BAWDWIN TECHNICAL UPDATE – GEOLOGY AND METALLURGY

MYANMAR METALS LTD

ASX ANNOUNCEMENT

Date 22 March 2021
ASX Code: **MYL**

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Executive Director

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ISSUED CAPITAL

Shares	1,901 m.
Unlisted Options	54 m.

As previously announced, Myanmar Metals Limited ("MYL" or "the Company") had intended to publish the results of a definitive study into the Bawdwin project upon finalisation of the terms of the updated Bawdwin Production Sharing Agreement ("PSA") and issuance of an Myanmar Investment Commission permit.

Following the declaration of a state of emergency in Myanmar on 1 February 2021, the timing of the finalisation of the PSA is now uncertain. Accordingly, in this announcement MYL provides a summary of key geological and metallurgical conclusions that have been developed as part of the feasibility study works.

As part of this summary an updated Mineral Resource Estimate has been calculated. The mineral resource estimate is not substantially different from the previous Mineral Resource Estimate published on 8 August 2019. The updated Indicated and Inferred Mineral Resource estimate is 100.8 Mt at 4.0% Pb, 3.1 Oz/t (97 g/t) Ag, 1.9% Zn and 0.2% Cu.

The 2019 pre-feasibility study relied on metallurgical testwork completed using mainly sulphide ore samples. While 88% of Bawdwin's Mineral Resources are classified as sulphide, during the first few years of the mining operation partially oxidised (transitional) ore will be mined. The most recent testwork has focused heavily on transitional ores, with the aim being to generate a robust set of flotation conditions and understand the key drivers to achieving the best performance. The testwork has successfully proved that lead and zinc concentrates of marketable grades can also be produced from transitional ore.

The Company will provide further updates relating to other technical conclusions once finalised. Financial estimates which rely on the PSA fiscal terms cannot be determined at this time as the PSA negotiations are incomplete. The Company cannot complete its definitive study at this time and does not declare an Ore Reserve as defined under JORC-2012.

Authorised for release to the ASX by

John Lamb

Executive Chairman and CEO

About Myanmar Metals Limited

Myanmar Metals Limited (ASX: MYL) is an explorer and mine developer listed on the Australian Securities Exchange. MYL aims to become a leading regional base metals producer.

The Company holds a majority 51% participating interest in the Bawdwin Project in joint venture with its two local project partners, Win Myint Mo Industries Co. Ltd. (WMM) and EAP Global Co. Ltd. (EAP).

The Bawdwin Joint Venture (BJV) intends to redevelop the world class Bawdwin Mineral Field, currently held under a Production Sharing Agreement (PSA) between WMM and Mining Enterprise No. 1, a Myanmar Government business entity within the Ministry of Natural Resources and Environmental Conservation.

Forward Looking Statements

The announcement contains certain statements, which may constitute "forward – looking statements". Such statements are only predictions and are subject to inherent risks and uncertainties, which could cause actual values, results, performance achievements to differ materially from those expressed, implied or projected in any forward-looking statements.

Competent Person Statements

The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the 'JORC Code') sets out minimum standards, recommendations and guidelines for Public Reporting in Australasia of Exploration Results, Mineral Resources and Ore Reserves. The Information contained in this announcement has been presented in accordance with the JORC Code.

The information in this report that relates to Geology and Exploration Results is based, and fairly reflects, information compiled by Mr Andrew Ford, who is a member of the Australasian Institute of Mining and Metallurgy. Mr Ford is a full-time employee of Myanmar Metals Limited. Mr Ford has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Ford consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Mineral Resources is based, and fairly reflects, information compiled by Serikjan Urbisinov, who is a Member of the Australian Institute of Geoscientists. Mr Urbisinov is employed by CSA Global Pty Ltd, independent resource industry consultants. Mr Urbisinov has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Urbisinov consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Geology

Bawdwin District Geological Setting

The Bawdwin deposit is located within the Bawdwin Volcanic Centre which is defined by the Bawdwin Volcanic Formation and associated acid porphyry intrusions. The Bawdwin Volcanic Formation comprises coarse volcaniclastic tuffs, sediments and debris flows that interfinger with sediments of the Pangyun Formation. The volcano-sedimentary sequence is intruded by co-magmatic rhyolite or rhyodacite porphyry bodies. The volcanics and porphyry define a discrete volcanic / intrusive complex that covers an area of about 10 km^2.

The Bawdwin area is affected by significant faulting, notably the northwest-trending Bawdwin Fault zone that controls the deposit. This fault is located between two major east-northeast fault trends associated with sinistral flexure of the stratigraphy.

Alteration and Mineralisation

The Bawdwin deposit historically consisted of three high grade lodes, the Shan, China, and Meingtha lodes, that were exploited by underground mining. The lodes were described as steeply west-dipping to sub-vertical, with a general plunge to the north. The China Lode is the largest, averaging 15 m thick, 400 m long, and at least 350 m deep. The Meingtha and Shan lodes are up to 6 m thick and 380-550 m long.

In the pit, multiple structurally-controlled massive sulphide zones are developed sub-parallel to the main northwest-trending lodes and in oblique east southeast- and northeast- and north-trending zones, from centimetre to metre scale.

High grade mineralisation in the “lodes” encompasses massive to semi-massive sulphide replacement as well as breccia - and stockwork-hosted mineralisation, characterised by argentiferous galena, sphalerite, and pyrite together with smaller amounts of chalcopyrite, gersdorffite, tetrahedrite-tennantite , and bournonite. Pyrite is widespread usually as a relatively minor component.

Copper mineralisation occurs locally with lead and zinc, but more often postdates lead and zinc mineralisation as tetrahedrite as well as chalcopyrite, associated with nickel and cobalt as gersdorffite. Chalcopyrite also occurs in late siderite breccias and veins which is the latest stage of mineralisation seen at Bawdwin.

Weathering and Oxidation

Total oxidation in the China pit is very limited, with fresh sulphide occurring at surface. Partial oxidation also occurs to significant depth in drilling beneath the China pit focused in faulted and fractured zones.

Zones of clay alteration seen in faulted zones from surface to depth could be related to late-stage hypogene acid-alteration or to supergene weathering. The fact that these zones locally contain fresh or partly degraded sulphide, or occur adjacent to massive sulphide, suggests that the alteration may be hypogene.

Origin and Timing of Mineralisation

Bawdwin is considered to be a magmatic-hydrothermal deposit associated with acid volcanism, probably in a rift setting. The fluid system may have tapped the sedimentary basin and possibly also mafic or ultramafic rocks to generate the unusual metal association.

Geometallurgy

The geometallurgical study conducted as part of this Study has identified and modelled various criteria vital to the geology, mining and processing of the Bawdwin mineralisation. This work included:

- Recognition of the strong influence of carbonate alteration on the composition of host rocks, with potential major impacts on mining, processing, and reclamation. The data clusters recognised in the multi-element geochemistry form broadly continuous zones in space, with carbonate alteration increasing with depth, and sericite / phengite alteration enveloping the ore body.

