonnes in 2005, enabling extensive metallurgical test work².

Year	Zone	Territory	Historic Estimate Type	Tonnage (million tonnes)	Grade (% WO ₃)	Cut-Off Grade (% WO ₃)
2009	2B	YT only	Probable Mineral Reserve ²	10.79	1.187%	0.616%
2007	2B, 3D 3E, 3F	Yukon NWT	Indicated Mineral Resource ¹	33.03	0.88%	0.5%
2007	2B, 3D 3E, 3F	Yukon NWT	Inferred Mineral Resource ¹	11.86	0.78%	0.5%

Table 1*. Most recent historic mineral resource and mineral reserve estimates from reports on <u>www.sedar.com</u> under NATC profile. (See Cautionary and Background Statements regarding Historic Minerals Resources below.)

Mactung Future Plans

Following final due diligence work and signing of the definitive asset purchase agreement with GNWT, Fireweed will undertake validation programs on previous work in order to support the development of a new mineral resource estimate for the project. Fireweed plans to follow this work with a new PEA on the project in 2023 and will also be evaluating synergies with the Macmillan Pass Project for the future.

About Tungsten

Tungsten is the hardest metal with the highest melting point which makes it an important and often essential metal for use in the automotive, technology, energy, military and manufacturing industries. World tungsten production is dominated by China and there is currently little Western tungsten production which has led tungsten to be listed as a critical mineral by many governments, including Canada. The Canadian government has developed several initiatives to support and advance the exploration and mining of critical metals in Canada, including zinc and tungsten.

Terms of the Mactung Acquisition Agreement

Fireweed and the GNWT have signed a binding Letter of Intent (LOI) under which the GNWT will sell the Mactung Project to Fireweed for a total purchase price of C\$15,000,000 staged as follows:

- 1. Fireweed pays the GNWT the sum of \$1,500,000 upon execution of this binding LOI;
- 2. Fireweed will pay to GNWT an additional \$3,500,000 within 18 months upon finalization of the definitive agreement;
- 3. Fireweed will pay to GNWT an additional \$5,000,000 upon Fireweed announcing its intention to construct a mine on either the Mactung Project or any portion of the mineral property interests controlled by Fireweed in the Yukon, commonly known as the Macmillan Pass project; and
- 4. Fireweed will pay to GNWT an additional \$5,000,000 upon Fireweed announcing its intention to construct a mine on the Mactung Project.

The final definitive agreement is targeted before the end of 2022, after which ownership of the project assets will be transferred to Fireweed. Mactung carries an existing NSR Royalty of 4% which is held by a third party, 2% of which can be purchased at any time for \$2.5M. This binding LOI does not include responsibility for any assets or liabilities related to the defunct Cantung mine located further south; this LOI is solely related to the Mactung Project (Fig. 1).

Qualified Person Statement

Technical information in this news release has been approved by Brandon Macdonald, P.Geo., and a 'Qualified Person' as defined under Canadian National Instrument 43-101.

About Fireweed Zinc Ltd. (TSXV: FWZ; OTCQB: FWEDF; FSE:20F): Fireweed Zinc is a public mineral exploration company on the leading edge of critical minerals project development. The Company has three projects located in northern Canada:

- Macmillan Pass Zinc-Lead-Silver Project: Fireweed owns 100% of the district-scale 940 km² Macmillan Pass project in Yukon, Canada, which is host to the Tom and Jason zinc-lead-silver deposits with current Mineral Resources and a PEA economic study (see Fireweed news releases dated 10th January 2018, and 23rd May 2018, respectively, and reports filed on **www.sedar.com** for details) as well as the Boundary Zone, Boundary Zone West, Tom North Zone and End Zone which have significant zinc-lead-silver mineralization drilled but not yet classified as mineral resources. The project also includes large blocks of adjacent claims with known showings and significant upside exploration potential. Plans for 2022 include a large drill program toward expanded mineral resources and an updated PEA to include large new zones of mineralization defined since 2018 including Boundary Zones.
- Mactung Tungsten Project: The Company has a binding Letter of Intent to acquire 100% interest in the 37.6 km² Mactung Tungsten Project located adjacent to the Macmillan Pass Project. Mactung contains historic resources that make it one of the largest and highest-grade undeveloped tungsten resources in the world. Located in Canada, it is one of the rare large tungsten resources outside of China.
- **Gayna River Zinc-Gallium-Germanium Project:** Fireweed has 100% of the 128.75 km² Gayna River project located 180 kilometres north of the Macmillan Pass Project. It is host to extensive critical minerals mineralization including zinc, gallium and germanium as well as lead and silver, outlined by 28,000 metres of historic drilling and significant upside potential.

In Canada, Fireweed (TSXV: FWZ) trades on the TSX Venture Exchange. In the USA, Fireweed (OTCQB: FWEDF) trades on the OTCQB Venture Market for early stage and developing U.S. and international companies. Companies are current in their reporting and undergo an annual verification and management certification process. Investors can find Real-Time quotes and market information for the Company on **www.otcmarkets.com**. In Europe, Fireweed (FSE: 20F) trades on the Frankfurt Stock Exchange.

Additional information about Fireweed Zinc and its projects, including maps and drill sections can be found on the Company's website at **www.FireweedZinc.com** and at **www.sedar.com**.

ON BEHALF OF FIREWEED ZINC LTD.

"Brandon Macdonald"

CEO & Director

Neither the TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release.

