

Fredonia Mining Commences Maiden Mineral Resource Estimation on its El Dorado Monserrat Gold and Silver Project, Argentina

- The Company is preparing an initial mineral resource estimate at the El Dorado Monserrat (“EDM”) project, targeted for release in Q3 of this year.
- The mineral resource estimate will be based on three drilling campaigns carried out over the past three years, representing a total of 10,982.7 meters of diamond drilling, plus historical drillings of the project.

TORONTO, May 21, 2024 -- Fredonia Mining Inc. (“Fredonia” or the “Company”) (TSXV:FRED) announces that it has commissioned the preparation of an initial mineral resource estimate at the EDM project, targeted for Q3, 2024. The work is being undertaken by the independent geologist Mario Alfaro and the independent engineer Marco Alfaro.

The wholly-owned EDM gold and silver project comprises 5,793ha located in the prolific Deseado Massif in Patagonia, Argentina. The EDM project has two large mineralized sectors – the northern and southern sectors – that have been only partly explored to date (Figure 1).

The **northern “Monserrat” sector** comprises an area 3.5 km long by 3.2 km wide, made up of mineralized corridors hosted in andesitic lavas that form country rock, and contains more than 20 kilometers of epithermal veins, not all of which have been explored or drilled (Figure 2). This sector contains a series of mineralized target areas, including Main Veins, Bajo Pedernal, Monserrat West, Abanico, Gladys, and Monserrat East, among others. Some significant drill results include: **6.0 m @ 14.43 g/t Au Eq.** at Main Veins; **2.4 m @ 18.05 g/t Au Eq.** at Monserrat West; **4.0 m @ 2.42 g/t Au Eq.** at Bajo Pedernal (see Fredonia news release, dated February 13th, 2023).

The **southern “Mineralized Corridor” sector** comprises an area 6.0 km long by 1.0 km wide, and including the advanced Herradura Hill target area; Beethoven horst-epithermal veins (only scout drilling done so far); and Pamela target area (not yet drilled).

The Herradura Hill target area consists of a maar-volcano-diatreme surrounded by an extensive brecciated domes and dykes host system, the dimensions of which are yet undefined - being geologically open in all directions (Figure 3). The latest work has shown a new metallogenic interpretation at the Herradura Hill target area, defined as flow domes and an epithermal veins complex with disseminated Au-Ag mineralization with dimensions open in all directions. Drill holes confirm very broad stockworks, wide hydrothermal breccias and veins hosted in a phreatomagmatic breccias, felsic domes and dykes that intrude the andesite flows that form the country rock. Some significant drill intercepts include **8.00 m @ 6.00 g/t Au Eq., including 3.00 m @ 12.65 g/t Au Eq. (Figure 4)** at the Herradura Hill target (see Fredonia news release, dated January 31, 2023).

See notes to Figures 2 and 3 below for information with respect to the assumptions used to calculate Au Eq.

All of these target areas remain open along strike and dip.

Following the release of its maiden mineral resource estimate, future drilling at the EDM project would contemplate three objectives: shallow drilling designed to expand mineralized zones; deep drilling to test high grade feeders; and additional drilling to test new target areas at the project.

Estanislao Auriemma, CEO of Fredonia Mining expressed: "After extensive drilling campaigns over only a portion of the EDM project over the past three years, we are very pleased with the scope and size of the mineralized target areas so far discovered, and very much look forward to the project’s maiden resource estimate, which we believe will confirm the excellent potential of our flagship project."

Figure 1: Map showing the location of the two mineralized zones at the El Dorado Monserrat gold-silver project (5,793 ha licenses).

