

**TSX**30  
2022™



## BUILDING THE LARGEST PURE-PLAY SILVER PRODUCER GLOBALLY

August 11, 2023  
Q2-2023 Results Conference Call



# FORWARD-LOOKING STATEMENT

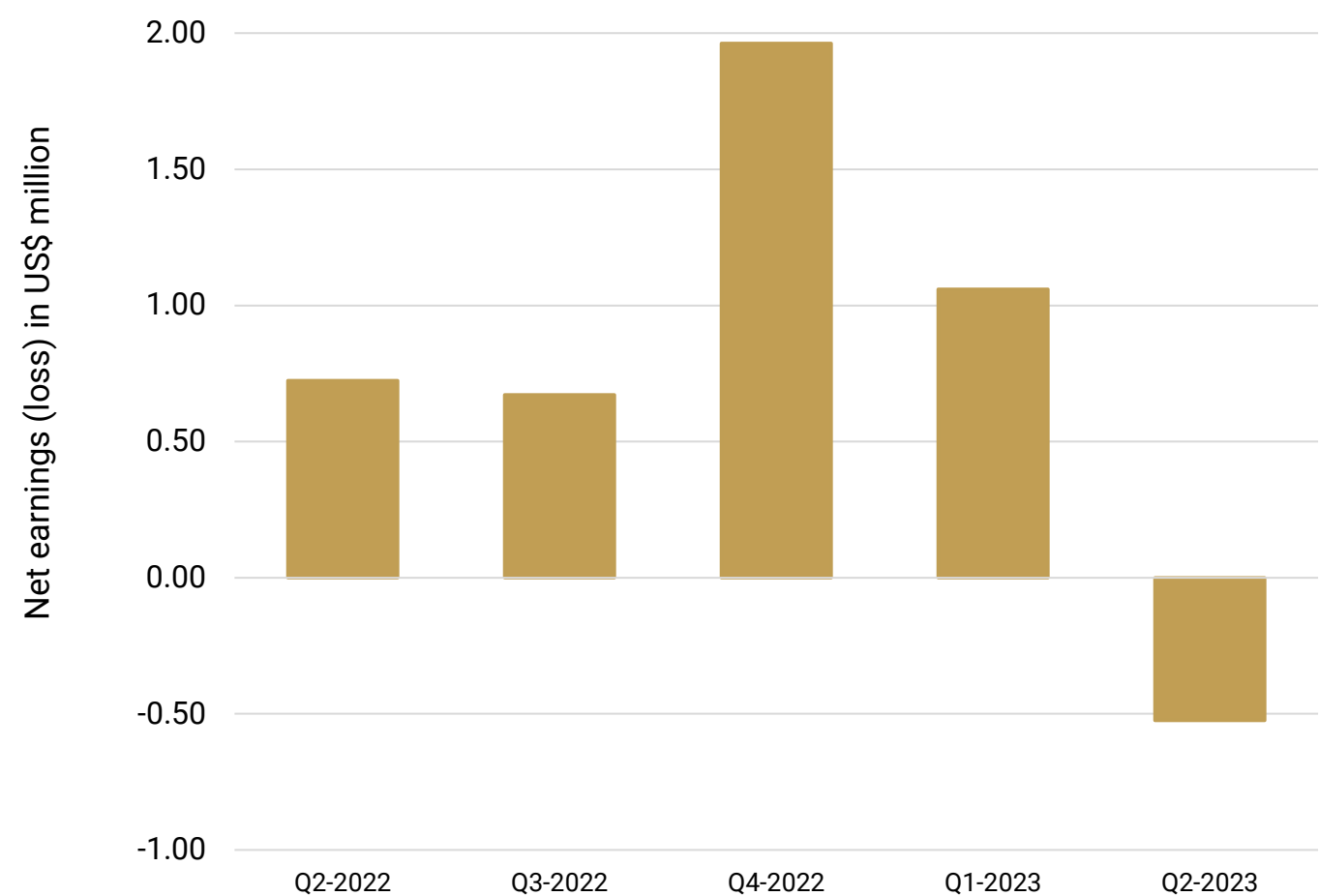
The Zgounder Expansion Feasibility Study (“FS”) is based on a technical report entitled “NI43-101 TECHNICAL REPORT – FEASIBILITY STUDY ZGOUNDER EXPANSION PROJECT”, originally dated March 31, 2022, and amended on June 16, 2022 with an effective date of December 13, 2021 (the “Zgounder Report”) which was prepared under the supervision of Daniel M. Gagnon, DRA, with the participation of William Stone, Antoine Yassa, Jarita Barry, Fred Brown, Eugene Puritch, Daniel Morrison, André-François Gravel, Claude Bisailon, Julie Gravel, Kathy Kalenchuk, Hugo Della Sbarba, Philippe Rio Roberge, Richard Barbeau & Stephen Coates all “qualified persons” for the purpose of the Zgounder Report. Scientific and technical information contained in this presentation has been reviewed and approved David Lalonde, B.Sc, Aya’s Head of Exploration and a QP as defined under NI 43-101. Mineral Resources are reported exclusive of Mineral Reserves and as such the Mineral Resources do not have demonstrated economic viability. Numbers may not add or multiply accurately due to rounding. Inferred Mineral Resources are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is therefore no certainty that the conclusions of the initial exploration drilling results will be realized. Additionally, where the Company discusses exploration/expansion potential, any potential quantity and grade is conceptual in nature and there has been insufficient exploration to define a Mineral Resource and it is uncertain if further exploration will result in the target being delineated as a Mineral Resource. Varying cut-off grades have been used depending on the mine, methods of extraction and type of ore contained in the reserves. Mineral resource metal grades and material densities have been estimated using industry-standard methods appropriate for each mineral project with support of various commercially available mining software packages. Additional details regarding Mineral Reserve and Mineral Resource estimation, classification, reporting parameters, key assumptions and associated risks for each of the Company’s mineral properties are provided in the respective NI 43-101 Technical Reports which are available at [www.sedar.com](http://www.sedar.com) and the Company’s website at [www.ayagoldsilver.com](http://www.ayagoldsilver.com).

Certain statements and information contained in this presentation are “forward-looking information” within the meaning of applicable securities laws. Such statements involve known and unknown risks, uncertainties and assumptions and accordingly actual results and events may differ materially from those implied or expressed therein. This includes statements such as “largest”, “expected”, “could”, “ongoing”, “tracking”, “guidance”, “complete”, “deliver” and other words such as “anticipated”, “growth”, “potential”, “lower”, “prospective”, “adding”, “continuous”, “will”, “timeline”, “favorable”, “opportunities”, “expand”, “extend”, “continue”, “achieve”, as well as statements by the Corporation concerning expected timelines, including the expected timeline for the Corporation to produce new resources estimates, and exploration results, including deposit size, quantities, grades and contained metals, which are generally made on the basis of estimations and extrapolations from a limited number of drill holes and assays. These estimations and extrapolations are subject to uncertainties, which include but are not limited to uncertainty in connection with evaluating a deposit until the deposit has been extensively drilled on closely spaced centers. Should one or more of these underlying estimations or extrapolations prove incorrect, actual results may vary materially from those described in forward-looking statements.

Forward-looking statements contained herein also include the Corporation’s plans for its mineral properties, which involve known and unknown risks, uncertainties and other factors which may cause the Corporation’s actual results, performance or achievements, or industry results, to be materially different from any future results, performance or achievements expressed or implied by such forward-looking information. Forward-looking information is subject to a variety of risks and uncertainties, which could cause actual events or results to differ from those reflected in the forward-looking information, including, without limitation, the ability of the Corporation to continue to access capital markets for the funding necessary to acquire and maintain exploration properties and to carry out its desired exploration programs; difficulties in executing exploration programs according to the Corporation’s proposed schedules and within its cost estimates, whether due to weather conditions in the areas where it operates, the ability of the Corporation to maintain its output at a steady rate of production, the ability of the Corporation to continue to decrease production costs, the ability of the Corporation to expand its exploration budget, the ability of the Corporation to execute on its expansion plans on time and on budget, the ability of the Corporation to continue tracking the expansion as planned, the ability of the Corporation to meet its guidance, increasingly stringent environmental regulations and other permitting restrictions, or the availability of essential supplies and services; and factors beyond the capacity of the Corporation to anticipate and control, such as the marketability of minerals, government regulations relating to health, safety and the environment, and the scale and scope of royalties and taxes on production and other risks described in the Corporation’s documents filed with Canadian securities regulatory authorities. You can find further information with respect to these and other risks in the Corporation’s 2023 Q1 MD&A, and other filings made with Canadian securities regulatory authorities and available at [www.sedar.com](http://www.sedar.com). Should one or more of these risks or uncertainties materialize, actual results may vary materially from those described in forward-looking statements.

