

ARIZONA SONORAN COPPER COMPANY INC.

MANAGEMENT DISCUSSION AND ANALYSIS

FOR THE QUARTER ENDED JUNE 30, 2024

# **Table of Contents**

INTRODUCTION	3
DEFINITIONS	
COMPANY HIGHLIGHTS - YEAR-TO-DATE 2024	
Corporate Updates	
Exploration Updates	4
OUTLOOK	
2024 ASCU Work Plan Highlights	7
2024 Nuton Work Plan Highlights	7
THE PROJECT	
Parks/Salyer Property	8
Preliminary Economic Assessment	3
RESULTS OF OPERATIONS	21
Summary of Quarterly Results	21
RISKS AND UNCERTAINTIES	22
Liquidity and Capital Resources	23
Operating Activities	24
Investing Activities	24
Financing Activities	
Related Party Transactions	
CRITICAL Accounting Estimates and Judgments	
Financial Instruments	
Fair Value	
Management of Financial Risk	
Changes in accounting policies including initial adoption	
Commitments and Contingencies	
Off-Balance Sheet Arrangements	
Authorized and Issued Share Capital	
NON-IFRS PERFORMANCE MEASURES	
CHANGES IN INTERNAL CONTROL OVER FINANCIAL REPORTING	
Forward-Looking Information	
Approval	29

## INTRODUCTION

The following Arizona Sonoran Copper Company Inc. ("ASCU" or the "Company") Management Discussion and Analysis ("MD&A") was prepared as of August 7, 2024 and should be read in conjunction with the unaudited interim condensed consolidated financial statements ("Financial Statements") of the Company as at and for the three and six-months months ended June 30, 2024 and 2023, which have been prepared in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board ("IFRS Accounting Standards") applicable to the preparation of interim financial statements, including International Accounting Standard ("IAS") 34, Interim Financial Reporting. All dollar amounts are expressed in United States dollars unless otherwise noted. Additional information relating to the Company is available on the Company's website (<a href="www.arizonasonoran.com">www.arizonasonoran.com</a>) and System for Electronic Data Analysis and Retrieval+ ("SEDAR+") – (<a href="www.sedarplus.ca">www.sedarplus.ca</a>). The Company trades on the Toronto Stock Exchange ("TSX") under symbol "ASCU" and the OTCQX under the symbol "ASCUF."

This MD&A should be read in conjunction with the Financial Statements dated June 30, 2024 and annual financial statements dated March 12, 2024 and the Annual Information Form ("AIF") dated April 1, 2024 filed with the Canadian Securities Administrators ("CSA") under the Company's profile on SEDAR+ at <a href="https://www.sedarplus.ca">www.sedarplus.ca</a> and also available on its website at <a href="https://www.arizonasonoran.com">www.arizonasonoran.com</a>.

ASCU is an emerging U.S. copper advanced stage exploration company intending to build a scalable, multi-phase, multi-billion-pound copper porphyry project on private land in the infrastructure-rich state of Arizona. The Company holds 100% ownership comprised of private land and a state land lease which is referred to as Cactus East and Cactus West (the "Cactus Project") and the Parks/Salyer Property (collectively with Cactus Project and Stockpile Project, the "Project") in Pinal County, Arizona.

ASCU's exploration programs and pertinent disclosure of a technical or scientific nature are reviewed and supported by Qualified Persons as defined by National Instrument 43-101—Standards of Disclosure for Mineral Projects noted in "The Project — Preliminary Economic Assessment - Quality Assurance and Quality Control Procedures."

Certain statements made may constitute forward-looking statements. Such statements involve a number of known and unknown risks, uncertainties and other factors. Actual results, performance and achievements may be materially different from those expressed or implied by these forward-looking statements.

## **DEFINITIONS**

"Cactus East" herein means the mineral rights representing the Cactus East development as referred to in the context of the Cactus Project, previously known as the Sacaton East deposit.

"Cactus West" herein means the mineral rights representing the Cactus West development as referred to in the context of the Cactus Project, previously known as the Sacaton West deposit.

"Parks/Salyer Property" herein means the mineral rights representing the porphyry copper deposit, located immediately southwest of the Cactus Project on contiguous private land in Arizona, USA. The Parks/Salyer Property is located 1.3 mi (2 km) SW from the Cactus open pit along the mine trend and demonstrates the same geological characteristics.

"MainSpring Property" herein means the mineral rights representing the southern portion of land immediately south of the original Parks/Salyer Property and now considered part of the Parks/Salyer Property following the release of the 2024 PEA as defined herein.

"Stockpile Project" herein means the historic waste dump created through dumping of defined waste material from the mining of the old Sacaton open pit deposit. All oxide copper mineralization, and sulfide copper mineralization below the working grade cut-off of 0.3% copper (Cu) was deposited to the waste dump.

## **COMPANY HIGHLIGHTS - YEAR-TO-DATE 2024**

# **Corporate Updates**

- The Company continues to progress its corporate initiatives and strategic relationship with Nuton under the Option Agreement as follows:
  - Drilling of MainSpring (phase 1 complete) and Cactus West (completed in Q2/2024)
  - Secured the rights on closing to the Mainspring Property (now considered part of the Parks/Salyer Property) on the Closing Date of February 28, 2024.
  - Preliminary Economic Assessment ("PEA") A PEA considering the effects of the Nuton technology as applied to the Project – see below.
  - Integrated Nuton Pre-feasibility Study ("PFS") The Company and Nuton agree to work towards the Integrated Nuton PFS release by the H1/2025, unless extended mutually by both the parties.
  - Primary material from both the MainSpring Property and Cactus West, will be tested in small columns to evaluate optimum Nuton operating conditions for the material.
- On July 12, 2024, the Company announced the annual general meeting ("AGM") will take place on September 17, 2024.

# **Exploration Updates**

- On January 10, 2024, the Company announced additional drill assay results from the Cactus West and Cactus East deposits within the Project, Arizona. A total of 9 drill holes were completed for a total of 18,215 ft (5,552 m) supporting the 125 ft (38 m) infill-to-measured and geotechnical drilling programs.
  - Thick and high-grade total copper ("CuT") and soluble copper ("Cu TSol") intervals within Cactus East measured drilling program (125 ft | 38 m drill centres) were encountered. The infill to measured drilling supports the updated Mineral Resource Estimate that the Company released in October 2023.
  - At Cactus West, infill and geotechnical drilling returned wide intervals of primary copper mineralization both below and at the extents of the Cactus West mineral resource shell. The encouraging results support the need for an expanded Cactus West infill and exploration drill program.
- On January 16, 2024, the Company announced additional drill results for 11 holes of the infill drilling to measured program at Parks/Salyer. Additionally, infill and exploration drilling to the south of Parks/Salyer was resumed at MainSpring with three drills, building on the 11- hole program undertaken in late 2023.
- On January 25, 2024, the Company announced the release of drill assay results from an exploration program at the MainSpring property. A total of 7 of 11 ASCU drilled holes completed in 2023 and 22 legacy holes from the previous option holder are reported here and indicate potential mineralization from the Parks/Salyer deposit nears surface as it extends south.
- On February 21, 2024, the Company announced it had completed its NI 43-101 2024 PFS for the Project (see "The Project Pre-feasibility Study") with highlights as follows:

- A post-tax net present value ("NPV") of \$509 million (CA\$687 million) / Pre-tax NPV of \$733 million (CA\$990 million) using an 8% discount rate and an internal rate of return ("IRR") of 15.3% and using a \$3.90/lb flat long-term copper price
- Total initial capital cost of \$515 million, including \$75 million of contingencies over a 24-month construction period
- Total revenues of \$9.0 billion over 21 years
- Post-tax unlevered Free Cash Flow of \$2.4 billion
- C1 Cash Costs of \$1.84/lb and All in Sustaining Cost ("AISC") of \$2.34/lb
- Average annual production of approximately 55 ktons or 110 million pounds ("lbs") of copper ("Cu"), with a peak of 74 ktons or 149 million pounds of copper
- Initial Life of Mine ("LOM") 21 years, recovering 1,153 ktons or 2.31 billion pounds of Copper LME Grade A cathode onsite via heap leach facility and SXEW
- Maiden Proven & Probable ("P&P") Reserves of 276.3 million tons at 0.48% Soluble Copper ("Cu TSol") or 3.0 Billion lbs Copper

The information outlined above is supported by the news release disseminated by ASCU on February 21, 2024 (entitled "Arizona Sonoran Announces a Positive Pre-Feasibility Study for the Cactus Mine Project with a US\$509M Post-Tax NPV and 55 kstpa Copper Cathode over 21 Years"). The NI 43-101 technical report in respect of the 2024 PFS were filed on SEDAR+ at <a href="www.sedarplus.ca">www.sedarplus.ca</a> under the Company's issue profile within 45 days from the date of the news release.

