



Annual General Meeting

BUILDING THE LARGEST PURE-PLAY SILVER PRODUCER GLOBALLY

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 Bisaillon, 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 by Marc-Antoine Audet, Ph.D. P. Geo, Geological Consultant and a QP as defined under NI 43-101.

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 "building", "demonstrate", "high-potential", "developing", "potential", "continuous", "will", "timeline", "favorable", "opportunities", "backstopped", "expand", "potential", "growing", "increasing", 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, 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 2022 Q1 MD&A, and other filings made with Canadian securities regulatory authorities and available at 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.



- 1 AYA**
- 2 ZGOUNDER SILVER MINE**
- 3 EXPLORATION**
- 4 CATALYSTS**

ZGOUNDER SILVER MINE – CORNERSTONE OF AYA's GROWTH STORY

- Commercial production in 2019
- 2022 production guidance of **~1.7M oz**
- 2024 production of **~7.9M oz, +394%**
- **96M oz** M&I resources at 306 g/t Ag

DEVELOPMENT UPSIDE

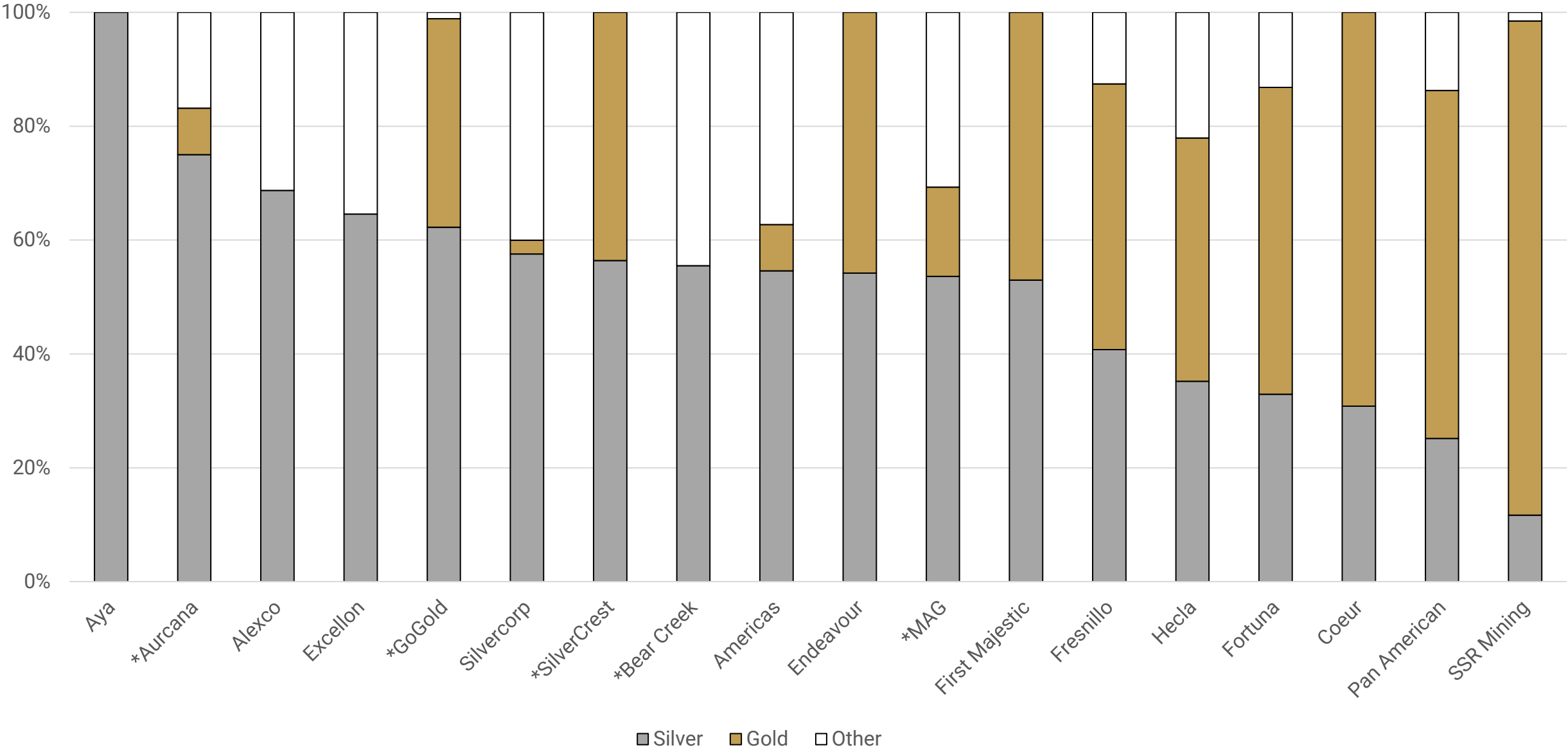
- Boumadine
- Tijirit – FS 85% complete

EXPLORATION UPSIDE

- Zgounder Regional
- Imiter bis
- Azegour
- Amizmiz

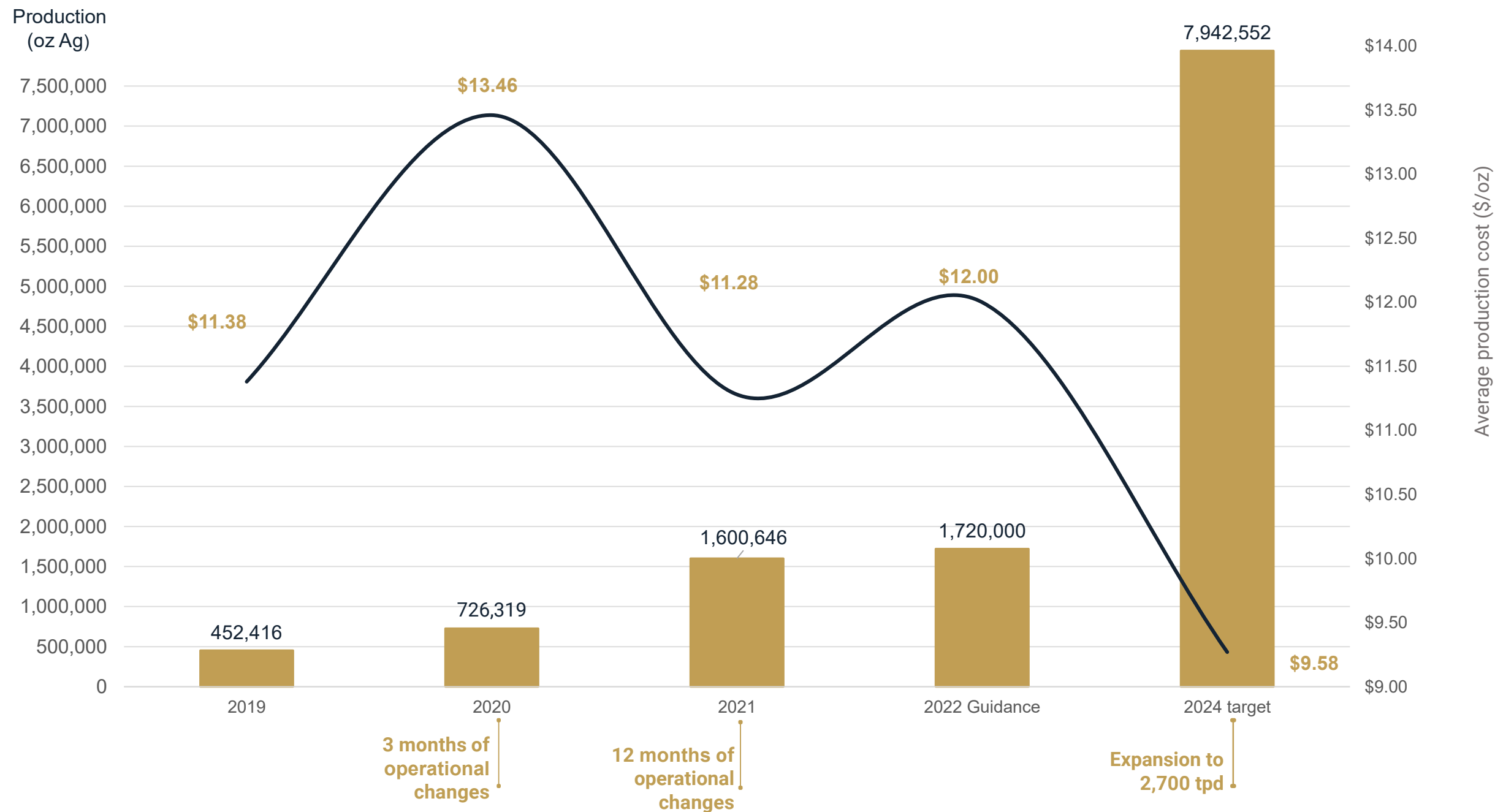


AYA – THE ONLY TSX-LISTED PURE SILVER PRODUCER



Source: Desjardins Capital Markets, company reports
*Developer, for which 2021 metal prices and latest technical report LOM payable production were used

