

# Eloro Resources Provides Update on the Ongoing Preliminary Metallurgical Testwork Program for the Iska Iska Silver-Tin Polymetallic Project

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TORONTO, April 04, 2023 - [Eloro Resources Ltd.](#) (TSX: ELO; OTCQX: ELRRF; FSE: P2QM) ("Eloro", or the "Company") is pleased to provide an update on its ongoing preliminary metallurgical testwork program for the Iska Iska silver-tin polymetallic project (the "Project") in the Potosi Department, southern Bolivia. The ongoing work, including flowsheet development testwork and mineralogical characterization, is being carried out by Blue Coast Research Ltd. ("Blue Coast" or "BCR") based in Parksville, British Columbia, and Mineral Concentration Laboratory of the National Faculty of Engineering from the Technical University of Oruro ("UTO"), Bolivia. The objective of the coordinated work programs is to develop a geo-metallurgical understanding of the mineralized domains and to obtain preliminary metallurgical recovery estimates for the main valuable constituents of the mineralized material currently identified at the Project.

Tom Larsen, CEO of Eloro, commented: "The Iska Iska silver-tin polymetallic deposit is a remarkably extensive system with multiple potential ore types which require more metallurgical work than originally anticipated, especially for tin, as outlined in this press release. The preliminary metallurgical recovery estimates are a prerequisite for the release of the Project's maiden mineral resource ("MRE"). Consequently, the release of the MRE has been delayed until this metallurgical work, which is in progress, has been completed. All other work required for the MRE has been largely completed by Micon International Limited, including much of the reporting."

Mr. Larsen continued, "I am very pleased to announce the appointment of Mr. Mike Hallewell, B.Sc., F.I.M.M.M., F.S.A.I.M.M., F.M.E.S., C.Eng., an internationally recognized expert on tin metallurgy, as Senior Strategic Metallurgist for Eloro. Going forward Mike will be working closely with our metallurgical consultants to optimize our tin recovery and with our geological team to define geo-metallurgical domains for mineral resource definition and future potential production."

## Geometallurgical Domains Iska Iska

The Iska Iska silver-tin polymetallic deposit has many characteristics of the typical Bolivian tin deposits. Extensive tin mineralization likely developed deep in the earth's crust with cassiterite forming at high temperatures from 350C to 500C. This major initial stage of magmatism drove the formation of the major stratovolcano at Iska Iska some 18 to 15 million years ago. Subsequently, when the magma chamber was depleted, the volcano collapsed, forming a classic collapsed caldera. Resurgence of the collapsed volcano included the intrusion of the Iska Iska porphyry, followed by dacitic domes and brecciation such as the Santa Barbara breccia pipe. These events were closely associated with widespread porphyry-epithermal Ag-Zn-Pb mineralization, which partially overprinted the pre-existing tin mineralization.

Figure 1 shows the distribution of Sn:Cu at Iska Iska. The Sn:Cu ratio is an indicator of the presence of oxide tin (cassiterite - shown in green, within the core) vs sulphide tin (stannite - shown in red, making up the periphery). Tin is found predominantly on the west side of the Santa Barbara deposit. Deep drilling and magnetic modelling indicate that the tin porphyry is present beneath the Iska Iska Porphyry. As previously reported, the signature of the overall tin porphyry system based on magnetic data likely extends for some 5 km by 3 km which includes the Casiterita area to the southwest, which is currently being drill-tested (see Eloro's press release dated February 14, 2023). The longitudinal section in Figure 1 covers a strike length of 2.5km.

Figure 1: Longitudinal Section Showing Distribution of Sn/Cu ratio (Looking West-southwest). The core of the Iska Iska deposit contains higher Sn and low Cu whereas the low Sn/Cu ratio is predominantly at the top and on the margins of the tin mineralization.

