



4 March 2024

ASX Announcement

# **Green Bay Copper-Gold Project, Canada**

# More wide, high-grade intersections point to substantial resource growth

"These outstanding intersections demonstrate very wide intervals of mineralisation with grades which consistently exceed 3% Cu-Eq. Given the ongoing strength of our drilling results, the fact that we are now drilling from underground and the extent to which the mineralisation remains open, it is easy to see a clear path to rapid and significant resource growth." - FireFly MD Steve Parsons

# **Key Points**

Green Bay hosts two distinct styles of copper mineralisation: One contains extremely high-grade copper-gold massive sulphide zones (see ASX 16/01/24) and the other is a large-scale, copper-rich Footwall Zone ('FWZ'). The results in this release come from this latter zone

FireFly's first drilling into the large-scale FWZ has returned strong grades over multiple large widths which include:

- Hole MUG23-010 (true widths):
  - 18.0m at 3.3% CuEq within a broader copper zone of 41.1m at 2.3% CuEq and
  - 22.8m at 2.4% CuEq and 6.6m at 2.7% CuEq and 3.1m at 3.1% CuEq within a broader copper zone of 67.8m at 1.6% CuEq
- Hole MUG23-014 (true widths):
  - 18.8m at 3.5% CuEq within a broader copper zone of 47.1m at 2.4% CuEq and
  - 14.1m at 2.8% CuEq
- Hole MUG23-012 (true widths):
  - 15.6m at 2.5% CuEq within a broader copper zone of 30m at 1.9% CuEq and
  - 11.2m at 2.7% CuEq within a broader copper zone of 29.8m at 1.6% CuEq

The intersections validate historical drill intersections in the FWZ and demonstrate huge potential to grow the current resource of 39.2Mt at 2.1% for 811,000t CuEq resource<sup>1</sup>

#### FireFly Metals Ltd (formerly AuTECO Minerals Ltd)

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<sup>&</sup>lt;sup>1</sup> The Company first announced the foreign estimate for the Green Bay Project on 31 August 2023. The foreign estimate is prepared in accordance with Canadian National Instrument 43-101 and has not been reported in accordance with JORC 2012. A competent person has not done sufficient work to classify the foreign estimates in accordance with the JORC Code and it is uncertain that following evaluation and or further exploration that a foreign estimate will be able to be reported in accordance with the JORC Code. Further information on the foreign estimate is set out in Appendix A.



- These latest results follow the first massive sulphide-style intersections reported by FireFly in January,<sup>2</sup> which included 46.4m at 5.6% CuEq, 17.8m at 6.6% CuEq and 14.7m at 7.5% CuEq
- Drilling now underway from the new underground exploration platforms; Two rigs turning with further results expected in the coming weeks
- FireFly remains fully-funded for Phase 1 of its growth strategy with \$17.2M in cash at the end of December 2023

FireFly Metals Ltd (ASX: FFM) is pleased to announce more outstanding wide high-grade copper-gold intersections from its drilling program at the Green Bay project in Canada.

There are two distinct styles of mineralisation at the Ming underground mine at Green Bay. One comprises the upper copper-gold rich Volcanogenic Massive Sulphide ('VMS') lenses. This sits above a broad copper stringer zone known as the Footwall Zone ('FWZ').

In January this year, FireFly released exceptional results from its first VMS drilling. These included 46.4m @ 5.6% CuEq (refer ASX release dated 16/01/2024).

The results in this release come from the first drill holes completed by FireFly into the FWZ stringer mineralisation. These results not only validate historical drilling in the zone but demonstrate the potential for further resource growth and significantly upscaled mining.

Thick zones of consistent mineralisation were encountered, as highlighted by results from hole MUG23-010, which contained multiple zones of high-grade mineralisation within broader mineralised zones. Results included zones of 22.8m @ 2.4% CuEq, 6.6m @ 2.7% CuEq and 3.1m @ 3.1% CuEq within a broader zone of 67.8m @ 1.6% CuEq from 117.1m. Only 19m further down hole a further zone of 41.1m @ 2.3% CuEq was intersected.

Drilling has now commenced from the underground exploration platform which forms a key part of the Company's accelerated resource growth strategy. The first results from drilling on the exploration drive are expected in the coming weeks.

FireFly Managing Director Steve Parsons said: "These outstanding intersections demonstrate very wide intervals of mineralisation with grades which consistently exceed 3% copper equivalent.

Given the ongoing strength of our drilling results, the fact that we are now drilling from underground and the extent to which the mineralisation remains open, it is easy to see a clear path to rapid and significant resource growth at Green Bay".

<sup>&</sup>lt;sup>2</sup> Refer to FFM's ASX release dated 16 January 2024 for details of drill results.





