

Fredonia Mining Inc.

Fredonia Mining Inc. Announces Filing of Technical Report for the Maiden Mineral Resource Estimate at El Dorado Monserrat Project, Argentina and Option Grant

TORONTO, Ontario, December 24th, 2024 – Fredonia Mining Inc. (“**Fredonia**” or the “**Company**”) (TSXV:FRED) announces that it has filed a technical report for its wholly-owned El Dorado Monserrat (“EDM”) Gold & Silver Project, Santa Cruz province, Argentina (the “**Technical Report**”) pursuant to National Instrument 43-101 "Standards of Disclosure for Mineral Projects" ("NI 43-101"). The Technical Report supports the disclosure made by the Company in its November 11, 2024 news release announcing the Maiden Mineral Resource Estimate at El Dorado Monserrat Project, Argentina.

The Technical Report is titled “Maiden Mineral Resources Estimate on the El Dorado Monserrat Property, Gold and Silver Project Santa Cruz Province, Argentina” with an effective date of November 8, 2024, and was prepared by Mr. Mario Alfaro Cortés, Qualified Person (QP) as defined by Canadian National Instrument 43-101, Chilean Mining Commission; and Mr. Ganem Fernando, Qualified Person (QP) as defined by Canadian National Instrument 43-101, member of the American Institute of Professional Geologists.

Estanislao Auriemma, CEO stated: “With the filing of the technical report and maiden mineral resource estimate for the North and South deposit, we are planning a new phase of diamond drilling to expand the high-grade gold and silver resources and then move the Project through a Pre- Feasibility study. As the maiden mineral resource estimate covers only a fraction of the Project, we believe we have established the baseline for significant shareholder value, and, with our now deeper understanding of the Project's geology, we plan to continue to significantly grow the size and quality of the mineral resource as we address the broader Project area that demonstrates mineralization, similar to the neighboring Cerro VanGuardia mine. The upcoming drill campaign is focused on demonstrating that higher grade mineralization exists at depth consistent with the results of our deeper drill holes we completed at Herradura Hill showing increasing grade.”

Highlights significant potential for the Project; at a 0.40 g/t cut-off gold grade, the maiden mineral resource estimate totals:

- **In Pit Measured & Indicated Mineral Resource:** 81.348 million tonnes grading 0.61 g/t gold and 18.76 g/t silver (0.86 g/t gold equivalent*6), containing an estimated 1.593 million ounces of gold and 49.067 million ounces of silver (2.248 million ounces of gold equivalent*6); plus limited Inferred Mineral Resource.

- The estimate produces in- pit resources for the Northern Monserrat Sector and Southern Mineralized Corridor deposits, spaced just 5.0 km apart.
- Mineralization remains open in all directions and below the base of drilling at both the North and South sectors, showing clear scope for further drilling to increase the size of this initial mineral resource estimate.
- The resource estimate is based on 40,472.68 meters of drilling and 5,305.43 meters of trenches, intersecting the resource solids. These drillings are divided into 164 holes for a total of 27,504.22 meters for Northern Monserrat Sector and 55 holes for a total of 12,968.46 meters for Southern Mineralized Corridor (including only Herradura Hill target). Gold and silver grades for both sector, have been interpolated independently.

MINERAL RESOURCE ESTIMATE STATEMENT ⁽¹⁻⁶⁾

Category	Ktons	Au Eq* g/t	Au g/t	Ag g/t	Au Eq* Moz	Au Moz	Ag Moz
North	Measured	35,554.4	0.93	0.66	20.26	1.064	23.159
	Indicated	36,481.3	0.81	0.56	18.52	0.950	21.721
	Inferred	180.1	1.01	0.61	29.71	0.006	0.172
South	Measured	1,406.1	0.75	0.58	12.64	0.034	0.571
	Indicated	7,906.3	0.78	0.60	14.22	0.199	3.616
	Inferred	386	0.78	0.57	15.62	0.010	0.194
Total (M&I)	81,348.1	0.86	0.61	18.76	2.248	1.593	49.067
Total (Inferred)	566.1	0.85	0.58	20.10	0.015	0.011	0.366

Note: Ktons: thousands of tonnes.

