Alphamin Discusses Key Technical Outcomes From the Updated Technical Report

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GRAND BAIE, Feb. 20, 2020 - Alphamin Resources Corp. (AFM:TSXV, “Alphamin”, or the “Company”) wishes to highlight some of the key technical results of its newly filed updated NI 43-101 technical report for the Bisie Tin mine located in the Democratic Republic of Congo. The results include an improved Life of Mine profile and changes in Mineral Reserves and Resources.

Updated Mineral Resources:

Mineral Resources were updated as at 30 June 2019. The previous Mineral Resource estimate was as of 9 May 2016. The table below summarises the changes in Mineral Resources for the Mpama North orebody.

Changes in Mineral Resource at 0.50% Sn Cut-Off Grade, 30 June 2019

Classification	Quantity (Mt)		Grade (%)		Tin Content (kt)	
	2016	2019	2016	2019	2016	2019
Measured Resources	0.46	0.33	4.31	4.75	19.6	15.6
Indicated Resources	4.14	3.99	4.55	4.59	188.4	183.4
Inferred Resources	0.54	0.48	4.25	4.57	22.8	21.8
Total Mineral Resources	5.14	4.80	4.50	4.60	230.8	220.8
Percentage change	-6.6%		2.3%		-4.3%	

1. All tabulated data has been rounded and as a result minor computational errors may occur.
2. Mineral Resources, which are not Mineral Reserves, have no demonstrated economic viability.
3. Mineral Resources are reported inclusive of Mineral Reserves.
4. Alphamin has an 80.75 percent interest in ABM. The Gross Mineral Resource for the Project is reported.
5. 2019 figures reflect depletion by mining from mine surveys as at 30 June 2019 and an estimate of the extent of artisanal mining to 725 RL.

The decrease of 10kt in contained tin is attributable as to 2.4t from depletion through mining activities by 30 June 2019 and 7.7t following a revised interpretation of the artisanal mining base. No other changes have been made to the Mineral Resource, no exploration data has been added to the database and cut-off grades have remained the same.

Updated Mineral Reserves:

Mineral Reserves were updated as at 31 December 2019 to take account of the revised Life of Mine (LOM) plan following a change in mining method from the previous Sub-Level Caving (SLC) mining method to Open Stoping with Hydraulic Backfill (LHS). The decision to transition from SLC to the LHS mining method was made to reduce safety and technical risks associated with SLC in the underground environment encountered at Mpama North.

The previous Mineral Reserve estimate was as of 6 February 2017 and utilized the updated Front-End Engineering Design (FEED) and Control Budget Estimate (CBE) to declare reserves according to a SLC mining method.

The table below summarises the changes in Mineral Reserves for the Mpama North orebody.

Changes in Mineral Reserves, 31 December 2019

Classification	Quantity (Mt)		Grade (%)		Tin Content (kt)	
	2017	2019	2017	2019	2017	2019
Proven Reserves	0.38	0.05	4.17	3.77	15.9	1.9
Probable Reserves	4.29	3.28	3.53	4.01	151.4	131.5
Total Mineral Reserve	4.67	3.33	3.58	4.01	167.3	133.4
Percentage change	-28.7%		11.8%		-20.3%	

1. Computational errors due to rounding are not considered significant.
2. The Mineral Reserves are reported with appropriate modifying factors of dilution and recovery.
3. The Mineral Reserves are reported at the head grade and at delivery to Plant.
4. Although stated separately, the Mineral Resources are inclusive of the Mineral Reserves.
5. No Inferred Mineral Resources have been included in the Mineral Reserve estimate.
6. The input studies are to the prescribed level of accuracy.
7. Reserve cut-off grade for 2017 Reserves was 1.4% Sn while for 2019 Reserves is 1.6% Sn

The LHS mining method has lower levels of dilution than the former SLC mining method, which positively impacts mined grade and reduces waste tonnes, but requires more pillar support than SLC and thus has a lower extraction rate. In addition, a higher cut-off grade of 1.6% Sn was used in the updated Mineral Reserves compared to 1.4% Sn in the 6 February 2017 estimate.

Although the contained tin has decreased with this update by 20.3% or 33.9kt Sn, it is accompanied by an absolute increase in tin grade of 0.42% Sn (or 11.8% relative increase), in keeping with the optimized Life of Mine and new mining method. Of the 33.9kt Sn contained loss, more than a quarter or 9.1kt Sn is associated with depletion from mining activities to 31 December 2019 and the remaining 24.8kt Sn is attributable to the new mining method and layout which requires more pillar support.