ZGOUNDER – QUADRUPLING PRODUCTION AT INDUSTRY-LOW CASH COST



MOROCCO – DEVELOPING THE MINING SECTOR BEYOND PHOSPHATES



36.6M
inhabitants



Arabic, Amazigh &
French-speaking



710,850 km²

1914

First mining
legislation

1920

First modern
mines

1951

Revision of
mining code

1951 - 1995

Mainly Moroccan
miners: OCP, SOMIFER,
SAMINE, SACEM,
SMI, CTT & ONA (now
Managem)

1995 - 1998

Privatization of 114
state-owned mining
assets

2016

Revision of
mining code

2022

45 ONHYM projects
(incl. 16 base
metals & 13
precious metals)



Silver - 1st producer in Africa, 15th worldwide
2021 silver production [9.3 million oz]



Phosphate - 1st producer in Africa, 1st worldwide

Barite - 1st producer in Africa, 3rd worldwide

Fluorite - 2nd producer in Africa, 7th worldwide

Cobalt – 3rd producer in Africa, 11th worldwide



21% of Morocco's export value, 80% in volume [MINING SECTOR]

GDP

10% [MINING SECTOR, 90% of which from phosphates]



Eighth Most-Attractive Mining Jurisdiction Globally
[Fraser Institute Annual Survey of Mining Companies, 2021]

2016 Mining Code Zgounder	
Royalty	3% of sales
Tax rate	20%
State free-carried interest	Nil
Foreign ownership permitted	Yes
Repatriation of profits	Yes
Mining license (renewable)	10 years

Sources: CIA World Factbook, October 2021, Silver Institute's World Silver Survey 2022, and ONHYM's Mining Overview 2020

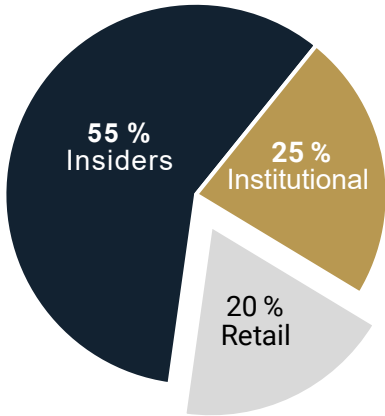
AYA – CORPORATE SNAPSHOT – TSX: AYA OTCQX: AYASF



Shares - Basic		105.0M
Shares – F.D.		115.7M
Share Price (June 20, 2022)	C\$	\$8.00
Market Cap	C\$	\$840M
Cash (March 31, 2022)	US\$	\$77M
Debt (March 31, 2022)	US\$	Nil
30-day average volume	'000	0.3



Shareholders





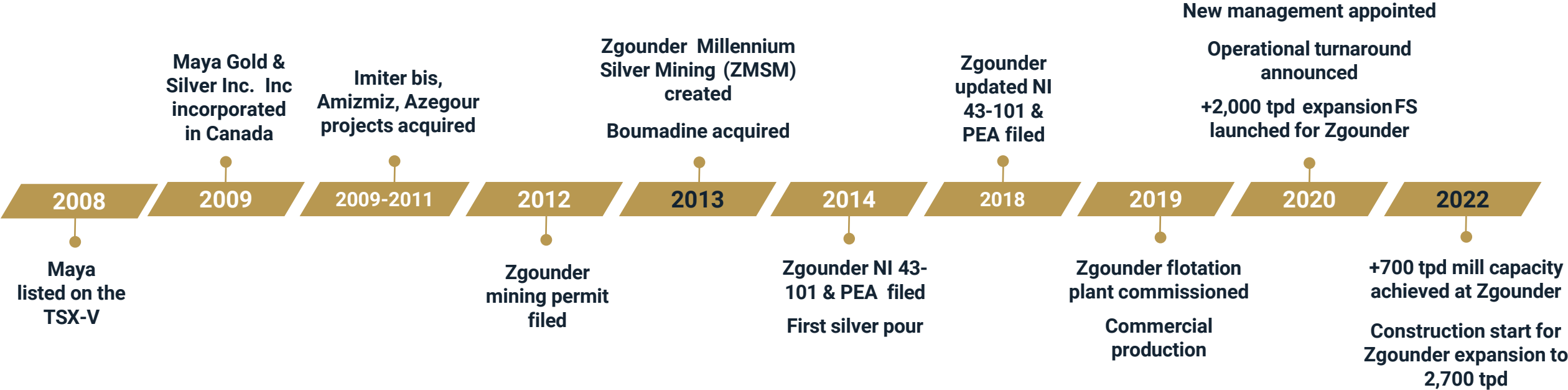
1 AYA

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AYA / ZGOUNDER TIMELINE



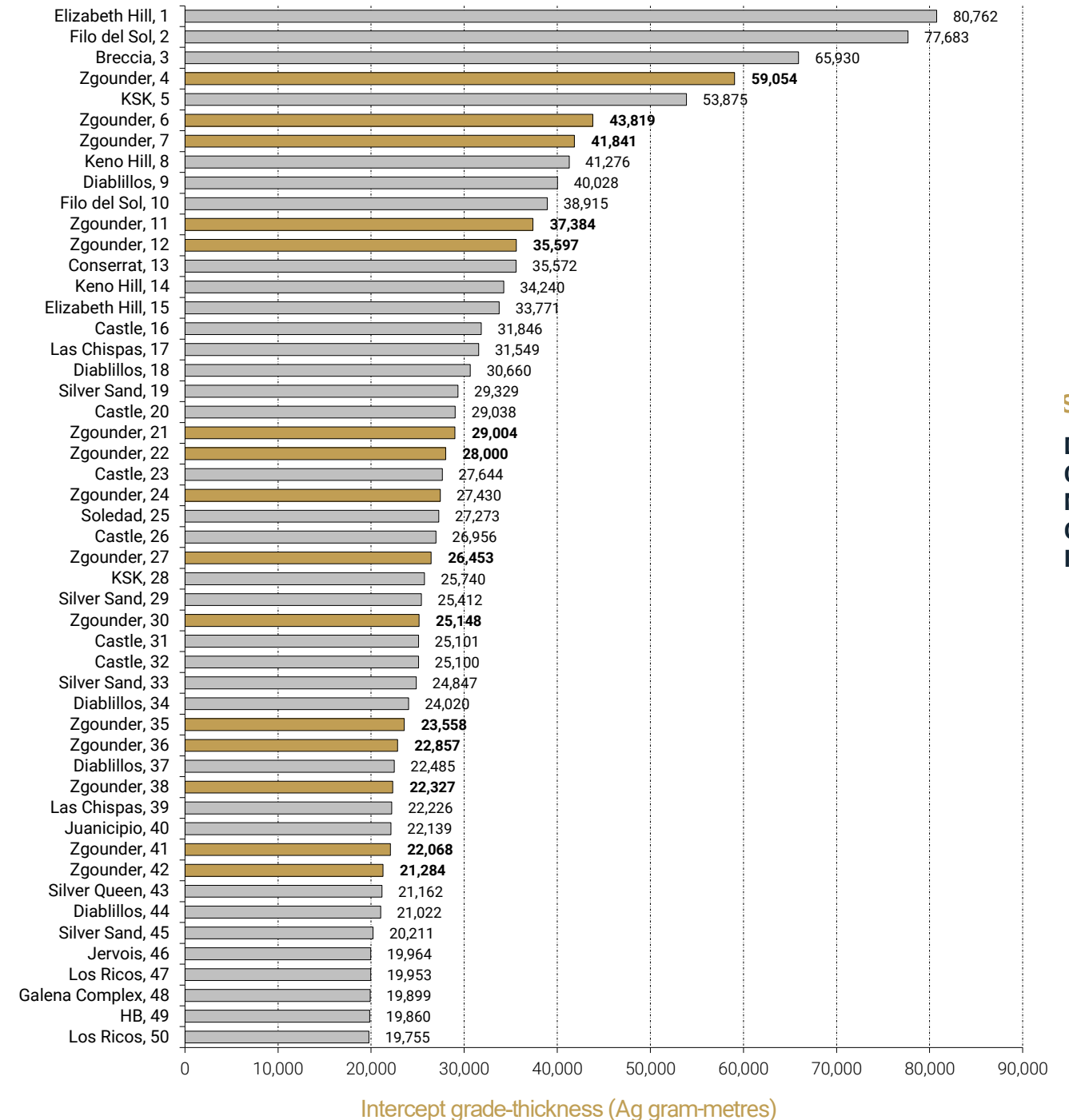
ZGOUNDER – TOP SILVER INTERCEPTS GLOBALLY

