### **ASX Announcement**



18 July 2024

### Resource Upgrade Work Commenced, and Large Copper Targets Progress Report-Llahuin Copper-Gold Project Chile

#### Highlights

- Significant new results from grid rock chip sampling include;
  - o 7.38 g/t Au and 8.13 g/t Ag in 24LHR000602
  - o 0.59 g/t Au and 1.44 g/t Ag in 24LHR000596
  - o 0.22% Cu in 24LHR000574
- 156 new rock chips collected, and 73 historical drillhole pulp samples were selected for assay by four acid digest and ICPMS for multi-element with low-level detection to refine 3D Modelling refining Curiosity and Cerro-Ferro Deeps drill targets
- The Curiosity target at the Southern Porphyry and Cerro-Ferro Deeps are large, deeper, compelling copper-gold targets for drill testing
- Sampling of the Santa Maria Gold Mine adit, directly above the Curiosity target, identifies a high sulfidation epithermal system, supporting the interpretation of an extensive porphyry system at depth at Curiosity
- A tender process is underway for a planned 5,000m drilling program to increase copper-gold resources, targeting higher grade areas over the large 2km strike length Cerro-Ferro system, and possible pre-collar for deep targets
- Metallurgical testwork consultants engaged to advance prior testwork at Llahuin in 2013.
- A large 10m composite sampling program of all pulps from prior drilling by pXRF for multielement analysis identified numerous zones of elevated molybdenum content which were unassayed in original drilling. These samples have been selected and have been sent for assay for inclusion in the pending resource update.
- Hyland Geological and Mining Consultants have been engaged to commence a Mineral Resource Estimate update for H1 2025 incorporating all drilling and results since the last JORC Resource in 2013 and to include results from the upcoming drill program



Figure 1. Location map of Southern Hemisphere projects in Chile, South America.

Southern Hemisphere Mining Limited ("Southern Hemisphere" or "the Company") (ASX: SUH, FWB: NK4) reports significant work-fronts have commenced to advance the Llahuin Copper-Gold Project towards mining study stage as listed in the highlights above. This work is part of the process to substantially increase the copper and gold endowment of the Llahuin Copper-Gold Project from the current Independent Resource Estimate of 680,000t Copper equivalent (measured indicated and inferred categories done in 2013), and will incorporate all drilling and re-interpretation, re-logging, etc done since then, and include results from the upcoming drill program.



Figure 2. 3D plan view showing geochemical footprint models thematically colour scaled from blue (moderate probability) through to reds and magentas (high probability).

#### **Results Discussion**

The Company continues to engage Fathom Geophysics to apply its proprietary 3D porphyry footprint modelling method on recently collected rock chip and drillhole pulp data at Llahuin. This method uses eleven elements (As (arsenic), Bi (bismuth), Cu (copper), Li (lithium), Mo (molybdenum), Sb (antimony), Se (selenium), Sn (tin), Te (tellurium), TI (thallium), and W (tungsten), to map idealised deposit model zonation and thresholds based on the Halley et al., (2015) geochemical model. Deliverables from this work are a set of wireframe shells representing probabilities of the presence of a porphyry system at a given point in 3D space.

Figure 3 below outlines the recent rock chip program. It shows the approximate 200m sample spacing to further refine the model for drill targeting. The aim is to reach a point where the models de-risk drilling as much as possible for these deep, high impact and very large copper-gold targets at Curiosity and Cerro-Ferro Deeps.



Figure 3. Grid Sampling Locations- Rock chips

A further 135 rock chip samples were collected in the Santa Maria adit and the assay results show it has a high sulfidation epithermal signature with elevated Au, As, Cu, Ag, Bi, Cd, Mo, Sb, Te, Zn and S (Refer Table 1).

The epithermal nature of the surface veins further strengthens the deep target when looking at the generalised model of a porphyry system shown below in Figure 4. The yellow circle highlighting the high sulfidation epithermal veins at Santa Maria and the red circle would coincide with the deeper deposit footprint model target shown in Figure 5. This target top is 550m vertically below the Santa Maria epithermal gold system. It has a pipe like geometry with a diameter of approximately 1km. This extends to approximately 2km depth, where the probability values increase, and the model becomes significantly larger in aerial extent as shown below in Figure 4.



Figure 4. Porphyry styles and geometry (Sillitoe 2010) with Santa Maria system highlighted in YELLOW and the Fathom deep porphyry target in RED.



Figure 5. Cross section of Southern Porphyry, showing thematically coloured footprint models, drone magnetic inversion models in silvery grey, and existing drilling in grey.

Fathom Soil Model with the Curiosity target and the location of the Santa Maria Adit - epithermal vein samples above the Fathom porphyry target.

	Au g/t	Ag g/t	As ppm	Cu %	Cd ppm	Bi ppm	Mo ppm	S %	Sb ppm	Te ppm	Zn ppm
High	0.71	4.54	1,265	0.45	15.7	3.86	162.5	>10	670	7.44	1,095
Low	0.02	0.01	5.5	0.01	<0.02	0.13	0.12	0.01	0.4	0.17	6

Table 1 Santa Maria Adit Sample Statistics

The Company has invited tenders from four Chilean drilling companies. The program will initially be RC up to 250m depth, targeting resource expansion, and possible pre-collars for deep targets. Subsequent deeper diamond drilling will, where possible, use historical holes in the right location optimising existing sunk costs and substantially reduce drilling costs of deeper holes.

Sedgman has been engaged to conduct metallurgical test work on several key representative samples from within the current Mineral Resource and advance on prior work done in 2013.

Hyland Geological and Mining Consultants are engaged to complete a Mineral Resource Estimate update for the Llahuin Copper-Gold Project. This will be the first work of its kind at Llahuin since 2013. A significant amount of new data by re-assaying existing drilling and new drilling has been completed since the 2013 Mineral Resource Estimate to advance the project towards mining studies.

Further results will be released in due course.

Approved by the Board for release.

#### CONTACTS:

For further information on this update or the Company generally, please visit our website at <u>www.shmining.com.au</u> or contact the Company :

cosec@shmining.com.au Telephone: +61 8 6144 0590

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

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 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	Мо %	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 test work

- "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 optimised, 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.

For further information, please refer to the Technical Reports and News Releases on the Company's website at www.shmining.com.au.

