



Fredonia Mining Reports High-Grade Gold and Silver at the Northern Monserrat sector - El Dorado Monserrat Project

Results include 4.00 meters @ 1.66 g/t Au Eq., confirming the strike extension to the north of the Main Veins target and discovery of multiple veins at the Bajo Pedernal target, include 0.60 meters @ 6.18 g/t Au Eq.

- The Northern Monserrat sector comprises a series of targets including Main Veins, Bajo Pedernal, Monserrat West, Abanico, Gladys, Entrevero, Monserrat East, among others, within our flagship El Dorado Monserrat (“EDM”) gold-silver project (6,200 ha), located 17 km west of the multi-million oz. producing Cerro Vanguardia gold mine run by AngloGold Ashanti.¹
- The new drilling confirms shallow Au-Ag mineralization at the Main Veins target and extending the system to the north, including MVDDH078 intercepts at 4.5 m, **4.00 m @ 1.66 g/t Au Eq.**, and at 18.5 m, **4.00 m @ 1.49 g/t Au Eq.**
- New veins were intercepted between the Main Veins and Monserrat West targets, confirming the existence of additional high-grade veins under the modern rock cover at the Bajo Pedernal target (which lies between Main Veins and Monserrat West) - BPDDH001 intercepts significant gold mineralization at 92.5 m, **0.60 m @ 6.18 g/t Au Eq.**
- Prior significant drill results at these targets 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; and **4.0 m @ 2.42 g/t Au Eq.** at Bajo Pedernal (see Fredonia news release dated January 20th, 2022).
- Additionally, the Southern Mineralized Corridor that includes the Herradura Hill target, and which was part of this phase III drilling campaign, produced significant drill results, including **8.00 m @ 6.00g/t Au Eq.** (see Fredonia news release dated January 31st, 2023).

TORONTO, Ontario, February 13th, 2023 – Fredonia Mining Inc. (“Fredonia” or the “Company”) (TSXV:FRED) announces successful completion of its phase III drilling

¹ 2.5 million oz. Au in the measured and indicated mineral resource category (including reserves) per AngloGold Ashanti Mineral Resource and Ore Reserve Report as at 31 December 2021; 145,000 oz production in 2021 per Cerro Vanguardia Operational Profile 2021; available at www.anglogoldashanti.com.

program, with results of the remaining 6 HQ diamond drill holes totaling 1,143.00 m. drilled at the Northern Monserrat sector of its EDM project. The phase III drill program included an aggregate of 12 holes for a total of 2,955 m – 6 holes in the southern Herradura Hill target (see Fredonia news release dated January 31st, 2023) and the last 6 holes at the Northern Monserrat sector (drilled at the Main Veins, Bajo Pedernal and Monserrat West targets).