Accordingly, readers are advised and cautioned not to place undue reliance on forward-looking information. Except as required under applicable securities legislation, the Corporation undertakes no obligation to publicly update or revise forward-looking information, whether as a result of new information, future events or otherwise. All amounts are in US dollars unless otherwise specified.

# KEY HIGHLIGHTS – EXCELLENT OPERATIONS WITH IMPROVED FINANCIALS



## Q2-2023 Results and Financial Position

- Produced **526,703 oz of silver** in Q2-2023, second-highest quarterly production
- Total cash costs<sup>1</sup> of **\$10.98 per oz** sold
- Generated **\$9.6M** in revenue and **\$3.7M** in cash flow
- Closed the quarter with **\$52M** in cash and cash equivalents<sup>2</sup>

## Growth Pipeline

- Progressed Zgounder expansion to **45% completion**
- Extended Boumadine open-ended strike to **3.8 km** and discovered at-surface northwest mineralized zone
- Returned anomalous **zinc, copper and silver** values on Zgounder Regional
- Acquired historic **Tirzzit copper mine** and 67.7 km<sup>2</sup> property

## Strategic Initiatives

- Increased board diversity
- Disclosed **acceleration of ESG integration and climate change action** in 2022 Sustainability and ESG Reports

<sup>1</sup> Non-GAAP Measures, refer to page 15 of the Corporation's Second Quarter 2023 MD&A  
<sup>2</sup> Non-GAAP Measures consisting of cash and cash equivalents of \$49,568,800 and restricted cash of \$2,541,022

# OPERATIONAL PERFORMANCE AT UPPER END OF GUIDANCE

Quarterly output expected to remain steady, and costs stable through remainder of 2023<sup>1</sup>

IN MILLIONS OF US\$		2023		
		Q2	YTD	GUIDANCE
SILVER PRODUCTION	OZ	526,703	1,001,516	1.7 – 1.9M
CASH COST PER OZ SOLD <sup>2</sup>	\$/OZ	10.98	12.87	14.40
AVERAGE GRADE PROCESSED	G/T AG	265	250	264
MILL RECOVERY	%	87.3	87.2	86
TONNES PROCESSED	TONNES	72,190	144,928	245,000

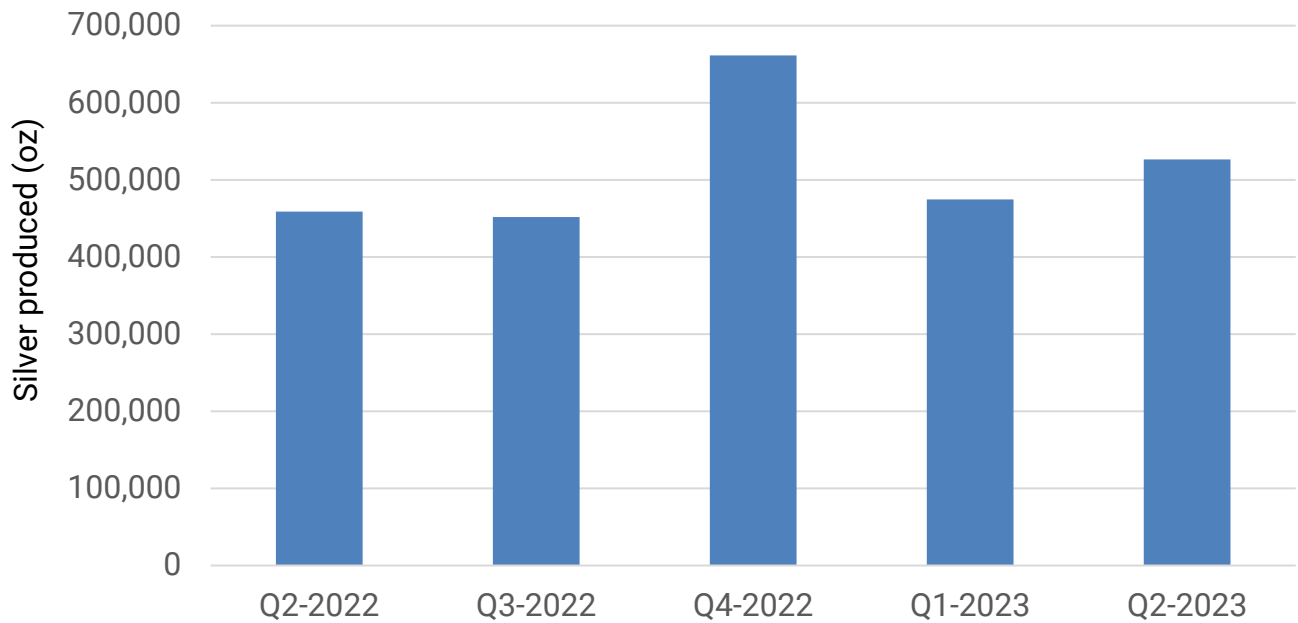
- Quarterly production expected to remain steady through remainder of year on stronger grades
- Cash cost<sup>2</sup> expected to remain stable during the year
- Exploration budget could be revised upward on receipt of positive drill results

<sup>1</sup> Please refer to Forward-looking statement on slide 2.

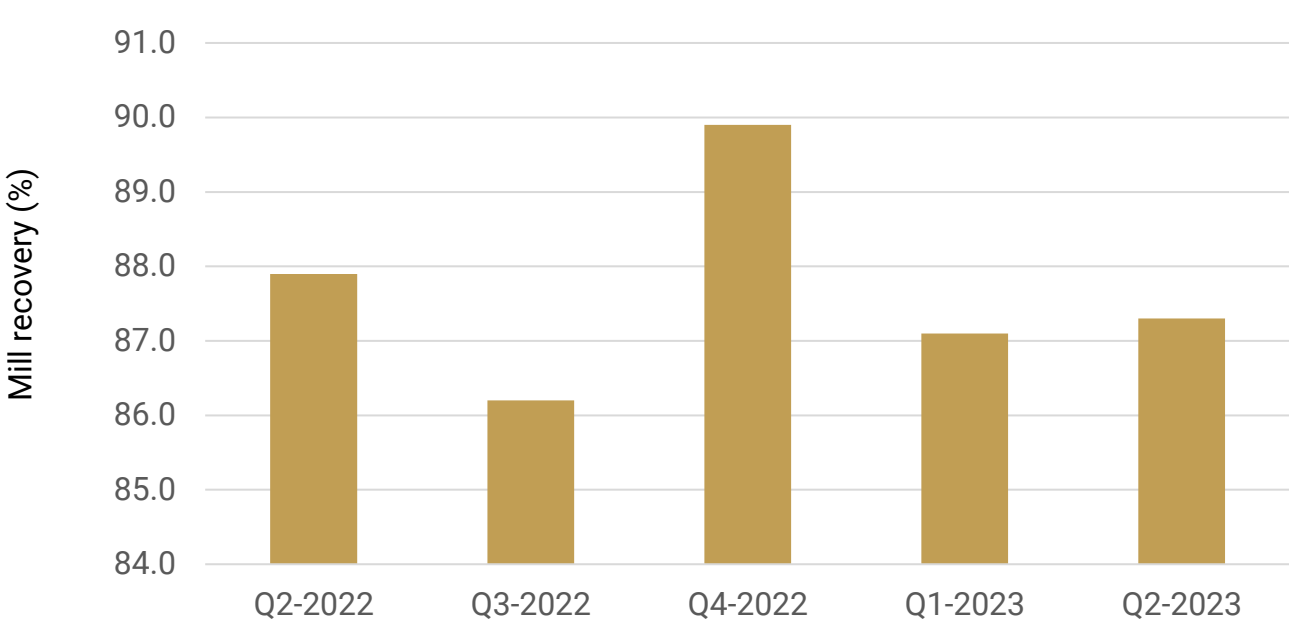
<sup>2</sup> Non-GAAP Measures, refer to page 15 of the Corporation's Second Quarter 2023 MD&A