Cautionary Statements

Forward Looking Statements

This news release may contain "forward-looking" statements and information relating to the Company and the Macmillan Pass, Mactung and Gayna River Projects that are based on the beliefs of Company

management, as well as assumptions made by and information currently available to Company management. Such statements reflect the current risks, uncertainties and assumptions related to certain factors including but not limited to, without limitations, exploration and development risks, expenditure and financing requirements, general economic conditions, changes in financial markets, the ability to properly and efficiently staff the Company's operations, the sufficiency of working capital and funding for continued operations, title matters, First Nations relations, operating hazards, political and economic factors, competitive factors, metal prices, relationships with vendors and strategic partners, governmental regulations and oversight, permitting, seasonality and weather, technological change, industry practices, and one-time events. Additional risks are set out in the Company's prospectus dated May 9, 2017 and filed under the Company's profile on SEDAR at **www.sedar.com**. Should any one or more risks or uncertainties materialize or change, or should any underlying assumptions prove incorrect, actual results and forward-looking statements may vary materially from those described herein. The Company does not undertake to update forward-looking statements or forward-looking information, except as required by law.

Cautionary and Background Statements regarding Historic Estimates

A 2007 Technical Report¹ on the Mactung Tungsten Deposit prepared by Wardrop for the NATC reported an Indicated Mineral Resource of 33,029 kt grading 0.88% WO₃ and an Inferred Mineral Resource of 11,857 kt grading 0.78% WO₃. The following assumptions were made during the calculation of this historical Mineral Resource: 1.) CIM definitions (December 2005) were followed for the classification of the mineral resources, 2.) Kriging interpolation estimates were reported at a block cut-off of 0.5% WO₃, which are based on assays capped at unique levels for each zone, 4.) Blocks were modeled as 10 m x 10 m, with a minimum vertical thickness of 4.5 m. Grades were diluted accordingly, if required, as modeled mineralized envelopes range in thickness from 1 m to over 50 m. Average thickness of the mineralized lenses is approximately 18 m, 5.) Tonnage was estimated by multiplying the block's respective volume by the specific gravity ("SG"). The SG was based on densities established by an underground bulk sample taken from the 2B zone as well as data used in previous studies. Wardrop did not review any data or calculations related to the SG determination.

A 2009 Amended Technical Report² on the Mactung Property produced by Wardrop for NATC reported a probable mineral reserve estimate of 10,790 kt grading 1.1869% WO₃. The following assumptions were made during the calculation of this historical mineral reserve estimate: 1.) Mineral reserves reported follow the NI 43-101 definition of "the economically mineable part of a measured or Indicated Mineral Resource demonstrated by at least a Preliminary Feasibility Study", 2.) A mining cut-off grade of 0.616% WO₃ was calculated based on underground operating cost estimates obtained from Wardrop's October 2007 Internal Economic Update, 3.) Calculation of the underground mineral reserves was limited in extent to mining the measured and indicated mineral resources located within the Yukon, 4.) A combination of Long-hole (LH) Stoping and Mechanized Cut-and-Fill (MCF) mining techniques will be used. LH stoping is the primary mining method and only regions where the mineralization is less than 12 m thick or dips steeply, will be mined with MCF, 5.) For the LH stoping method, reserves were calculated using a total recovery factor of 73.2% and 12% dilution, grading 0.1% WO₃. For the MCF method, reserves were calculated at a total recovery factor of 83.5% and 9% dilution, grading 0.1% WO₃, 6.) A 3-D block model was designed with 10 m x 10 m x 10 m blocks, using the following parameters: northing, easting and elevation coordinates, zone identification, resource category, WO₃ percentage, and zone percentage (percentage of the block that lies within the zone), 7.) Probable mineral reserves were calculated by Wardrop using Gemcom SurpacTM Version 6.02 software.

The reader is cautioned that a qualified person has not done sufficient work to classify the historical estimates in this news release as current mineral resources or mineral reserves. The Company has not verified these historical resources and is not treating the historical estimates as current mineral resources or mineral reserves. While these estimates were prepared in accordance with National Instrument 43-101 and the "Canadian Institute of Mining, Metallurgy and Petroleum Standards on Mineral Resources and

Mineral Reserves Definition Guidelines" in effect at the time, there is no assurance that they are in accordance with current standards and these resource estimates should not be regarded as consistent with current standards or unduly relied upon as such. Fireweed includes these historical estimates in this news release for information purposes as they represent relevant material historical data which have previously been publicly disclosed and are accessible online. To the Company's knowledge, the 2007 technical report is the most recent mineral resource estimate available for the Mactung deposits and the 2009 preliminary economic study is the most recent economic study. Further and updated work is needed to validate the drill hole database, associated assay results, economics and other pertinent information. Fireweed plans to prepare updated NI 43-101 compliant mineral resource estimate and preliminary economic studies and reports for the Mactung deposits in the coming year.



Figure 1. Location Map: Macmillan Pass and Mactung properties.

References

¹Scott Wilson Roscoe Postle Associates Inc., 2007. Technical Report on the Mactung Tungsten Deposit, Macmillan Pass, Yukon. Prepared for North American Tungsten Corporation Limited by P.A. Lacroix and R.B. Cook.

²Wardrop Engineering Inc., 2009. Amended Technical Report on the Mactung Property – Yukon, Canada. Prepared for North American Tungsten Corporation Limited.

³Northwest Territories Geological Survey, 2018. NWT Open File 2018-02. Geology of the Mactung tungsten skarn and area-Review and 2016 field observations. Report by B.J. Fischer, E. Martel, and H. Falck.

⁴Elongo, V., Lecumberri-Sanchez, P., Legros, H., Falck, H., Adlakha, E., & Roy-Garand, A., 2020. Paragenetic constraints on the Cantung, Mactung and Lened tungsten skarn deposits, Canada: Implications for grade distribution. Ore Geology Reviews, 125, 103677.