ASCU:TSX ASCUF:OTCQX

# Cactus Project<br/>Pre-Feasibility Study American Copper for<br/>the US Energy<br/>Transition

Invest in Sustainability | February 2024



#### ASCU:TSX | ASCUF:OTCQX ARIZONASONORAN.COM

#### ASCU disclaims any obligation to update any forward-looking statements, whether as a result of new information, future events or results or otherwise, except as required by law.

ASCU considers its assumptions to be reasonable based on information currently available but cautions the reader that their assumptions regarding future events, many of which are beyond the control of the Company, may ultimately prove to be incorrect since they are subject to risks and uncertainties that affect ASCU, its properties and business. Such risks and uncertainties include, but not limited to, the global economic climate, developments in world commodity markets, changes in commodity prices (particularly prices of copper), risks relating to fluctuations in the Canadian dollar and other currencies relative to the US dollar, risks relating to capital market conditions and ASCU's ability to access capital on terms acceptable to ASCU for the contemplated exploration and development at the Company's properties, changes in exploration, development or mining plans due to exploration results and changing budget priorities of ASCU or its joint venture partners, the effects of competition in the markets in which ASCU operates, results of further exploration work, the ability to continue exploration and development at ASCU's properties, the ability to successfully apply the Nuton<sup>TM</sup> technologies in ASCU's properties, the impact of the Nuton<sup>TM</sup> technologies on ASCU operations and cost relating to same, the timing and ability for ASCU to prepare and complete the Nuton Case PFS and the costs relating to same, errors in geological modelling, changes in any of the assumptions underlying the PFS, the ability to expand operations or complete further exploration activities, the ability to obtain regulatory approvals, the impact of changes in the laws and regulations regulating mining exploration, development, closure, judicial or regulatory judgments and legal proceedings, operational and infrastructure risks and the additional risks described in ASCU's most recently filed Annual Information Form, annual and interim management's discussion and analysis, copies of which are available on SEDAR+ (www.sedarolus.ca) under ASCU's issuer profile. ASCU's anticipation of and success in managing the foregoing risks could cause actual results to differ materially from what is anticipated in such forward-looking statements.

Although management considers the assumptions contained in forward-looking statements to be reasonable based on information currently available to it based on information available at the date of preparation, those assumptions may prove to be incorrect. There can be no assurance that these forward-looking statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking statements and are urged to carefully consider the foregoing factors as well as other uncertainties and risks outlined in ASCU's

the result of such activities; the mineral resources and mineral reserves estimates of the Cactus Project (and the assumptions underlying such estimates); the ability of exploration work (including drilling) to accurately predict mineralization; the ability of management to understand the geology and potential of the Cactus Project; the focus of the 2024 drilling program at the Cactus Project including the Parks/Salver deposit and MainSpring property; the ability to generate additional drill targets; the ability of ASCU to complete its exploration objectives in 2024 in the timing contemplated (if at all); the completion and timing for the filing of the Technical Report; the timing and ability of ASCU to produce a preliminary economic assessment (including the MainSpring property) (if at all); the timing and ability of ASCU to produce the Nuton Case PFS (if at all); the scope of any future technical reports and studies conducted by ASCU; the ability to realize upon mineralization in a manner that is economic; the impact of bringing the MainSpring property into the mine plan; the ability and timing of ASCU to commence operations (if at all); the robust economics and opportunity represented by the Cactus Project; the ability of ASCU's operations to be among the top 10 copper operations in Arizona and the US (if at all); the impact of the Nuton<sup>TM</sup> technologies on ASCU operations and cost relating to same; the impact of the relationship with Nuton on ASCU and its operations and any other information herein that is not a historical fact.

### **Forward-Looking Statements**

public disclosure record.

This news release contains "forward-looking statements" and/or "forward-looking information" (collectively, "forward-looking statements") within the meaning of applicable securities legislation. All statements, other than statements of historical fact, are forward-looking statements. Generally, forward-looking statements can be identified by the use of forward-looking terminology such as "plans", "expect", "is expected", "in order to", "is focused on" (a future event), "estimates", "intends", "anticipates", "believes" or variations of such words and phrases or statements that certain actions, events or results "may", "could", "would", or the negative connotation thereof. In particular, statements regarding ASCU's future operations, future exploration and development activities or other development plans constitute forward-looking statements. By their nature, statements referring to mineral reserves or mineral resources constitute forward-looking statements. Forward-looking statements in this news release include, but are not limited to statements with respect to the results (if any) of further exploration work to define and expand or upgrade mineral resources and reserves at ASCU's properties; the anticipated exploration, drilling, development, construction and other activities of ASCU and





#### **Non-IFRS Financial Performance Measures**

This news release contains certain non-IFRS measures, including sustaining capital, sustaining costs,

C1 cash costs and AISC. The Company believes that these measures, together with measures determined in accordance with IFRS, provide investors with an improved ability to evaluate the underlying performance of the Company. Non-IFRS measures do not have any standardized meaning prescribed under IFRS, and therefore they may not be comparable to similar measures employed by other companies. The data is intended to provide additional information and should not be considered in isolation or as a substitute for measures of performance prepared in accordance with IFRS.

#### **Cautionary Statement Regarding Estimates of Mineral Resources**

This news release uses the terms measured, indicated and inferred mineral resources as a relative measure of the level of confidence in the resource estimate. Readers are cautioned that mineral resources are not mineral reserves and that the economic viability of resources that are not mineral

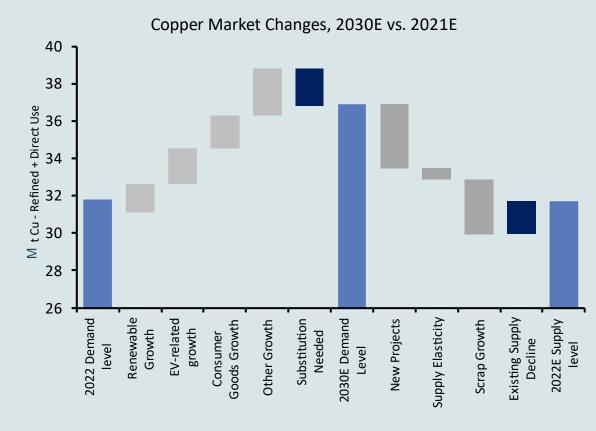
reserves has not been demonstrated. The mineral resource estimate disclosed in this news release may be materially affected by geology, environmental, permitting, legal, title, socio-political, marketing or other relevant issues. The mineral resource estimate is classified in accordance with the Canadian disclosure requirements of Institute of Mining, Metallurgy and Petroleum's "CIM Definition Standards on Mineral Resources and Mineral Reserves" incorporated by reference into NI 43-101. Under NI 43-101, estimates of inferred mineral resources may not form the basis of feasibility or pre-feasibility studies or economic studies except for preliminary economic assessments. Readers are cautioned not to assume that further work on the stated resources will lead to mineral reserves that can be mined economically.