# EXCELLENT OPERATIONAL PERFORMANCE

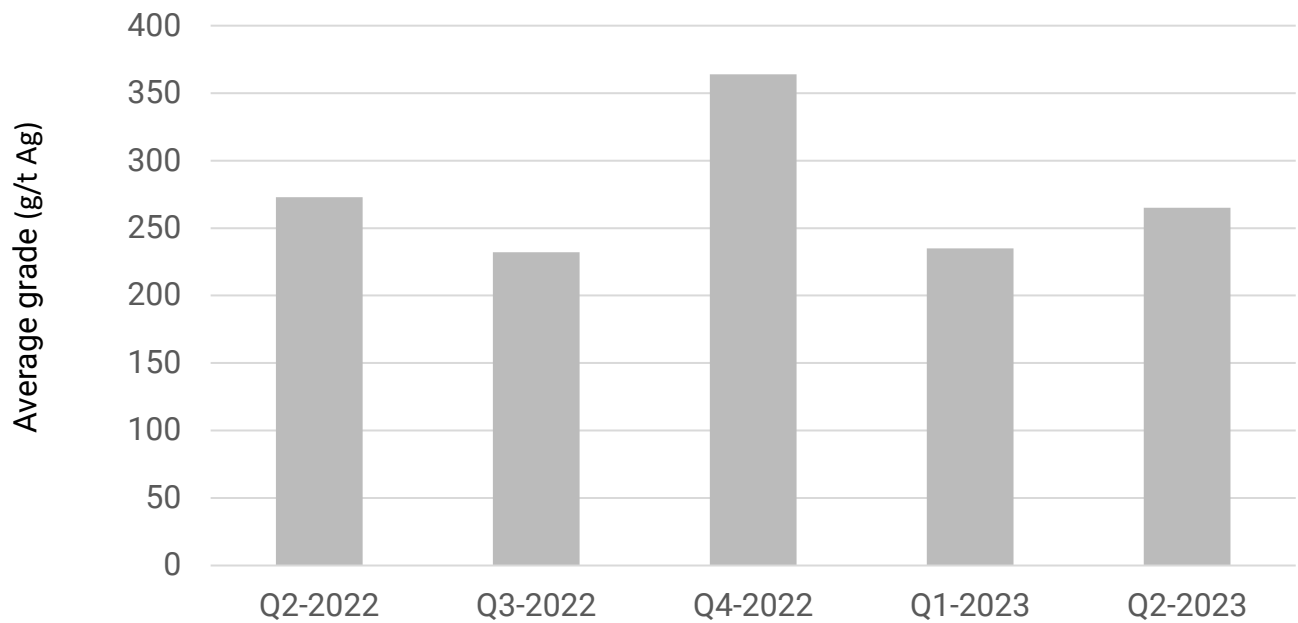
Produced 526,703 silver oz, second-highest quarterly production



