ASX Announcement 3 May 2022



C3 DEPOSIT - 7.0M @ 5.2% Cu, 8.0% Zn & 7.4M @ 2.2% Cu, 23.1% Zn

HIGHLIGHTS

- Final assay results from Phase 1 of the maiden diamond drill program at C3 have been received, continuing to deliver **exceptional high-grade polymetallic** widths and grade. Highlights include;
 - PD3-018: **15.0m @ 2.89% Cu, 4.41% Zn**, 0.33% Pb, **29.80g/t Ag** & 0.09g/t Au from 71m
 - o Inc. 7.0m @ 5.24% Cu, 8.01% Zn, 0.33% Pb, 49.71g/t Ag & 0.16g/t Au from 73m
 - o PD3-018: 38.0m @ 0.60% Cu & 0.91% Zn from 13m (supergene)
 - o PD3-014: 16.0m @ 1.81% Cu, 14.23% Zn, 0.37% Pb, 20.53g/t Ag & 0.04g/t Au from 252m
 - o Inc. 7.4m@ 2.20% Cu, 23.13% Zn, 0.60% Pb, 30.28g/t Ag & 0.06g/t Au from 259m
 - o PD3-013: 17.7m @ 0.98% Cu, 3.35% Zn, 0.05% Pb, 6.27g/t Ag & 0.06g/t Au from 319m
 - o Inc. 4.0m @ 1.88% Cu, 14.10% Zn, 0.08% Pb, 12.63g/t Ag & 0.08g/t Au from 330m
- Hole PD3-018 is the northernmost hole drilled to date and delivered an exceptional shallow, thick and high-grade intercept with mineralisation open to the NE
- Hole PD3-013 is the deepest intercept to date, expanding the high-grade central zone
- Phase 2 drilling at C3 will be undertaken based on geophysical surveys including Downhole and Fixed Loop Electromagnetic Surveys (DHEM & FLEM) planned for the current quarter
 - o Geophysical equipment for DHEM & FLEM on route to Brazil
- Both diamond drill rigs have moved to C1 where the maiden 10,000m drill program continues
 - Significant visual massive sulphide mineralisation intersected at C1, including a broad 21.0m zone of massive to semi-massive VMS mineralisation from 141m
- Metallurgical testwork underway, directed by specialist consultants in an independent Australian lab

Alvo Minerals Limited (ASX: ALV) (Alvo or the Company) is pleased to announce final assay results from the phase 1 diamond drill program at the C3 deposit, delivering exceptional wide and high-grade Cu-Zn VMS intercepts. The Company continues its maiden 10,000m drill program with both diamond drill rigs operating at the C1 deposit and Alvo continues to progress early exploration and targeting activities across the Palma Project.



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PROJECT Palma Project

Shares on Issue Cash ASX Code

72,830,314 \$7.2M (at 31 Mar 2022) ALV



Alvo Minerals' Managing Director, Rob Smakman, commented on the ongoing exploration:

"The final set of assay results from the first phase of drilling at C3 continues to reinforce the consistency of highgrade mineralisation and highlights the potential for materially expanding the existing JORC Resource. We will be returning to drill multiple extensions at C3 once we have completed geophysical targeting.

At C1, initial drilling has revealed a different style of mineralisation where we have intersected broad zones of massive and semi-massive sulphides with significantly less (unmineralised) pyrrhotite. We have been more aggressive with our drilling at C1 and noted a strong structural control on mineralisation with a folded high-grade zone plunging shallowly to the south. Assay results will start to flow from C1 shorty, and we are confident the historical work will be confirmed and expanded.

In addition to the diamond drilling that been our primary focus and delivered spectacular results, we are beginning to commence metallurgical test work and look forward to ground geophysical equipment arrive on site to refine our targeting for future drill programs. It's exciting times for Alvo."

VMS and Supergene Mineralisation from Diamond Drilling at C3

The mineralised intercepts reported below in Table 1, include significant intercepts from holes PD3-013 to PD3-018 which were targeting the VMS and supergene mineralisation at the C3 prospect.

Hole PD3-018 (see Figures 1 & 2) is the northernmost hole drilled by Alvo to date and indicates the VMS and supergene mineralisation is open to the north-east. This hole intercepted a broad high-grade zone of VMS mineralisation from 71m. This intercept appears to confirm earlier observations of historical drilling where the Cu-Zn ratio and the Ag content appear to be increasing to the north.

- PD3-018: **15.0m @ 2.89% Cu, 4.41% Zn**, 0.33% Pb, 29.80g/t Ag & 0.09g/t Au **from 71m**
 - o Inc. 7.0m @ 5.24% Cu, 8.01% Zn, 0.33% Pb, 49.71g/t Ag & 0.16g/t Au from 73m

PD3-018 also intercepted a broad zone of supergene mineralisation from 13m downhole. This intercept expands the potential of the supergene zone to at least 200m along strike, however the full extent of this potentially significant zone is likely to be larger given the only holes that have intercepted the supergene mineralisation to date are the shallow holes close to the outcropping gossan.

• PD3-018: 38.0m @ 0.60% Cu & 0.91% Zn from 13m (supergene)

Hole PD3-014 is the deepest hole drilled on section 3 (see Figures 1 & 3) and adds to the exceptional results the central zone has returned to date alongside holes PD3-012 and PD3-008¹, which were the widest and highest-grade intercepts on their respective cross sections. Mineralisation remains open at depth and Alvo will target the extensions of the central zone in the Phase 2 diamond drilling program at C3.