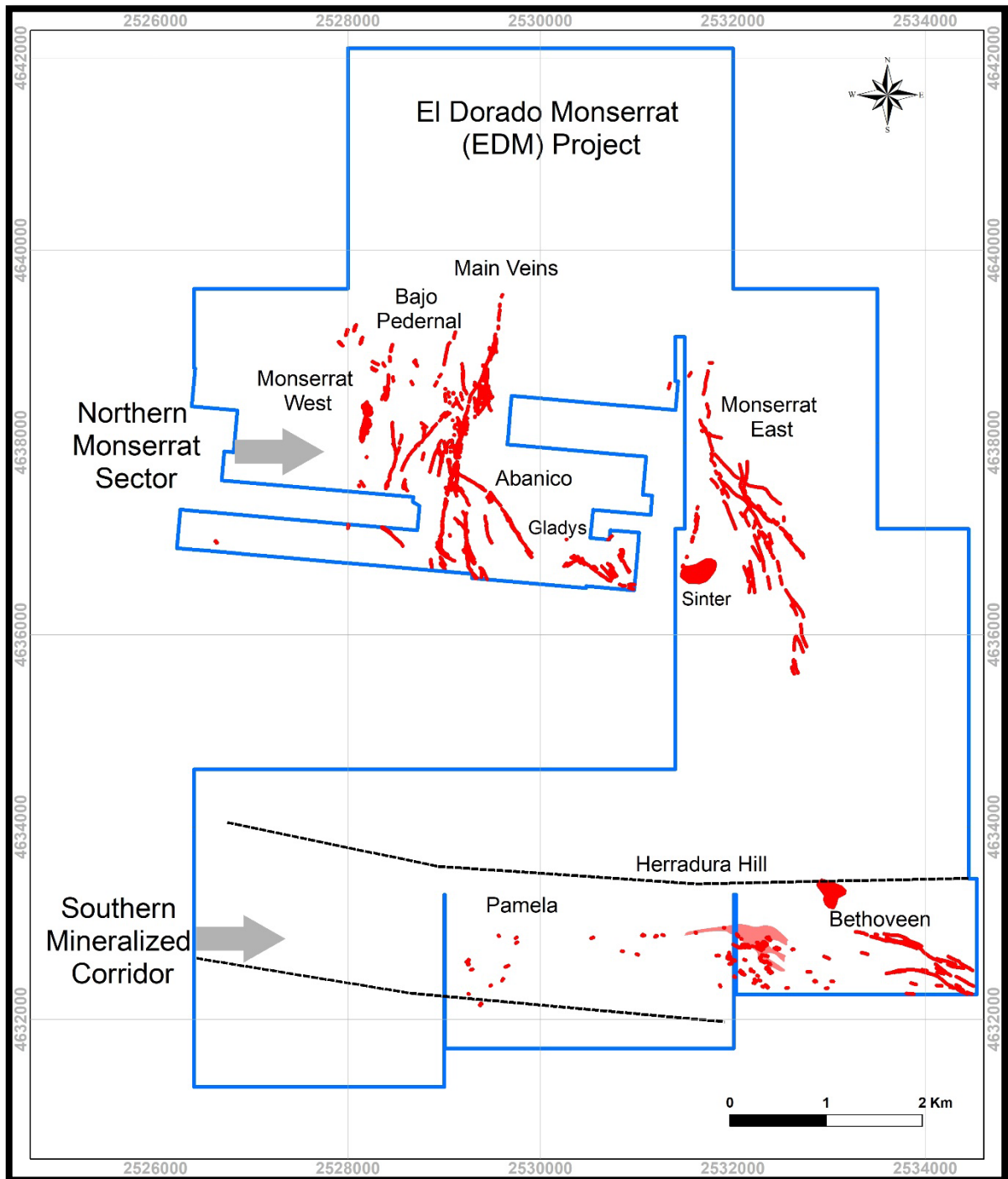
“We are very encouraged to learn that the Bajo Pedernal target, which joins the Monserrat West target to the Main Veins target, has multiple veins under modern rock cover, with potential to host high-grade ore shoots, similar to those already detected at the Main Veins and Monserrat West targets,” said Estanislao Auriemma, Chief Executive Officer of Fredonia. “Also very pleased to learn that the strike of the veins continues to the north under the post-mineral basalt flow, which indicates a significant increase in the mineralized area at the EDM project”. The high-grades of gold and silver drilled in the Northern Monserrat sector, and those drilled at the Herradura Hill target in this current exploration program, confirm the growing potential of the EDM project.”

This phase III drill program was design to cover two targets within the Northern Monserrat sector:

- A four-hole fence completes a full 1.1 km long cross-section to encompass a large unexposed Bajo Pedernal target covered by modern rocks. This cross-section spans the area between the Main Veins and Monserrat West targets.
- The drill-hole fence intercepted multiple zones of stockworks, veins and breccias containing high- grade of gold and silver, with **0.60m @ 6.18 g/t Au Eq.** at BPDDH001. The new intercepts added to the historical intercepts at Main Veins and Monserrat West, in the Northern Monserrat sector. (see Figure 3).

The two additional drill holes at the Main Veins target extend its strike and open the system to the north, under the basalt flow, intersecting a wide ore shoot with high-grade - **4.00m @ 1.66 g/t Au Eq.** and **4.00m @ 1.49 g/t Au Eq** at MVDDH078. (see Figure 4).

