

QUARTERLY ACTIVITIES REPORT

FOR THE PERIOD ENDING 31 DECEMBER 2022

HIGHLIGHTS

- Phase 2 extensional drill program commenced at the Palma Project, with step-outs at depth and along strike ongoing, aiming to significantly expand the existing JORC 2012 Mineral Resource Estimate (**MRE**) of 4.6Mt @ 1.0% Cu, 3.9% Zn, 0.4% Pb & 20g/t Ag.
- Significant intercepts reported from diamond drilling during the quarter include:
 - PD3-056: 14.9m @ 5.6% CuEq or 13.6% ZnEq** (2.2% Cu, 10.8% Zn, 0.5% Pb, 34g/t Ag & 0.11g/t Au) from 74m
 - Inc. **5.0m @ 8.3% CuEq or 20.2% ZnEq** (2.7% Cu, 17.5% Zn, 0.9% Pb, 53g/t Ag & 0.16g/t Au) from 75m
 - PD3-053: 17.1m @ 1.7% CuEq or 4.2% ZnEq** (1.2% Cu, 2.1% Zn, 0.2% Pb, 12g/t Ag & 0.03g/t Au) from 294m
 - PD3-059: 14.2m @ 3.0% CuEq or 7.3% ZnEq** (1.1% Cu, 6.1% Zn, 0.2% Pb, 12g/t Ag & 0.04g/t Au) from 228m
 - Inc. **4.8m @ 7.3% CuEq or 17.8% ZnEq** (1.8% Cu, 16.8% Zn, 0.4% Pb, 24g/t Ag & 0.1g/t Au) from 237m
- Diamond drill results continue to confirm, enhance and potentially extend the MRE defined by historic drill results.**
- Downhole Electromagnetic (**DHEM**) surveys at C3 have highlighted conductive plates coincident with mineralisation that demonstrate the potential to significantly expand C3 mineralisation at depth and along strike.
- Reverse Circulation (**RC**) drilling intercepted significant broad zones of supergene mineralisation at the C3 prospect, including zones of exceptionally high-grade copper. Significant RC drill intercepts include:
 - 29m @ 2.0% Cu**, 0.3% Zn, 0.1% Pb, 7.6g/t Ag & 0.03g/t Au from 28m in hole PRC3-013
 - Inc. **6m @ 7.1% Cu**, 0.4% Zn, 0.3% Pb, **68.0g/t Ag** & 0.04g/t Au from 32m
 - 32m @ 1.0% Cu & 0.6% Zn** from 17m in hole PRC3-008
 - Inc. **6m @ 2.3% Cu** & 0.4% Zn from 41m
- Preliminary metallurgical testwork indicated excellent recoveries and concentrate grades from the C3 prospect results, with locked-cycle testwork underway.
- Secured enhanced in-house exploration capabilities to accelerate regional exploration, through the purchase of Induced Polarisation (**IP**) equipment and a truck mounted Auger drill rig.
- Cash balance of \$2.06M at 31 December 2022 with \$275,000 cash expected to be received during the March 2023 quarter** from the return of a government bond associated with the Palma acquisition.
- Drilling remains ongoing testing resource expansion targets at C3 and multiple high priority regional VMS prospects including Mafico, Ema and Pelicano.**



REGISTERED ADDRESS

Alvo Minerals Limited
ACN 637 802 496

Level 4, 100 Albert Road,
South Melbourne VIC 3205
Australia
www.alvo.com.au

MANAGEMENT TEAM

Graeme Slattery – Non-Executive Chairman
Rob Smakman – Managing Director
Beau Nicholls – Non-Executive Director

E: info@alvo.com.au
P: +61 3 9692 7222

PROJECT

Palma Project

Shares on Issue	72,830,314
Cash	\$2.1M (at 31 Dec 2022)
ASX Code	ALV

Alvo Minerals Limited (ASX: ALV) (“Alvo” or the “Company”) is pleased to provide its Quarterly Activities Report for the period ending 31 December 2022*. Alvo is exploring its Palma VMS Project in Brazil (“Palma Project” or the “Project”), a Project that has significant high-grade copper and zinc potential in existing prospects, brownfields prospects and greenfields targets within a district scale exploration package.

Exploration Activities

Diamond Drilling at the Palma VMS Project

During and subsequent to the reporting period, Alvo announced first assay results from its extensional diamond drill program at the C3 prospect, within the Palma Project in central Brazil.

Phase 2 drilling at the C3 prospect is aiming to significantly expand the existing Palma Project JORC 2012 MRE of 4.6Mt @ 1.0% Cu, 3.9% Zn, 0.4% Pb & 20g/t Ag (Figure 1). Phase 2 drilling follows an exceptional Phase 1 drill program that delivered drill results that exceeded expectations on grade and thickness when compared to the existing MRE that used historical drilling only.

Diamond drilling is ongoing at C3, testing extensions to the high-grade VMS mineralisation. Post 31 December 2022, the Company released large extensions high-grade mineralisation, including an intercept approximately 50m down-dip of the existing MRE (See ASX Announcement 19 January 2023).

The Company is also testing new regional targets within the C3 cluster including the Mafico, Ema, Pelicano and Pombo Prospects. Electromagnetic surveys (both surface – FLEM and downhole DHEM) and Induced Polarisation (“IP”) surveys are ongoing to assist in targeting new VMS mineralised prospects.

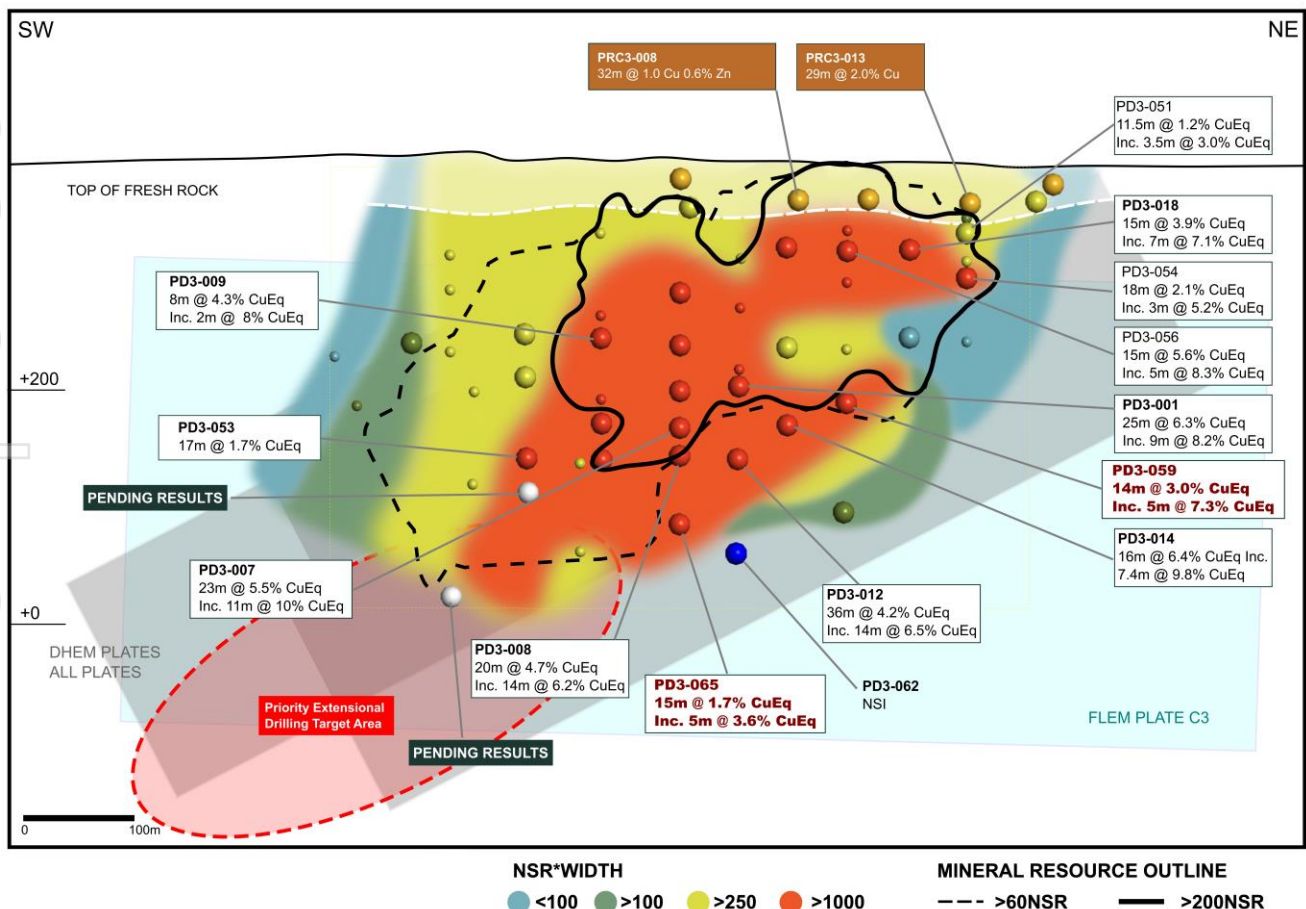


Figure 1: C3 Long section illustrating selected significant intercepts, DHEM plates and Phase 2 drilling.