- PD3-014: 16.0m @ 1.81% Cu, 14.23% Zn, 0.37% Pb, 20.53 g/t Ag & 0.04 g/t Au from 252m
 - o Inc. 7.42m @ 2.20% Cu, 23.13% Zn, 0.6% Pb, 30.28 g/t Ag & 0.06g/t Au from 259m

Hole PD3-013 is Alvo's deepest hit to date from holes targeting the VMS mineralisation and returned an impressive intercept (see Figures 1 & 4). There are several historical holes drilled off-section (on a different azimuth) by the CPRM which are projected to intercept at similar levels on this section. Additional drilling in this section/area is required to confidently interpret the geometry, however the mineralisation remains open at depth- extending the high-grade zone in the central zone to >200m of strike length.

- PD3-013: **17.70m @ 0.98% Cu, 3.35% Zn**, 0.05% Pb, 6.27 g/t Ag & 0.06 g/t Au from 319m
 - o Inc. 4.03m @ 1.88% Cu, 14.10% Zn, 0.08% Pb, 12.63 g/t Ag & 0.08g/t Au from 330.02m

¹ See ASX announcement "FURTHER OUTSTANDING DRILL RESULTS INCLUDING 36m @ 1.49% COPPER & 8.58% ZINC" dated 30 March 2022





	Hole ID	Length (m)	From (m)	Cu %	Zn %	Pb %	Ag g/t	Au g/t	Comment
\geq	PD3-013	3.33	286.00	0.35	0.26	0.03	0.00	0.00	VMS
	PD3-013	2.17	314.83	0.20	0.01	0.86	76.00	1.84	VMS
	PD3-013	17.70	319.00	0.98	3.35	0.05	6.27	0.06	VMS
	including	4.03	330.02	1.88	14.10	0.08	12.63	0.08	VMS
	PD3-014	2.00	222.00	0.59	0.36	0.01	0.00	0.00	VMS
	PD3-014	3.00	226.00	0.54	0.36	0.00	0.00	0.00	VMS
	PD3-014	6.27	238.45	0.76	1.65	0.26	16.17	0.14	VMS
	PD3-014	16.00	252.00	1.81	14.23	0.37	20.53	0.04	VMS
	including	7.42	259.00	2.20	23.13	0.60	30.28	0.06	VMS
	PD3-015	7.00	168.00	1.24	1.03	0.07	8.29	0.04	VMS
	PD3-016	2.00	213.00	0.10	0.10	0.30	25.00	0.21	VMS
	PD3-016	7.00	215.00	1.01	0.47	0.05	6.14	0.04	VMS
	PD3-017	2.85	38.50	0.08	1.05	0.00	0.00	0.00	Supergene
	PD3-017	2.00	158.00	0.38	0.64	0.06	4.50	0.02	VMS
	PD3-018	38.00	13.00	0.60	0.91	0.00	0.08	0.01	Supergene
	including	4.00	33.00	0.74	1.18	0.00	0.75	0.01	Supergene
	including	6.00	42.00	0.79	1.53	0.00	0.00	0.00	Supergene
	PD3-018	15.00	71.00	2.89	4.41	0.33	29.80	0.09	VMS
	including	7.00	73.00	5.24	8.01	0.49	49.71	0.16	VMS
		Table of signifi	cant intercepts ninimum interv	calculated usir al of 1m and a	ng a 0.1% Cu c maximum of	or 0.5% Zn or 0 2m of internal	.1 g/t Au lowe	rr cut-off,	

Table 1: Significant intercepts C3 Diamond drilling program.







Figure 1: C3 prospect plan including significant intercepts







Figure 2: Cross section 5, C3 prospect.









Figure 3: Cross section 3 C3 prospect.









Figure 4: Cross section 4, C3 prospect







Figure 5: Long section, C3 prospect.

Visual Mineralisation from Diamond Drilling at C1

The maiden 10,000m diamond drill program has moved to the C1 prospect where in Alvo reported a JORC Inferred Mineral Resource Estimate (MRE) of 1.8Mt @ 0.8% Cu, 3.2% Zn, 0.4% Pb and 15 g/t Ag². Alvo has planned a combination of 'Upgrade', 'Expand' and 'Discover' holes, based around the historical drilling and the recently completed Fixed Loop Electromagnetic survey (FLEM) survey (see Figure 6).

Drilling has advanced rapidly at C1 with 9 holes complete for 1,932m in total. PD1-019, the first hole at C1, intercepted a broad 21.0m zone of semi-massive to massive VMS mineralisation from 141m downhole. The mineralisation is different to the mineralisation at C3 in that there is distinctly less (unmineralised) Pyrrhotite in the massive sulphide zone. Visual estimates of sulphides are detailed in Appendix 1.

In relation to the disclosure of visual mineralisation, the Company cautions that visual estimates of sulphide abundance should never be considered a proxy or substitute for laboratory analysis. Laboratory assay results are required to determine the widths and grade of mineralisation.

Summary logs for the drilling with results and core photographs of the mineralised zones are described in Appendix 1 for reference. The Company will release assay results as they become available.

Alvo's first "Discovery" hole, targeting the previously undrilled southern EM plates, did not intercept visual mineralisation, with moderate to strong carbonate alteration noted and minor zones of biotite alteration and disseminated pyrrhotite intercepted. The hole will be one of the first holes to be tested by DHEM once the

² As released in Alvo's prospectus dated 30 July 2021.





equipment arrives. On completion all data will be re-interpreted and any updated conductive plate locations will be considered for additional drilling.



Figure 6: C1 Diamond Drill Plan.





Metallurgical Testwork Program

In late 2021, Alvo retained BHM Process Consultants (BHM) out of Perth as metallurgical consultants to the company. BHM reviewed the historical work and has proposed a work program that will fulfill the requirements to a scoping study level should Alvo decide to progress to that stage. The work program requires representative sampling of the core, which is then shipped to Australia to an independent laboratory.

Now that the results from Phase 1 drilling at C3 have been received, a sampling program is underway for the C3 prospect under the remote supervision of BHM. Laboratory time has been booked in an accredited independent laboratory and results from the C3 testwork is expected in Q4/22. It is estimated ~125kg of ¼ drill core will be shipped from the C3 prospect and will include a sample of the supergene mineralisation.