Figure 1: Map showing the location of the main targets at the Northern Monserrat sector - El Dorado Monserrat gold-silver project (6,200 ha licenses).



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. There is evidence of buried veins unexplored or as extensions to

understand the vein systems. All prospects discovered up to date have not been limited along strike or dip.

Two different strikes of faults host the mineralization: north-south "horst and graben" faults, and NW-SW shear faults. The crossings, nodes, and inflexion between both structures control the location of the high-grade gold and silver ore shoots, and reveal the potential at the Northern Monserrat sector.

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

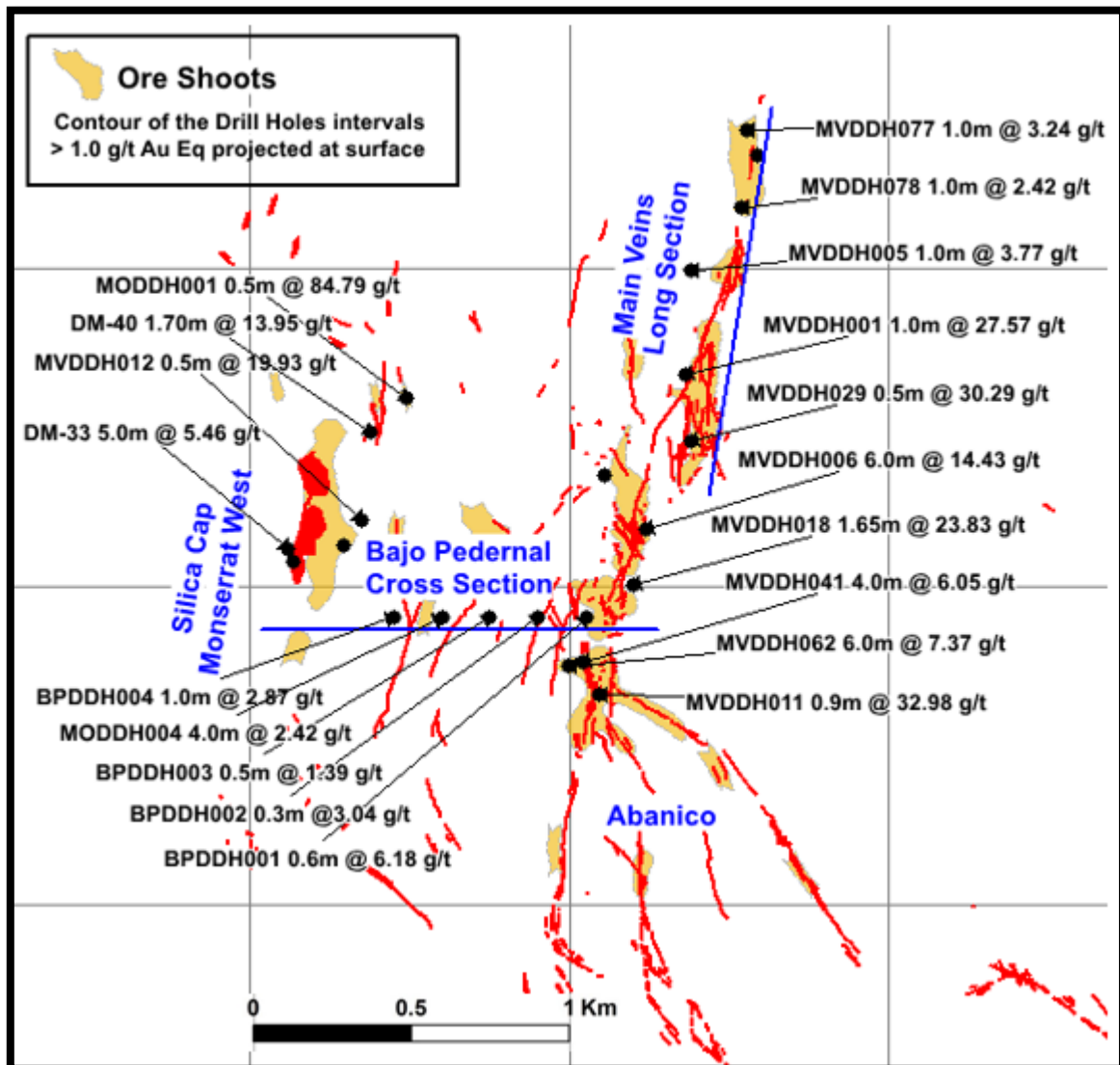


Table I. Drill-hole statistics:

Drill Hole	Target	Easting	Northing	Altitude	Azimuth	Dip	EOH
BPDDH001	Bajo Pedernal	2529054	4637900	223	279	-45	200.00
BPDDH002	Bajo Pedernal	2528900	4637900	214	279	-45	221.00
BPDDH003	Bajo Pedernal	2528750	4637900	211	279	-45	302.00
BPDDH004	Bajo Pedernal	2528450	4637900	214	279	-45	302.00
MVDDH077	Main Veins	2529555	4639429	222	110	-45	56.00
MVDDH078	Main Veins	2529538	4639184	201	79	-60	62.00
Total:							1,143.00

Table II. The intercepts of current Phase III drilling at Bajo Pedernal and Main Veins Targets - Northern Monserrat sector, are shown below:

Hole ID	Target	From	To	Length (*)	Au Eq g/t (**)	Au g/t	Ag g/t
BPDDH001	Bajo Pedernal	92.50	93.10	0.60	6.18	5.98	14.91
BPDDH001	Bajo Pedernal	106.00	106.50	0.50	1.39	0.43	72.28
BPDDH002	Bajo Pedernal	126.70	127.00	0.30	3.04	0.14	217.18
BPDDH003	Bajo Pedernal	79.50	80.00	0.50	1.39	0.02	102.69
BPDDH003	Bajo Pedernal	214.00	214.50	0.50	1.04	0.30	55.73
BPDDH004	Bajo Pedernal	246.00	247.00	1.00	2.87	0.02	213.55
MVDDH077	Main Veins	25.00	28.00	3.00	1.41	1.24	12.62
including	Main Veins	25.00	26.00	1.00	3.24	3.02	16.65
MVDDH078	Main Veins	4.50	8.50	4.00	1.66	0.81	63.81
including	Main Veins	4.50	5.00	0.50	3.18	0.73	184.05
and	Main Veins	7.00	8.50	1.50	2.56	1.79	58.30
MVDDH078	Main Veins	18.50	22.50	4.00	1.49	0.90	43.98
including	Main Veins	19.50	20.50	1.00	2.46	1.78	51.50

(*) 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.

Main Veins Target

To the east, the current drill-hole fence integrated with Main Veins target has received most of the historical exploration focus and remains as an advanced target of merit. Main Veins extends for over 2.0 km long and a 25 m wide. The mineralization show multiple ore shoots open at depth, with subvertical plunge that has been tested down to -200 m below the surface, and remains open significantly

to the north and at depth. To the south the Main Veins target merges with the Abanico target veins field.

The Main Vein target has received the most drilling thus far, including:

Table III. Historical drill holes intercepts (reported in Fredonia's technical report dated February 15st, 2021) from Main Vein Target - Northern Monserrat sector shown below:

