

# Quarterly Activities Report

For the period ending 30 September 2024

## HIGHLIGHTS

### Palma Copper-Zinc Project

- **Substantial increase** in updated Palma MRE, including a significant portion of **Indicated Resources at C1 and C3 and Maiden MRE at C4**, released after the Quarter end
- At a cut-off grade NSR of US\$50/t for C1 and C3 and US\$80/t for C4, the **total MRE comprises: 7.6Mt @ 2.0% CuEq\* or 6.2% ZnEq** (0.7% Cu, 3.4% Zn, 0.6% Pb, 16g/t Ag and 0.03g/t Au)
- **Indicated Resources** at C1 and C3 estimated at:  
**3.3Mt @ 2.3% CuEq or 6.9% ZnEq** (1.0% Cu, 4.0% Zn, 0.4% Pb, 14g/t Ag and 0.03g/t Au)
- **Maiden Inferred MRE at C4** (US\$80/t NSR cut-off) of  
**1.5Mt @ 1.8% CuEq or 5.5% ZnEq** (0.2%, 3.3% Zn, 1.3% Pb, 28g/t Ag and 0.03g/t Au)
- **Diamond Drilling underway at untested Palma Cu-Zn prospects, identified through multi-disciplinary exploration:**
  - **Urubu:** potential faulted northern extension of C3 Deposit. Urubu boasts a 1km long EM conductor, strong co-incident geochemistry and IP chargeability.
  - **Anta:** 3km soil anomaly with co-incident EM, IP and auger anomalies.
  - **C4-NE:** adjacent to Alvo's C4 discovery. Strong IP chargeability.

### Ipora Rare Earth Element (REE) Project

- Reconnaissance auger drilling at the prospective Ipora Rare Earth Elements (REE) Project ("**Ipora**"), intercepted wide zones of high-grade REEs, with follow-on metallurgical testing confirming ionic adsorption clay-style mineralisation ("**ionic clay**").
- Alvo completed 125 auger drill holes (1,008m) across 3 Prospect areas at Ipora and intercepted REE clay horizons **with High-Grade ionic-clay hosted REEs at the Tapir Prospect, an area covering the Ipora Granite.**
- First-pass Metallurgical testing of selected samples has confirmed the REEs are hosted as Ionic Clays with expected desirable style. Results from the standard Ammonium Sulphate wash (pH 4) include extractions up to **90% MRE, averaging 53% MRE**

#### REGISTERED ADDRESS

Alvo Minerals Limited  
ACN 637 802 496  
  
Units 8-9, 88 Forrest Street  
Cottesloe WA 6011 Australia  
[www.alvo.com.au](http://www.alvo.com.au)

#### MANAGEMENT TEAM

Graeme Slattery – Non-Executive Chairman  
Rob Smakman – Managing Director  
Beau Nicholls – Non-Executive Director  
Mauro Barros – Non-Executive Director  
  
E: [info@alvo.com.au](mailto:info@alvo.com.au)  
P: +61 8 6314 1424

#### PROJECTS

Palma VMS Cu/Zn Project  
Bluebush Ionic Clay REE Project  
Ipora REE Project  
  
Shares on Issue 117,158,886  
ASX Code **ALV**

**Alvo Minerals Limited (ASX: ALV)** (“Alvo” or “the Company”) is pleased to provide its Quarterly Activities Report for the period ending 30 September 2024. Alvo announced a significant increase in the Mineral Resource Estimate for the high-grade copper and zinc, Palma Volcanogenic Massive Sulphide (“VMS”) Copper-Zinc Project (“Palma Project” or “Palma”) and commenced Diamond Drilling (“DD”) at untested prospects across the Project.

The July 2024 Mineral Resource Estimate (“MRE”) update included updated estimates for C1 and C3, maiden MRE for C4 and a maiden estimate for C3 Oxide component.

Alvo also reported result from the maiden auger drill program at the Ipora Rare Earth Element (“REE”) Project (“Ipora Project” or “Ipora”), located in Central Brazil in the Goiás state close to the city of Ipora. Preliminary metallurgy has confirmed that Ipora is Ionic Adsorption Clay with extraction results up to 90% of MREO.

### **Rob Smakman, Alvo’s Managing Director commented on the Quarter:**

*“We were very pleased to report the updated Mineral Resource Estimate for Palma during the quarter, increasing the high-grade resource base and improving the confidence. We see significant potential to further expand this VMS resource base across the district scale project.*

*“Furthermore, the team has been advancing exploration at our Ipora Rare Earths Project, and we are delighted that the prospectivity of the region has been confirmed by the metallurgy confirming ionic clay hosted REEs across the project.*

*“Our exploration efforts are ongoing across our tenure, with diamond drilling continuing at Palma- aiming to add discoveries to our VMS Project.”*

## **Exploration Activities**

### **Palma Cu-Zn VMS Project – Update to Mineral Resource Estimate**

During the quarter, a 65% increase in the JORC MRE for Alvos 100%-owned Palma VMS Project was announced<sup>1</sup>. The updated JORC MRE significantly increased the high-grade resource base, demonstrating the potential for Palma to emerge as a globally significant VMS district.

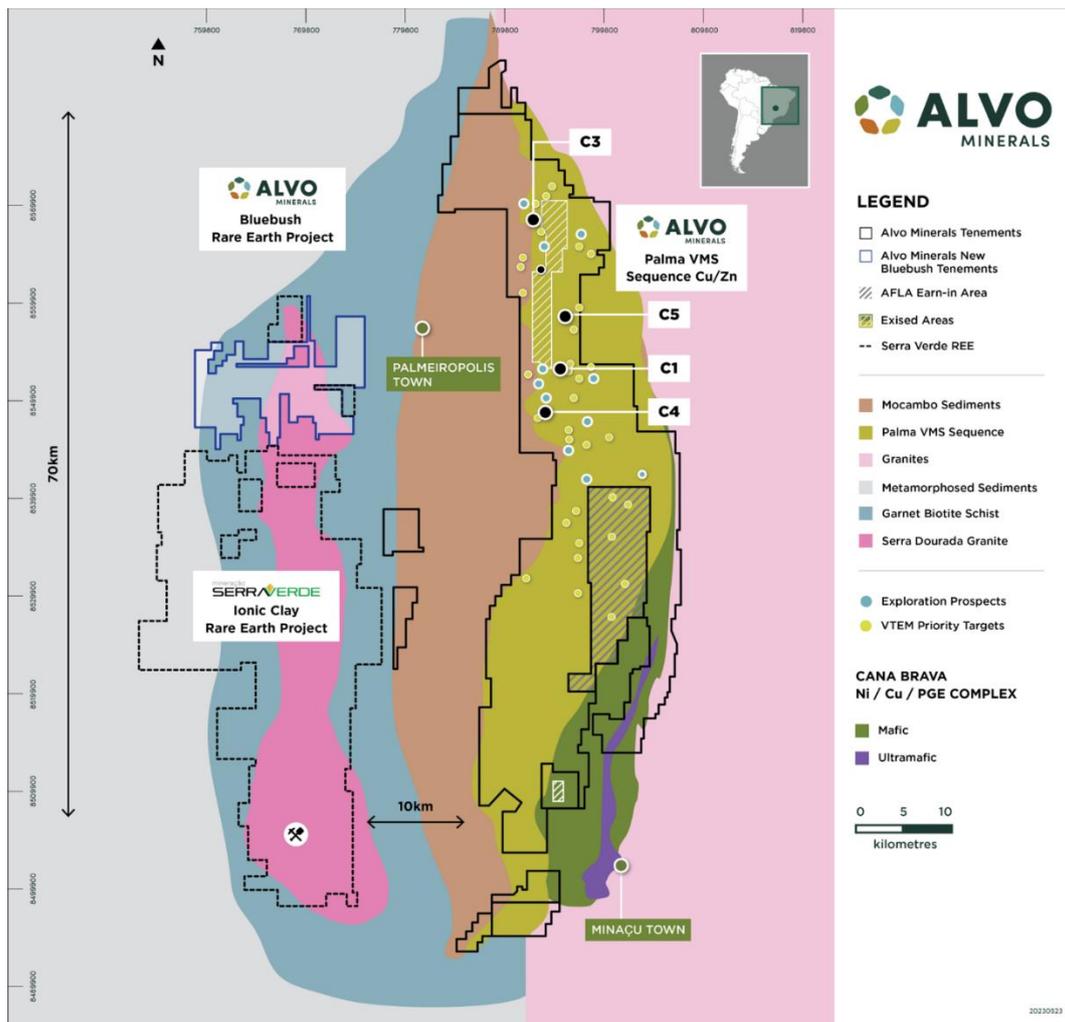
The MRE updated the C1 and C3 deposits, which include resources in the higher confidence Indicated category for the first time, a Maiden MRE for the newly discovered C4 deposit and a Maiden MRE for the near surface oxide component of the C3 deposit.