- Identification and modelling of seven geometallurgy domains. The alteration domains form the basis of the 3D geometallurgical model, which was used to plan drillholes for metallurgical testwork, define comminution characteristics and inform geotechnical modelling. These domains were also vital when modelling the characteristics of the waste material.
- Reanalysis of a selection of pulps for sulphide (S) content and speciation resulted in updated 3D model of reduction and oxidisation (redox) domains. S-speciation data were used in combination with S-deficit calculations to generate spatial domains of oxide, transitional, and reduced (fresh) materials.
- Estimation of Pb deportment in the main Pb minerals, galena, anglesite, and cerussite throughout the deposit, based on the relative proportions of Pb, S, and S2.
- Detailed quantitative ore mineralogy using SEM-based TIMA analysis was used to validate assumptions about Pb deportment in relation to measured non-sulphide Pb.
- A subset of elements that may affect the metallurgical performance was defined for inclusion into the resource block model. This subset included eight elements (As, Cd, Co, Hg, Ni, Sb, S (total) and S2).
- Development of regressions to correlate NsPb and NsZn assays with the multi-element geochemical dataset to allow calculation of NsPb and NsZn for all samples with multi-element and S2 assays.
- Deposit-wide estimation of non-sulphide Zn and non-sulphide Pb. These values were then assigned to the resource block model for use in estimating metallurgical recoveries. Prior to the interpolation, the assay file for the accessory elements was coded by mineralisation wireframes, weathering profiles and stopes. All sample intervals that fall into the stopes were excluded from further calculations.

Mineral Resource Estimate

The Mineral Resource estimate is based on 30,040 metres of RC and diamond drilling and 22,557 m of assayed intervals completed in 2017-2020 supported by 56,098 metres of historic channel sampling of underground exploration cross cuts, and a 434 sample (668 metre) channel sampling program collected in the China Pit open cut in 2016.

The 3D geology model developed in Leapfrog by CSA Global includes the Bawdwin Tuff, Pangyun Formation, porphyritic rhyolite, and major faults.

The previously modelled mineralisation wireframes, based on 2017 drilling, open pit mapping and historical surface and underground mapping, were updated using the 2018 - 2020 drilling results and guided by the geology model. The 2018-2020 drilling results correlated very well with the previous mineralised wireframes that were based largely on historical data.

Table 1 below summarises the updated Mineral Resource estimate for the Bawdwin deposit.

Table 1: Mineral Resource Estimate – Indicated and Inferred Classification

Oxidation	Class	Tonnage ('000t)	Pb (%)	Zn (%)	Cu (%)	Ag oz/t
Domain 1: Mineral Resources above 750 m RL > 0.5% Pb						
Oxide	Indicated	1,364	1.6	0.05	0.04	2.2
	Inferred	3,195	1.54	0.07	0.06	2.5
	Total	4,559	1.56	0.06	0.06	2.4
Transition	Indicated	3,541	2.88	0.69	0.13	2.6
	Inferred	2,477	3.04	0.86	0.06	2.1
	Total	6,018	2.94	0.76	0.1	2.4
Deep Transition	Indicated	1,258	3.78	1.76	0.1	3.1
	Inferred	92	2.72	0.91	0.06	1.9
	Total	1,350	3.71	1.7	0.09	3.0
Fresh	Indicated	34,475	4.15	2.12	0.08	3.2
	Inferred	38,895	3.42	1.6	0.07	2.6
	Total	73,369	3.76	1.84	0.07	2.9
Total	Indicated	40,638	3.94	1.91	0.08	3.1
	Inferred	44,658	3.26	1.45	0.07	2.6
Total		**85,296**	**3.59**	**1.67**	**0.07**	2.8
Domain 2: Mineral Resources below 750 m RL > 2% Pb						
Fresh	Inferred	9,668	7.7	2.8	0.1	5.1
Total		**9,668**	**7.7**	**2.8**	**0.1**	5.1
Domain 3: Copper Mineralisation within Pb Halo > 0.5% Cu						
Oxide	Indicated	1	6.05	0.11	1.57	2.4
	Inferred	6	3.76	2.22	1.6	4.5
	Total	7	4.01	1.99	1.6	4.3
Transition	Indicated	89	4.03	1.09	1.6	2.5
	Inferred	13	9.52	4.38	3.43	8.0
	Total	102	4.72	1.51	1.83	3.2
Deep Transition	Indicated	47	3.66	3.77	2.56	3.7
	Inferred	0	3.11	1.03	1.03	2.0
	Total	47	3.66	3.75	2.55	3.6
Fresh	Indicated	1,348	5.42	3.07	3.22	5.6
	Inferred	2,233	5.75	2.3	2.98	5.7

	Total	3,581	5.63	2.59	3.07	5.7
Total	Indicated	1,484	5.28	2.97	3.1	5.4
	Inferred	2,252	5.77	2.31	2.98	5.8
Total		**3,736**	**5.57**	**2.57**	**3.03**	5.6
Domain 4: Copper Mineralisation outside of Pb Halo > 0.5% Cu						
Oxide	Inferred	0.3	0.2	0.01	1.57	1.2
	Total	0.3	0.2	0.01	1.57	1.2
Transition	Inferred	2	0.2	0.03	1.34	1.2
	Total	2	0.2	0.03	1.34	1.2
Deep Transition	Inferred	4	0.1	0.1	1.51	1.7
	Total	4	0.1	0.1	1.51	1.7
Fresh	Inferred	649	0.1	0.5	2.35	1.3
	Total	649	0.1	0.5	2.35	1.3
Total	Inferred	655	0.1	0.5	2.34	1.3
Total		**655**	**0.1**	**0.5**	**2.34**	1.3
Domain 5: Zinc Mineralisation outside of Pb Halo and Cu Mineralisation > 1% Zn						
Oxide	Inferred	0.01	0.1	7.1	0.05	0.2
	Total	0.01	0.1	7.1	0.05	0.2
Transition	Indicated	4	0.92	3.14	0.03	0.4
	Inferred	278	0.01	16.94	0.01	0.7
	Total	282	0.02	16.74	0.01	0.7
Deep	Indicated	2	1.3	2.4	0.01	0.5
Transition	Total	2	1.3	2.4	0.01	0.5
Fresh	Indicated	348	0.37	4.75	0.02	0.6
	Inferred	821	0.26	2.87	0.03	0.5
	Total	1,169	0.29	3.43	0.02	0.5
Total	Indicated	353	0.38	4.72	0.02	0.6
	Inferred	1,099	0.19	6.43	0.02	0.5
Total		**1,452**	**0.24**	**6.01**	**0.02**	0.5
Total - All Domains						
Oxide	Indicated	1,365	1.61	0.05	0.04	2.2
	Inferred	3,201	1.54	0.07	0.07	2.5
	Total	4,566	1.56	0.06	0.06	2.4
Transition	Indicated	3,634	2.9	0.73	0.17	2.6
	Inferred	2,770	2.76	2.52	0.07	2.0
	Total	6,405	2.84	1.51	0.13	2.3
Deep Transition	Indicated	1,307	3.77	1.83	0.18	3.1
	Inferred	96	2.62	0.88	0.12	1.9
	Total	1,402	3.69	1.77	0.18	3.0
Fresh	Indicated	36,170	4.16	2.18	0.2	3.2
	Inferred	52,266	4.23	1.85	0.22	3.2
	Total	88,436	4.2	1.99	0.21	3.2
Total	Indicated	42,475	3.96	1.98	0.19	3.2
	Inferred	58,334	4.01	1.79	0.2	3.1
Total		**100,809**	**3.99**	**1.87**	**0.2**	3.1

The estimate is based on separate Pb, Cu and Zn wireframes and cut-off grades because of the limited correlation between Pb, Cu and Zn. Grades within the high grade lode domain have been interpolated into a block model using the same interpolation parameters and methodology from those reported in the previous estimate in August 2019. Grades within the Halo domain have been interpolated using Categorical Indicator Kriging (CIK) for better handling of the internal dilution and mineralised parts within the domain. The cut-off grades were based on the results of a pit optimisation and Scoping Study completed in November 2017 by CSA Global that suggested that the low-grade material above a 0.5% Pb cut-off grade has potential for eventual economic extraction via open pit mining methods above the 750 m RL, and that material above a 2% Pb cut-off grade may be amenable to extraction via underground methods.