Next Steps:

- Phase 1 diamond drilling ongoing at C1, with holes targeting Upgrade, Expansion and Discover positions.
- FLEM and DHEM surveys will commence on C3 and C1, once the equipment arrives in Brazil, expected • to be in early May.
- Phase 2 diamond drilling to commence at C3 targeting extensional targets defined by the FLEM and DHEM surveys.
- Metallurgical sampling underway, with testwork to commence in June.

The below Table summarises the locations of the Alvo drillholes completed to date.

	Ine below Table summarises the locations of the Alvo drilinoles completed to date.										
			Table 2: Co	llar details. Co	ordinates are	in SIRGAS_20	00 Zone22S				
\square	Hole ID	Prospect	Easting	Northing	RL	Depth	Azimuth	Dip	Comment		
	PD3-001	C3	793005	8567679	396	286.80	290	-78	Upgrade		
$(\ $	PD3-002	C3	793000	8567724	404	184.25	290	-60	Upgrade		
	PD3-003	C3	793044	8567720	396	250.55	290	-60	Upgrade		
RA	PD3-004	C3	792995	8567632	399	220.55	290	-60	Upgrade		
	PD3-005	C3	793033	8567619	406	267.75	290	-60	Upgrade		
	PD3-006	C3	792967	8567645	395	148.30	290	-60	Upgrade		
	PD3-007	C3	793065	8567599	400	319.15	290	-60	Upgrade		
	PD3-008	C3	793099	8567590	399	397.00	290	-60	Extend		
	PD3-009	C3	792973	8567576	407	230.90	290	-60	Upgrade		
	PD3-010	C3	792938	8567655	398	136.45	290	-60	Upgrade		
	PD3-011	C3	793032	8567551	368	281.15	290	-60	Upgrade		
5	PD3-012	C3	793092	8567655	394	349.55	290	-65	Extend		
	PD3-013	C3	793105	8567524	406	390.75	290	-60	Upgrade		
$(\ $	PD3-014	C3	793086	8567708	412	313.50	290	-60	Upgrade		
	PD3-015	C3	792937	8567521	405	224.20	290	-60	Upgrade		
	PD3-016	C3	792981	8567505	425	271.80	290	-60	Upgrade		
	PD3-017	C3	793083	8567808	402	216.55	290	-60	Upgrade		
	PD3-018	C3	793046	8567819	409	220.75	290	-60	Upgrade		
	PD1-019	C1	795840	8552559	400	181.45	285	-60	Upgrade		
	PD1-020	C1	795893	8552661	387	250.80	285	-60	Upgrade		
	PD1-021	C1	795942	8552649	385	268.60	285	-60	Extend		
	PD1-022	C1	795953	8552958	410	133.20	285	-60	Upgrade		
	PD1-023	C1	796002	8552166	412	466.75	285	-60	Discover		

Table 2: Collar details. Coordinates are in SIRGAS 2000 Zone22S





Hole ID	Prospect	Easting	Northing	RL	Depth	Azimuth	Dip	Comment
PD1-024	C1	796024	8553153	399	110.00	285	-60	Upgrade
PD1-025	C1	796070	8553140	414	177.40	285	-60	Extend
PD1-026	C1	795925	8552760	393	133.30	285	-50	Upgrade
PD1-027	C1	795706	8552586	424	210.85	105	-60	Upgrade
	775	9800	789800	799800	809800	819800	829800	
	8579900					win and	857990	
	8569900 8569900		6-37				8569900	



Figure 7: Regional plan at Palma Project.





References to Previous ASX Announcements

Reference in this report is made to previous announcements including;

As reported in the announcement "ALVO LAUNCHES MAIDEN DRILL PROGRAM AT C3" dated 26 October 2021 issued by Alvo Minerals Limited

As reported in the announcement "ALVO INTERCEPTS BROAD ZONE IN TE FIRST HOLE AT C3" dated 4 November 2021 issued by Alvo Minerals Limited

As reported in the announcement "ALVO TO INITIATE EM SURVEY AND SECURES ADDITIONAL RIG FOR 2022" dated 8 December 2021 issued by Alvo Minerals Limited

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 "FURTHER OUTSTANDING DRILL RESULTS INCLUDING 36m @ 1.49% COPPER & 8.58% ZINC" dated 30 March 2022 issued by Alvo Minerals Limited

In relation to the Mineral Resource Estimate (the MRE) and other exploration results or estimates crossreferenced above, these are extracted from the Independent Geologists' Report prepared by Target Latin America and others (the "**IGR**"), which is included in full in Alvo's prospectus dated 30 July 2021 (the "**Prospectus**") and which was announced to ASX within the Prospectus on 18 October 2021. Alvo confirms that it is not aware of any new information or data that materially affects the information included in the IGR and that all the material assumptions and technical parameters underpinning the Inferred Mineral Resource Estimate continue to apply and have not materially changed.

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.

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

ENQUIRIES

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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.