All Deposits remain open along strike and at depth and have potential to expand and upgrade with additional drilling, metallurgy and engineering studies.

Utilising assay results from diamond and RC drilling completed by Alvo up until the end of 2023 (and including the drilling at C4- announced during the quarter), along with the historical drilling by the CPRM, independent consultant MB Geologia Ltda prepared the MRE.

---

<sup>1</sup> ASX Announcement 19 July 2024 65% Increase in Open-Pit Resources to 7.6Mt @ 2% CuEq at the Palma Project



**Figure 1:** Palma Project including the C4 Prospect, known deposits (C3 & C1), and emerging exploration prospects.

The resources are estimated with different cut-off grades applied for the different deposits (see Tables 1 & 2 and Figures 3-7). At a USD\$50 Net Smelter Return (NSR) cut-off for C1 and C3 and a USD\$80 NSR for C4, the sulphide resource estimate comprises:

**7.6Mt @ 2.02% CuEq or 6.2% ZnEq (NSR of US\$174/t) for 153kt of contained CuEq tonnes**  
(0.7% Cu, 3.4% Zn, 0.6% Pb, 16g/t Ag and 0.03 g/t Au)

Total metal contents in the updated MRE (at the cut-off outlined above- not including the Oxide at C3) includes 55kt of copper, 260kt of zinc, 40kt of lead, 4 Moz of silver and 6koz of gold all contained in mathematical open pits, based on operating and capital costs for similar projects in Brazil. Additional work to consider an ideal cut-off for future possible mining scenarios requires additional drilling, metallurgy and engineering as well as economic and other modifying factors. As mining studies are advanced and the costs and mining methods are clarified, the cut-offs should be modified accordingly.

The higher confidence **Indicated** resources estimated for the C1 and C3 sulphide deposits at a USD\$50 NSR cut-off comprises:

**3.3Mt @ 2.3% CuEq or 6.9 ZnEq (NSR of US\$200/t) for 76kt of contained CuEq tonnes**  
(1.0% Cu, 4.0% Zn, 0.4% Pb, 14g/t Ag and 0.03 g/t Au)

At higher cut-offs, a significant portion of the resources are still included, indicating a significant portion of the mineralisation is contained in the higher-grade massive sulphide lenses at the centre of each deposit. At a USD\$100/t NSR cut-off for C1, C3 & C4, the Indicated and Inferred MRE comprises:

**4.9Mt @ 2.7% CuEq or 8.5% ZnEq (NSR of US\$231/t)**

(0.9% Cu, 4.7% Zn, 0.7% Pb, 22g/t Ag and 0.03 g/t Au)

In contrast, at lower cut-offs, a larger volume of material is incorporated into the MRE, which could be relevant for future potential higher throughput scenarios. At a USD\$20/t NSR cut-off for C1, C3 & C4, the MRE comprises:

**14.2Mt @ 1.3% CuEq or 3.8% ZnEq (NSR of US\$111/t)**

(0.5% Cu, 2.1% Zn, 0.4% Pb, 12g/t Ag and 0.02 g/t Au)

A breakdown of the MRE at different cut-offs for each deposit is included in Tables 2-4.

**Table 1: July 2024 JORC compliant MRE for C1, C3 & C4 sulphide resources.**

Deposit	Category	Cut-off Grade: NSR**	Tonnes (Mt)	NSR \$USD	Cu%	Metal Cu (t)	Zn %	Metal Zn (t)	Pb %	Metal Pb (t)	Ag ppm	Metal Ag (Oz)	Au ppm	Metal Au (Oz)	CuEq*** (%)	CuEq (t)	ZnEq*** (%)
C1	Indicated	50	1.3	148	0.7	9,600	2.5	33,900	0.5	7,200	13	540,000	0.01	600	1.7	23,300	4.7
	Inferred		1.2	173	0.5	6,500	3.8	45,800	0.7	8,000	17	640,000	0.01	500	2.0	23,400	6.4
<b>C1 Total</b>			2.5	160	0.6	16,100	3.1	79,700	0.6	12,500	14	1,180,000	0.01	1,100	1.8	46,700	5.5
C3	Indicated	50	2.0	236	1.1	21,600	5.0	97,200	0.2	4,500	15	920,000	0.04	2,200	2.7	53,100	8.4
	Inferred		1.6	144	1.0	14,900	2.0	31,500	0.1	2,100	10	523,000	0.04	1,800	1.7	25,800	5.1
<b>C3 Total</b>			3.5	195	1.0	36,500	3.7	128,600	0.2	6,600	13	1,440,000	0.04	4,000	2.2	78,900	6.9
C4	Inferred	80	1.5	150	0.2	3,200	3.3	50,600	1.3	19,700	28	1,380,000	0.03	1,300	1.8	28,000	5.5
<b>C1+C3</b>	Indicated	50	3.3	200	0.9	31,200	4.0	131,100	0.4	11,700	14	1,460,000	0.03	2,800	2.3	76,400	6.9
<b>C1+C3+C4</b>	Inferred	(50 & 80)	4.3	154	0.6	24,700	3.0	127,800	0.7	29,800	18	2,540,000	0.03	3,600	1.8	77,300	5.6
<b>Total Sulphides</b>			7.6	174	0.7	55,800	3.4	258,900	0.5	41,500	16	4,000,000	0.03	6,400	2.0	153,600	6.2

\*Rounding discrepancies may occur

\*\*The NSR (Net Smelter Return) and Cu/ZnEq values are reported based on copper, zinc, silver, lead and gold prices of US\$8,914/t Copper, US\$3,017/t Zinc, US\$2,173/t Lead, US\$23.3/oz Silver, and US\$1,891/oz gold (price deck based 3-year average Metals Prices). Recovery factor for C3: Cu; 95%, Zn; 86%, Pb; 77%, Ag 74% & Au 70%. Recovery for C1 and C4: Cu; 93%, Zn; 90%, Pb; 86%, Ag 96% & Au 85%. The NSR calculation is as follows:  $NSR (US\$/t) = [Cu \%] * \{Price Cu\} * [RecCu \%] + [Zn \%] * \{Price Zn\} * [RecZn] + [Pb \%] * \{Price Pb\} * [RecPb] + [Ag ppm] * \{Price Ag\} * [RecAg] / 31.1035 + [Au ppm] * \{Price Au\} * [RecAu] / 31.1035$  (Adjustments are necessary to US\$/t basis).

