

### **ASX Announcement**

30 April 2024

# QUARTERLY ACTIVITY REPORT FOR THE PERIOD ENDED 31 MARCH 2024

### Highlights:

- All assay results from the 2023/24 drilling program were received demonstrating advancement in scale of the Llahuin Copper-Gold Project with all targets intersecting mineralisation
- Significant intercepts included:
  - > 156m at 0.51% CuEq from surface in 23LHRD027, including 82m at 0.67% CuEq from 46m and 26m at 0.75% CuEq from 48m
  - > 136m at 0.47% CuEq from 42m in 23LHRD028, including 32m at 0.66% CuEq from 100m
  - > 76m at 0.44% CuEq in 23LHRD035 from surface, including 14m at 0.79% CuEq from surface
  - ▶ 48m at 0.45% CuEq in 23LHRC042 from surface
  - > 12m at 0.66% CuEq in 23LHRC032 from surface
  - > 14m at 0.54% CuEq in 23LHRC029 from surface
- The link between Ferro and Cerro is further advanced by drilling warranting further additional drilling to understand the scale
- Mineralised system confirmed at the large Southern Porphyry target with up to 166m mineralised intercepts
- Southern Hemisphere was well received at the PDAC Conference in Toronto, Canada

Southern Hemisphere Mining Limited ("Southern Hemisphere" or "the Company") (ASX: SUH, FWB: NK4) reports the quarterly activity for the period ended 31 March 2024.



Figure 1 RC and Diamond rigs operating at Cerro De Oro with Central Deposit in the grey rock/workings on the right side of the valley

#### **EXPLORATION ACTIVITIES**

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

The Company reported encouraging results from the expansion drilling at its Llahuin Copper-Gold Porphyry Project in central Chile.

Laboratory results for the seventeen-hole program were received resulting in the following:

- 1. The link between Cerro and Ferro advanced by 23LHRD036, 23LHRC037 and 23LHRD043.
- 2. New drillhole grades continue to exceed historical grades in the Cerro and Ferro deposits, particularly with regard to the historical RC drilling.
- 3. Broad porphyry style mineralisation was intersected by two holes at the large greenfields Southern Porphyry target.

More detail on the drill results of each particular target were discussed in ASX Announcement, (dated 19 February 2024 Drilling Continues to Expand the Llahuin Copper-Gold Project).

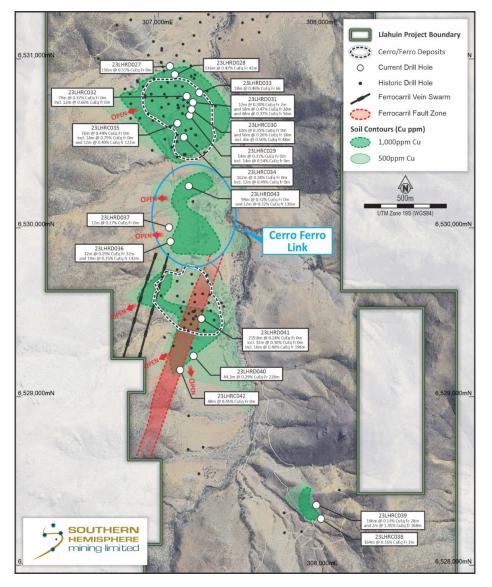


Figure 2 Plan view, showing collar locations, surface geochemical anomalies, and target models. Significant intercepts are shown in the Cerro-Ferro Link to demonstrate the exploration potential.

### **Southern Porphyry Copper-Gold Target**

Two RC holes were drilled to test the Southern Porphyry target and were successful in intersecting the outer halo of this large target. The soil geochemical anomaly is likely a small vein through that area. From these results and further recent surface work 200m higher up the hill the main target is Southeast of these holes and the subject of further studies into vectoring future drillholes into the higher grade central and feeder zones.

Both holes at the Southern Porphyry target intersected broad zones of mineralisation and alteration. This demonstrates that it is a large mineralising system. The drilling targeted a strong copper in soil anomaly, which represents a small portion of the larger target area in the magnetics.

Work is ongoing to identify the best location for follow-up drilling of this potentially extensive mineralised system.

More detail on the drill results for the Southern Porphyry target were discussed in ASX Announcement, (dated 19 February 2024 Drilling Continues to Expand the Llahuin Copper-Gold Project).