# **Green Bay Copper-Gold Project**



A large-scale VMS mineralised system with two distinct mineralised zones

#### Zone 1: High-grade massive sulphide copper and gold zone – Unmined and OPEN 12

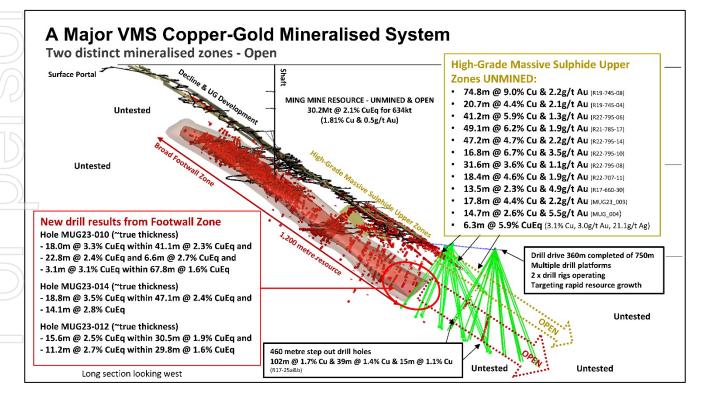
46.4m @ 5.6% CuEq (4.6% Cu & 1.2g/t Au) FireFly drilling 16/1/24 MUG23-004
20.7m @ 6.4% CuEq (4.4% Cu & 2.1g/t Au) R19-745-04
28.0m @ 4.7% CuEq (3.3% Cu & 1.6g/t Au) R22-795-13
2.7m @ 19.4% CuEq (3.3% Cu & 7.0 g/t Au) FireFly drilling 16/1/24 MUG23-005
17.8m @ 6.6% CuEq (4.4% Cu & 2.2g/t Au) FireFly drilling 16/1/24 MUG23-005
16.8m @ 11.2% CuEq (6.7% Cu & 3.5 g/t Au) FireFly drilling 16/1/24 MUG23-005
14.7m @ 7.5% CuEq (2.6% Cu & 5.5 g/t Au) FireFly drilling 16/1/24 MUG23-005
18.4m @ 6.3% CuEq (4.6% Cu & 1.9 g/t Au) RM22-795-02

11.2m @ 6.9% CuEq (4.9% Cu & 2.3 g/t Au) FireFly drilling 16/1/24 MUG23-005
41.2m @ 7.1% CuEq (5.9% Cu & 1.3 g/t Au) RM22-795-06
31.6m @ 4.6% CuEq (3.6% Cu & 1.1 g/t Au) RM22-795-08
13.5m @ 6.4% CuEq (2.3% Cu & 4.9g/t Au) R17-660-30
49.1m @ 7.7% CuEq (6.2% Cu & 1.8g/t Au) R21-785-17

#### Zone 2: Large-scale broad copper footwall zone – Unmined and OPEN 12

65.0m@ 3.40% Cu and 24.3m@ 1.43% Cu (R21-411-16) 29.1m@ 3.16% Cu (R21-620-11) 47.1m@ 2.4% and 14.1m@ 2.8% CuEq
37.2m@ 2.23 % Cu and 21.1m@ 2.74% Cu (RM05-04c) 49.5m@ 2.57% Cu (R19-695-03) 77.4m@ 3.18% Cu and 30m@ 1.45% Cu (RM06-04c) 27.4m@ 2.30% Cu (R17-411-22)
42.0m@ 1.94 % Cu (RM05-08k) 18.2m@ 2.15% Cu and 22.5m@ 2.08% Cu (RM07-08h) 30.m@ 1.94 and 11.2m@ 2.7% CuEq
31.7m@ 2.05% Cu and 8.7m@ 2.43% Cu (RM06-04c) 102.0m@ 1.70% Cu (RM06-04c) FireFly drilling 2024 MUG23-012
44.6m@ 2.13% Cu (R22-510-05) 41.1m@ 2.3% and 22.8m@ 2.4% and 6.6m@ 2.7% and 3.1m@ 3.1% CuEq FireFly 24 MUG23-012

**Figure 1:** Green Bay hosts two distinct styles of copper mineralisation: One contains extremely high-grade copper-gold massive sulphide zones (see ASX 16/01/24) and the other is a large-scale, copper-rich Footwall Zone (FWZ). The results in this release come from this latter zone. Drill hole intersections are reported as down hole widths.



**Figure 2:** Long Section through the Green Bay Ming Mine showing the location of the FireFly Metals Footwall Zone drilling and planned drilling for 2024. Refer to ASX releases dated 31/8/23, 11/12/23 and 16/1/24 for details of previous results.



# **About the Drill Results**

Drilling at the Ming underground copper-gold mine recommenced in October 2023 following the acquisition of the Green Bay copper-gold project by FireFly Metals. In total, the Company has completed 26 drill holes for 8,480m of diamond core to date from existing underground development. Assays have been received for the first 12 holes drilled by FireFly. Logging and analysis of the remaining 14 drill holes is ongoing, with details to be reported regularly as results are received.

There are two distinct styles of mineralisation present at the Green Bay Ming Mine, consisting of a series of upper copper-gold rich Volcanogenic Massive Sulphide ('VMS') lenses underlain by a broad copper stringer zone, known as the Footwall Zone ('FWZ').

The new results reported in this release are from the first holes completed by FireFly Metals into the broad stringer-style mineralisation of the FWZ.

The Footwall Zone is extensive, with the stringer mineralisation observed over thicknesses of ~150m and widths exceeding 200m. The known strike of mineralisation to date is ~1.6km and remains open down plunge.