				WGS		Sample
Sample ID	Project	WGS CRS	WGS Easting	Northing	RL	Method
24LHR000362	LLA	WGS84UTM19S	308142.9	6528156	1572	SCHIP
24LHR000363	LLA	WGS84UTM19S	308143.9	6528156	1572	SCHIP
24LHR000364	LLA	WGS84UTM19S	308144.9	6528156	1572	SCHIP
24LHR000365	LLA	WGS84UTM19S	308145.8	6528156	1572	SCHIP
24LHR000366	LLA	WGS84UTM19S	308146.9	6528156	1572	SCHIP
24LHR000367	LLA	WGS84UTM19S	308147.9	6528156	1572	SCHIP
24LHR000368	LLA	WGS84UTM19S	308148.9	6528155	1572	SCHIP
24LHR000369	LLA	WGS84UTM19S	308149.8	6528155	1572	SCHIP
24LHR000370	LLA	WGS84UTM19S	308150.8	6528155	1572	SCHIP
24LHR000371	LLA	WGS84UTM19S	308151.8	6528155	1572	SCHIP
24LHR000372	LLA	WGS84UTM19S	308152.9	6528155	1572	SCHIP
24LHR000373	LLA	WGS84UTM19S	308153.8	6528155	1572	SCHIP
24LHR000374	LLA	WGS84UTM19S	308154.9	6528155	1572	SCHIP
24LHR000375	LLA	WGS84UTM19S	308155.8	6528155	1572	SCHIP
24LHR000376	LLA	WGS84UTM19S	308156.8	6528154	1572	SCHIP
24LHR000377	LLA	WGS84UTM19S	308157.7	6528154	1572	SCHIP
24LHR000378	LLA	WGS84UTM19S	308158.8	6528154	1572	SCHIP
24LHR000379	LLA	WGS84UTM19S	308159.7	6528154	1572	SCHIP
24LHR000380	LLA	WGS84UTM19S	308160.6	6528154	1572	SCHIP
24LHR000381	LLA	WGS84UTM19S	308161.6	6528153	1572	SCHIP
24LHR000382	LLA	WGS84UTM19S	308162.6	6528153	1572	SCHIP
24LHR000383	LLA	WGS84UTM19S	308163.6	6528153	1572	SCHIP
24LHR000384	LLA	WGS84UTM19S	308164.6	6528153	1572	SCHIP
24LHR000385	LLA	WGS84UTM19S	308165.6	6528153	1572	SCHIP
24LHR000386	LLA	WGS84UTM19S	308166.6	6528153	1572	SCHIP
24LHR000387	LLA	WGS84UTM19S	308167.6	6528153	1572	SCHIP
24LHR000388	LLA	WGS84UTM19S	308168.6	6528153	1572	SCHIP
24LHR000389	LLA	WGS84UTM19S	308169.6	6528153	1572	SCHIP
24LHR000390	LLA	WGS84UTM19S	308170.7	6528153	1572	SCHIP
24LHR000391	LLA	WGS84UTM19S	308171.6	6528153	1572	SCHIP
24LHR000392	LLA	WGS84UTM19S	308172.6	6528153	1572	SCHIP
24LHR000393	LLA	WGS84UTM19S	308173.6	6528153	1572	SCHIP
24LHR000394	LLA	WGS84UTM19S	308174.5	6528153	1572	SCHIP
24LHR000395	LLA	WGS84UTM19S	308175.5	6528153	1572	SCHIP
24LHR000396	LLA	WGS84UTM19S	308176.6	6528153	1572	SCHIP
24LHR000397	LLA	WGS84UTM19S	308177.6	6528153	1572	SCHIP
24LHR000398	LLA	WGS84UTM19S	308178.6	6528154	1572	SCHIP
24LHR000399	LLA	WGS84UTM19S	308179.6	6528153	1572	SCHIP
24LHR000400	LLA	WGS84UTM19S	308180.5	6528154	1572	SCHIP
24LHR000401	LLA	WGS84UTM19S	308181.5	6528154	1572	SCHIP
24LHR000402	LLA	WGS84UTM19S	308182.6	6528154	1572	SCHIP
24LHR000403	LLA	WGS84UTM19S	308183.5	6528154	1572	SCHIP
24LHR000404	LLA	WGS84UTM19S	308184.6	6528154	1572	SCHIP

				WGS		Sample
Sample ID	Project	WGS CRS	WGS Easting	Northing	RL	Method
24LHR000405	LLA	WGS84UTM19S	308185.4	6528154	1572	SCHIP
24LHR000406	LLA	WGS84UTM19S	308186.6	6528154	1572	SCHIP
24LHR000407	LLA	WGS84UTM19S	308187.5	6528154	1572	SCHIP
24LHR000408	LLA	WGS84UTM19S	308188.4	6528155	1572	SCHIP
24LHR000409	LLA	WGS84UTM19S	308189.5	6528155	1572	SCHIP
24LHR000410	LLA	WGS84UTM19S	308190.4	6528155	1572	SCHIP
24LHR000411	LLA	WGS84UTM19S	308191.5	6528155	1572	SCHIP
24LHR000412	LLA	WGS84UTM19S	308192.5	6528155	1572	SCHIP
24LHR000413	LLA	WGS84UTM19S	308193.4	6528155	1572	SCHIP
24LHR000414	LLA	WGS84UTM19S	308194.4	6528156	1572	SCHIP
24LHR000415	LLA	WGS84UTM19S	308195.4	6528156	1572	SCHIP
24LHR000416	LLA	WGS84UTM19S	308196.4	6528156	1572	SCHIP
24LHR000417	LLA	WGS84UTM19S	308197.3	6528156	1572	SCHIP
24LHR000418	LLA	WGS84UTM19S	308198.4	6528156	1572	SCHIP
24LHR000419	LLA	WGS84UTM19S	308199.3	6528156	1572	SCHIP
24LHR000420	LLA	WGS84UTM19S	308200.3	6528157	1572	SCHIP
24LHR000421	LLA	WGS84UTM19S	308201.3	6528157	1572	SCHIP
24LHR000422	LLA	WGS84UTM19S	308202.2	6528157	1572	SCHIP
24LHR000423	LLA	WGS84UTM19S	308203.2	6528157	1572	SCHIP
24LHR000424	LLA	WGS84UTM19S	308204.1	6528158	1572	SCHIP
24LHR000425	LLA	WGS84UTM19S	308205.2	6528158	1572	SCHIP
24LHR000426	LLA	WGS84UTM19S	308206.2	6528158	1572	SCHIP
24LHR000427	LLA	WGS84UTM19S	308207.2	6528158	1572	SCHIP
24LHR000428	LLA	WGS84UTM19S	308208.1	6528158	1572	SCHIP
24LHR000429	LLA	WGS84UTM19S	308209.1	6528159	1572	SCHIP
24LHR000430	LLA	WGS84UTM19S	308210.1	6528159	1572	SCHIP
24LHR000431	LLA	WGS84UTM19S	308211.1	6528159	1572	SCHIP
24LHR000432	LLA	WGS84UTM19S	308212	6528160	1572	SCHIP
24LHR000433	LLA	WGS84UTM19S	308212.9	6528160	1572	SCHIP
24LHR000434	LLA	WGS84UTM19S	308213.9	6528160	1572	SCHIP
24LHR000435	LLA	WGS84UTM19S	308214.9	6528160	1572	SCHIP
24LHR000436	LLA	WGS84UTM19S	308215.8	6528160	1572	SCHIP
24LHR000437	LLA	WGS84UTM19S	308216.7	6528160	1572	SCHIP
24LHR000438	LLA	WGS84UTM19S	308217.8	6528160	1572	SCHIP
24LHR000439	LLA	WGS84UTM19S	308218.8	6528160	1572	SCHIP
24LHR000440	LLA	WGS84UTM19S	308219.9	6528160	1572	SCHIP
24LHR000441	LLA	WGS84UTM19S	308220.8	6528159	1572	SCHIP
24LHR000442	LLA	WGS84UTM19S	308221.8	6528159	1572	SCHIP
24LHR000443	LLA	WGS84UTM19S	308222.7	6528159	1572	SCHIP
24LHR000444	LLA	WGS84UTM19S	308223.7	6528159	1572	SCHIP
24LHR000445	LLA	WGS84UTM19S	308224.6	6528158	1572	SCHIP
24LHR000446	LLA	WGS84UTM19S	308225.7	6528158	1572	SCHIP
24LHR000447	LLA	WGS84UTM19S	308226.6	6528158	1572	SCHIP

