Fredonia Mining, Inc.

Fredonia Mining Confirms Significant Gold Mineralization at La Herradura

- **New drill hole HDDH031 intersected 37m @ 1.04 g/t Au near historic drill hole HDDH013 containing 85.07@ 1.02 Au g/t (including 9m @ 7.43 Au g/t)**
- **Drill results pending from Monserrat West**

TORONTO, Dec. 16, 2021 (GLOBE NEWSWIRE) -- Fredonia Mining Inc. (“Fredonia” or the “Company”) (TSXV: FRED) is pleased to announce the successful completion of the first of two phases of its drilling program at its flagship Eldorado Monserrat (“EDM”) property, located in Santa Cruz, Argentina.

On the La Herradura project 1,583.5m of drilling were completed. Additionally, 1,841m was drilled on the Monserrat Oeste project for which assays are awaited.

Phase one of the La Herradura drilling consisted of six HQ diamond drill holes for a total of 1,583.5m. Over 1,142 samples (including standards, blanks and duplicates) were submitted for gold fire assays and multielement ICP to Alex Stewart (a certified laboratory). Not all assays have been return for the last hole, HDDH034 and these will be reported separately.

"We are very excited about the results obtained so far at La Herradura as they confirm the potential we are confident extends for the entire district at El Dorado Monserrat, adding potential future resources to those known in the Main Veins,” commented Estanislao Auriemma, CEO of Fredonia. “The new interpretation of the target on La Herradura "hill", following the Montana Tunnels model, notably increases the potential of the entire district. We are looking forward to the laboratory results for our drilling at Monserrat Oeste which will be reported shortly and which we believe will confirm the presence of another mineralized body further increasing the potential of the entire area.”

Table of drill-hole statistics:

Hole ID	Coord.	Coord.	Altitude	Azimuth	Dip	Length
	East	North				
HDDH029	2532502	4632911	193	188	-60	221.0
HDDH030	2532450	4633063	178	188	-60	344.5
HDDH031	2532231	4632990	189	188	-60	246.5
HDDH032	2531732	4632994	194	188	-60	302.5
HDDH033	2532201	4632873	213	188	-60	230.5
HDDH034	2532105	4632877	213	188	-60	238.5
Total						1583.5

The anomalous gold-silver intersections confirm and expand the area of interest identified by historic drilling and demonstrate wide low grade Au-Ag intersections and ‘included’ higher grade zones, (true widths yet to be determined):

HDDH031 - **from** 81m, 37m @ 1.04g/t Au and 26g/t Ag

This hole is close to the historic hole HDDH013 containing - **from** 68m, 85.07m@ 1.02g/t Au and 11g/t Ag, including 9m @ 7.43g/t Au and 51g/t Ag.

Other notable intersections from the recent drilling include:

Table of best intersections:

Hole ID	From	To	Interval	Au g/t	Ag g/t
HDDH029	53.00	74.00	21.00	0.61	9.4
HDDH029	125.00	132.00	7.00	0.61	1.2
HDDH031	161.00	198.00	37.00	1.04	26.1
HDDH033	71.00	91.00	20.00	0.57	7.0
HD034	81.00	incomplete			

Table of (selected) historic drill intersections, La Herradura:

Hole ID	From	To	Interval	Au g/t	Ag g/t
HDDH001	124.00	140.00	16.00	0.61	29.7
HDDH007	83.00	92.00	9.00	1.17	12.7
HDDH012	126.50	128.10	1.60	5.49	3.8

HDDH011	147.70	199.00	51.30	1.11	45.8
HDDH013	68.00	163.70	85.70	1.02	11.0
including	68.00	77.00	9.00	7.43	51.7
and	149.70	180.00	30.30	0.72	32.9
HDDH015	139.00	153.50	14.50	0.86	20.5
HDDH022	150.00	168.00	18.00	1.16	14.7
HDDH026	95.00	135.00	40.00	0.48	16.6
HDDH027	216.00	229.00	13.00	1.38	83.7

The drill holes at La Herradura were drilled to target both the roughly east west mineralised trend including the central diatreme at La Herradura 'hill' and to expand the gold anomalism identified in the historic drilling which extends over 1,100m to depths of >200m.

Fredonia remains positive about the results of the drilling to date and the continued potential outlined at La Herradura by these latest drilling results.

The mineralisation model proposed is similar to the Montana Tunnels southwestern Montana bulk tonnage Au-Ag mine centred on a diatreme hosted in a suite of volcanics. The principal rock type in the diatreme is a matrix-rich breccia containing fragments of contiguous volcanic wall rocks and intrusive rocks. Sulphide mineralisation occurs as disseminations in the breccia matrix, as well as in subordinate widely spaced, multidirectional veinlets. The ore zone is overprinted by pervasive sericitic alteration and weak kaolinization and silicification.

Drill holes have intercepted hydrothermal breccias, veins and stockworks, hosted in a phreatomagmatic breccias, felsic domes and dikes that intrude the andesite flows which form the country rock.

Gold mineralisation is related to a quartz + sericite alteration and minor bladed calcite and adularia, interpreted as evidence of a boiling zone in an epithermal system. The shallow and distal zones show a chlorite + hematite + pyrite alteration, while in the deeper sections there are veins of platy calcite + fluorite. Superimposed on the system is an alteration halo of kaolinite + alunite and vuggy quartz, occurs in shallow and medium-deep sectors.

The current drilling whilst of limited meters has enhanced the project's potential and confirmed the presence of wide intersections of mineralised material with higher grade inclusions. The system is interpreted to remain open in all directions and Fredonia believes more drilling is warranted.