# Significant results<sup>3</sup> include:

- 67.8m @ 1.53% Cu, 0.1g/t Au, 2.7g/t Ag (1.62% CuEq) from 117.1m in hole MUG23\_010, including:
  - o 22.8m @ 2.31% Cu, 0.1g/t Au, 2.5g/t Ag from 117.1m
  - o 6.6m @ 2.60% Cu, 0.1g/t Au, 2.7g/t Ag from 169.3m
- 41.lm @ 2.18% Cu, 0.lg/t Au, 2.0g/t Ag (2.28% CuEq) from 204.2m in hole MUG23\_010, including:
  - o 18.0m @ 3.16% Cu, 0.2g/t Au & 3.0g/t Ag (3.33% CuEq) from 226.2
- 10.6m @ 2.49% Cu, 0.2g/t Au, 2.6g/t Ag (2.74% CuEq) from 12.9m in hole MUG23\_011
- 29.8m @ 1.56% Cu, 0.1g/t Au, 1.7g/t Ag (1.64% CuEq) from 138.2m in hole MUG23\_012, including:
  - o 11.2m @ 2.57% Cu, 0.1g/t Au, 2.8g/t Ag (2.69% CuEq) from 147.0m
- 30.5m @ 1.79% Cu, 0.1g/t Au, 2.0g/t Ag (1.91% CuEq) from 207.2m in hole MUG23\_012, including:
  - o 15.6m @ 2.32% Cu, 0.2g/t Au, 2.6g/t Ag (2.52% CuEq) from 214.0m
- 10.8m @ 2.09% Cu, 0.1g/t Au, 2.2g/t Ag (2.19% CuEq) from 93.9m in hole MUG23\_014
- 14.1m @ 2.69% Cu, 0.1g/t Au, 2.8g/t Ag (2.80% CuEq) from 137.5m in hole MUG23\_014
- 47.1m @ 2.26% Cu, 0.2g/t Au, 2.8g/t Ag (2.41% CuEq) from 169.8m in hole MUG23\_014, including:
  - o 18.8m @ 3.24% Cu, 0.3g/t Au, 4.1g/t Ag (3.51% CuEq) from 188.4m

<sup>&</sup>lt;sup>3</sup> All reported widths are approximate true thickness.





- 37.1m @ 1.93% Cu, 0.1g/t Au, 2.2g/t Ag (2.05% CuEq) from 126.7m in hole MUG24\_001
- 15.8m @ 1.90% Cu, 0.2g/t Au, 2.1g/t Ag (2.09% CuEq) from 211.7m in hole MUG24\_001
- 4.2m @ 4.10% Cu, 0.2g/t Au, 5.1g/t Ag (4.33% CuEq) from 183.5m in hole MUG24\_001
- 22.0m @ 1.82% Cu, 0.1g/t Au, 1.7g/t Ag (1.93% CuEq) from 222.9m in hole MUG24\_002
- 13.1m @ 1.91% Cu, 0.1g/t Au, 1.7g/t Ag (2.04% CuEq) from 260.3m in hole MUG24\_002

The FireFly resource growth plan is on track, with an updated resource expected in the September 2024 quarter. The development of a 750m exploration drive is well underway, with the owner-operator mining crew having completed ~360m of development to date. Resource growth drilling from the underground development delivers significant cost and time savings in comparison to completing the drilling from surface. Two rigs are currently drilling from the drive with further assays expected in coming weeks.

This announcement has been authorised by the Board of Directors.

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#### **ABOUT FIREFLY METALS**

FireFly Metals Ltd (formerly AuTECO Minerals Ltd) (ASX:FFM) is an emerging copper-gold company focused on advancing the high-grade Green Bay Copper-Gold project in Newfoundland, Canada. The **Green Bay Copper-Gold Project** currently hosts a mineral resource prepared in accordance with Canadian NI 43-101 of **39.2Mt at 2.1% for 811,000t CuEq**. The Company has a clear strategy to rapidly grow the copper-gold resource to demonstrate a globally significant copper-gold asset. FireFly has commenced a 40,000m diamond drilling program.

FireFly holds a 70% interest in the high-grade **Pickle Crow Gold Project** in Ontario. The current Inferred Resource stands at **11.9Mt at 7.2g/t for 2.8Moz gold**, with exceptional discovery potential on the 500km<sup>2</sup> tenement holding.

The Company also holds a 90% interest in the **Limestone Well Vanadium-Titanium Project** in Western Australia.

For further information regarding FireFly Metals Ltd please visit the ASX platform (ASX:FFM) or the Company's website <a href="https://www.fireflymetals.com.au">www.fireflymetals.com.au</a>



#### **COMPLIANCE STATEMENTS**

The Company first announced the foreign estimate of mineralisation for the Green Bay Project on 31 August 2023. The Company confirms that the supporting information included in the announcement of 31 August 2023 continues to apply and has not materially changed.

Metal equivalents for the foreign estimate of mineralisation and drilling at the Green Bay Project have been calculated at a copper price of US\$8,300/t, gold price of US\$2,000/oz, silver price of US\$25/oz and zinc price of \$2,500/t. Individual grades for the metals are set out at Appendix A of this announcement. Copper equivalent was calculated based on the formula CuEq (%) = Cu(%) + (Au (g/t) x 0.77472) + (Ag (g/t) x 0.00968) + (Zn (%) x 0.3012). No metallurgical recovery factors have been applied to the in-situ resource nor drill hole results. It is the Company's view that all elements in the copper equivalent calculation have a reasonable potential to be recovered and sold.

Previous historical and new exploration results at the Green Bay Project referred to in this announcement were first reported in accordance with ASX Listing Rule 5.7 in FireFly's ASX releases dated 31 August 2023, 11 December 2023 and 16 January 2024.

The Mineral Resource Estimate for the Pickle Crow Project referred to in this announcement was first reported in the Company's ASX release dated 4 May 2023, titled "High-Grade Inferred Gold Resource Grows to 2.8Moz at 7.2g/t".

FireFly confirms that it is not aware of any new information or data that materially affects the information included in the original announcements and that all material assumptions and technical parameters underpinning the estimates in the original announcements continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Persons' findings are presented have not been materially modified from the original market announcement.