*All dollar amounts are A\$ unless stated otherwise

C3 Upgrade Drilling

Early holes in the Phase 2 drill program were drilled following a review of Phase 1 drilling, with several upgrade holes targeting areas of low density drilling of over 100m between drill lines and returned exception high-grade shallow intercepts including:

- PD3-056: 14.6m @ 0.5% Cu & 0.5% Zn from 36m (**Supergene**)
- PD3-056: **14.9m @ 5.6% CuEq or 13.6% ZnEq** (2.2% Cu, 10.8% Zn, 0.5% Pb, 34g/t Ag & 0.11g/t Au) from 74m
 - Inc. **5.0m @ 8.3% CuEq or 20.2% ZnEq** (2.7% Cu, 17.5% Zn, 0.9% Pb, 53g/t Ag & 0.16g/t Au) from 75m

C3 Drilling - Northern Extension

Phase 2 Drilling also tested mineralisation extending to the north to better understand the geometry of mineralisation and the northern extent of the VMS and supergene mineralisation. Better results from the northern extensions include:

- PD3-051: **11.5m @ 1.2% CuEq or 3.0% ZnEq** (0.4% Cu, 2.7% Zn, 0.1% Pb & 6g/t Ag) from 52m
- PD3-054¹: **17.7m @ 2.1% CuEq or 5.1% ZnEq** (1.1% Cu, 3.6% Zn, 0.1% Pb & 5g/t Ag) from 101m
 - Inc. **2.9m @ 5.2% CuEq or 12.8% ZnEq** (0.9% Cu, 13.1% Zn, 0.4% Pb & 16/t Ag) from 102m; and
 - Inc. **1.0m @ 3.9% CuEq or 9.4% ZnEq** (4.6% Cu, 1.2% Zn, 0.02% Pb, 12g/t Ag & 0.02g/t Au) from 115m

PD3-055 was drilled a further 50m to the north (from holes 51 and 54) and intercepted a broad supergene interval and significant alteration, although no significant VMS intercepts were returned. Notably, Alvo interprets an E-W fault zone in this area, which may have displaced the mineralisation to the east. An untested VTEM anomaly to the NE will be followed up with a FLEM survey to test this theory.

C3 Drilling- Southern Extension

Phase 2 Drilling tested southern extensions in an area of weak historical results. Drilling confirmed that mineralisation extends in this direction as indicated by the FLEM and DHEM surveys. Additional holes were released subsequent² to the quarter end which focussed on the down plunge extensions towards the south at C3. **High-grade mineralisation was intersected approximately 50m down-dip of the existing JORC 2012 MRE.**

Better results from the southern extensions include:

- **PD3-052: 5.0m @ 0.5% CuEq or 1.1% ZnEq** (0.4% Cu, 0.3% Zn, 0.1% Pb & 2g/t Ag) from 294m
- **PD3-053: 17.1m @ 1.7% CuEq or 4.2% ZnEq** (1.2% Cu, 2.1% Zn, 0.2% Pb, 12g/t Ag & 0.03g/t Au) from 294m
- **PD3-059: 14.2m @ 3.0% CuEq* or 4.2% ZnEq** (1.1% Cu, 6.1% Zn, 0.2% Pb, 12g/t Ag & 0.04g/t Au) from 228m
 - Inc. **4.8m @ 7.3% CuEq or 17.8% ZnEq** (1.8% Cu, 16.8% Zn, 0.4% Pb, 24g/t Ag & 0.1g/t Au) from 237m
- **PD3-065: 13.0m @ 1.5% CuEq or 3.6% ZnEq** (1.0% Cu, 1.8% Zn, 0.1% Pb, 8g/t Ag & 0.02g/t Au) from 333m
 - Inc. **4.7m @ 3.1% CuEq or 7.7% ZnEq** (1.9% Cu, 4.6% Zn, 0.31% Pb, 21g/t Ag & 0.05g/t Au) from 340m
- **PD3-065: 14m @ 1.7% CuEq or 4.2% ZnEq** (0.7% Cu, 3.3% Zn, 0.2% Pb, 10g/t Ag & 0.03g/t Au) from 376m
 - Inc. **5.3m @ 3.6% CuEq or 8.7% ZnEq** (1% Cu, 8% Zn, 0.5% Pb, 25g/t Ag & 0.05g/t Au) from 379m

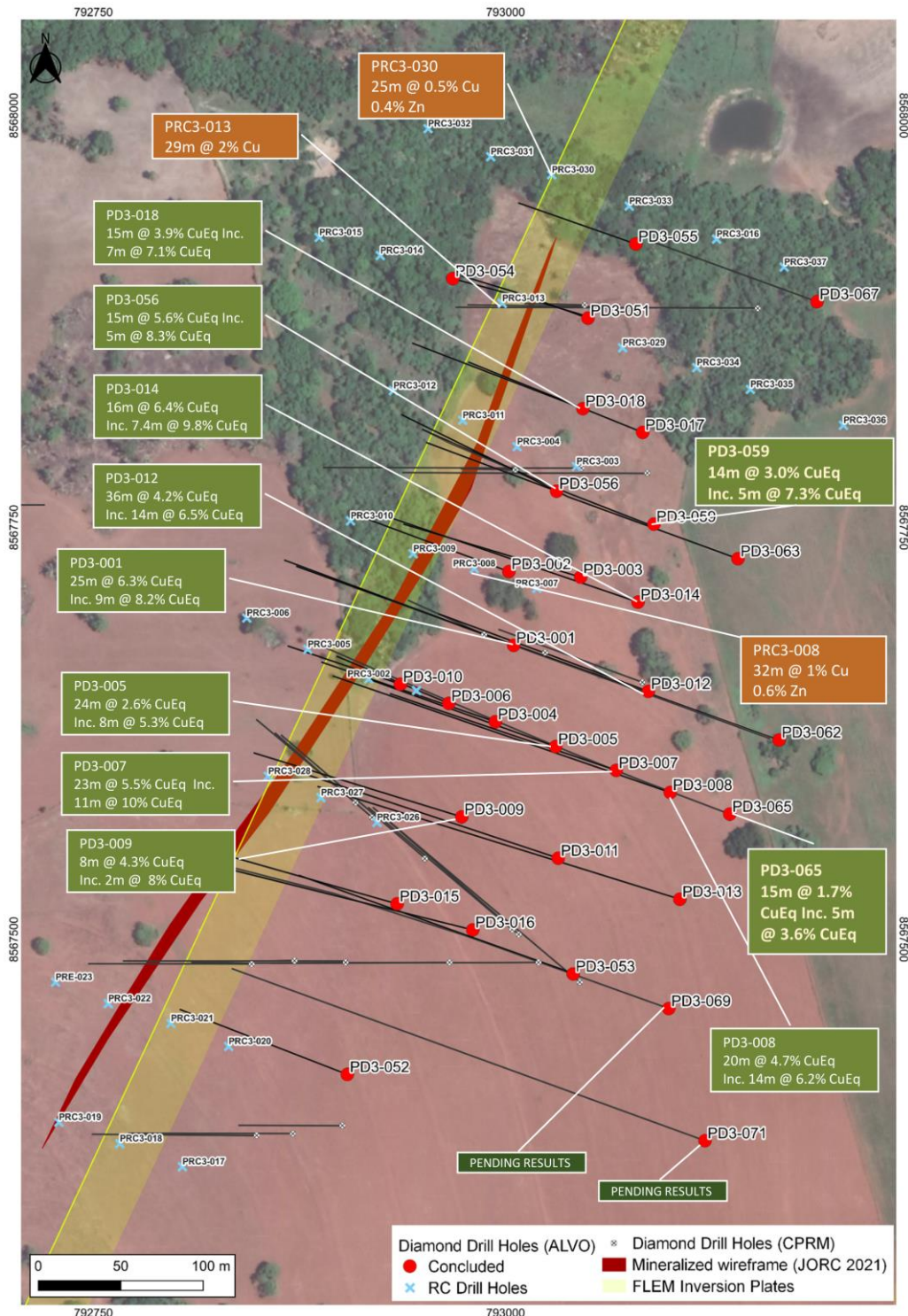
¹ PD3-054 was drilled as a scissor hole to test geological continuity and is considered parallel to mineralisation

² See ASX announcement of 19 January 2023



Downhole Electromagnetic (DHEM) Surveys

DHEM surveys are ongoing, initially completed on Phase 1 drill holes, utilising the company's in-house equipment. Inversion and interpretation of this data has closely matched the known VMS mineralisation and conductive plates that are interpreted to extend hundreds of metres at depth and along strike-demonstrating the potential to significantly expand C3 mineralisation.