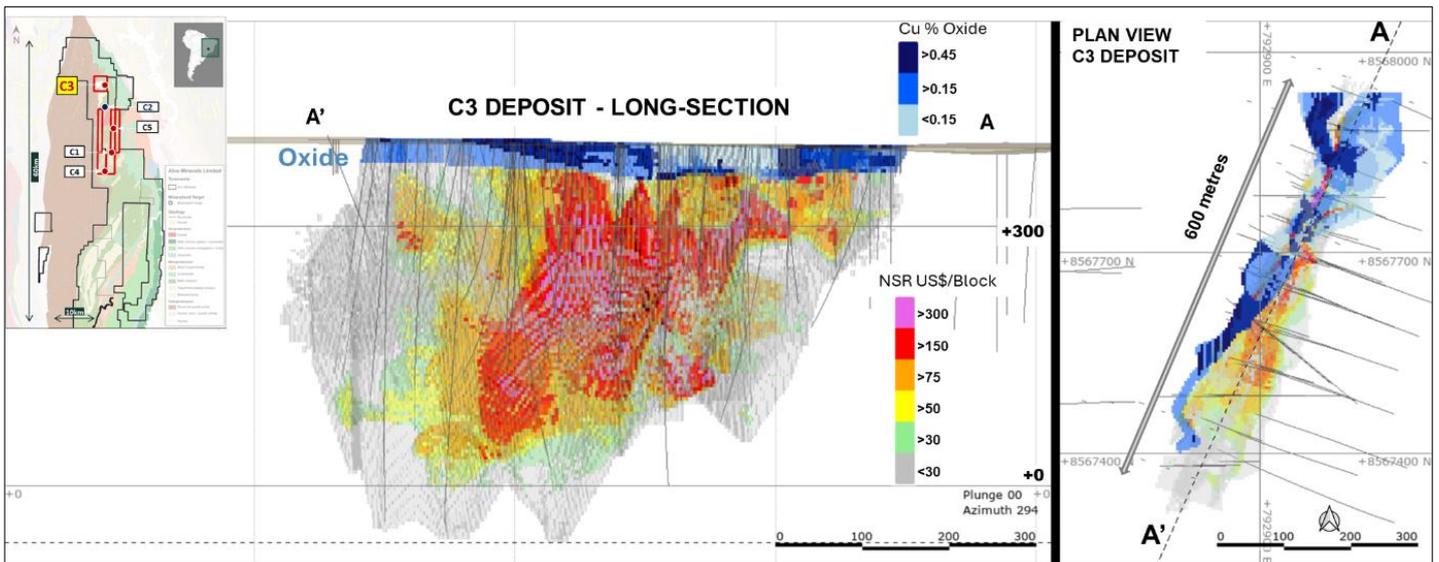
\*\*\*The CuEq calculation is as follow:  $Cu + (Cu * ((Zn \% * RecZn * Price Zn) + (Pb \% * Price Pb * RecPb) + (Ag ppm * Price Ag * RecAg) + (Au ppm * Price Au * RecAu)) / (Cu \% * Price Cu * RecCu))$ . ZnEq is calculated with the same formula as CuEq, swapping Cu and Zn.

**Table 2: July 2024 JORC Compliant MRE for C3 Oxide Resource**

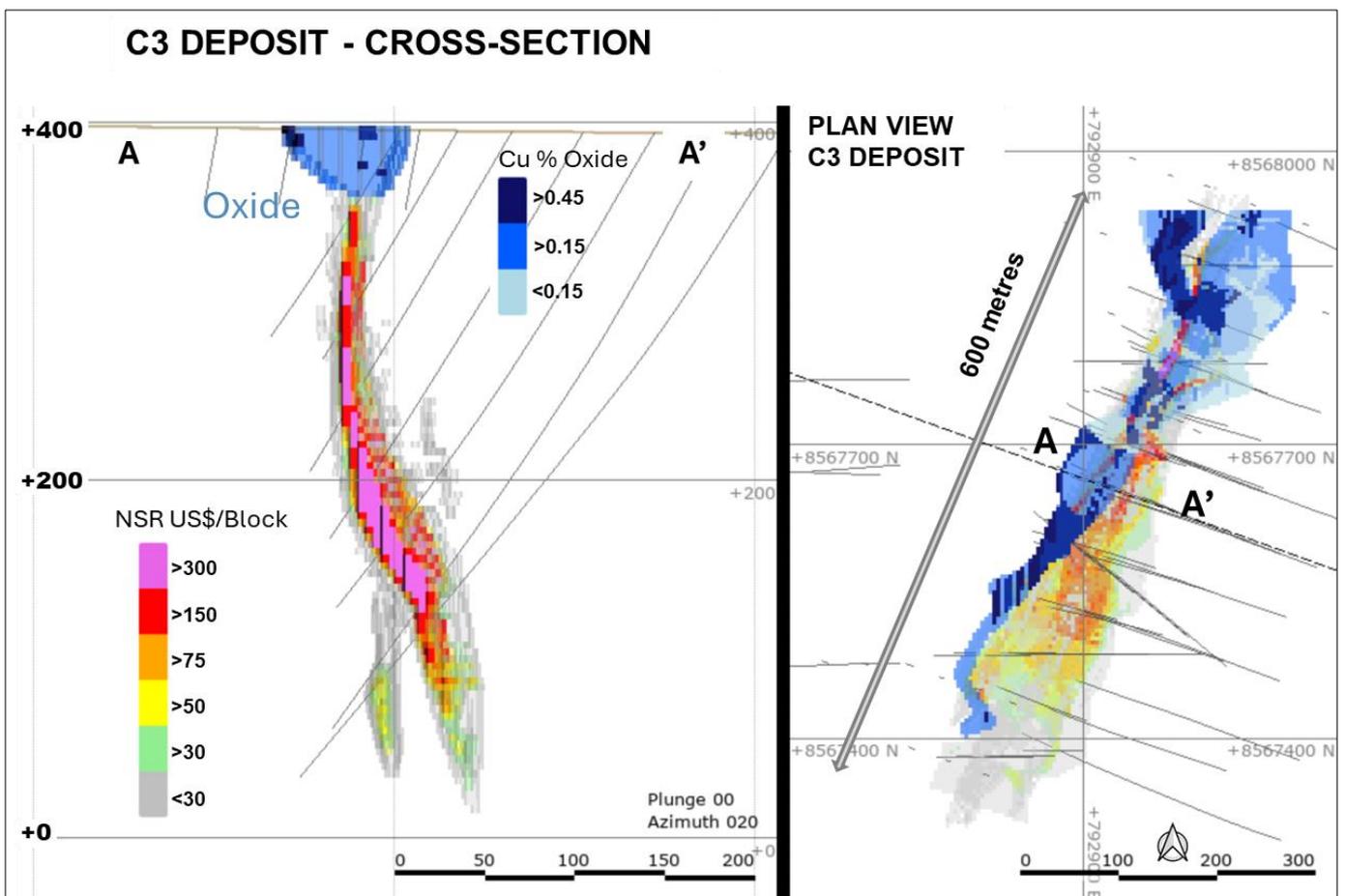
		COG Cu%	Tonnes (Mt)	NSR \$USD	Cu%	Metal Cu (t)
<b>C3-OXIDE</b>	Inferred	0.15	1.2	27	0.3	3,600