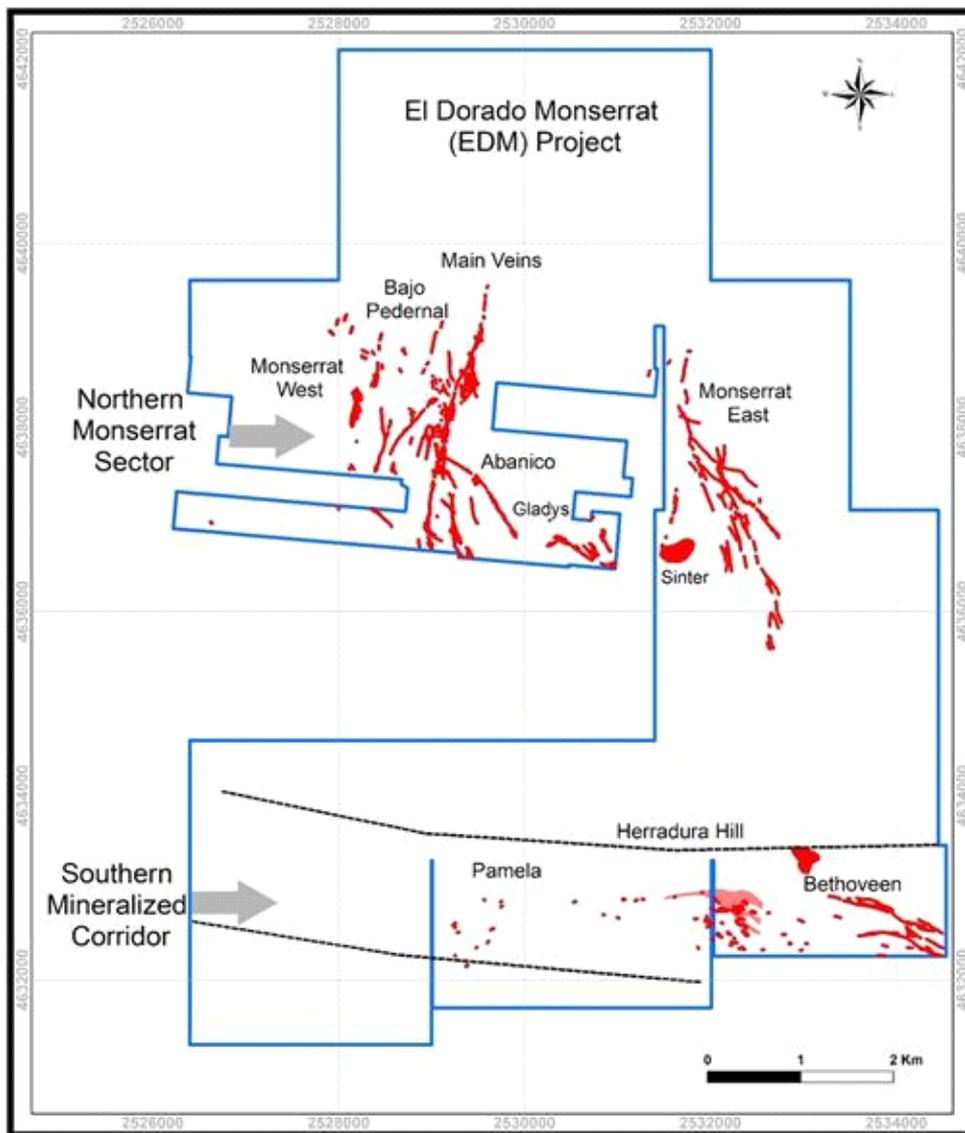
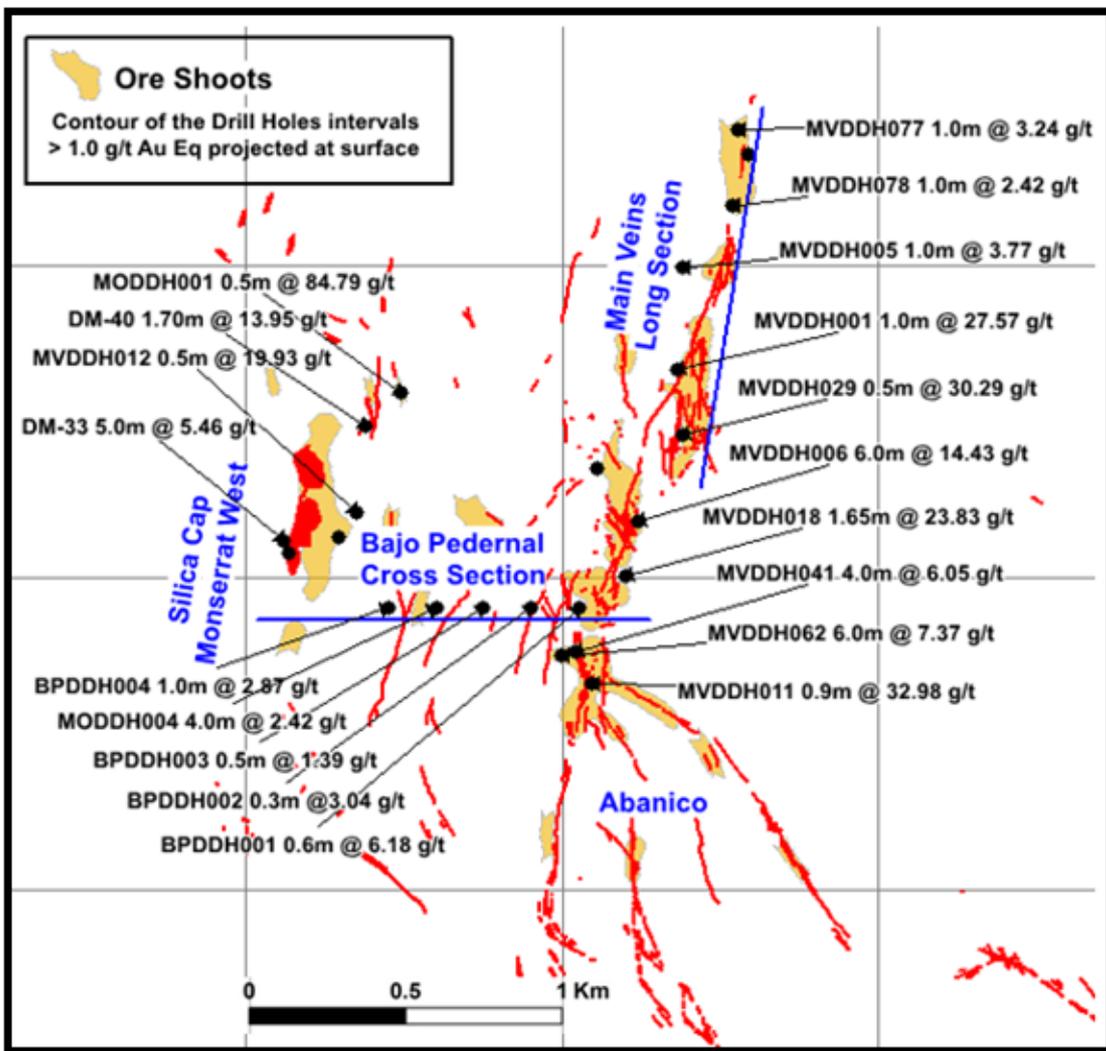