#### Peers

The comparable information about other issuers was obtained from public sources and has not been verified by the Company. Comparable means information that compares an issuer to other issuers. The information is a summary of certain relevant operational and valuation attributes of certain mining and resource companies and has been included to provide the prospective investor an overview of the performance of what are expected to be comparable issuers. The comparables are considered to be an appropriate basis for comparison with the Company based on their industry, size, operating scale, commodity mix, jurisdiction, capital structure and additional criteria. The comparable issuers face different risks from those applicable to the Company. Investors are cautioned that there are risks inherent in making an investment decision based on the comparables, that past performance is not indicative of future performance and that the performance of the Company may be materially different from the comparable issuers. If the comparables contain a misrepresentation, investors do not have a remedy under securities legislation in any province in Canada. Accordingly, investors are cautioned not to put undue reliance on the comparables in making an investment decision.

# **Copper Incentive Price Needs to Increase**

To reach the Net Zero emissions goal, 9.7Mt of new copper supply to be added over the next decade. Meaning US\$23B investment per year will be needed over 30 years to deliver new copper projects to reach zero-carbon targets. – Wood Mackenzie, 2023

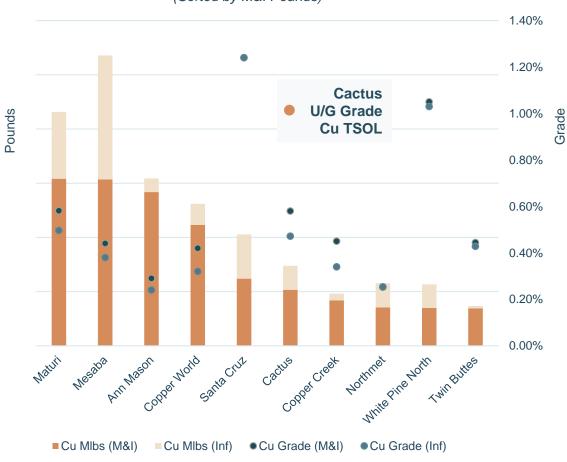


# Few Quality Development Assets in the USA

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- Florence (Taseko) is the only USA-based copper project currently in construction; also located in Pinal County
- ASCU's Cactus Project is a lower risk emerging copper developer with potential for first cathodes in 2026/2027
  - Brownfield project of size
  - Streamlined and advanced permitting process
  - Grade
  - Right team

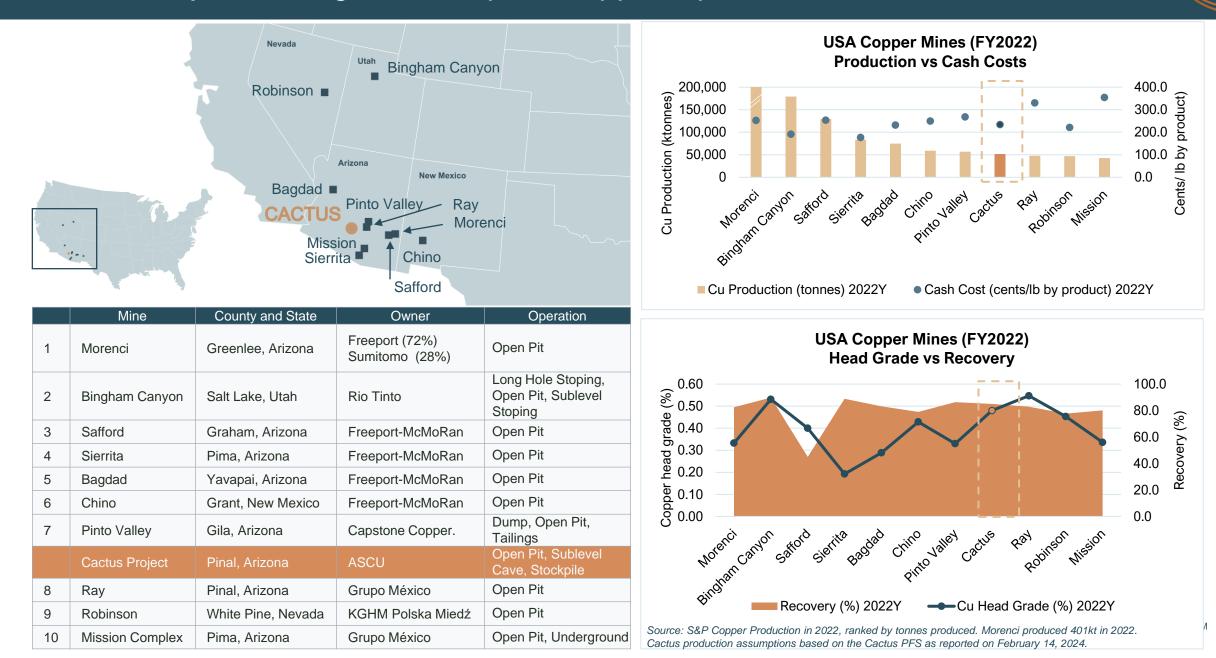
		M&I		Inf	
Project	Company	Mlbs	TCu Grade	Mlbs	TCu Grade
Maturi	Antofagasta	15,415	0.58%	6,163	0.50%
Mesaba	Teck / Glencore	15,344	0.44%	11,443	0.38%
Ann Mason	Hudbay	14,183	0.29%	1,254	0.24%
<b>Copper World</b>	pper World Hudbay		0.42%	1,940	0.32%
Santa Cruz	Ivanhoe Electric	6,196	1.24%	4,072	1.24%
Cactus	Arizona Sonoran	5,174	0.58%	2,208	0.47%
<b>Copper Creek</b>	Faraday Copper	4,184	0.45%	626	0.34%
Northmet	Teck / Glencore	3,538	0.25%	2,240	0.25%
White Pine North	Highland Copper / Kinterra	3,487	1.05%	2,188	1.03%
<b>Twin Buttes</b>	Freeport McMoran	3,456	0.44%	214	0.43%