Zgounder hit 3 out of the top 10 and 15 out of the top 50 global Ag intersections of 2020-2022 YTD¹

- 14.4m @ 4,101 g/t Ag
- 14.4m @ 3,043 g/t Ag
- 6.5m @ 6,437g/t Ag
- 4.0m @ 9,346 g/t Ag
- 7.2m @ 4,944 g/t Ag
- The strength of the drill exploration results bodes well for adding additional high-grade oz to the current resource

¹ Refer to Aya Gold & Silver Press Releases (<https://ayagoldsilver.com/press-releases/>)

**Top 50 global primary silver intercepts 2020 - 2022
YTD, ranked by Ag grade-thickness**



Source:

**Desjardins
Capital
Markets, S&P
Global Market
Intelligence**

ZGOUNDER – TOP SILVER INTERCEPTS

The 2020-2022 YTD drill exploration program returned 42 of the top 50 Zgounder intercepts¹

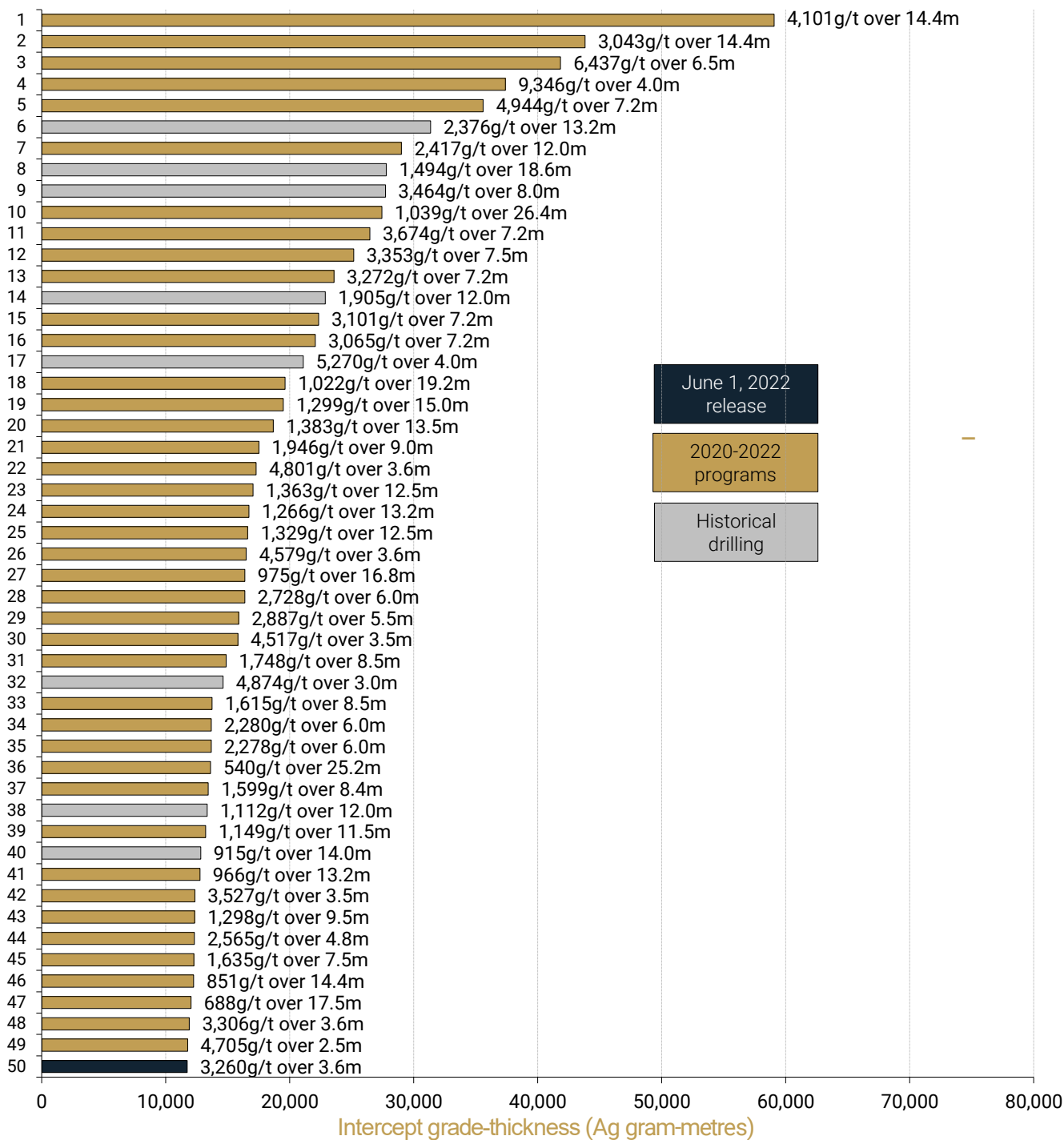
Of these 42 top Zgounder drill intercepts,

- The **2022 YTD** results returned **4 including the top result**
- The **2021** results yielded **35** including 2nd, 4th, 5th, 7th, 9th and 10th best results, proving up mineralization along strike to the east and at depth (below the current resource)
- The **2020** results yielded **3** of Zgounder’s top 50 drilling results, including the 3rd and 23rd best results
- Top drilling results expanded mineralization both along the eastern strike extension and at depth

¹ Refer to the December 14, 2021, press release entitled “Aya Gold & Silver Grows Measured and Indicated Mineral Resources By 116% at Zgounder”

² Refer to the February 22, 2022, press release entitled “Aya Gold & Silver Announces Robust Expansion Feasibility Study for Zgounder”

Zgounder top 50 all-time drill intercepts, ranked by Ag grade-thickness^{1 2}



Source:
Company
releases

ZGOUNDER – 2022 MINERAL RESERVES

On a 100% basis. M&I resources shown inclusive of reserves. ^{1 2}	TONNES (K)	AG (G/T)	CONTENT (AG K OZ)
PROVEN RESERVES	2,100	288	28,748
PROBABLE RESERVES	5,490	239	42,128
P&P RESERVES	8,590	257	70,876
MEASURED RESOURCES (INCL. RESERVES)	3,511	347	39,183
INDICATED RESOURCES (INCL. RESERVES)	6,254	283	56,874
M&I RESOURCES (INCL. RESERVES)	9,765	306	96,057
INFERRED RESOURCES	196	367	6,400

The mineral reserves were estimated based on a Ag price of \$20/oz and a corresponding COG of 47 g/t for open-pit reserves, 85 g/t for underground reserves and 44 g/t for historical tailings.

Maiden Silver Reserve

- The maiden reserve includes drilling carried out between **January and September 2021**
- Reserves include **29%** open-pit and **71%** underground ore
- **Well-positioned to extend the 11-year LOM**, given the 71% resource-to-reserve conversion ratio and that the deposit is open at depth to the granite

¹ Refer to the December 14, 2021, press release entitled "Aya Gold & Silver Grows Measured and Indicated Mineral Resources By 116% at Zgounder"

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ZGOUNDER – EXPANSION FEASIBILITY STUDY HIGHLIGHTS



71Moz
P&P reserves



\$373M
Post-tax NAV (5%;\$22/oz)



\$9.58
AISC (LOM)



\$139.4M
Growth capex



11-Year
LOM



48%
Post-tax IRR (\$22/oz)