#### COMPETENT PERSONS STATEMENT

The information in this release that relates to new Exploration Results is based on information compiled by Mr Darren Cooke, a Competent Person who is a member of the Australasian Institute of Geoscientists. Mr Cooke is a full-time employee of FireFly Metals Ltd and holds securities in FireFly Metals Ltd. Mr Cooke has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Cooke consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.



### FORWARD LOOKING INFORMATION

This announcement may contain certain forward-looking statements and projections, including statements regarding FireFly's plans, forecasts and projections with respect to its mineral properties and programs. Although the forward-looking statements contained in this release reflect management's current beliefs based upon information currently available to management and based upon what management believes to be reasonable assumptions, such forward looking statements/projections are estimates for discussion purposes only and should not be relied upon. They are not guarantees of future performance and involve known and unknown risks, uncertainties and other factors many of which are beyond the control of the Company. The forward-looking statements/projections are inherently uncertain and may therefore differ materially from results ultimately achieved. For example, there can be no assurance that FireFly will be able to confirm the presence of Mineral Resources or Ore Reserves, that FireFly's plans for development of its mineral properties will proceed, that any mineralisation will prove to be economic, or that a mine will be successfully developed on any of FireFly's mineral properties. The performance of FireFly may be influenced by a number of factors which are outside the control of the Company, its directors, staff or contractors. The Company does not make any representations and provides no warranties concerning the accuracy of the projections, and disclaims any obligation to update or revise any forward looking statements/projects based on new information, future events or otherwise except to the extent required by applicable laws.



# APPENDIX A - Green Bay Copper-Gold Project Mineral Resources

#### Ming Deposit as at 31 March 2022

	MEASURED			ı	INDICATED			INFERRED			TOTAL RESOURCE		
	Tonnes	Grade	Metal	Tonnes	Grade	Metal	Tonnes	Grade	Metal	Tonnes	Grade	Metal	
Copper		1.71%	144kt		1.85%	284kt		1.86%	120kt		1.81%	547kt	
Gold	8.4Mt	0.5g/t	124koz	15.3Mt	0.3g/t	148koz	6.4Mt	0.4g/t	79koz	30.2Mt	0.4g/t	351koz	
Silver		3.6g/t	962koz		2.4g/t	1,164koz		2.6g/t	537koz		2.7g/t	2,664koz	

#### Little Deer Complex (Little Deer & Whalesback Mine) as at 31 December 2021

	M	IEASURE	)	INDICATED			INFERRED			TOTAL RESOURCE		
\(\(\)\)	Tonnes	Grade	Metal	Tonnes	Grade	Metal	Tonnes	Grade	Metal	Tonnes	Grade	Metal
Copper	-	-	-		2.13%	62kt		1.78%	110kt		1.90%	172kt
Gold	-	-	-	2.9Mt	0.1g/t	9koz	6.2Mt	0.1g/t	10koz	9.1Mt	0.1	19koz
Silver	-	-	-		3.4g/t	318koz		2.2g/t	430koz		2.6	748koz

#### TOTAL MINERAL RESOURCES

	N	1EASURE	D	INDICATED			INFERRED			TOTAL RESOURCE		
	Tonnes	Grade	Metal	Tonnes	Grade	Metal	Tonnes	Grade	Metal	Tonnes	Grade	Metal
Copper		1.71%	144kt		1.89%	345kt		1.82%	230kt		1.83%	718kt
Gold	8.4Mt	0.5g/t	124koz	18.2Mt	0.3g/t	157koz	12.6Mt	0.2g/t	88koz	39.2Mt	0.3	370koz
Silver		3.6g/t	962koz		2.5g/t	1,482koz		2.4g/t	968koz		2.7	3,413koz

- FireFly Metals Ltd cautions that mineral resources for the Green Bay Copper-Gold project, incorporating the Ming Deposit and Little Deer Complex, are not reported in accordance with the JORC Code (2012 Edition resources have been prepared in accordance with Canadian National Instrument 43-101. A competent person has not done sufficient work to classify the foreign estimates in accordance with the JORC Code (2012 Edition) and it is uncertain that following evaluation and or further exploration that a foreign estimate will be able to be reported in according with the JORC Code. Please refer to ASX announcement dated 31 August 2023 for additional technical information relating to the foreign estimate.
- 2. Mineral resources have been reported at a 1.0% copper cut-off grade.



# **APPENDIX B – Table 1: Significant Intersection Table**

Collar co-ordinates and orientation are listed in the local Ming Mine grid, which is rotated +35 degrees from NAD83 True North. Significant intersections reported are those above a 1% copper cut-off and contain a maximum of 3 metres of internal waste. Please refer to the compliance statement for further details on parameters used in the copper equivalent calculation. All results are approximate true thickness.