				WGS		Sample
Sample ID	Project	WGS CRS	WGS Easting	Northing	RL	Method
24LHR000448	LLA	WGS84UTM19S	308227.3	6528158	1572	SCHIP
24LHR000449	LLA	WGS84UTM19S	308228.3	6528157	1572	SCHIP
24LHR000450	LLA	WGS84UTM19S	308229.3	6528157	1572	SCHIP
24LHR000451	LLA	WGS84UTM19S	308230.3	6528156	1572	SCHIP
24LHR000452	LLA	WGS84UTM19S	308231.2	6528156	1572	SCHIP
24LHR000453	LLA	WGS84UTM19S	308232.2	6528156	1572	SCHIP
24LHR000454	LLA	WGS84UTM19S	308233.1	6528155	1572	SCHIP
24LHR000455	LLA	WGS84UTM19S	308234.1	6528155	1572	SCHIP
24LHR000456	LLA	WGS84UTM19S	308235	6528155	1572	SCHIP
24LHR000457	LLA	WGS84UTM19S	308236	6528154	1572	SCHIP
24LHR000458	LLA	WGS84UTM19S	308236.9	6528154	1572	SCHIP
24LHR000459	LLA	WGS84UTM19S	308237.8	6528154	1572	SCHIP
24LHR000460	LLA	WGS84UTM19S	308238.9	6528154	1572	SCHIP
24LHR000461	LLA	WGS84UTM19S	308239.8	6528153	1572	SCHIP
24LHR000462	LLA	WGS84UTM19S	308240.6	6528153	1572	SCHIP
24LHR000463	LLA	WGS84UTM19S	308241.5	6528152	1572	SCHIP
24LHR000464	LLA	WGS84UTM19S	308242.1	6528151	1572	SCHIP
24LHR000465	LLA	WGS84UTM19S	308243	6528151	1572	SCHIP
24LHR000466	LLA	WGS84UTM19S	308243.9	6528150	1572	SCHIP
24LHR000467	LLA	WGS84UTM19S	308244.7	6528150	1572	SCHIP
24LHR000468	LLA	WGS84UTM19S	308245.6	6528149	1572	SCHIP
24LHR000469	LLA	WGS84UTM19S	308246.2	6528149	1572	SCHIP
24LHR000470	LLA	WGS84UTM19S	308247	6528148	1572	SCHIP
24LHR000471	LLA	WGS84UTM19S	308248	6528147	1572	SCHIP
24LHR000472	LLA	WGS84UTM19S	308248.7	6528147	1572	SCHIP
24LHR000473	LLA	WGS84UTM19S	308249.6	6528147	1572	SCHIP
24LHR000474	LLA	WGS84UTM19S	308250.4	6528146	1572	SCHIP
24LHR000475	LLA	WGS84UTM19S	308251.5	6528145	1572	SCHIP
24LHR000476	LLA	WGS84UTM19S	308252.2	6528145	1572	SCHIP
24LHR000477	LLA	WGS84UTM19S	308253	6528145	1572	SCHIP
24LHR000478	LLA	WGS84UTM19S	308254	6528144	1572	SCHIP
24LHR000479	LLA	WGS84UTM19S	308254.8	6528144	1572	SCHIP
24LHR000480	LLA	WGS84UTM19S	308255.6	6528143	1572	SCHIP
24LHR000481	LLA	WGS84UTM19S	308256.6	6528143	1572	SCHIP
24LHR000482	LLA	WGS84UTM19S	308257.3	6528142	1572	SCHIP
24LHR000483	LLA	WGS84UTM19S	308258.3	6528142	1572	SCHIP
24LHR000484	LLA	WGS84UTM19S	308259.2	6528141	1572	SCHIP
24LHR000485	LLA	WGS84UTM19S	308260.2	6528141	1572	SCHIP
24LHR000486	LLA	WGS84UTM19S	308260.9	6528140	1572	SCHIP
24LHR000487	LLA	WGS84UTM19S	308261.8	6528140	1572	SCHIP
24LHR000488	LLA	WGS84UTM19S	308262.8	6528139	1572	SCHIP
24LHR000489	LLA	WGS84UTM19S	308263.7	6528139	1572	SCHIP
24LHR000490	LLA	WGS84UTM19S	308264.6	6528139	1572	SCHIP

				WGS		Sample
Sample ID	Project	WGS CRS	WGS Easting	Northing	RL	Method
24LHR000491	LLA	WGS84UTM19S	308265.5	6528138	1572	SCHIP
24LHR000492	LLA	WGS84UTM19S	308266.7	6528138	1572	SCHIP
24LHR000493	LLA	WGS84UTM19S	308267.6	6528138	1572	SCHIP
24LHR000494	LLA	WGS84UTM19S	308268.4	6528138	1572	SCHIP
24LHR000495	LLA	WGS84UTM19S	308269.2	6528137	1572	SCHIP
24LHR000496	LLA	WGS84UTM195	308270.3	6528137	1572	SCHIP
24LHR000510	LLAHUIN	WGS84UTM19S	307775.3117	6532572.324	1407.72998	RCHIP
24LHR000511	LLAHUIN	WGS84UTM19S	308007.6071	6532592.662	1477.212402	RCHIP
24LHR000512	LLAHUIN	WGS84UTM19S	308210.823	6532589.396	1532.307373	RCHIP
24LHR000513	LLAHUIN	WGS84UTM19S	307979.5892	6532412.38	1503.037354	RCHIP
24LHR000514	LLAHUIN	WGS84UTM19S	307795.9083	6532409.568	1424.057739	RCHIP
24LHR000515	LLAHUIN	WGS84UTM19S	307400.891	6532385.793	1314.904785	RCHIP
24LHR000516	LLAHUIN	WGS84UTM19S	307218.6593	6532402.515	1290.301514	RCHIP
24LHR000517	LLAHUIN	WGS84UTM19S	307030.7199	6532563.744	1284.878418	RCHIP
24LHR000518	LLAHUIN	WGS84UTM19S	306369.1525	6532616.31	1279.877441	RCHIP
24LHR000519	LLAHUIN	WGS84UTM19S	306539.5932	6532516.652	1288.610962	RCHIP
24LHR000520	LLAHUIN	WGS84UTM19S	306481.4136	6532290.449	1301.209961	RCHIP
24LHR000521	LLAHUIN	WGS84UTM19S	307052.0507	6532263.486	1275.352051	RCHIP
24LHR000522	LLAHUIN	WGS84UTM19S	306617.9604	6532216.448	1300.251465	RCHIP
24LHR000523	LLAHUIN	WGS84UTM19S	306405.4095	6531993.494	1327.374756	RCHIP
24LHR000524	CENTRAL PORPHYRY	WGS84UTM19S	307285.6599	6531937.633	1293.352661	RCHIP
241110000525	CENTRAL		207505 2442	(521022.025	1000 000404	RCHIP
24LHR000525	CENTRAL	WG58401M195	307585.3413	6531823.035	1336.328491	RCHIP
24LHR000526	PORPHYRY	WGS84UTM19S	307399.7794	6531819.516	1306.86731	DCUUD
24LHR000527	PORPHYRY	WGS84UTM19S	307231.7814	6531787.481	1299.568481	RCHIP
241 HP000528			307000 7263	6531708 076	1317 815186	RCHIP
24LITR000528		WG38401W133	206707 4850	6522426 241	1320 605 901	RCHIP
24LITR000323	CERRO DE	W638401W133	300707.4835	0552450.241	1280.095801	RCHIP
24LHR000530	ORO CERRO DE	WGS84UTM19S	306987.1224	6531591.785	1357.10022	вснір
24LHR000531	ORO	WGS84UTM19S	307007.0638	6531408.39	1355.255371	Kerm
24I HR000532	CERRO DE ORO	WGS84UTM19S	306999.0649	6531201.857	1376.5177	RCHIP
	CERRO DE		00000010010	0001201007	10/0101//	RCHIP
24LHR000533	ORO CERRO DE	WGS84UTM19S	307427.1543	6530785.984	1335.146484	RCHIP
24LHR000534	ORO	WGS84UTM19S	307369.6052	6531011.717	1326.841187	
24LHR000535	CERRO DE ORO	WGS84UTM19S	307427.7243	6531195.106	1313.786011	RCHIP
241110000526	CERRO DE		207400 2222	6520000 264	1227 240000	RCHIP
24LHR000536	CERRO DE	WG58401M195	307180.2222	6530999.361	1337.348999	RCHIP
24LHR000537	ORO	WGS84UTM19S	307210.6696	6531403.488	1320.112427	
24LHR000538	ORO	WGS84UTM19S	307215.5527	6531583.015	1325.993042	
241 HR000520	LLAHUIN	W/GS8411TM105	208100 761	6537200 269	1555 //1162	RCHIP
24LIINUUUD39	LLAHUIN	AA 03040 HAITA2	200133./01	0332200.208	1000.441102	RCHIP
24LHR000540	EAST	WGS84UTM19S	308216.4867	6532113.407	1582.502441	