The Pb mineralised envelope was based on a 0.5% Pb cut-off grade. Within this envelope, the Mineral Resource was estimated in three domains: at a 0.5% Pb and 2% Pb cut-off grade above the 750 m RL and a 2% Pb cut-off grade below the 750 m RL.

The Zn and Cu mineralisation envelopes have been modelled above a 1% Zn and 0.5% Cu cut-off grade and are included in the global resource totals. These envelopes are largely contained within the 0.5% Pb envelope but do extend outside it. Grade has been interpolated separately into the blocks within the Zn and Cu envelopes.

The new resource is reported separately for five mineralisation domains as per previous estimates (ASX Release dated 8th of August 2019).

- Resources above the 750 m RL, at a 0.5% Pb cut-off grade.
- Resources below 750 m RL using a 2% Pb cut-off grade.
- Cu mineralisation within Pb Halo using a 0.5% Cu cut-off grade.
- Cu mineralisation outside Pb Halo using a 0.5% Cu cut-off grade.
- Zn mineralisation outside Pb Halo using a 1.0% Zn cut-off grade.

The Mineral Resource estimate has been reported in Fresh, Transitional, Deep Transitional and Oxide zones. Total oxidation is mainly at the top of the Meingtha Lode.

Transitional zones represent partial oxidation and occur as a shallow blanket zone at the top of the mineralised zones and as Deep Transitional zones that that extends to significant depth. The Deep Transitional zones are interpreted to be focused in faulted and fractured zones and are of relatively limited extent. Transitional zones have been modelled using a combination of geological observations from drill-core logging, an estimation of sulphur deficit relative to lead, zinc and copper from assay data, and sulphur speciation data based on analysis of sulphide sulphur.

Metallurgical test work on transitional material has given good recoveries of bulk lead and silver, with lower recoveries of lead and zinc where oxide phases are present. Thinner Deep Transitional zones have been identified as being moderately oxidized along steeply dipping fault structures, showing similar recoveries to Transitional material.

Resource Classification

The Mineral Resource has been assigned to Indicated and Inferred classifications. Inferred Mineral Resource classification was assigned where available drill hole and channel sampling data and geological interpretation are sufficient to imply but not verify geological and grade continuity. Areas with denser drilling (2017, 2018, 2019 and 2020 drill holes) and robust continuation of the modelled mineralised zones were classified as Indicated.

Whilst the historical underground sampling has no assay QAQC, the data quality is considered acceptable to support classification of Indicated Mineral Resource in the areas with adequate supporting drilling data. Areas informed largely or entirely by underground channel sampling data have been classified as Inferred.

The Inferred and Indicated classification has considered all available geological and sampling information, and the classification level is considered appropriate for the current stage of this project. The sampling and geological data and associated documentation are considered adequate to support reporting of an Indicated and Inferred Mineral Resource.

Resource Model Section

Figure 2 shows a cross section through the deposit highlighting lead block-model grades.

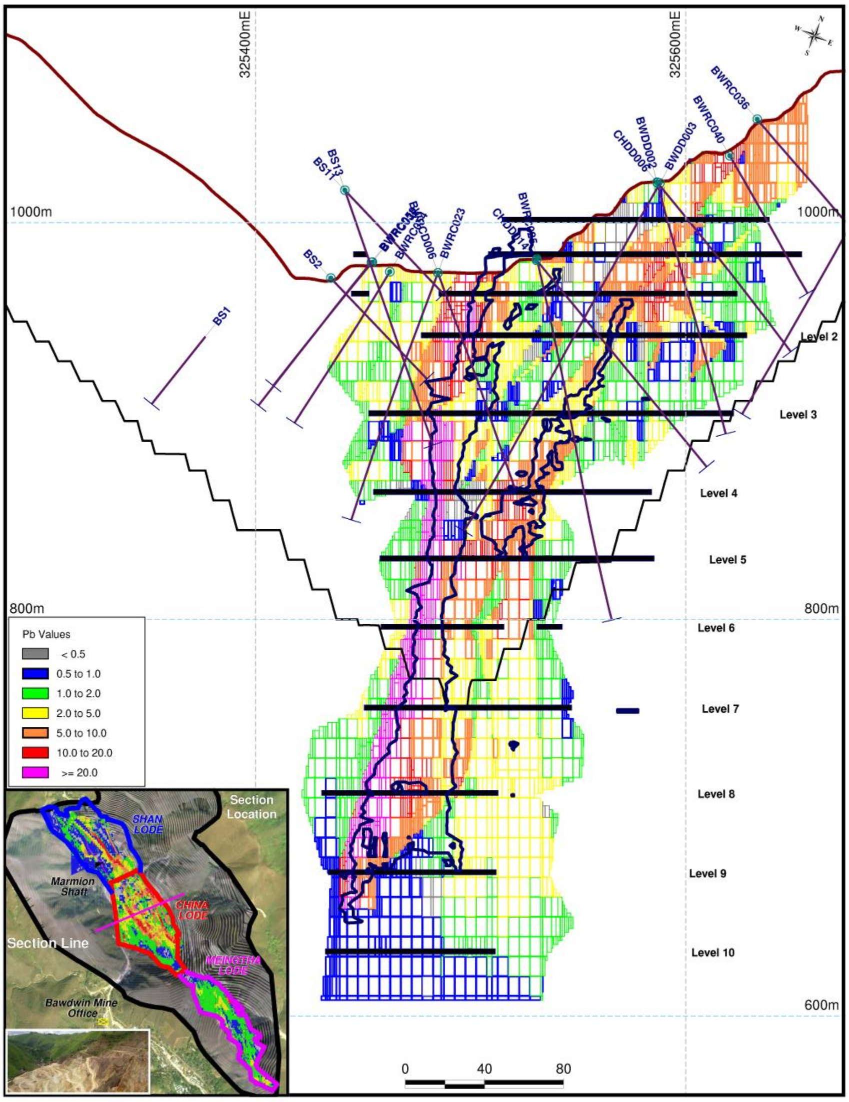

Figure 3: Cross Section through the Pb Block Model at the China Lode with mined stopes outlined in black.

Metallurgy

A program of metallurgical testwork was conducted from November 2018 to March 2019 for the Bawdwin Pre-Feasibility Study (PFS). The outcomes provided a robust foundation for flowsheet development, plant design, recovery equation modelling for concentrate revenue calculations, and detailed concentrate analysis for marketing and sales.

The latest testwork program continued from the preceding programs, insofar that it maintains the stance that base metal sulphide flotation techniques be used to recover the galena and sphalerite minerals via differential flotation.

Throughout the testwork programs the fresh sulphide ores have produced superior results compared with transition ores. The fresh ores samples have delivered excellent lead concentrate results, as shown in Table 2.

Table 2: Lead concentrate produced from fresher sulphide ores.