Moz: millions of ounces.

Figures may not add exactly due to rounding.

(1) Mineral resources which are not mineral reserves do not have demonstrated economic viability. The estimate of mineral resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues. It is noted that no specific issues have been identified as yet.

(2) The quantity and grade of reported Inferred mineral resources in this estimation are uncertain in nature and there has been insufficient exploration to define these Inferred mineral resources as an Indicated or Measured mineral resources and it is uncertain if further exploration will result in upgrading them to an Indicated or Measured mineral resource category.

(3) Mineral Resources were estimated utilizing S-Gems and Rec-Min software and conventional block modeling within 3D wireframes defined on a 0.40% gold cut-off, capped composites and inverse distance grade interpolation.

(4) The mineral resources in this report were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), CIM Standards on Mineral Resources and Reserves, Definitions and Guidelines prepared by the CIM Standing Committee on Reserve Definitions and adopted by the CIM Council.

(5) The 0.40% gold resource cut-off grade was derived from long term average Gold price of US\$1,800/oz, 90.0% process recovery, 4.5% royalties, US\$ 7.0/t process cost, US\$ 5.0/t transportation & refining and US\$ 4.0/t G&A cost. An optimized pit shell was utilized for resource reporting that utilized a US\$ 2.0/t mining cost and 45 degree pit slopes.

(6) Gold grade equivalent (Au Eq) is derived from gold metal price US\$1,800/oz, and silver metal price US\$24/oz. Au Eq assume Au and Ag recoveries of 90.0%. 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. Accordingly, the formula used for gold grade equivalent (Au Eq) is:

$$\text{Au Eq (g/t)} = \text{Au (g/t)} + [\text{Ag (g/t)} \times (24/1,800) \times (0.9/0.9)]$$

SUMMARY OF SENSITIVITY RESULTS FOR GOLD CUT-OFF GRADE

Cut-off	Ktons	Au Eq* g/t	Au g/t	Ag g/t	Au Eq* Moz	Moz Au	Moz Ag
0.1	131,223.6	0.71	0.49	16.53	3.016	2.086	69.754
0.2	128,674.0	0.72	0.50	16.73	2.995	2.072	69.224
0.3	110,174.7	0.78	0.54	17.48	2.747	1.921	61.916
0.4	81,348.1	0.86	0.61	18.76	2.248	1.593	49.067
0.5	46,884.5	1.02	0.72	21.87	1.534	1.092	33.111
0.6	21,994.5	1.24	0.93	23.74	0.878	0.654	16.786
0.7	12,666.9	1.45	1.13	24.06	0.592	0.461	9.797

Notes: the base case estimate presented above is subject to the same assumptions and qualifications described in Notes 1-6 of Table 1 above.