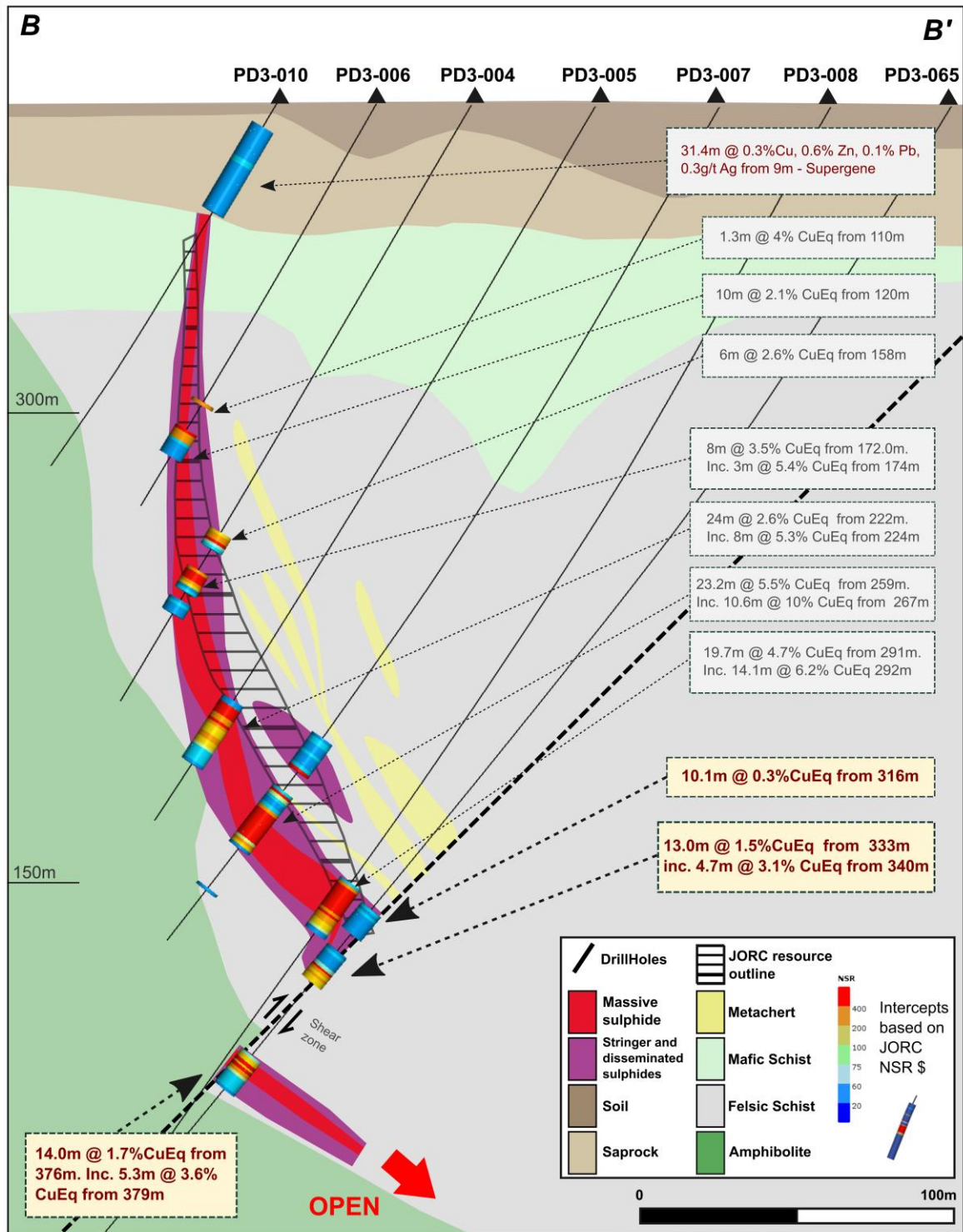


Figure 3: Cross section from C3 prospect including most recent drill results.

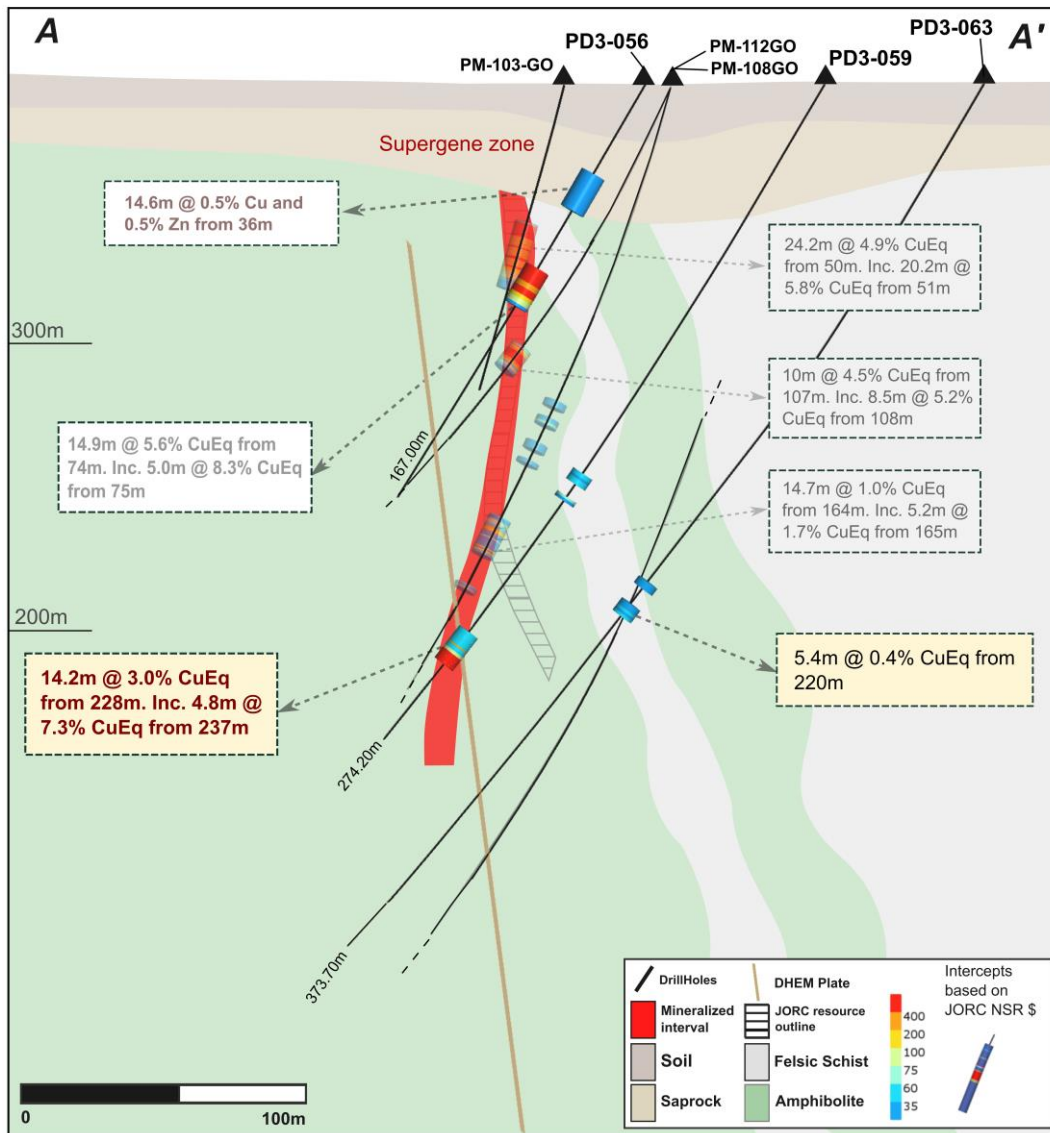


Figure 4: Cross section from C3 prospect including most recent results.