Hole ID	Target	From	To	Interval (*)	Au Eq g/t (**)	Au_ppm	Ag_ppm
MVDDH006	Main Veins	82	88	6	14.43	4.41	751.67
MVDDH062	Main Veins	106	112	6	7.37	6.54	61.99
MVDDH018	Main Veins	51.5	53.15	1.65	23.83	16.75	531.03
MVDDH011	Main Veins	76.6	77.5	0.9	32.98	15.59	1304.14
MVDDH001	Main Veins	85	86	1	27.57	26.85	53.71
MVDDH041	Main Veins	71	75	4	6.05	5.25	59.88
MVDDH004	Main Veins	36	37.5	1.5	14.71	12.12	193.91
MVDDH007	Main Veins	67	68	1	16.1	14.59	113.25
MVDDH029	Main Veins	59	59.5	0.5	30.28	1.05	2192.53
MVDDH039	Main Veins	160	162	2	7.2	6.08	83.96
MVDDH046	Main Veins	131	133	2	7.07	6.71	27.34
MVDDH054	Main Veins	49.5	53.5	4	3.51	3.11	30.11
MVDDH053	Main Veins	123	125	2	6.9	6.36	40.23
MVDDH023	Main Veins	162.4	164	1.6	8.55	7.44	83.47
MVDDH021	Main Veins	94.15	95.8	1.65	7.81	7.26	40.93
MVDDH039	Main Veins	146	148	2	5.98	5.43	41.61
MVDDH043	Main Veins	29	30.5	1.5	7.72	7.24	35.88
MVDDH027	Main Veins	48.85	52.5	3.65	3.13	1.48	123.49
MVDDH051	Main Veins	130	134	4	2.84	1.77	80.12
MVDDH020	Main Veins	47	49	2	5.65	4.49	86.87
MVDDH058	Main Veins	43	46	3	3.61	1.79	136.61
MVDDH070	Main Veins	79	81	2	5.01	1.72	246.94
MVDDH019	Main Veins	135	136	1	9.55	0.08	710.55
MVDDH061	Main Vein	52	56	4	1.38	1.14	17.92
MVDDH005	Main Vein	124	125	1	3.77	3.64	10
MVDDH028	Main Vein	53	54	1	3.55	3.34	16.01
MVDDH052	Main Vein	84	85	1	3.44	3.22	16.1
MVDDH040	Main Vein	58.5	59	0.5	4.14	1.99	161.09
MVDDH017	Main Vein	242.6	243	0.4	4.86	2.13	204.55
MVDDH002	Main Vein	124	125	1	1.77	1.54	17.28

Hole ID	Target	From	To	Interval (*)	Au Eq g/t (**)	Au_ppm	Ag_ppm
MVDDH005	Main Vein	118	119	1	1.68	1.64	3.61

Monserrat West Target

To the west, the drill-hole fence integrating with Monserrat West target is located on a north-south dilatational, 1.6km long corridor that contains ore shoots expressed as veining and brecciation, that open in both directions. The sparse surface expression is characterized by a silica cap, secondary oxidation, leaching, breccia and residual quartz textures. The historical drill holes intersected the target structure and contain high-grade significant gold and silver intervals demonstrating the potential for further strike and down dip extension, but also the possibility of further high-grade gold and silver ore shoot zones.

Table IV. Historical drill holes intercepts (reported in Fredonia news release dated January 20th, 2022) from Monserrat West and Bajo Pedernal targets - Northern Monserrat sector, shown below:

Hole ID	Target	From	To	Interval (*)	Au Eq g/t (**)	Au g/t	Ag g/t
MODDH001	Monserrat West	174.3	176.7	2.4	18.05	0.18	1491.00
Including	Monserrat West	176.2	176.7	0.5	84.79	0.38	7037.40
DM-33	Monserrat West	170	175	5	4.91	3.17	171.80
DM-40	Monserrat West	195.23	196.9	1.67	12.56	13.51	32.96
DM-34	Monserrat West	216.1	219	2.9	5.49	0.41	426.45
DM-19	Monserrat West	135.52	138.4	2.88	4.58	3.20	141.79
DM-13	Monserrat West	188.9	190.5	1.6	7.06	1.08	507.69
MVDDH012	Monserrat West	179.5	180	0.5	19.93	3.78	1377.48
MODDH004	Bajo Pedernal	87	91	4	2.42	0.51	163.04
Including	Bajo Pedernal	87	87.5	0.5	9.86	2.15	660.42
DM-19	Monserrat West	128.9	130.4	1.5	6.00	0.63	453.00
DM-18	Monserrat West	211	211.67	0.67	12.87	12.43	140.00
DM-22	Monserrat West	219.96	221	1.04	7.91	8.62	13.00
MODDH001	Monserrat West	168	169	1	4.96	4.81	52.70
DM-43	Monserrat West	140	140.4	0.4	10.41	1.19	778.00
MODDH005	Monserrat West	91	92	1	2.48	0.01	206.09
DM-41	Monserrat West	149.00	149.21	0.21	11.51	0.10	856.00
MODDH002	Monserrat West	302	303.4	1.4	1.55	1.38	25.38
MODDH002	Monserrat West	72.1	72.45	0.35	2.71	0.08	219.91