APPENDIX 1

Summary logs, core photography and significant intercepts (from results received to date). Log codes = pyrite (py iron sulphide), Pyrrhotite (po, iron sulphide), sphalerite (sph, zinc sulphide), chalcopyrite (cpy, copper sulphide), galena (ga, lead sulphide), Tr= trace, act= actinolite

	Coord. X: 793105 Azimuth: 2* Coord Y: 8567524 Dip: -60° Elev.: 406 m sirgAs2000 Depth: 390 ZONE 225 Dip: -60°		Azimuth: 290 Dip: -60°	
Elev.: ZONE 2	ev.: 406 m s	SIRGAS2000	Depth: 390.75m	Prospect: C3 MINERALS
Fro	From (m)	To (m)	Interv (m)	Description
314	314.83	320.93	6.10	Biotite-sericite schist high content of quartz occurring as decimetric to centimetric segregations bands at the foliation. Sulphide (cpy+po+py) is stronger at decimetric bands weaker at foliation (po+py+cpy) total <4%.
320	320.93	329.70	8.77	Sericite-chlorite-biotite schist. Disseminated interval (po+cpy+py>3%), sulphide occurs at foliation with low angle with drill core. At 327n occurs massive level with pyrrhotite (approx. 4cm).
329	329.70	330.02	0.32	Semi-massive po+py+cpy (>50%), host rock is mainly amphibole-biotite-sericite schist (BASH).
330	330.02	334.05	4.03	Massive po+py+cpy+sph (>90%), carbonate is present as crystals and may be giving space for py formation (euhedral crystals). po and sph forms masses encompassing carbonatic and pyritic layers. Cpy is disseminated (>4%).
334	334.05	335.32	1.27	Semi-massive po+py+cpy (>40%), host rock is mainly amphibole-sericite schist.
33	335.32	339.22	3.90	Biotite-sericite-amphibole schist, Disseminated py+cpy+po (3%).
		.00m		336.70m



Drill core photo from PD3-013: 17.70m @ 0.98% Cu, 3.35% Zn, 0.05% Pb, 6.27g/t Ag, 0.06g/t Au from 319.00m. Incl. 4.03m @ 1.88% Cu, 14.10% Zn, 0.08% Pb, 12.63g/t Ag, 0.08g/t Au from 330.02m.





Coord. X: 79	93086	Azimuth: 290		10
Coord Y: 856	67708	Dip: -60°		VO
Elev.: 412 m ZONE 22S	SIRGAS2000	Depth: 313.5m	Prospect: C3	INERALS
From (m)	To (m)	Interv (m)	Description	
244.72	254.71	9.99	Hydrothermal alteration zone (Stringer zone). Composition biotite-amphibole-chlorite-sericite hydrothermal with disseminated p 3%). Close to the end of the interval, centimetric level of meta-andesite. The last 20 cm of the interval, the sulfidation increase 5%) of po+py+cpy.	oo+py (1- to (3-
254.71	266.42	11.71	Massive sulfide - po+py+sph+cpy(>90%) with milimetric, white, carbonate crystals along almost all the interval and some portion banded sulfides. Present well cristalized second generation of milimetric to centimetric cubic pyrite.	ons of
266.42	294.45	28.03	Chlorite-biotite-amphibole-feldspar-sericite schist, fine to medium grained, light green, foliated, with dissemination of po+py>>c and veinlets of po and cpy, hosted along the foliation plan, locally rare points of sph. From 285,40 - 286.32m level enriched in quartz. At 291,10m - level of 5 cm of banded metachert.	cpy (1-3% albite-
252.0		And		8.00m

Drill core photo from PD3-014 16m @1.81% Cu, 14.23% Zn, 0.37% Pb, 20.53g/t Ag, 0.04g/t Au, from 252.00m Inc/. 7.42m @ 2.20% Cu, 23.13% Zn, 0.60% Pb, 30.28g/t Ag 0.06 g/t Au from 259.00m. *Mineralised interval is between the orange markers.*

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Coord V:	702027	Azimuth: 200		
Coord Y: 8	Coord Y: 8567521		DRILL HOLE: PD3-015	
Elev.: 405 m SIRGAS2000 ZONE 22S		Depth: 224.2m	Prospect: C3	MINERALS
From (m)	From (m) To (m) Interv (m)		Description	
166.55	168.00	1.45	Metachert intercalation with sericita-biotita-schist sulfidation increases disseminated in the foliation (py+po>2	2-3%)
168.00	170.40	2.40	Semi-massive and banded sulfide mineralization in a chl-sericite-schist host rock as soon as it gets closer to albitization is strong and a pink colored banding is visible intercalating with cpy>50% banding	the massive sulfidation the
170.40	170.87	0.47	Massive sulfide starting with a sph vein cpy+py+po+sph>90%	
170.87	174.56	3.69	Stringer zone (cpy+sph+py+po>30%) hosted by a felds-bio-chl schist	
174.56	187.84	13.28	Intensive quartz-albite-bio-chl alteration zone sulfidation associated with carbonate veinlets also disseminate banding intercalating with biotite banding (cpy+sph>py+po>5%) at 183.70m interceptation of 40cm of vein of (py+po) filling a centimetric vein intersecting a vein of quartz	ed in the foliation and i quartz at 187m sulfidation



Drill core photo from PD3-015: 7.00m @ 1.24% Cu, 1.03% Zn, 0.07% Pb, 8.29g/t Ag, 0.04g/t Au from 168.00m. Mineralised interval is between the orange markers.





d. X: 79	2981	Azimuth: 290		IC
a 1:856 :425 m	SIRGAS2000	Dip: -60*	Prospect: C3	ERAL
22S m (m)	To (m)	Inter. (m)	Description	
3.50	214.57	1.07	Metachert	
4.57	220.90	6.33	Medium grained dark amph-bio-schist with high biotite content and also sulfides content occuring in the foliation the proportion g towards the end (py+po+cpy>15%) sulfides appear as stockwork (py+po+cpy+sph>30%). Cpy proportion increases towards the (Cpy>10%).	rows end
0.90	221.20	0.30	Massive sulfide. Cpy+py+po+sph>75%.	
1.20	240.00	18.80	BASH with intercalations between biotite chlorite and albite alterations. All well foliated filled with carbonate in the foliation and in fractures. Sulfides occur mostly disseminated within the foliation and rarely as irregular masses (py+po+cpy>15%). Hydrotherma alteration zone including alb+ep+chl+cb+bio	ı al
			215.00m	

Drill core photo from PD3-016:7.00m @ 1.01% Cu, 0.47% Zn, 0.05% Pb, 6.14g/t Ag, 0.04g/t Au from 215.00m. Mineralised interval is between the orange markers.