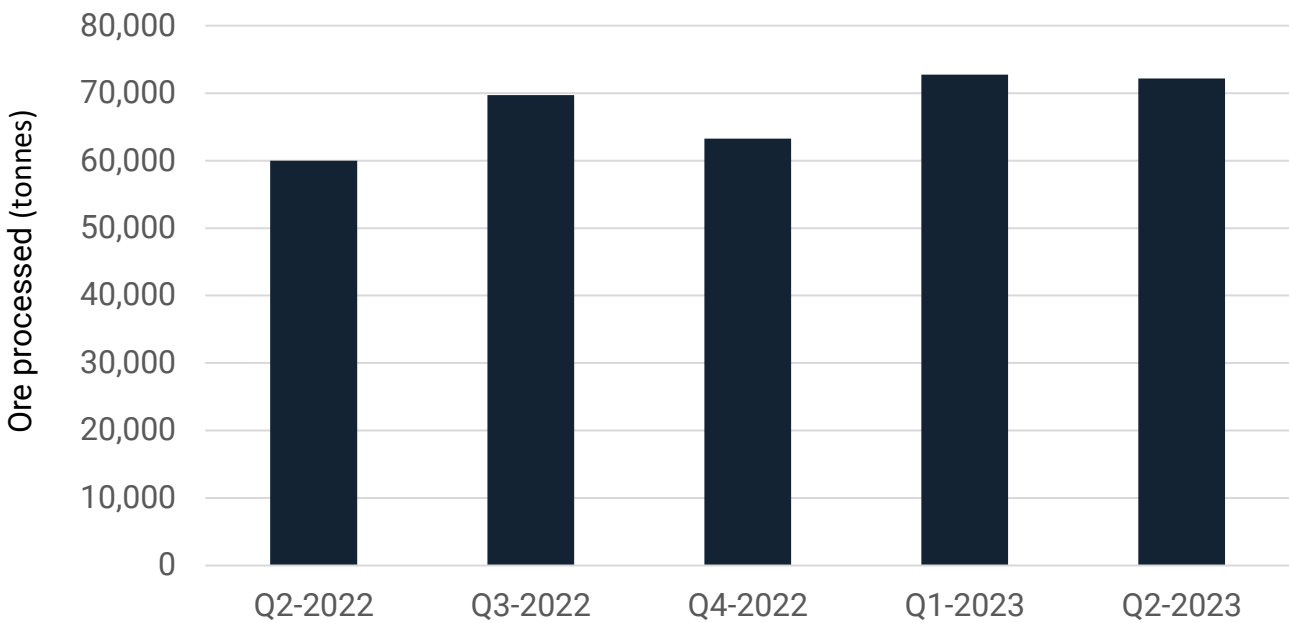
Average recovery of 87.3% in Q2-2023



Silver grade processed of 265 g/t during second quarter

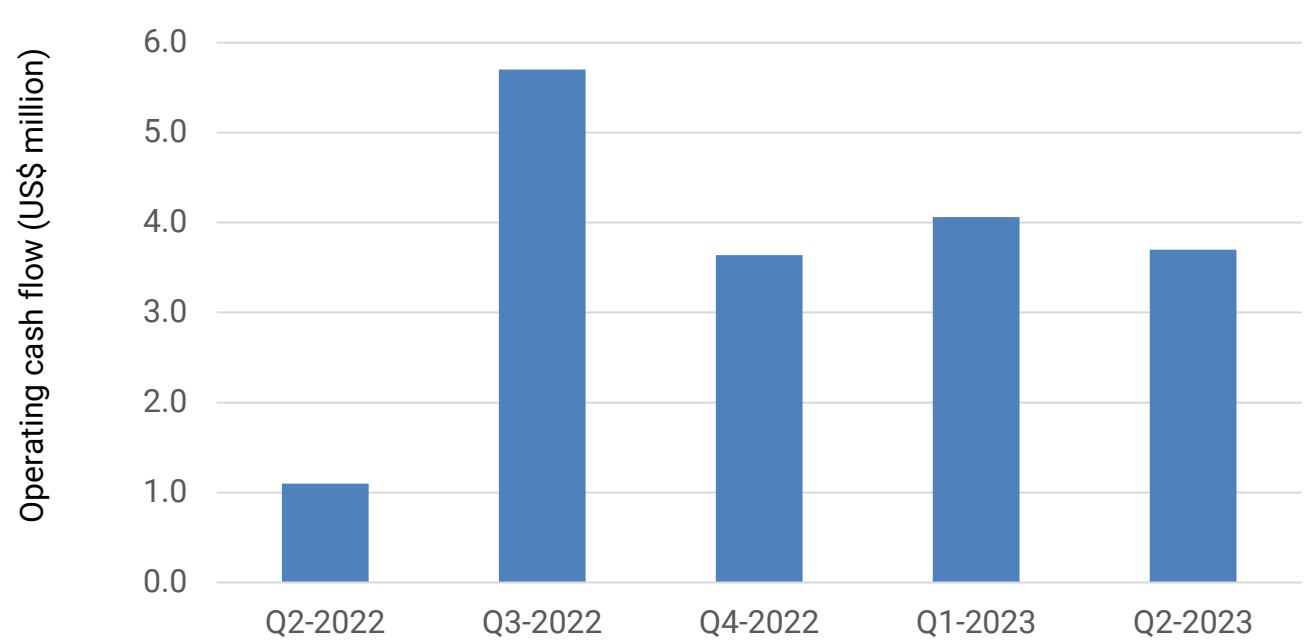


Ore processed of 72,190 tonnes, second-highest quarterly tonnage

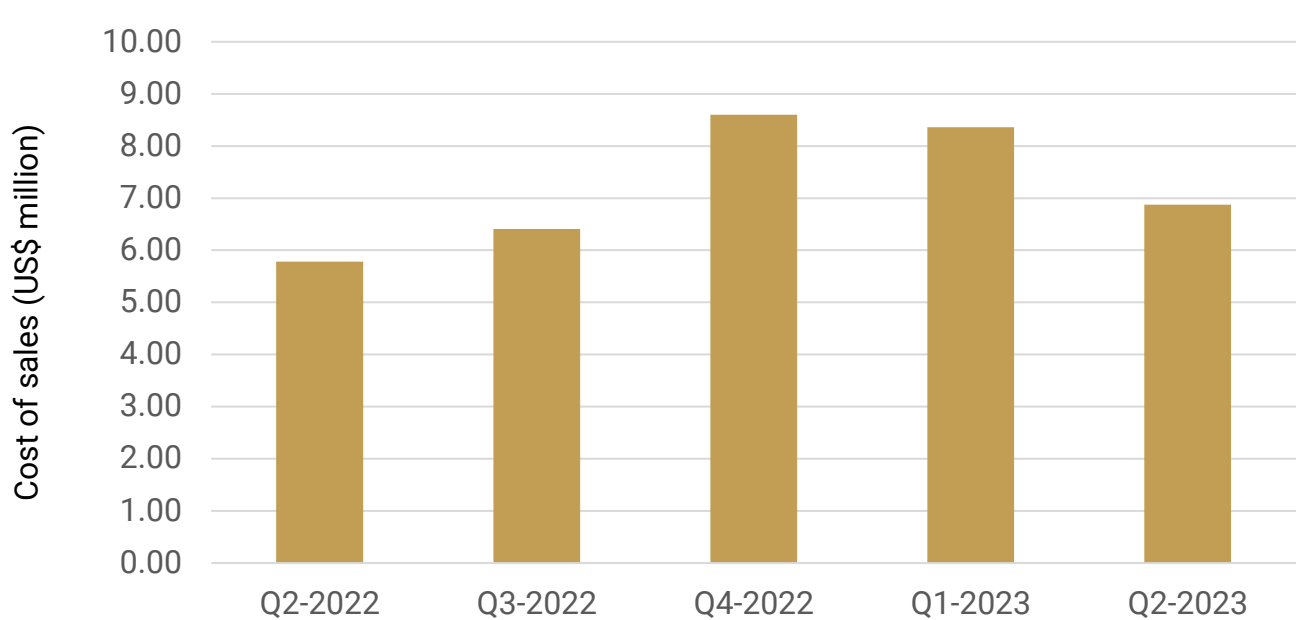


# IMPROVING FINANCIALS

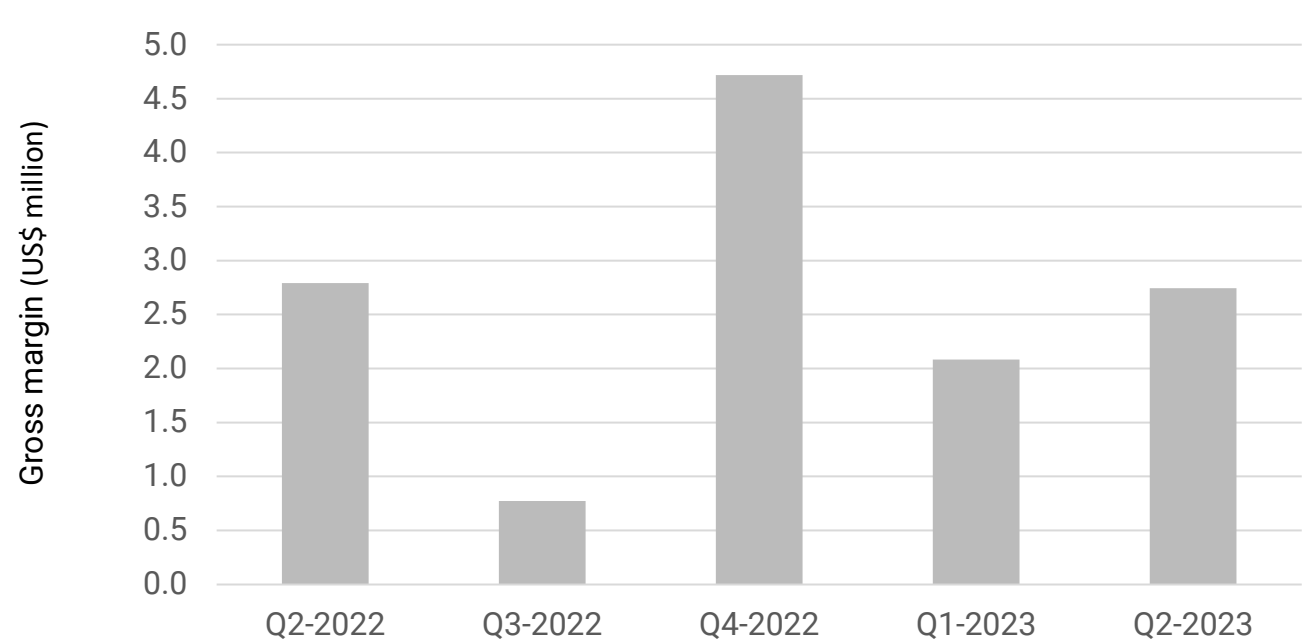
Generated \$3.7 million in cash flow from operating activities



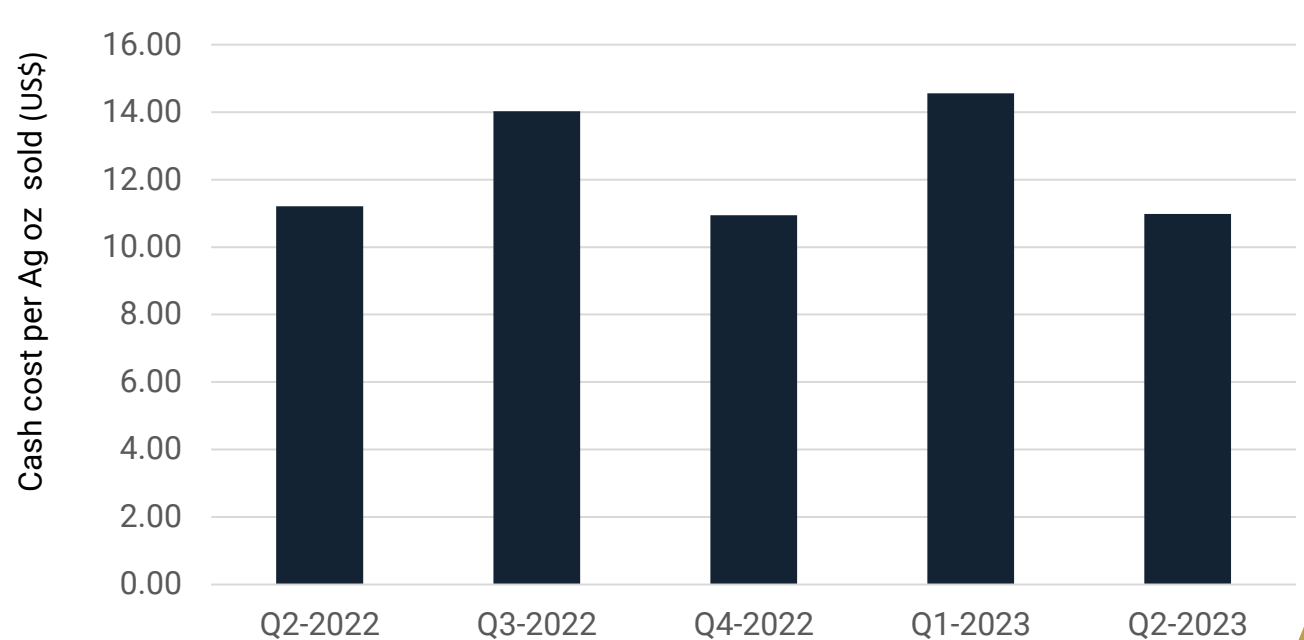
Cost of sales of \$6.9 million in Q2-2023



Gross margin of \$2.8 million during second quarter



Cash cost of \$10.98 per silver oz sold<sup>1</sup>



<sup>1</sup> Non-GAAP Measures, refer to page 15 of the Corporation's Second Quarter 2023 MD&A