Source: S&P, Removal of Pebble, Resolution and Upper Kobuk Mineral Projects, Sept. 2023

Significant Copper Assets in the US (Sorted by M&I Pounds)

## Cactus Project Among USA's Top 10 Copper Operations





# **PFS Technical Highlights**

First Quartile Capital Intensity Robust Economics RE-ESTABLISHING BASELINE FINANCIALS WITHIN CURRENT ECONOMIC ENVIRONMENT WITH OPPORTUNITIES FOR NEAR TERM OPTIMIZATIONS

# 3.0 Blbs Cu 55 ktpa Cu 1st Quartile

Reserve (P&P) 21-year Mine Life Capital Intensity

# 4 ore Sources

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2 UG Mines1 Open Pit1 Stockpile

Post-tax \$509M NPV8 15% IRR

Pre-tax \$733M NPV8

\$3.90/lb

Post-tax **\$780M** NPV8 **19%** IRR

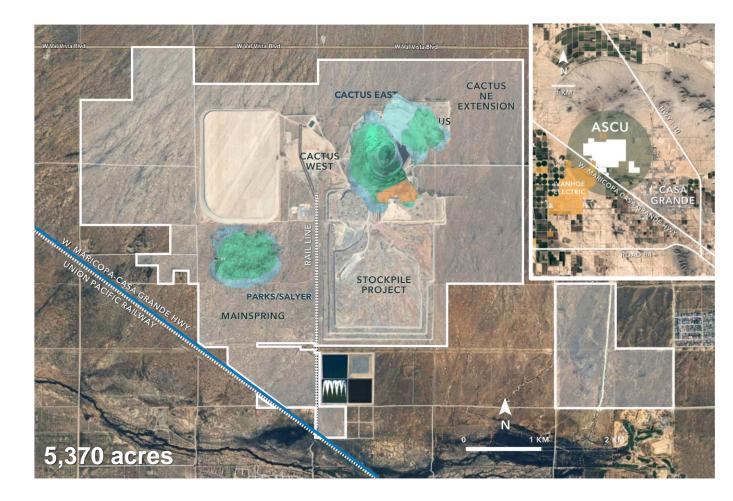
**\$2.34 \$1.84** AISC C1 Cost

Pre-tax **\$1,064M** NPV8

\$4.25/lb

Initial CAPEX: \$515M Capital Intensity: \$10,344/t Average Annual Sustaining Capital: \$58 million

## 70% of the mineral resources in Measured and Indicated



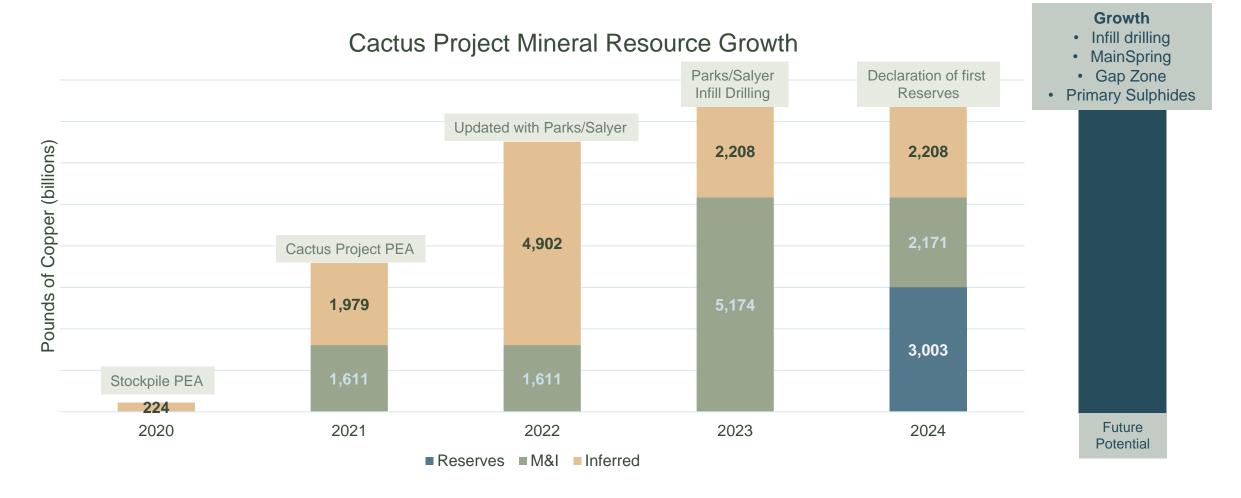
	Cactus Project Mineral Resource Estimate (As at August 31, 2023)		
	Tons	Grade	Pounds
	kt	Cu%*	Cu Mlbs
Total Measured	10,400	0.241	49.8
Leachable	9,100	0.230*	41.9
Primary	1,300	0.315	8.0
Total Indicated	435,300	0.589	5,124.2
Leachable	348,500	0.629*	4,387.2
Primary	86,800	0.425	737.0
Total M&I	445,700	0.580	5,174.0
Leachable	357,600	0.619*	4,429.0
Primary	88,000	0.423	745.0
Total Inferred	233,800	0.472	2,207.9
Leachable	107,700	0.607*	1,307.9
Primary	126,200	0.357	900.0

\* Cu Tsol grades

See PR dated October 16, 2023, for full notes and disclosures related to the MRE.