(*) 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 fence of current drill holes from Main Veins to Monserrat West, with Bajo Pedernal target in the middle.

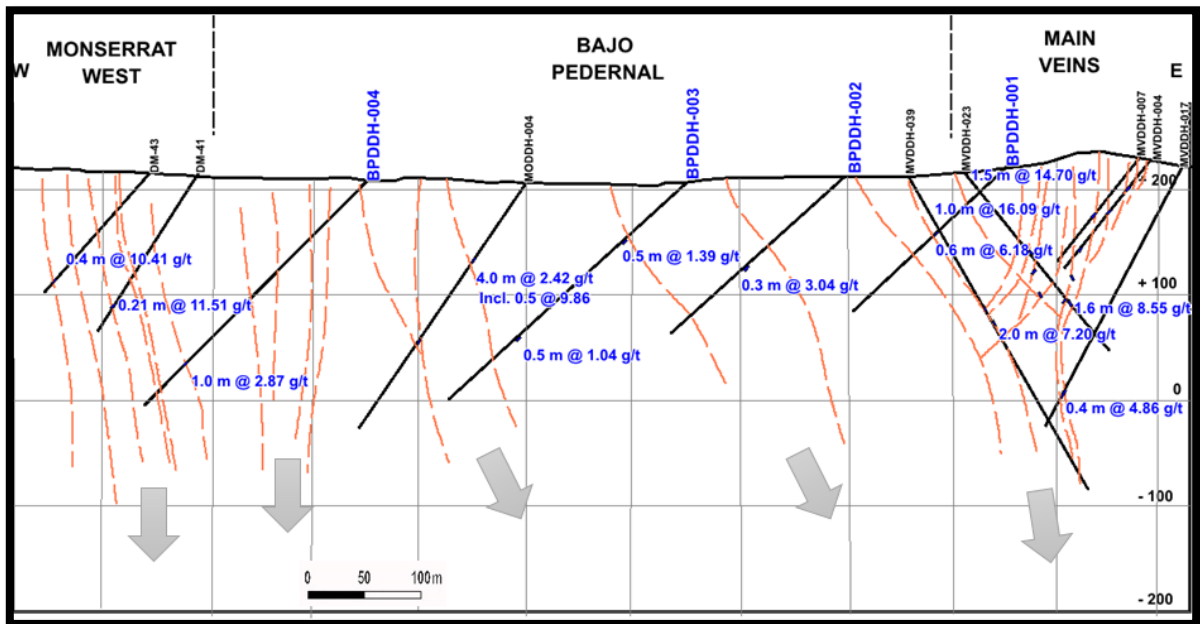
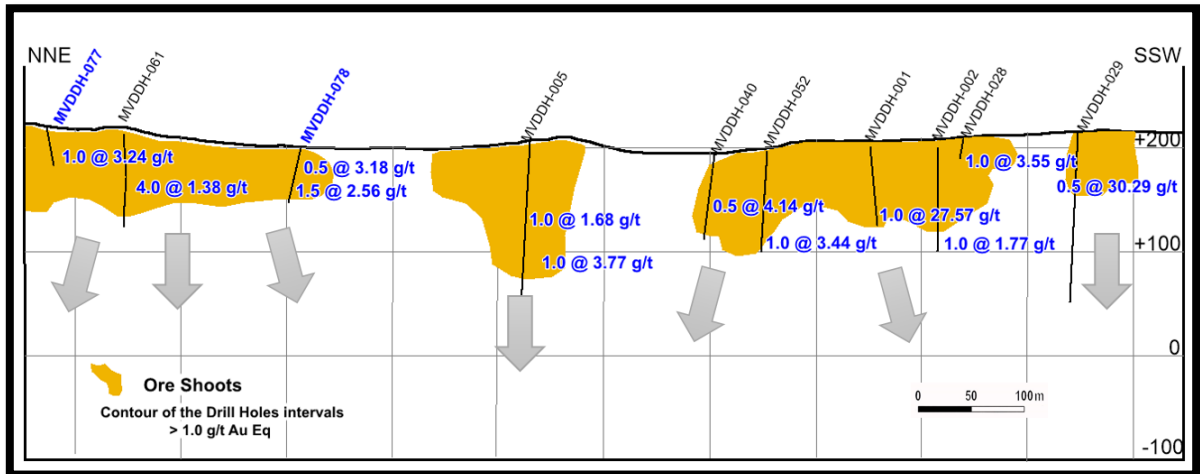