\*Rounding discrepancies may occur

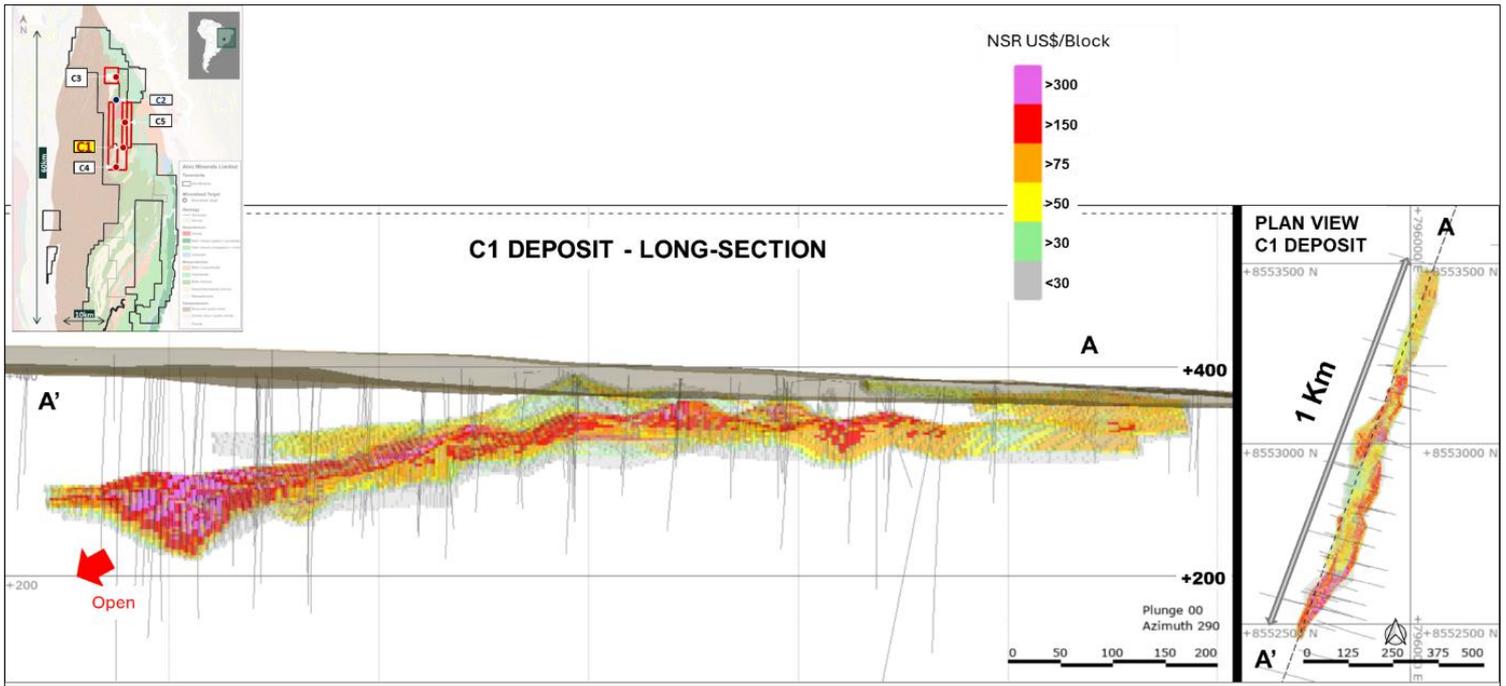
\*\*The NSR (Net Smelter Return) value is reported based on copper price of US\$8,914/t Copper. Estimated recovery was 70% and the NSR calculation is as follows:  $NSR (US\$/t) = Cu \% * (CuPrice * CuRec \%)$



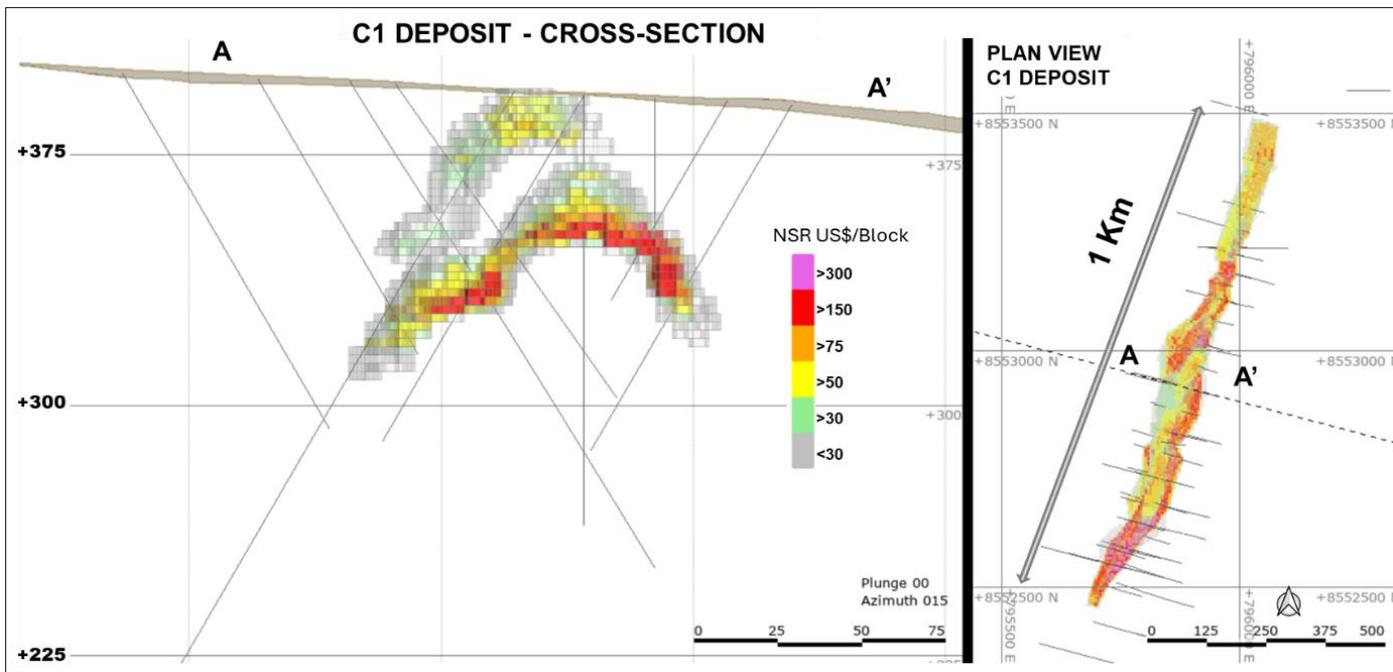
**Figure 2:** C3 deposit with 3D block model in long section with NSR, drilling and Plan View (RHS). Note the higher NSR blocks (red and pink) are centred, associated with the massive sulphide mineralisation seen at C3. Oxide resource block model is included in blue.