- On March 5, 2024, the Company announced an update on land developments, including MainSpring zoning finalization for industrial use, and a new special land use permit ("SLUP") to the southeast east corner of the Project to accommodate future mine infrastructure.
- On March 19, 2024, the Company announced drilling at MainSpring. A total of 17,650 ft (5,380 m) of drilling or 16 holes were reported, with 10 holes pending. The 2024 MainSpring inferred drill program (500 ft | 152 m drill spacing) is now complete and drilling continues to define indicated drill spacings (250 ft | 76 m drill spacing) with 3 drill rigs. Drilling highlights include:
  - ECM-198: Potentially extends Parks/Salyer High Grade Mine Trend by 650 ft (198 m) to the southwest.
    - o 882 ft (269 m) @ 0.44% CuT of continuous mineralization
      - Incl 83 ft (25 m) @ 1.41% CuT, 1.30% Cu TSol, 0.023% Mo (enriched)
  - ECM-209: 256 ft (78 m) @ 0.51% CuT, 0.44% Cu TSol, 0.003% Mo (oxide)
    - o Incl 98 ft (30 m) @ 0.95% CuT, 0.87% Cu TSol, 0.004% Mo
  - ECM-197: 367 ft (112 m) @ 0.31% CuT, 0.26% Cu TSol, 0.002% Mo (oxide)
    - o 125 ft (38m) @ 0.56% CuT, 0.47% Cu TSol, 0.003% Mo (enriched)
- On April 29, 2024, the Company announced completion of its inferred drilling program on MainSpring. The inferred drilling program confirms a continuation of the thick enrichment blanket extending south and up dip from the Parks/Salyer deposit onto MainSpring, as well as the presence of enriched mineralization in MainSpring. With the final receipt of assays, a MainSpring mineral resource model was generated for its inclusion to the integrated Preliminary Economic Assessment considering Nuton and Cactus ("2024 PEA") noted below.
- On May 21, 2024, the Company announced additional drilling at MainSpring. The first 16 drill holes (19,219 ft | 5,858 m) from an infill drilling program at MainSpring. Drilling is infilling the shallow mineralization to the southern end of the area, in support of a potential open pit design. An open pit design using the inferred category resources is being evaluated for inclusion within the 2024 PEA. The

MainSpring infill drill program is reducing drill spacings from 500 ft (152 m) to 250 ft (76 m) to upgrade the pending MainSpring mineral resource classification from inferred to an indicated category, funded by the Company.

- On June 10, 2024, the Company announced results of the work program sponsored by Nuton LLC, a Rio Tinto venture, as announced January 30, 2024. Drilling results targeting below the leachable oxides and enriched sulphides, into the untested extents of primary copper mineralization around the Cactus West Pit. Further, drilling appears to confirms a thick zone of primary sulphide mineralization beneath the Cactus West open pit mine plan and at least 750 ft (229 m) south, 500 ft (152 m) southwest and up to an additional 700 ft (213 m) below the Cactus West mineral resource shell.
- On July 16, 2024, the Company announced its updated Mineral Resource Estimate ("MRE News Release") for the Project. The updated and expanded Mineral Resource Estimate ("2024 MRE") is inclusive of a seven-month drilling program targeting the MainSpring property, which was completed in April 2024 as noted above. Highlights and key changes from the updated 2024 MRE are listed below.
  - Updated 2024 MRE for the Project including Primary Mineral Resources:
    - Measured and Indicated ("M&I") 632.6 million short tons @ 0.58% Total Copper ("CuT") for 7.3 billion pounds ("lbs") of copper
    - Inferred 474.0 million short tons @ 0.41% CuT for 3.8 billion lbs of copper
  - Key Changes:
    - The 2024 MRE appears to confirms Parks/Salyer and MainSpring as one deposit, renamed to "Parks/Salyer"
      - Parks/Salyer mineral resource contains 339.0 million short tons @ 0.71% CuT for 4.8 billion lbs of copper in the M&I category and 299.3 million short tons @ 0.43% CuT for 2.6 billion lbs of copper in the Inferred category.
    - Parks/Salyer also appears to be amenable as an open pit within the 2024 PEA
      - New Parks/Salyer mineral resource dimensions are 6,400 feet ("ft")(1,950 meters ("m") by 3,000 ft (915 m) to a maximum depth of 2,350 ft (716 m) below surface.
    - The 2024 MRE represents a 1,904% increase to the Measured Category with inclusion of initial Measured mineral resources at Parks/Salyer, 26% increase to the total M&I and a 60% increase in total Inferred resource, with no change to cut-off grade criteria or underlying price and cost assumptions
      - A 42% increase of M&I mineral resources at Parks/Salyer is attributed to success
        of measured infill drilling program, reporting of open pit resources, and reporting
        based on total copper pounds.
      - The Parks/Salyer infill drilling (56,907 ft | 17,345 m) converted 55.9 M short tons @
         1.03% CuT for 1.2 billion lbs of copper reported to the measured category.
      - A 60% increase to the Inferred mineral resources is attributed to expansion of Parks/Salyer mineral resource onto the MainSpring property and reporting based on total copper pounds.
      - A 7-month drilling program at MainSpring (49,193 ft | 14,994 m) delivered 244.9 M short tons @ 0.39% CuT for 1.9 Billion lbs of copper reported to the Inferred mineral resource.
- On August 7, 2024, the Company announced it had completed its NI 43-101 2024 PEA for the Project (see "The Project Preliminary Economic Assessment") with highlights as follows:
  - A post-tax net present value ("NPV") of \$2.03 billion (C\$2.77 billion) using an 8% discount rate and an internal rate of return ("IRR") of 24% and using a \$3.90/lb flat long-term copper price
  - Total initial capital cost of \$668 million over a 24-month construction period
  - Post-tax unlevered Free Cash Flow of \$7.3 billion
  - C1 Cash Costs of \$1.82/lb and All in Sustaining Cost ("AISC") of \$2.00/lb

The information outlined above is supported by the news release disseminated by ASCU on August 7, 2024 (entitled "Arizona Sonoran Standalone PEA for Cactus Open Pit Project Reports Post-Tax NPV8 of US\$2.03 Billion (C\$2.77 Billion) and IRR of 24% and LOM EBITDA US\$11.29 Billion (C\$15.36 Billion)"). The NI 43-101 technical report in respect of the 2024 PEA will be filed on SEDAR+ at <a href="www.sedarplus.ca">www.sedarplus.ca</a> under the Company's issue profile within 45 days from the date of the news release.

#### OUTLOOK

As of August 8, 2024 the Company had cash of approximately \$11.3 million, which includes funding for the Nuton Phase 2 work that will need to be repaid if not spent. The Company will require further financing before the end of the year to achieve all of its planned operational and strategic activities in the form of debt, equity, or a combination thereof. See "Liquidity and Capital Resources" below.

The Company continues to progress its planned work programs with key milestones expected for the continued advancement of the Project, through Feasibility studies while concurrently completing Nuton-related work programs.

# 2024 ASCU Work Plan Highlights

- Technical Studies:
  - Released the results of the 2024 PEA incorporating MainSpring (now combined with Parks/Salyer) on August 7, 2024 with Technical Report expected within 45 days.
  - An amended PFS including MainSpring is estimated for completion by H1/2025.
  - A standalone DFS is estimated to be completed in 2026.
- Drilling Programs:
  - Infill to inferred and indicated programs totaling 180,000 ft (54,860 m) at MainSpring and Cactus West required for future technical studies. Drilling will target oxide, enriched and primary mineralization. Phase 1 of this work at MainSpring is completed with Cactus West ongoing.
- Metallurgy:
  - Begin evaluating MainSpring and Parks/Salyer heap leach amenability in 20 ft (6m) columns in a commercial laboratory.
- Permitting will include amending permits (SWPP, Aquifer Protection Permit and Industrial Air) following the 2024 PFS.

## 2024 Nuton Work Plan Highlights

- Drilling of MainSpring and Cactus West (as above)
  - Infill to indicated programs to assess the primary sulfide potential along with core drilling to support the Phase 2 Nuton metallurgical test program.
- Technical Studies:
  - PEA A Preliminary Economic Assessment considering the effects of the Nuton technology as applied to the Cactus/Parks Salyer and MainSpring is highlighted above and further detailed in "The Project – Preliminary Economic Assessment."
  - Integrated Nuton PFS The parties agree to work towards the Integrated Nuton PFS release by H1/2025, unless extended mutually by both the parties.

- Metallurgy:
  - Primary material from both MainSpring and Cactus West, will be tested in small columns to evaluate optimum Nuton operating conditions for the material.
  - Full height, 30 feet (10m) tall column will be operated to confirm scale-up considerations under Nuton leach conditions.

#### THE PROJECT

The Company released its 2024 PEA that ascertains initial project economics of all leachable ores including the Stockpile Project, Cactus West, MainSpring (now part of Parks/Salyer), Parks/Salyer and Cactus East. The scientific and technical information in this section relating to the Project and the 2024 PEA, including information outlined under the heading "Preliminary Economic Assessment" below, is supported by the news release dated August 7, 2024 (entitled "Arizona Sonoran Standalone PEA for Cactus Open Pit Project Reports Post-Tax NPV8 of US\$2.03 Billion (C\$2.77 Billion) and IRR of 24% and LOM EBITDA US\$11.29 Billion (C\$15.36 Billion)"). The key assumptions, parameters, qualifications, procedures and methods underlying the 2024 PEA, certain of which are described in the above-noted news release, will be further described in the full technical report being prepared for the 2024 PEA in accordance with NI 43-101, and will be available on SEDAR+ (<a href="https://www.sedarplus.ca">www.sedarplus.ca</a>) under the Company's issuer profile within 45 days from the date of the above-noted news release.