## Metallurgical Testwork

The overall metallurgical testwork / mineralogical characterization program has evolved into the development of several potential flowsheets to best fit the extensive mineralization identified within the Project area. The main metallurgical studies in the ongoing development program are:

- 1) Recovery of lead, zinc and silver from polymetallic sulphide mineralization; and
- 2) Recovery of tin from cassiterite-rich Iska-Iska mineralization and the adjoining Casiterita property to the south-southwest of Iska Iska.

Future work will include recovery of gold and copper, where they are found enriched within the system.

The geo-metallurgical program is being directed by Mr. Mike Hallewell, C.Eng., a senior mineral processing consultant based in Cornwall, England, who has extensive specialist knowledge in the recovery of tin at mining operations and exploration projects worldwide, and Richard Gowans, P.Eng., Principal Metallurgist for Micon International Limited, an independent Qualified Person as defined under NI 43-101. The mineralogical characterization testwork is being managed by Nichola McKay P. Geo., MBA, an experienced Professional Geoscientist who specializes in the development of geo-metallurgical programs.

## Mineralogical and Geometallurgical Characterization

Mineralogical testing of the Iska Iska resource consists of three main campaigns:

- 1) On-site downhole hyperspectral analysis with high resolution core imaging,
- 2) QemSCAN mapping of polished thin sections selected from drill core across the resource representing key lithologies and mineralization types, with supporting X-ray diffraction and microprobe analysis, and
- 3) QemSCAN analysis of ground metallurgical test feeds and selected test products.

A group of geometallurgical variability samples are being tested using a standardized testing protocol that will link metallurgical behaviour with mineralogy for samples from different zones in the resource.

In parallel to the laboratory-based geomet work, all QemSCAN data is being used as a training set for calibration / correlation with the hyperspectral program, with the objective of identifying key markers of tin mineral zonation that can be populated through the resource.

## Lead-Zinc-Silver Flotation

The initial metallurgical testwork, using composite samples of sulphide mineralization from the Santa Barbara polymetallic zone, comprised the development of a preliminary flotation flowsheet to maximize lead, zinc and precious metals into saleable concentrates. The results of this initial work were presented in the Company's press release dated June 13, 2022. These preliminary results indicated good lead, zinc and silver recoveries using conventional flotation technology.

The estimated recoveries based on preliminary locked cycle flotation tests are 79.6% lead and 55.8% silver into a lead concentrate, and 87.0% zinc and 32.0% silver into a zinc concentrate (total silver recovery of 87.8%). These recoveries are based on preliminary scoping level bench scale tests completed by BCR in 2022 using two composite samples of polymetallic mineralization. These tests were not optimized and

improved performance in terms of higher recoveries would be expected with further mineralogical and metallurgical studies.

The next phase of Pb-Zn-Ag flowsheet development testwork, following completion of the inaugural mineral resource estimate, is to optimize the preliminary flowsheet, with integrated mineralogy/metallurgy studies using a variety of samples representing a range of lithologies and ore-types, and to undertake silver deportment studies. The deportment and recovery of potential by-products will also be investigated.

## Tin Metallurgy

The recovery of cassiterite is usually conducted using a mixture of gravity and tin flotation with removal of sulphide minerals either prior to these processes and/or as part of concentrate clean-up. Coarser cassiterite grain sizes tend to be more amenable to gravity concentration, whereas finer cassiterite particles are recovered by tin flotation down to ~6 microns, which is normally discarded since it is too fine for current beneficiation technologies. The different Iska Iska ore types are currently being characterised to better understand the cassiterite grain size and cassiterite associations with other minerals as a function of ore type so as to better understand and estimate the level of tin recovery in terms of geological space. Stannite is present, but at this time will be assumed to deport as a tin loss to sulphides.

Initial tin deportment studies undertaken on various samples of mineralization obtained from the Project exploitation drilling campaign have suggested the occurrence of various forms of tin mineralization within the extensive mineralized domains currently identified at the Project. The tin mineralogy and physical competence is linked to geological attributes. The styles of tin mineralization identified at the Project can be characterized as follows:

Type A - High grade coarse-grained cassiterite (tin oxide). This style of tin mineralization is the easiest to process due to the coarser liberated tin mineralization that is amenable to conventional mineral processing technologies, such as gravity separation and flotation. This type of tin mineralization is expected to predominate deeper in the deposit and also at Casiterita where artisanal miners have previously produced high grade (~50%) tin concentrates from cassiterite-quartz veins (see Eloro's press release November 22, 2022).