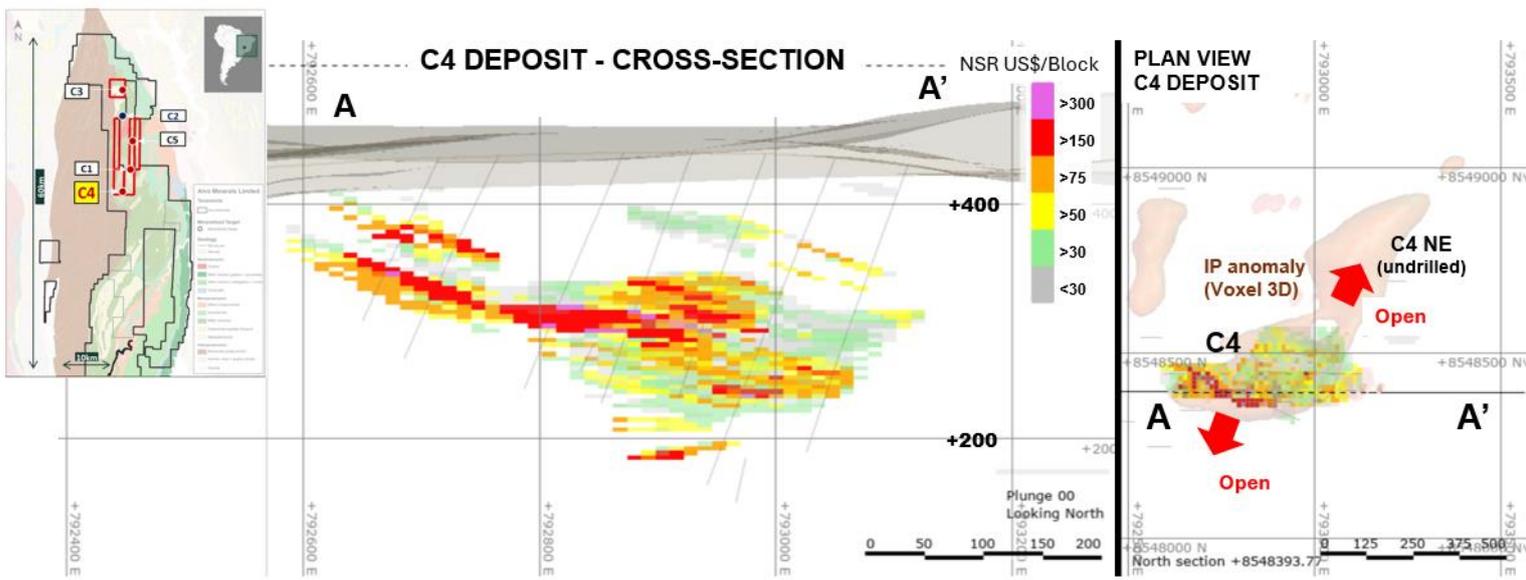
**Figure 3:** C3 deposit with 3D block model in cross-section with NSR, drilling and Plan View (RHS). Note the higher NSR blocks (red and pink) are centred, associated with the massive sulphide mineralisation seen at C3. Oxide resource block model is included in blue.



**Figure 4:** C1 Deposit with 3D block model in long section with NSR, drilling and Plan View (RHS). Note the long, near-surface mineralisation plunges to the south, where it remains open down plunge. Alvo geologists have interpreted a fault displacing mineralisation to the south, with geophysics and structural interpretation guiding future exploration for southern extensions.



**Figure 5:** C1 deposit with 3D block model in central cross-section with NSR, drilling and Plan View (RHS).



**Figure 6:** C4 Deposit with 3D block model of NSR, drilling and Plan View (RHS). Note the mineralisation appears to be open to the SW and to the NE at the neighbouring prospect C4NE, where a similar geophysical Induced Polarisation anomaly is present with a strong geochemical anomaly.

Alvo has an ongoing drill program across several untested prospects across Palma<sup>2</sup>. The program of up to 5,000m was planned to initially test three high-priority prospects that were defined through multi-disciplinary exploration:

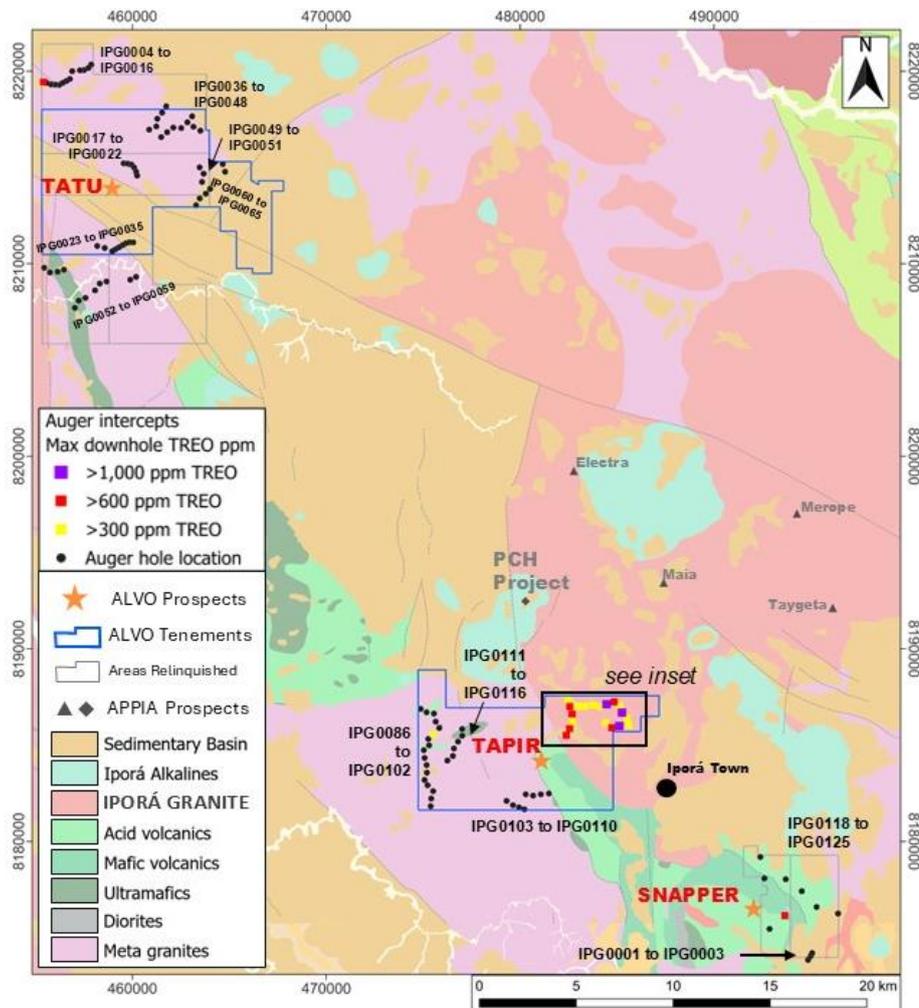
- **Urubu:** the potential faulted northern extension of C3 Deposit. Urubu boasts a 1km long EM conductor, strong co-incident geochemistry and IP chargeability.
- **Anta:** 3km soil anomaly, parallel to mapped geological contacts, co-incident with EM, IP and auger drilling.
- **C4-NE:** the recently announced Prospect adjacent to Alvo's C4 Brownfields discovery. Strong IP chargeability on the right geological trend to C4.