Supergene Mineralisation

During the period, the Company announced it completed 1,466m in 37 holes of Reverse Circulation (“RC”) drilling at C3, targeting shallow supergene mineralisation, a previously unknown style of mineralisation first discovered by Alvo during diamond drilling on the Project in early 2022 (see ASX announcement 14 February 2022).

The supergene appears to form as a blanket of oxidised material around the near-surface extension of the unoxidized VMS mineralisation. Results confirmed the mineralisation is primarily concentrated in the NE of the C3 and appears to be getting broader towards the NE. The near-surface mineralisation was expected to be broad and lower grades, however several returned exceptional high-grade and wide copper intercepts (see tables 2 and 4 for full results and collar details). Significant results included:

- PDC3-002: **15m @ 0.5% Cu**, 0.2% Zn from 3m in hole PRC3-002
- PDC3-013: **14m @ 0.6% Cu**, 0.1% Zn, 0.4% Pb, 6.1g/t Ag & 0.46g/t Au from 6m
- PDC3-013: **29m @ 2.0% Cu, 0.3% Zn, 0.1% Pb, 7.6g/t Ag & 0.03g/t Au** from 28m
 - Inc. **6m @ 7.1% Cu, 0.4% Zn, 0.3% Pb, 68.0g/t Ag & 0.04g/t Au** from 32m



- PDC3-008: **32m @ 1.0% Cu & 0.6% Zn** from 17m in hole PRC3-008
 - Inc. **6m @ 2.3% Cu & 0.4% Zn** from 41m
- PDC3-030: **25m @ 0.5% Cu & 0.4% Zn** from 4m in hole PRC3-030
- PDC3-031: **25m @ 0.3% Cu & 0.4% Zn** from 3m in hole PRC3-031

Samples supergene zone were sent to Australia for metallurgical testwork. These samples will be tested later in the metallurgical test work program.

Enhanced in-house exploration capability

Alvo imported a mechanical auger drilling rig during the quarter which is now operational (post quarter end). The auger rig will provide fast, efficient and cost-effective regional geochemical sampling to a maximum depth of 30m. The auger rig will enable testing below a complex laterite cover (between 1 and 8m thick) in which traditional soil geochemistry has been partially ineffective. This significantly enhances VMS target identification, ranking and drill testing across the extensive 60km of prospective strike length at the Palma Project.

Alvo has also imported a full system of Induced Polarisation (“IP”) equipment, allowing for sophisticated surveys (dipole-dipole, pole-dipole and gradient array) to be completed in-house by Alvo’s geophysical team. The IP surveys are effective in exploring for disseminated sulphides which often occur proximal to the massive sulphides of the VMS systems. IP survey will provide another valuable tool for exploring the Palma belt.



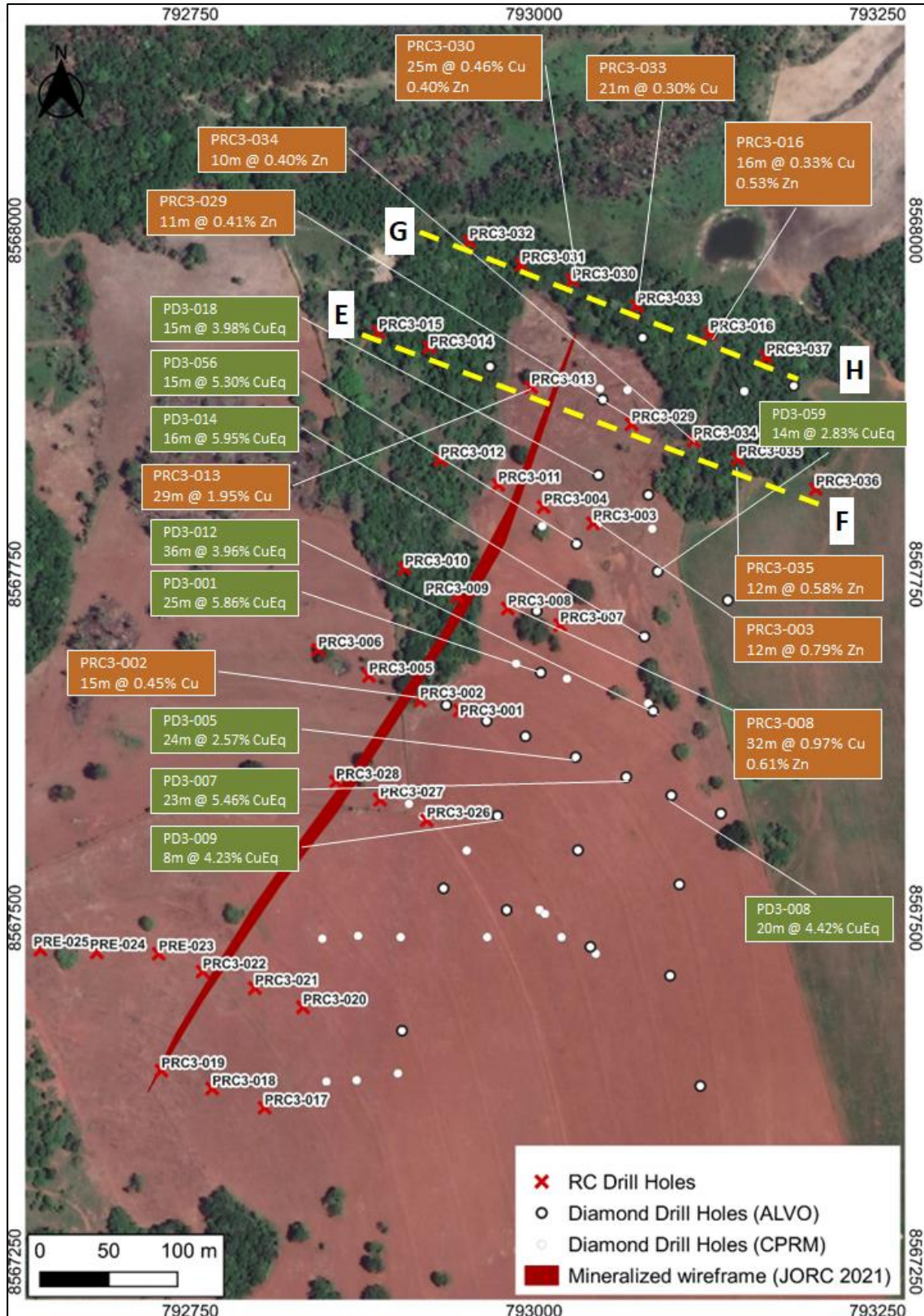


Figure 5: Drill plan over C3. Orange boxes refer to RC Supergene results and green boxes are VMS (previously announced).