#### **FireFly Metals Drilling**

Hele Number	Facting	Northing	RL	Azi	Dia	Drilled	From	То	Width		Ass	say		CuEa
Hole Number	Easting	Northing	KL	AZI	Dip	Length (m)	(m)	(m)	(m)	Cu %	Au g/t	Ag g/t	Zn %	CuEq
MUG23_010	1066.0	1492.0	-808.0	160	-33	417	14.8	24.7	9.9	2.12	0.2	2.7	0.24	2.38
							117.1	184.9	67.8	1.53	0.1	2.9	0.02	1.62
						Including	117.1	139.9	22.8	2.31	0.1	2.5	0.01	2.41
						Including	143.9	144.9	1.0	2.07	0.1	2.3	0.01	2.15
						Including	146.9	148.9	2.0	1.28	0.0	1.4	0.01	1.32
						Including	169.3	175.9	6.6	2.60	0.1	2.7	0.04	2.73
						Including	181.8	184.9	3.1	2.94	0.2	2.8	0.03	3.14
							195.4	198.2	2.8	2.01	0.1	2.1	0.01	2.12
							204.2	245.3	41.1	2.18	0.1	2.0	0.01	2.28
						Including	226.2	244.2	18.0	3.16	0.2	3.0	0.01	3.33
							272.0	277.0	5.0	1.25	0.1	1.4	0.01	1.34
MUG23_011	1059.0	1510.0	-806.0	158	-46	360	12.9	23.5	10.6	2.49	0.2	2.6	0.24	2.74
							103.0	109.0	6.0	1.65	0.1	1.7	0.02	1.76
							127.5	142.8	15.3	1.63	0.1	1.7	0.02	1.72
							150.3	156.4	6.1	1.14	0.1	1.1	0.01	1.23
							193.7	199.7	6.0	1.27	0.0	0.8	0.01	1.32
							212.6	225.5	12.9	1.78	0.1	1.9	0.01	1.88
						including	217.5	222.5	5.0	2.19	0.1	2.7	0.01	2.33

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						Drilled	From	То	Width		As	say		
Hole Number	Easting	Northing	RL	Azi	Dip	Length (m)	(m)	(m)	(m)	Cu %	Au g/t	Ag g/t	Zn %	CuEq
MUG23_011							239.8	266.0	26.2	1.47	0.1	1.4	0.01	1.54
Continued							274.0	284.0	10.0	1.54	0.1	1.6	0.02	1.63
						including	274.0	279.0	5.0	2.15	0.1	2.1	0.02	2.27
MUG23_012	1059.0	1510.0	-807.0	146	-57	438	11.0	24.4	13.4	2.11	0.2	2.6	0.21	2.33
							114.2	117.2	3.1	1.63	0.1	2.0	0.01	1.72
							127.0	131.2	4.2	2.53	0.1	3.3	0.02	2.66
							138.2	168.0	29.8	1.56	0.1	1.7	0.03	1.64
						including	147.0	158.2	11.2	2.57	0.1	2.8	0.05	2.69
							188.2	194.2	6.0	1.07	0.1	1.1	0.01	1.12
							207.2	237.7	30.5	1.79	0.1	2.0	0.01	1.91
						including	214.0	229.6	15.6	2.32	0.2	2.6	0.01	2.52
							257.8	267.8	10.0	1.04	0.1	1.3	0.01	1.09
MUG23_013	1073.0	1382.0	-765.0	172	-29	325	59.6	90.4	30.8	1.29	0.1	1.5	0.01	1.37
						Including	59.6	73.6	14.0	1.63	0.1	1.9	0.02	1.74
						including	79.6	90.4	10.9	1.41	0.1	1.6	0.01	1.47
							110.4	114.2	3.8	3.05	0.2	2.8	0.04	3.21
							133.8	142.8	8.9	2.57	0.1	2.3	0.02	2.68
							158.0	172.0	14.0	1.71	0.1	1.6	0.01	1.81
						including	163.0	168.8	5.8	2.34	0.1	2.2	0.02	2.44
							179.6	184.4	4.8	2.66	0.2	3.3	0.02	2.85
							190.0	224.7	34.8	1.50	0.1	1.4	0.01	1.59
							247.7	249.9	2.2	2.43	0.3	3.2	0.01	2.66
		_					306.9	309.9	3.0	1.92	0.1	1.7	0.02	1.99

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Hole Number	Facting	Northing	DI	Azi	Din	Drilled	From	То	Width		Ass	say		CuEa
noie Number	Easting	Northing	RL	AZI	Dip	Length (m)	(m)	(m)	(m)	Cu %	Au g/t	Ag g/t	Zn %	CuEq
MUG23_014	1073.0	1382.0	-765.0	167	-36	303	65.2	72.0	6.8	1.63	0.1	2.1	0.02	1.71
							93.9	104.7	10.8	2.09	0.1	2.2	0.01	2.19
							114.7	115.8	1.1	2.62	0.1	2.6	0.02	2.72
							137.5	151.6	14.1	2.69	0.1	2.8	0.01	2.80
							169.8	216.9	47.1	2.26	0.2	2.8	0.01	2.41
						including	188.4	207.2	18.8	3.24	0.3	4.1	0.01	3.51
MUG24_001	1075.0	1381.0	-764.0	163	-50	360	46.3	48.0	1.7	1.78	0.2	3.5	0.06	1.98
							68.0	83.0	15.0	2.02	0.1	2.3	0.02	2.13
							100.0	113.0	13.0	1.19	0.1	1.3	0.03	1.30
							126.7	163.7	37.1	1.93	0.1	2.2	0.02	2.05
							171.4	175.4	3.9	2.24	0.1	2.9	0.01	2.37
							183.5	187.7	4.2	4.10	0.2	5.1	0.01	4.33
							193.7	198.7	5.0	2.46	0.1	2.4	0.01	2.56
							211.7	227.5	15.8	1.90	0.2	2.1	0.01	2.09
MUG24_002	993	1242	-608	163	-12	465	24.9	30.0	5.1	2.03	0.6	4.6	0.40	2.69
							212.0	216.9	5.0	1.83	0.1	1.9	0.03	1.95
							222.9	244.9	22.0	1.82	0.1	1.7	0.04	1.93
							260.3	273.4	13.1	1.91	0.1	1.7	0.01	2.04
							299.0	307.0	8.0	1.30	0.1	1.0	0.01	1.35
							325.0	327.0	2.0	2.98	0.1	2.2	0.04	3.08
							342.3	343.6	1.3	2.89	0.1	3.2	0.03	3.00