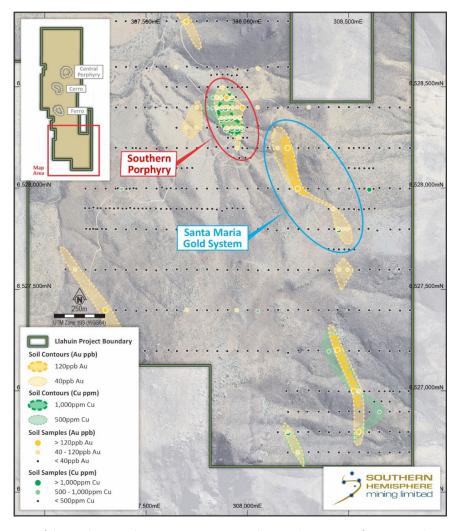


Figure 3 Map of the Southern Porphyry greater target area, showing the transition from copper dominated soil anomalies at Southern Porphyry, to gold dominated to the south.

#### **Background Work, Ongoing Programs and Findings**

Systematic programs of surface geochemistry, surface mapping, structural interpretation, historical hole re-logging and multi-element assaying were used to plan the recent drilling program. This lead-up work proved critical in identifying zones for substantial expansion and drill locations.

A geological mapping program nearing completion covers the area from the Southern Porphyry to Cerro. Several key relationships and conceptual targets are emerging from this work. The full results of this program will be reported in due course.

Terraspec mapping of drillcore is in progress in order to produce a 3D alteration model of the deposits. In addition, a first pass batch of samples has been sent for 4 acid digestion with ICPMS finish to provide low detection limit data for 3-D "deposit footprint" modelling work.

The results of the 2023/24 drilling program were very encouraging. The key findings were as follows:

- Historical drilling at Cerro and Ferro potentially demonstrates sub-optimal drilling orientations and sample bias in the historical RC drilling.
- Cerro and Ferro are part of a single mineralised system, with a potential feeder system at depth which current work is targeting to provide a future drill target.
- Southern Porphyry is a large mineralising and alteration system with the potential to host a significant copper-gold porphyry deposit.
- Shallow zones of mineralisation are open to the West and East at Cerro and Ferro.
- Mineralisation at Ferro is open to the South, Southwest, and Southeast.

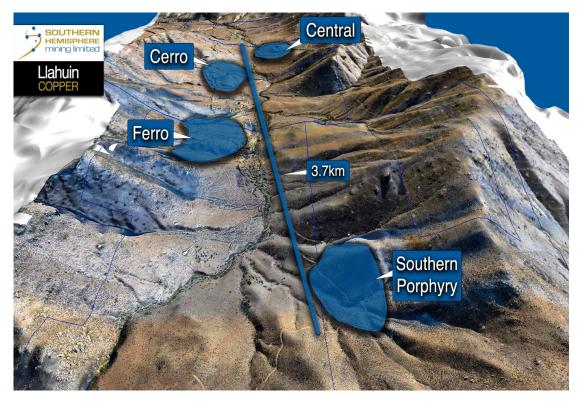


Figure 4 3D view looking northwest from Southern Porphyry to Central Porphyry, showing the scale of the Llahuin mineralising system.

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

The Company continued discussions during the quarter to advance development of the Los Pumas Battery Metals Manganese Project, near excellent infrastructure in Arcia in Northern Chile.

The Los Pumas Project is the flagship project to convert high-quality manganese mineral resources into High-Purity Manganese Sulphate Monohydrate ("HPMSM") to supply the Electric Vehicle ("EV") and battery energy storage markets. Other advancing projects and technologies in lithium, manganese and cobalt are key areas for business growth as the Los Pumas Project moves through the feasibility stage.

(Refer ASX Announcement, dated 5 July 2023 – Intention to Demerge Battery Minerals Asset).

#### **Lago Lithium Brine Project 100%**

The Company's main focus has been the expansion drilling at Llahuin, therefore no exploration activities took place during the quarter under review on the strategically obtained Lago Lithium Brine Project, located in the renowned lithium-rich Atacama region of Chile and covering an area of approximately 27km<sup>2</sup>. The Salar de Atacama is widely recognised for its exceptional lithium deposits operated by the world's largest lithium brine producers, SQM and Albemarle.

(Refer ASX Announcement, dated 10 July 2023 – Application for the Lago Lithium Brine Concessions in Chile).



Figure 5 Location of the nine new lithium brine concessions

#### **CORPORATE ACTIVITIES**

The Company's attendance at the Prospectors & Developers Association of Canada (PDAC) conference 2024 in Toronto, Canada was very well received as was the Company's presentation at the Chilean Mine Ministry seminar. The Company is currently following up all contacts and opportunities arising from the conference.

During the quarter, the Company issued 19,458 fully paid ordinary shares at an issue price of \$0.10 each as a result of the exercise of 19,458 listed SUHO options. The remaining 142,525,805 listed SUHO options expired on 16 February 2024.

The Company's VAT tax consultant in Chile has filed a VAT refund. Accumulated VAT returns are indicatively A\$3.5m and subject to review and approval of government taxation authorities with payment of approved amounts within the 4<sup>th</sup> quarter.

Payments to related parties during the quarter totalled \$31,607 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 <a href="https://www.shmining.com.au">www.shmining.com.au</a> or contact the Company.