The Company intends to subsequently update the standalone 2024 PFS and integrate Nuton test work as it has considered on a preliminary basis with the 2024 PEA while completing standalone work towards a DFS. See "The Project – Preliminary Economic Assessment" below for details of the 2024 PEA.

# **Parks/Salyer Property**

The Parks/Salyer Property is an exploration stage asset included in the 2024 MRE as noted below. The 2024 PEA includes both the Cactus Project and Parks/Salyer (now combined with the MainSpring Property) Property, based on the expanded leachable inventory, using a heap leaching and SX/EW process methodology of the oxides and enriched material. The leachability of the primary sulphides is currently being tested (based on the Nuton technology) and may form the basis of further project upside.

Management estimates that the high-grade nature of the Parks/Salyer Property's mineral resources to offer significant potential to increase the scale within an integrated operation at conservative copper price estimates. The Company will continue advancing work study programs, specifically, engineering, metallurgical and geotechnical test work, hydrology, permitting, infill drilling and associated projects to advance the combined Project through the technical study phases.

## **Preliminary Economic Assessment**

The results from the 2024 PEA on the Project supersedes the previously released 2024 PFS, and rescopes the Parks/Salyer Property as an open pit operation due to the inclusion of the MainSpring Property. The inclusion materially improves the economics and operations of the project, producing a potential total of 5.3 billion lbs or 2.7 million short tons of LME Grade A Copper Cathodes over an estimated 31-year operating life of Mine via heap leaching and solvent extraction and electrowinning ("SXEW"), an established and industry standard hydrometallurgical extraction technology.

## 2024 PEA Highlights

- Key Performance Indicators:
  - US\$2.03B Net Present Value ("NPV") (8% discount, after-tax)
  - 24% Internal rate of return ("IRR")
  - 4.9 years Payback Period

- Life of Mine ("LoM") Gross Revenue of \$20.8 billion
- LoM Free Cash Flow ("FCF") of \$7.3 billion (unlevered)
- Cash costs (C1) of \$1.82 and All in Sustaining Costs ("AISC") of \$2.00 per pound of copper
- Financial and operational executability now through transition to Open Pit operation
  - 94% material from open pit mining (Cactus West and Parks/Salyer), 6% from the Stockpile and Cactus East underground
- 232 million pounds ("lbs") (116,052 short tons ("st")) average annual copper cathode production over the first 20 years of operation and a total of 5,339 million lbs (2,669,342 st) of copper cathode produced over the 31-year operating mine life

**TABLE 1: SUMMARY OF KEY METRICS** 

Valuation Metrics (Unlevered)	Unit	2024 PEA \$3.90/lb Cu
Net Present Value @ 8% (pre-tax)	\$ millions	2,769
Net Present Value @ 8% (after-tax)	\$ millions	2,032
Internal Rate of Return (after-tax)	%	24.0
Payback Period (after-tax)	# years	4.9
Project Metrics (Imperial)	Unit	2024 PEA \$3.90/lb Cu
Construction Period – SXEW plant	# years	1.5 - 2
Life of Mine ("LoM")	# years	31
Strip Ratio	Waste : Ore	2.02
LoM Mineralized Material Mined	ktons	889,004
LoM Copper Grade	% CuTSol	0.41
LoM Avg Annual Contained Copper Production	000 tons millions lbs	86 172
LoM Annual Crusher Throughput	millions tons	29
Annual Copper Production (years 1-20)	000 tons millions lbs	116 232
Recovery (years 1-20)	%CuTSol	83
LoM Recoveries (LOM)	% CuTSol	73
LoM Oxide	% CuTSol	92
LoM Enriched	% CuTSol	85
LoM Primary (conventional leaching)	% CuT	25
LoM Recovered Copper Cathodes	K pounds	5,338,683
Initial Capital (including contingency)	\$ millions	668
Sustaining Capital	\$ millions	1,169
Cash Cost (C1)*	\$/lb Cu	1.82
All in Sustaining Cost (AISC)*	\$/lb Cu	2.00
LoM Revenues	\$ millions	20,821
LoM EBITDA	\$ millions	11,292
LoM FCF (unlevered) after tax	\$ millions	7,295

## Notes:

<sup>\*</sup>Project operating costs include mine operating, process plant operating, and general and administrative costs ("G&A"). Total production costs include royalty expense. The AISC additionally includes initial Capex, sustaining Capex, reclamation & closure.

# **Key Impacts on the NPV:**

# • Mine plan execution rescopes to 94% open pit

• Parks/Salyer and Cactus West are open pit operations; changes positively impact annual throughput, mining costs, operating costs and processing costs.

# Mineralized material impacts

- LoM tonnage processed of 889 million st, including:
  - 659 million st of oxides and enriched material
    - o Parks/Salyer: 69%
      - Including: new MainSpring inferred mineral resources of 245 Mst @ 0.39% CuT (PR dated July 16, 2024)
    - Cactus West: 23%Cactus East: 6%
    - Stockpile 2%
  - 230 million st of primary sulphides to the leach pads with current recoveries reported at an average of 25% from year 15
    - Parks/Salyer 34%Cactus West: 66%

# Processing cost impacts

- Processing initial capital expenditure ("capex") of \$511 million excluding contingency (SXEW plant and owner's costs)
- Processing sustaining capital of \$553 million (process plant average of \$18 million per year)
- Processing operating costs ("opex") of \$2.29/st

# Other cost impacts

Updated salvage cost, land sales, closure and royalties

## Mining cost impacts

- Mining opex and capex impacted by Parks/Salyer rescope to an open pit mining operation
- Parks/Salver cut-off grade of 0.1% cut off grade
- Initial Capex of \$157 million (pre-production stripping)
- Mining sustaining capital of \$544 million, optimizing the per ton mining costs (average of \$18 million per year)
- Operating expenditures of \$8.16/t processed

The 2024 PEA supersedes the PFS titled "Cactus Mine Project NI 43-101 Technical Report and Pre-Feasibility Study, Arizona, United States of America", dated March 28, 2024 (with an effective date of February 21, 2024) ("March 2024 PFS") in its entirety. The PEA integrates the new Parks/Salyer additions from the MainSpring property as inferred mineral resources, re-scoped as an open pit. By applying open pit mining costs to the Parks/Salyer mineral resource estimate, it now contributes 531 M tons of feed material grading 0.530% CuT to the total 889 million tons of feed material at 0.46% CuT over the LoM. **FIGURE 1** illustrates the cumulative stacked production in the 2024 PEA. Overall, the Project 2024 PEA envisages a 31-year mine life with annual average throughput of 29 million tons, for an average of 86 kstpa of copper cathodes produced annually. The result is a lower risk brownfield open pit mining operation with a long life and a streamlined permitting process on private land in Arizona with water rights and access to water from in-situ water wells.

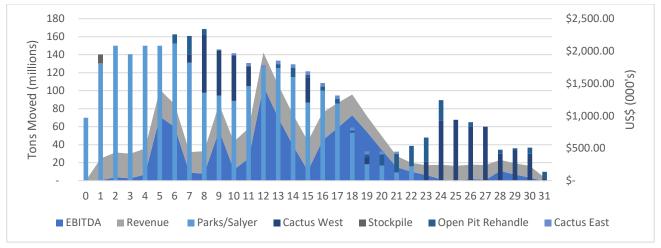
A total of 2,872 million tons will be mined and a total of 889 million tons processed, recovering 5.34 billion pounds of copper cathodes over the LoM or 2,669,000 tons. Copper cathodes will be produced directly onsite via heap leach and SXEW, including a four year ramp up period. Total Copper recoveries are

planned at an average of 73%, extracting copper from the oxides, enriched and primary sulphides. Gross acid usage is calculated at 22 lbs per ton at a cost of \$160 per ton. See annual production, revenue and EBITDA in **FIGURE 2** as well as **TABLE 2** for economic sensitivities to copper pricing.



FIGURE 1: Cumulative Stacked Recoverable Copper





Onsite facilities at the mine site will consist of two open pits, one underground mining operation, a fine crushing plant incorporating all crushing, classification, agglomeration and conveying systems, heap leach pad, water supply and distribution systems, technical and operational support offices, additional electrical substation, warehousing and an SXEW process plant. Onsite supporting infrastructure will include site power distribution, access roads, mine operations infrastructure, and heap leach facilities, of which the power and roads are already in use.

Current onsite and nearby infrastructure includes:

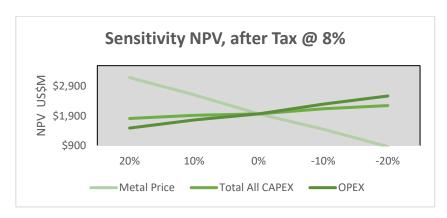
- Onsite administration buildings, geology, core storage, completed earthworks, substation, parking lot and access roads
- Clean power via onsite substation for \$0.07/kWh
- Paved access roads and easy access to interstate highways I-8 and I-10
- Union Pacific railroad line adjacent to the property
- Casa Grande, Maricopa and Phoenix are all located nearby to supply materials/consumables in addition to a skilled labour pool

- Permitted water available onsite, and additional water may be available through the city
- Flat land and low altitude
- Located within the City of Casa Grande industrial park

**TABLE 2: Report Sensitivities to the Copper Price** 

Revenue, NPV and IRR Sensitivity Based on Copper Price							
Metal Price	Copper Price	IRR after Tax					
Base Case	\$3.90	\$20,820,863	@ 8% (US\$000) \$2,769,280	8% (US\$000) \$2,031,671	24%		
20%	\$4.68	\$24,985,035	\$4,237,162	\$3,196,838	32%		
10%	\$4.29	\$22,902,949	\$3,503,221	\$2,612,817	28%		
-10%	\$3.51	\$18,738,777	\$2,035,338	\$1,450,505	20%		
-20%	\$3.12	\$16,656,690	\$1,301,397	\$861,488	16%		

FIGURE 3: NPV Sensitivity to the Metal Price, CAPEX and OPEX



## **Mining and Processing Operations**

Mineralized material will be sourced mainly from the two open pits with an overall LoM strip ratio of 2.3:1. The Cactus West pit (1.0:1 strip ratio) and new Parks/Salyer pit (3.2:1 strip ratio) comprise 94% of the total material to the leach pads. The remaining 5% of material will be sourced from the Cactus East underground deposit utilizing sub-level cave from the 1,200 ft (366 m) level, and 1% from the Stockpile.