Type B - High/medium grade fine-grained cassiterite. Tin-rich sulphide mineralization is typically found below and west of the eastern Santa Barbara area Pb-Zn-Ag rich polymetallic sulphide zones. This style of tin mineralization requires fine to very fine grinding, sulphide removal via flotation, tin flotation and fine particle gravity separation.

Type C - Medium grade fine-grained cassiterite with significant wood tin (low temperature form of cassiterite). Tin of this type occurs predominantly in areas with moderate to strong oxidation which has leached sulphides and redeposited the tin as wood tin. High grade Type A tin also may exist in this zone. This form of tin has similar metallurgy to Type B, but good recoveries can be obtained if Type A mineralization is present.

Type D - Medium grade stannite (copper-tin-iron sulphide mineral). Stannite is not recoverable using conventional tin mineral processing technology. Predominant stannite tin mineralization tends to occur at the top and peripheral to the core of the tin mineralization. Where stannite mineralization has been oxidized and leached, the mineralization type becomes more Type B or C depending on intensity of oxidation.

Tin metallurgical studies completed to date include preliminary tests on two composite samples and the development of a standard test protocol to assess the amenability of tin mineralized samples to obtain a tin concentrate of acceptable grade.

A high-grade tin composite made up of crushed assay reject samples from exploration drilling was prepared and used for preliminary metallurgical tests at UTO in Bolivia. The 67 kg composite sample, considered Type A tin (see description above), comprised mineralized samples from drill holes DSB-32 (from 62.3 m to 76.7 m) and DSB-33 (from 356.7 to 365.6 m). The sample was from an oxidized zone and had an average tin grade of 1.68% Sn.

Scoping tests completed on this sample included gravity separation tests using a shaking table and

centrifugal concentrator, and cassiterite flotation tests. Although not optimized, the gravity only tests using both tables and centrifugal concentrator resulted in a 39% tin grade concentrate with about 60% recovery. Tests using a table only produced a concentrate containing about 50% Sn although recovery was only around 30%. Flotation tests at a non-optimum grind size resulted in about 50% tin recovery into a 6% Sn concentrate. These preliminary test results suggest a direct tin smelter feed concentrate can be produced from this type of tin mineralization with about a 60% recovery. The estimated tin recovery into a lower grade concentrate suitable for feeding a tin-fuming process is about 75%.

Recent development tests by BCR using a composite sample of crushed assay rejects from drill hole DSB03 containing 0.52% Sn, produced a tin-fuming feed concentrate with a tin recovery of about 28%. Mineral characterization of this sample via optical microscopy suggests that the tin mineralization comprises mainly fine-grained cassiterite with minor fine wood tin (Types B and C).

The preliminary flowsheet used by BCR comprised sulphide flotation, which rejected approximately 92% of the sulphide sulphur with less than 15% tin losses, gravity roughing using a centrifugal concentrator and upgrading of sized rougher product using a laboratory supper-panner, cassiterite flotation with upgrading of sized re-ground flotation rougher product using a laboratory supper-panner.

Following a detailed review of the test results and testing procedure, a standard tin amenability test protocol has been defined. This flowsheet will be used over the coming weeks by BCR to test a variety of samples. Samples have been selected to include a range of tin grades and types of tin mineralization.

#### Copper-Gold and Other Valuable By-Products

Drilling has shown zones of mineralization with gold grades above 1 g/t as well as zones with elevated levels of copper. A metallurgical-mineralogical characterization program is being planned to assess the potential for recovering these valuable metals.

The future geo-metallurgical program also will include studies to understand the deportment of other potential metals such as bismuth and indium.