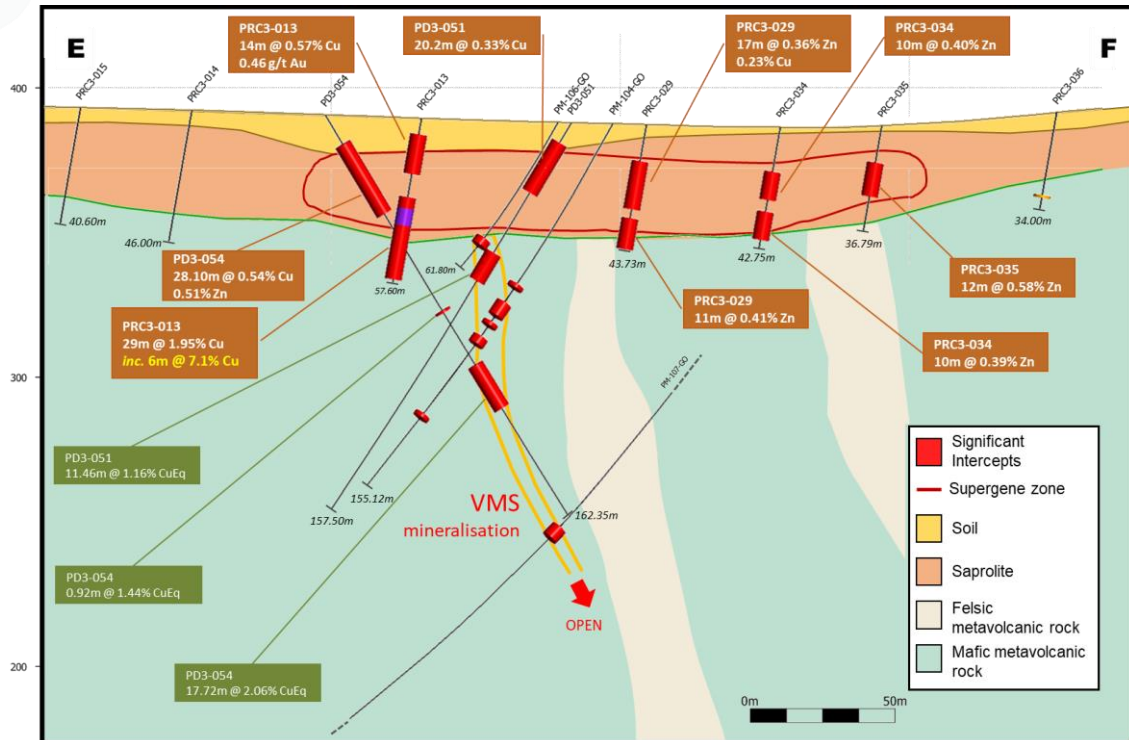


Figure 6: Cross section E-F from C3 prospect

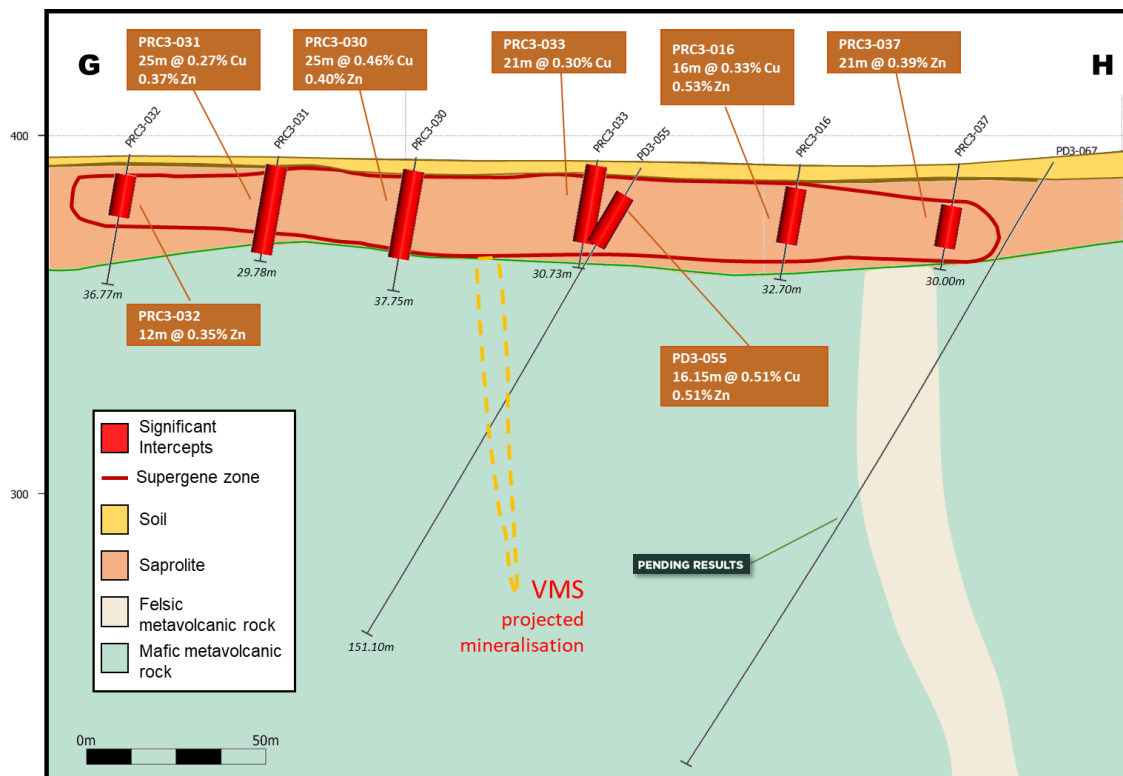


Figure 7: Cross section G-H from C3 prospect

Metallurgical Testwork Program

During the quarter, the Company announced excellent preliminary metallurgical testwork results from a bulk sample of mineralised samples from the C3 prospect within the Palma Project.

Alvo prepared and sent over 315kg of diamond core in 202 individual samples from the C3 prospect in Central Brazil to Auralia Metallurgy (a specialist in minerals flotation) in Perth, Australia. The samples were selected and received under the supervision of BHM Process Consultants ("BHM"), specialists in Metallurgical testwork management and supervision.

The samples were received and logged, composited and the preparation of a master composite was completed. The master composite was selected to approximately match the overall expected grade of the C3 VMS mineralised zone. The sample was initially tested with a 2-stage rougher flotation at P_{80} 125 μ m, 106 μ m and 75 μ m and the results analysed for future work.

Bond Work Index test results

Auralia Metallurgy also completed a Bond Mill closed circuit grindability test on the C3 master composite sample. The open test aperture for this sample was 106 μ m and the resultant Bond ball mill work index was 14.0 (kilowatt hours/dry tonne). On the standard scale of material property, this is considered Medium-Hardness and relatively soft compared to other VMS projects.

Preliminary metallurgical testwork results

The finest of the rougher tests (P_{80} at 75 μ m) was chosen for single-pass Rougher and Cleaner stage Flotation tests and the various samples were sent to the Nagrom independent laboratory for assaying.

The metallurgists from BHM view the preliminary results as extremely positive.

"Given the very-high rougher recoveries, it is projected that significant improvements in terms of both overall recovery and zinc product grade can be achieved in locked cycle testing."

Two concentrates were successfully separated, with the Copper and Lead reporting to the first bulk sulphide concentrate containing grades of 25.2% Cu, 3.35% Pb, 1.84% Zn, 246g/t Ag, 0.9g/t Au. The recovery of the Cu to this concentrate was >70%, however there is significant metals in the tails which may be recovered during additional testwork (there was only 1.6% of the Cu rejected in the rougher tails). A calculated projected recovery to this concentrate for the Cu (to be confirmed by locked cycle tests currently underway) is 81.1% Cu, at >20% Cu grade.

The second concentrate was a Zinc Concentrate which reported a grade of 46.2% Zn, 1.93% Cu, 0.25% Pb, 0.12 g/t Au and 20 g/t Ag. The recovery of the Zn to this concentrate was >56%, however there is significant metals in the tails which may be recovered during additional testwork. Overall assumed recovery of the Zn in this concentrate (to be confirmed by locked cycle tests currently underway) is estimated 82.3% Zn at >50% Zn grade.

The ongoing locked cycle testwork will better estimate the final concentrate grades and recoveries as the cleaner tails are re-circulated. This will allow for the metal in the system to either report to a concentrate or final tailings.

The arsenic rejection to the rougher tail is significant at ~67%. The grades observed in the final concentrates are well below normal penalty specifications, however, as the target metal recoveries increase in a locked cycle, the values of the As and other metals may increase.

No product marketing of the concentrates has been completed to date, however based on industry standards these concentrate grades are considered attractive, particularly the copper and lead concentrate. Optimisation is ongoing to elevate the zinc concentrate to >50 % contained Zn.



Desktop Review: Acid Production from Tailings

The Company requested BHM undertake a concept review of generating sulphuric acid from the tailings using known processing technology, as a way of mitigating potential environmental risk, adding another potential revenue stream to the project and increasing the sustainability credentials of the project and company overall.

BHM reported that, assuming the grade of the tailings is similar to the C3 master composite generated from the testwork described above:

“From a desktop perspective, there is sufficient sulphur and the right mineralogy to produce a mineral concentrate that should be suitable for the production of sulphuric acid for sale. This process will generate electrical energy from the thermal reactions on site, potentially enough to run its own plant and off-set some of the concentrator power demand also.”

The conversion of sulphur to sulphuric acid is exothermic and the gasses produced may be suitable for heat recovery and used to generate power. BHM also reported that one of the by-products may be high-grade iron ore (blend of hematite and magnetite), which may also be saleable.

Additional testwork will be initiated in 2023 to test this theory in addition to desktop work to understand the typical capital and operating costs of “off-the-shelf” sulphuric acid plants.

Corporate

Securities Information

As at 31 December 2022, the Company had 72,830,314 ordinary fully paid shares on issue (of which 16,634,198 are escrowed until 20 October 2023) and 12.6M unlisted options granted at various vesting and expiration dates.

Financial

As at 31 December 2022, the Company had a net cash position approximately \$2.06 million. Refer to the Appendix 5B Quarterly Cashflow Report for further information.

Alvo expects to receive \$BRL995,400 (~\$AUD 275k) during the current quarter as a refund from a Brazilian government bond lodged on the acquisition of the Palma Project.

