

# Sierra Metals Announces Positive Preliminary Economic Assessment Results for a 67% Output Expansion at its Bolivar Mine to 5,000 Tonnes Per Day Yielding a Return on Investment of 550%

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TORONTO, July 9, 2018 - Sierra Metals Inc. (TSX: SMT) (BVL: SMT) (NYSE AMERICAN: SMTS) ("Sierra Metals" or "the Company") is pleased to report the results of a Preliminary Economic Assessment ("PEA") regarding the Company's Bolivar Mine, located in Chihuahua State, Mexico. The PEA is based on technical inputs from various independent consulting groups, including; SRK, Redco, Anddes and Transmin.

Based on the technical work from the various independent consultants, the PEA was compiled under National Instrument 43-101 standards by Mining Plus Peru SAC. The full technical report will be filed on SEDAR within 45 days of this news release.

Highlights of the PEA include:

- After-tax Net Present Value (NPV): US\$214 Million at an 8% discount rate
- Return on Investment (ROI): 550%
- After-tax Payback Period: 3.4 years
- Life of Mine Capital Cost: US\$96 Million
- Net After-tax Cash Flow: US\$303 Million
- Total Operating Unit Cost: US\$21.18/tonne
- Plant Processing Rate: 5,000 tonnes per day (TPD)
- Average Copper Recovery Rate 85%
- Mine Life: 11 years based on existing Mineral Resource Estimate
- Life of Mine Copper Payable Production: 252,507,942 pounds

Igor Gonzales, President and CEO of Sierra Metals commented: "The Company is very encouraged by the results of this PEA as they support the plan to profitably develop and grow the Bolivar Mine in sustainable and staged steps from 3,000 TPD currently, to 3,600 TPD in Q1-2019, and to 5,000 TPD in mid-2020, based on consensus metal pricing.

The Company is incorporating an aggressive Capex program into the PEA of US\$96.0 million over the life of the mine, which includes exploration drilling to increase the mineral resources and convert the existing resources to reserves. Additionally, the PEA reflects an aggressive development program designed to open a mineable reserve at depth and on strike. The Opex reflects yearly production development, definition drilling programs, and other operational costs.

The current study focuses on the current Mineral Resource reported in the 43-101 Technical Report filed on July 5, 2018 and does not include any drilling completed after October 31, 2017. The Company is continuing with its successful brownfield exploration programs and expects to continue to grow the mineral resources at the Bolivar Mine this year. We believe that this expansion not only provides additional value to the company, as the PEA quantifies, but could also leverage the value of future resource additions. Potential new copper pounds discovered could be incorporated into production plans earlier than if the Company maintained current capacity levels."

He concluded, "We are continuing with our strategy to increase shareholder value and grow the reserve and resource base at the Company. We successfully completed brownfield exploration programs at all three mines and increased the mineral reserves and resources during the past two years. Additionally, we implemented a successful operational improvement program in Peru and have completed an effective

turn-around program in Mexico, and we have already seen returns on this well-spent capital. Building upon these successes, we have completed a PEA at Cusi and Bolivar, and scoping studies at the Yauricocha Mine expected shortly, which will maximize value and profitability through the implementation of automation and possible throughput increases which will further drive growth and benefit all shareholders in the future."

#### Mineral Reserve and Resource Estimate

The property is located in the Piedras Verdes District of Chihuahua State, Mexico, approximately 250 kilometers southwest of the city of Chihuahua and consists of 14 mineral concessions (6,800 hectares). The Bolivar deposit is a Cu-Zn skarn and is one of many precious and base metal deposits of the Sierra Madre belt, which trends north-northwest across the states of Chihuahua, Durango and Sonora in northwestern Mexico (Meinert, 2007). Mineralization exhibits strong stratigraphic control and two stratigraphic horizons host the bulk of the mineralization: an upper calcic horizon, which predominantly hosts Zn-rich mineralization, and a lower dolomitic horizon, which predominantly hosts Cu-rich mineralization. In both cases, the highest grades are developed where structures and associated breccia zones cross these favorable horizons near skarn-marble contacts.

This PEA considers depleted measured, indicated and inferred resources reported on 2017 by SRK and effective date as of October 31, 2017. The results of this PEA are indicative of conceptual potential and are not definitive.

Table 1-1: Summary of resource reported by SRK, 2017 (Effective October 31, 2017)

Class	Tonnes (000's)	Ag (g/t)	Au (g/t)	Cu (%)	Ag (koz)	Au (koz)	Cu (t)
Indicated	13,267	22.5	0.29	1.04	9,616	124	137,537
Inferred	8,012	22.4	0.42	0.96	5,779	109	76,774

- (1) Mineral resources are not mineral reserves and do not have demonstrated economic viability. All figures rounded to reflect the relative accuracy of the estimates. Copper, gold and silver assays were capped where appropriate.
- (2) Mineral resources are reported at cut-off values based on metal price assumptions\*, metallurgical recovery assumptions\*\*, mining/transport costs (US\$17.59/t), processing costs (US\$8.33/t), and general and administrative costs (US\$2.41/t).
- (3) The metal value cut-off grade for the Bolivar Mine is US\$29/t. No mineral resources are reported for the remaining pillars.