#### Qualified Person

Richard Gowans, P.Eng., Principal Metallurgist for Micon International Limited, is an independent Qualified Person as defined under NI 43-101. Mr. Gowans. Has reviewed and approved the technical content of this news release.

Dr. Osvaldo Arce, P. Geo., General Manager of Eloro's Bolivian subsidiary, Minera Tupiza S.R.L., and a Qualified Person in the context of NI 43-101, supervised all exploration work at Iska Iska. Dr. Bill Pearson, P.Geo., Executive Vice President Exploration Eloro, and who has more than 45 years of worldwide mining exploration experience including extensive work in South America, manages the overall technical program working closely with Dr. Osvaldo Arce, P.Geo., Manager of Minera Tupiza. Dr. Quinton Hennigh, P.Geo., Senior Technical Advisor to Eloro and Independent Technical Advisor, Mr. Charley Murahwi P. Geo., FAusIMM of Micon International Limited are regularly consulted on technical aspects of the project.

Eloro is utilizing both ALS and AHK for drill core analysis, both of whom are major international accredited laboratories. Drill samples sent to ALS are prepared in both ALS Bolivia Ltda's preparation facility in Oruro, Bolivia and the preparation facility operated by AHK in Tupiza with pulps sent to the main ALS Global laboratory in Lima for analysis. More recently Eloro has had ALS send pulps to their laboratory at Galway in Ireland. Eloro employs an industry standard QA/QC program with standards, blanks and duplicates inserted into each batch of samples analyzed with selected check samples sent to a separate accredited laboratory.

Drill core samples sent to AHK Laboratories are prepared in a preparation facility installed and managed by AHK in Tupiza with pulps sent to the AHK laboratory in Lima, Peru. Au and Sn analysis on these samples is done by ALS Bolivia Ltda in Lima. Check samples between ALS and AHK are regularly done as a QA/QC check. AHK is following the same analytical protocols used as with ALS and with the same QA/QC protocols. Turnaround time continues to improve, as laboratories return to more normal staffing levels.

## About Iska Iska

Iska Iska silver-tin polymetallic project is a road accessible, royalty-free property, wholly controlled by the Title Holder, Empresa Minera Villegas S.R.L. and is located 48 km north of Tupiza city, in the Sud Chichas Province of the Department of Potosi in southern Bolivia. Through its Bolivian subsidiary, Eloro has an option to earn a 100% interest in Iska Iska.

Iska Iska is a major silver-tin polymetallic porphyry-epithermal complex associated with a Miocene possibly collapsed/resurgent caldera, emplaced on Ordovician age rocks with major breccia pipes, dacitic domes and hydrothermal breccias. The caldera is 1.6km by 1.8km in dimension with a vertical extent of at least 1km. Mineralization age is similar to Cerro Rico de Potosí and other major deposits such as San Vicente, Chorolque, Tasna and Tatasi located in the same geological trend.

Eloro began underground diamond drilling from the Huayra Kasa underground workings at Iska Iska on September 13, 2020. On November 18, 2020, Eloro announced the discovery of a significant breccia pipe with extensive silver polymetallic mineralization just east of the Huayra Kasa underground workings and a high-grade gold-bismuth zone in the underground workings. On November 24, 2020, Eloro announced the discovery of the SBBP approximately 150m southwest of the Huayra Kasa underground workings.

Subsequently, on January 26, 2021, Eloro announced significant results from the first drilling at the SBBP including the discovery hole DHK-15 which returned 129.60 g Ag eq/t over 257.5m (29.53g Ag/t, 0.078g Au/t, 1.45%Zn, 0.59%Pb, 0.080%Cu, 0.056%Sn, 0.0022%In and 0.0064% Bi from 0.0m to 257.5m. Subsequent drilling has confirmed significant values of Ag-Sn polymetallic mineralization in the SBBP and the adjacent CBP. A substantive mineralized envelope which is open along strike and down-dip extends around both major breccia pipes. Continuous channel sampling of the Santa Barbara Adit located to the east of SBBP returned 442 g Ag eq/t (164.96 g Ag/t, 0.46%Sn, 3.46% Pb and 0.14% Cu) over 166m including 1,092 g Ag eq/t (446 g Ag/t, 9.03% Pb and 1.16% Sn) over 56.19m. The west end of the adit intersects the end of the SBBP.