Figure 4. Long Section showing north segment of Main Veins with current drill holes testing under post mineral-basalt flow and extending the system to the north.



Phase III drilling has confirmed the location of multiple ore shoots in the Northern Monserrat sector, with extensive intersections of gold and silver mineralized veins,

extending the known mineralization to the north at the Main Veins target, under the basalt flow. It also extended the Bajo Pedernal target, which has very little surface expression (jasperoidal veins) but which now show similar potential as the more advanced Main Veins and Monserrat West targets.

In addition, there are numerous targets that are yet to be drilled such as Abanico, that comprise at least four distinct veins traceable over 1.0 km of strike; and Monserrat East, a silicified trend reaching 3.0km long by 8m wide located 2.5km east of Main Veins.

Based on all of the above, the Northern Monserrat sector requires additional systematic drilling to define the true extent of the sector, currently open in all directions.

The interpretation of this new phase of drilling is currently being carried out, including integrating it with the historical drilling. This will provide the basis for future exploration drilling and selection of other potential high-grade zones.

Quality Assurance/Quality Control:

All core samples were submitted to the principal Alex Stewart Laboratories in San Julián city for preparation and in Mendoza city 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 procedures for the work with a quality assurance/quality control (QA/QC) program. Blanks and reference material of High grade/ Low grade Gold and High grade/ Low grade Silver standards were included with all sample shipments to the principal laboratory. Field duplicates were made from Coarse Reject. Fredonia detected no significant QA/QC issues during review of the data.

Mr. Fernando Ganem, Professional Geoscientist, VP - Exploration of the Company, 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.

Data Verification

Mr. Ganem has previous experience with the EDM property and the historical QA/QC procedures undertaken for the preparation of previous results and has previously conducted the verification activities on drilling and sampling results described in Fredonia’s technical report entitled “Technical Report on the El Dorado-Monserrat Property in Santa Cruz Province, Argentina” dated February 15th, 2021 (the “**EDM Technical Report**”).

Mr. Ganem was physically present to inspect and take verification samples from drill core in the most recent drilling campaign, and verify drill results against data-base information provided by management to ensure the assay results presented are

those in the database. Digital 'original' final assay reports (certificates) were provided to the QP at the time of disclosure for verification.

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 EDM project (approx. 6,200 ha.) located close to AngloGold Ashanti's producing multi-million Au-Ag Cerro Vanguardia mine², the El Aguila project (approx. 9,100 ha.), and the Petrificados project (approx. 3,000 ha).

For further information: Please visit the Company website www.fredoniamanagement.com or contact: Omar Salas, Chief Financial Officer, Direct: +1-416-846-7807, Email: omar.salas@icloud.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 potential for a mineral resource estimate at the Project, 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.

² 2.5 million oz. Au in the measured and indicated mineral resource category (including reserves) per AngloGold Ashanti Mineral Resource and Ore Reserve Report as at 31 December 2021; 145,000 oz production in 2021 per Cerro Vanguardia Operational Profile 2021; available at www.anglogoldashanti.com.