Both Parks/Salyer and Cactus West will be mined using 40 ft (12.1 m) single benches, with ramps sized to allow 320-ton class haul trucks. At Parks/Salyer, all walls have been designed with 45-degree inter-ramp slopes, while geotechnical step-outs are employed to reduce the overall slope to approximately 40 degrees. At Cactus West, inter-ramp slopes range from 45–50 degrees depending on material type, with typical overall slope angles of 41-43 degrees. Gila conglomerate and alluvium constitute the large majority of the waste in the pits.

The mine schedule for open pit mining at Parks/Salyer consists of 531 million tons of feed material grading 0.530% CuT, including 453 million tons of oxide and enriched leach feed material grading 0.55% CuT and 78 million tons of primary sulphide leach feed material grading 0.41% CuT. Open pit mining will initiate in Parks/Salyer in Year -1 and operate continuously for 23 years over seven pit phases. Total waste mined in Parks/Salyer is 1,680 million tons.

The mine schedule for open pit mining at Cactus West consists of 306 million tons of feed material grading 0.29% CuT, including 154 million tons of oxide/enriched leach feed material grading 0.26% CuT and 152 million tons of primary leach feed material grading 0.32% CuT. Open pit mining will take place at Cactus West in the years of 7-11, 15, 19, and 23-31. Phase 1 Cactus West is used to smooth stripping requirements of Parks/Salyer in the middle-years of the mine plan, while Phase 2-3 are mined in the later years and predominantly supply primary feed material. Total waste mined from Cactus West is 299 million tons.

The Stockpile project contributes 9.8 million tons of conventional leach feed material grading 0.24% CuT which will be used for project commissioning in Year 1 of processing.

After a comprehensive review of Cactus East, sub-level caving ("SLC") was selected as the preferred underground mining method. A sublevel cave underground mine is planned for Cactus East with development beginning in Year 8 and mining completed in Year 22, peaking at 3.9 million tons per year. Total Cactus East feed material mined is projected to be 42 million tons grading 0.83% CuT. The initial Cactus East SLC level will begin at 1,325 ft (404 m) below the surface over 7 sublevels, to a final depth of 1,845 ft (562 m). Access will be via a single decline with a portal located within the existing Cactus West pit. Haulage of mineralized material to surface will be via a vertical conveyor which can be supplemented with truck haulage to surface via the open pit if necessary.

The Project heap leaching process design includes crushing of all material types for leaching to a minus 3/4" P80 size. All material types, oxides, enriched and primary are to be leached in on a single pad with an initial leaching cycle of 180 days. A maximum 3-year leaching cycle has been assumed (3 lifts) as the practical limit for effective recovery based on experience and hydrodynamic analysis of the materials by HydroGeoScience Inc. (HGS). The copper leaching metallurgical test data has been extrapolated from the testing data at one year based on the rates prevailing after one year using a logarithmic curve fit projection that considers the decaying rate of copper extraction.

Average annual water consumption is planned at approximately 1,200 gallons per minute, the equivalent of 1,935 acre feet per year, well within ASCU's permitted 3,600 acre feet per year industrial use allocation, using in place onsite wells.

The PEA envisages that overall tonnage will comprise approximately 25% oxide material, 50% enriched (secondary sulphides) and 25% primary sulphides within the LoM. From year 15 to 22 placed tons will consist of approximately 25% primary, whereas from year 23, will comprise 100% of the operation. Overall copper extraction is impacted by the lower rates from primary sulphides. In the PEA, ASCU includes a conservative 25% extraction rate.

The total LoM costs, operating costs per ton (\$/st) of processed material, and dollars per pound (\$/lb) of cathode produced are summarized in the three tables below. Project operating costs include mine operating, process plant operating, and general and administrative costs ("G&A"). Total production costs include royalty expense. The AISC additionally includes initial Capex, sustaining Capex, reclamation & closure.

Mining operating cost estimates, prepared by AGP Mining Consultants Inc., are based on a small owner's team managing mining activities using an owner-operator model. Process operating cost estimates were prepared by Samuel Engineering and G&A cost estimates were prepared by M3 Engineering with input from ASCU, as summarized in **TABLES 3-5** below (note numbers may not add due to rounding).

TABLE 3: LoM OPERATING AND PRODUCTION COSTS						
		LoM (US\$)				
Cost Elements	Total Cost (\$M)	\$ / st Processed	\$ / Ib Copper			
Mine Operating Cost	\$7,252	\$8.16	\$1.36			
Process Plant Operating Cost	\$2,039	\$2.29	\$0.38			
G & A	\$50	\$0.06	\$0.01			
Operating Costs	\$9,341	\$10.51	\$1.75			
Royalties	\$388	\$0.44	\$0.07			
<b>Total Production Costs</b>	\$9,729	\$10.94	\$1.82			
Sustaining Capex	\$1,169	\$1.31	\$0.22			
Reclamation & Closure	\$25	\$0.03	\$0.00			
Salvage	-\$225	-\$0.25	-\$0.04			
All-In Sustaining Costs	\$10,697	\$12.03	\$2.00			
Property & Severance Taxes	\$562	\$0.63	\$0.11			
Initial Capex (non-sustaining)	\$668	\$0.75	\$0.13			
All-In Costs	\$11,927	\$13.42	\$2.23			

TABLE 4: LoM OPERATING COST AND CASH FLOW						
ACTIVITY (LOM)	US\$M	US\$ / SHORT TON				
LOM REVENUE	20,821					
Mining (OP and UG)	7,252	8.16				
Process Plant	2,039	2.29				
General & Administration	50	0.06				
Total Cash Operating Cost	9,341	10.51				
Royalties	388	0.44				
Salvage Value	-\$225	-0.25				
Reclamation & Closure	\$25	0.03				
Total Production Cost	9,529	10.72				
EBITDA	11,292	-				
Total CAPEX	1,836	2.07				
Net Income Before Taxes	9,456	-				
Taxes and Depreciation	2,161	2.43				
Free Cash Flow (unlevered)	7,295	-				

The capital cost estimates for the PEA were developed with a -25% to +30% accuracy. The Company uses an estimated overall mining contingency of approximately 18% after applying March 2024 cost assumptions used within the PFS and according to the Association of the Advancement of Cost Engineering International (AACE) Class 5 estimate requirements.

	TABLE 5 :CAPITAL COST ESTIMATES						
AREA	DETAIL	INITIAL CAPEX (\$000's)	SUSTAINING CAPEX (\$000's)	TOTAL CAPEX (\$000's)			
	Mine Costs	156,856	543,609	700,465			
<b>Direct Costs</b>	Processing Plant	259,320	408,240	667,560			
	Infrastructure	95,740	17,211	112,951			
Indirect Costs	S	45,470	16,944	62,414			
Owner's Costs Vehicles	s, First Fills, & Light	22,921	72,030	94,951			
Total CA Contingency	PEX without	580,307	1,058,034	1,638,341			
Contingency		87,558	110,599	198,157			
Total CAPEX Contingency	with	667,865	1,168,633	1,836,498			

The PEA is based on the updated 2024 MRE, as published in the MRE News Release on July 16, 2024, showing a 41% increase of Measured and Indicated ("M&I") pounds and an 89% increase of the inferred pounds. The Mineral Resources for the Project are shown in **TABLE 6** and illustrated in **FIGURE 4** below. For more details relating to the 2024 MRE, please refer to the MRE News Release, a copy of which is available on SEDAR+ (<a href="www.sedarplus.ca">www.sedarplus.ca</a>) under the Company's issuer profile and the Company's website (<a href="www.arizonasonoran.com">www.arizonasonoran.com</a>).