# Maiden Reserve Declared – \$0.01 Discovery Cost

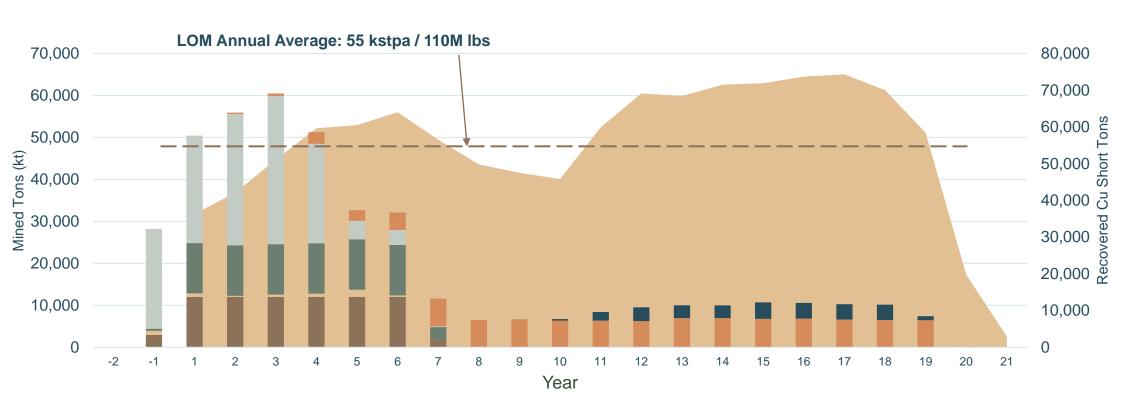
## Maiden Reserve Grade: 0.48% Cu TSol



Source: See PR dated Feb 22, 2024 for notes related to reserves and resources from 2023 and 2024. Resources from 2022 have an effective date of Sept 28, 2022, and are listed within Mineral Resource Estimate and Technical Report dated Nov 10, 2022. Notes for Resources from 2020 and 2021 can be found within the Company's PEA, available within the Company's prospectus filed Nov 8, 2021.



Low risk entry to production – Stockpile and Open Pit mining to fund U/G development



## **Cactus Production Schedule**

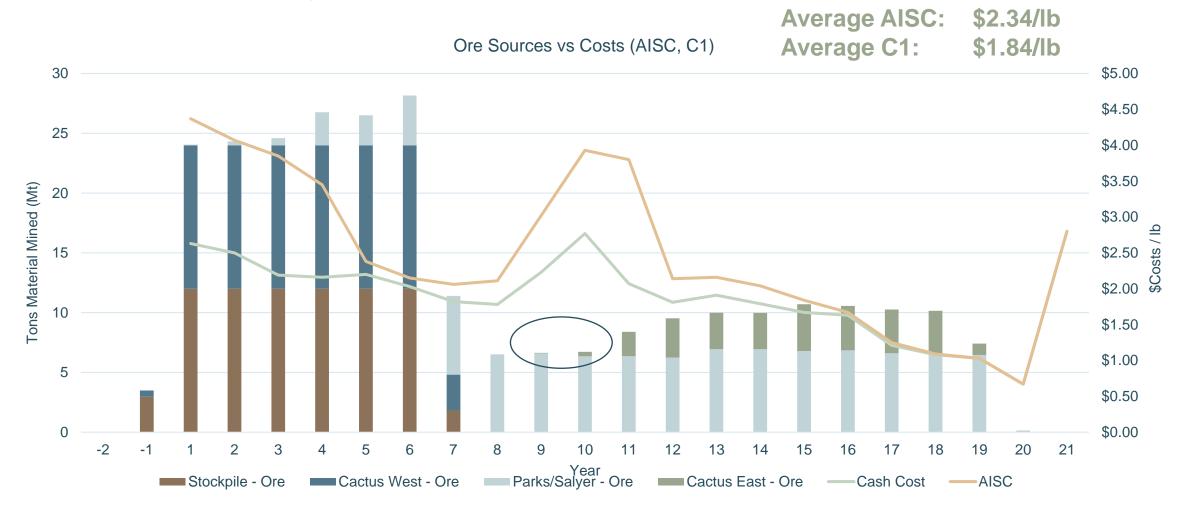
Recovered tons Stockpile - Ore Stockpile - Waste Cactus West - Ore Cactus West - Waste Parks/Salyer - Ore Cactus East - Ore

The mining schedule reflects a layered mining plan targeted at early production with low capex, maximizing project returns. Initial plant capacity is designed at 30 ktpa with expansion to 60 ktpa concurrent with underground mining in full ramp up by year 7 of the project start-up.