				WGS		Sample
Sample ID	Project	WGS CRS	WGS Easting	Northing	RL	Method
	LLAHUIN					RCHIP
24LHR000541	EAST	WGS84UTM19S	308219.7603	6532012.549	1600.730591	
	LLAHUIN					RCHIP
24LHR000542	EAST	WGS84UTM19S	308225.4407	6531821.794	1572.409058	DOLUD
						RCHIP
24I HR000543	FAST	WGS84UTM19S	308210 1144	6531556 574	1502 852417	
2421110000343	CENTRAL	1103040111133	500210.1144	0001000.074	1502.052417	RCHIP
	PORPHYRY					
24LHR000544	EAST	WGS84UTM19S	308217.978	6531412.992	1453.800659	
	CENTRAL					RCHIP
	PORPHYRY					
24LHR000545	EAST	WGS84UTM19S	308185.5518	6531234.404	1427.882202	DOLUD
241 HR000546	ORO EAST		308200 0480	6531016 805	1/150 370630	RCHIP
241111000340	CERRO DE	W038401W135	308209.0489	0551010.805	1439.379039	RCHIP
24LHR000547	ORO EAST	WGS84UTM19S	308187.1949	6530874.342	1507.421509	Renni
	CERRO DE					RCHIP
24LHR000548	ORO EAST	WGS84UTM19S	308200.915	6530832.008	1532.64917	
	CERRO DE					RCHIP
24LHR000549	ORO EAST	WGS84UTM19S	308033.9155	6530767.067	1549.413818	
	CERRO DE					RCHIP
24LHR000550	ORO EAST	WGS84UTM19S	307986.7676	6530966.155	1461.412231	DCLUD
						RCHIP
24LHR000551	EAST	WGS84UTM19S	307972.6503	6531206.661	1385,799316	
2 12:11:000001	CENTRAL		00707210000	00012001001	10001/00010	RCHIP
	PORPHYRY					-
24LHR000552	EAST	WGS84UTM19S	307972.5115	6531406.389	1386.233643	
	CENTRAL					RCHIP
	PORPHYRY					
24LHR000553	EAST	WGS84UTM19S	308000.2265	6531602.968	1402.327759	DOLUD
241 HR000554	LLAHUIN		307075 8067	6521824 201	1420 704834	RCHIP
241111000334		W038401W135	307973.8007	0551854.501	1429.704834	RCHIP
24LHR000555	EAST	WGS84UTM19S	307982.7753	6532009.873	1452.123047	Renni
	CERRO DE					RCHIP
24LHR000556	ORO	WGS84UTM19S	307404.1804	6530606.679	1356.465942	
	CERRO DE					RCHIP
24LHR000557	ORO	WGS84UTM19S	307410.838	6530358.495	1364.072876	
24112000550	CERRO DE		207272 645	6530469.63	1000 001710	RCHIP
24LHR000558		WG58401101195	307373.645	6530160.63	1366.261719	
24I HR000559	ORO	WG\$84UTM195	307365 1784	6530000 001	1380 001221	KCHIP
2421110000333	0110	1103040111133	507505.1704	000000000	1300.001221	RCHIP
24LHR000560	FERROCARRIL	WGS84UTM19S	307415.37	6529801.525	1395.661865	
24LHR000561	FERROCARRIL	WGS84UTM19S	307358.1268	6529390.028	1421.668335	RCHIP
			207506 7154	6520274 786	1449 96702	RCHIP
24LFINUUU302	TENNOLANNIL	VVG304011VI133	307390.7134	0323374.700	1440.00/92	RCHIP
24LHR000563	FERROCARRIL	WGS84UTM19S	307616.3528	6529600.94	1437.116089	Kerm
24LHR000564	FERROCARRIL	WGS84UTM19S	307603.6784	6529762.4	1411.532471	RCHIP
	CERRO DE					RCHIP
24LHR000565	ORO	WGS84UTM19S	307583.1383	6529968.631	1381.928955	
	CERRO DE					RCHIP
24LHR000566	ORO	WGS84UTM19S	307628.812	6530186.835	1377.808594	
	CERRO DE					RCHIP
24LHR000567		WGS84UTM195	30/583.0307	6530419.993	1361.76355	рснир
241 HR000568			307611 2024	6530554 811	1366 008813	KCHIP
246111000300	CERRO DF	** 050-01101235	307011.2024	0550554.011	1300.300013	RCHIP
24LHR000569	ORO	WGS84UTM19S	307617.0214	6531072.379	1367.045044	
24110000570	FEDDOCADD		207944 6400	(520,400,41	1470 005025	RCHIP
24LHKUUU570	FERRUCARRIL	VVG584U1IVI195	307844.6409	6529400.41	1478.095825	РСНІР
24LHR000571	FERROCARRIL	WGS84UTM19S	307790.8359	6529573.315	1462.421021	NUTIIF
	CERRO DE					RCHIP
24LHR000572	ORO	WGS84UTM19S	307783.7899	6529858.643	1401.398804	

