

## **ASX Announcement**

14 July 2023

# QUARTERLY ACTIVITY REPORT FOR THE PERIOD ENDED 30 JUNE 2023

# Highlights:

- High-grade rock chips up to 7.28% Cu, 18.65g/t Au and 55g/t Ag and other work continue to expand the mineralised footprint of the large Llahuin Copper-Gold-Moly Porphyry Project in Chile
- A 27.5% increase in the JORC Mineral Ore Resource at the 100% owned Los Pumas Battery Metal Manganese Project in Northern Chile to 30.26 Million Tonnes of Ore and subsequent plan to spin out this advancing project into Titan Battery Minerals Technology Pty Ltd

Southern Hemisphere Mining Limited ("Southern Hemisphere" or "the Company") (ASX: SUH, FWB: NK4) reports the quarterly activity report for the period ended 30 June 2023.



Figure 1 Location Map of Llahuin Project - Chile

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#### **EXPLORATION ACTIVITIES**

## Llahuin Copper-Gold-Moly Porphyry Project 100%

During the quarter under review, the Company continued its soil, rock chip sampling, mapping programs and its extensive relogging of historical drill holes to understand newly-discovered veins hosting high-grade mineralisation occurring in swarms within the porphyry breccia. The team on site also completed over 4,000 pulp composites which have been multi-element analysed by in-house Pxrf to assist with understanding the multi-element signature of the deposit. The relogging and Pxrf work will assist with the new geological interpretation later this year. This understanding is a vital part of refining the highly anticipated drill program scheduled for the 4th quarter this year.

On 19 April 2023, the Company reported that the geological mapping of areas previously unexplored within the project area continued and identified additional mineralised veins in areas outside known resources in the project area.

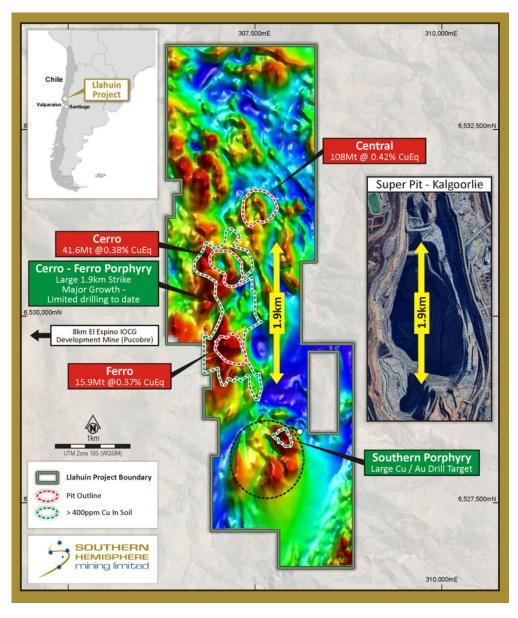


Figure 2 Project map showing the large growth target at Cerro-Ferro deposits link and comparative scale to the Kalgoorlie Super-Pit

The Company also panned gold in five samples taken from a 500m stretch north of the resource zone at the 1.9km-long Cerro Ferro porphyry-hosted geochemistry target.

From the newly-discovered outcropping quartz veins a best result of 18.65g/t gold, with another sample just 4m away returned 7.56g/t gold.

Several high-grade copper veins were also found west of Ferrocarril porphyry deposit returning results of up to 7.28% copper. (Refer ASX Announcement, dated 19 April 2023 – High-Grade Rock Chips Up To 7.28% Cu, 18.65g/t Au & 55g/t Ag).



Figure 3 Panned gold tail (near sample 22LHR000297 and 299)

#### Los Pumas Battery Metals Manganese Project 100%

On 3 May 2023, the Company reported a substantial JORC mineral resource upgrade for its wholly owned Los Pumas Battery Metals Manganese Project in northern Chile to 30.26 million tonnes of ore, including 23.3 million tonnes in the indicated category.

The resource upgrade now concludes the exploration stage of this long-life battery metals manganese project and moves it to the scoping and metallurgical study phase. The advance also marks a milestone in the Company's plans to provide high-quality resources for the production of High-Purity Manganese at site. (Refer ASX Announcement, dated 3 May 2023 – JORC Mineral Resource Estimate Update- Los Pumas Project).

# **CORPORATE ACTIVITIES**

Payments to related parties during the quarter totalled \$66,537 which included directors fees, superannuation, consulting fees, reimbursements, office lease and equipment rental.

# Approved by the Board of Directors

#### **CONTACTS:**

For further information on this announcement or the Company generally, please visit our website at www.shmining.com.au or contact the Company.