Drilling is ongoing on this program and additional prospects may be added to the initial program as exploration work continues across the Palma district.

<sup>2</sup> ASX Announcement 1 May 2024 - Diamond Drilling to Commence at Palma

## Ipورا Rare Earth Element Project

Alvo completed a maiden auger drill program<sup>3</sup> at the Company’s Ipورا Rare Earth Element (“REE”) project, located in the Goiás State in Brazil (*Figure 8*). Reconnaissance auger intercepted zones of high-grade REEs, with metallurgical testing confirming ionic adsorption clay-style mineralisation<sup>4</sup> (“ionic clay”).



*Figure 8: Ipورا REE Project with maiden drilling and location relative to neighbouring Appia PCH Project.*

The initial program comprised 125 auger drill holes (1,008m), designed to cover as much of the Ipورا prospect areas, taking advantage of open roads in the region. The drilling resulted in regional geological profiles with multiple saprolite clay intercepts, typical of the Brazilian geological setting for Ionic Clay hosted Rare Earths.

Metallurgical testing has confirmed the REEs are hosted as Ionic Clays, with results from the standard Ammonium Sulphate wash (pH 4) including extractions up to 90% MRE, averaging 53% MREO.

<sup>3</sup> ASX Announcement 30 May 2024 - Maiden Drilling Complete at Ipورا Rare Earths Project

<sup>4</sup> ASX Announcement 30 October 2024 – Ipورا Drill and Met Results

Significant results from the drilling at the Tapir Prospect included:

- **5.5m @ 1,294ppm TREO (27% MREO)** in IPG0079 from 0.5m to end-of-hole (EOH)
  - *Inc: 2m @ 1,528ppm TREO (28% MREO)* from 4.0m
- **7.5m @ 853ppm TREO (24% MREO)** in IPG0076 from 0.5m to EOH
  - *Inc: 2m @ 1,126ppm TREO (24% MREO)* from 4.0m

Fifteen samples from the more mineralised holes (Tapir Prospect only) were selected for preliminary metallurgical testing using the 'ammonium sulphate solution' (AMSUL) test, considered indicative for the Ionic-clay hosted style of mineralisation.

Standard sample preparation at the lab was undertaken before a sample was screened to -4mm. The ionic adsorption clay-hosted rare earth element leach test used a diluted solution of 0.5 molar ammonium sulphate at room temperature and a pH 4 for 30 minutes. Recoveries above 30% are considered by Alvo to confirm the ionic nature of the mineralisation.

High-value magnet rare earth oxides (MREO) recovery rates AMSUL test at ambient temperatures achieved the following excellent extractions (after 30 minutes):

- Neodymium (Nd): up to 92% averaging 55%.
- Praseodymium (Pr): up to 97%, averaging 55%.
- Dysprosium (Dy): up to 68%, averaging 44%.
- Terbium (Tb): up to 75%, averaging 49%.

Total MREO (Nd, Pr, Dy +Tb): up to 90%, averaging 53%.

The extractions of the MREOs are considered excellent and especially high for the valuable Nd and Pr elements.

## CORPORATE

### Securities Information

As at 30 September 2024, the Company had 117,158,886 ordinary fully paid shares on issue and 13.6M unlisted options granted at various vesting and expiration dates.

### Financial

As at 30 September 2024, the Company had a net cash position of approximately \$2.1 million. Refer to Appendix 5B Quarterly Cashflow Report for further information.

### ASX Listing Rule 5.3.2

There were no mining production and development activities during the quarter.

### ASX Listing Rule 5.3.5 - Payments to Related Parties

The following sets out the information as required by ASX Listing Rule 5.3.5 regarding payments to related parties of the entity and their associates:

During the Quarter, the Company made payments to related parties of \$106,000, which related to payment of Directors fees.

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](mailto:rob@alvo.com.au)  
+61 402 736 773

Media or broker enquiries:

**Fiona Marshall**

Senior Communications Advisor  
White Noise Communications  
[fiona@whitenoisecomms.com](mailto:fiona@whitenoisecomms.com)  
+61 400 512 109

## 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.

The information contained in this announcement that relates to information attributed to or compiled from the 'Mineral Resource Estimate' is based upon information compiled by Mr Marcelo Batelochi, a Competent Person and Member of the Australasian Institute of Mining and Metallurgy. Mr Batelochi is a full-time employee of MB Consultaria 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 Batelochi 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 an active critical minerals exploration company, with an established exploration base in central Brazil.

The Company was founded to explore for base and precious metals, hunting high-grade copper and zinc at its Palma Copper Zinc Project in Tocantins State, Brazil. Palma has a JORC 2012 Mineral Resource Estimate of 7.6Mt @ 2.0% CuEq or 6.2% ZnEq (0.7% Cu, 3.4% Zn, 0.6% Pb & 16g/t Ag and 0.03g/t Au).

Alvo is also exploring for Rare Earth Elements (**REE**) at the Bluebush Ionic Clay REE Project in Central Brazil. Bluebush is adjacent to and along strike from the privately-owned Serra Verde Ionic Clay REE Project, which is the only Ionic Clay REE project in commercial production outside of China.

Alvo's Ipora REE Project is an exciting greenfields exploration project targeting the Iporá alkaline intrusive complex, considered highly prospective for REEs, potentially of the highly valued ionic clay type. The Ipora REE Project is located in the State of Goiás and is on similar geology and located adjacent to the PCH REE Project (Appia Rare Earths and Uranium Corporation, CSE:API).

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.

## APPENDIX 1

Tenement information reported as required by ASX listing rule 5.3.3 as at 30 September 2024.