Since the initial discovery hole, Eloro has released a number of significant drill results in the SBBP and the surrounding mineralized envelope which along with geophysical data has defined an extensive target zone. In its September 20, 2022 press release, the Company reported that new downhole geophysical data have significantly extended the strike length of the high-grade zone at Santa Barbara a further 250m along strike to the south-southeast from existing drilling. The 3D inverse magnetic model which correlates very strongly with the conductive zone suggested that the high-grade feeder zone may extend across the entire caldera for as much as a further 1 km along strike for a total potential strike length of at least 2 km. As reported, the definition drill program was modified to sectionally drill this potential extension to define a major open pittable deposit in the valley of the caldera. As a result, the estimated completion date for the maiden National Instrument 43-101 mineral resource was pushed back to the end of Q1 2023.

The Company completed 84,495m in 122 drill holes for the definition drill program in the Santa Barbara target area as announced on November 27, 2022.

On November 22, 2022, Eloro announced the acquisition of the Mina Casiterita and Mina Hoyada properties covering 14.75 km<sup>2</sup> southwest and west of Iska Iska. These properties connect with the TUP-3 and TUP-6 claims previously staked by Eloro. Eloro has also staked additional land in the area. Following the acquisition, the total land package in the Iska Iska area to be controlled by Eloro will total 1,935 quadrants covering 483.75 km<sup>2</sup>.

Artisanal mining in the 1960's identified high grade tin (Sn) veins on the Mina Casiterita property that are hosted in an intrusive dacite. Production from 1962 to 1964 is reported by the Departamento Nacional de Geología in Bolivia to be 69.85 tonnes grading 50.60% Sn.

Magnetic surveys recently completed by Eloro have outlined an extensive, near surface, magnetic intrusive body on the Mina Casiterita property immediately southwest of Iska Iska. This intrusive hosts the previously mined high-grade tin veins and is very likely the continuation of the porphyry tin intrusion projected to be below the epithermal Ag-Sn-Zn-Pb mineralization at Iska Iska.

The Porco adit from which previously reported channel sampling returned 103m grading 521 g Ag eq/t (including g 117g Ag/t, 1.44 g Au/t, 0.54% Cu and 0.66% Sn) in altered basement sediments, is located near the northeast part of the magnetic anomaly, attesting to the potential strength and high-grade nature of the mineralized system in the area.

Drilling is planned in the Porco area and on Mina Casiterita commencing in February 2023 with geological mapping, sampling and geophysical surveys now in progress on the full land package across the Iska Iska region.

#### About Eloro Resources Ltd.

Eloro is an exploration and mine development company with a portfolio of gold and base-metal properties in Bolivia, Peru and Quebec. Through its Bolivian subsidiary, Eloro has an option to acquire a 100% interest in the highly prospective Iska Iska Property, which can be classified as a polymetallic epithermal-porphyry complex, a significant mineral deposit type in the Potosi Department, in southern Bolivia. A recent NI 43-101 Technical Report on Iska Iska, which was completed by Micon International Limited, is available on Eloro's website and under its filings on SEDAR. Iska Iska is a road-accessible, royalty-free property. Eloro also owns an 82% interest in the La Victoria Gold/Silver Project, located in the North-Central Mineral Belt of Peru some 50 km south of Barrick's Lagunas Norte Gold Mine and Pan American Silver's La Arena Gold Mine.

For further information please contact either Thomas G. Larsen, Chairman and CEO or Jorge Estepa, Vice-President at (416) 868-9168.

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A photo accompanying this announcement is available at <https://www.globenewswire.com/NewsRoom/AttachmentNg/b2e3ec73-2187-4597-a77e-c10d10570636>

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