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# APPENDIX C – JORC CODE, 2012 EDITION Table 1

Section 1 Sampling Techniques and Data (Criteria in this section apply to all succeeding sections)

Criteria JOF Sampling •	RC Code explanation	Commentary
Sampling		
techniques  Prilling techniques  •	Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.  Aspects of the determination of mineralisation that are Material to the Public Report.  In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.  Drill type (eg core, reverse circulation, openhole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	<ul> <li>All current drilling conducted at the Ming Mine site was completed under the supervision of a registered professional geologist as a Qualified Person (QP) who is responsible and accountable for the planning, execution, and supervision of all exploration activity as well as the implementation of quality assurance programs and reporting.</li> <li>All FireFly drilling reported is NQ.</li> <li>The following is a summary of the core sampling procedure: <ul> <li>All sample collection, core logging, and specific gravity determinations were completed by FireFly under the supervision of a professionally qualified registered geologist.</li> <li>NQ core was marked for splitting during logging and is sawn using a diamond core saw with a mounted jig to assure the core is cut lengthwise into equal halves. Whole core sampling was used for BQ grade control core.</li> <li>Half of the cut core is placed in clean individual plastic bags with the appropriate sample tag.</li> <li>QA/QC samples are inserted into the sample stream at prescribed intervals.</li> <li>The samples are then placed in rice bags for shipment to the offsite laboratory's facility.</li> <li>The remaining half of the core is retained and incorporated into FireFly's secure, core library located on the property.</li> <li>All FireFly drill analysis was completed at ISO-certified Eastern Analytical laboratories. The samples are dried, crushed, and pulverised. Samples are crushed to approximately -10 mesh and split using a riffle splitter to approximately 300 g. A ring mill is used to pulverize the sample split to 98% passing -150 mesh. Sample pulps and rejects are picked up at Eastern by FireFly staff and returned directly to the Project site. Sample rejects are securely stored at the FireFly site.</li> <li>Holes reported in this release were NQ (47.8 mm diameter).</li> </ul> </li> </ul>
Drill sample • recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	Recoveries are measured via measurement of the core between blocks.



Criteria	JORC Code explanation	Commentary
	<ul> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> </ul>	<ul> <li>Core loss is measured as a percentage of recovered length.</li> </ul>
	<ul> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a</li> </ul>	<ul> <li>The following steps are completed during the core logging procedure:</li> </ul>
15	level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	<ul> <li>Sample security and chain of custody start with the removal of core from the core tube and boxing of drill core at the drill site.</li> </ul>
	<ul> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> </ul>	<ul> <li>The boxed core remains under the custody of the drill contractor until it is transported from the drill to the secure onsite core facility.</li> </ul>
	<ul> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>Core boxes are opened and inspected to ensure correct boxing and labelling of the core by the drill contractor.</li> </ul>
		<ul> <li>The drill core is geologically logged, photographed, and then marked and tagged for sampling and splitting.</li> </ul>
		<ul> <li>Core logging describes variations in lithology, alteration, and mineralization.</li> </ul>
		<ul> <li>Data associated with core logging and related assay results and other downhole information including orientation surveys are recorded in Fusion™ by Century System.</li> </ul>
		<ul> <li>Measured parameters include structural orientation with respect to core axis, lost core as a percentage of recovered length, and fracture density which are determined by the intensity and thickness of mineralization at specific intervals.</li> </ul>
15)		<ul> <li>Each core sample is assigned a tag with a unique identifying number. Sample lengths are typically one metre but can be depending on zone mineralogy and boundaries.</li> </ul>
		<ul> <li>Sample core that is not mineralized is marked in 1.5 metre lengths.</li> </ul>
		<ul> <li>Wing samples are marked at 0.5 metres and sampled at the extremities of mineralized intervals to ensure anomalous grades do not continue into the surrounding wall rock.</li> </ul>
Sub-sampling	If core, whether cut or sawn and whether	All FireFly drilling is NQ2.
techniques and sample preparation	<ul> <li>quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> </ul>	<ul> <li>For NQ diameter the core was sawn in half following a sample cutting line determined by geologists during logging and submitted for analysis on nominal 1m intervals or defined by geological boundaries determined by the logging geologist.</li> </ul>
	<ul> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> </ul>	Each core sample is assigned a tag with a unique identifying number. Sample lengths are typically one metre but can be depending on zone mineralogy and

boundaries.