				WGS		Sample
Sample ID	Project	WGS CRS	WGS Easting	Northing	RL	Method
241110000572	CERRO DE		207022 5222	CE2002C 8E4	1415 571777	RCHIP
24LHK000573		WG58401M195	307922.5223	6530036.854	1415.5/1///	вснір
24LHR000574	ORO	WGS84UTM19S	307794.8767	6530208.737	1376.446289	
	CERRO DE					RCHIP
24LHR000575		WGS84UTM19S	307752.1095	6530355.671	1405.207886	РСНІР
24LHR000576	ORO	WGS84UTM19S	307807.5047	6530594.236	1425.140747	KCHIP
	CENTRAL					RCHIP
24LHR000577	PORPHYRY	WGS84UTM19S	307813.4284	6530779.77	1482.232178	DCLUD
24LHR000578	PORPHYRY	WGS84UTM19S	307825.3386	6530997.02	1444,49353	RCHIP
	CENTRAL					RCHIP
24LHR000579	PORPHYRY	WGS84UTM19S	307840.7359	6531164.318	1385.955444	
24LHR000580	FERROCARRIL	WGS84UTM19S	307860.0172	6529247.095	1490.167236	RCHIP
24LHR000581	FERROCARRIL	WGS84UTM19S	307809.6498	6529015.054	1486.341919	RCHIP
24I HR000582	FERROCARRII	WGS84UTM19S	307814 4225	6528817 296	1495 742432	RCHIP
24111000502		W65040TM155	207007.005	6520017.250	1455.742452	RCHIP
24LHR000583	FERROCARRIL	WGS8401M195	30/98/.865	6528964.982	1560.422363	вснір
24LHR000584	FERROCARRIL	WGS84UTM19S	308054.4297	6529222.16	1515.901611	RCI III
24LHR000586	FERROCARRIL	WGS84UTM19S	308038.5748	6529614.567	1451.153564	RCHIP
2411100005.07	CERRO DE		202005 004		1420 002004	RCHIP
24LHK000587	CERRO DE	WG58401W195	308005.994	0529855.007	1430.693604	RCHIP
24LHR000588	ORO	WGS84UTM19S	307991.6598	6529987.995	1435.729736	
	CERRO DE					RCHIP
24LHR000590		WGS84UTM19S	308030.3695	6530332.163	1497.930908	РСНІР
24LHR000591	ORO	WGS84UTM19S	308108.5748	6530630.032	1570.259399	Kernir
	CERRO DE					RCHIP
24LHR000592	ORO	WGS84UTM19S	306808.1997	6530412.939	1458.503784	DCUUD
24LHR000593	ORO	WGS84UTM19S	306744.4874	6530631.569	1469.081177	КСПІР
	CERRO DE					RCHIP
24LHR000594	ORO	WGS84UTM19S	307000.8933	6530431.019	1420.818726	
24I HR000595	ORO	WGS84UTM19S	306991,8373	6530617.72	1396,758423	RCHIP
241110000506		WC684UTN4106	207644 118	(538385.304	1477 782001	RCHIP
24LHK000596	FERROCARRIL	WG58401W195	307644.118	6528385.204	14/7.783691	RCHIP
24LHR000597	FERROCARRIL	WGS84UTM19S	307588.052	6528577.584	1450.723999	РСНІВ
24LHR000598	FERROCARRIL	WGS84UTM19S	307625.4495	6528976.405	1443.082886	кспір
241 HR000600	CERRO DE		306388 2445	6530403 52	1655 6521	RCHIP
24111000000	CERRO DE	W038401W133	500588.2445	0550405.52	1055.0521	RCHIP
24LHR000601	ORO	WGS84UTM19S	306422.1406	6530583.141	1593.794556	
	CERRO DE		206228 4684	6520794 591	1526 1/017	RCHIP
24LIIK000002	CERRO DE	00384010133	500528.4084	0330784.381	1550.14517	RCHIP
24LHR000603	ORO	WGS84UTM19S	306307.1555	6531000.333	1553.704956	
2411120000004	CERRO DE		205422 5040	CE21100 11C	4540.040445	RCHIP
24LHR000604	CFRRO DE	WGS8401M195	306423.6019	6531199.446	1548.848145	RCHIP
24LHR000605	ORO	WGS84UTM19S	306393.9469	6531351.609	1477.818726	
	CERRO DE					RCHIP
24LHR000606		WGS84UTM19S	306387.693	6531566.42	1384.167603	вснір
24LHR000607	ORO	WGS84UTM19S	306436.8337	6531828.056	1369.326294	NCHIF
241 HR000608	FERROCARRU	WGS84LITM19S	306841 6376	6529430 972	1537 89/165	RCHIP
24111000000			20000000000	CE20200 CO2	1000.0004100	RCHIP
24LHKUUU609	FERRUCARRIL	WGS8401101195	306630.9517	6529398.692	1638.032104	RCHIP
24LHR000610	FERROCARRIL	WGS84UTM19S	306604.8815	6529599.275	1666.799072	
24LHR000611	FERROCARRIL	WGS84UTM19S	306593.0052	6529799.121	1627.754517	кснір

				WGS		Sample
Sample ID	Project	WGS CRS	WGS Easting	Northing	RL	Method
	CERRO DE					RCHIP
24LHR000612	ORO	WGS84UTM19S	306603.0908	6530108.5	1517.092285	
	CERRO DE					RCHIP
24LHR000613	ORO	WGS84UTM19S	306577.0436	6530251.082	1522.317017	
24LHR000614	FERROCARRIL	WGS84UTM19S	307020.9347	6527789.948	1573.007568	RCHIP
						RCHIP
24LHR000617	FERROCARRIL	WGS84UTM19S	307029.6751	6528415.148	1530.674683	
24LHR000618	FERROCARRIL	WGS84UTM19S	307014.343	6528627.352	1531.628174	RCHIP
241 HR000610			207021 0422	6529905 015	1504 492765	RCHIP
24LHR000019	FERROCARRIE	WG38401W1195	307021.0433	0528805.915	1394.483703	RCHIP
24LHR000620	FERROCARRIL	WGS84UTM19S	307065.0045	6529033.407	1561.067749	
	SOUTHERN					RCHIP
24LHR000621	PORPHYRY	WGS84UTM19S	30/230.36//	6527738.69	1581.153442	DCLUD
241 HR000622			307209 259	6527075 /08	1550 010034	KCHIP
241111000022	SOUTHERN	W038401W135	307203.233	0327373.408	1550.510054	RCHIP
24LHR000623	PORPHYRY	WGS84UTM19S	307210.469	6528209.32	1512.327637	ile ili
	SOUTHERN					RCHIP
24LHR000624	PORPHYRY	WGS84UTM19S	307397.2579	6528189.249	1526.167358	
	SOUTHERN					RCHIP
24LHR000625	PORPHYRY	WGS84UTM19S	307393.6288	6527998.654	1574.290894	
2411022222	SOUTHERN		207454 2024	6507774 050	1000 700755	RCHIP
24LHR000626		WGS8401M195	307451.2921	6527771.259	1609.723755	DCLUD
241 HR000627			207288 2077	6528/17 32	1/150 120072	RCHIP
241111000027	SOUTHERN	W038401W135	307388.3377	0528417.52	1433.120372	RCHIP
24LHR000628	PORPHYRY	WGS84UTM19S	307242.6288	6528333.567	1470.769287	ile ili
	SOUTHERN					RCHIP
24LHR000629	PORPHYRY	WGS84UTM19S	307219.9743	6528783.408	1487.706055	
	SOUTHERN					RCHIP
24LHR000630	PORPHYRY	WGS84UTM19S	307154.405	6529015.869	1521.941162	
241112000624	SOUTHERN		2072 47 7262	6500040 760	4464 247264	RCHIP
24LHR000631		WGS8401M195	30/347.7363	6528842.763	1461.317261	DCLUD
24LHR000632	PORPHYRY	WG584UTM195	307474 4772	6528574 83	1442 730347	KCHIP
2421110000032	SOUTHERN	W03040110135	307474.4772	0320374.03	1442.730347	RCHIP
24LHR000633	PORPHYRY	WGS84UTM19S	308402.9958	6527805.031	1760	
	SOUTHERN					RCHIP
24LHR000634	PORPHYRY	WGS84UTM19S	308397.032	6527980.033	1747	
	SOUTHERN					RCHIP
24LHR000635	PORPHYRY	WGS84UTM19S	308398.0304	6528200.965	1718	
241 11000626	SOUTHERN		209406 0724	6529292 005	1700	RCHIP
24LHR000030	SOUTHERN	WG38401W1195	308400.9734	0328383.003	1702	RCHIP
24LHR000637	PORPHYRY	WGS84UTM19S	308395.0365	6528614.013	1697	Kerni
	SOUTHERN					RCHIP
24LHR000638	PORPHYRY	WGS84UTM19S	308349.9689	6528798.946	1727	
	SOUTHERN					RCHIP
24LHR000639	PORPHYRY	WGS84UTM19S	308227.9879	6528828.984	1672	
241110000040	SOUTHERN		200220 027	6528641.086	1607	RCHIP
24LHR000640	SOUTHERN	WG58401W195	308239.027	0528041.980	1627	рснір
24I HR000641	PORPHYRY	WGS84UTM19S	307988.0193	6528583.044	1530	Kenir
2 121110000011	SOUTHERN		007000010100	0020000011	1000	RCHIP
24LHR000642	PORPHYRY	WGS84UTM19S	308199.5971	6527786.999	1762.263062	
	SOUTHERN					RCHIP
24LHR000643	PORPHYRY	WGS84UTM19S	307999.6234	6527769.025	1722.579346	
	SOUTHERN					RCHIP
24LHR000664	PORPHYRY	WGS84UTM19S	308830.8765	6527775.705	1538.993042	DCLUD
241 HB000667		WGS84LITM105	308786 7742	6528202 722	1512 220014	RUHIP
24LFINUUU007		VV G 3040 I IVI 133	300/00.//42	0320392.723	1312.239014	вснір
24LHR000668	ORO	WGS84UTM19S	306551.5674	6530594.626	1572.3302	
	CERRO DE					RCHIP
24LHR000669	ORO	WGS84UTM19S	306581.9647	6531216.566	1519.09729	