# Q2-2023 SUSTAINABILITY HIGHLIGHTS

## Focus on strengthening safety performance and delivering 2023 EBRD milestones

- Roll-out of ESMS with focus on H&S:
  - **Two** lost-time injuries (LTIs) recorded
  - **3,040 hours** of H&S training
  - Delivery of **mine rescue vehicle** and equipment
- Advanced construction of the 90-km power line project that will connect Zgounder operations to **renewable grid power**
- **70%** complete - Implementation of the TCFD (Taskforce on Climate-Related Financial Disclosures)  
**31%** complete - The EBRD's ESAP (Environmental and Social Action Plan)
  - Launch of **biodiversity impact monitoring**
- Key Q2 community projects:
  - Building governance capacity of local cooperatives
  - Third phase of diabetes mobile clinic by Zgounder doctor







Zgounder  
flotation plant

Crushing  
platforms

Milling  
platform

Leaching reactor  
platform

ROM pad

Ore silo  
platform

Emergency  
process water  
pond

CCD platforms

Merrill-Crowe &  
silver room platforms

Electrical  
substation

**CONSTRUCTION OF ZGOUNDER NEW  
PROCESSING PLANT | July 2023**



# ZGOUNDER EXPANSION 45% COMPLETE AT QUARTER-END

Key Q2-2023 achievements are:

- **Underground development on track –**
  - 65% of lateral and 42% of vertical development complete
  - Completion of main ventilation shaft
- **Completed on schedule –**
  - Earthworks, detailed engineering, and fabrication of ball mill and crushing equipment
- **Progressing to plan –**
  - Tailings and water storage facilities
  - Open-pit mining – mobilisation in Q2 & first ore in July
  - Manufacturing of Merrill-Crowe, CCD thickeners, and agitators
  - Power line and electrical substation
- **On budget –**
  - **\$132M (or ~95%** of the total capital cost estimate) contracted across all capital cost categories, and **\$54M** incurred at QE

Area	Progress
Process Plant	40%
Underground and Open-Pit Mines	47%
Tailings	55%
Water Management	74%
Electrical Infrastructure	27%
On-site Infrastructure	55%

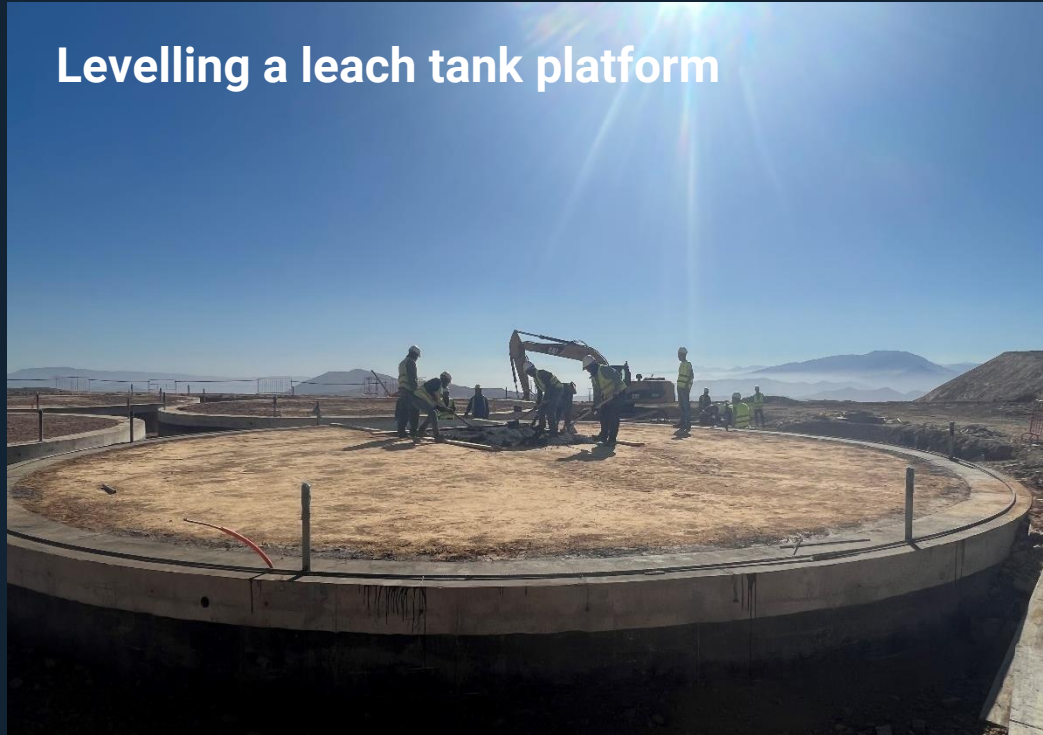


Concrete foundations of electrical substation



# ZGOUNDER EXPANSION UPDATE

Levelling a leach tank platform



Aerial view of water storage basins



Ongoing steelwork at ore silo





# 2023 DRILL EXPLORATION PROGRAM OF 68,700M

## THREE PRIORITY PROJECTS

### ZGOUNDER SILVER MINE

- 26,000m 2023 budget for near-mine drilling
- Expand resource oz at depth

### BOUMADINE (Development)

- 2023 budget of 36,000m complete
- Infill drill & explore along strike, at depth, new targets

### ZGOUNDER REGIONAL (Exploration)

- 6,700m 2023 budget
- Build on 2022 results & test new targets

### TIJIRIT - MAURITANIA

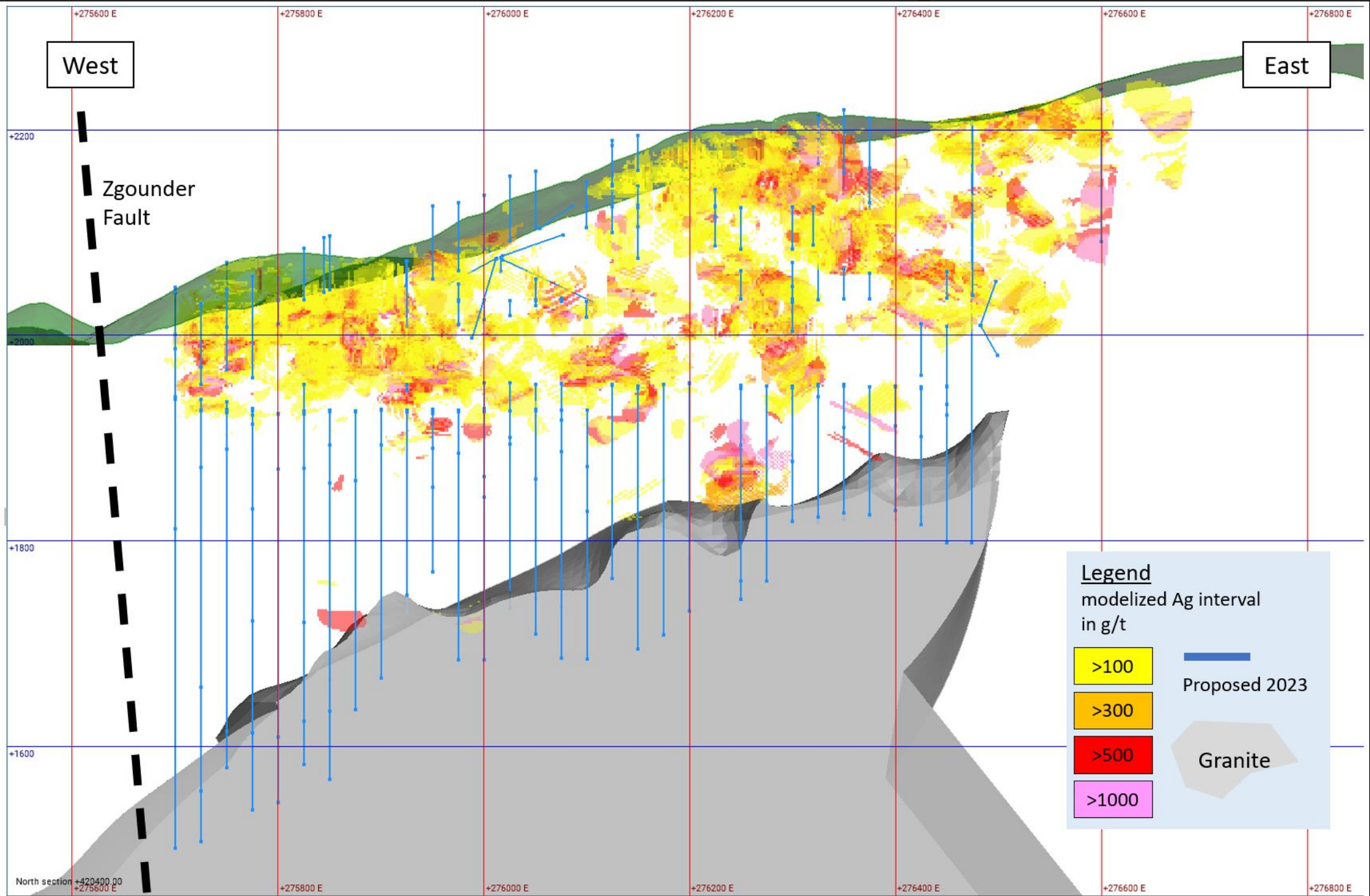
- 25,000m program complete
- Convert resources into reserves