Optimised Life of Mine (LOM) plan:

The Life of Mine plan was optimized as at 31 December 2019. Alphamin appointed Sound Mining Solutions (“SMS”) to conduct this optimization Life of Mine plan which encompassed the transition to LHS.

The table below summarises the changes in the Life of Mine profile.

Changes in LOM plan as at 31 December 2019, including production to date

		TOTAL	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11
2017 LoM Mine schedule	Tonnes ROM kt	4,672.6	62.6	289.1	404.7	388.2	394.4	397.4	386.3	370.1	373.9	363.9	366
	Grade Sn %	3.59	2.39	4.38	3.63	3.22	2.91	2.92	3.73	3.04	2.95	3.25	4.3
	Sn contained kt	168.0	1.5	12.7	14.7	12.5	11.5	11.6	14.4	11.2	11.0	11.8	15.8
		TOTAL	Actual	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11
2019 LoM Mine schedule	Tonnes ROM kt	4,026.9	172.0	332.8	385.0	393.5	377.3	362.2	386.6	339.8	361.8	307.8	250
	Grade Sn %	4.06	5.30	4.06	4.14	4.21	4.23	3.96	4.47	3.68	4.89	2.67	2.5
	Sn contained kt	163.3	9.1	13.5	15.9	16.6	15.9	14.3	17.3	12.5	17.7	8.2	6.5
Cumulative difference Sn kt			7.6	8.5	9.7	13.8	18.2	21.0	23.8	25.1	31.7	28.1	18.8

Year 1 actual mine production is included in the 2019 LOM schedule as these were not conducted on a SLC mining method basis.

The optimized 2019 LOM schedule includes some Inferred Resources, which total 13.6% of the 2019 LOM schedule and less than half of these are scheduled in the first 8 years. The 2017 LOM schedule does not include any Inferred Resources.

The optimized 2019 LOM schedule delivers cumulatively 28.1kt more tin contained in an equivalent Run of Mine (ROM) volume to the plant in the first 10 years compared to the previous LOM schedule. This will improve cash flows during these first 10 years. Conversely, the optimized 2019 LOM profile has a longer ‘tail’ and lower volumes in the final years than the previous LOM schedule.

Alphamin is planning an infill resource drilling campaign during 2020 at its Mpama South prospect, located approximately 1.5km south of the Mpama North mining complex. As mining extends deeper at the current Mpama North orebody, an underground drilling campaign will likely be initiated during 2021 in order to pursue an extension of the current declared resources.

Anticipated Effect of the new LOM plan:

Management anticipates that these changes to the Mineral Resources, Mineral Reserves and optimised Life of Mine plan will allow for higher mined head grades, less mined waste, improved cashflows during the initial 10 years, a safer and more appropriate working environment given the ground conditions encountered and a small reduction in total contained tin mined over the life of the Mpama North orebody.

Qualified Person

Mr. Vaughn Duke Pr.Eng. PMP, MBA, B.Sc. Mining Engineering (Hons.), is a qualified person (QP) under NI 43-101 and has reviewed and approved the scientific and technical information contained in this news release. He is a Principal Consultant, Partner and Director of Sound Mining, an independent technical consultant to the Company.

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CAUTION REGARDING FORWARD LOOKING STATEMENTS

Information in this news release that is not a statement of historical fact constitutes forward-looking information. Forward-looking statements contained herein include, without limitation, statements relating to future drilling activities and plans to extend life of mine. Forward-looking statements are based on assumptions management believes to be reasonable at the time such statements are made. There can be no assurance that such statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking statements. Although Alphamin has attempted to identify important factors that could cause actual results to differ materially from those contained in forward-looking statements, there may be other factors that cause results not to be as anticipated, estimated or intended. Factors that may cause actual results to differ materially from expected results described in forward-looking statements include, but are not limited to: uncertainties associated with Alphamin’s resource, reserve and life of mine estimates, uncertainties regarding estimates of the expected mined tin grades, processing plant performance and recoveries, events causing actual operating expenditure to be different to that forecasted, uncertainties regarding global supply and demand for tin and market and sales prices, uncertainties with respect to social, community and environmental impacts, adverse political events, uncertainties with respect to optimization opportunities for the Project, as well as those risk factors set out in the Company’s Management Discussion and Analysis and other disclosure documents available under the Company’s profile at www.sedar.com. Forward-looking statements contained herein are made as of the date of this news release and Alphamin disclaims any obligation to update any forward-looking statements, whether as a result of new information, future events or results or otherwise, except as required by applicable securities laws.

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