	Test No.	Pb Grade %	Pb Recovery, %	Ag Grade, g/t	Ag Recovery, %
Var 25 (latest sample)	CT6093	66.5	90.0	1216	88.9
	CT6191	69.7	90.5	1429	90.3
	CT6219#	56.6	90.8	1056	90.1
	CT6239	72.2	83.2	1415	85.4
T-BWRCD008 (Post-PFS sample)	CT5908	61.1	95.4	1325	94.9
F-BWDD002 (PFS sample)	CT5826	62.5	87.4	591	86.3
	CT5801	57.9	84.4	518	82.5
	CT5763	55.9	88.5	519	84.3
	CT5764	57.7	88.1	534	84.3
	CT5765	59.5	87.6	564	84.0
F-BWRCD022 (PFS sample)	CT5760	54.7	84.7	910	82.0
	CT5761	54.6	88.1	879	84.0
	CT5762	56.2	88.5	924	82.4
	CT5814	57.9	88.6	933	83.5
# This test was repeated due to low lead grade in first kinetic concentrate.					

Although the PFS lead flotation results on fresh ore are excellent, the variability in head grade and presence of oxidised mineralisation throughout the orebody meant that focus needed to shift to understanding the flotation behaviour of transition ores as well.

Although the majority of the Bawdwin mineral resource is comprised of fresh sulphide ores with minor oxide mineralisation, the transitional ores at surface will be mined and processed in the early years of the mine. Overcoming the challenges posed by transition ores was one of the primary objectives embraced throughout the testwork program. To achieve this, the most recent testwork focused heavily on transition ores, with the aim being to generate a robust set of flotation conditions and understand the key drivers to achieving the best performance.

The testwork programs proved that both lead and zinc concentrates of saleable quality can be produced from fresh and transition ores. Flotation performance equations were modelled as a means of calculating the concentrate produced from the mine schedule. Table 3 shows the weighted average grades and recoveries for the payable metals.

Table 3: Modelled flotation performance

Lead Concentrate			Zinc Concentrate		
Pb grade	(%)	59	Zn grade	(%)	52
Pb recovery	(%)	83	Zn recovery	(%)	73
Ag grade	(g/t)	1,410	Ag grade	(g/t)	293
Ag recovery	(%)	83	Ag recovery	(%)	9

Testwork Overview

Sample preparation involved the generation of 25 comminution samples, 29 flotation variability samples and two mine schedule composites (Stage 1 / 2 and Stage 4).

The comminution samples were tested for crushing and grinding design purposes. The flotation variability samples were tested to reduce uncertainty.

Mine schedule composites were created to represent the transition ores that will form part of the mill feed for the first six years, approximately. Importantly, they do not represent the entire mine life for the starter pit, nor for the deeper ores mined beyond the starter pit. These sample were used extensively in the testwork program, with both the lead and zinc concentrates produced (using the finalised flotation conditions) undergoing comprehensive assaying to show the expected quality.

Testwork was conducted at ALS Metallurgy in Perth, with mineralogy work conducted at both ALS and MODA in Tasmania.

The ALS testwork incorporated the following scope of work:

- Sample preparation and chemical analysis
- Comminution testing
- Flotation testwork, including both bulk and differential flowsheets
- Flotation testwork, including rougher and cleaner flotation tests on both mine schedule composites and variability samples
- Size-by-size analysis
- Mineralogy using QEMScan and QXRD
- Rheology testwork
- Solid specific gravity measurements
- EDTA extraction
- Comprehensive analysis of concentrates for marketing purposes
- Locked cycle testing and water analysis
- Preliminary cyanide speciation on tailings material
- Bulk testwork, to produce material for vendor thickening and filtration tests

Comminution

Comminution testwork and modelling conducted during the concept study showed that installing a SAG mill and ball mill configuration would be the most favourable option. The comminution samples, of which there were 25, were taken from the varying geological alteration zones.

The samples' competency ranged from soft to hard and the comminution consultant has stated that pebble crushing is not required. Abrasion indices deemed Bawdwin's ore to be moderately abrasive to abrasive, which is typical for a polymetallic base metal deposit.

Head assays were also completed on the comminution samples to link rock forming or base metal assays or geological oxidation (e.g. % non-sulphide lead) to hardness and/or competency. No strong correlations were identified using this data set. However, there is still a general trend of increasing hardness and competency with alteration type. The two hardest samples Comm#5 and Comm#20 were both in the carbonate domain with molar ratio of potassium to aluminium of greater than 0.6 and were also ranked 1st and 3rd for competency. This is a considered valuable information as it will aid with ROM blending to ensure targeted throughput is met.

Metso conducted regrind testwork on lead rougher concentrate and bulk (zinc) rougher concentrate samples, with P80 targets of 15 microns (μm) and 20 μm, respectively. The specific power consumptions were at the low end of Metso benchmarking at 9.85 and 8.86 kWh/t, respectively.

Mineralogy

The PFS testwork showed that the lead is mainly present in the lead minerals galena, anglesite and cerussite. It also showed that zinc is mainly present as sphalerite, although smithsonite is present in the orebody.

Anglesite and cerussite are classified as non-sulphide lead minerals and their presence signifies that a portion of the lead will not be recovered. The same principle follows for smithsonite in the zinc flotation.

Both mine schedule composites were submitted for analysis using QEMScan.

Major findings from QEMScan are as follows:

- The galena has a wide range of textures ranging from massive through to finely intergrown with one or more other gangue or ore minerals. These intergrowths are in most cases finer than the resolution of QEMScan
- The relatively clean galena / anglesite / cerussite grains (as opposed to the intergrowths) are relatively fine grained with P80 28 to 29 µm, which is much finer than the overall particle size of approximately 70 µm
- The galena / anglesite / cerussite is poorly liberated, with 5 to 10% considered well liberated and 35 to 40% as high grade middlings. This is lower than the two fresh samples testing during the PFS, and it would be expected that for the same grind sizes, lower concentrate grades would be achieved
- Anglesite is present in both samples and possibly more abundant in Stage 4 Composite compared with Stage 1 / 2
- Sphalerite accounts for the majority of the zinc in the samples. Zinc bearing carbonates account for less than 5% of the total zinc content
- Sphalerite has a typical P80 of 59 µm in both samples. It is well liberated, with 90 to 93% classified as well liberated or high grade middlings. This is higher than the two fresh samples tested during the PFS
- Silver is predominantly present in Cu-Sb-As-Ag sulphides (e.g. tetrahedrite-tennantite and freibergite)
- Arsenic is predominantly present as the Co- and Ni sulpharsenides, which account for 95% of the arsenic in Stage 1 / 2 Composite and 90% of Stage 4 Composite. The remainder of the arsenic is as arsenopyrite
- Copper is present in a range of forms, such as chalcopyrite, covellite, Cu-Sb-As-Ag sulphides and intergrowths with Pb minerals. Approximately 80% of the copper in Stage 1 / 2 and 69% in Stage 4 is as chalcopyrite. Covellite accounts for 11% of the copper in Stage 1 / 2 and 19% in Stage 4. The remainder is predominantly with the Cu-Sb-As-Ag sulphides

- Major gangue minerals are quartz, K-feldspar, muscovite and illite
- The combined silicates account for 66% of Stage 1 / 2 Composite and 73% of Stage 4 Composite
- The combined carbonates account for 7.9% of Stage 1 / 2 Composite and 4.2% of Stage 4 Composite
- Pyrite levels are low at 1.8% for Stage 1 / 2 and 3.0% for Stage 4

Flotation Testwork

Variability samples were selected to encompass a range of head grades (Pb, Zn and Cu), % non-sulphide lead / redox, alterations and stages of pit development. Mineralogy shows that textural variability between samples and within each sample is significant. This indicates that mine grade control will very important and that the processing plant is likely to experience fluctuating lead concentrate grades and recoveries. Flotation performance of Bawdwin ores will be variable due to the presence of both sulphide lead and zinc (galena and sphalerite) which is recoverable via standard sulphide flotation and non-sulphide lead and zinc (cerussite, anglesite and smithsonite), which is not.