Samula ID	Droject	WCS CDS	WCC Facting	WGS	DI	Sample
Sample ID		WGSCKS	wes easing	Northing	ĸL	Retiliou
	CERRO DE					RCHIP
24LHR000670	ORO	WGS84UTM19S	306590.5264	6531402.484	1510.081543	
	CERRO DE					RCHIP
24LHR000671	ORO	WGS84UTM19S	306527.3179	6531619.126	1427.360718	
241110000672	FERROCARRU		200770 2204	6520002.025	4600 420720	RCHIP
24LHR000673	FERROCARRIL	WGS8401M195	306776.3264	6528993.925	1688.120728	
241110000674			200020 5007	CE20100 010		RCHIP
24LHR000674	FERRUCARRIL	WG38401101195	306838.5867	0529188.819	15/5.560425	
	CENTRAL					RCHIP
24LHR000675	PORPHYRY	WGS84UTM19S	307644.9149	6531041.063	1373.433472	
	CERRO DE					RCHIP
24LHR000677	ORO	WGS84UTM19S	306375.2046	6529996.826	1605.86377	

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>Historical riffle split RC samples were collected for each metre of RC drilling to obtain 1m samples from which approx. 4kg was split and sent to the ALS laboratory in Chile. The 4kg sample is crushed to -2mm from which a 1kg sample is split and pulverized to 85% passing -75µm and a 30g charge is taken for standard fire assay with AAS finish. Any multi-element assays are done using Multi-Element Ultra Trace method combining a four-acid digestion with ICP-MS instrumentation. A four-acid digest is performed on 0.25g of sample to quantitatively dissolve most geological materials. Elements and detection limits are presented below. Drillcore is cut in half with a diamond saw and the same side of the half core is sampled on a one or two metre intervals.</li> <li>Historical RC samples are collected at 1m intervals from RC-LLA-001 to RC-LLA-014 and then 2m intervals in RC holes numerically thereafter. Historical RC drilling samples were collected on a 2m basis and split to around 3kg using a single tier riffle splitter and sent to ALS Chile for sample preparation and analysis. Samples are dried at 70 degrees Celsius for up to 24hrs then the entire sample is crushed to -2mm and a 1kg sample is split and pulverized to 80% passing 150mesh. A 400 gram pulp is split off and a 30gram charge taken for Fire Assay and Cu and Mo with all assays by AAS. The AAS analytical procedures are ISO 9001:2008 certified and are in accordance with ISO/IEC 17025</li> <li>Samples of the historical drillcore recently sampled were half HQ core samples on a one metre basis and were submitted to ALS in La Serena. Samples are dried ta 70 degrees Celsius for up to 24hrs then the entire sample is crushed to -2mm and a 1kg sample is split and pulverized to 80% passing 150mesh. A 400 gram pulp is split off and a 30gram charge taken for Fire Assay and multi element assays using ICPMS and OES.</li> <li>RC samples for drilling completed in 2021 and 2022 at Llahuin were collected on a 1m basis and put through a three tier "Jones type" riffle spli</li></ul>

• 2023 RC and diamond samples were collected as 2m samples and also

JORC Code explanation

#### Commentary

subject to the same procedure sample preparation procedure described above. Assays were industry standard four acid digest and Fire Assay with ICPMS finish for gold and ALS multi-element method MEMS61 for 48 elements. Elements and detection limits are presented below. Some near surface drill samples were also assayed for acid soluble copper.

Recent rockchips were collected using a geological hammer from outcrops or old workings in the field. Additional rockchips for the Fathom study were collected on an approximate 200m by 200m spaced grid. The samples are photographed bagged and sent to ALS La Serna Laboratory for analysis. The samples have an average weight of 4kg. The laboratory procedure is to log the samples into their tracking system and dry them then they are crushed to -2mm from which a 1kg sample is split and pulverized to 85% passing -75µm and a 30gram charge is taken for industry standard fire assay with AAS finish. Any multi-element assays are done using Multi-Element Ultra Trace method combining a four-acid digestion with ICP-MS instrumentation. A four-acid digest is performed on 0.25g of sample to quantitatively dissolve most geological materials. Elements and detection limits are presented below.

### **REPORTABLE ELEMENTS AND RANGES**

Metho	od Code		Analyte		Un	it	Low	ver Limit	l	Jpper Limi	t
Au-	AA23		Au		pp	m		0.00	5		10.0
ME-MS61	Analytes	and Report	ing Ranges								
		Lower	Upper			Lower	Upper			Lower	Upper
Analyte	Units	Limit	Limit	<u>Analyte</u>	Units	Limit	Limit	Analyte	Units	Limit	Limit
Ag	ppm	0.01	100	Al	%	0.01	50	As	ppm	0.2	10000
Ba	ppm	10	10000	Be	ppm	0.05	1000	Bi	ppm	0.01	10000
Ca	%	0.01	50	Cd	ppm	0.02	1000	Ce	ppm	0.01	500
Со	ppm	0.1	10000	Cr	ppm	1	10000	Cs	ppm	0.05	500
Cu	ppm	0.2	10000	Fe	%	0.01	50	Ga	ppm	0.05	10000
Ge	ppm	0.05	500	Hf	ppm	0.1	500	In	ppm	0.005	500
Κ	%	0.01	10	La	ppm	0.5	10000	Li	ppm	0.2	10000
Mg	%	0.01	50	Mn	ppm	5	100000	Мо	ppm	0.05	10000
Na	%	0.01	10	Nb	ppm	0.1	500	Ni	ppm	0.2	10000