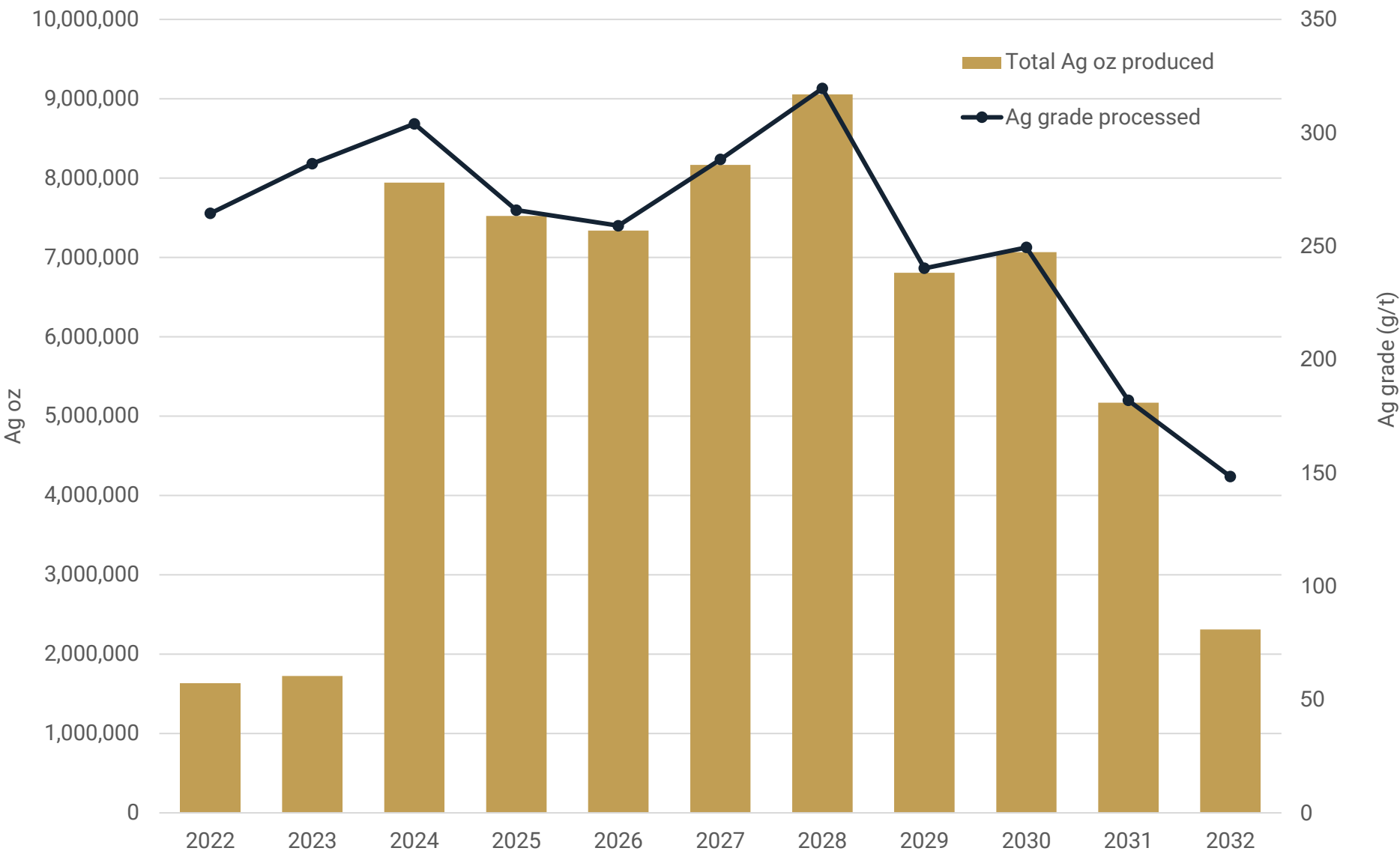


1.7-Year
Payback (post-expansion)



ESG
Plan enhancements

LOM Production Profile



¹ Refer to the February 22, 2022 press release entitled “Aya Gold & Silver Announces Robust Expansion Feasibility Study for Zgounder”

ZGOUNDER MINE | Open-pit production

Combined open-pit and UG production to average 6.8M oz silver per year, when in full production

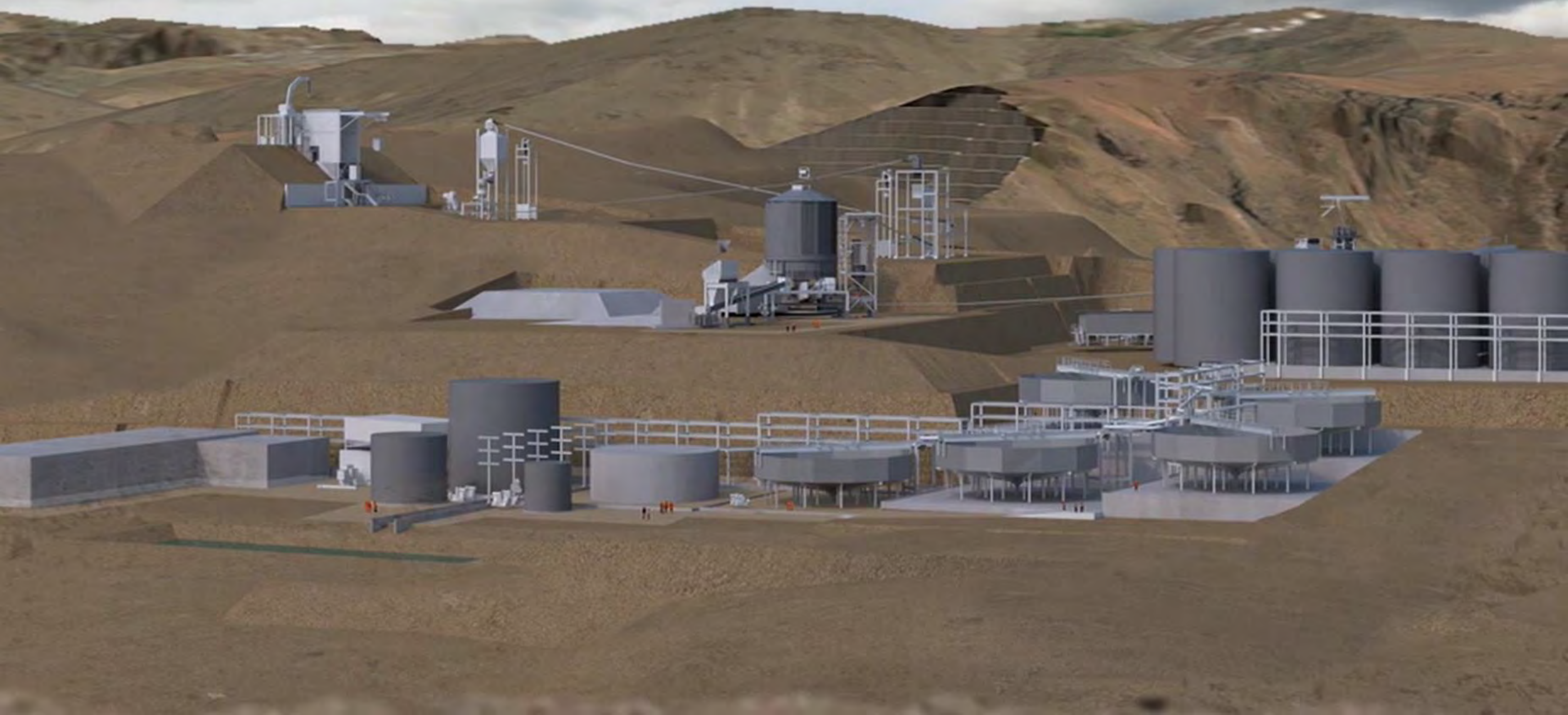
Expanded operations will combine

- 2,000 tpd flotation-CIP plant &
- 700 tpd flotation-cyanidation plant
- Open-pit & UG operations