VO

	Coord. X: 793083 A		Azimuth: 290	DRILL HOLE:	PD3-017
	Coord Y: 856	7808	Dip: -60°		
ļ	Elev.: 402 m ZONE 22S	SIRGAS2000	Depth: 216.55m	Prospect: C3	
7	From (m)	To (m)	Inter. (m)		
	136.25	145.34	9.09	Light gray amph-fel plans. Milimetric bio disseminated black veinlet along the fol	ds-bio-ser so ptite dissemir magnetite (1 liations plans
	145.34	161.00	15.66	Light green amph-c schist. Mineralization sulfic (7-10%). 2 - From	hl schist wea des occur as 158.25 to 15
	161.00	181.30	20.30	Greenish gray bio- weakly fracturated. Sulfidation dissemin po>py>>cpy (2-3%	chl-felds-amp nated and vei locally 4%).
					158.00



sseminated and veinlets along the foliation planes (Tr-1%). From 161 to 162.71 po>py (2-3%). From 170.43 to 178.7 (2-3% locally 4%).



Drill core photo from PD3-017: 2.00m @ 0.38% Cu, 0.64% Zn, 0.06% Pb, 4.50 g/t Ag, 0.02 g/t Au from 158.00m. Mineralised interval is between the orange markers.





	Coord. X: 79	3046	Azimuth: 290						
	Coord Y:856	7819	Dip: -60°		LVO				
	Elev.: 409 m SIRGAS2000 ZONE 22S		Depth: 220.75m	Prospect: C3	MINERALS				
\geq	From (m)	To (m)	Interv (m)	Description					
	70.92 72.50 1		1.58	Bio-amph, darker due to biotite content, sulfidation increases as stockwork mineralization py+cpy>po>mt? (magnetic)>20%					
	72.50	76.32	3.82	Massive sulfide (sph,py,cpy,po>90%) starting with sph vein					
	76.32	79.24	2.92	- Bio-amph fine grained, cpy+po+py>15% sulfides as stockwork and disseminated in the foliation					
	79.24	87.06	7.82	Amphibolite biotite rich, black biotite occurs as slats all over the green amphibole matrix, milimetric red garnet, py+cpy all over interval as disseminated in the foliation and as stockwork in a stringer zone > 30%	ver the				



Drill core photo from PD3-018: 15.00m @ 2.89% Cu, 4.41% Zn, 0.33% Pb, 29.80 g/t Ag, 0.09 g/t Au from 71.00m. Mineralised interval is between the orange markers.





	Coord. X: 79	3046	Azimuth: 290	DRILL HOLE: PD3-018 (cont.)
	Coord Y:8567819 Dip: -60° Elev.: 409 m sirGAS2000 Depth: 220.75m ZONE 22S Depth: 220.75m		Dip: -60°	
			Depth: 220.75m	Prospect: C3 MINERALS
	From (m)	To (m)	Interv (m)	Description
	12.00	22.95	10.95	Red saprolite, darker lens of Mn oxides, centimetric wheatered veins of qtz intercepts the interval
	22.95	39.32	16.37	Yellow saprolite, darker veins intercepting the interval (Mn oxides), oxidizes lens (red),
	39.32	45.60	6.28	Saprock of chl-bio-felds-sericite schist. Strongly weathered and fractured rock, fractures filled by carbonates and oxidized sulfifes, light grey interval with graphite schist centimetric intercepts, veinlets filled by black masses (Mn oxides?), oxidized sulfides veinlets, veins and veinlets of carbonate and/or quartz, cb is also strong in the foliation plan (filling). The fisrt meter has oxidized sulfides py?cpy?>2- 3% as vein-fill and disseminated in the foliation
	45.60	47.67	2.07	Saprock of graphite schist domain
	47.67	50.20	2.53	Weathered sericite-schist and qtz-vein
	50.20	58.90	8.70	Light green and grey well foliated interval of chl-felds schist, well fractured and weathered, sulfides content increases. Sulfidation occur as disseminated near cb-veinlets (py>3%). A 15cm Mn oxide vein wheatered has a py(+cpy?)-veinlet, pink colored veinlets of alb+qtz+oxidized sulfides, carbonate+oxidized sulfides veinlets discordant with the foliation.



38.00m @ 0.60% Cu, 0.91% Zn, 0.00% Pb, 0.08 g/t Ag, 0.09g/t Au from 13.00m. Mineralised interval is between the orange markers.





59 GAS2000	Dip: -60° Depth: 181.45m	
GAS2000	Depth: 181.45m	
		Prospect: C1
To (m)	Interv (m)	Description
144.32	2.82	Massive sulfide (90% <py<po<gn,cpy<sph), brecciated="" coarse="" fragments="" from="" grained="" original="" rock.<="" td="" texture="" the="" with=""></py<po<gn,cpy<sph),>
146.26	1.94	Chlorite amphibolite, green in color, fine and with high content of carbonate at the foliation. Quartz-albite rich layers occur also.
148.92	2.66	Semi-massive (SMS) (50% <py<po<gn,cpy<sph) (green).<="" amphibole="" chlorite="" layers="" occurs="" schist="" td="" together="" with=""></py<po<gn,cpy<sph)>
156.91	7.99	Massive sulfide (90% <py<po<gn,cpy<sph), are="" between="" brecciated="" coarse="" disseminated.<="" fragments="" from="" grained="" mainly="" original="" rock.="" sulfides="" td="" texture="" the="" with=""></py<po<gn,cpy<sph),>
159.21	2.30	Garnet biotite hydrothermal, fine grained and highly deformed.
161.48	2.27	Massive sulfide (90% <py<po<gn,cpy<sph), brecciated="" coarse="" fragments="" from="" grained="" original="" rock.<="" td="" texture="" the="" with=""></py<po<gn,cpy<sph),>
162.68	1.20	Semi-massive (SMS) (70% <py<po<gn,cpy<sph) (ms="" 161.82-162.02m="" 163.02-163.28m<="" biotite="" centimentric="" garnet="" hjydrothermal="" interval="" intervals="" layers="" massive="" occurs="" td="" together="" where="" with=""></py<po<gn,cpy<sph)>
1 1 1 1 1	44.32 46.26 48.92 56.91 59.21 61.48 62.68	44.32 2.82 46.26 1.94 48.92 2.66 56.91 7.99 59.21 2.30 61.48 2.27 62.68 1.20