# Annual Costs and Production Profile

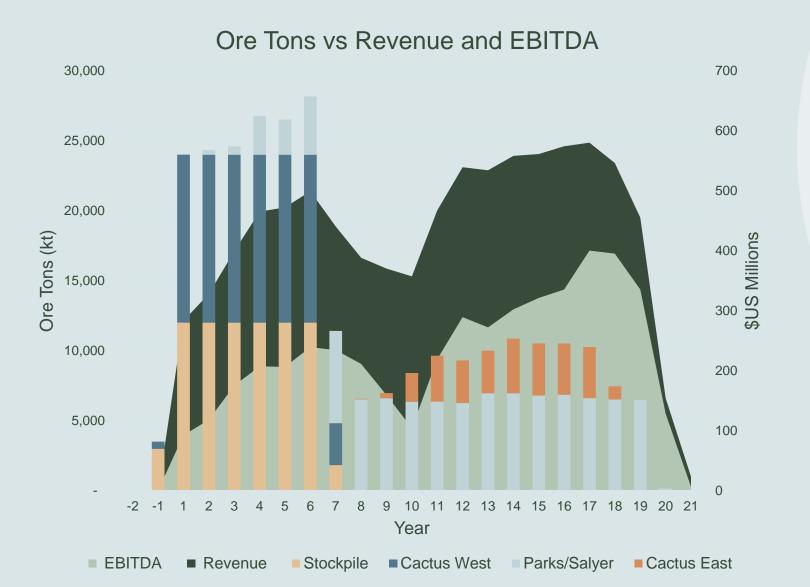


## Increased AISC to develop into Underground deposits, Cactus East and Parks/Salyer



## Production and Revenue Breakdown



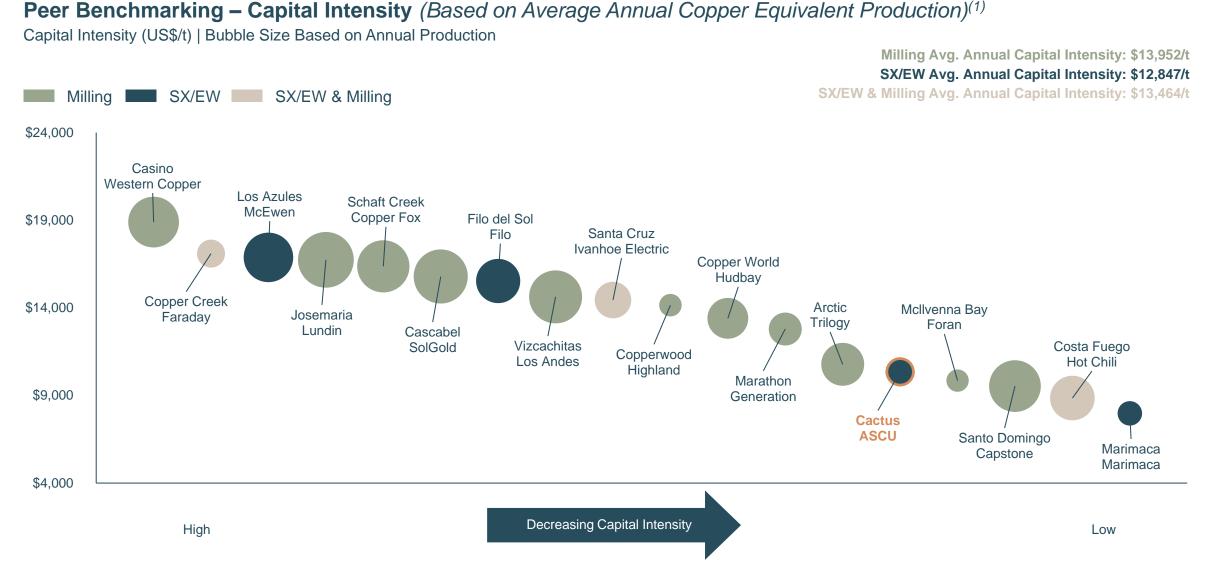


# Revenue LOM **\$8,994 million**

Cumulative LOM Free Cash Flow \$2,407 million post-tax

# Lower Capital Intensity Provides a Lower Risk Path to Copper Production

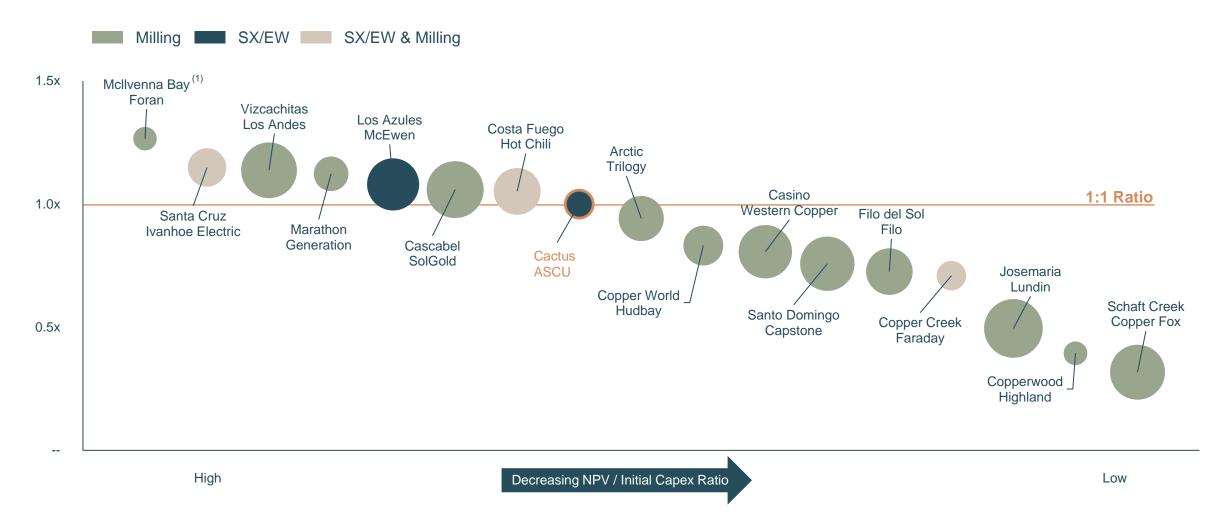




Sources/Notes: Capital intensity equals initial capex divided by average annual copper equivalent production. (1) Copper equivalent production calculated using stated metal prices from each project's latest technical report