**TABLE 6: Project Mineral Resource Estimate** 

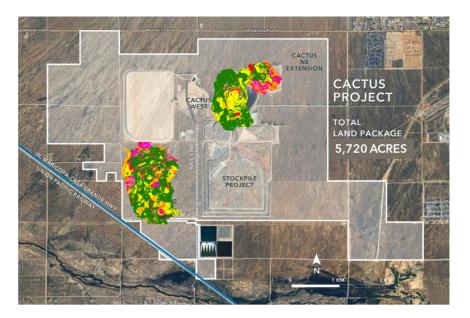
Material Type	Tons kt	Grade CuT %	Grade Cu Tsol %	Contained Total Cu (k lbs)	Contained Cu Tsol (k lbs)
		Meas	sured		
Total Leachable	55,200	0.94	0.79	1,032,200	873,800
Total Primary	12,300	0.51	0.05	124,400	13,400
Total Measured	67,500	0.86	0.66	1,156,500	887,200
		Indic	ated		
Total Leachable	414,800	0.60	0.53	4,965,000	4,365,700
Total Primary	150,400	0.39	0.04	1,173,300	126,000
Total Indicated	565,200	0.54	0.40	6,138,200	4,491,700
		М	&I		
Total Leachable	470,000	0.64	0.56	5.997,200	5,239,500
Total Primary	162,700	0.40	0.04	1,297,600	139,400
Total M&I	632,600	0.58	0.43	7,294,800	5,378,900
Inferred					
Total Leachable	299,600	0.43	0.38	2,572,400	2,262,800
Total Primary	174,500	0.36	0.04	1,267,500	124,700

Material Type	Tons kt	Grade CuT %	Grade Cu Tsol %	Contained Total Cu (k lbs)	Contained Cu Tsol (k lbs)
Total Inferred	474,000	0.41	0.25	3,839,900	2,387,500

#### NOTES:

- 1. Total soluble copper grades (Cu TSol) are reported using sequential assaying to calculate the soluble copper grade. Tons are reported as short tons.
- 2. Stockpile resource estimates have an effective date of 1<sup>st</sup> March, 2022, Project mineral resource estimates have an effective date of 29<sup>th</sup> April, 2022, Parks/Salyer-MainSpring mineral resource estimates have an effective date of 11th July, 2024. All mineral resources use a copper price of US\$3.75/lb.
- 3. Technical and economic parameters defining mineral resource pit shells: mining cost US\$2.43/t; G&A US\$0.55/t, 10% dilution, and 44°-46° pit slope angle.
- 4. Technical and economic parameters defining underground mineral resource: mining cost US\$27.62/t, G&A US\$0.55/t, and 5% dilution. Underground mineral resources are only reported for material located outside of the open pit mineral resource shells. Designation as open pit or underground mineral resources are not confirmatory of the mining method that may be employed at the mine design stage.
- 5. Technical and economic parameters defining processing: Oxide heap leach ("**HL**") processing cost of US\$2.24/t assuming 86.3% recoveries, enriched HL processing cost of US\$2.13/t assuming 90.5% recoveries, sulphide mill processing cost of US\$8.50/t assuming 92% recoveries. HL selling cost of US\$0.27/lb; Mill selling cost of US\$0.62/lb.
- 6. Royalties of 3.18% and 2.5% apply to the ASCU properties and state land respectively. No royalties apply to the MainSpring property.
- 7. Variable cut-off grades were reported depending on material type, potential mining method, potential processing method, and applicable royalties. For ASCU properties Oxide open pit or underground material = 0.099% or 0.549% Cu TSol respectively; enriched open pit or underground material = 0.092% or 0.522% Cu TSol respectively; primary open pit or underground material = 0.226% or 0.691% CuT respectively. For state land property Oxide open pit or underground material = 0.098 % or 0.545% Cu TSol respectively; enriched open pit or underground material = 0.092% or 0.518% Cu TSol respectively; primary open pit or underground material = 0.225% or 0.686% CuT respectively. For MainSpring properties Oxide open pit or underground material = 0.096% or 0.532% Cu TSol respectively; enriched open pit or underground material = 0.089% or 0.505% Cu TSol respectively; primary open pit or underground material = 0.219% or 0.669% CuT respectively. Stockpile cutoff = 0.095% Cu TSol.
- 8. Mineral resources, which are not mineral reserves, do not have demonstrated economic viability. The estimate of mineral resources may be materially affected by environmental, permitting, legal, title, sociopolitical, marketing, or other relevant factors.
- 9. The quantity and grade of reported inferred mineral resources in this estimation are uncertain in nature and there is insufficient exploration to define these inferred mineral resources as an indicated or measured mineral resource; it is uncertain if further exploration will result in upgrading them to an indicated or measured classification.
- 10. Totals may not add up due to rounding

**FIGURE 4: Project Mineral Resources** 



# **Metallurgical Testwork**

Metallurgical testwork used for the PEA shows good metallurgical recoveries from all deposits with no deleterious elements. Testing in the PEA shows an average of 73% of total copper extracted overall. A column leach testing program for oxides and enriched sulphides, from Parks/Salyer and the Stockpile, is ongoing at BaseMet and McClelland labs (Tucson, AZ and Reno, NV, respectively). Primary sulphide column leaching is expected to begin in the fourth quarter.

## **Project Overview**

The Project is a brownfield project located approximately 6 mi (10 km) northwest of the city of Casa Grande and 40 road miles south-southwest of the Greater Phoenix metropolitan area in Arizona. The Greater Phoenix area is a major population centre (approximately 4.8 million persons) with a major airport and transportation hub and well-developed infrastructure and services that support the mining industry. The Cactus Mine Project is accessible on North Bianco Road off of West Maricopa-Casa Grande Highway with direct access to interstate highway 10. During historic ASARCO operations (1974-1984), a rail spur was connected directly with the United Pacific Railroad to ship concentrates to its El Paso refinery in Texas; while the spur has been removed, the onsite rail line is still in existence. Current onsite infrastructure includes power lines and substation, water wells and a water pond, geological buildings, core sheds and administrative offices, keeping the capital intensity low and demonstrating robust economics.

The Project is host to a large porphyry copper system that has been dismembered and displaced by Tertiary extensional faulting. The major host rocks are Precambrian Oracle Granite and Laramide monzonite porphyry and quartz monzonite porphyry. The mine trend features the formation of horst and graben blocks of mineralization where the Cactus deposits are situated, extending from the Cactus East deposit, southwest to the Parks/Salyer deposit. Drilling to the northeast and southwest along the trend indicates that mineralization continues in both directions and at depth at the Cactus West deposit.

## Ownership, Social License and Permitting

The Project is 100% controlled by ASCU through its wholly owned subsidiary Cactus 110 LLC and encompasses an area of approximately 5,720 acres. The Project includes exploration and mining on private

land and on two Arizona State Land Department ("ASLD") leases. There is no federal nexus for permitting the project and all permitting is limited to State of Arizona-required permits including the Aquifer Protection Permit, Industrial Air permits and the Mined Land Reclamation Permit, each of which ASCU has received from state regulators. Modifications will be required to address changes in the mine plan presented in the PEA.

Of the 5,720 acres, 4,732 acres are considered fee simple and private land. The remaining acreage is State land where ASCU owns either the surface or mineral rights and is in the process of acquiring the surface rights from the State.

ASCU has a well-developed community engagement plan that it has implemented through numerous public meetings and outreach. With the presence of legacy mining in the Casa Grande area and the determination of Cactus as a "brownfield" and disturbed site, the local community is supportive of the Project. The Company anticipates the Project to create multiple decades of high paying jobs that will benefit the local communities and the state. There is no significant opposition to the Project.

# **Royalties**

The Project is subject to three net smelter return ("NSR") royalties based on potential mining production. The MainSpring property does not contain any royalties. The Tembo/Elemental Altus NSR royalty applied to the originally acquired land package including, Cactus and Parks/Salyer may be reduced to 2.54% from 3.18%, with a total payment of \$8.9 million. On a portion of the Parks/Salyer deposit, BCE holds a 1.5% NSR royalty, with an option to reduce it to 0.5% for payment of \$0.5 million, and ASLD owns a sliding net return royalty (2.0% to 8.0% and estimated at 2%), payable to ASLD and the State Trust. ASCU will formalize the royalty percentages with ASLD once the Company submits a Mineral Development Report to ASLD, thus converting the existing Mineral Exploration Permit, to a Mineral Lease.

# Opportunities and Next Steps, including Nuton Technologies

## **Technical Studies**

Following the issuance of the PEA, the anticipated next steps for the Project include a PFS (which is expected to be completed in 1H2025) (the "2025 PFS"), followed by an early works program, and expects to initiate a Feasibility Study in 2H2025. The Company is planning Project financing for the Project in conjunction with a potential construction decision.

It is expected that the 2025 PFS will include the major economic and operational rescope; specifically, rescoping Parks/Salyer to an open pit and the additional integration of the Nuton Technologies. Infill drilling programs are planned for Parks/Salyer composing the first 10 years of operations, and into Cactus West for the expansion of primary mineralization suitable for leaching via the Nuton Technologies. Pursuant to the option to joint venture agreement entered into between ASCU and Nuton, a PFS which includes the application of the Nuton Technologies should be issued no later than December 31, 2024, unless mutually extended by written agreement of both parties. Assuming both ASCU and Nuton agree to an extension of such PFS, completion is expected in 1H2025. Completion of the 2025 PFS will require the completion of infill to indicated drilling and updated metallurgical studies, including Phase 2 Nuton metallurgical testing.

Parks/Salyer's grade, scale and scope secures it as the main contributor from day one to the Project. Cactus West, drilling and finding more primary material. Any future work on the project is not expected to change the mine plan within the first 10 to 15 years of the operation. It provides further optionality on a robust standalone plan.

An Early Works program is in the early phases of being defined and planned for mid-2025, dependent upon funding. The program includes executing the permitting and bonding requirements and optimizing a prestripping program for the Parks/Salyer pit. Due to the brownfield nature of the project, roads, power and onsite administration buildings are currently in place.