Criteria	JORC Code explanation	Commentary
	<ul> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Sample core that is not mineralized is marked and sampled in 1.5 metre lengths.</li> <li>Wing samples are marked at 0.5 metres and sampled at the extremities of mineralized intervals to ensure anomalous grades do not continue into the surrounding wall rock.</li> <li>For BQ diameter same sampling practice was completed except that the whole core was crushed for the assays.</li> <li>This sampling technique is industry standard and deemed appropriate.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<ul> <li>Samples are delivered to the Eastern Analytical independent accredited laboratory by bonded courier, where the samples are dried, crushed, and pulverized. Samples are crushed to approximately -10 mesh and split using a riffle splitter to approximately 300 g. A ring mill is used to pulverize the sample split to 98% passing -150 mesh. Sample pulps and rejects are picked up at Eastern Analytical by FireFly staff and returned directly to the Project site.</li> <li>All results reported in this release were analysed by Eastern Analytical in Springdale, NL.</li> <li>34 elements were determined by Inductively Coupled Plasma (ICP). A 200mg subsample is totally dissolved in four acids and analysed by ICP-OES. Gold assays were determined by fire assay with atomic adsorption finish.</li> <li>As part of the QA/QC program duplicate, blank and Certified Reference Material (CRM) samples are inserted alternately, one per ten samples.</li> <li>In addition to the Company QAQC samples (described earlier) included within the batch the laboratory included its own CRM's (Certified Reference Materials), blanks and duplicates.</li> <li>Sample assay results continue to be evaluated through control charts, log sheets, sample logbook and signed assay certificates to determine the nature of any anomalies or failures and failures were re-assayed at the laboratory.</li> <li>Sample preparation, analytical procedures and QA/QC used on the property were reviewed by independent consultants WSP, stating in their report that sampling practices and QA/QC meet industry standards and display acceptable levels of accuracy and precision.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Where used, original copper assays from the on-site laboratory facility were compared to results received from Eastern Analytical. No material variance was noted.</li> <li>There are no purpose twinned holes in the dataset but a comparison of the results of different drilling generations showed that results were comparable.</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul> <li>All logging data was completed, core marked up, logging and sampling data was entered directly into the MX deposit database.</li> </ul>
		The logged data is stored on the site server directly.
		<ul> <li>FireFly is not aware of any adjustments made by Rambler to the assay data. WSP completed an independent audit where a representative number of assay certificates were compared to digital assay database and no discrepancies were found.</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole</li> </ul>	<ul> <li>Drill collars were surveyed by the FireFly mine survey crew upon completion of the drill program.</li> </ul>
9	surveys), trenches, mine workings and other locations used in Mineral Resource estimation.  • Specification of the grid system used.  • Quality and adequacy of topographic	<ul> <li>The set-ups for the underground drill collars were marked by FireFly mine survey crew, and the drilling contractor were expected to set up properly on line. A FireFly geologist checked the underground drill set-up during the drilling program to ensure accuracy.</li> </ul>
	control.	<ul> <li>Downhole surveys are completed using a Reflex EZ-Shot® multi-shot instrument to provide azimuth and dip reading down the hole. Readings were collected on a time basis not distance, resulting in an almost continuous reading downhole. The Reflex EZ-Shot is calibrated at least once a year to ensure accuracy of results.</li> </ul>
		<ul> <li>The entire drill campaigns used Reflex EZ-Shot® single- shot electronic instrument with readings collected at intervals of approximately every 30 m downhole plus a reading at the bottom of the hole.</li> </ul>
		<ul> <li>Directional surface holes completed using Devico® technology.</li> </ul>
		<ul> <li>Survey data was collected in mine gird and in UTM grid (NAD83 Zone 21).</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing, and distribution</li> </ul>	<ul> <li>Due to the nature of mineralisation and a mix of underground and surface drilling the hole spacing is highly variable.</li> </ul>
	is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications	<ul> <li>Data spacing is considered sufficient to establish geological and grade continuities for mineral resource estimation at the Inferred and Indicated category.</li> <li>No sample compositing was applied.</li> </ul>
	<ul><li>applied.</li><li>Whether sample compositing has been applied.</li></ul>	no sample compositing was appreal.
orientation of data n relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible	<ul> <li>Underground drill hole orientation was sub- perpendicular to the mineralisation but variable in places where low angle drilling to the mineralisation has been completed in zones without suitable drilling</li> </ul>
	<ul> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to har introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	platforms.



Criteria	JORC Code explanation	Commentary
Sample security	The measures taken to ensure sample security.	<ul> <li>Core was placed in wooden core boxes close to the drill rig by the drilling contractor. The core was collected daily by the drilling contractor and delivered to the secure core logging facility on the Ming Mine site. Access to the core logging facility is limited to FireFly employees or designates.</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	<ul> <li>An audit and review of sampling techniques and data was conducted as part of NI-43-101 resource estimation by independent consultants WSP in 2018. It is WSP's opinion that the drilling, sampling and logging procedures put in place by Rambler meet acceptable industry standards and that the information can be used for geological and resource modelling.</li> </ul>