Criteria	JORC Code explanation	Comme	ntary										
		Р	ppm	10	10000	Pb	ppm	0.5	10000	Rb	ppm	0.1	10000
		Re	ppm	0.002	50	S	%	0.01	10	Sb	ppm	0.05	10000
		Sc	ppm	0.1	10000	Se	ppm	1	1000	Sn	ppm	0.2	500
		Sr	ppm	0.2	10000	Ta	ppm	0.05	500	Те	ppm	0.05	500
		Th	ppm	0.01	10000	Ti	%	0.005	10	TI	ppm	0.02	10000
		U	ppm	0.1	10000	V	ppm	1	10000	W	ppm	0.1	10000
		Y	ppm	0.1	500	Zn	ppm	2	10000	Zr	ppm	0.5	500
		ALS	Multie	lemen	t packa	age M	EMS	S1for 2	2021 a	nd 202	22 and	2023	drilling
techniques	blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	<ul> <li>Reduce a factorial 2023 using diam</li> <li>Historial three and diam drillir drillir using using</li> </ul>	RC a RC a an E ond ri rical I differ R Mu ond d g wa g rig g a Re the tr	npling nd diai DM 20 g (simi Drilling rent dri nñoz L rilling v s com drillin eflex e raditior	hamm mond c 00 RC lar to a acros illing c td for vas HC oleted g HQ3 ectron nal spe	er with drilling utilizin a Long s the ompan both Q core by RI triple ic cor ar and	n a 5.2 was o ng a fa gyear Llahu nies. RC o size a Muno: tube e orie d cray	25incf compl ace sa 44). in Pro They i drilling and w z usin techr ntatio on me	pject an nclude ampling ampling ampling ampling a and as not as n	eter bit y DV E g hamr rea ha e HSB diamo orient andvik and the Orien nd fou	s by R Drilling ner an Sonda Sonda Sonda ated. F 2 710 f core tations nd to r	Muñoz from L d a Fo n com ajes, G illing. Recent was o s were match	pleted by becosupply Historical t diamond diamond prientated e checked very well.
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>All in record same relation exercises and exe</li></ul>	recent ple set tionsh ellent. ples c n the a HQ orical 00m d m fror	RC S is acce eparati ip betv A boo lry. The hole w size d RC dr epth. 1 n surfa	Sample eptable on be veen s ster ar e 2023 vent we iamon illing e The wa ice. Wi	es wei tween sample ad aux RC di et the d tail v ncoun ter tak nere ti	re we driller each e reco ciliary rilling RC w where tered ole is o he wa	ighed lifts of netrovery comp utilize vas sto nece water genera ter tal	and v off betw re. The and gr ressor d a sin opped ssary. r table ally end ble is e	veight: ween of rade a were of gle con and th ie wet counte encour	s reco each r esn't a s sam utilized mpres ne hole samp red be itered,	rded 1 netre appea ple re to ke sor an e was les be tween a rota	to ensure to ensure r to be a ecovery is ep all RC d as such extended etween 20 a 20m and ary splitter

Criteria	JORC Code explanation	Commentary
		<ul> <li>is used to assist with RC sample quality. Approximately sixty percent (60%) of the RC samples are reported to be wet. This issue has been partially remediated by using diamond drilling in preference to RC drilling for all further historical resource definition drilling. AMS concluded no significant bias in using the wet RC drill holes.</li> <li>Historical RC and DC drilling and data collection methods applied by SHM have been reviewed by AMS during successive site visits for the historical drilling.</li> <li>All recent diamond drilling core recovery was measured to be approx. 95%.</li> <li>Recent diamond drilling showed assays to be less than expected for gold at Colina2 and the sludge from the coresaw was sampled and sent to ALS La Serena for gold analysis. Samples of the drilling sludge were also collected in 3m downhole intervals to check the amount of gold in the outside return. Both types of samples were assayed for gold returned values of 0.512 g/t gold from the coresaw sludge sample and from 0.05 to 1.87 g/t gold in the drilling sludge samples. The core from holes 22CLDD026 to 029 was split using a core splitter to reduce gold being lost in the drilling process and the core cutting process. RC will be utilized as the preferred drilling technique in future drilling programs.</li> </ul>
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>The samples were geologically logged on site. Logging was both qualitative and quantative in nature for both recent drilling and historical drilling. All drillcore and RC drillholes were logged in entirety. All core was photographed and the photographs catalogued.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> </ul>	<ul> <li>RC samples were collected into a green plastic bag which is then riffle split into a numbered calico bag for each metre of drilling. The majority of the RC samples were dry as holes were stopped if the RC drilling went wet. If significant groundwater was encountered an auxiliary compressor and booster were utilized to keep the sample dry. Field duplicates were not collected but can be split later to confirm results.</li> <li>Historical DC samples are taken on 2m intervals. In some places, this sample interval overlaps lithological contacts, although contacts are hard to</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>determine in places due to pervasive alteration. Historical drill core has not been orientated for structural measurements. The core is cut lengthways with a diamond saw and half-core is sent for assay. The half-core is bagged every 2m and sent for preparation, while the remaining half-core is returned to the labelled cardboard core box. A cardboard lid is placed on the box, and it is stored in a newly constructed weatherproof storage facility (warehouse) for future reference.</li> <li>There is no relationship between the sample size and the grain size of the material being sampled at Llahuin.</li> <li>Recent HQ3 diamond drilling at Colina was initially cut with an industry standard core saw until it was realized that gold was being lost in the core saw and a core splitter was used after hole 22CLDD025. Sample size is considered important with nuggety gold and thus one hole (22CLDD026) had whole core submitted to see if the gold grades improved. No apparent difference was seen in the gold grade. Compared to the RC drilling where much higher grades were intersected it is thought the much larger sample size of the RC (30kg/metre vs 3kg for the core) is a more representative sample.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>The assay technique utilized is "industry Standard" fire assay with AAS finish for gold which is a total digestion technique.</li> <li>For the recent RC drilling appropriate industry standard CRM's and blanks were inserted into the sample stream at a rate of approximately 1:20 samples for both standards and blanks. This is considered above industry standard for the recent drilling and there is no apparent bias of any significance at Llahuin.</li> <li>Historical drilling - Blanks and field duplicates are inserted at irregular intervals, at a range of between 1:20 and 1:40.</li> <li>A total of 1,738 laboratory standards have been analysed in a large variety of Cu and Au grade ranges, and there is no apparent bias of any significance (AMS June 2013)</li> <li>A total of 462 blanks have been inserted into the sample stream (RC and DDH).</li> <li>Recent diamond core samples had CRM's and blanks inserted at a rate of approximately 1:20. Additionally coarse crush duplicates of the DDH samples were split by ALS and assayed to give duplicate data at 1:20. Duplicate data shows a very good comparison. A total of 77 Umpire assays were completed at 1:40 for recent RC and diamond core sample by Andes Analytical Assay in Santiago and showed correlation coefficients for the</li> </ul>