# **Nuton Opportunity**

The PEA proposes a robust standalone project incorporating conventional leaching technology. In order to capitalize on the primary sulphides, initial test work has validated the application of Nuton proprietary technology. As per the strategy outlined in the option to Joint Venture ("JV") news release, dated December 14, 2023, Phase 2 metallurgical testing and Cactus West pit expansion drilling targeting the primary sulphides will be included to the 2025 PFS.

Nuton LLC, a Rio Tinto Venture, is a copper heap leaching technology. Nuton™ became a shareholder in 2022, and a potential JV partner in late 2023. Its Nuton™ suite of proprietary technologies provide opportunities to leach both primary and secondary copper sulfides, providing significant opportunity to optimize the mine plan and the overall mining and processing operations.

# **Other Future Opportunities**

The project has several other opportunities available to continue the optimization of the operation.

- The addition of an In-Pit-Crush-Convey (IPCC) for waste handling instead of truck haulage will be evaluated for improvement in the economics of the project.
- There is a potential to access the high-grade Parks/Salyer material earlier, by moving the Parks/Salyer open pit centroid further northward

## **Quality Assurance and Quality Control Procedures**

Skyline Labs is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. Their quality management system has been certified as conforming to the requirements defined in the International Standard ISO 9001:2015. The standard operating procedure (SOP) used while processing the ASCU samples was to process samples in groups of 20. Each tray consisted of 18 samples with samples No. 1 and No. 10 repeated as duplicates. The results from each tray were analyzed and any variance in the duplicates of more than 3% would result in the entire tray being re-assayed.

The results of these analyses, including the QA/QC checks, were transmitted to a select set of individuals at ASCU and the qualified persons.

## **Qualified Persons**

Each of the persons listed below are authors preparing the 2024 PEA and have reviewed and verified the contents of this MD&A as it relates to their area of responsibilities. By virtue of their education, experience and professional association membership, each of the below listed persons are considered "qualified person" as defined by NI 43-101.

Scientific and technical aspects of this MD&A have been reviewed and verified by these Qualified Person's listed below and Dan Johnson, ASCU Director of Projects, as defined by National Instrument 43-101.

Project Management, M3 Engineering, John Woodson, PE, SME-RM

Metallurgy, M3 Engineering, Laurie Tahija, QP-MMSA

Mineral Resources, Allan L. Schappert, CPG, SME-RM, ALS Geo Resources LLC

**Water and Environmental**, R. Douglas Bartlett, CPG, PG. Clear Creek Associates, a subsidiary of Geo-Logic Associates

Mine Planning, Gordon Zurowski, P.Eng., AGP Mining Consultants Inc.

# Permitting

The Project is situated on private land and will require the following major permits and certifications:

- 1. Arizona Department of Water Resources ("ADWR")'s Withdrawal of Ground Water for Mineral Extraction & Mineral Processing Permit: This permit is required for ground water withdrawal for mining operations. This permit was obtained in April 2021 and extends for 50 years, which is beyond the life of the Project.
- 2. The ADEQ's Aquifer Protection Permit ("APP"): This permit is required for owners or operators of facilities that could discharge a pollutant directly to an aquifer or to a land surface or vadose zone where there is a reasonable probability that the pollutant will reach an aquifer. The permit is valid for the life of the facility. This permit was obtained by ASCU for the Stockpile Project in July 2021 and becomes effective upon demonstration of financial capability submitted along with an amendment application in respect of the full Project. The Company will require a second amendment based on the re-scoped operations under the 2024 PFS.
- 3. Pinal County's Air Quality Control Permit: This permit is required for operations that have the potential to generate fugitive dust. This permit was obtained by the Company in January 2020 and is renewed yearly based on operational need.
- **4.** ADEQ's Arizona Pollutant Discharge Elimination System ("AZPDES") Permits (construction and Multi-Sector General Permit): This permit is for stormwater discharges that enter Arizona surface waters or a Municipal Separate Storm Sewer System. This permit was obtained for both the mine facility and the nearby TruStone facility which is situated on Company property.
- **5.** Pinal County's Industrial Air Quality Control Permit: This permit is required for operations that have the potential to generate particulate matter PM10 and/or PM2.5 that can affect air quality. This permit is renewed yearly and was received in May 2023. Pending the 2024 PFS mine plan, an amendment will be required. See "Company Highlights Year to date 2024 Exploration Updates" and news release dated May 15, 2023, for details on the permit received.
- **6.** Arizona State Mine Inspector, Mined Lands Reclamation Permit: This permit relates to all metalliferous mining units and exploration operations with surface disturbances on private lands greater than five acres and has been received by the Company. Based on the pending 2024 PFS mine plan, an amendment may be required. The Company received this permit in March 2023. See "Company Highlights Year to date 2024 Exploration Updates" and news release dated April 3, 2023, for details on the MLRP permit received.

In addition, the United State Army Corp. Of Engineers ("USACE") Jurisdictional Determination 404 was received in February 2022. This is a determination as to whether Waters of the U.S. ("WOTUS") are onsite or if the water on site contributes to a WOTUS waterway. ASCU received a determination that the Project does not impact WOTUS, and therefore no Federal Permitting will be required. The Company continues to make good progress in relation to the permitting process and will continue to advance required applications as required as per the development plans.

## **RESULTS OF OPERATIONS**

	Three months ended			Six months ended		
	•		June 30, 2023	June 30, 2024	June 30, 2023	
Expenses						
Salaries and wages	\$	267 \$	282	\$ 485	\$ 470	
Share based compensation		391	419	842	1,228	
Professional fees		180	103	291	193	
Directors fees		144	171	307	332	
Marketing and administration		190	198	500	500	
Loss before other items		1,172	1,173	2,425	2,723	
Other expenses/(income)						
Accretion		298	-	599	-	
Finance expenses and FX		59	(444)	233	(298)	
Depreciation, depletion and amortization		17	3	33	31	
Loss on marketable securities		-	12	-	18	
Interest income		(150)	(288)	(307)	(479)	
Other expense/(income)		· -	(4)	-	-	
Loss on transaction		-	2,326	-	2,326	
(Gain)/loss on incentive plan		(73)	-	(247)	(1,143)	
Loss/(Income) from other expenses		151	1,605	311	455	
Loss and comprehensive loss for the period	\$	1,323 \$	2,778	\$ 2,736	\$ 3,178	

# For the three and six-months months ended June 30, 2024, as compared to the three and six-months ended June 30, 2023

During the three months ended June 30, 2024, the Company had a loss of \$1.3 million compared to a loss of \$2.8 million for the three months ended June 30, 2023, decreasing primarily due to a transaction loss in 2023 due to a cyber security incident, and less interest income, partially offset by higher accretion on provisions for MainSpring. The Company had a loss of \$2.7 million in H1/2024 compared to \$3.2 million for the same period in 2023 decreasing for the same items noted above as well as a lower gain on incentive plans, partially offset by lower share based compensation costs.

During the three and six-months ended June 30, 2024, the total loss from operational expenses was \$1.2 million and \$2.4 million, respectively. The decrease in the six-month period is due lower share based compensation costs, with other costs in the guarter being comparable to the same period in the prior year.

The Company's loss from other expenses totaled \$0.2 million and \$0.3 million during the three and sixmonth periods, respectively, ended June 30, 2024. This compares to \$1.6 million and \$0.5 million during the three and six-months ended June 30, 2023, a decrease of \$1.4 million and \$0.2 million, respectively. A significant portion of the decrease is due to a transaction loss in 2023 due to a cyber security incident, higher foreign exchange losses and lower gains on incentive plan accruals than in H1/2023.

# **Summary of Quarterly Results**

The following table sets out selected unaudited quarterly financial information of the Company and is derived from, and should be read in conjunction with, the respective unaudited interim condensed financial statements.

Period	Revenues \$ (000's)	Loss for the period \$ (000's)	Loss per share (basic and diluted) \$
2nd Quarter 2024	Nil	1,323	0.01
1st Quarter 2024	Nil	1,413	0.01
4th Quarter 2023	Nil	2,383	0.02
3rd Quarter 2023	Nil	1,428	0.01
2nd Quarter 2023	Nil	2,778	0.03
1st Quarter 2023	Nil	400	0.00
4th Quarter 2022	Nil	1,125	0.01
3rd Quarter 2022	Nil	1,256	0.01

The Company is at an advanced exploration stage of the Project and advancing technical studies and improving mineral resources and reserves, and its quarterly information is expected to vary based on the overall general and administrative expenditures, and to a lesser extent, exploration activities as expenditures on mineral properties are generally capitalized. The principal cause of fluctuations in the Company's quarterly results is the expenditure level on exploration and development projects, which directly impacts the Company's general and administrative costs. Factors generally causing significant variations in results between quarters include salary and wages costs, share-based compensation, accounting gains and foreign exchange gains/losses. See operating results, above, for discussion of movement in net income (loss) and comprehensive income (loss) for the quarter ended June 30, 2024, as compared to the same period in 2023.