Lead concentrates from this ore will be mainly diluted by non-sulphide gangue. For samples tested post PFS within the nominated design envelope, lead concentrate grades ranged from 46.3% lead to 72.2% lead, which reflects a combination of lead mineral type and texture. Lead recoveries for these samples ranged from 32.7% to 90.5%. Silver recovery to lead concentrate was higher or equivalent to lead recovery. All these concentrates fall within the marketable range for lead content based on Lycopodium's experience and feedback from a marketing consultant.

Zinc flotation performance will be related to several key aspects, namely, the copper, lead and zinc grades entering the plant and the upstream processing conditions and performance of the lead circuit. The flotation testwork has shown that there are circumstances where a saleable zinc concentrate grades cannot be achieved. These occasions would be dealt with on a case-by-case basis once mining has commenced, using revenue calculations to determine the best course of action to take.

Arsenic and cadmium will need to be monitored in ore and concentrates as these elements will be penalised in concentrate based on the assays seen in this work. In some cases, where these head grades are very high, the concentrates could be rejected based on import limits currently applicable in destination markets such as China.

The findings generated from the latest flotation testwork have shown that practicable strategies are available to maximise flotation performance.

Metallurgical Performance Equations

The higher the non-sulphide lead content the lower the lead recovery, as anglesite and cerussite are not truly recovered by sulphide flotation (only via composites with galena and other sulphides or entrainment). Also, the higher the non-sulphide lead content, the lower the silver recovery.

For zinc recovery, copper head assay had an impact on zinc recovery to zinc concentrate. **Error! Reference source not found.**The two samples with highest copper content (Stage 1 / 2 at 0.79% Cu and Stage 4 at 0.60% Cu) achieved the lowest recoveries of zinc to zinc concentrate (57.1% and 12.3% respectively). It is postulated that with higher copper content, copper ions are pre-activating the sphalerite leading to higher proportions of zinc reporting to the lead concentrate, despite depressant additions. Recovery equations have been developed to describe the performance of low copper ores (<0.35% Cu) and high copper ores (>= 0.35% Cu).

For zinc concentrate grade, as grades did not vary appreciably between samples, there was no relationship between zinc concentrate grade and any element or mineral assay. Therefore, an arithmetic average returned 52.3% Zn, with 6.0% Pb.

For silver recovery to zinc concentrate there is a good relationship between the ratio of galena plus copper and zinc as sphalerite (% Pb as galena + Cu: % Zn as sphalerite). This is explained by the higher recovery of silver to zinc concentrate when the copper and lead (as galena) head grades are lower i.e. lower quantities of lead / copper concentrate limit the amount of silver that can be recovered to this product, and instead silver is recovered in zinc concentrate.

Appendix 1 JORC Table 1

Table 1: Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections) **Criteria**	**JORC Code explanation**	**Commentary**
Sampling techniques	• *Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole 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 (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.*	• The evaluation program at Bawdwin included diamond core and RC drilling completed from August 2017 to March 2020. • Diamond core drilling was completed from August 2017 to March 2020 using PQ, HQ and NQ triple tube diameter coring. A total of 104 diamond core drillholes and 36 diamond core drill-tail holes were completed, of which three were redrills, for a total of 19,275 m (including RC pre-collars). • Drill core was geologically logged, cut and then ½ core samples sent to Intertek Laboratories for sample preparation in Yangon, Myanmar and then analysis in Manila, Philippines. The sample interval was nominally 1 m or to geological and mineralisation boundaries. • RC Drilling commenced in January 2018 and has continued with minor breaks until March 2020 with 105 RC holes completed, for a total of 11,409 m. • RC chips collected using a face sampling hammer were split into a bulk sample and a sub-sample collected in plastic bags at 1 m intervals. Samples were split using a riffle splitter, the bulk sample being stored on site, and an approximately 2 kg sub sample was sent to Intertek Laboratories for sample preparation in Yangon, Myanmar and then analysis in Manila, Philippines. • Channel sampling in the open pit sampling was completed as part of a surface geological mapping program in late 2016. Systematic channel sampling was completed by a team of Valentis Resources (Valentis)and Win Myint Mo Industrial Co Ltd (WMM) geologists over most of the available open pit area wherever clean exposure was accessible. A total of 435 samples were collected from 47 channels totalling 1,790.8 m. Samples were typically 1.5 m in length or to geological and mineralisation boundaries. Approximately 3 kg of representative sample was systematically chipped from cleaned faces. Samples were despatched to Intertek Laboratories for sample preparation in Yangon, Myanmar and then analysis in Manila, Philippines. • The underground sampling data is an extensive historical data set that was completed as part of mine development activities. The data set comprises systematic sampling from development drives, crosscuts, ore drives and exploration drives. This data date largely from the 1930s until the 1980s and utilised consistent sampling and analytical protocols through the mine history. Sampling consisted of 2-inch (5 cm) hammer/chisel cut continuous channels sampled at 5 feet (1.5 m) intervals at waist-height along both walls of

(Criteria in this section apply to all succeeding sections) **Criteria**	**JORC Code explanation**	**Commentary**
		across-strike drives and across the backs of strike drives. Sample weights were around 5 pounds (2.3 kg) were analysed at the Bawdwin Mine site laboratory using chemical titration methods. Results were recorded in ledgers. Averaged results from each wall of the exploration cross-cuts were recorded on the level plans.
Drilling techniques	• *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. 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).*	• Drilling from 2017 to 2020 was completed by Titeline Valentis Drilling Myanmar (TVDM) using two Elton 500 drill rigs. Drilling is a combination of triple tubed PQ, HQ and NQ diameter diamond coring. Holes were typically collared in PQ, then reduced to HQ around 50 m, and later to NQ if drilling conditions dictated. Holes ranged from 63.4 m to 260.1 m depth. • Attempts were made to orientate the core, but the ground was highly fractured and broken with short drilling runs. Obtaining consistently meaningful orientation data was very difficult. • TVDM subcontracted a Hanjin DB30 multi-purpose drill rig for the RC drilling of nominal six-inch diameter holes.
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.*	• To maximise core recovery, triple tube PQ, HQ and NQ core drilling was used, with the drilling utilising TVDM drillers experienced in drilling difficult ground conditions. Drill penetration rates and water pressure were closely monitored to maximise recovery. • During the diamond drilling the length of each drill run and the length of sample recovered was recorded by the driller (driller's recovery). The recovered sample length was cross checked by the geologists logging the drill core and recorded as the final recovery. • Core recoveries were variable and often poor with a mean of 80% and a median of 87%, with lowest recoveries in the 10% to 30% range. Low recoveries reflect poor ground conditions and previously mined areas. Core recoveries were reviewed, and two intervals were excluded due to very poor recovery. • At present, no relationships between sample recovery and grade bias due to loss/gain of fines or washing away of clay material has been identified. It is assumed that the grade of lost material is similar to the grade of the recovered core. • RC drilling was conducted to maximise sample recoveries. Where voids or stopes were intersected recoveries were reduced, and such occurrences were recorded by the supervising geologist. • For channel chip sampling, every effort was made to sample systematically across each sample interval with sampling completed by trained geologists.
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*	• All diamond core samples were geologically logged in a high level of detail down to a centimetre scale. Quantitative logging for lithology, stratigraphy, texture, hardness, RQD and defects was conducted using defined logging codes. Colour and any other additional qualitative comments are also recorded.