Figure 2: Map showing drill holes location and intercepts at the Northern Monserrat sector:

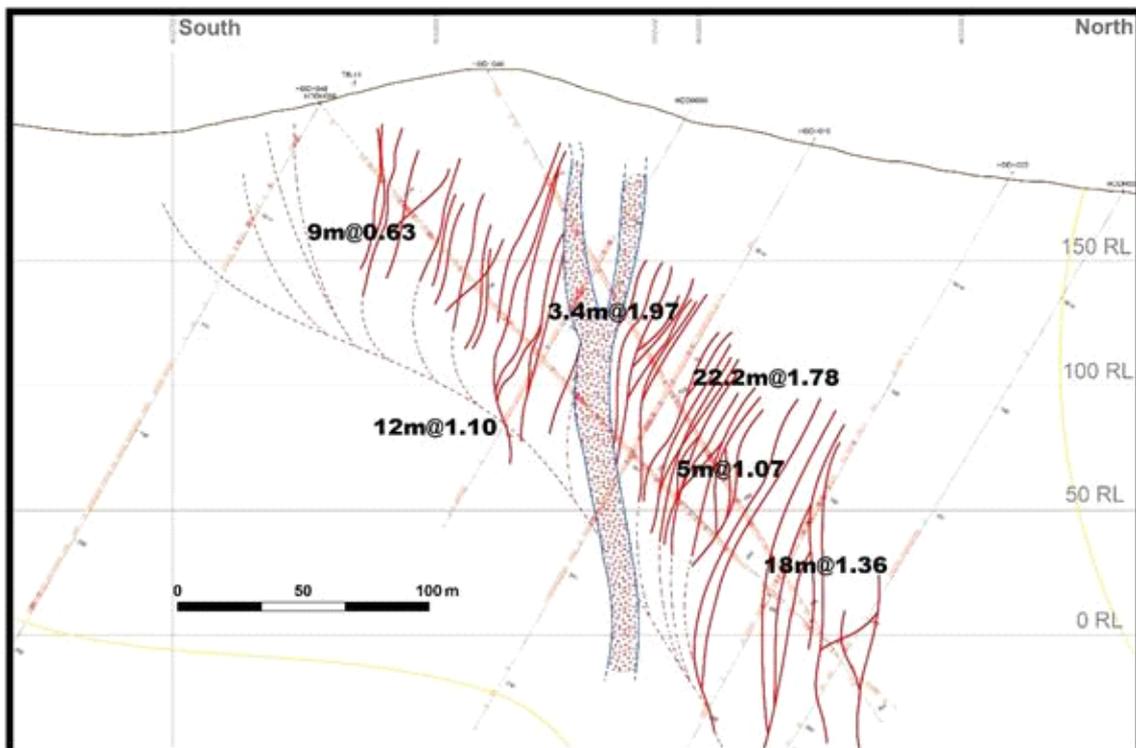


(*) Reported interval lengths are down-hole widths and not true widths.