\* Metal price assumptions considered for the calculation of metal value are: Copper (Cu): US\$/lb 3.00, Silver (Ag): US\$/oz 18.25, and Gold (Au): US\$/oz 1,291.00.

\*\* Metallurgical recovery assumptions are 83% Cu, 78% Ag, and 64% Au.

The resources were estimated by David Keller of SRK consulting (Canada) using Ordinary Kriging (OK), and reviewed and validated by Giovanni Ortiz, B.Sc., PGeo, FAusIMM #304612 of SRK, a Qualified Person.

Note: Mining has continued since the publication of this resource and resources have not been subsequently depleted.

Sierra Metals commissioned various specialist groups (Table 1-2) to evaluate how, on a conceptual level, mining, mineral processing, and tailings management could be adapted at the property to achieve a sustainable and staged increase in mine production and mill throughput from 3,000 TPD, to 3,600 TPD in Q1-2019, to 5,000 TPD by mid-2020.

Table 1-2: Groups involved in development for conceptual plan considered in the PEA

Group	Concept	Report
SRK Consulting (U.S), Inc.	Resource Estimation	SRK, 2
Redco Mining Consultants	Increase mine output to 5,000 TPD	Redco,
Sierra Metals (SM)	Increase Piedras Verdes Plant Capacity to 5,000 TPD	Sierra,
Transmin Metallurgical Consultants (TM)	Engineering associated with increased Plantas Verdes plant capacity	Transm
Anddes Asociados	Executive Summary & Tailings Expansion Design	Andess

### Mining Methodology

To determine how mine output could be increased, Sierra Metals commissioned Redco Mining Consultants ("Redco") to undertake a scoping study, considering; existing development and infrastructure, geotechnical characteristics, geological controls and mineralization style. The study (Redco, 2018) determined that Longhole Stopping could be used to achieve sustainable production of 5,000 TPD.

As part of their scoping study, Redco considered plans for ventilation on a general scale. Sierra Metals recognizes that further and more detailed ventilation plans are required to support a deeper conceptual mine design.

### Mineral Processing

The Piedras Verdes Plant, located 5.1 kilometers from the Bolivar Mine, uses a conventional crushing-milling-flotation circuit to recover mineral and to produce commercial quality copper concentrates with silver and gold by-product credits. Mineral is delivered from the mine to the plant in 18-tonne trucks.

Mineral processing and the recovery of the mineral is demonstrated, and copper, silver and gold recoveries are established at 85.0%, 78.2% and 63.7% respectively.

The Piedras Verdes Plant current throughput is 3,000 TPD. In line with proposed increases in mine output, the processing capacity at Piedras Verdes will increase to 3,600 TPD in Q1-2019, and to 5,000 TPD by mid-2020.

The current tailings storage facility has an in-situ capacity to store tailings until year end 2019. A plan is currently underway to construct a much larger capacity facility which will include the installation of a starter dam followed by deposition of filtered - dewatered tailings in a facility which will accommodate 14 million tonnes of filtered tailings providing capacity for future plant expansion. Engineering for this program is provided by ANDDES Engineers from Peru.

### Economic Analysis

The PEA calculates a Base Case after-tax NPV of US\$214 million, with an after & tax Return on Investment of 550% using a discount rate of 8%. The total life of mine capital cost of the project is estimated to total US\$96.0 million. The payback period for the Life of Mine (LoM) capital is estimated at 3.4 years. Operating costs of the life of mine total US\$359 million, equating to an operating cost of US\$21.18 per tonne milled.

PEA Highlights	Unit	Value
Base case of \$1,291/oz Gold, \$18.25/oz Silver, \$3.00/lb. Copper		
Net Present Value (After Tax 8% Discount Rate)	US\$ M	214
Return on Investment	ROI (%)	550
Mill Feed	Tonnes (Mt)	16.9
Peak Mining Production Rate	t/year	1,800,000
LOM Project Operating Period	Years	11
Total Life of Mine (LoM) Capital Costs	US\$ M	96
Net After &dash; Tax Cashflow	US\$ M	303
Total Operating Unit Costs	US\$/t	21.18
LOM Gold Production (Payable)	oz	86,472
LOM Silver Production (Payable)	oz	7,013,157
LOM Copper Production (Payable)	t	114,537

## Quality Control

All technical data contained in this news release has been reviewed and approved by:

Gordon Babcock, P.Eng., Chief Operating Officer and a Qualified Person under National Instrument 43-101 &dash; Standards of Disclosure for Mineral Projects.

Americo Zuzunaga, MAusIMM CP (Mining Engineer) and Vice President of Corporate Planning is a Qualified Person and chartered professional qualifying as a Competent Person under the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.