## Section 2 Reporting of Exploration Results (Criteria in this section apply to all succeeding sections)

C	riteria	JORC Code explanation	Commentary
а	/lineral tenement nd land tenure tatus	<ul> <li>Type, reference name/number, location a ownership including agreements or mate issues with third parties such as joint ventures, partnerships, overriding royaltinative title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the tim of reporting along with any known impediments to obtaining a license to operate in the area.</li> </ul>	map-staked mineral license (023175M) and two mining leases (141L and 188L) totalling 955.4 ha and registered in the name of FireFly Metals Canada Limited, a wholly owned subsidiary of FireFly Metals Limited. All of these mineral lands are contiguous and, in some cases, overlapping and are located in the area
	xploration done y other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>Ming Mine Early History: Auriferous sulphides and copper was found in the area in 1905 by Enos England.</li> </ul>
			<ul> <li>The Main Mine sulphide zone was found in 1935 about 600ft north of the Enos England discovery. In 1940, the Newfoundland government drilled eighteen diamond drill holes totalling 5,000ft.</li> </ul>
			<ul> <li>An airborne electromagnetic survey was flown from 1955 to 1956.</li> </ul>
			<ul> <li>The Ming Mine was discovered in 1970 by a helicopter borne AEM system. A large low grade stringer type copper deposit was later discovered in the footwall 300ft to 500ft below the Ming orebody during mining operations and delineated by thirty-six diamond drill holes. Mining ceased at the Ming Mine in 1982 because of low copper prices.</li> </ul>
			<ul> <li>In 1988, the property was awarded to the Rambler Joint Venture Group (a Consortium of Teck Exploration, Petromet Resources Ltd, and Newfoundland Exploration Company Ltd). Exploration consisted of ground geophysics and soil geochemistry, resulting in discovery of the Ming West deposit. Forty-eight diamond drill holes (25,534ft) were completed</li> </ul>
			<ul> <li>Altius Minerals Corporation: Under the terms of an option to purchase agreement with Ming Minerals, Altius conducted exploration on the Rambler property in 2001, 2003, and 2004. In 2001, a lithogeochemical program was initiated to chemically fingerprint rocks of the hanging wall and footwall to the sulphide deposits.</li> </ul>
			<ul> <li>Rambler Metals and Mining PLC: Rambler Metals and Mining is a UK-based company listed on London's Alternate Investment Market (AIM). Rambler held a 100% interest in the Ming property and between 2005 and 2023 and conducted a multi-phase diamond drilling program consisting of surface drilling, directional drilling, and underground delineation drilling. A total of 220,704m from 1,365 diamond drill</li> </ul>



Criteria	JORC Code explanation	Commentary	
		holes were completed by Rambler. Between 2012 and 2022 the Ming mine produced 3Mt at 1.86% Cu and 0.71 Au for total of 55Kt of copper and 68Koz of gold.	
		• The Ming mine was placed on care and maintenance in February 2023.	
		<ul> <li>In October 2023, AuTECO Minerals (FireFly Metals) acquired the project from administration.</li> </ul>	
<b>5</b>		<ul> <li>FireFly Metals conducted drilling to test down plunge extent of VMS lodes.</li> </ul>	
		<ul> <li>An underground exploration drive is in progress to allow further drilling at more favorable drill angles.</li> </ul>	
Geology	Deposit type, geological setting and style of mineralisation.	The Green Bay project is a Noranda-type Volcanogenic Massive Sulfide (VMS) hosted by Cambrian-Ordovician metavolcanic and metasedimentary rocks of the Pacquet Harbour Group. The style of mineralization, alteration, host rock, and tectonism most closely resembles other VMS deposits throughout the world. The deposit consists of several individual massive sulphide lens and their underlying stockwork zones. It is thought that the stockwork zone represents the near surface channel ways of a submarine hydrothermal system and the massive sulphide lens represents the accumulation of sulphides precipitated from the hydrothermal solutions, on the sea floor, above and around the discharge vent. The Ming deposits are polymetallic (Cu, Au, Ag ± Zn) massive sulphides that occur along the flank of a felsic dome. The Ming deposits have undergone strong deformation and upper greenschist to amphibolite facies	
		metamorphism. The massive sulphide bodies are now thin and elongate down the plunge of the regional lineation (30-35°NE). Typical aspect ratios of length down-plunge to width exceed 10:1, and the bodies exhibit mild boudinage along the plunge. The foot wall stock work comprises mainly of quartz-sericite-chlorite schist, which hosts disseminated and stringer pyrite and chalcopyrite with minor sphalerite, galena, and pyrrhotite with locally significant gold contents that could represent a discordant stockwork stringer feeder zone. The mineralization is crosscut by younger mafic dykes.	
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</li> </ul>	Refer to Appendix B in this release	
1	<ul> <li>easting and northing of the drill hole collar</li> </ul>		
	<ul> <li>elevation or RL (Reduced Level – elevation above sea level in meters) of the drill hole collar</li> </ul>		
	<ul><li>dip and azimuth of the hole</li><li>down hole length and interception depth</li></ul>		



Criteria	JORC Code explanation	Commentary	
	<ul> <li>hole length.</li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>		
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in</li> </ul>	All drill hole intersections are reported above a lower cut-off grade of 1% copper. A maximum of 3m internal waste was allowed.	
	<ul> <li>detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>		
Relationship between mineralisation	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> </ul>	<ul> <li>All intersections reported in the body of this release are down hole, however approximate the true thickness of mineralisation.</li> </ul>	
widths and intercept lengths	<ul> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul> <li>The majority of the drill holes in the database are drilled as close to orthogonal to the plane of the mineralized lodes as possible. A number of drill holes have intersected the mineralisation at high angles.</li> <li>Only down hole lengths are reported.</li> </ul>	
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul> <li>Maps and sections are included in the body of this release as deemed appropriate by the competent person.</li> </ul>	
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul> <li>All significant assays (above a 1% copper cut-off and containing a maximum of 3m of internal waste) received from the current drill program have been reported in Appendix B.</li> </ul>	
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics;	Appropriate plans are included in the body of this release.	



Criteria	JO	RC Code explanation	Co	ommentary
		potential deleterious or contaminating substances.		
Eurther	work •	work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).	•	FireFly Metals will be conducting drill testing of additional mineralisation as well as step out drilling of existing lodes to further enhance the resources quoted in this release. More information is presented in the body of this report.
				Diagrams in the main body of this release show areas of possible resource extension on existing lodes. The company has commenced mining an exploration drive to enable effective drill testing of down plunge extensions.