Tenement ID	Name on Title	Phase	Area (Ha)	Project Name	State in Brazil	ALV beneficial interest at 31/03/2024	Notes
864.207/2018	Amazon Consultoria Em Mineração e Serviços Ltda	Exploration Application	9,874	Palma	TO	100%	1
864.152/2018	Perth Recursos Minerais Ltda	Granted Exploration	1,727	Palma	TO	100%	3
864.151/2018	Perth Recursos Minerais Ltda	Granted Exploration	1,877	Palma	TO	100%	3
864.150/2018	Perth Recursos Minerais Ltda	Granted Exploration	1,990	Palma	TO	100%	3
864.149/2018	Perth Recursos Minerais Ltda	Granted Exploration	1,795	Palma	TO	100%	3
864.206/2018	Perth Recursos Minerais Ltda	Granted Exploration	1,687	Palma	TO	100%	3
864.205/2018	Perth Recursos Minerais Ltda	Granted Exploration	66	Palma	TO	100%	3
864.204/2018	Perth Recursos Minerais Ltda	Granted Exploration	41	Palma	TO	100%	3
864.203/2018	Perth Recursos Minerais Ltda	Granted Exploration	1,295	Palma	GO	100%	3
864.202/2018	Perth Recursos Minerais Ltda	Granted Exploration	1,821	Palma	GO	100%	3
864.153/2018	Perth Recursos Minerais Ltda	Granted Exploration	1,987	Palma	TO	100%	3
860.125/2020	Perth Recursos Minerais Ltda	Granted Exploration	1,901	Palma	GO	100%	3
860.124/2020	Perth Recursos Minerais Ltda	Granted Exploration	1,981	Palma	GO	100%	3
860.123/2020	Perth Recursos Minerais Ltda	Granted Exploration	437	Palma	GO	100%	3
811.686/1975	CPRM	Granted Exploration	1,000	Palma	TO	100%	2
811.689/1975	CPRM	Granted Exploration	1,000	Palma	TO	100%	2
811.702/1975	CPRM	Granted Exploration	1,000	Palma	TO	100%	2
800.744/1978	CPRM	Granted Exploration	1,050	Palma	TO	100%	2
860.310/1984	CPRM	Granted Exploration	1,000	Palma	TO	100%	2

Tenement ID	Name on Title	Phase	Area (Ha)	Project Name	State in Brazil	ALV beneficial interest at 31/03/2024	Notes
860.317/1984	CPRM	Granted Exploration	1,000	Palma	TO	100%	2
864.076/2020	Perth Recursos Minerais Ltda	Exploration Application	1,640	Palma	TO	100%	3
860.527/2020	Perth Recursos Minerais Ltda	Granted Exploration	1,984	Palma	GO	100%	3
864.179/2020	Perth Recursos Minerais Ltda	Granted Exploration	1,602	Palma	GO/TO	100%	3
864.180/2020	Perth Recursos Minerais Ltda	Granted Exploration	1,895	Palma	GO/TO	100%	3
864.181/2020	Perth Recursos Minerais Ltda	Exploration Application	1,964	Palma	GO/TO	100%	3
864.182/2020	Perth Recursos Minerais Ltda	Exploration Application	1,975	Palma	GO/TO	100%	3
860.603/2020	Perth Recursos Minerais Ltda	Exploration Application	1,548	Palma	GO	100%	3
864.183/2020	Perth Recursos Minerais Ltda	Exploration Application	969	Palma	GO/TO	100%	3
860.753/2021	Perth Recursos Minerais Ltda	Granted Exploration	1,250	Palma	GO	100%	3
860.752/2021	Perth Recursos Minerais Ltda	Granted Exploration	1,670	Palma	GO	100%	3
864.072/2022	Perth Recursos Minerais Ltda	Exploration Application	1,172	Palma	TO	100%	3
864.109/2022	Perth Recursos Minerais Ltda	Granted Exploration	1,329	Palma	GO/TO	100%	3
860.380/2022	Perth Recursos Minerais Ltda	Granted Exploration	1,881	Palma	GO	100%	3
860.382/2022	Perth Recursos Minerais Ltda	Granted Exploration	1,959	Palma	GO	100%	3
860.384/2022	Perth Recursos Minerais Ltda	Granted Exploration	1,951	Palma	GO	100%	3
860.385/2022	Perth Recursos Minerais Ltda	Granted Exploration	1,959	Palma	GO	100%	3
860.386/2022	Perth Recursos Minerais Ltda	Granted Exploration	1,797	Palma	GO	100%	3
860.387/2022	Perth Recursos Minerais Ltda	Granted Exploration	1,990	Palma	GO	100%	3
860.390/2022	Perth Recursos Minerais Ltda	Granted Exploration	1,978	Palma	GO	100%	3
860.391/2022	Perth Recursos Minerais Ltda	Granted Exploration	1,544	Palma	GO	100%	3

Tenement ID	Name on Title	Phase	Area (Ha)	Project Name	State in Brazil	ALV beneficial interest at 31/03/2024	Notes
860.392/2022	Perth Recursos Minerais Ltda	Granted Exploration	597	Palma	GO	100%	3
860.393/2022	Perth Recursos Minerais Ltda	Granted Exploration	640	Palma	GO	100%	3
864.120/2022	Perth Recursos Minerais Ltda	Exploration Application	1,751	Palma	GO/TO	100%	3
864.121/2022	Perth Recursos Minerais Ltda	Exploration Application	1,622	Palma	GO/TO	100%	3
864.255/2022	Perth Recursos Minerais Ltda	Exploration Application	4	Palma	TO	100%	3
864.256/2022	Perth Recursos Minerais Ltda	Exploration Application	36	Palma	TO	100%	3
861.021/2022	Perth Recursos Minerais Ltda	Granted Exploration	1,591	Cana Brava	GO	100%	3
861.023/2022	Perth Recursos Minerais Ltda	Granted Exploration	1,977	Cana Brava	GO	100%	3
864.029/2023	Perth Recursos Minerais Ltda	Granted Exploration	1,871	Palma	TO	100%	3
860.086/2023	Perth Recursos Minerais Ltda	Granted Exploration	1,388	Palma	GO	100%	3
860.087/2023	Perth Recursos Minerais Ltda	Granted Exploration	1,956	Palma	GO	100%	3
860.088/2023	Perth Recursos Minerais Ltda	Granted Exploration	779	Palma	GO	100%	3
861.107/2023	Perth Recursos Minerais Ltda	Granted Exploration	1,040	Ipورا	GO	100%	3
861.108/2023	Perth Recursos Minerais Ltda	Granted Exploration	1,604	Ipورا	GO	100%	3
861.109/2023	Perth Recursos Minerais Ltda	Exploration Application	1,877	Ipورا	GO	100%	3
861.110/2023	Perth Recursos Minerais Ltda	Exploration Application	1,691	Ipورا	GO	100%	3
861.178/2023	Perth Recursos Minerais Ltda	Granted Exploration	1,950	Ipورا	GO	100%	3
861.181/2023	Perth Recursos Minerais Ltda	Granted Exploration	1,407	Ipورا	GO	100%	3
861.182/2023	Perth Recursos Minerais Ltda	Granted Exploration	1,861	Ipورا	GO	100%	3
861.184/2023	Perth Recursos Minerais Ltda	Granted Exploration	1,960	Ipورا	GO	100%	3
860.908/2018	Afla Investimentos e Participações Ltda	Granted Exploration	1,972	Palma	GO/TO	up to 100%	5