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	Coord. X: 795893 Az Coord Y: 8552661 Dig Elev.: 387m SIRGAS2000 De ZONE 225 De		Azimuth: 285			
			Dip: -60°			
			Depth: 250.80m	Prospect: C1 MINERALS		
\geq	From (m)	To (m)	Interv (m)	Description		
	105.15	107.29	2.14	Amphibolite with chloritic + carbonate alteration, more intense at the bottom of the interval.		
	107.29	109.60	2.31	Disseminated sulphidation in felsic rock package, with Spy > Po > Cpy > Gn, massive at the top (20cm). Interval intenselly fractured Brittle zone).		
	109.60	110.95	1.35	Massive sulphide zone with Spy > Po > Gn > Cpy. Hydrothermal carbonate + biotite.		
	110.95	111.45	0.50	Contact between felsic rock / massive sulphide with amphibolite. Qz + Carbonate veinlets with concentrated Spy > Cpy > Po pods.		







Coord. X: 795942 Coord Y: 8552649 Elev.: 385m siRGAS2000 ZONE 225		Azimuth: 285		
		Dip: -60°		
		Depth: 268.60m	Prospect: C1	MINERALS
From (m) To (m) Interv (m) Description		Description		
234.18	238.80	4.62	Dark green fine grained feldps-bio-amph-chl-ser schist, well foliated and intensely fractured (filled by cb), fau beggining of this interval, occur a 2cm thick pirrotite vein. Highly carbonated. Sulfidation, magnetic po and euedric py (Tr-1%) associated with carbonate veinlets and in fractures.	ulted and folded. At the
238.80	244.98	6.18	White translucid to granular gray quartz vein. Sulfidation, magnetic po + euedric py (7-10%) disseminated in the quartz matrix, as veinlets or veins up to 3 Veins and veinlets are mostly filled by po. From 239.22 to 239.33 occur semi-massive magnetic pirrotite (25	cm thick and in fractures. %).
244.98	257.21	12.23	Dark green fine grained feldps-bio-amph-chl-ser schist, well foliated and moderately fractured, faulted and for fractures is cut by carbonate posterior fractures. It has centimetric medium grained biotite rich layers, which Sulfidation, po and euedric py (Tr-1%) in fractures.	olded. A quartz-filled group o are also folded.







	Coord. X: 795953 Coord Y: 8552958		Azimuth: 285	
			Dip: -60°	
	Elev.: 410 m : ZONE 22S	SIRGAS2000	Depth:133.20m	Prospect: C1 MINERALS
	From (m)	To (m)	Interv (m)	Description
1	33.10	48.15	15.05	Amphibole interval with moderate to strong cb+qz+chl hydrothermal alteration, crystals of amphibole can be noticed along the foliation well marked, cb+qz in the foliation and also filling millimetric fractures; py disseminated in the foliation (Tr)
	48.15	50.00	1.85	Amphibole interval lighter due to weak ab+qz+bio hydrothermal alteration; at this interval sulfidation disseminated (py+cpy+ga+po+sph>20%) increases associated with biotite, the white color is noticed until the package starts to become darker and sulfidation decreases
)	50.00	64.86	14.86	Bio-amp-schist richier in biotite (darker color), epidote is also common in this interval in a light green color, amphibole and cb (in the foliation) in a continuous fine grained interval, sulfidation decreases in this interval (disseminated py>1-2%); at 62.38m stockwork of sph,po,bio,cpy,py with quartz xenolith; centimetric band of metachert yellow colored; the interval has banded qtz-felds centimetric lens intercalating with bio+amph bands
	64.86	65.37	0.51	Sph,ga,po>cpy,py>90%, massive sulfide, remaining xenolith folded (amp greenish due to chl+ep), magnetic po
)	65.37	68.77	3.40	Bio-amph schist altered by a weak to moderate bio>alb+qtz>chl hydrothermal alteration, light grey package, well foliated, biotite occurs along foliation in milimetric micas, intercalating with felds/ab+qtz altered lens, millimetric rounded pink garnet crystals dispersed in the foliation, sulfidation is disseminated in the foliation or along biotite lens as py+cpy>>po>2-3%



Hole ID	Prospect	Easting	Northing	RL	Depth	Azimuth	Dip	Comment
PD1-023	C1	796002	8552166	412	466.75	285	-60	Discover
From	То	Description						
0	466.75	No significant mineralisation logged						





	Coord. X: 796024 Coord Y: 8553153 Elev.: 399m sirgas2000 20NE 225		Azimuth: 285	
			Dip: -60°	
\geq			Depth:110.00m	Prospect: C1
	From (m)	To (m)	Interv (m)	Description
	50.45	68.67	18.22	Fine chlorite-biotite-amphibole schist, foliated and folded, moderatelly to strong carbonatization levels. Metric to decimetric intercalations of fine to medium amphibolite, foliated and poorly fractured. From 63.59 - 66.46m, strongly qz-carbonate, light yellow alteration interval. Locally py+po+cpy vein.
	68.67	69.04	0.37	Massive sulfide (>90%) sph>po>py>gn>cpy with carbonate crystals and small amphibole and biotite in the matrix.
	69.04	69.49	0.45	Biotite-amphibole schis, light green, foliated and weakly to moderately carbonatized enclosing disseminated py>cpy (1-2%)
	69.49	70.20	0.71	Massive sulfide (>90%) sph>po>py>gn>cpy with carbonate crystals and small amphibole and biotite in the matrix.
	70.20	78.98	8.78	Feldspatic-biotite-chlorite schist, light gray, foliated and locally weakly carbonated. Sulfidation po+py+cpy (1-2%), disseminated and as milimetric veinlets. Footwall without significant hydrothermal alteration. From 70.20 - 70.85m, locally disseminated sph (2-3%).