# ZGOUNDER – 12,424M of NEAR-MINE DRILL EXPLORATION (Ag) in Q2-2023

M&I Mineral Resources with 2023 Initial Surface and Underground Drill Holes





# ZGOUNDER REGIONAL – ONGOING DRILL PROGRAM (Ag, Au, Cu)

## 2023 Drill Program

- **8,582m of DDH** completed in H1-2023 (4.6km in Q2)
- Preliminary results returned anomalous **Zn, Cu** and some **Ag values** that confirm **potential for discovery of satellite deposits**
- **Focus on following up anomalies** and testing new targets
- Prospective package for **epithermal Ag, Au or Cu-Au** vein mineralization
- Identification of five target areas with Ag, Cu and Au showings

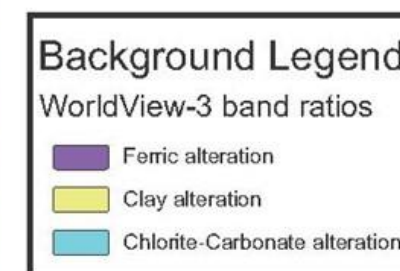
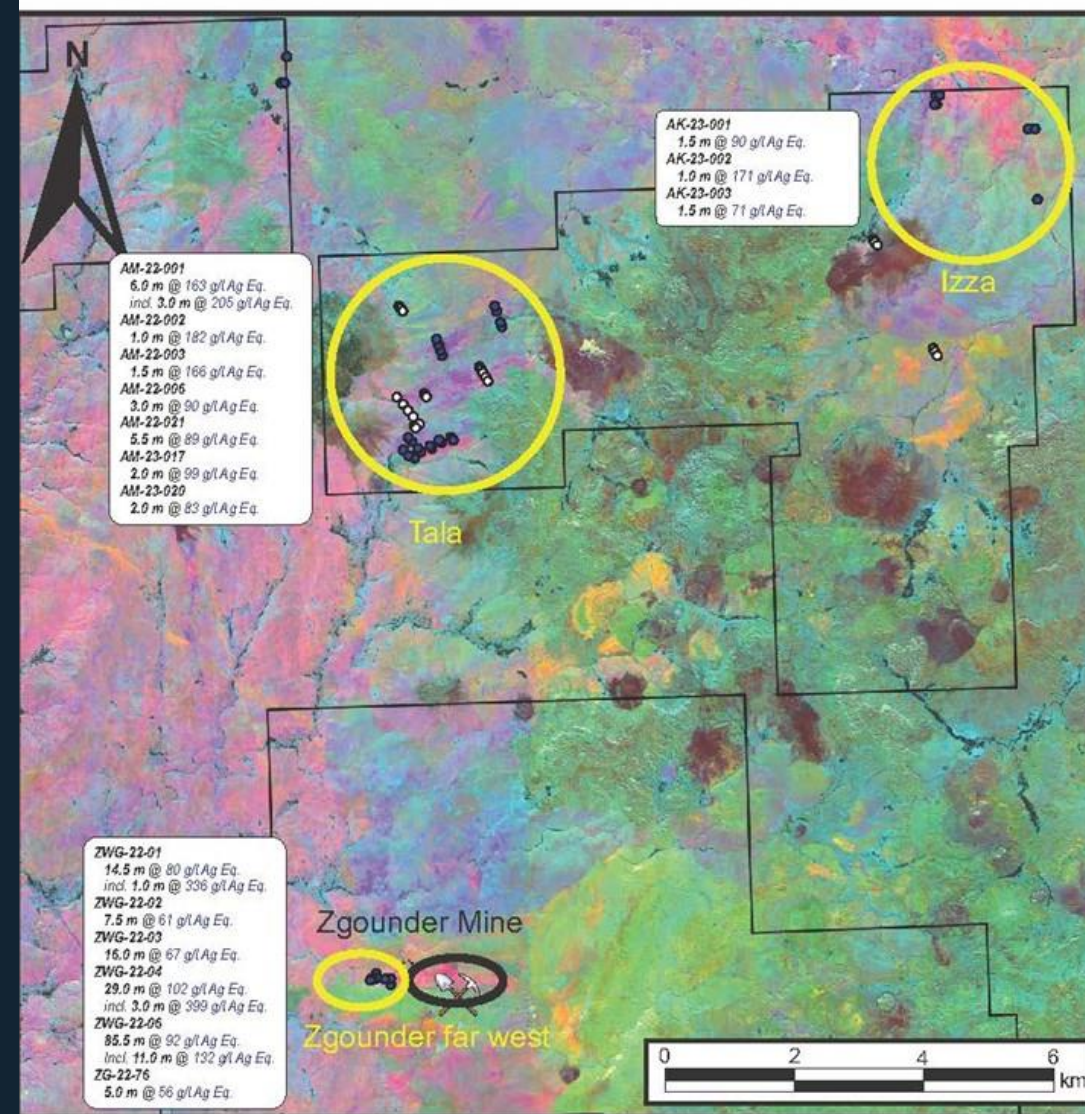
## Informed by comprehensive geophysical and mapping programs

- 1,081 grab samples taken to date across the exploration permits
- Airborne geophysics survey data (magnetic, VTEM & radiometric)
- Stream sediment campaign (954 samples)

<sup>1</sup> Refer to Aya Gold & Silver's November 1, 2022 press release titled "Aya Gold & Silver Provides Exploration Update Including Drilling On Zgounder Regional Properties and Campaign Extension at Boumadine"

<sup>2</sup> Refer to Aya Gold & Silver's February 9, 2023 press release titled "Aya Gold & Silver Provides Production Guidance and Outlook for 2023"

<sup>3</sup> Refer to Aya Gold & Silver's May 30, 2023 press release titled "Aya Gold & Silver Announces High-Grade Silver Drilling Results at Zgounder and Updates on Zgounder Regional Drilling Program"





# BOUMADINE – MAIN TREND EXTENDED SOUTH (Au, Ag, Pb, Cu, Zn)

## 36,000m DDH Drill Program Completed in July

- **6 rigs** drilling, extending strike length by >40% to **3.8km** (6km hydrothermal system)
- **Defined a new high-grade mineralized stockwork area** that expands the South Zone along strike and at depth
- **Discovered an at-surface northwest area** extending >1.5km
- **NI 43-101-compliant resource** estimate expected in Q1-2024