## Peer Benchmarking – After-Tax NPV<sub>8%</sub> / Initial Capex

Ratio | Initial Capex (US\$M) | Bubble Size Based on Annual Production

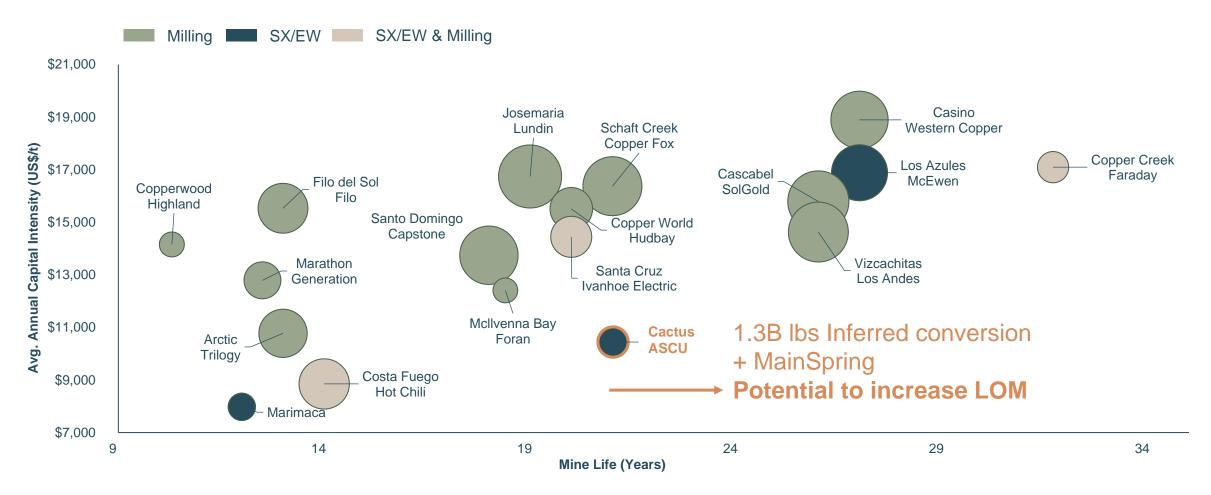


# Lowest Capital Intensity with 20+ LOM and Short Window to Production

# 16

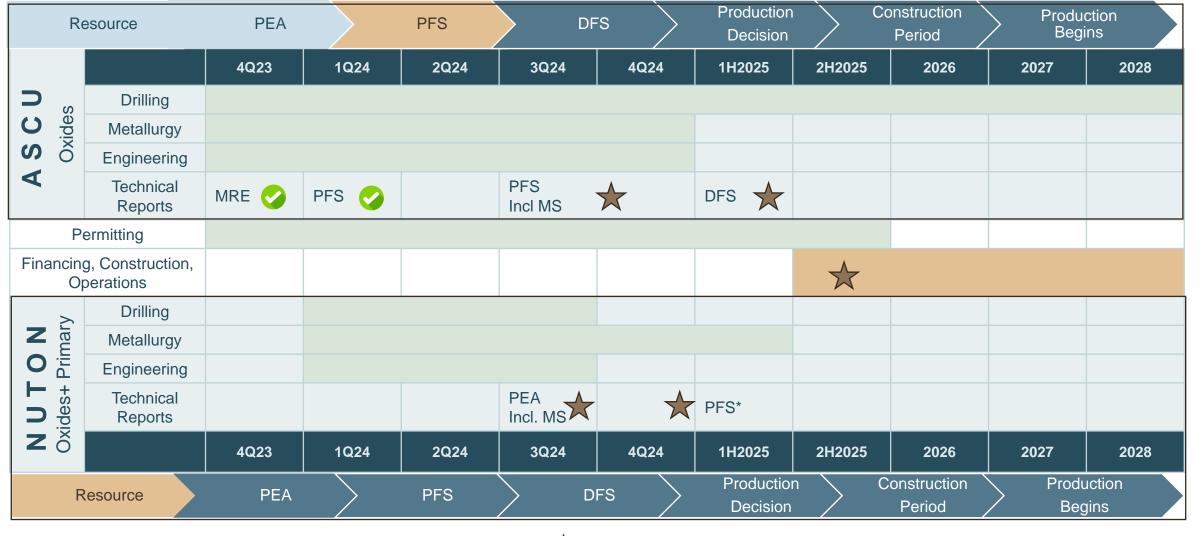
## Peer Benchmarking – Mine Life vs Capital Intensity (Based on Avg. Annual Copper Equivalent Production)<sup>(1)</sup>

Years | Avg. Annual Capital Intensity (US\$/t) | Bubble Size Based on Avg. Annual Production



# Dual Process Timeline – Nuton and ASCU





\*Both parties are working towards a PFS completion in Q4 2024 MS = MainSpring

Catalyst for rerate target



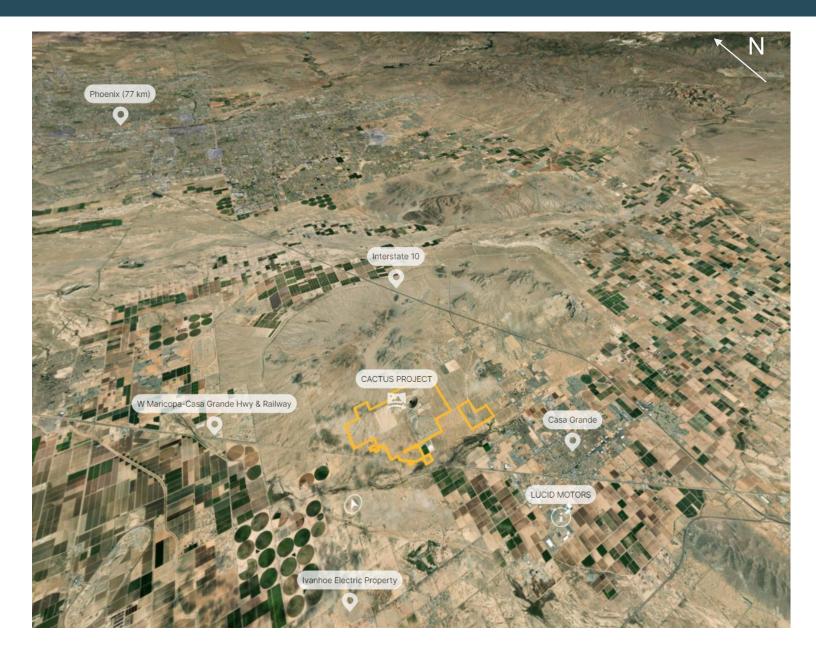
Pursuant to a construction decision



# Location Advantage

Brownfield property with +\$30M infrastructure 100%-owned private land

## Low Risk, Brownfield and Private Land Advantage



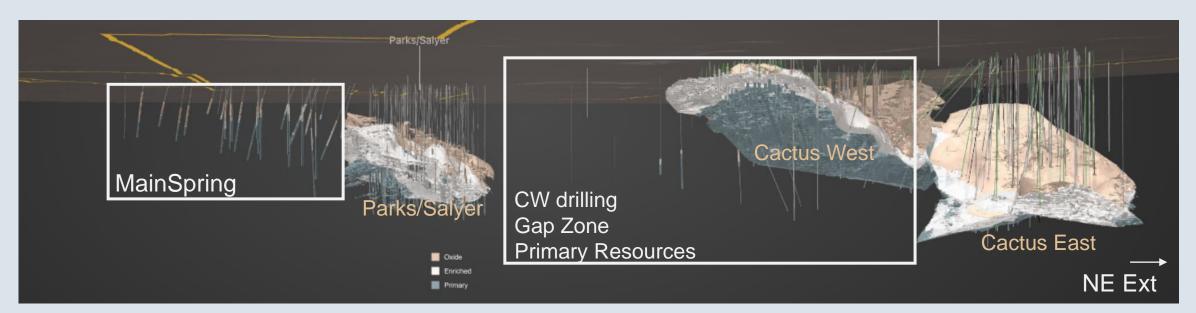
## Local Benefits to the Cactus Mine:

- **Permitting** (streamlined with State and local offices)
- Water (onsite access to non-potable water source)
- Access to labour (no camp required)
- **Power** (Palo Verde Nuclear Power Plant nearby with power lines onsite)
- Highway (direct access to I-10)
- Railroad (direct access to Union Pacific)
- Just-in-time inventory accounting
- Located in the Industrial Park of Casa Grande. Nearby factories include:
  - Walmart Distribution, Kohler, Frito-Lay, Abbott Labs, Lucid Motors, Nikola trucks, Intel Chips, SATCO



# **Opportunities for Optimization**

# Near-term Opportunities to Enhance Base Case Economics and Operations



## **Expansion Opportunities**

- 1.3B lbs leachable Inferred resource
  - Potential conversion of Inferred to M&I
  - 107,700 kt @ 0.61% Cu TSol
- MainSpring property
  - Mineralization at 42 m depth, starter pit potential
- Parks/Salyer infill drilling
  - Measured drilling shows higher grades and thicknesses in the core of the system

- Cactus West infill drilling
  - Extended mineralization 674 ft (205 m) below resource shell (ECW-150 - 1,174.2 ft (358 m) @ 0.43% CuT)
- Exploration
  - Gap Zone (low grade mineralization drilled)
  - NE Extension (ECN-128 990.7 ft (302.0 m) @ 0.42% CuT) 3,000 ft (990 m) NE of Cactus East
- Primary Resources excluded from reserves (Nuton)
  - 745M lbs Cu 88 kt @ 0.42% TCu M&I -
  - 900M lbs Cu 126,200 kt @ 0.36% TCu Inf ASCU:TSX | ASCUF:OTCQX ARIZONASONORAN.COM

# Access to US\$33M in non-equity non-dilutive funding US\$18M drawn, US\$15M undrawn

Creates a Straightforward Mechanism for Significant Project Funding

# Reduction of Execution Risks via JV Partnership Framework with Global Mining and Innovation Leader







# Capital Structure & Ownership

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## **CAPITAL STRUCTURE**

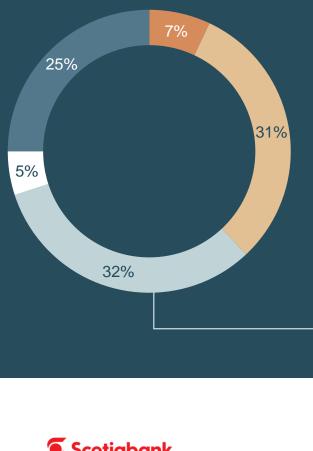
Market Capitalization	C\$130M	
Shares Outstanding (M)	109.1	
Warrants (M)	2.5	
Options (M)	5.6	
RSU's (M) <sup>(1)</sup>	0.1	
DSU's (M)	0.5	
Fully Diluted Share Capital (M)	117.9	
Cash post-Nuton Option Agreement	US\$20M	
Debt	Debt Free	

Notes: (1) RSUs may be issued in shares or cash

## ANALYST COVERAGE



## OWNERSHIP



D

- Nuton (Rio)
  Tembo
  Insitutional
  Management
  Retail
  - Including: Beedie Capital Delbrook Konwave Macquarie Ixios Bastion Asset Management US Global Russell Investment Mgmt J.Zechner Empire Life Sentry TBF Global AM Sprott COPJ ETF

# An Emerging Lower Risk Copper Developer in Arizona

High build probability in the heartland of US copper country



- Brownfields porphyry copper project, SXEW and heap leach operation on the oxides and enriched
- Arizona Tier 1 Jurisdiction
- Among Top 10 copper operations in the US
- 3.0B lbs @ 0.48% Cu TSol P&P copper reserves

# **ECONOMICS**

- Robust PFS, Feb 2024
- 55 kstpa Copper Cathode over
   21 years
- NPV8 (post-tax): \$509 million
- LOM Revenue: \$9.0 B
- LOM FCF (post-tax): \$2.4 B

# LOW RISK

- Low Capital Intensity
- Highly-experienced owneroperator team in place
- Private landownership/ streamlined permitting
- In place infrastructure, including access to water
- Social license

All currency referenced is in US dollars, unless otherwise stated Using a \$3.90/lb copper price in the Financial & Economic Model All tons are short tons, unless otherwise stated





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www.arizonasonoran.com | www.cactusmine.com

## Summary of Key Metrics @ \$3.90/lb Cu

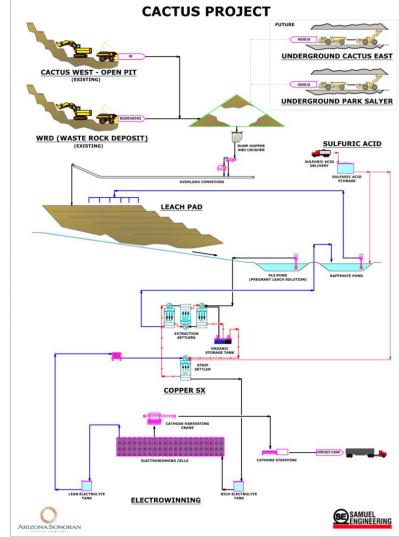
	KEY METRICS		
NPV @ 8% (Pre-Tax)	\$ millions	\$733	
NPV @ 8% (Post-Tax)	\$ millions	\$509	
IRR (Post-Tax)	%	15.3	
Payback Period	Years	6.8	
NPV Capital Intensity	NPV/Capital	1:1	
Mine Life	Years	21	
Total Payable LOM Cu Production	Millions lbs	2,306	
Cu Average Production (Yrs 1-5)	Millions lbs	100	
Cu Average Production (Yrs 6-10)	Millions lbs	105	
Cu Average Production (Yrs 11-15)	Millions lbs	136	
Cu Average LOM Production	Millions lbs	110	
Initial Capital	\$ millions	515	
Sustaining Capital	\$ millions	1,221	
	<b>•</b> #		
Operating Cash Costs*	\$/lb	\$1.75	
C1 Cash Costs**	\$/Ib	\$1.84	
AISC (C3) Cash Costs***	\$/lb	\$2.34	
Total FCF (post-tax)	\$ millions	\$2,407	
Annual Average FCF	\$ millions	\$115	