Augusto Chung, FAusIMM CP (Metallurgist) and Consultant to Sierra Metals is a Qualified Person and chartered professional qualifying as a Competent Person on metallurgical processes.

## About Sierra Metals

[Sierra Metals Inc.](#) is Canadian based growing polymetallic mining company with production from its Yauricocha Mine in Peru, and its Bolivar and Cusi Mines in Mexico. The Company is focused on increasing production volume and growing mineral resources. Sierra Metals has recently had several new key discoveries and still has many more exciting brownfield exploration opportunities at all three Mines in Peru and Mexico that are within close proximity to the existing mines. Additionally, the Company also has large land packages at all three mines with several prospective regional targets providing longer-term exploration upside and mineral resource growth potential.

The Company's Common Shares trade on the Bolsa de Valores de Lima and on the Toronto Stock Exchange under the symbol "SMT" and on the NYSE American Exchange under the symbol "SMTS."

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## Forward-Looking Statements

This press release contains "forward-looking information" and "forward-looking statements" within the meaning of Canadian and U.S. securities laws related to the Company (collectively, "forward-looking information"). Forward-looking information includes, but is not limited to, statements with respect to the Company's operations, including the anticipated developments in the Company's operations in future periods, the Company's planned exploration activities, the adequacy of the Company's financial resources, and other events or conditions that may occur in the future. Statements concerning mineral reserve and resource estimates may also be considered to constitute forward-looking statements to the extent that they involve estimates of the mineralization that will be encountered if and when the properties are developed or further developed. These statements relate to analyses and other information that are based on forecasts of future results, estimates of amounts not yet determinable and assumptions of management. Any statements that express or involve discussions with respect to predictions, expectations, beliefs, plans, projections, objectives, assumptions or future events or performance (often, but not always, using words or phrases such as "expects", "anticipates", "plans", "projects", "estimates", "assumes", "intends", "strategy", "goals", "objectives", "potential" or variations thereof, or stating that certain actions, events or results "may", "could", "would", "might" or "will" be taken, occur or be achieved, or the negative of any of these terms and similar expressions) are not statements of historical fact and may be forward-looking information.

Forward-looking information is subject to a variety of risks and uncertainties, which could cause actual events or results to differ from those reflected in the forward-looking information, including, without limitation, risks inherent in the mining industry including environmental hazards, industrial accidents, unusual or unexpected geological formations, floods, labour disruptions, explosions, cave-ins, weather conditions and criminal activity; commodity price fluctuations; higher operating and/or capital costs; lack of available infrastructure; the possibility that future exploration, development or mining results will not be consistent with the Company's expectations; risks associated with the estimation of mineral resources and the geology, grade and continuity of mineral deposits and the inability to replace reserves; fluctuations in the price of commodities used in the Company's operations; risks related to foreign operations; changes in laws or policies, foreign taxation, delays or the inability to obtain necessary governmental permits; risks relating to outstanding borrowings; issues regarding title to the Company's properties; risks related to environmental regulation; litigation risks; risks related to uninsured hazards; the impact of competition; volatility in the price of the Company's securities; global financial risks; inability to attract or retain qualified employees; potential conflicts of interest; risks related to a controlling group of shareholders; dependence on third parties; differences in U.S. and Canadian reporting of mineral reserves and resources; potential dilutive transactions; foreign currency risks; risks related to business cycles; liquidity risks; reliance on internal control systems; credit risks, including risks related to the Company's compliance with covenants with respect to its BCP Facility; uncertainty of production and cost estimates for the Yauricocha Mine, the Bolivar Mine and the Cusi Mine; and other risks identified in the Company's filings with Canadian securities regulators and the U.S. Securities and Exchange Commission ("SEC"), which filings are available at [www.sedar.com](http://www.sedar.com) and [www.sec.gov](http://www.sec.gov), respectively.

This list is not exhaustive of the factors that may affect any of the Company's forward-looking information. Forward-looking information includes statements about the future and are inherently uncertain, and the Company's actual achievements or other future events or conditions may differ materially from those reflected in the forward-looking information due to a variety of risks, uncertainties and other factors. The Company's statements containing forward-looking information are based on the beliefs, expectations, and opinions of management on the date the statements are made, and the Company does not assume any obligation to update forward-looking information if circumstances or management's beliefs, expectations or opinions should change, other than as required by applicable law. For the reasons set forth above, one should not place undue reliance on forward-looking information.

## Note Regarding Reserve and Resource Estimates

All reserve and resource estimates reported by the Company are calculated in accordance with the Canadian National Instrument 43-101 - Standards of Disclosure for Mineral Projects and the Canadian Institute of Mining and Metallurgy Classification system. These standards differ significantly from the requirements of the SEC. The differences between these standards are discussed in our SEC filings. Mineral resources which are not mineral reserves do not have demonstrated economic viability.

SOURCE [Sierra Metals Inc.](#)

## Contact

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