Note: Holes PD1-025 to PD1-027 have not yet been logged/photographed for inclusion in the Appendix.





APPENDIX 2

JORC Tables

Section 1 Sampling Techniques and Data (Criteria in this section apply to all succeeding sections, note data in this section is extracted from historic reports)

Criteria	JORC Code explanation	Commentary
Sampling techniques	 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. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. 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 Nickel that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information. 	 Half diamond core was sampled and submitted for analysis, ensuring representivity of the sample zones. Sampling was typically 1m in mineralised zones unless the geologist determined a different length was appropriate. Areas away from the main mineralised zones may have been sampled as 2m composite samples. Sampling was supervised by Alvo geologists who selected the sampling zones. Geologists would log the mineralisation as massive, disseminated, stringer, brecciated or barren. These logs were used to determine the main mineralisation zones, which dictated the sampling. Mineralisation was also logged as potentially supergene mineralised in the oxidised zone.
Drilling techniques	 Drill type (eg core, reverse circulation, open-hole hammer, rotary air 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). 	 Standard-tube diamond drilling by independent drill contractor. Drillhole diameter was variable- HW for collar and friable material, HQ diameter was generally used until the base of complete oxidation and then the diameter reduced to NQ. All holes are down-hole oriented using reflex Gyro tool. Drill core is oriented using NQ ACT 3 orienting tool from Relfex.
Drill sample recovery	 Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. 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. 	 Recoveries are recorded by both the driller's assistant (on site) and Alvo field assistant once the core has been received at the core shed. Recoveries are measured by comparing the length of the drill run with the amount of core actually recovered. Recovery has averaged >95% for all drilling to date. Drillers are penalised for poor recovery and are constantly supervised at the rig to ensure care is taken to ensure high recoveries. No relationship is believed to exist between recovery and grade.





Criteria	JORC Code explanation	Commentary		
Logging	 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. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	 All holes have been geologically logged by Alvo geologists, to a detail relevant for inclusion in a MRE. Care is taken to ensure metallurgical factors are included (specifically the % of and type of sulphides present). Basic geotechnical logging is standard. Logging and core processing is both qualitative and quantitative. Core is photographed wet and dry, measured for magnetic susceptibility, conductivity, density, RQD and basic geotechnical logging. All drilling results reported have been logged onsite by Alvo geologists. Logs include hole number, hole location, date drilled, collar, dip and azimuth as well as qualitative data such as rock type, and descriptions of the colour, alteration, weathering, grainsize, mineralisation and texture. At C3, a total meterage of 4,710m have been drilled by the Company and all metreage have been logged. 		
Sub-sampling techniq and sample preparati	 If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. 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. Whether sample sizes are appropriate to the grain size of the material being sampled. 	 Drill core is sawn in half and one half (consistently the same half) of the core is sampled. The remaining half is stored by Alvo in its dedicated facility. Sample size, being generally 1m sample intervals, is appropriate to the material being sampled and considered to be representative. 		
Quality of assay data laboratory tests	 and The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. 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. 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. 	 SGS Geosol Laboratorios Ltda are used for multi element and gold analyses on half diamond core. The lab techniques described below are considered appropriate for the style of mineralisation at the Palma Project Half drill core samples are dried, crushed until 75% pass 3mm, homogenised and split with 250-300g pulverised until 95% passing 150# Gold is determined by 30g fire assay Multi element (including Cu, Zn, Pb and Ag) are determined by multiacid digestion and ICP-OES. Samples above 1% Zn, Cu, Pb or 100 g/t Ag are re-tested using a higher lower detection limit. The QA/QC data includes standards, blanks, duplicates and laboratory checks. Alvo inserts internationally certified standards at a rate of 1 in 10 samples, blanks 1 in ~25 samples. Duplicates are selected from the crushed samples at a rate of 1 in 20 samples and follow the same assaying procedure. Alvo has reviewed the QA/QC data for all lab samples and are satisfied the results are within acceptable limits 		





Criteria	JORC Code explanation	Commentary		
Verification of sampling and assaying	 The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	 Significant intercept tables are prepared by Alvo personal and checked by at least one other geologist. No twinned holes are being reported All data is received from the laboratories and uploaded into excel spreadsheets where it is checked and uploaded into cloud storage. Once QA/QC procedures have been completed, the data is loaded into an Access database. No adjustments to the data was made. Weighted averages were used to calculate significant intercepts. For duplicates, the first sample is recorded for intercepts 		
Location of data points	 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. Specification of the grid system used. Quality and adequacy of topographic control. 	 Alvo is using pGPS to locate and record the drillhole collar locations. All drillholes are downhole surveyed using the Gyro tool from Reflex. All location data has been recorded SIRGAS 2000 UTM zone 22S Topographic control is adequate for the exploration at Palma. 		
Data spacing and distribution	 Data spacing for reporting of Exploration Results. 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. Whether sample compositing has been applied. 	 Drillholes were variably spaced- aimed at infilling between historical holes drilled by the CPRM. The drilling aims to fill between 100m spaced section lines and between 30-50m on section Drill spacing is considered sufficient to complement the previously reported inferred JORC 2012 MRE. Results will improve the geological and grade continuity. No compositing has been applied to the results (beyond weight averaging the results). Some sampling at 2m intervals was applied in areas away from the main VMS mineralisation. 		
Orientation of data in relation to geological structure	 Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. 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. 	 Drilling was oriented to intercept mineralisation as perpendicular as possible. No bias is believed to have occurred however geological and geophysical evidence suggests folding and faulting has occurred. Sampling lengths were generally 1m downhole, unless there was a specific geological control required by the geologist. All intercepts recorded are downhole intervals and may not equal true width. 		
Sample security	The measures taken to ensure sample security.	 Drillcore is transported from the field to a locked facility by Alvo or drilling staff daily. Samples are prepared in the coreshed by Alvo staff and transported to the lab by a dedicated transport company 		
Audits or reviews	 The results of any audits or reviews of sampling techniques and data. 	No audits of the techniques or data has been undertaken at this stage		