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#### 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-Moly 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) x 0.72662 + Mo % x 4.412 Price Assumptions- Cu (\$3.20/lb), Au (\$1,700/oz), Mo (\$12.50/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.

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	AMAROLA 1 1 AL 20	_	_	1000/
	AMAPOLA 2.1 AL 20			100%
Llahuin	AMAPOLA 2 1 AL 20	=	-	100%
Llahuin	AMAPOLA 3 1 AL 20	-	-	100%
Llahuin	AMAPOLA 4 1 AL 20 - RED 1/18	=	-	100%
Llahuin	AMAPOLA I 1 AL 300 RED 1/228	-	-	100%
Llahuin	AMAPOLA II 1 AL 300 RED 1/256	-	-	100%
Llahuin	AMAPOLA 5	-	-	100%
Llahuin*	AMAPOLA 6 1 AL 4	100%	-	100%
Los Pumas	AWAHOU 1 AL 20	-	-	100%
Los Pumas	EMANUEL 1 AL 20	-	-	100%
Los Pumas	PUTRE I AL 20	-	-	100%
Los Pumas	PUTRE II 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 5	100%	-	100%
Lago*	SOCAIRE 1	100%	-	100%
Lago*	SOCAIRE 2	100%	-	100%
Lago*	SOCAIRE 3	100%	-	100%
Lago*	SOCAIRE 4	100%	-	100%
Lago*	SOCAIRE 5	100%	-	100%
Lago*	SOCAIRE 6	100%	-	100%
Lago*	SOCAIRE 7	100%	-	100%
Lago*	SOCAIRE 8	100%	-	100%
Lago*	SOCAIRE 9	100%	-	100%
Colina	COLINA2 1 AL 30	-	-	100%
Colina*	COLINA A03, 1 AL 100	-	-	100%
Colina*	COLINA A07, 1 AL 100	-	-	100%
Colina*	COLINA A08, 1 AL 100	-	-	100%
Colina*	COLINA A09, 1 AL 100	-	-	100%
Colina*	COLINA A11, 1 AL 100	-	-	100%
Colina*	COLINA A12, 1 AL 100	-	-	100%
Colina	COLINA A14	-	-	100%
Colina	COLINA A15	-	-	100%
Colina	COLINA A16	-	-	100%
Colina	COLINA B01	-	-	100%
Colina	COLINA B02	-	-	100%
Colina	COLINA B03	-	-	100%
Colina	COLINA B04	-	-	100%
Colina	COLINA B05	_	-	100%
Colina	COLINA B06	-	_	100%
Colina	COLINA BOO	-	-	100%
Colina	COLINA B10	-	-	100%
Colina	COLINA B10	-	-	100%

<sup>\*</sup> Applications in progress

# Appendix 5B

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

SOUTHERN HEMISPHERE MINING LIMITED	
ABN	Quarter ended ("current quarter")
17 140 494 784	31 MARCH 2024

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (9 months) \$A'000
1.	Cash flows from operating activities		
1.1	Receipts from customers	-	-
1.2	Payments for		
	(a) exploration & evaluation	(937)	(2,009)
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	(13)	(157)
	(e) administration and corporate costs	(127)	(447)
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	(1,077)	(2,613)

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

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (9 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)	-	2,185
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	2	2
3.4	Transaction costs related to issues of equity securities or convertible debt securities	-	(134)
3.5	Proceeds from borrowings	350	350
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	352	2,403

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	1,157	612
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(1,077)	(2,613)
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)	352	2,403

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

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (9 months) \$A'000
4.5	Effect of movement in exchange rates on cash held	(26)	4
4.6	Cash and cash equivalents at end of period	406	406

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	391	1,142
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)	406	1,157

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	32
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	le a description of, and an

7.	Financing facilities  Note: the term "facility" includes all forms of financing arrangements available to the entity.	Total facility amount at quarter end	Amount drawn at quarter end \$A'000
	Add notes as necessary for an understanding of the sources of finance available to the entity.	\$A'000	Ψ
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)	(1,077)
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)	(1,077)
8.4	Cash and cash equivalents at quarter end (item 4.6)	406
8.5	Unused finance facilities available at quarter end (item 7.5)	-
8.6	Total available funding (item 8.4 + item 8.5)	406
8.7	Estimated quarters of funding available (item 8.6 divided by item 8.3)	0.38

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 quarters, 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, the Board is reviewing alternatives. The Company has been able to demonstrate a record of securing funds as and when required and is confident that it will be able to continue 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.

In addition, the Company's VAT tax consultant in Chile has filed a VAT refund. Accumulated VAT returns are indicatively A\$3.5m and subject to review and approval of government taxation authorities with payment of approval amounts within the 4<sup>th</sup> quarter.

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:

30 April 2024

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.