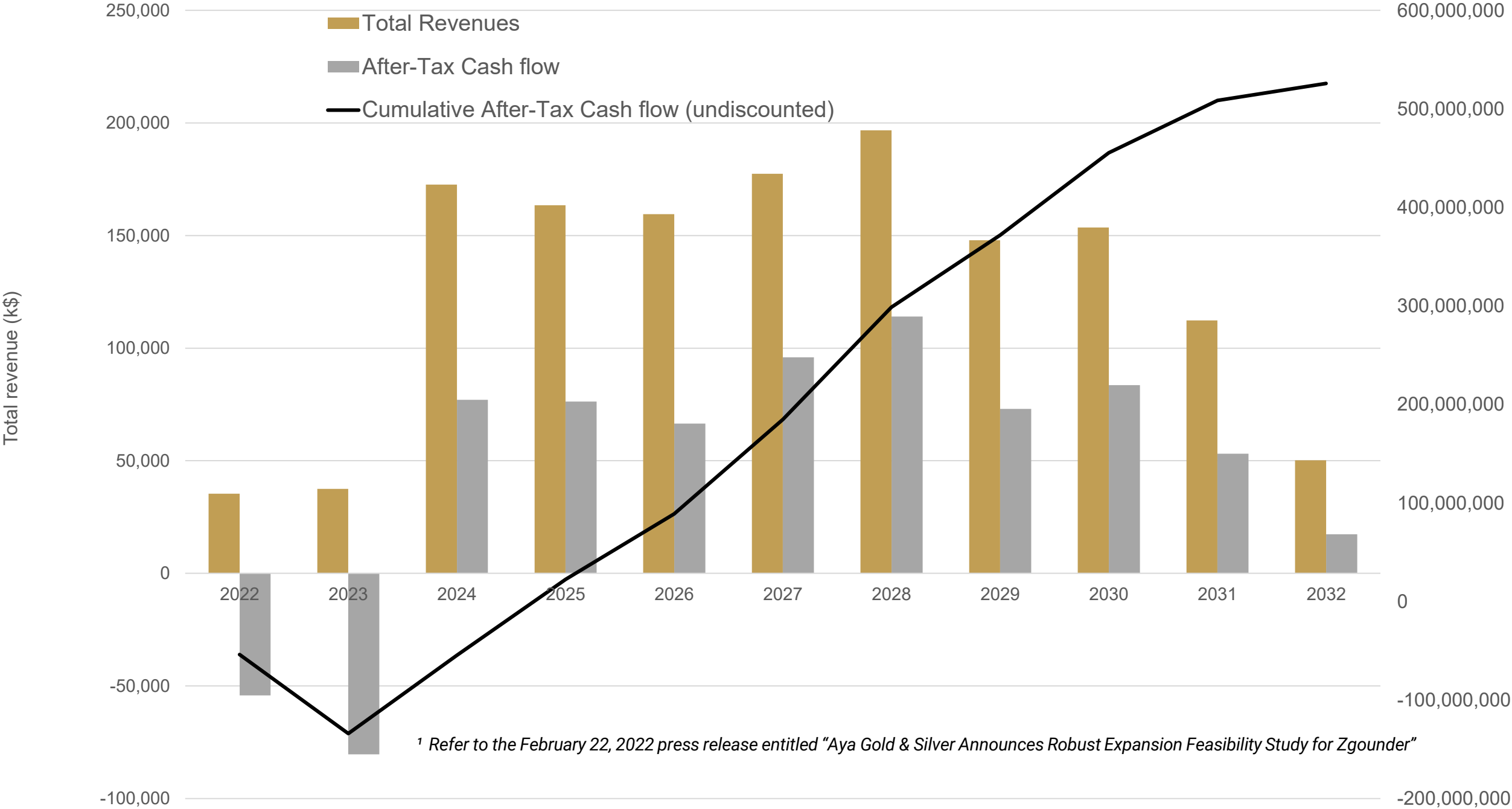


ZGOUNDER | New Process Plant

2,700 tpd combined processing capacity



ZGOUNDER – STRONG POST-EXPANSION CASH FLOW GENERATION

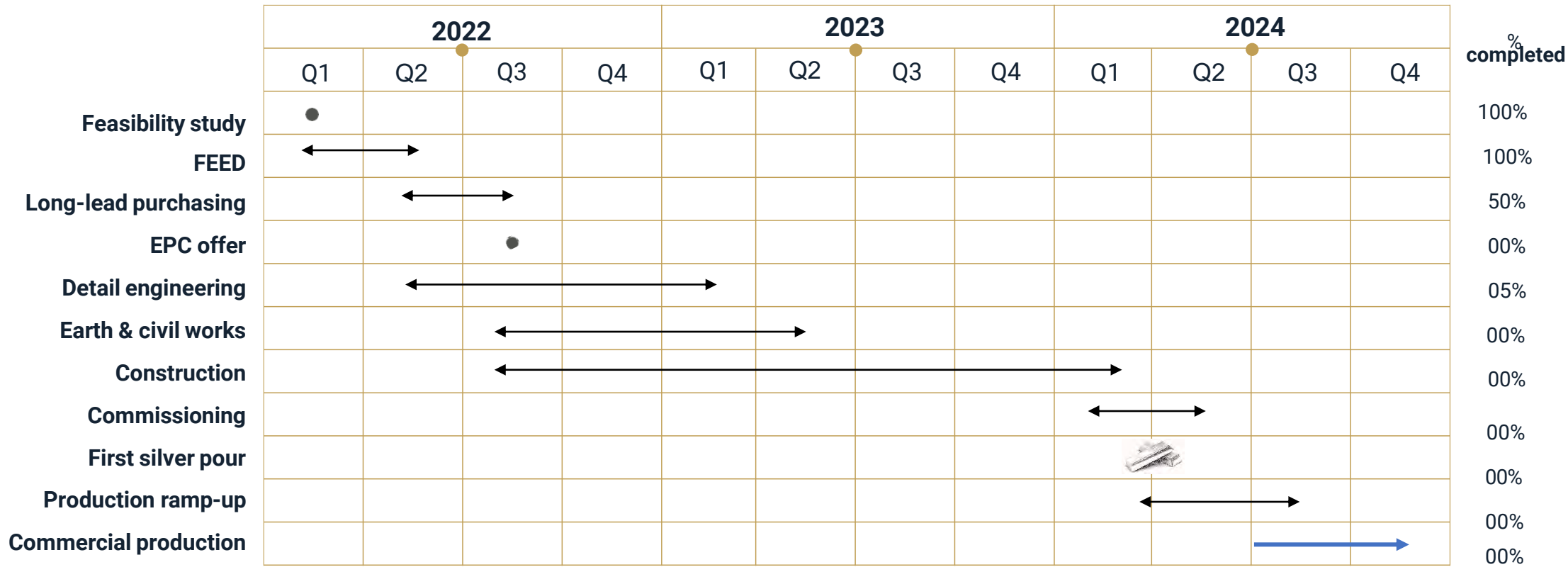


ZGOUNDER – STRONG POST-EXPANSION ECONOMICS

	\$16 oz Ag	\$19 oz Ag	BASE CASE \$22 oz Ag	SPOT (\$23.5 oz Ag)	\$28 oz Ag	\$36 oz Ag
AFTER-TAX 5% NPV (\$M)	\$132M	\$253M	\$373M	\$433M	\$612M	\$927M
AFTER-TAX IRR (%)	21%	34%	48%	54%	75%	117%
UNDISCOUNTED LOM FREE CASH FLOW (\$M)	\$213M	\$368M	\$522M	\$599M	\$828M	\$1,232M
PAYBACK PERIOD (YEARS)	3.7	2.5	1.7	1.5	1.0	0.6

¹ Refer to the February 22, 2022 press release entitled “Aya Gold & Silver Announces Robust Expansion Feasibility Study for Zgounder”

CONSTRUCTION MILESTONES ON TRACK



ZGOUNDER – IMPACT AND ESG-DRIVEN MINE EXPANSION

Reducing carbon emissions intensity

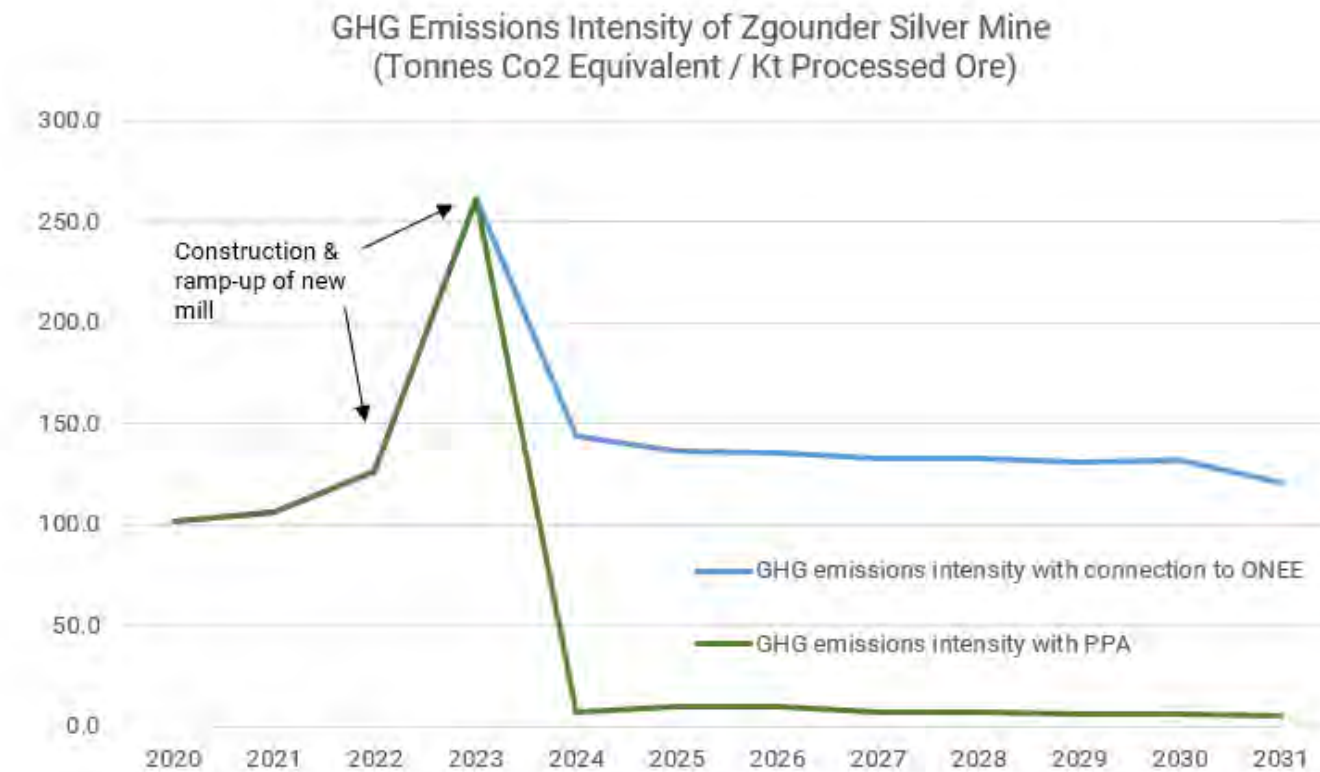
- Target of **zero Scope 2 emissions** by 2024
 - Interconnection agreement with ONEE, Morocco's state-owned utility
 - Plan to sign a renewable power purchase agreement
- Lower fuel consumption through the production of Ag bars
- Evaluate a clean energy fleet-replacement strategy for end-of-service trucks