Use of Funds	As Per Prospectus (over 2 years) \$'000	Use of Funds to 31 December 2023 \$'000
Costs of the Offer	860	735
Exploration & Operations		
Geochemical surveys and Drilling	3,730	5,127
Geophysical surveys	1,250	478
Metallurgy, Engineering and studies	1,050	118
Administration (Australia and Brazil)	1,940	1,236
Total	8,830	7,694



Payments to Related Parties

During the Quarter, the Company made payments to related parties of \$254,000, which related to payments to Non-Executive Directors and the Managing Director. Payment also includes purchase of Auger drill rig at commercial terms from an entity associated with the non-executive directors. This purchase was approved by the CEO and CFO.

Tenement information reported as required by ASX listing rule 5.3.3.

Tenement ID	Name on Title	Phase	Area (Ha)	State in Brazil	ALV beneficial interest at 31/12/2022	Notes
864.207/2018	Amazon Consultoria Em Mineração e Serviços Ltda	Exploration Application	9,874	TO	100%	1, 3
864.152/2018	Perth Recursos Minerais Ltda	Granted Exploration	1,727	TO	100%	3, 1
864.151/2018	Perth Recursos Minerais Ltda	Granted Exploration	1,877	TO	100%	3, 1
864.150/2018	Perth Recursos Minerais Ltda	Granted Exploration	1,990	TO	100%	3, 1
864.149/2018	Perth Recursos Minerais Ltda	Granted Exploration	1,795	TO	100%	3, 1
864.206/2018	Perth Recursos Minerais Ltda	Granted Exploration	1,687	TO	100%	3, 1
864.205/2018	Perth Recursos Minerais Ltda	Granted Exploration	66	TO	100%	3, 1
864.204/2018	Perth Recursos Minerais Ltda	Granted Exploration	41	TO	100%	3, 1
864.203/2018	Perth Recursos Minerais Ltda	Granted Exploration	1,295	GO	100%	3, 1
864.202/2018	Perth Recursos Minerais Ltda	Granted Exploration	1,821	GO	100%	3, 1
864.153/2018	Perth Recursos Minerais Ltda	Granted Exploration	1,987	TO	100%	3, 1
860.125/2020	Perth Recursos Minerais Ltda	Granted Exploration	1,901	GO	100%	3, 1
860.124/2020	Perth Recursos Minerais Ltda	Granted Exploration	1,981	GO	100%	3, 1
860.123/2020	Perth Recursos Minerais Ltda	Granted Exploration	437	GO	100%	3, 1
811.686/1975	CPRM	Granted Exploration	1,000	TO	100%	2
811.689/1975	CPRM	Granted Exploration	1,000	TO	100%	2
811.702/1975	CPRM	Granted Exploration	1,000	TO	100%	2
800.744/1978	CPRM	Granted Exploration	1,050	TO	100%	2
860.310/1984	CPRM	Granted Exploration	1,000	TO	100%	2
860.317/1984	CPRM	Granted Exploration	1,000	TO	100%	2
864.076/2020	Perth Recursos Minerais Ltda	Exploration Application	1,640	TO	100%	3



Tenement ID	Name on Title	Phase	Area (Ha)	State in Brazil	ALV beneficial interest at 31/12/2022	Notes
860.527/2020	Perth Recursos Minerais Ltda	Granted Exploration	1,984	GO	100%	3
864.179/2020	Perth Recursos Minerais Ltda	Granted Exploration	1,602	GO/TO	100%	3
864.180/2020	Perth Recursos Minerais Ltda	Granted Exploration	1,895	GO/TO	100%	3
864.181/2020	Perth Recursos Minerais Ltda	Exploration Application	1,964	GO/TO	100%	3
864.182/2020	Perth Recursos Minerais Ltda	Exploration Application	1,975	GO/TO	100%	3
860.603/2020	Perth Recursos Minerais Ltda	Exploration Application	1,548	GO	100%	3
864.183/2020	Perth Recursos Minerais Ltda	Exploration Application	969	GO/TO	100%	3
860.753/2021	Perth Recursos Minerais Ltda - winning bid	Granted Exploration	1,250	GO	100%	3, 4
860.752/2021	Perth Recursos Minerais Ltda- winning bid	Granted Exploration	1,670	GO	100%	3, 4
864.072/2022	Perth Recursos Minerais Ltda	Exploration Application	1,172	TO	100%	3
864.109/2022	Perth Recursos Minerais Ltda	Granted Exploration	1,329	TO/GO	100%	3
860.380/2022	Perth Recursos Minerais Ltda	Granted Exploration	1,881	GO	100%	3
860.382/2022	Perth Recursos Minerais Ltda	Granted Exploration	1,959	GO	100%	3
860.384/2022	Perth Recursos Minerais Ltda	Granted Exploration	1,951	GO	100%	3
860.385/2022	Perth Recursos Minerais Ltda	Granted Exploration	1,959	GO	100%	3
860.386/2022	Perth Recursos Minerais Ltda	Granted Exploration	1,797	GO	100%	3
860.387/2022	Perth Recursos Minerais Ltda	Granted Exploration	1,990	GO	100%	3
860.390/2022	Perth Recursos Minerais Ltda	Granted Exploration	1,978	GO	100%	3
860.391/2022	Perth Recursos Minerais Ltda	Granted Exploration	1,544	GO	100%	3
860.392/2022	Perth Recursos Minerais Ltda	Exploration Application	597	GO	100%	3, 5
860.393/2022	Perth Recursos Minerais Ltda	Exploration Application	640	GO	100%	3, 5
864.120/2022	Perth Recursos Minerais Ltda	Exploration Application	1,751	TO/GO	100%	3
864.121/2022	Perth Recursos Minerais Ltda	Exploration Application	1,622	TO/GO	100%	3
864.255/2022	Perth Recursos Minerais Ltda	Exploration Application	4	TO	100%	3
864.256/2022	Perth Recursos Minerais Ltda	Exploration Application	36	TO	100%	3



Tenement ID	Name on Title	Phase	Area (Ha)	State in Brazil	ALV beneficial interest at 31/12/2022	Notes
861.021/2022	Perth Recursos Minerais Ltda	Granted Exploration	1,591	GO	100%	3, 4, 6
861.023/2022	Perth Recursos Minerais Ltda	Exploration Application	1,977	GO	100%	3, 4

Tenement Interest Notes:

- 1: Transfer of this area from Amazon Consultoria Em Mineração e Serviços Ltda to Perth Recursos Minerais Ltda (100% owned subsidiary of Alvo) will be lodged once granted. Area subject to an agreement between these parties and MMH Capital Ltd as disclosed under the Prospectus dated 30 July 2021 issued by Alvo Minerals Limited. Areas transferred under this agreement are subject to a 1% NSR royalty to MMH.
- 2: CPRM (Compania do Pesquisa de Recursos). These areas will be assigned to Alvo Minerals' subsidiary under the "Contract of Mining Rights Assignment Pledge" (Assignment Contract) with the CPRM. Under this agreement, Alvo has exploration commitments and will pay a royalty to CPRM as disclosed in the Prospectus dated 30 July 2021 issued by Alvo Minerals Limited
- 3: Perth Recursos Minerais Ltda is a Brazilian incorporated, wholly owned subsidiary of Alvo Minerals Ltd.
- 4: Perth Recursos Minerais Ltda was the winning bidder in a Brazilian National Mining Agency Auction for derelict areas.
- 5: Exploration Application area reduced by ANM due to overlap.
- 6: Areas granted during the December 2022 quarter

This announcement has been approved for release by the Board of Alvo Minerals Limited.

ENQUIRIES

For more information contact:

Rob Smakman
Managing Director
Alvo Mineral Limited
rob@alvo.com.au
+61 402 736 776

Media or broker enquiries:

Fiona Marshall
Senior Communications Advisor
White Noise Communications
fiona@whitenoisecomms.com
+61 400 512 109

References to Previous ASX Announcements

Reference in this report is made to previous announcements including:

As reported in the announcement "C3 DELIVERS EXCEPTIONAL DRILL RESULTS INCLUDING 10.57m @ 6.27% COPPER & 14.76% ZINC" dated 14 February 2022 issued by Alvo Minerals Limited

As reported in the announcement "DRILLING AT PALMA EXPANDS POLYMETALLIC POTENTIAL" dated 18 October 2022 issued by Alvo Minerals Limited

As reported in the announcement "PRELIM METALLURGICAL TESTWORK INDICATES EXCELLENT RECOVERIES" dated 9 November 2022 issued by Alvo Minerals Limited



As reported in the announcement “DRILLING IDENTIFIES NEW SHALLOW HIGH-GRADE COPPER ZONE” dated 6 December 2022 issued by Alvo Minerals Limited

Forward Looking Statements

Statements regarding plans with respect to Alvo’s Palma Project and its exploration program are forward-looking statements. Forward-looking statements are only predictions and are subject to risks, uncertainties and assumptions which are outside Alvo’s control and actual values, results or events may be materially different to those expressed or implied herein. Alvo does not undertake any obligation, except where expressly required to do so by law, to update or revise any information or any forward-looking statement to reflect any changes in events, conditions, or circumstances on which any such forward-looking statement is based.