(Criteria in this section apply to all succeeding sections) **Criteria**	**JORC Code explanation**	**Commentary**
	nature. Core (or costean, channel, etc) photography. • *The total length and percentage of the relevant intersections logged.*	• All RC samples were geologically logged for lithology, alteration and weathering by geologists. A small sub sample was collected for each metre and placed into plastic chip tray for future reference. • The 2016 open pit channel rock samples were systematically geologically logged and recorded on sample traverse sheets. • All drill core and open pit sampling locations were digitally photographed. • The underground sampling data has no geological logging, however geological mapping was completed along the exploration drives and is recorded on level plans. Historical plan and section geological interpretations have been used in these areas to assist in geological model development.
Subsampling techniques and sample preparation	• *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.*	• All core was half-core sampled. Most core was cut using an electric diamond saw and some more friable intervals were split manually. All core for sampling was pre-marked with the cut line, and only the left-hand side of the core was sent for assay to maintain consistency. • The core sampling intervals were generally at one metre intervals which were refined to match logged lithology and geological boundaries. A minimum sample length of 0.5 m was used. • RC samples were collected in plastic bags at 1 m intervals from a cyclone located adjacent to the drill rig. Valentis field staff passed the bulk sample through a riffle splitter to produce a nominal 2 kg sub sample. • Given the nature of the RC drilling to pulverise the sample into small chips riffle splitting the sample is an appropriate technique for a sulphide base metal deposit. The 2 kg sub-sample was deemed an appropriate sample size for submittal to the laboratory. • No sub-splitting of the open pit chips samples was undertaken. Sample lengths ranged from 1 m to 2 m (typically 1.5 m). Sample intervals were refined to match geological boundaries. • Historical underground subsampling techniques are unknown.
Quality of assay data and laboratory tests	• *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 (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	• The diamond, RC and open pit channel samples were all sent to Intertek Laboratories in Yangon for sample preparation. • All samples were dried and weighed and crushed in a Boyd Crusher. A representative split of 1.5 kg was then pulverised in a LM5 pulveriser. A 200 g subsample pulp was then riffle split from the pulverised sample. The crusher residue and pulverised pulp residue were stored at the Yangon laboratory. • Sample pulps were sent to the Intertek analytical facility in Manila, Philippines where they were analysed in 2017 using ICP-OES – Ore grade four-acid digestion. Elements analysed were Ag, Fe, Cd, Co, Ni, Pb, Cu, Mn, S and Zn. From 2018, ICP-OES – Ore grade four-acid digestion

(Criteria in this section apply to all succeeding sections) **Criteria**	**JORC Code explanation**	**Commentary**
		continued to be employed, along with additional multi-element analysis of 46 elements using four-acid standard ICP-OES and MS. • Quality control (QC) samples were submitted with each assay batch (certified reference standards, certified reference standard blanks and duplicate samples). The laboratory inserted their own QC samples as part of their internal QA procedures. All assay results returned were of acceptable quality based on assessment of the QC results. • The underground data was assayed by the Bawdwin mine laboratory on site. Bulk samples were crushed in a jaw crusher, mixed, coned and quartered. Two 100 g samples were then dried and crushed in a ring mill to approximately 100 mesh. Two 0.5 g homogenised samples were taken for lead and zinc titration using aqua regia (Pb) and nitric acid (Zn). RSG inspected the laboratory in 1996 and noted it to be "clean, and great pride is taken in the conditions and quality of the work". The laboratory remains operational and CSA Global's review in 2017 reached similar conclusions to RSG. Results for Zn and Pb were reported to 0.1%. • There is no QAQC data for the historical underground sampling data.

(Criteria in this section apply to all succeeding sections) **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.*	• All diamond drill core samples were checked, measured and marked up before logging in a high level of detail. • RC Samples were sampled and logged at the drill rig. A small sub-sample from each metre was placed into a plastic chip tray to allow re-logging if required. • The diamond and RC sampling and geological data were recorded into standardised templates in Microsoft Excel by the logging/sampling geologists. • Geological logs and associated data were cross checked by the supervising Project Geologist. • Laboratory assay results were individually reviewed by sample batch and the QC results checked before uploading. • All geological and assay data were uploaded into a Datashed database. • The Datashed database was loaded into Micromine mining software. This data was then validated for integrity visually and by running systematic checks for any errors in sample intervals, out of range values and other important variations. • All drill core was photographed with corrected depth measurements before sampling. • No specific twin holes were drilled; however, three daughter holes were inadvertently cut due to challenging drilling conditions during re-entry through collapsed ground and intersected mineralisation of very similar tenor and grade to the parent hole. • Historical underground sampling data was captured off hard copy mine assay level plans. These plans show the development drives on the level along with the sampling traverse locations and Ag, Pb, Zn and Cu values. This process involved the systematic digital scanning of the various mine assay level hard copy plans, along with manual data entry of the assay intervals and assay results by Project Geologists and assistants. Coordinates of sampling traverse locations were scaled off the plans (in the local Bawdwin Mine Grid). Data was collated into spreadsheets and then uploaded into Micromine. Sampling traverses were loaded as horizontal drillholes. The channel samples were systematically visually checked in Micromine against the georeferenced mine assay plans. The data was further validated by running systematic checks for any errors in sample intervals, out of range values and other important variations. Any data that was illegible or could not be accurately located was removed from the database. Underground channel sample databases were made for the Shan, China and Meingtha lodes and associated mine development. These were later uploaded into a master Access database.

Location of data points	• *Accuracy and quality of surveys used to locate drillholes (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.*	• The diamond drilling, RC drilling and pit mapping and channel sampling all utilised UTM WGS84 datum Zone 47 North. • In June 2019 the Bawdwin Mine Grid (BMG) was created to ensure resource modelling was conducted on a grid near to parallel to the strike of the mineralisation. A grid origin adjacent to the Mine Office was assigned a coordinate of 50,000N and 10,000E and 1000m was added to the elevation of 950.3m The BMG grid north is oriented at 322.1717 decimal degrees. • All data used in the Mineral Resource estimate and ongoing reporting was converted to the BMG from UTM. • All diamond drillholes and pit mapping sampling traverse locations were surveyed using a Differential Global Positioning System (DGPS). The DGPS has an accuracy better than +/- 0.5 m. • All diamond drillholes have downhole surveys. These were taken using a digital single shot camera typically taken every 30 m. • The RC Holes were surveyed in the rods every 30 m, however because of interference from the steel only dips could be recorded during the early 2018 drilling. From September 2018, a gyroscopic system was utilised to provide both dip and azimuth survey information. • Historically the underground and open pit mines operated in a local survey grid, the "Bawdwin Mine Grid". This grid is measured in feet with the Marmion Shaft as its datum. A plane 2D transformation was developed to transform data between the local Bawdwin Mine Grid and UTM using surveyed reference points. • Historical mine plans and sections were all georeferenced using the local Bawdwin Mine grid. The outlines of stopes, underground sample locations, basic geology and other useful information was all digitised in the local mine grid. This was later translated to UTM for use in geological and resource modelling. • The historical underground channel sampling data is scaled off historical A0 paper and velum mine plans which may have some minor distortion due to their age. • The underground sampling locations were by marked tape from the midpoint of intersecting drives as a reference. They appear to be of acceptable accuracy. • Historically within the mine each level has a nominal Bawdwin grid elevation (in feet) which was traditionally assumed to be the elevation for the entire level. It is likely that these levels may be inclined for drainage so there is likely to be some minor differences in true elevation (<5 m). • The topography used for the estimate was based on a GPS drone survey completed by Valentis. This is assumed to have <1 m accuracy and it was calibrated against the Bawdwin Mine UTM survey of the open pit area and surveyed drill-hole collars. This survey is of appropriate accuracy for the stage of the project.
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)*	• The diamond and RC drillholes completed at the open pit are spaced on approximately 50 m spaced sections and were designed to provide systematic coverage along the strike/dip of the China, Shan and Meingtha Lodes. The open pit sampling was done on accessible berms and ramps. These traverses range from 10 m to 30 m apart.