Lowering water consumption

- **Increase water recycling** –
 - Use of recycled water from TSFs in the cyanidation and flotation circuits
 - Reuse of mine dewatering water in the process plant
- **Increase on-site storage** – 60,000m³ water retention basin to feed existing and new plants
- **Use alternative sources** - Produce domestic drinking water from 10 SOURCE hydropanels – H2-2022 (see right)

Fostering local wealth creation

- **Five-year investment and entrepreneurship plan** - supports local agribusinesses that focus on the valorization of local biodiversity and facilitates their direct access to international markets
- National recruitment and procurement focus
- Support local healthcare and education facilities





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AYA – INITIAL 72,500-METER DRILL EXPLORATION PROGRAM

GROWTH PIPELINE INCLUDES 4 POTENTIAL PROJECTS

ZGOUNDER SILVER MINE

- 30,000m 2022 budget, of which 7,500m regionally
- Add near-mine oz and identify Zgounder Regional oz

BOUMADINE (Development)

- 7,500m 2022 budget
- Drill airborne survey targets

IMITER BIS (Exploration)

- 10,000m 2022 budget
- Test drill priority targets

TIJIRIT - MAURITANIA

- 25,000m 2022 budget
- Convert resources into reserves



ZGOUNDER – POTENTIAL TO EXPAND AND OPTIMISE FURTHER



East

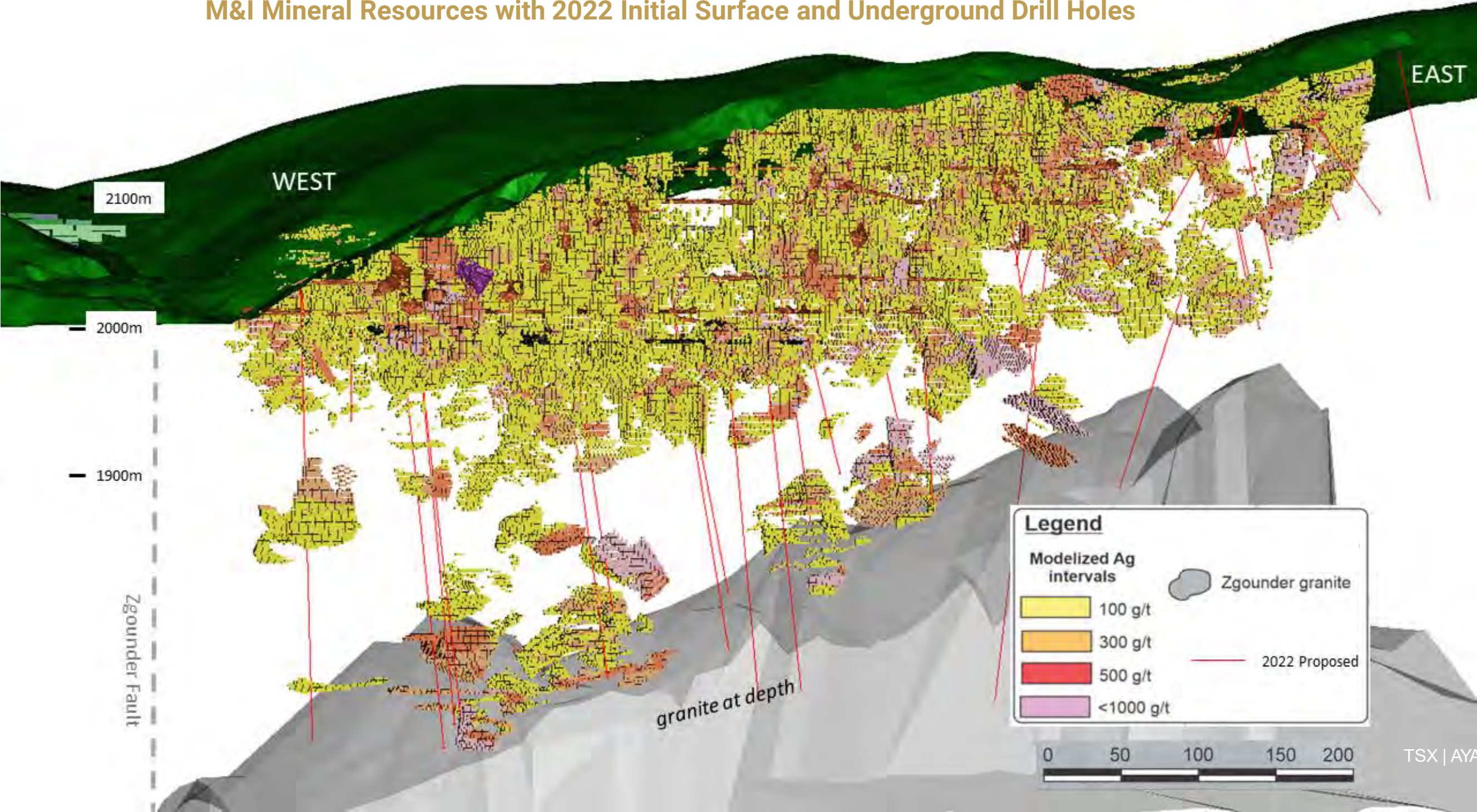
Cross-sectional view
looking this way

Mining Area

West

ZGOUNDER – 22,500M NEAR-MINE DRILL PROGRAM

M&I Mineral Resources with 2022 Initial Surface and Underground Drill Holes



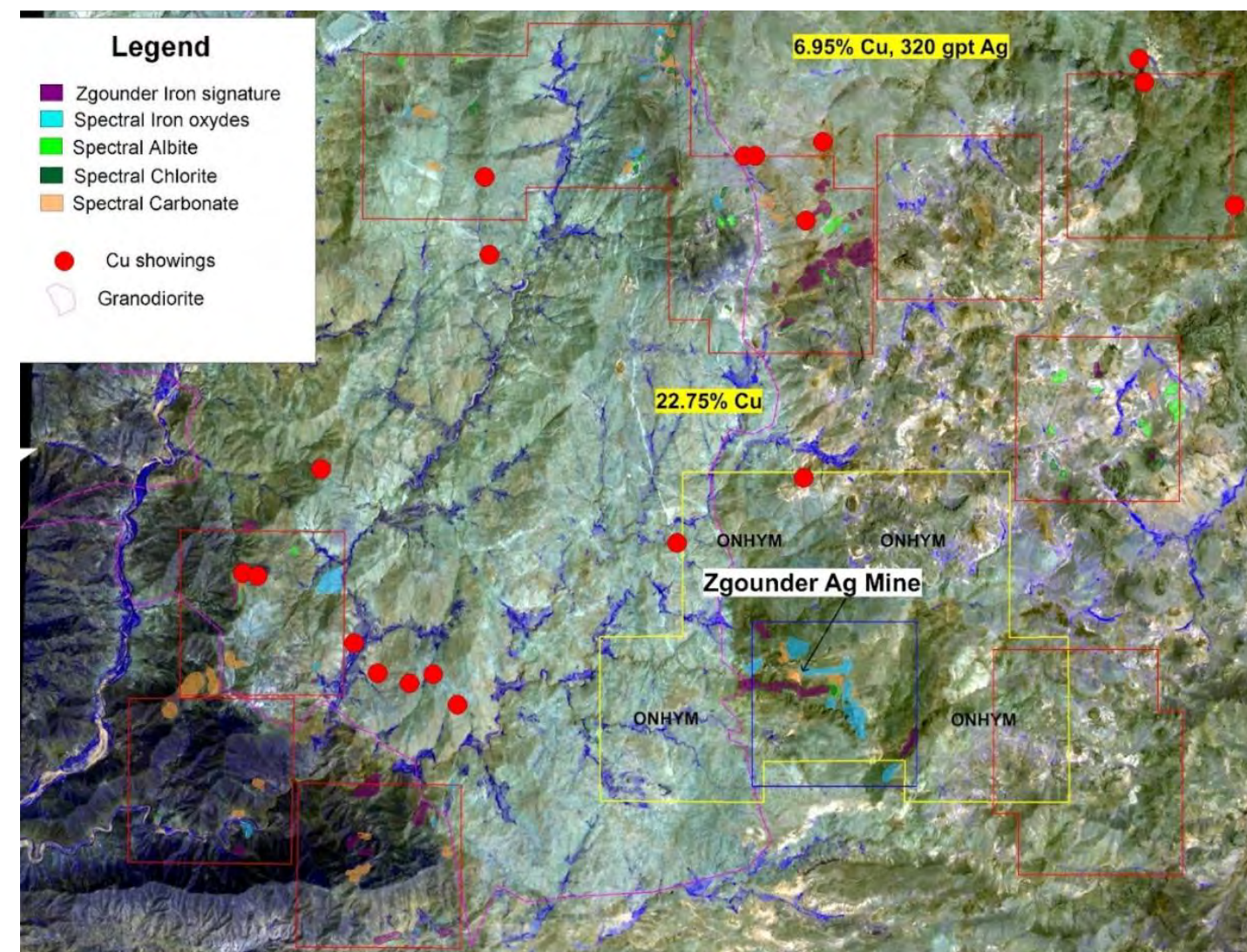
ZGOUNDER – REGIONAL DRILL EXPLORATION PROGRAM