Tenement ID	Name on Title	Phase	Area (Ha)	Project Name	State in Brazil	ALV beneficial interest at 31/03/2024	Notes
860.909/2018	Afla Investimentos e Participações Ltda	Granted Exploration	1,924	Palma	GO	up to 100%	5
860.910/2018	Afla Investimentos e Participações Ltda	Granted Exploration	1,894	Palma	GO	up to 100%	5
860.332/2020	Afla Investimentos e Participações Ltda	Granted Exploration	1,984	Palma	GO	up to 100%	5
860.378/2020	Afla Investimentos e Participações Ltda	Granted Exploration	1,984	Palma	GO	up to 100%	5
864.251/2004	Mineração Mata Azul S.A	Granted Exploration	1,828	Bluebush	TO	up to 100%	7
864.170/2007	Mineração Mata Azul S.A	Granted Exploration	1,071	Bluebush	TO	up to 100%	7
864.612/2008	Mineração Mata Azul S.A	Granted Exploration	3,122	Bluebush	TO	up to 100%	7
864.056/2010	Mineração Mata Azul S.A	Granted Exploration	96	Bluebush	TO/GO	up to 100%	7
864.381/2011	Mineração Mata Azul S.A	Granted Exploration	1,457	Bluebush	TO/GO	up to 100%	7
864.059/2012	Mineração Mata Azul S.A	Granted Exploration	788	Bluebush	TO	up to 100%	7
860.066/2009	Mineração Mata Azul S.A	Granted Exploration	1,797	Bluebush	TO/GO	up to 100%	7
860.067/2009	Mineração Mata Azul S.A	Granted Exploration	1,876	Bluebush	TO/GO	up to 100%	7
864.084/2009	Perth Recursos Minerais Ltda	Priority	1,518	Palma	TO	100%	6

**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.
- 5: Alvo is in the early stages of earning-into up to 100% interest into the areas owned by Afla Investimentos e Participações Ltda, an area located adjacent to the Palma Project and considered highly prospective for VMS style mineralisation.
- 6: Alvo has won the area in the 8<sup>th</sup> round of Mines Department bidding for derelict areas. Tenement number may be re-set once paid and transferred.
- 7: Alvo is in the early stages of earning-into up to 100% interest into the areas owned by Mineração Mata Azul S.A, a Project area hosting the Bluebush IAC REE Project.

## Appendix 5B

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

Name of entity

<b>Alvo Minerals Limited</b>
------------------------------

ABN

<b>37 637 802 496</b>
-----------------------

Quarter ended ("current quarter")

<b>30 September 2024</b>
--------------------------

<b>Consolidated statement of cash flows</b>	<b>Current quarter \$A'000</b>	<b>Year to date (9 months) \$A'000</b>
<b>1. Cash flows from operating activities</b>		
1.1 Receipts from customers	-	-
1.2 Payments for		
(a) exploration & evaluation	(904)	(1,978)
(b) development	-	-
(c) production	-	-
(d) staff costs	(106)	(331)
(e) administration and corporate costs	(149)	(861)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	1	6
1.5 Interest and other costs of finance paid	-	(1)
1.6 Income taxes paid	-	-
1.7 Government grants and tax incentives	-	-
1.8 Other (provide details if material)	-	-
<b>1.9 Net cash from / (used in) operating activities</b>	<b>(1,158)</b>	<b>(3,163)</b>

<b>2. Cash flows from investing activities</b>		
2.1 Payments to acquire or for:		
(a) entities	-	-
(b) tenements	(89)	(239)
(c) property, plant and equipment	(4)	(64)
(d) exploration & evaluation	-	-
(e) investments,	-	-
(f) other non-current assets, including bonds and deposits	-	-

<b>Consolidated statement of cash flows</b>	<b>Current quarter \$A'000</b>	<b>Year to date (9 months) \$A'000</b>
2.2 Proceeds from the disposal of:		
(a) entities	-	-
(b) tenements	-	-
(c) property, plant and equipment	-	26
(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)	-	-
<b>2.6 Net cash from / (used in) investing activities</b>	<b>(93)</b>	<b>(277)</b>

<b>3. Cash flows from financing activities</b>		
3.1 Proceeds from issues of equity securities (excluding convertible debt securities)	-	4,205
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	(18)	(35)
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)	(11)	(31)
<b>3.10 Net cash from / (used in) financing activities</b>	<b>(29)</b>	<b>4,139</b>

<b>4. Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1 Cash and cash equivalents at beginning of period	3,367	1,692
4.2 Net cash from / (used in) operating activities (item 1.9 above)	(1,158)	(3,163)
4.3 Net cash from / (used in) investing activities (item 2.6 above)	(93)	(277)
4.4 Net cash from / (used in) financing activities (item 3.10 above)	(29)	4,139

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

<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (9 months) \$A'000</b>
4.5	Effect of movement in exchange rates on cash held	5	(299)
<b>4.6</b>	<b>Cash and cash equivalents at end of period</b>	<b>2,092</b>	<b>2,092</b>

<b>5.</b>	<b>Reconciliation of cash and cash equivalents</b> at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	<b>Current quarter \$A'000</b>	<b>Previous quarter \$A'000</b>
5.1	Bank balances	2,092	3,696
5.2	Call deposits	-	-
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
<b>5.5</b>	<b>Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>2,092</b>	<b>3,696</b>

<b>6.</b>	<b>Payments to related parties of the entity and their associates</b>	<b>Current quarter \$A'000</b>
6.1	Aggregate amount of payments to related parties and their associates included in item 1 *	106
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-

*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.*

\*Payments to Directors for Director fees and the salary of the Managing Director

<b>7.</b>	<b>Financing facilities</b> <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>	<b>Total facility amount at quarter end \$A'000</b>	<b>Amount drawn at quarter end \$A'000</b>
7.1	Loan facilities	-	-
7.2	Credit standby arrangements	-	-
7.3	Other (please specify)	-	-
7.4	<b>Total financing facilities</b>	<b>-</b>	<b>-</b>
7.5	<b>Unused financing facilities available at quarter end</b>		-
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		

<b>8. Estimated cash available for future operating activities</b>	<b>\$A'000</b>
8.1 Net cash from / (used in) operating activities (item 1.9)	(1,158)
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)	(1,158)
8.4 Cash and cash equivalents at quarter end (item 4.6)	2,092
8.5 Unused finance facilities available at quarter end (item 7.5)	-
8.6 Total available funding (item 8.4 + item 8.5)	2,092
<b>8.7 Estimated quarters of funding available (item 8.6 divided by item 8.3)</b>	<b>1.81</b>
<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?	
Answer: No. The entity completed significant drilling during the reporting quarter. Net operating cashflows will reduce considerably as the drilling programs are completed.	
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 Board continually monitors cash levels and future expenditure. Any capital raised in future, will be dependent on results and evaluation as outlined above in 8.1.1.	
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: Yes. In light of the ability to vary its operating cashflows and the ability to raise cash through the issue of new shares.	
<i>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.</i>	

## 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 October 2024

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.