## Drill Exploration Results

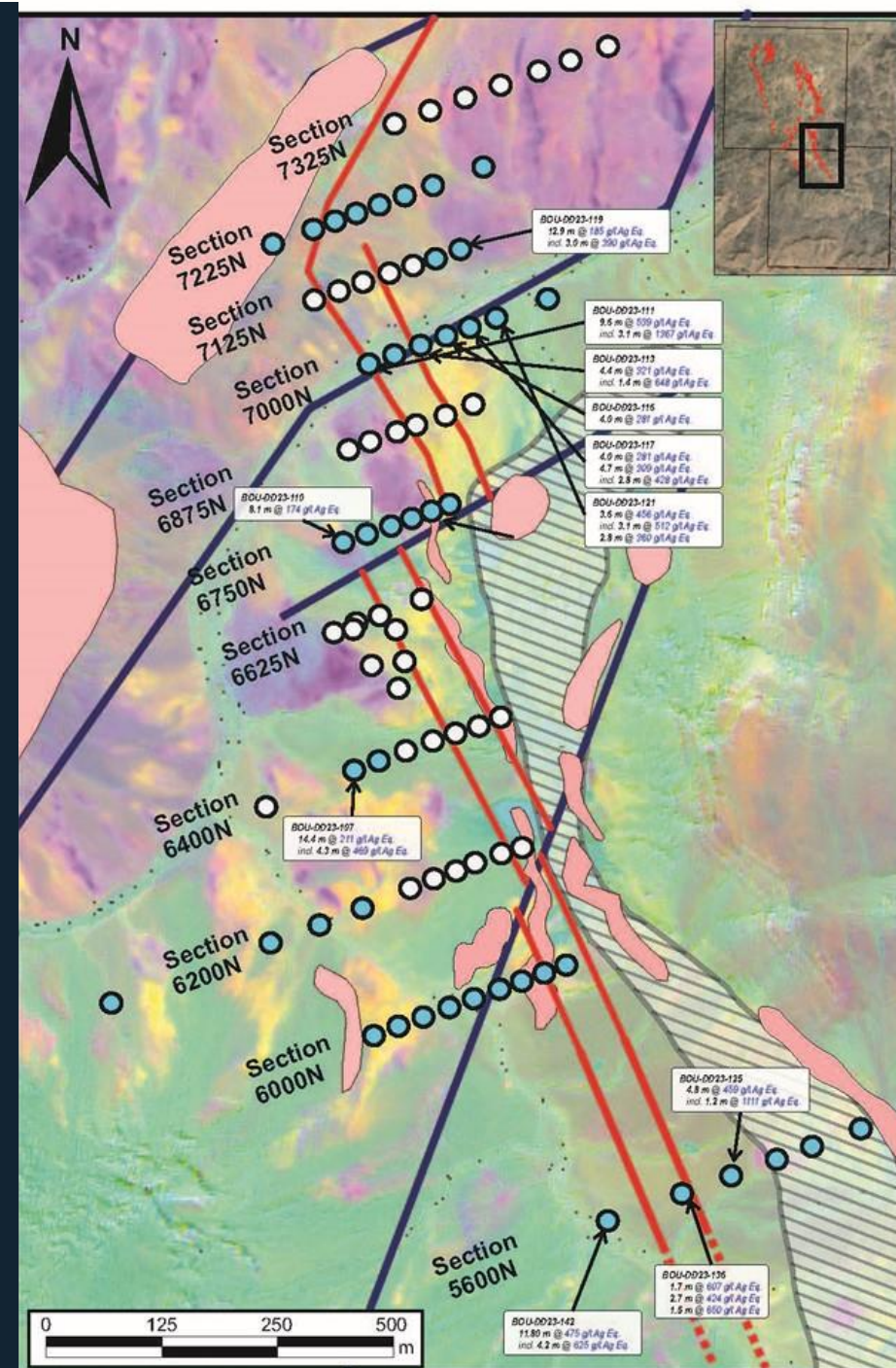
- **192 g/t AgEq over 129.4m** (1.06 g/t Au, 25 g/t Ag, 1.0% Zn, 0.2% Pb and 0.03% Cu) – including 443 g/t AgEq over 16.6m, 222 g/t AgEq over 24.3m, 290 g/t AgEq over 12.2m and 206 g/t AgEq over 16.3m
- **539 g/t AgEq over 9.6m** (1.76 g/t Au, 134 g/t Ag, 3.9% Zn, 0.5% Pb and 0.1% Cu) – including 1,367 g/t AgEq over 3.1m
- **475 g/t AgEq over 11.8m** (0.97 g/t Au, 88 g/t Ag, 4.2% Zn, 1.6% Pb and 0.01% Cu) – including 625 g/t AgEq over 4.2m
- **571 g/t AgEq over 8.7m** (1.59 g/t Au, 54 g/t Ag, 5.4% Zn, 2.2% Pb and 0.03% Cu)

<sup>1</sup> Refer to Aya Gold & Silver's November 1, 2022 press release titled "Aya Gold & Silver Provides Exploration Update Including Drilling On Zgounder Regional Properties and Campaign Extension at Boumadine"

<sup>2</sup> Refer to Aya Gold & Silver's February 14, 2023 press release titled "Aya Gold & Silver Confirms Discovery of Parallel Zones and Extends High-Grade Mineralization at Boumadine"

<sup>3</sup> Refer to Aya Gold & Silver's April 19, 2023 press release titled "Aya Gold & Silver Extends Mineralization to the South at Boumadine with Record Intercept"

<sup>4</sup> Refer to Aya Gold & Silver's July 5, 2023 press release titled "Aya Gold & Silver Extends Mineralization South of Main Zone and Discovers New At-Surface Northwest Zone at Boumadine"



## Legend

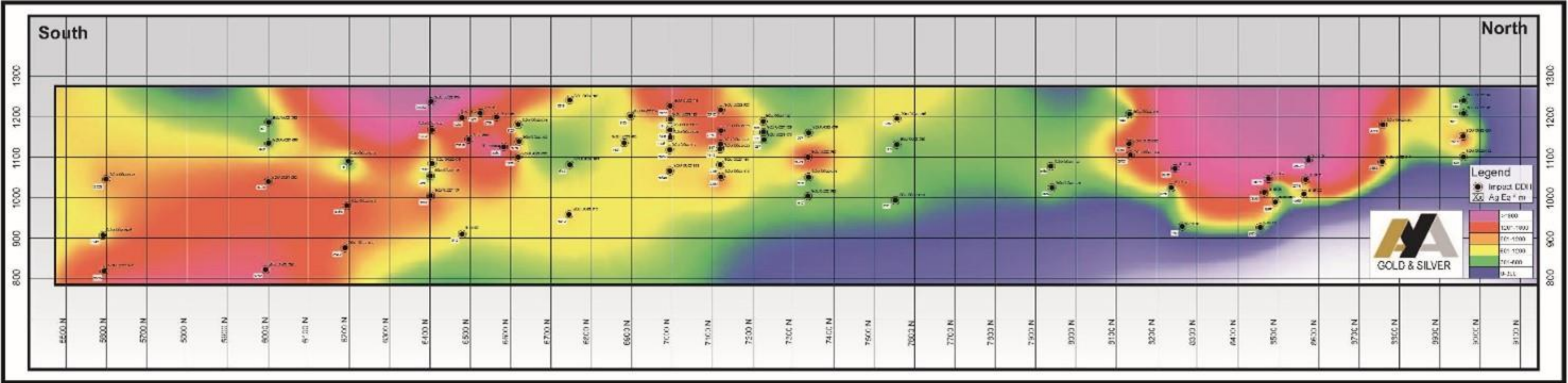
- 2023 DDH Campaign
- 2017 - 2022 Drill Holes
- ▨ Major Deformation Zone
- Major Faults
- Mineralized Structures
- - - Interpreted Mineralised Structures
- Rhyolite, Dykes & Domes