AIRBORNE GEOPHYSICS

Inaugural drill program scheduled for 2022

- **Airborne survey and heliborne VTEM geophysical survey over 13 permits totalling 175km²** is near-complete
- **7,500m of RC and DDH** to start on Zgounder Regional in September
 - Follow-up of airborne geophysics and mapping programs (see right)
- Stream sediment geochemistry will begin in Q3-2022
- 2020 surface geological investigation of four areas where satellite imagery had indicated similarity in alteration patterns
 - Grab samples including **20% Cu** within volcanics suggest potential for large copper porphyry

¹ Refer to Aya Gold & Silver's May 24, 2022 press release titled "Aya Gold & Silver Completes Airborne Geophysics Survey and Launches Drill Exploration Program at Boumadine"

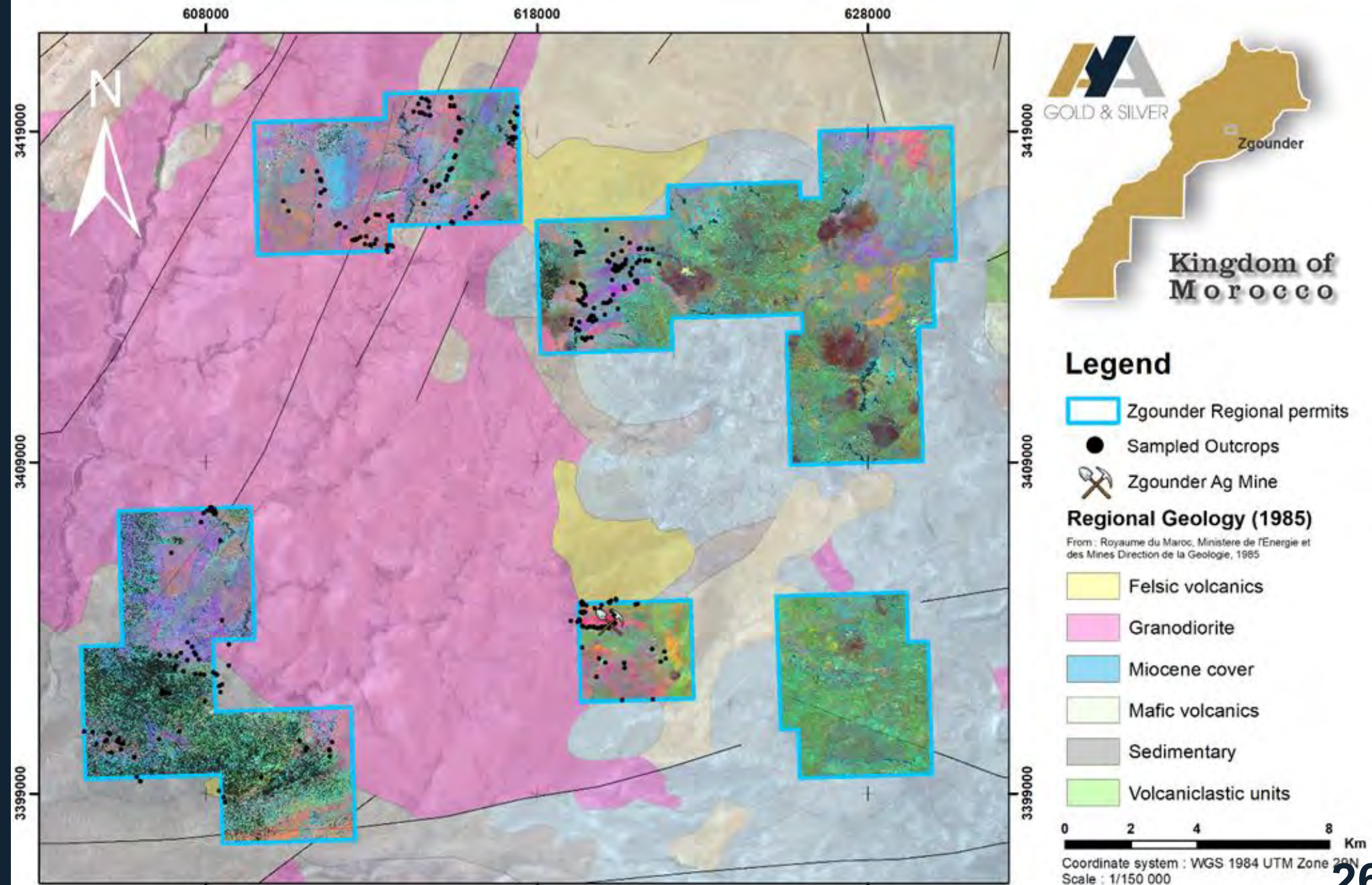


ZGOUNDER REGIONAL HYPERSPECTRAL STUDY

- All deliverables received in January.
- Regional exploration will concentrate on the identified alteration zones (clay, iron).
- Strong spectral signal within existing permits and surrounding regional play.

¹ Refer to Aya Gold & Silver's May 24, 2022 press release titled "Aya Gold & Silver Completes Airborne Geophysics Survey and Launches Drill Exploration Program at Boumadine"

TSX | AYA; OTCQX: AYASF



BOUMADINE AIRBORNE GEOPHYSICS

- Completion of high-resolution airborne (magnetic, V-TEM terrain, radiometric) survey in April (349 km)
- Preliminary magnetic data suggest strong alteration system and / or intrusive beneath
- Final data & interpretation expected in Q3-2022