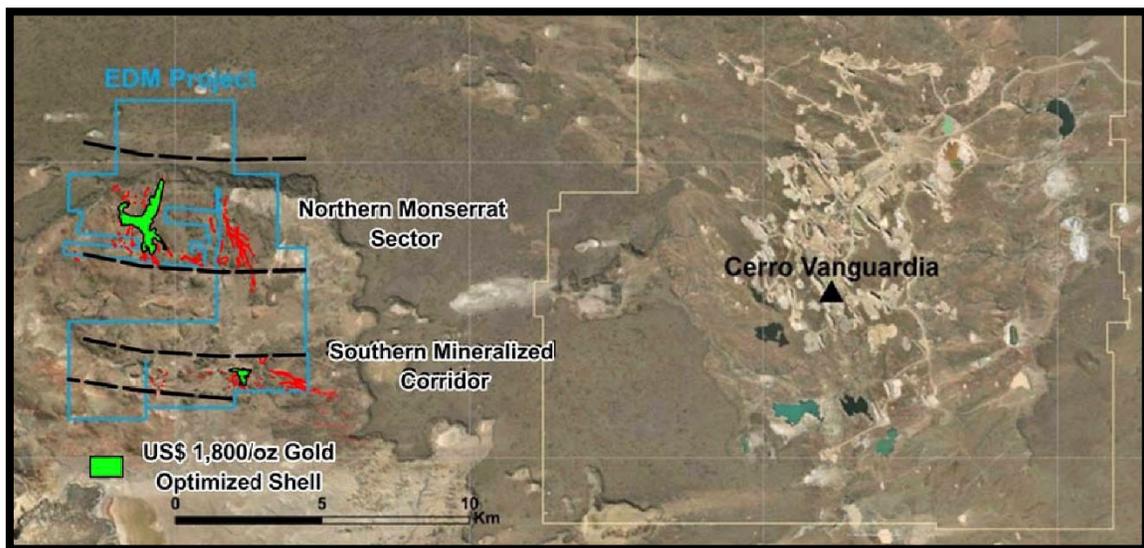


Figure 1. Plan view of the north and south deposits (resource area in green) and their proximity in relation to the Cerro Vanguardia Mine.

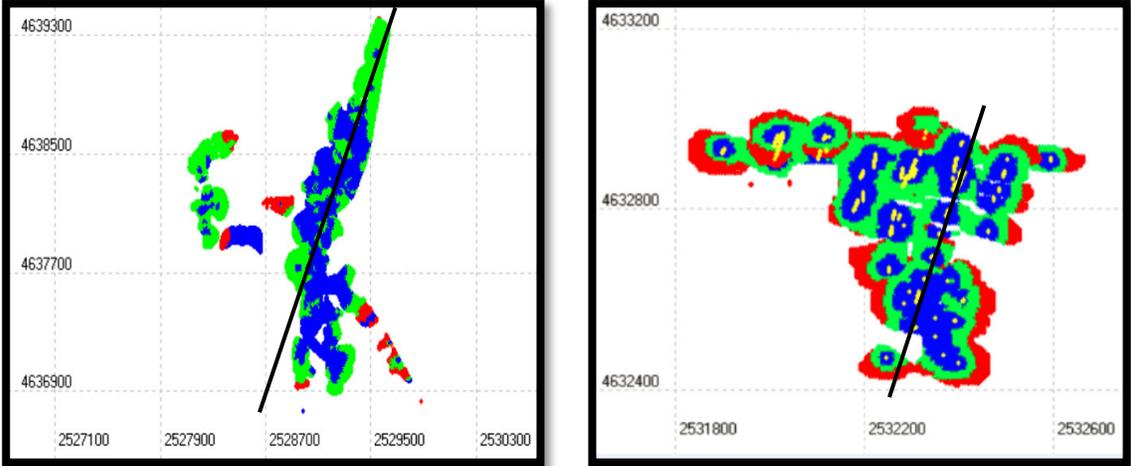


Figure 2. Plan view of the north and south deposit at El Dorado Monserrat. (Blue measured, green indicated, red inferred).

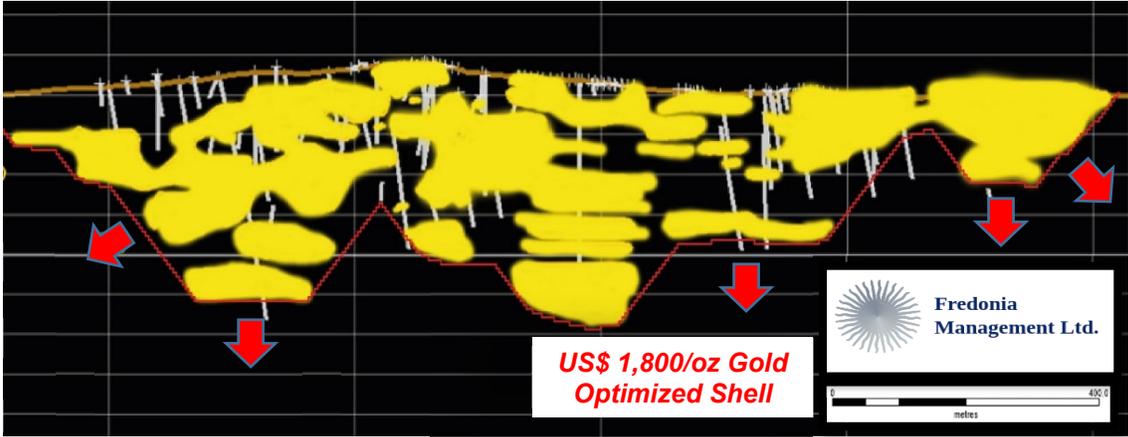


Figure 3. Gold grade Shell with a view to the West. Long Section of the MRE at Northern Monserrat Sector.