Criteria	JORC Code explanation	Commentary
		paired data for all elements was above 0.9.
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>The company's exploration manager (QP) has made several site visits and inspected the sampling methods and finds them up to industry standard for all the recent drilling. Ian Dreyer completed a site visit in October 2023 and reviewed the new drilling and some of the better historical intersections.</li> <li>Prior to March 2012, DDH was performed predominantly as tails at the termination of some of the RC holes. DDH performed from April 2012 has been from the surface with a total of 4 diamond drill holes twinned to pre-existing RC drill holes. Twin hole drilling was completed across the Central Porphyry and Cerro De Oro zones. AMS concluded that there is insufficient data to make a definitive comparison, and that the twins are sufficiently far enough apart to explain some of the grade differences. No new drilling has been twinned yet.</li> <li>Logging is completed into standardized excel spreadsheets which can then be loaded into an access front end customized database.</li> <li>There have been no adjustments to the assay data.</li> <li>Historical sampling and assaying techniques were independently verified by Mr. Bradley Ackroyd of Andes Mining Services who undertook a site visit to the Llahuin Copper-Gold Project between 5th and 8th of May 2013. He inspected the drill sites, drill core and chips, logging, sample collection and storage procedures as well as the office set-up and core processing facilities. Mr. Ackroyd also observed all the available surface exposures of the deposit across the Llahuin project area. In addition, Mr. Ackroyd undertook a short review of the quality control and assurance procedures employed at the project site.</li> <li>No adjustments have been made to the assay data.</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	A licensed surveyor was employed to pick up the new drillhole locations. The survey was performed by Mr. Luciano Alfaro Sanders using a total station instrument. The collars picked up to within 0.1m accuracy. This accuracy was not able to be checked, however the relative positions of the drill holes has been confirmed during the site visits. The recent (2021-2023) drilling collar surveys were done by Misure a company from La Serena using an RTK total station. Downhole surveys were done by Misure using a downhole gyroscope. Rockchips and soil samples are located with a Garmin handheld GPS unit accurate to 3m which is considered good enough for the type of exploration work being done.

Criteria	JORC Code explanation	Commentary
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>The recent drillhole spacing is approx. 20 to 40m spaced holes in various locations.</li> <li>Drilling was completed within an existing resource and scout type drilling was completed in previously undrilled areas at Llahuin.</li> <li>Historical drilling was completed at The Central Porphyry, Cerro de Oro and Ferrocarril zones have been drilled on a nominal spacing of 50m by 50m in the upper portions and 100m x 100m in the lower portions of the deposits.</li> <li>No sample compositing has been applied in the recent drilling and 2m composites were taken in the majority of the historical drilling.</li> <li>Rockchips typically don't have a set sample spacing as they are taken from outcrops. Some continuous chip samples were taken along road cuttings. The soil sampling grid used an initial 200m by 50m grid with final infill typically 50m by 25m.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>The drilling was done perpendicular to the interpreted strike of the mineralisation to reduce sampling bias.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>Samples were collected by a qualified consulting geologist and the samples were delivered to the lab by a company employee. Competent Person Reg No 0336. Recent samples from 2021-2023 are taken to ALS La Serena by a company representative in a company supplied vehicle.</li> </ul>
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	<ul> <li>Andes Mining Services completed an external audit and review in 2013 of the historical drilling and sampling procedures.</li> <li>Ian Dreyer reviewed the current sampling procedures and concluded they were acceptable to industry standard. The QP has reviewed the current QAQC data and found the data to be acceptable.</li> </ul>

# Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>The Llahuin Project is 100% owned by SUH.</li> <li>The security of tenure is considered excellent as the licence is 100% owned by SUH.</li> <li>There are no known impediments to obtaining a licence to operate in the area.</li> </ul>
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>Previous drilling on the licence by SUH has been done to industry standard as per AMS report (SUH press release 19<sup>th</sup> August 2013).</li> </ul>
Geology	<ul> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	• Exploration is targeting porphyry Cu-Au Porphyry style mineralization hosted in Miocene intrusives (diorite) at Llahuin and potential IOCG type gold copper and gold mineralisation at Colina2.
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	Appendix 1
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of</li> </ul>	<ul> <li>No data aggregation methods have been used.</li> <li>A copper equivalent in the Mineral Resource Estimate is reported using the following metal prices Cu \$3.20/lb, Au \$1,700/oz and Mo \$12.50/kg.</li> <li>The copper equivalent for the rockchips is reported using Cu \$3.20/lb, Au \$1,650/oz and Ag \$20/oz.</li> <li>The copper equivalent for the 2023 drilling is reported using Cu</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul> <li>such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	\$3.77/lb, Au \$1,900/oz, Ag \$23/oz and Mo at \$17/lb.
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul> <li>Exploration drilling was targeting near surface material in a porphyry Cu-Au system. Therefore the mineralised widths are much greater than the drillhole depths for the Central Porphyry. Drilling at Cerro De Oro is partly infilling historical drilling so therefore downhole widths have been reported and true widths are not established yet as the historical drilling appears to be too widely spaced. Drilling in all areas has been conducted perpendicular to the regional trend observed in outcrop.</li> <li>Exploration at Colina2 was targeting potential IOCG type gold and recent drilling was orientated perpendicular to the regional trend observed in outcrop.</li> </ul>
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul> <li>Appropriate maps have been included in the release.</li> </ul>
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul> <li>A range of grades were included in the release.</li> </ul>
Other substantive exploration data	<ul> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<ul> <li>A drone magnetics survey was completed over the project area in 2021 by GFDas UAV Geosciences Santiago Chile. Survey specifications provided below.</li> <li>Company: GFDAS Drones and Mining Line direction: 90°-270° Line separation: 25m Tie line Direction: 0-360 Tie lines separation: 250m Flight Height: around 25m AGL following topography (according to operational safety conditions) Registration Platform Mag: DJI M300 Drone Registration Platform Topo/ortho: DJI Phantom RTK Pro Drone Geoidal Model: EGM08 Flight speed: 5-10m/s Mobile sampling: Fluxgate magnetometer, 25 Hz Resolution: Digital Elevation Model 1 m and Resolution: Orthophoto with 20 cm/pixel</li> </ul>

Criteria	JORC Code explanation	Commentary
		Base sampling: Geometrics magnetometer sampling 30s. Positioning: Phantom 4 RTK
		Survey Module: The flight module uses a VTOL drone, powered by rechargeable electric batteries and a positioning system with three GPS antennas. The registration module was miniaturized, simplified and made of low weight components suitable for lifting by the drone. These correspond to the magnetometer, acquirer and analogue-digital converter.
		Magnetic Survey: The data was corrected for Diurnal variances, micro levelled with the use of the tie lines by GFDAS Drones and Mining. They also applied the Reduction to the Pole process on the data (inclination -32.3° and 0.4° declination) that was supplied to our company.
		Topographic flight plan: Due to the strong differences in the elevations of the terrain, it was flown from different points within the north-south polygons with differentiated flight height, to achieve a pixel resolution as requested. These flight heights had a range between 350 m and 460 m (AGL flight height). The overlaps of flight lines were between 75% and 80%, this was done depending on the flight height and detail required.
		• Fathom Geophysics applies its proprietary 3D porphyry footprint modelling method on recently collected rock chip and drillhole pulp data at Llahuin. This method uses eleven elements (As (arsenic), Bi (bismuth), Cu (copper), Li (lithium), Mo (molybdenum), Sb (antimony), Se (selenium), Sn (tin), Te (tellurium), TI (thallium), and W (tungsten), to map idealised deposit model zonation and thresholds based on the Halley et al., (2015) geochemical model. Deliverables from this work are a set of wireframe shells representing probabilities of the presence of a porphyry system at a given point in 3D space.
Eurther work	The neture and eacle of planned further work (or tests for lateral	- Follow up drilling of recently generated coil geochemical enemalies is
	<ul> <li>The nature and scale of planned futurer work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Pollow up drining of recently generated son geochemical anomalies is planned for Llahuin. Geochemical footprint modeling.</li> <li>Additional rockchip sampling is being evaluated.</li> <li>Pulp composite assaying</li> </ul>