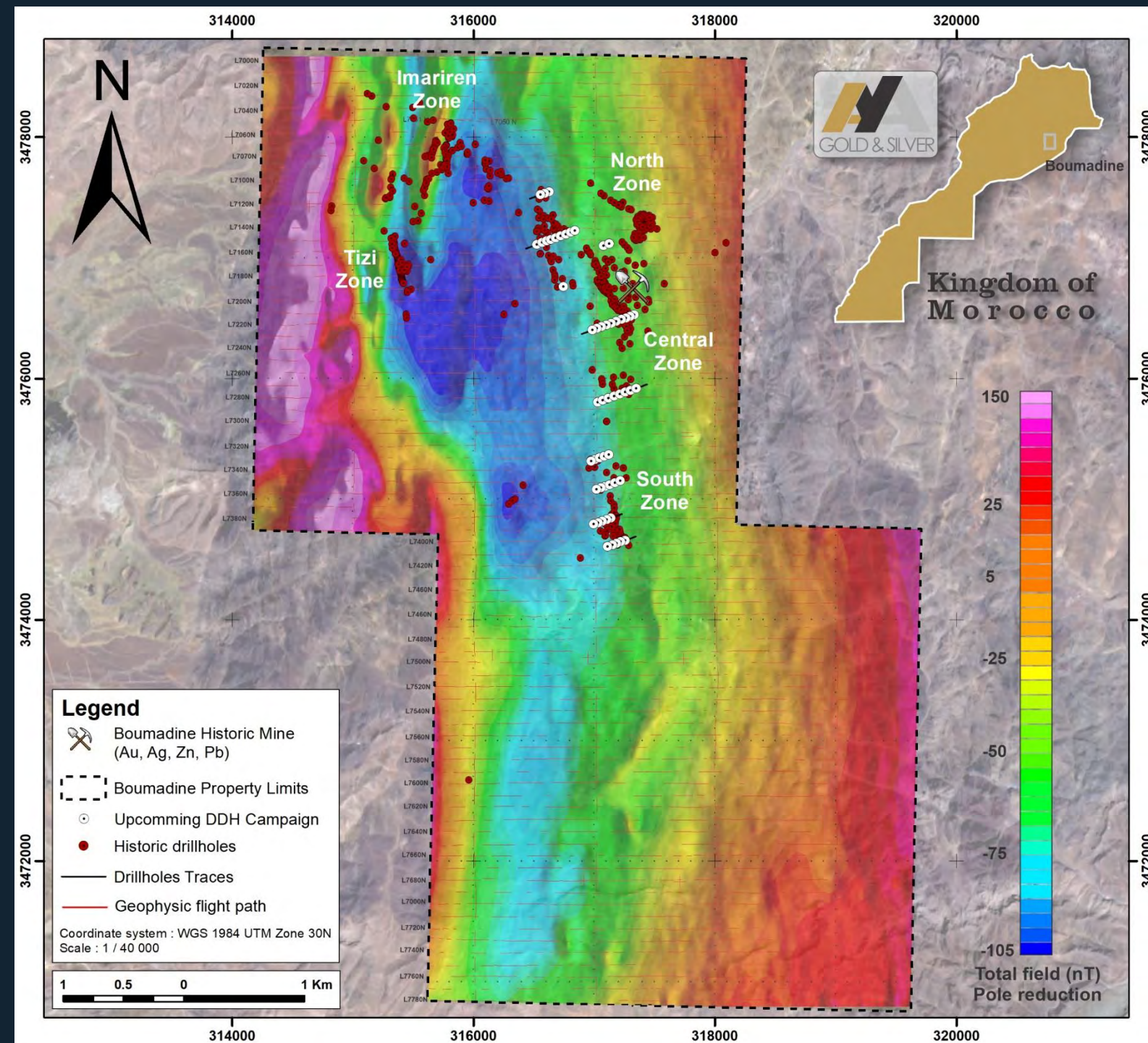
Ongoing

- Mapping and grab sampling started in June (southeast of the known mineralization and the southern permits)
- 7,500m initial drill exploration program started end of May 2022

Historical Results

- Historical UG production: 261,485t @ 3.8% Zn, 1.5% Pb, 200 g/t Ag & 3.50 g/t Au

¹ Refer to Aya Gold & Silver's May 24, 2022 press release titled "Aya Gold & Silver Completes Airborne Geophysics Survey and Launches Drill Exploration Program at Boumadine"



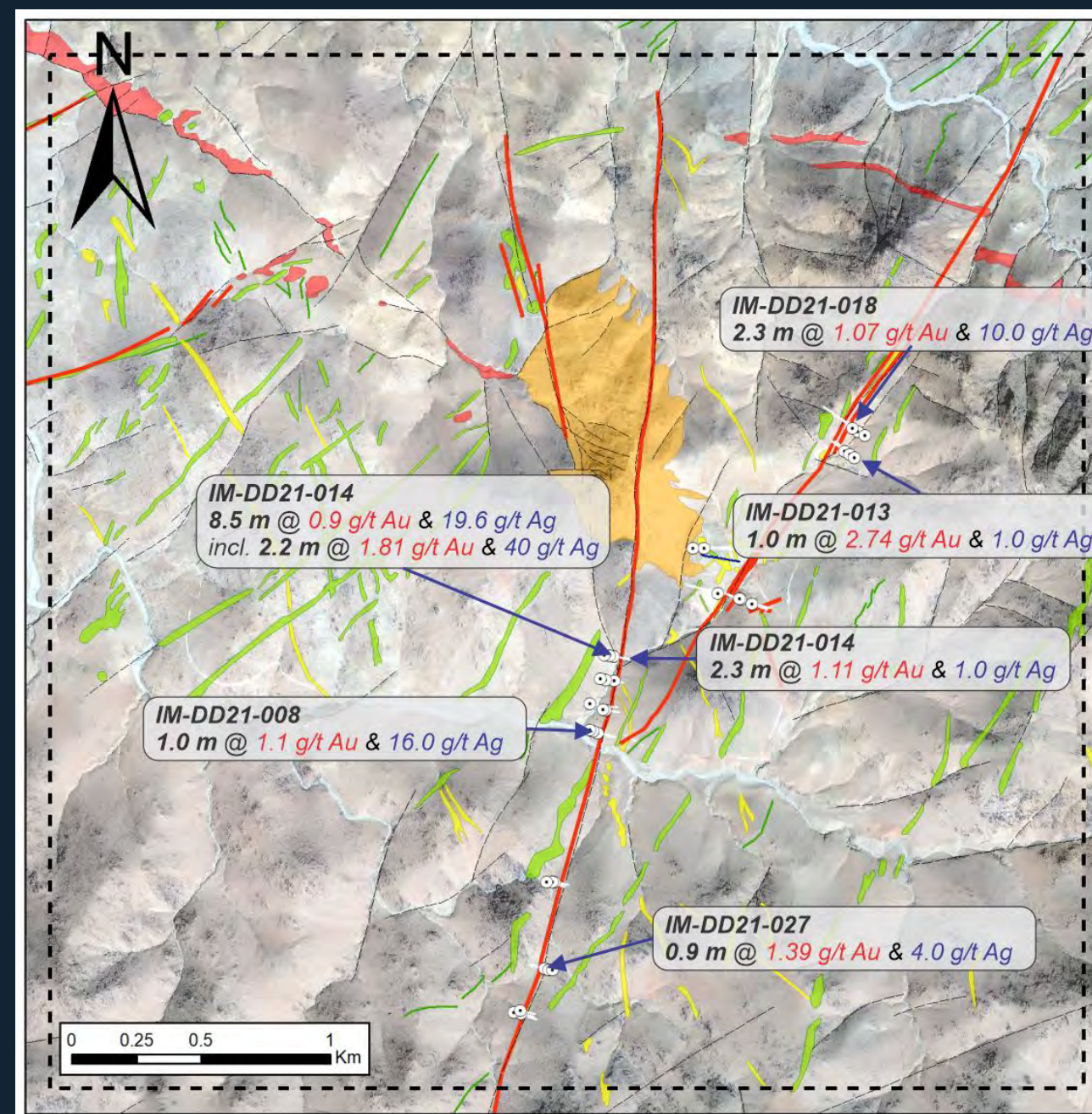
IMITER BIS DRILL PROGRAM

(Au, Ag, Cu, Pb, Zn)

4 km potential at-surface polymetallic structure on Morocco's sub-Atlas range, 5 km south of the world-class Imiter Silver Mine

10,000 DDH program planned in 2022

- 4,754m of DDH (phase I) completed
- New targets were tested on Northwest, Daoud, Northeast-Extension and Dilatation Zones
- One follow-up section on the Middle Zone where 2021 results returned 2.2m @ 1.81 g/t Au and 2.3m @ 1.10 g/t Au
- Assays are pending
- Satellite mapping, multispectral and hyperspectral studies: all deliverables received in January
- High-resolution airborne survey completed in April (magnetic, V-TEM terrain, radiometric); final data & interpretation expected in Q3-2022



Legend

- 2021 DDH Campaign
- Drillhole Trace
- Imiter Bis Property Limits

Structures

- Faults
- Mineralized Structures

CGG Interpretation

- Felsic Intrusive
- Mafic intrusive
- Rhyolitic Dome Complex
- Argyllic Alteration Zones



¹ Refer to Aya Gold & Silver's May 24, 2022, press release titled "Aya Gold & Silver Completes Airborne Geophysics Survey and Launches Drill Exploration Program at Boumadine"

² Refer to Aya Gold & Silver's October 28, 2021, press release titled "Aya Gold & Silver Completes Detailed Ground MAG Survey, Launches Drill Program at Imiter bis; Prepares VTEM™ Survey for Three Moroccan Properties"

³ Refer to Aya Gold & Silver's August 19, 2021, press release titled "Aya Gold & Silver: Initial Fieldwork Program Identifies Five Priority Drill Targets and 4-km Potential Strike at Imiter bis"



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POTENTIAL CATALYSTS FOR 2022



- Continue exploration drilling on Zgounder and Zgounder Regional to increase resources
- Deliver 2022 milestones for 2,700 tpd Zgounder expansion
 - Q2-2022: Complete FEED ✓
 - Q3-2022: Construction start
- Complete initial 72,500m drill exploration program on priority properties
 - Exploration drilling at Zgounder Regional, Boumadine, and Imiter bis
- Achieve 1.65M-1.8M oz Ag production and \$12/oz cost guidance
- Ongoing optimization of operations – focus on health & safety and cost efficiencies
- Instill strong ESG culture throughout the organization



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