(Criteria in this section apply to all succeeding sections) **Criteria**	**JORC Code explanation**	**Commentary**
	and classifications applied. • *Whether sample compositing has been applied.*	• The historical underground samples are generally taken from systematic ore development crosscuts. These are typically on 50 to 100 feet spacings – 15 m to 30 m. Strike drives along mineralised lodes demonstrate continuity.
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.*	• Drillholes were generally drilled on 065 azimuth (true) which is perpendicular to the main north and north-northeast striking lodes. Holes were generally inclined at -50° to horizontal. Some holes were also drilled on 245 azimuth (true) because of access difficulties due to topography and infrastructure. • The drilling orientation is not believed to have caused any systematic sampling bias. Where drill direction was less than optimal, the geological model will be used to qualify the mineralised intersections. • The open pit channel sampling sample traverses were orientated perpendicular to the main trend of mineralisation where possible. However, due to the orientation of the pit walls in many areas, sampling traverse are at an oblique angle to the main mineralised trend. • Underground sampling data consists largely of cross strike drives which are orientated perpendicular to the steeply dipping lodes. The dataset also contains sampling from a number of along-strike ore drives. These drives are generally included within the modelled lodes which have hard boundaries to mitigate any smearing into neighbouring halo domains.
Sample security	• *The measures taken to ensure sample security.*	• Drill core was taken twice daily from the drill rig, immediately following completion of day shift and night shift respectively. • Core was transported to the core facility where it was logged and sampled. • RC samples were collected from the rig upon hole completion. • Samples were bagged and periodically sent to the Intertek laboratory in Yangon for preparation. All samples were delivered by a Valentis geologist to Lashio then transported to Yangon on express bus as consigned freight. The samples were secured in the freight hold of the bus by the Valentis geologist. The samples collected on arrival in Yangon by a Valentis driver and delivered to the Intertek laboratory.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• Integrity of all data (drillhole, geological, assay) was reviewed before being incorporated into the database system.

Table 1: 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 Bawdwin Mine is in northeast Shan State, Myanmar. • The project owner is Win Myint Mo Industries Co Ltd (WMM) who hold a Mining Concession which covers some approximately 38 km^2. • WMM has a current Production-sharing Agreement with the Myanmar Government. • Myanmar Metals Limited (MYL) majority 51% interest in Bawdwin is held through a legally binding contractual Joint Venture between MYL, EAP and the owners of WMM. • Upon completion of a bankable feasibility study and the issue of Myanmar Investment Commission (MIC) permits allowing the construction and operation of the mine by the Joint Venture, shares in Concession holder WMM will be allotted to the parties in the JV ratio.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• The Bawdwin Mine was operated as an underground and open pit base metal (Pb, Zn, Ag, Cu) mine from 1914 until 2009. • The only modern study on the mine was completed by Resource Service Group (RSG) in 1996 for Mandalay Mining. RSG compiled the historical underground data and completed a JORC (1995) Mineral Resource estimate. The digital data for this work was not located and only the hardcopy report exists.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Bawdwin deposit is hosted in volcanic (Bawdwin Tuff), intrusive (Lo Min Porphyry) and sedimentary (Pangyun Formation) rocks of late Cambrian to early Ordovician age. • The historical mine was based on three high-grade massive Pb-Zn-Ag-Cu sulphide lodes, the Shan, China and Meingtha lodes. These lodes were considered to be formed as one lode and are now offset by two major faults the Hsenwi and Yunnan faults. • The major sulphides are galena and sphalerite with lesser amounts of pyrite, chalcopyrite, covellite, gersdorffite, boulangerite, and cobaltite amongst other minerals. • The lodes are steeply-dipping structurally-controlled zones and each lode incorporated anastomosing segments and footwall splays. • The lodes occur within highly altered Bawdwin Tuff which hosts extensive stockwork and disseminated mineralisation as well as narrow massive sulphide lodes along structures. This halo mineralisation is best developed in the footwall of the largest China Lode. • The main central part of the mineralised system is approximately 2 km in length by 400 m width, while ancient workings occur over a strike length of about 3.5 km. • The upper portion of the China Lode was originally covered by a large gossan which has been largely mined as part of the earlier open pit. The current pit has a copper oxide zone exposed in the upper parts, transitional sulphide mineralisation in the central areas and fresh sulphide mineralisation near the base of the pit. • The Bawdwin deposit is interpreted as a structurally-controlled magmatic-hydrothermal replacement deposit emplaced within a rhyolitic volcanic centre.

Criteria	JORC Code explanation	Commentary
Drillhole information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes:* o *easting and northing of the drillhole collar* o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drillhole collar* o *dip and azimuth of the hole* o *downhole length and interception depth* o *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.*	• Exploration results are not being reported.
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. 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 such 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.*	• Metal equivalents are not reported here.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.* • *If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (e.g. 'downhole length, true width not known').*	• Drillholes were orientated at an azimuth generally to the main orientation of mineralisation with a dip at about 40-50° from the dip of mineralisation; reported drill composite intercepts are down-hole intervals, not true widths.
Diagrams	• *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 drillhole collar locations and appropriate sectional views.*	• Diagrams that are relevant to this release have been included in the main body of the document or reported in previous announcements.
Balanced 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*	• Exploration results are not being reported

Criteria	JORC Code explanation	Commentary
	Results.	
Other substantive exploration 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.*	• In Company's opinion, this material has been adequately reported in this or previous announcements.
Further work	• *The nature and scale of planned further work (e.g. 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.*	• The details of additional work programmes will be determined by the results of the current exploration program that is currently underway. • It is envisaged that a drilling program will be undertaken to test exploration targets, supported by geology, geochemistry and geophysics.

Table 1: Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in Section 1, and where relevant Section 2, also apply to this section)

Criteria	JORC Code explanation	Commentary
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	• All historical underground drive sampling data was compiled into a Microsoft Access database. • Diamond and RC drilling sampling, and open pit sampling data was compiled into a DataShed database. • Data was exported as Micromine tables and drilling/underground sampling databases constructed. These were validated in Micromine for inconsistencies, overlapping intervals, out of range values, and other important items. • All data was visually checked.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• The Competent Person has not undertaken a site visit. However, the Competent Person's colleague Dr Neal Reynolds, a director of CSA Global, conducted site visits to the project area in August 2017, October 2017, May 2018 and November 2018. Drill activities were observed and checked, drill core was examined and mineralisation in the open pit was observed. The historical systematic documentation of mining and exploration development, sampling and assaying was confirmed, and the assay laboratory was visited during 2017 visits.