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#### Ph 08 6144 0590

#### BACKGROUND INFORMATION ON SOUTHERN HEMISPHERE MINING LIMITED:

Southern Hemisphere Mining Limited is an experienced minerals explorer in Chile, South America. Chile is the world's leading copper-producing country and one of the most prospective regions of the world for major new copper discoveries. The Company's projects include the Llahuin Porphyry Copper-Gold Project and the Los Pumas Battery Metals Manganese Project, both of which were discovered by the Company.

# Llahuin Copper/Gold/Moly Project: Total Measured and Indicated Resources - JORC (2004) Compliant. As announced to the market on 18 August 2013.

Resource (at 0.28% Cu Equiv cut-off)	Tonnes Millions	Cu %	Au g/t	Mo %	Cu Equiv*
Measured	112	0.31	0.12	0.008	0.42
Indicated	37	0.23	0.14	0.007	0.37
Measured plus Indicated	149	0.29	0.12	0.008	0.41
Inferred	20	0.20	0.19	0.005	0.36
Total M+I+I	169	0.28	0.128	0.008	0.40

Note: \*Copper Equivalent ("Cu Equiv"): The copper equivalent calculations represent the total metal value for each metal, multiplied by the conversion factor, summed and expressed in equivalent copper percentage. These results are exploration results only and no allowance is made for recovery losses that may occur should mining eventually result. It is the Company's opinion that elements considered have a reasonable potential to be recovered as evidenced in similar multi-commodity natured mines. Copper equivalent conversion factors and long-term price assumptions used are stated below:

#### Notes on copper recovery from historical testwork

- "Recoveries of copper vary between 75% Cu and 91% Cu with the weighted average of the results being 84% Cu, which is a typically
  acceptable commercial level";
- "Recoveries of gold vary between 41% Au and 57% Au, which is in line with expectations given the relatively low gold grades within the deposit": and
- "Flotation concentrates produced during testing contained the resource weighted average copper grade of 28% Cu and 4.9g/t Au. They also contained low levels of deleterious materials in the concentrate. Given that these tests were designed to set parameters and were not optimized, the results indicated good flotation process characteristics".
  - Copper Equivalent Formula=  $Cu \% + Au (g/t) \times 0.72662 + Mo \% \times 4.412$  Price Assumptions- Cu (\$3.40/lb), Au (\$1,700/oz), Mo (\$15/lb)

# Los Pumas Manganese Project: Total Measured and Indicated Resources - JORC (2012) Compliant. As announced to the market on 3 May 2023.

Resource (at 2.5% Mn cut-off)	Tonnes	Mn %	Al%	Fe2O3%	К%	Р%	SiO2%	SG%
Indicated	23,324,038	6.21	5.71	2.78	2.98	0.05	57.07	2.15
Inferred	6,940,715	6.34	5.85	3.05	2.83	0.05	54.61	2.14
Indicated plus Inferred	30,264,753	6.24	5.74	2.84	2.95	0.05	56.50	2.15

Total JORC Resources for the Los Pumas Manganese Project at a 2.5% Mn cut-off.

Metallurgical studies have demonstrated greater than 38% Mn concentrates are achievable by DMS with low impurities and high silica product.

In relation to the above resources, the Company confirms that it is not aware of any new information or data that materially affects the information in the announcements, and all material assumptions and technical parameters in the announcements underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

### **COMPETENT PERSON / QUALIFIED PERSON STATEMENT:**

The information in this report that relates to copper and gold exploration results for the Company's Projects is based on information compiled by Mr Adam Anderson, who is a Member of The Australasian Institute of Mining and Metallurgy and The Australian Institute of Geoscientists. Mr Anderson has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Anderson is a consultant for the Company and consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

### **Tenement List**

Project	Tenement	Interest Acquired during the Qtr	Interest Disposed of during the Qtr	Interest Held at the end of the Qtr
Llahuin	AMAPOLA 1 1 AL 20	-	-	100%
Llahuin	AMAPOLA 2 1 AL 20	-	•	100%
Llahuin	AMAPOLA 3 1 AL 20	-	ı	100%
Llahuin	AMAPOLA 4 1 AL 20 - RED 1/18	-	1	100%
Llahuin	AMAPOLA I 1 AL 228	-	•	100%
Llahuin	AMAPOLA II 1 AL 256	-	-	100%
Los Pumas	AWAHOU 1 AL 20	-	-	100%
Los Pumas	EMANUEL 1 AL 20	-	-	100%
Los Pumas	LLUTA I 1 AL 60 RED 1/54	-	-	100%
Los Pumas	LLUTA II 1 AL 300 RED 1/285	-	-	100%
Los Pumas	PUTRE 6, 1 AL 20 RED 1/11	-	-	100%
Los Pumas	PUTRE I 1 AL 20	-	-	100%
Los Pumas	PUTRE II 1 AL 20	-	-	100%
Colina	COLINA 2 1 AL 30	-	-	100%
Colina	COLINA A01	-	-	100%
Colina	COLINA A02	-	-	100%
Colina	COLINA A03	-	-	100%
Colina	COLINA A04	-	-	100%
Colina	COLINA A05	-	-	100%
Colina	COLINA A06	-	-	100%
Colina	COLINA A07	-	-	100%
Colina	COLINA A08	-	-	100%
Colina	COLINA A09	-	-	100%
Colina	COLINA A10	-	-	100%
Colina	COLINA A11	-	-	100%
Colina	COLINA A12	-	-	100%
Colina	COLINA A13	-	-	100%