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	 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. 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. 	 The C3 prospect is located on exploration tenement 800.744/1978 and C1 is located on tenements 811.702/1975, 811.686/1975 and 860.310/1984, which are all a part of the agreement Alvo has with the CPRM (Geological Survey of Brazil). Alvo has the right to explore and eventually transfer 100% of this and other tenements, subject to several staged payments, drilling and payment of 1.71% royalty (above statutory government royalties). Alvo is confident the tenements are all in good standing and no known impediments exist for further exploration or eventual mining, apart from normal statutory reporting, local access agreements and state and federal approvals. 		
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	• Exploration by other parties form much of the work completed on the project. The work was completed to high standard for the time and Alvo was able to estimate an inferred JORC compliant Mineral Resource Estimate based on the information and work completed by the CPRM.		
Geology	 Deposit type, geological setting and style of mineralisation. 	 The Palma polymetallic project is located principally in the Palmeiropolis volcano-sedimentary sequences (PVSS), composed of a series of bimodal volcanic rocks and associated sedimentary units, regionally metamorphosed to amphibolite facies. The mineralisation is of a Volcanogenic Massive Sulphide (VMS) type, occurring at or near the contact between a metamafic volcanic unit and meta-sedimentary schist and comprises pyrite, pyrrhotite, sphalerite, galena, chalcopyrite, occurring as disseminated, brecciated and massive form. 		
Drill hole Information	 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: easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. 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. 	See Table 2- Collar table		
Data aggregation methods	 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. Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for cuch 	 The significant intercepts were calculated using minimum sample length of 1m, with up to 2m of consecutive dilution, samples included with values > 0.2%Cu or >0.5% Zn or >0.1g/t Au. No upper cuts were considered. Weighted averages were calculated for all intercepts. No metal equivalents reported 		





Criteria	JORC Code explanation
D	aggregation should be sta some typical examples of aggregations should be sh detail. • The assumptions used for reporting of metal equiva values should be clearly st
Relationship between mineralisation widths and intercept lengths	 These relationships are particularly important in treporting of Exploration R If the geometry of the mineralisation with respect drill hole angle is known, in nature should be reported If it is not known and only down hole lengths are reported to this effect (eg 'down hole length, true width not known hole length hole true width not known hole length hole true width not known hole length hole true width not known hole true
Diagrams	 Appropriate maps and sec (with scales) and tabulatic intercepts should be inclu- any significant discovery be reported. These should ind but not be limited to a pla of drill hole collar location appropriate sectional view
Balanced reporting	 Where comprehensive rep of all Exploration Results i practicable, representativ reporting of both low and grades and/or widths sho practiced to avoid mislead reporting of Exploration R
Other substantive exploration data	 Other exploration data, if meaningful and material, be reported including (but limited to): geological observations; geophysical results; geochemical surve results; bulk samples – siz method of treatment; metallurgical test results; density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminat substances.

	JORC Code explanation	Commentary
	aggregation should be stated and some typical examples of such aggregations should be shown in detail. • The assumptions used for any reporting of metal equivalent values should be clearly stated.	
hip between ation widths and lengths	 These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. 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'). 	 At C3, the mineralised domain dips moderately to steeply towards east- southeast with the drill holes planned to cut the mineralised domain in a perpendicular manner. The downhole depths are reported, true width is not accurately known at this stage.
	 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. 	• See diagrams reported in the announcement
reporting	 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. 	 All results are reported above the cut-offs described above. Not all of the holes are sampled.
istantive on data	 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. 	 Extensive exploration data and information has been completed at the Palma Project and previously reported. A summary is provided below; Airborne geophysics. There have been several combined aeromagnetic and radiometric surveys which cover the area, generally flown by Brazilian Government Agencies. These are generally broad spaced and useful for regional context. In 2008, private groups Lara Minerals and Voltorantim SA flew an heli-borne VTEM survey across the area which highlighted multiple conductors. These may be related to massive sulphide accumulations, however most of these potential conductors were not followed up. Drilling: Drilling by the CPRM was completed in the '70's and '80's and is included in this summary for the C1 and C3 prospects. CPRM also drilled other targets at C2, C4 and C5 where they discovered mineralisation. CPRM also drilled 7 holes in the 1980's mainly around the C4 target. Lara/Votorantim drilled 11 holes into targets they defined from the VTEM survey. Metallurgical testwork: The CPRM completed several phases of metallurgical testwork including bench and pilot plant scale. This testwork is summarised in the Prospectus. Alvo estimated a JORC compliant MRE for the C1 and C3 prospects.





Criteria	JORC Code explanation	Commentary
Further work	 The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	 Alvo will continue the 10,000m diamond drilling program. The program will evolve as results are received and will focus on upgrading and expanding the inferred MRE. Potential exists both along strike and at depth. Additional sampling and or drilling will be considered for the supergene mineralisation. Alvo has purchased electromagnetic survey equipment in order to perform ground and downhole EM surveys. It is expected these surveys will enhance the drilling program by delineating possible extensions of the highly conductive mineralisation.