Criteria	JORC Code explanation	Commentary
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	• The Bawdwin Mine has a long underground and open pit mining history. The geological interpretation used for the resource estimate is based on historical sectional and plan underground geology interpretations and recent open pit mapping and new diamond and RC drilling information. Stoped areas were also modelled, and these provide a useful guide to the geometry and orientation of the major lodes. This data has been used to create a wireframed 3D model of geology, structure and mineralisation. • Underground and open pit channel sampling, drill-hole assay results have formed the basis for the geological interpretation. • The major lodes were modelled in Micromine primarily in plan view and additionally in section view to integrate drill-hole data. A 3.5% Pb cut-off grade was applied for interpretation of the major high-grade lodes. • Surrounding the major lodes, a “halo” zone was modelled based on 0.5% Pb cut-off grade and represents an alteration envelope around the high-grade lodes. • A separate zinc resource estimate was completed independently as zinc does not always correlate with lead. A 1% Zn cut-off grade was applied for interpretation of the Zinc mineralisation. • A separate copper resource estimate was completed independently due the low correlation between Pb and Cu. 1% Cu cut-off grade was applied for interpretation of the copper mineralisation. • No alternate interpretations have been considered as the overall geometry of the mineralisation is generally well understood due to previous mining. • The grade and to a lesser degree lithological interpretation forms the basis for the modelling.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	• The currently interpreted mineralisation of the Bawdwin area extends for approximately 1.8 km along a 325° northwest strike. The dip angle of the zone varies from -70° to -90° with most common dip angle at -80°. The zone extends from surface to 475 m below the surface.
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.*	• Grade estimation was by ordinary kriging (OK) using Micromine 2018 software. The interpretation was extended perpendicular to the corresponding first and last interpreted plan levels to the distance equal to a half distance between the adjacent underground levels. • CSA Global carried out the reported Mineral Resource estimate from December 2019 through April 2020. • The OK estimate was completed concurrently with two check Inverse Distance Weighting (IDW) estimates. The OK estimate used the parameters obtained from the modelled variograms. The results of the check estimates correlate well. • Additional elements (As, Cd, Co, Hg, Ni, Sb, S, S2) and Pb/Zn speciation were populated into the block model. • The block model was constructed using a 5 m E x 10 m N x 10 m RL parent block size, with sub-celling to

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	• *Estimation of deleterious elements or other non-grade variables of economic significance (e.g. Sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.*	1.25 m E x 1.25 m N x 1.25 m RL for domain volume resolution. The parent cell size was chosen based on the general morphology of mineralised zones and in order to avoid the generation of large block models. The sub-cell size was chosen to maintain the resolution of the mineralised zones and to allow a block model transfer to the Surpac mining package. The sub-cells were optimised in the models where possible to form larger cells. • The search radii were determined by means of the evaluation of the semi-variogram parameters. • The first search radius was selected to be equal to the block size dimensions to use the grades from the workings that intercepted the block. The second search radius was selected to be equal to two thirds of the semi-variogram long ranges in all directions. Model cells that did not receive a grade estimate from the first and second interpolation runs used the next interpolation run with greater search radii equal to the full long semi-variogram ranges in all directions. The model cells that did not receive grades from the first three runs were then estimated using radii incremented by the full long semi-variogram ranges. When model cells were estimated using radii not exceeding the five full semi-variogram ranges, a restriction of at least three samples from at least two drillholes was applied to increase the reliability of the estimates. • No selective mining units were assumed in this estimate.
Estimation and modelling techniques (continued)	• *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.*	• No strong correlations were found between the grade variables estimated, except Pb and Ag. • Grade envelopes were defined for Pb based on 3.5% Pb grade to define high grade lodes and 0.5% Pb for the "Halo" zone. Hard boundaries between the grade envelopes were used to select sample populations for grade estimation. • Grade envelopes were defined for Zn based on 1.0% Zn grade to define zinc mineralisation. • Grade envelopes were defined for Cu based on 1.0% Cu grade to define copper mineralisation. • Statistical analysis to determine top cut grade values was carried out separately for each element (Pb, Zn, Cu, Ag) and separately for each defined mineralisation domain. • Validation of the block model included comparison of the block model volume to the wireframe volume. Grade estimates were validated by statistical comparison with the drill data, visual comparison of grade trends in the model with the drill data trends, and by using a second interpolation technique. • No reconciliation data is available.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• The tonnages are estimated on a dry basis
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• The Mineral Resource above 750 m RL was reported at 0.5% Pb reflecting the pit optimisation which demonstrates potential for economic extraction in an

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		open pit to this depth. • A single cut-off grade of 2% Pb has been applied to the reported Mineral Resource below the 750 m RL that has potential for eventual economic extraction by underground mining. • Cut-off grade of 1% Zn has been applied to the reported Mineral Resource to the zinc mineralisation that lie outside of the Pb Halo zones. • Cut-off grade of 0.5% Cu has been applied to the reported Mineral Resource to the copper mineralisation that lie outside of the Pb Halo zones.
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	• A Feasibility Study including a pit optimisation is currently assessing the open pit development opportunity at Bawdwin. It is expected that deeper parts of the deposit will be amenable to underground mining.
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	• It is assumed that Pb, Zn, Cu and Ag sulphide mineralisation can all be economically extracted using conventional flotation methods. These were all produced historically at the Bawdwin Mine and Namtu Smelter Complex. • The metallurgical testing program being managed by Lycopodium shows generally good metal sulphide recoveries via flotation in fresh and transitional material, although sphalerite recovery may be compromised by copper pre-activation. • The Mineral Resource estimate contains significant amounts of non-sulphide Pb and Zn which could be recoverable using established technologies, but which may not be economically recoverable; the estimate of the percentage of non-sulphide Zn and Pb in the deposit remains uncertain due to limited direct assay data for non-sulphide Pb and non-sulphide Zn and requires more evaluation.
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	• Suitable sites for waste dumps are located in the neighbouring valleys adjacent to the planned open pit area. • The Pangyun creek that flows on the margins of the deposit will require a diversion for a large open pit. • Ore processing is planned to take place with a processing plant on site. Tailings are currently planned to be de-watered and co-disposed with waste rock in an integrated dump.

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Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vughs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• A total of 2,396 bulk density measurements were taken from a suite of mineralised and un-mineralised drill core using conventional water immersion and calliper techniques. • The bulk density of mineralisation increases with sulphide content and hence Pb, Zn and Cu metal grade. • Density data was used to develop a regression between the density and Pb, Zn, Cu and Ag grades for samples within the mineralised envelopes. Separate regression formulas were derived for transition and fresh zones. • Based on the bulk density measurements, a density of 2.3 g/cm3 was applied to transitional and deep transitional zones outside of mineralised envelopes, and 2.5 g/cm3 for un-mineralised fresh material.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• The Inferred Mineral Resource classification is based on the evidence from the available drillhole and channel sampling. This evidence is sufficient to imply but not verify geological and grade continuity. However, the areas with the denser drilling and robust continuation of the mineralised zones were classified as Indicated (where the new 2017-2020 drillholes were drilled). • The Inferred and Indicated classification has considered all available geological and sampling information, and the classification level is considered appropriate for the current stage of this project. • The open pit mapping and diamond drilling all have been carried in accordance with modern industry best practice standards and have QC data to support the assay data. The historical underground sampling has no QC data. The data quality is considered acceptable by the Competent Person for the classification of Indicated in the areas with supporting drilling data. • The overall structure of the major lodes is well understood from the underground data and open pit mapping. • The Mineral Resource estimate appropriately reflects the view of the Competent Person.
Audits or reviews.	• *The results of any audits or reviews of Mineral Resource estimates.*	• Internal audits were completed by CSA Global which verified the technical inputs, methodology, parameters and results of the estimate.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions*	• The relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral Resource to an Indicated and Inferred classification as per the guidelines of the 2012 JORC Code. • The statement refers to global estimation of tonnes and grade.

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	made and the procedures used. • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	