Competent Person’s Statement

The information contained in this announcement that relates to recent exploration results is based upon information compiled by Mr Rob Smakman of Alvo Minerals Limited, a Competent Person and Fellow of the Australasian Institute of Mining and Metallurgy. Mr Smakman is a full-time employee of Alvo and has sufficient experience 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 “Australasian Code for Reporting of Mineral Resources and Ore Reserves” (or JORC 2012). Mr Smakman consents to the inclusion in this announcement of the matters based upon the information in the form and context in which it appears.



ABOUT ALVO

Alvo Minerals (ASX: ALV) is a base and precious metals exploration company, hunting high-grade copper and zinc at its flagship Palma Project, located in Central Brazil. The Palma Project has a JORC 2012 Inferred Mineral Resource Estimate - 4.6Mt @ 1.0% Cu, 3.9% Zn, 0.4% Pb & 20g/t Ag.

Alvo's strategic intent is to aggressively explore and deliver growth through discovery, leveraging managements' extensive track record in Brazil. There are three phases to the exploration strategy – *Discover, Expand and Upgrade*.

Alvo is committed to fostering best in class stakeholder relations and supporting the local communities in which it operates.

Table 1: Significant intercepts C3 Diamond drilling program.

Hole ID	Prospect	Length (m)	From (m)	CuEq %	ZuEq %	Cu %	Zn %	Pb %	Ag g/t	Au g/t	Comment
PD3-051	C3	20.2	8.0	0.3	0.8	0.33	0.17	0.01	2.66	0.00	Supergene
PD3-051	C3	11.5	52.4	1.2	3.0	0.35	2.73	0.13	5.56	0.00	VMS
including	C3	3.48	57.5	3.0	7.2	0.48	7.37	0.35	17.36	0.01	VMS
PD3-052	C3	5.0	178.0	0.5	1.1	0.44	0.30	0.06	2.21	0.00	VMS
PD3-053	C3	17.1	293.9	1.7	4.2	1.23	2.09	0.17	11.52	0.03	VMS
PD3-053	C3	4.0	312.0	0.3	0.7	0.30	0.19	0.01	0.00	0.00	Stringer
PD3-054	C3	28.1*	11.9	0.6	1.5	0.54	0.51	0.05	1.77	0.00	Supergene
PD3-054	C3	0.9*	79.0	1.4	3.3	0.47	0.53	4.40	203.00	0.22	VMS (Quartz galena vein)
PD3-054	C3	17.7*	101.0	2.1	5.1	1.12	3.45	0.09	5.40	0.01	VMS* not true width
including	C3	2.9	102.0	5.2	12.8	0.86	13.13	0.41	16.43	0.00	
including	C3	1.0	115.0	3.9	9.4	4.25	1.21	0.02	12.00	0.02	
PD3-055	C3	16.2	8.9	0.6	1.4	0.51	0.51	0.01	1.92	0.00	Supergene
PD3-056	C3	14.6	36.0	0.5	1.3	0.47	0.45	0.00	0.00	0.00	Supergene
PD3-056	C3	14.9	74.1	5.6	13.5	2.22	10.78	0.48	34.03	0.11	VMS
including	C3	5.0	75.0	8.3	20.2	2.72	17.46	0.87	52.60	0.16	VMS
PD3-057	Mafico	-	-	-	-	-	-	-	-	-	Abandoned
PD3-058	Mafico	1.6	214.9	0.2	0.4	0.01	0.02	0.00	0.00	0.39	VMS
PD3-059	C3	4.6	160.4	0.7	1.3	0.44	0.51	0.01	0.82	0.01	VMS
PD3-059	C3	2.0	170.0	0.7	1.2	0.53	0.13	0.00	2.50	0.13	VMS
PD3-059	C3	14.2	227.8	3.8	7.3	1.08	6.12	0.16	12.53	0.04	VMS
including	C3	4.8	237.2	9.1	17.7	1.84	16.81	0.36	23.99	0.07	VMS
PD3-060	Mafico	-	-	-	-	-	-	-	-	-	NSI
PD3-061	Mafico	-	-	-	-	-	-	-	-	-	NSI
PD3-062	C3	-	-	-	-	-	-	-	-	-	NSI
PD3-063	C3	3.0	210.0	0.4	0.7	0.34	0.07	0.01	0.00	0.01	VMS
PD3-063	C3	5.4	219.6	0.5	0.9	0.36	0.23	0.00	0.00	0.01	VMS



Hole ID	Prospect	Length (m)	From (m)	CuEq %	ZuEq %	Cu %	Zn %	Pb %	Ag g/t	Au g/t	Comment
PD3-064	Ema	-	-	-	-	-	-	-	-	-	NSI
PD3-065	C3	10.06	316.0	0.4	0.8	0.27	0.33	0.01	0.40	0.00	VMS
PD3-065	C3	13.00	333.0	1.9	3.6	1.03	1.82	0.12	7.96	0.02	VMS
including	C3	4.68	340.3	4.0	7.7	1.87	4.61	0.31	20.61	0.05	VMS
PD3-065	C3	14.00	376.0	2.2	4.2	0.71	3.27	0.19	9.79	0.03	VMS
including	C3	5.31	378.7	4.6	8.7	0.93	8.05	0.49	25.41	0.05	VMS

Table of significant intercepts calculated using a 0.1% Cu or 0.5% Zn or 0.1 g/t Au lower cut-off, minimum interval of 1m and a maximum of 2m of internal dilution. *Hole PD3-54 was drilled as a scissor hole to test the orientation of the mineralisation at the northern end of the C3 prospect

Table 2: Significant intercepts C3 RC drilling program.

Hole ID	Length (m)	From (m)	Cu %	Zn %	Pb %	Ag g/t	Au g/t	Comment
PRC3-001	-	-	-	-	-	-	-	NSI
PRC3-002	15.00	3.00	0.45	0.18	0.00	0.00	0.00	Supergene
including	1.00	8.00	1.07	0.63	0.00	0.00	0.00	Supergene
PRC3-003	12.00	23.00	0.22	0.79	0.00	0.00	0.00	Supergene
PRC3-004	3.00	42.00	0.35	0.04	0.00	0.00	0.00	Supergene
PRC3-005	-	-	-	-	-	-	-	NSI
PRC3-006	-	-	-	-	-	-	-	NSI
PRC3-007	8.00	40.70	0.14	0.34	0.00	0.88	0.00	Supergene
PRC3-008	32.00	16.75	0.97	0.61	0.01	0.00	0.00	Supergene
including	6.00	40.75	2.31	0.37	0.01	0.00	0.00	Saprock
PRC3-009	2.00	11.61	0.11	0.19	0.00	0.00	0.00	Supergene
PRC3-010	-	-	-	-	-	-	-	NSI
PRC3-011	9.00	11.00	0.20	0.11	0.00	1.44	0.00	Supergene
PRC3-012	-	-	-	-	-	-	-	NSI
PRC3-013	14.00	5.60	0.57	0.10	0.39	6.07	0.46	Supergene
PRC3-013	29.00	27.60	1.95	0.30	0.11	7.59	0.03	Saprock
including	6.00	31.60	7.10	0.35	0.27	68.00	0.04	Saprock
PRC3-014	-	-	-	-	-	-	-	NSI
PRC3-015	-	-	-	-	-	-	-	NSI
PRC3-016	16.00	6.70	0.33	0.53	0.00	0.00	0.00	Supergene
PRC3-017	-	-	-	-	-	-	-	NSI
PRC3-018	-	-	-	-	-	-	-	NSI
PRC3-019	-	-	-	-	-	-	-	NSI
PRC3-020	-	-	-	-	-	-	-	NSI
PRC3-021	-	-	-	-	-	-	-	NSI
PRC3-022	-	-	-	-	-	-	-	NSI
PRE-023	-	-	-	-	-	-	-	NSI
PRE-024	-	-	-	-	-	-	-	NSI
PRE-025	-	-	-	-	-	-	-	NSI
PRC3-026	6.00	8.73	0.02	0.23	0.00	0.00	0.00	Supergene
PRC3-027	-	-	-	-	-	-	-	NSI
PRC3-028	-	-	-	-	-	-	-	NSI
PRC3-029	17.00	12.73	0.23	0.36	0.00	0.00	0.01	Supergene
PRC3-029	11.00	32.73	0.07	0.41	0.00	0.00	0.00	Saprock
PRC3-030	25.00	3.75	0.46	0.40	0.00	1.60	0.00	Supergene
PRC3-031	25.00	2.78	0.27	0.37	0.01	0.28	0.00	Supergene
PRC3-032	12.00	5.77	0.11	0.35	0.00	0.00	0.00	Supergene