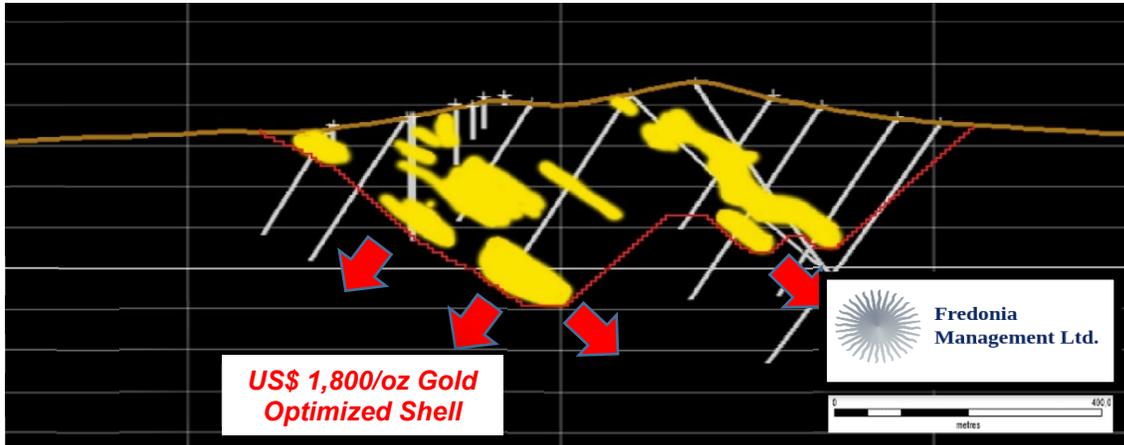


Figure 4. Gold grade Shell with a view to the west. Cross Section of the MRE at Southern Mineralized Corridor (included only Herradura Hill).

Preparation of Mineral Resource Calculation

The mineral resource estimate was prepared by independent QP Mario Alfaro Cortés of Chile, commissioned by Fredonia Mining, and is calculated for two deposits, North and South. The estimate was prepared according to NI 43-101 standards and the CIM Standards on Mineral Resources and Reserves: Definitions and Guidelines (CIM 2014).

Qualified Person

Mr. Fernando Ganem, is a 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.

GRANT OF COMPANY OPTIONS

The Company also announces that it has granted stock options (the “Options”) to directors and officers of the Company in the amounts described in the table below. Each Option is exercisable to purchase one common share of the Company (a “Common Share”) at a price of \$0.40 per Common Share, representing a significant premium to the market price of the Common Shares on the TSX Venture Exchange, for a period five years from the grant date. The Options have been granted in accordance with the terms of the Company’s stock option plan and have been granted to the directors and offices in lieu of accrued cash amounts payable for compensation for acting in those positions. The Company intends to pay cash compensation to officers and directors in the future in accordance with historical practices.

Optionholder	Number of Options Granted	Exercise Price
Ali Mahdavi	200,000	\$0.40
Estanislao Auriemma	200,000	\$0.40

Optionholder	Number of Options Granted	Exercise Price
Waldo Perez	100,000	\$0.40
Michael Doolan	100,000	\$0.40
Ricardo Auriemma	100,000	\$0.40
Carlos Espinosa	60,000	\$0.40

About Fredonia

Fredonia holds gold and silver license areas totaling approximately 18,300 ha. in the prolific Deseado Massif geological region in the Province of Santa Cruz, Argentina, including the following principal areas: its flagship - the advanced El Dorado-Monserrat project (approx. 6,200 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 +54 91 149 980 623, 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 the prospectivity of the EDM project for gold and silver mineralization, including the potential for metal recoveries from any mineral processing activity, the mineral resource estimate at the Project, the prospectivity for mineralization at the EDM Project similar to mineralization at the Cerro Vanguardia mine, 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.sedar.com 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.