## **RISKS AND UNCERTAINTIES**

Like all mineral exploration and development companies, Arizona Sonoran also continues to be subject to ongoing risks and uncertainties and other factors, which among others, include: dependence on the success of the Project as the principal operation of the Company; changes in exploration, development or mining plans due to exploration results and/or changing budget priorities of ASCU or its joint venture partners; risks relating to the implementation and cost relating to the Nuton<sup>TM</sup> technologies; reliance on the availability of funding from third parties or partners; climate change; impact of obtaining access to water; estimates of capital cost and operating costs may be lower than actual costs; errors in geological modelling or changes in any of the assumptions underlying the 2024 PFS and 2024 PEA; obtaining further financing to fund anticipated exploration and development work; international conflict in the Ukraine and the Middle East and their effects on global financial markets and supply chains; and other liquidity risks (see also "Financial Accounting and Reporting Processes") and "Risk Factors" in the Company's AIF.

The following *Risks and Uncertainties* pertain to the outlook and conditions currently known to Arizona Sonoran that could have a material impact on the financial condition of the Company. A discussion of these and other factors that may affect the Company's actual results, performance, achievements, or financial position is contained under the heading "*Risk Factors*" and elsewhere in the Company's AIF. Such factors include, but are not limited to political risks, title risks, commodity prices, exchange rate risks, permitting risks, operating and environmental hazards encountered in the exploration, development and mining business and changing laws and public policies.

Current and prospective security holders of Arizona Sonoran should carefully consider these risk factors. Should the development of the Project not be possible or practicable for any reason, the business and financial position of the Company would be materially adversely affected.

## LIQUIDITY AND CAPITAL RESOURCES

As at June 30, 2024, the Company's cash balance was \$11.0 million which includes \$2.7 million of cash for the Nuton Phase 2 work (December 31, 2023 - \$10.5 million) and working capital of \$1.2 million (December 31, 2023 - \$12.3 million).

The business of mining and exploration involves a high degree of risk and there can be no assurance that current exploration and development programs will result in profitable mining operations in the future. The Company currently has no source of revenue and has significant cash requirements to fund its development project capital requirements, exploration programs, administrative overhead, and to maintain its mineral properties in good standing.

The Financial Statements are prepared on a going concern basis, which assumes that the Company will be able to meet its obligations and continue its operations for at least the next twelve months. They do not reflect the adjustments to carrying values of assets and liabilities and the reported expenses and balance sheet classifications that would be necessary if the going concern assumption was deemed inappropriate. These adjustments could be material.

The Company has incurred significant operating losses and negative cash flows from operations and has limited working capital due to its commitments falling due within the next twelve months. The Company can adjust its discretionary expenditures to ensure it will continue as a going concern while pursuing additional financing alternatives. As outlined herein, the Company has, in the past, financed the majority of its activities by raising capital through equity issuances.

The Company will need to obtain financing in the form of debt, equity, or a combination thereof before the end of the fiscal year to continue with its planned non-discretionary and discretionary operational activities. In the absence of any additional financing, management projects that the Company will need to obtain additional funds before the end of the fiscal year. While the Company currently expects to raise additional funds to fund ongoing operations and its Commitments, the outcome remains unknown, and these material uncertainties may cast significant doubt upon the Company's ability to continue as a going concern. While management believes that the Company will be able to meet its funding requirements in the ordinary course, there is no guarantee that the Company will be able to maintain sufficient working capital in the future or continue its operations and development of its properties as currently contemplated due to market, economic and commodity price fluctuations.

The Company's capital consists of debt and equity, which includes share capital, reserves and deficit. The Company's objectives are to maximize shareholder returns and share value by ensuring sufficient financial flexibility to achieve its ongoing business objectives including funding of future growth opportunities and future potential accretive opportunities.

The Company manages its capital through its budgeting and forecasting processes. The Company reviews its working capital and forecasts its future cash flows based on operating expenditures, and other investment and financing activities.

To achieve its objectives, the Company may issue new shares, adjust capital and operating expenditures and acquire additional property. There is no assurance that these initiatives will be successful.

# **Operating Activities**

During the six months ended June 30, 2024, the cash used in operating activities was a total of \$7.8 million (June 30, 2023 - \$1.4 million).

# **Investing Activities**

The Company's cash used in investing activities for the six months ended June 30, 2024 was \$11.3 million (June 30, 2023 - \$19.7 million) primarily spent in connection with exploration and evaluation expenditures on mineral properties and property option and land payments.

# **Financing Activities**

In the six months ended June 30, 2024, the Company's cash provided by financing activities was \$19.6 million (June 30, 2023 - \$24.9 million) primarily consisting of deposits received from Nuton for phase 2 work and preliminary economic assessment ("PEA") work under the Option Agreement.

#### RELATED PARTY TRANSACTIONS

As at June 30, 2024, no material amounts were owed to or from the Company by key management personnel (June 30, 2023 – Nil).

The remuneration of the key executive management and directors was as follows:

	June 30,	June 30,
	2024	2023
Salaries and wages	\$ 922	\$ 639
Salaries and wages capitalized as exploration	403	334
Share-based compensation*	523	932
Directors' fees	307	288
	\$ 2,155	\$ 2,193

<sup>\*</sup>Share-based compensation includes shares issued for services, stock options and restricted share units ("RSUs").

#### CRITICAL ACCOUNTING ESTIMATES AND JUDGMENTS

The preparation of the consolidated financial statements in accordance with IFRS Accounting Standards requires management to make estimates and assumptions that affect the application of policies and reported amounts of assets and liabilities, income and expenses. The estimates and associated assumptions are based on historical experience and various other factors that are believed to be reasonable under the circumstances, the results of which form the basis of making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results could differ from these estimates.

In preparing the interim condensed consolidated financial statements, the significant judgments made by management in applying the Company's accounting policies and key sources of estimation uncertainty were the same as those applied to the annual audited consolidated financial statements for the year ended December 31, 2023.

## FINANCIAL INSTRUMENTS

## **Fair Value**

The Company's financial instruments as at June 30, 2024 consist of cash, marketable securities, accounts payable, accruals, other short and long term liabilities. The carrying values of all other financial assets and financial liabilities approximate their fair value with the exception of the MainSpring PSA provisions at amortized cost.

# **Management of Financial Risk**

# Currency risk

The Company is exposed to financial risk due to changes in foreign exchange rates. The Company operates in the United States and Canada, and a portion of its expenses are incurred in Canadian dollars. A significant change in the exchange rates between the Canadian dollar relative to the US dollar could have an effect on the Company's results of operations, financial position and cash flows. The Company has not hedged its exposure to currency fluctuations. At June 30, 2024, the Company is exposed to currency risk through its cash and cash equivalents denominated in Canadian dollars totaling \$4.5 million.

Based on the exposure as at June 30, 2024, and assuming that all other variables remain constant, a 10% depreciation or appreciation of the US dollar against the Canadian dollar would result in an increase/decrease of approximately \$0.3 million in the Company's loss for the quarter.

# Credit risk

Credit risk is the risk of an unexpected loss if a customer or third party to a financial instrument fails to meet its contractual obligations. The maximum credit risk the Company is exposed to is 100% of cash and cash equivalents and receivables.

The Company's cash is held in large Canadian and U.S. financial institutions. The Company does not deem that it has significant credit risk exposure.

## Liquidity risk

Liquidity risk is the risk that the Company will not be able to meet its financial obligations as they fall due. The Company has a planning and budgeting process in place to help determine the funds required to support the Company's normal operating requirements on an ongoing basis. The Company ensures that there are sufficient funds to meet its short-term business requirements by taking into account anticipated cash expenditures for its exploration and operational activities. The Company will pursue additional equity or debt financing as required to meet its long-term commitments. There is no assurance that such financing will be available or that it will be available on favorable terms. See Description of the Business and Going Concern (Note 1).

As at June 30, 2024, the contractual undiscounted future cash flows of the Company's significant financial liabilities are as follows:

				Total cash flows at
	< 6	6 – 12	1 - 2	June 30,
	months	months	years	2024
Financial liabilities at fair value:				
Current portion of Nuton deposit	-	2,649	-	2,649
DSU liability	-	-	718	718
Financial liabilities at amortized cost:				
Accounts payable	1,016	-	-	1,016
Accruals	480	-	-	480
Nuton deposit	-	-	5,164	5,164
Lease liabilities	32	10	-	42
Other current liabilities	141	5,942	-	6,083
	1,669	8,601	5,882	16,152

As at June 30, 2024, the carrying values of all financial assets and financial liabilities approximate their fair value with the exception of the current Mainspring PSA promissory note detailed in Note 5 of the Financial Statements at amortized cost, which has a fair value at June 30, 2024 of \$5,172. In the event that change of control occurs, such that the Option Agreement is terminated, the Company will have to repay the \$10 million Option Exclusivity Payment.

The Option Exclusivity Payment is considered a level 3 instrument in the fair value hierarchy as one or more of the significant inputs is not based on observable market data. This is the case for unlisted instruments where risk could give rise to a significant unobservable adjustment. See Note 6 of the Financial Statements for details.

#### CHANGES IN ACCOUNTING POLICIES INCLUDING INITIAL ADOPTION

There were no material amendments that are effective for reporting periods beginning on or after January 1, 2024 affecting the Financial Statements.

## **COMMITMENTS AND CONTINGENCIES**

The Company has future exploration and evaluation expenditure obligations which are at the option of the Company with respect to its land agreements:

## **Trust Lands**

 Based on the achievement of certain development milestones, the Company is obligated to make future payments to TAGC Ventures LLC of up to \$750 in connection with the purchase of Trust lands.