(**) Gold equivalent ("Au Eq.") is calculated using metal prices of US\$ 1,800/oz for Au and US\$ 24/oz for Ag. The equation used is: $Au\ Eq\ g/t = Au\ g/t + (Ag\ g/t \div 75)$.

Au Eq assumes Au recovery of 90%. The limited metallurgical studies by Fredonia (selective Bottle rolls from Main Veins material) have indicated high (>90%) recovery of gold in oxide material. The Cerro Vanguardia mine to the east of EDM with similar mineralization reports recoveries in the high 90% for Au.

Figure 3. Cross section showing drill holes location and intercepts at the Herradura Hill target:



See Table of Intercepts in Fredonia NR dated January, 31st 2023.

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Figure 4: HDDH047 from 269 to 277m contains 8.00m @ 6.00 g/t Au Eq. Including 3.00 m @ 12.65 g/t Au Eq.



See Table of Intercepts in Fredonia NR dated January, 31st 2023.

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Mr. Fernando Ganem, Professional Geoscientist, is a qualified person ("QP") as defined by Canadian National Instrument 43-101. Mr. Ganem visited the property and has read and approved the technical contents of this release.

Update to Management Team

Fredonia Mining Inc. is pleased to announce the appointment of Mr. Carlos Espinosa as Chief Financial Officer of the Company, succeeding Mr. Omar Salas, who will remain with Fredonia in an advisory role to ensure a smooth transition.

Mr. Espinosa is a mining executive with over 30 years of experience within Canadian capital markets, international business development and commercial banking. Among other positions, Mr. Espinosa was Fredonia's CFO between 2016 to 2022, during which period he was part of the management team that completed the RTO resulting in the Company's listing on TSXV, as well as subsequent equity financing and acquisition transactions. During his career, he has also served as a Director and Officer of other mining companies with international operations. Mr. Espinosa earned an MBA from Kellogg School of Management at Northwestern University and a Bachelor of Business Administration from UNAM - Universidad Nacional Autónoma de Mexico.

The Company wishes Mr. Salas well in his future endeavours.

About Fredonia

Fredonia holds gold and silver license areas totaling approximately 18,000 ha. in the prolific Deseado Massif geological region in the Province of Santa Cruz, Argentina, including its flagship advanced El Dorado-Monserrat project (approx. 5,793 ha.) located close to AngloGold Ashanti's 300,000 oz./yr Au-Ag Cerro Vanguardia mine, the El Aguila project (approx. 9,100 ha.), and the Petrificados project (approx. 3,000 ha).

For further information

Please visit the Company's website at www.fredoniamanagement.com or contact: Estanislao Auriemma, Chief Executive Officer, Direct +5491149980623, Email: estanislao.auriemma@gmail.com.

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

Cautionary Note Regarding Forward-Looking Statements

This press release contains certain "Forward-Looking Statements" within the meaning of applicable securities legislation relating to the Company and the EDM project, including statements regarding expectations with respect to preparing and releasing a maiden resource estimate in Q3 2024 and the merits of the results thereof, the prospectivity of the EDM project for gold and silver mineralization, including the potential for metal recoveries from any mineral processing activity, and the Company's future exploration plans. Words such as "might", "will", "should", "anticipate", "plan", "expect", "believe", "estimate", "forecast" and similar terminology are used to identify forward looking statements and forward-looking information. Such statements and information are based on assumptions, estimates, opinions and analysis made by the Company considering its experience, current conditions and its expectations of future developments as well as other factors which it believes to be reasonable and relevant. Forward-looking statements and information involve known and unknown risks, uncertainties and other factors, including, without limitation, the factors described in the Company's filing statement dated June 22, 2021 available on SEDAR+ at www.sedarplus.ca under the heading "Risk Factors" that may cause actual results to differ materially from those expressed or implied in the forward-looking statements and information and accordingly, readers should not place undue reliance on such statements and information and the Company can give no assurance that they will prove to be correct. The statements in this press release are made as of the date of this release. The Company undertakes no obligation to update forward-looking statements made herein, or comment on analyses, expectations or statements made by third parties in respect of the Company or its securities, other than as required by law.

Photos accompanying this announcement are available at:

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