Mining			
Open Pit	\$2.20/ ton mined		
Underground	\$20.21/ton mined		
Leaching & Processing	\$2.96/ ton placed		
G&A	\$0.12/ ton placed		

\* Operating cash costs consist of mining costs, processing costs, and G&A

\*\* Total cash costs consist of operating cash costs plus transportation cost, royalties, treatment and refining charges \*\*\* AISC consist of total cash costs plus sustaining capital, closure cost and salvage value

## Heap Leach and SX/EW Flow Sheet



# Capital Cost Breakdowns

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CAPITALIZED COSTS (US\$M)		LOM Sustaining Capital	LOM Sustaining	
	Initial Capex	Sustaining	Costs (\$M)	Breakdown
Capitalized Mining and Processing Costs	\$173 million	\$905 million		
Processing	\$4 million	n/a		
Mining (Pre-stripping)	\$78 million	n/a		
MINING - Open Pit - Cactus West	\$24 million	\$20 million		
MINING - Underground - Cactus East	n/a	\$341 million		
MINING - Underground - Parks/Salyer	\$57 million	\$544 million		
MINING - Underground - Combined/Shared	\$11 million	n/a		73% UG Mining
Other Capital Costs	\$343 million	\$312 million	Mining Other	
Infrastructure	\$56 million	\$0.3 million		Costs
Crushing And Conveying	\$29 million	\$6 million	Initial Capital	
Leaching And Waste Rock Storage	\$66 million	\$126 million	Costs (\$M)	<ul> <li>MINING - Open Pit - Cactus We</li> <li>MINING - Underground - Cactus</li> </ul>
Solvent Extraction (Sx)	\$30 million	n/a		MINING - Underground - Parks/
Electrowinning (Ew)	\$26 million	\$14 million		Infrastructure
Reagents	\$1 million	n/a		Crushing And Conveying
Process Plant Services And Utilities	\$4 million	n/a		Leaching And Waste Rock Stora
Project Execution	\$54 million	\$8 million		Electrowinning (EW)
Provisions	\$75 million	\$160 million		Project Execution
Total Capitalized Costs	\$515 million	\$1,221 million	Mining Other	Provisions
Average Annualized S	Sustaining Capital	\$58 million		ASCU:TSX   ASCUF:OTCQX ARIZONASONOR

# Metallurgy – High recoveries of Oxide and Enriched 2 years of metallurgical testing



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## **METALLURGICAL RECOVERIES**

Parks/Salyer Cactus East Cactus West Stockpile 85% enriched | 91% oxide 85% enriched | 91% oxide 85% enriched | 92% oxide 85% enriched | 88% oxide

\*updated with Cactus Project PFS, as announced February 21, 2024

## Management Team with Track Record of Execution

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## George Ogilvie, P.Eng. PRESIDENT, CEO & DIRECTOR

+30 years of management, operating and technical experience in the mining industry. Previously President & CEO of Battle North (sold to Evolution Mining), CEO of Kirkland Lake, and CEO of Rambler Metals



## Bernie Loyer SVP Projects

+35 years building and delivering large scale mining projects. Prior positions at SolGold (Cascabel), Goldcorp (Penasquito and Cerro Negro), Torex Gold (Morelos and Media Luna), BHP (Escondida) and at FLSmidth Minerals.



#### Nick Nikolakakis, BASc, MBA VP FINANCE AND CFO

+27 years of North American executive mining finance experience. Former VP Finance and CFO of Battle North, Rainy River and Placer Dome, VP Corporate Finance at Barrick and other positions at North American Palladium and BMO Nesbitt Burns.



#### Rita Adiani, LLB Hons SVP STRATEGY & CORPORATE DEVELOPMENT

+16 years of mining experience across strategy & business development, investment banking and corporate law. Previously EVP and Head of Business Development at Xiana Mining, MD at NRG Capital Partners, VP at Societe Generale and Senior Corporate Finance Manager at La Mancha



Doug Bowden, MSc. VICE PRESIDENT, EXPLORATION

+40 years mining experience throughout North America and Mexico. Responsible for managing exploration programs for Amselco, BP Minerals, Kennecott and Western Uranium. **Senior executive positions held at Gold Summit Corporation, Western Uranium and Concordia** 



Travis Snider, B.Sc, Env Chem, SME VICE PRESIDENT, SUSTAINABILITY & EXTERNAL RELATIONS

+20 years experience in the mining industry in Arizona. Previously Mining Project Manager at Engineering & Environmental Consultants, SVP of Operations for Sierra Resource Group and VP of Mining & Oil operations for Wilcox



## Alison Dwoskin, CPIR DIRECTOR, INVESTOR RELATIONS

+15 years in investor relations. Formerly Manager, Investor Relations of Klondex Mines and Eastmain Resources. Began her career at a Toronto-based IR firm, broadly specializing in mining

## STRONG SPONSOR SUPPORT



- Global leading diversified metals and mining company with operations in 35 countries.
- Innovating technologies to advance the mining industry
- Shareholder since 2022, option to JV signed in Dec 2023

## TEMBO CAPITAL

- Private equity fund investing in junior and mid-tier mining companies, with low cost, quality assets managed by high caliber teams
- Shareholder since 2020