## LKY

• The final \$5.0 million is due for the LKY Purchase on the fifth anniversary of the closing date on February 10, 2027.

#### Nuton

 As at June 30, 2024, an amount of \$2.6 million has been received for Phase 2 work that will have to be repaid if not spent on Nuton Phase 2 test work. On July 30, 2024, an amount of \$2.8 million has been received for Nuton Phase 2 work. • In the event that change of control occurs, such that the Option Agreement is terminated, the Company will have to repay the \$10 million Option Exclusivity Payment.

## **OFF-BALANCE SHEET ARRANGEMENTS**

The Company does not have any off-balance sheet arrangements.

## **AUTHORIZED AND ISSUED SHARE CAPITAL**

As at August, 2024, the Company had 109,471,144 outstanding common shares. The Company also had 6,951,739 share purchase options, 894,054 restricted share units, 768,321 deferred share units and 161,616 warrants outstanding.

## **NON-IFRS PERFORMANCE MEASURES**

This MD&A contains certain non-IFRS measures, including sustaining capital, sustaining costs, C1 cash costs and AISC. This performance measure has no standardized meaning within generally accepted accounting principles under IFRS Accounting Standards and, therefore, amounts presented may not be comparable to similar data presented by other companies. This 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 Accounting Standards.

Management believes working capital is a valuable indicator of liquidity. Working capital is calculated by deducting current liabilities from current assets. Current Liabilities and current assets are the two most directly comparable measures prepared in accordance with IFRS Accounting Standards.

## CHANGES IN INTERNAL CONTROL OVER FINANCIAL REPORTING

There have been no changes in the Company's internal control over financial reporting during the three and six-months ended June 30, 2024 that have materially affected, or are reasonably likely to materially affect, its internal control over financial reporting.

## FORWARD-LOOKING INFORMATION

This document contains "forward-looking information" within the meaning of Canadian securities legislation and "forward-looking statements" within the meaning of the United States Private Securities Litigation Reform Act of 1995. This information and these statements, referred to herein as "forward-looking statements" are made as of the date of this MD&A or as of the date of the effective date of information described in this MD&A, as applicable. Forward-looking information includes statements that use forwardlooking terminology such as "may", "could", "would", "will", "intend", "plan", "expect", "budget", "estimate", "forecast", "schedule", "anticipate", "believe", "continue", "potential" or the negative or grammatical variation thereof or other variations thereof or comparable terminology. Such forward-looking information includes. without limitation, statements with respect to mineral resource estimates and mineral reserves estimates of the Project (and the assumptions underlying such estimates); the ability of exploration work (including drilling) to accurately predict mineralization; targeting additional mineral resources and expansion of deposits; the capital and operating cost estimates and the economic analyses (including cashflow projections) from 2024 PFS; the Company's expectations, strategies and plans for the Project, including the Company's planned exploration, drilling, development, construction or other activities of the Company and the results of these activities; the focus of the 2024 work plan at the Project, including the Parks/Salyer Project and MainSpring Property; 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 in respect of the 2024 PFS and 2024 PEA; the results (if any) of further exploration work to define and expand or upgrade mineral resources and reserves at ASCU's properties; the estimated completion dates for certain milestones, including the completion of a preliminary economic assessment in respect of the MainSpring Property and the Nuton PFS (if at all); the scope of any future technical reports and studies conducted by ASCU; successfully adding or upgrading mineral resources or reserves and successfully developing new deposits; the impact of bringing the MainSpring Property into the mine plan; the robust economics and opportunity represented by the Project; the impact of the Nuton<sup>TM</sup> technologies on ASCU's operations, costs and the development of the Project; the impact of the relationship with Nuton on ASCU and its operations; the costs and timing of future exploration and development, including the timing for completion and commencement of production; the timing and amount of future production at the Company's projects; the timing, receipt and maintenance of approvals, licenses and permits from the federal and state government agencies and from any other applicable government, regulator or administrative body; the acquisition of the landholdings; future financial or operating performance and condition of the Company and its business, operations and properties; the intended use of the net proceeds for any offerings; the adequacy of funds from any offerings to support completion of the continued development of the Company's projects and commence commercial production; the Company's plans to remediate the material weakness in its internal control over financial reporting; and any other statement that may predict, forecast, indicate or imply future plans, intentions, levels of activity, results, performance or achievements.

Forward-looking information is not a guarantee of future performance and is based upon a number of estimates and assumptions of management, in light of management's experience and perception of trends, current conditions and expected developments, as well as other factors that management believes to be relevant and reasonable in the circumstances, at the date of publication of the information including, without limitation, assumptions about: favorable equity and debt capital markets; the ability to raise any necessary additional capital on reasonable terms to advance the development of the Company's projects and pursue planned exploration; future prices of copper and other metal prices; the timing and results of exploration and drilling programs; the compliance by partners to abide by the terms of agreements; the accuracy of any mineral resource and reserve estimates; the geology of the Company's projects being as described in relevant technical documents; the ability to successfully apply the Nuton™ technologies on ASCU's properties and the impact on same; the metallurgical characteristics of the Company's projects being suitable for processing; the successful operation of the processing facility; production costs; the accuracy of budgeted exploration and development costs and expenditures, including to complete development of the infrastructure at the Company's projects; the acquisition of land for project advancement; the price of other commodities such as fuel; future currency exchange rates and interest rates; operating conditions being favorable, including whereby the Company is able to operate in a safe, efficient and effective manner; political and regulatory stability; the receipt of governmental and third party approvals, licenses and permits on favorable terms; obtaining required renewals for existing approvals, licenses and permits and obtaining all other required approvals, licenses and permits on favorable terms; sustained labor stability; stability in financial and capital goods markets; availability of equipment; and the ability of the Company to remediate material weaknesses in its internal control over financial reporting. Whilst the Company considers these assumptions to be reasonable, the assumptions are inherently subject to significant business, social, economic, political, regulatory, competitive and other risks and uncertainties, contingencies and other factors that could cause actual actions, events, conditions, results, performance or achievements to be materially different from those projected in the forward-looking information. Many assumptions are based on factors and events that are not within the control of the Company and there is no assurance they will prove to be correct.

Furthermore, such forward-looking information involves a variety of known and unknown risks, uncertainties and other factors which may cause the actual plans, intentions, activities, results, performance or achievements of the Company to be materially different from any future plans, intentions, activities, results, performance or achievements expressed or implied by such forward-looking information. Such risks include, without limitation: copper prices are volatile and may be lower than expected; product

alternatives may reduce demand for the Company's products; estimating mineral reserves and mineral resources is risky and no assurance can be given that such estimates will be achieved; nature of mineral exploration, development and mining involves significant financial risks; dependence on the success of the Project as the principal operation of the Company; the Company may not be able to obtain further financing and continue as a going concern; changes in exploration, development or mining plans due to exploration results and/or changing budget priorities of ASCU or its joint venture partners; risks relating to the implementation and cost relating to the Nuton™ technologies; the Company's reliance on the availability of funding from third parties or partners; the Company is reliant on appropriate governmental authorities to obtain, renew and maintain the necessary permits for Company operations; estimates of capital cost and operating costs may be lower than actual costs; errors in geological modelling or changes in any of the assumptions underlying 2024 PFS (including the assumptions underlying such 2024 PFS as will be determined in the technical report to be filed in support of the 2024 PFS); geological hydrological and climatic events could suspend future mining operations or increase costs; title to mineral properties may be challenged or impugned; social and environmental activism can negatively impact exploration, development and mining activities; operations during mining cycle peaks are more expensive; mining operations are very risky and project parameters may continue to change as plans continue to be refined; inadequate infrastructure may constrain mining operations; risks from unknown hazards; changes in climate conditions may affect the Company's future operations; substantial government regulation and changes to regulation or more stringent implementation of regulations could have a material adverse effect on the Company's operations and financial condition; regulation of greenhouse gas emissions and climate change issues may adversely affect the Company's operations and markets; risks associated with changing environmental legislation and regulations; the mining industry is intensely competitive; the Company may incur losses and experience negative operating cash flow for the foreseeable future; the Company's insurance coverage may be inadequate and result in losses; currency fluctuations can result in unanticipated losses; reduction in share prices due to global financial conditions; outbreaks of diseases and public health crisis; and international conflict, geopolitical tensions or war. Although the Company has attempted to identify important factors that could cause actual actions, events, conditions, results, performance or achievements to differ materially from those described in forward-looking information, there may be other factors that cause actions, events, conditions, results, performance or achievements to differ from those anticipated, estimated or intended. A discussion of certain factors, which is included in the AIF, should be carefully considered before deciding to invest.

The Company cautions that the foregoing lists of important assumptions and factors are not exhaustive. Other events or circumstances could cause actual results to differ materially from those estimated or projected and expressed in, or implied by, the forward-looking information contained herein. There can be no assurance that forward-looking information will prove to be accurate, as actual results and future events could differ materially from those anticipated in such information.

When relying on forward-looking statements, investors and others should carefully consider the foregoing factors and other uncertainties and potential events. The Company does not undertake to update any forward-looking statement, whether written or oral, that may be made from time to time by the Company or on behalf of the Company, except as required by law.

#### **APPROVAL**

The Audit Committee on behalf of the Board of Directors of Arizona Sonoran Copper Company Inc has approved the disclosure contained in this MD&A.