A recent geophysical program (IP / Res) over the La Herradura area indicates three new anomalies, extending the system 600m to the west. In a district scale context La Herradura lies in a roughly east west mineralisation trend which extends eastwards to the Beethoven project, (on strike with Cerro Vanguardia – Anglo Gold Ashanti) and westward to Fredonia's recently identified Pamala prospect.

Follow-up drilling in planned to commence Q1 2022 with the objective of further delineating the Au-Ag mineralisation.

Quality Assurance/Quality Control:

All core samples were submitted to Alex Stewart Laboratory in San Julián for preparation, and transported by the Laboratory to their main Laboratory Mendoza for the analysis. All samples were analyzed for Au and Ag by fire assay/ AA finish 50 g, plus a 39-element ICP-AR finish. Fredonia followed industry standard guidelines for the work with a quality assurance/quality control (QA/QC) program. Blanks and reference material of both high grade/ low grade gold and silver standards were included with all sample shipments to the Laboratory. 'Field duplicates' were made from coarse reject material supplied by the principle Laboratory for re-analysis as well as checking by a second certified laboratory. Fredonia detected no significant QA/QC issues during review of the data so far received. QA/QC assessment is ongoing.

Marc J. Sale, Qualified Person, is a competent person as defined by Canadian National Instrument 43-101, has read and approved the technical contents of this release.

Technical Information

The technical contents of this press release have been reviewed and approved by Marc J. Sale FAustIMM MAIG, a qualified person pursuant to National Instrument 43-101 ("NI 43-101"). Mr. Sale is qualified as a geologist with a technical background in mineral exploration, including specifically gold and silver deposits.

ACA Howe's Senior Associate Geologist, Marc J. Sale (QP), was onsite for several days during Fredonia's drilling in March 2018. During this period, the drilling, sampling and security procedures were witnessed and all were considered to be in line with industry best practices. Drill core and sampled drill core were under the continuous supervision by Fredonia. At the drill site a dedicated assistant supervised drill core quality control, including observing the removal from the core barrel, placement in the core box, cleaning and correct insertion of the 'core block'. There were very frequent visits by geological staff during both day and night drill shifts. Drill core, having been correctly orientated, was cleaned and then in sealed wooden boxes before being transported to the core logging area; a secure area removed for the main camp and cordoned off with restricted access signs. Once core was logged and 'marked' up for sampling it was moved to the core cutting shed which was kept locked when not operational. The half core in the designated sample intervals was bagged, labelled and sealed. Prior to transport to the laboratory all samples were kept in a secure shed which was locked by the supervising geologist. Samples were periodically

transported by 4WD to the laboratory by Fredonia field staff in secured hessian bags. The bags were checked for any signs of damage when delivered before being handed into the custody of the laboratory for sample preparation.

All drill core sampled by Fredonia, as well as verification samples collected by Marc J. Sale (QP), were assayed by Alex Stewart Laboratories in Mendoza. Samples were prepared in their laboratory in San Julian some 155 km east-southeast of the EDM property. Alex Stewart Laboratories is accredited to ISO standards and has ISO 9001:2015 and ISO 14001:2015 certification for its facility in Mendoza where all analyses were conducted. Alex Stewart Laboratories is independent of Fredonia and acts as a service provider as and when required. On receipt at the laboratory the samples were logged in and ascribed a unique bar code. Samples were then weighed and dried at 40°C, before being crushed to #10 mesh. The bulk of the coarse sample was stored. The ~600 g sub-sample was pulverised until 95% passed #140 mesh. Gold was assayed by Fire Assay using a precise 50g charge, fused at 1050°C with flux, then smelted and refined to produce a lead alloy. This was followed by cupellation of the lead alloy, before dissolving in Aqua Regia from which 10 ml was analysed by an Atomic Absorption Spectrometer to determine the gold assay value. For silver assays the process is similar, although the finish is by 10 ml being dissolved in HNO3 but also with an AA spectrometer finish. All samples were also analysed by ICP for a suite of 39 elements.

QA/QC comprised of blanks and certified reference material (CRM) being inserted into the sample stream, on average 10% of material analysed was either a blank or CRM. Blanks were derived from a mixture of laboratory sources and white quartz of unknown origin. CRM was bought from a certified source – GeoLabs of Australia. All blanks were reported in assay as being below detection limit for both gold and silver. This indicates that contamination is not present in any significant quantity. Analysis of CRM samples indicates that the laboratory accuracy is generally acceptable, with 95% CRM analyses within three standard deviations of the mean.

As well as the QA/QC reported above, for the 2018 drilling programme, 31 pulps and coarse rejects were re-assayed by Alex Stewart Laboratories (ASL). In addition, a 50% split of the 31 coarse rejects were sent to Bureau Veritas Minerals (ACME Labs) in Canada for further re-analysis. Comparison of results with the original assays for both gold and silver shows a strong positive correlation, providing confidence in the original assays.

About the Project

The Deseado massif is a tectonic block which comprises Jurassic and Cretaceous volcanic outpouring, containing two important geological groups: the Bajo Pobre and Chon Aike both of which are prospective for low sulphidation epithermal style gold-silver mineralisation, such as being exploited at Anglo Gold Ashanti's Cerro Vanguardia gold – silver mine located approximately 17 kms from Fredonia's properties.

The Company's property contains other prospects which are interpreted as prospective on the basis of drilling so far conducted, and several other prospects with identified structures containing significant gold-silver values in rock chip, channel and drill samples.

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 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 in light of 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 statement 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.

For further information: Please visit the Company website www.fredoniamanagement.com or contact: Carlos Espinosa, Chief Financial Officer, Direct: +1-647-401-9292, Email: cespinosa@slgmexico.com