## WorldView-3 band ratios

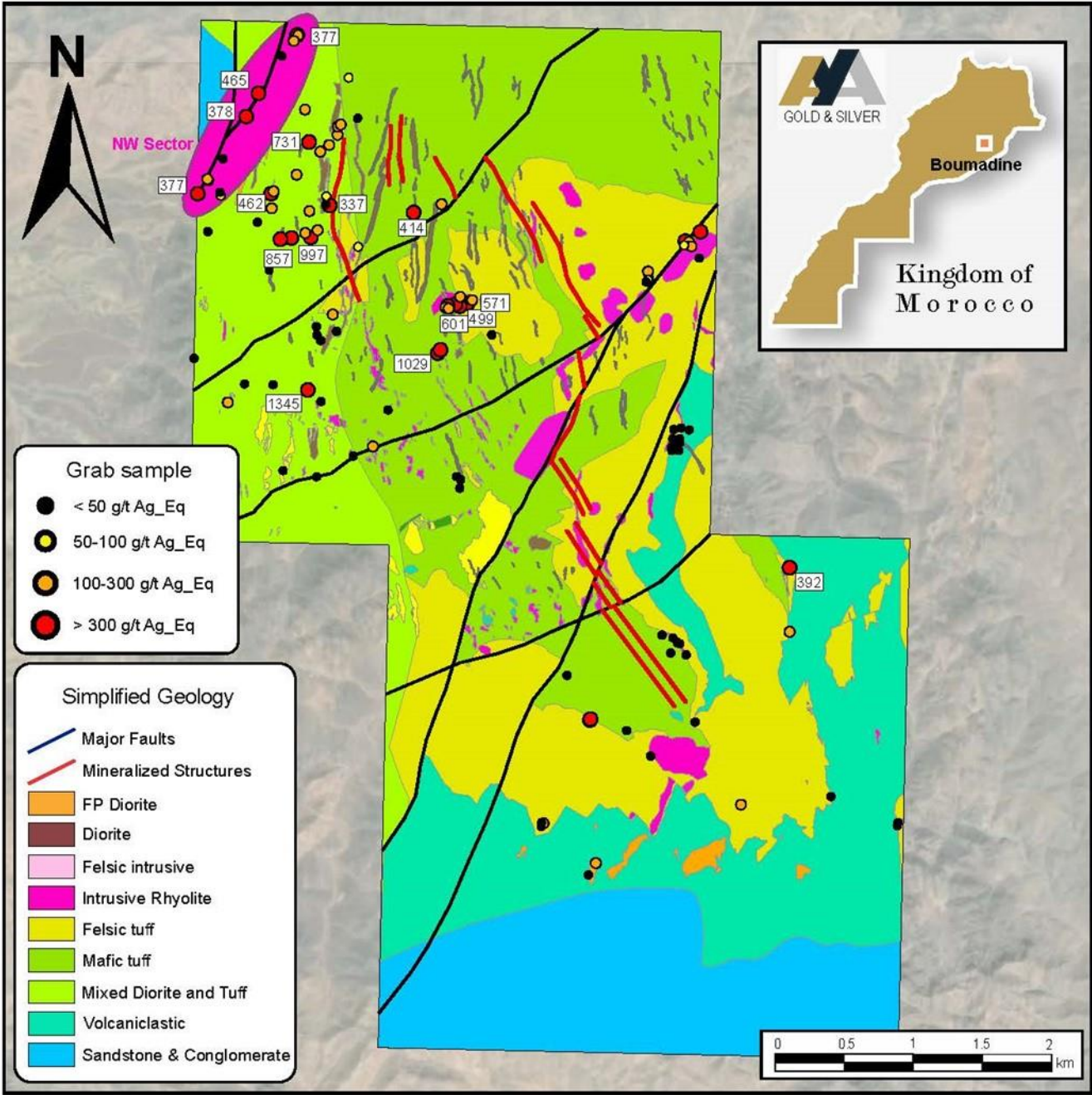
- Ferric alteration
- Clay alteration
- Chlorite-Carbonate alteration



# BOUMADINE – LONGITUDINAL VIEW OF BOUMADINE MAIN ZONE



# BOUMADINE – **SURFACE PLAN** SHOWING SIMPLIFIED GEOLOGY AND 2023 SURFACE SAMPLES





# TIRZZIT – HISTORICAL COPPER MINE & POTENTIAL NEW DISTRICT (Cu, Ag)

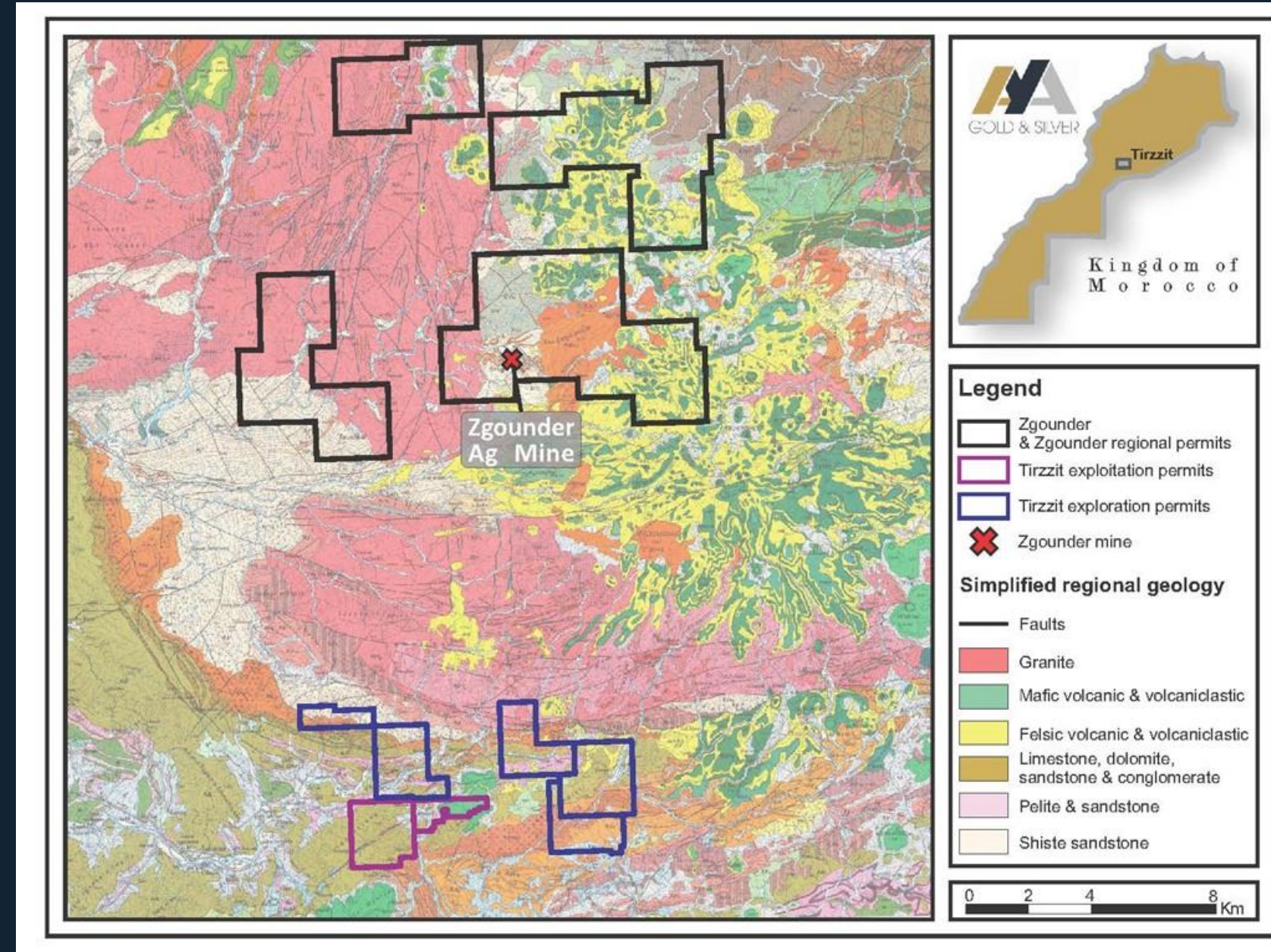
**Collection of 7 permits including the historical Tirzzit Copper Mine** on Morocco's anti-Atlas range, 25 km south of Zgounder

Through the pending transaction, Aya acquires:

- Historical copper mine offering near-surface **silver** and **copper** mineralization potential, with historical drilling intercepts of up to **3.5% Cu**
- Historical data including **drill results and geophysics**, which will be used to launch fieldwork
- Land holdings totalling 67.7km

## Potential

- Mineralization of historical deposit remains open in three directions
- No systematic exploration program using modern methods
- Easy road access and proximity to infrastructure



<sup>1</sup> Refer to Aya Gold & Silver's June 29, 2023, press release titled "Aya Gold & Silver Acquires Historical Tirzzit Copper Mine; Adds Seven Prospective Copper-Silver Permits in Tirzzit District Near Zgounder"



# TAKEAWAYS

- 2023 silver production and cost guidance
- 2023 milestones for **2,700 tpd Zgounder Silver Mine** expansion
  - **Q1-2023 – Start construction of new TSF**
  - **Q2-2023 - Complete detail engineering; and begin OP operations**
  - **Q3-2023 – Receive ball mill on site; and finish new water storage basin, bulk and civil works**
- 32,700m drilling at Zgounder and Zgounder Regional
- **36,000m** exploration drilling at **Boumadine**
- H1-2023 - Complete 25,000m drill program at Tijirit (Mauritania)
- H2-2023 - Launch of fieldwork on **Tirzzit**
- 2023 **ESG milestone** of EBRD-CTF loan agreement
- Operational optimization – focus on **cost efficiencies** and **H&S**

Progress  
**ON TRACK**



**ON TRACK**



**ON TRACK**







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