# Appendix 5B

# Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Name of entity						
SOUTHERN HEMISPHERE MINING LIMITED						
ABN	Quarter ended ("current quarter")					
17 140 494 784	30 JUNE 2023					

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (12 months) \$A'000
1.	Cash flows from operating activities		
1.1	Receipts from customers	-	-
1.2	Payments for		
	(a) exploration & evaluation	(320)	(1,846)
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	(40)	(128)
	(e) administration and corporate costs	(128)	(387)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	-	-
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	-	-
1.8	Other (provide details if material)	-	-
1.9	Net cash from / (used in) operating activities	(488)	(2,361)

2. Ca	ash flows from investing activities
2.1 Pa	ayments to acquire or for:
(a)	) entities -
(b)	) tenements -
(c)	property, plant and equipment -
(d)	exploration & evaluation -
(e)	) investments -
(f)	other non-current assets -

Cons	solidated statement of cash flows	Current quarter \$A'000	Year to date (12 months) \$A'000
2.2	Proceeds from the disposal of:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	-
	(d) investments	-	-
	(e) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	-	-
2.6	Net cash from / (used in) investing activities	-	-

3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	2,699
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	-	-
3.4	Transaction costs related to issues of equity securities or convertible debt securities	-	(35)
3.5	Proceeds from borrowings	-	143
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
3.10	Net cash from / (used in) financing activities	-	2,807

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	1,101	161
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(488)	(2,361)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	-	-
4.4	Net cash from / (used in) financing activities (item 3.10 above)	-	2,807

ASX Listing Rules Appendix 5B (17/07/20) + See chapter 19 of the ASX Listing Rules for defined terms.

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (12 months) \$A'000
4.5	Effect of movement in exchange rates on cash held	(1)	5
4.6	Cash and cash equivalents at end of period	612	612

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	597	1,086
5.2	Call deposits	15	15
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	612	1,101

6.	Payments to related parties of the entity and their associates	Current quarter \$A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	67
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-
	f any amounts are shown in items 6.1 or 6.2, your quarterly activity report must includ ation for, such payments	e a description of, and an

7.	Financing facilities  Note: the term "facility" includes all forms of financing arrangements available to the entity.  Add notes as necessary for an understanding of the	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
	sources of finance available to the entity.	ΨA 000	
7.1	Loan facilities	-	-
7.2	Credit standby arrangements	-	-
7.3	Other (please specify)	-	-
7.4	Total financing facilities	-	-
7.5	Unused financing facilities available at quarter end		
7.6	Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.		

8.	Estimated cash available for future operating activities	\$A'000
8.1	Net cash from / (used in) operating activities (item 1.9)	(488)
8.2	(Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	-
8.3	Total relevant outgoings (item 8.1 + item 8.2)	(488)
8.4	Cash and cash equivalents at quarter end (item 4.6)	612
8.5	Unused finance facilities available at quarter end (item 7.5)	
8.6	Total available funding (item 8.4 + item 8.5)	612
8.7	Estimated quarters of funding available (item 8.6 divided by item 8.3)	1.25

Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.

- 8.8 If item 8.7 is less than 2 guarters, please provide answers to the following questions:
  - 8.8.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?

Yes

8.8.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?

Yes, On 17<sup>th</sup> July 2023, the Company will announce a non-renounceable entitlement offer. The Board has been able to demonstrate a record of securing funds as and when required and is confident that it will be able to do so.

8.8.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?

Yes, the Company will continue to align operational activity and expenditure with cash reserves available to the Company.

Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.

# **Compliance statement**

- This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Date: 14 July 2023

Authorised by: By the Board

(Name of body or officer authorising release – see note 4)

#### Notes

- 1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
- 2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
- 3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
- 4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
- 5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.