Hole ID	Length (m)	From (m)	Cu %	Zn %	Pb %	Ag g/t	Au g/t	Comment
PRC3-033	21.00	1.73	0.30	0.19	0.01	5.90	0.00	Supergene
PRC3-034	10.00	15.75	0.19	0.40	0.00	0.00	0.00	Supergene
PRC3-034	10.00	29.75	0.05	0.39	0.00	0.00	0.00	Saprock
PRC3-035	12.00	12.79	0.01	0.58	0.00	0.00	0.00	Supergene
PRC3-036	1.00	29.00	0.00	0.04	0.00	0.00	0.38	Saprock
PRC3-037	12.00	12.00	0.01	0.39	0.00	0.00	0.00	Supergene

Table of significant intercepts calculated using a 0.2% Cu or 0.3% Zn lower cut-off, minimum interval of 1m and a maximum of 2m of internal dilution.

Table 3: Diamond drilling collar details. Coordinates are in SIRGAS_2000 Zone22S. *Hole abandoned due to drilling conditions.

Hole ID	Prospect	Easting	Northing	RL	Depth	Azimuth	Dip	Comment
PD3-051	C3	793050	8567877	388	158	290	-60	Expand
PD3-052	C3	792904	8567418	399	212	290	-60	Expand
PD3-053	C3	793041	8567479	396	368	290	-60	Expand
PD3-054	C3	792968	8567901	390	162	110	-60	Expand
PD3-055	C3	793079	8567922	390	151	290	-60	Expand
PD3-056	C3	793031	8567772	391	167	290	-60	Upgrade
PDF-057*	Mafico	793519	8567813	390	61*	285	-60	Discovery
PDF-058	Mafico	793542	8567827	390	244	285	-60	Discovery
PD3-059	C3	793090	8567752	392	274	290	-60	Upgrade
PDF-060	Mafico	793497	8567931	390	235	285	-60	Discovery
PDF-061	Mafico	793719	8567913	387	377	285	-60	Discovery
PD3-062	C3	793166	8567621	394	500	290	-60	Expand
PDF-063	C3	793141	8567731	392	373	290	-60	Expand
PDE-064	Ema	792506	8567673	395	349	90	-60	Discovery
PD3-065	C3	793136	8567576	394	452	290	-60	Expand

Table 4: RC drill collar details. Coordinates are in SIRGAS_2000 Zone22S.

Hole ID	Prospect	Easting	Northing	RL	Depth	Azimuth	Dip	Comment
PRC3-001	C3	792946	8567651	336	45.0	290	-80	
PRC3-002	C3	792917	8567658	349	24.0	290	-80	
PRC3-003	C3	793043	8567787	384	38.0	290	-80	
PRC3-004	C3	793007	8567799	364	45.0	290	-80	
PRC3-005	C3	792880	8567676	395	43.0	290	-80	
PRC3-006	C3	792843	8567695	393	42.6	290	-80	
PRC3-007	C3	793019	8567713	392	48.7	290	-80	
PRC3-008	C3	792981	8567725	388	53.8	290	-80	
PRC3-009	C3	792944	8567734	392	35.6	290	-80	
PRC3-010	C3	792906	8567754	391	33.6	290	-80	
PRC3-011	C3	792974	8567815	327	40.0	290	-80	
PRC3-012	C3	792932	8567833	328	39.5	290	-80	
PRC3-013	C3	792998	8567886	371	57.6	290	-80	
PRC3-014	C3	792924	8567915	364	46.0	290	-80	
PRC3-015	C3	792887	8567926	365	40.6	290	-80	



Hole ID	Prospect	Easting	Northing	RL	Depth	Azimuth	Dip	Comment
PRC3-016	C3	793128	8567925	365	32.7	290	-80	
PRC3-017	C3	792804	8567362	357	40.0	290	-80	
PRC3-018	C3	792766	8567376	367	39.8	290	-80	
PRC3-019	C3	792729	8567389	362	41.8	290	-80	
PRC3-020	C3	792832	8567435	414	40.7	290	-80	
PRC3-021	C3	792797	8567449	421	41.8	290	-80	
PRC3-022	C3	792759	8567461	410	36.8	290	-80	
PRE-023	EMA	792727	8567474	410	47.8	90	-80	
PRE-024	EMA	792682	8567475	413	36.8	90	-80	
PRE-025	EMA	792641	8567477	411	35.7	90	-80	
PRC3-026	C3	792922	8567571	394	38.7	290	-80	
PRC3-027	C3	792888	8567586	397	35.8	290	-80	
PRC3-028	C3	792856	8567599	397	42.8	290	-80	
PRC3-029	C3	793071	8567859	370	43.7	290	-80	
PRC3-030	C3	793028	8567964	406	37.8	290	-80	
PRC3-031	C3	792991	8567975	399	29.8	290	-80	
PRC3-032	C3	792953	8567992	393	36.8	290	-80	
PRC3-033	C3	793075	8567945	391	30.7	290	-80	
PRC3-034	C3	793116	8567847	407	42.8	290	-80	
PRC3-035	C3	793149	8567834	390	36.8	290	-80	
PRC3-036	C3	793205	8567812	390	34.0	290	-80	
PRC3-037	C3	793169	8567908	402	30.0	290	-80	

Appendix 5B

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

Name of entity

Alvo Minerals Limited

ABN

37 637 802 496

Quarter ended ("current quarter")

31 December 2022

Consolidated 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	(1,696)	(4,647)
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	(149)	(437)
	(e) administration and corporate costs	(22)	(713)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	8	20
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	(1,859)	(5,777)

2.	Cash flows from investing activities		
2.1	Payments to acquire or for:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	14	(840)
	(d) exploration & evaluation	-	-
	(e) investments,	-	-
	(f) other non-current assets, including bonds and deposits	(1,509)	(1,800)

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

Consolidated 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	(1,495)	(2,641)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	-
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	-	-
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (payment of principal element of lease liabilities)	(14)	(24)
3.10	Net cash from / (used in) financing activities	(14)	(24)

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	3,915	8,898
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(1,859)	(5,777)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(1,495)	(2,641)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	(14)	(24)

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

Consolidated 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	-12	79
4.6	Cash and cash equivalents at end of period	535	535

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	535	4,196
5.2	Call deposits	1,520	-
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)	2,055	4,196

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	(149)
6.2	Aggregate amount of payments to related parties and their associates included in item 2	(105)
<i>Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments.</i>		

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

7. Financing facilities <i>Note: the term "facility" includes all forms of financing arrangements available to the entity. Add notes as necessary for an understanding of the sources of finance available to the entity.</i>	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'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.		
N/A		

8. Estimated cash available for future operating activities	\$A'000
8.1 Net cash from / (used in) operating activities (item 1.9)	(1,859)
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)	(1,859)
8.4 Cash and cash equivalents at quarter end (item 4.6)	2,055
8.5 Unused finance facilities available at quarter end (item 7.5)	-
8.6 Total available funding (item 8.4 + item 8.5)	2,055
8.7 Estimated quarters of funding available (item 8.6 divided by item 8.3)	1.11
<i>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.</i>	
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?	
<p>Answer: The entity expects operating levels to reduce in the current quarter due to several individually and collectively material one-off items of expenditure. Exploration costs are expected to reduce as the entity fully implements the new and existing equipment to more efficiently and effectively undertake its exploration activities. Furthermore, a material portion of the remaining exploration costs are discretionary, the entity currently expecting the level of operations to reduce in the near term. In addition to the expected reductions in cash outflows, upon the satisfaction of the terms of a refundable bond, the entity expects receipt of ~A\$275 thousand in the next quarter.</p>	

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?

Answer: The entity believes it will be able to raise further equity when needed, in the quantum required, following its successful completion of its initial public offering of \$10 million, completed in October 2021.

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?

Answer: The entity does expect to be able to continue its operations and to meet its business objectives through the combination of management of discretionary spend and referred to in 8.8.1 and 8.8.2.

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

- 1 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: 31 January 2023

Authorised by: the Board

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.