# PANORO MINERALS LTD.

# Management's Discussion and Analysis – Quarterly Highlights

As at and for the Three and Six-Month Periods Ended June 30, 2018 and 2017

August 24, 2018



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#### **Background & Date**

The Management's Discussion and Analysis – Quarterly Highlights ("MD&A") should be read in conjunction with the condensed consolidated interim financial statements of Panoro Minerals Ltd. ("Panoro" or the "Company") for the three and six-months ended June 30, 2018 ("fiscal 2018") and June 30, 2017 ("fiscal 2017"), and the Company's audited financial statements as at and for the year ended December 31, 2017, as filed on the System for Electronic Document Analysis and Retrieval ("SEDAR") website. This report has been dated as at August 24, 2018, and was approved by the Board of Directors on August 23, 2018.

The common shares of the Company are listed on the TSX Venture Exchange ("TSXV") under the trading symbol "PML", the Junior Board of the Bolsa de Valores de Lima ("PML" - Lima Stock Exchange) and ("PZM" on the Frankfurt Exchange).

#### **Additional Sources of Information**

For a complete understanding of the Company's business environment, risks and uncertainties and the effect of accounting estimates on its results of operations and financial condition, this MD&A should be read together with the Company's Audited Financial Statements, the 2017 Annual Information Form, 2017 Management Information Circular, Material Change Reports, press releases, and the Company's technical reports, all of which are available on the SEDAR website at <a href="https://www.sedar.com">www.sedar.com</a> or on the Company's website <a href="https://www.panoro.com">www.panoro.com</a>.

#### Currency

All dollar amounts set forth in the tables and financial section of this MD&A are expressed in Canadian dollars and referred to as "\$" and financial information is prepared and recorded under IFRS unless otherwise specifically indicated. There are also references in this MD&A to Perúvian Nuevos Soles ("S/.") and United States dollars ("US"). As at June 29, 2018, the closing rate for one Canadian dollar in S/. was C\$1.00 = S/. 2.4894, and the closing rate for one Canadian dollar in USD was C\$1.00 = US\$0.7594 as reported by the Bank of Canada.

**CAUTION REGARDING FORWARD LOOKING STATEMENTS**: Information and statements contained in this Management Discussion and Analysis Quarterly Update ("MD&A") that are not historical facts are "forward-looking information" within the meaning of applicable Canadian securities legislation and involve risks and uncertainties. Examples of forward-looking information and statements contained in MD&A include information and statements with respect to:

- Acceleration of payments by Wheaton Metals to match third party financing by Panoro targeted for exploration at the Cotabambas Project
- Payment by Wheaton Metals of US\$140 million in installments
- Mineral resource estimates and assumptions
- The PEAs on the Cotabambas and Antilla Projects, including, but not limited to, base-case parameters and assumptions, forecasts of net present value, internal rate of return and payback
- Copper concentrate grades from the Antilla and Cotabambas Projects

Various assumptions or factors are typically applied in drawing conclusions or making the forecasts or projections set out in forward-looking information. In some instances, material assumptions and factors are

# Quarterly Update for the Three and Six-Month Periods Ended June 30, 2018 and 2017

presented or discussed in this MD&A in connection with the statements or disclosure containing the forward-looking information and statements. You are cautioned that the following list of material factors and assumptions is not exhaustive. The factors and assumptions include, but are not limited to, assumptions concerning: metal prices and by-product credits; cut-off grades; short and long term power prices; processing recovery rates; mine plans and production scheduling; process and infrastructure design and implementation; accuracy of the estimation of operating and capital costs; applicable tax and royalty rates; open-pit design; accuracy of mineral reserve and resource estimates and reserve and resource modeling; reliability of sampling and assay data; representativeness of mineralization; accuracy of metallurgical test work; and amenability of upgrading and blending mineralization.

Forward-looking statements are subject to a variety of known and unknown risks, uncertainties and other factors which could cause actual events or results to differ materially from those expressed or implied by the forward-looking statements, and are included in all of the Company's documents filed on SEDAR and available on the Company's website. Items referred to in this MD&A may include forward-looking statements related to:

- the inherent operational risks associated with mining and mineral exploration, development, mine construction and operating activities, many of which are beyond Panoro's control;
- risks relating to Panoro's ability to enforce Panoro's legal rights under permits or licenses or risk that Panoro's will become subject to litigation or arbitration that has an adverse outcome;
- risks relating to Panoro's projects being in Perú, including political, economic and regulatory instability;
- risks relating to mineral resource estimates being based on interpretations and assumptions which
  may result in less mineral production under actual circumstances;
- risks relating to the uncertainty of applications to obtain, extend or renew licenses and permits;
- risks relating to potential challenges to Panoro's right to explore and/or develop its projects;
- risks relating to being adversely affected by environmental, safety and regulatory risks, including increased regulatory burdens or delays and changes of law;
- risks relating to inadequate insurance or inability to obtain insurance;
- risks relating to fluctuations in foreign currency exchange rates, interest rates and tax rates; and
- risks relating to Panoro's ability to raise funding to continue its exploration, development and mining activities.

#### **Qualified Person**

The technical information in this MD&A has been reviewed and approved by Mr. Luis Vela, a Qualified Person as defined by National Instrument 43-101, *Standards of Disclosure for Mineral Projects* ("NI 43-101"). Mr. Vela is responsible for the preparation and/or verification of the technical disclosure in this document unless otherwise noted.

## **Description of Business**

Panoro holds a portfolio of ten mineral properties in Perú of which two, the Cotabambas and Antilla projects, are at an advanced stage of exploration and make up the core concession blocks for the Company.

The Company may reduce carrying costs on certain mineral projects by not renewing the mineral concessions on certain non-core concession blocks. There have been no write-downs of concessions held by the Company since the year ended December 31, 2015.



# **Corporate Update**

# Recent Activities and Highlights

Key developments to date in 2018 include:

- 1) Results of an independent Preliminary Economic Assessment ("2018 PEA") of the Company's 100% owned Antilla project in Perú. The Antilla project is a copper-molybdenum porphyry deposit, located 140 km south west of the city of Cuzco, in the Apurimac region in Southern Peru, for which the summary of the news release is included in this MD&A;
- Completion of 2,173 m of exploration drilling at the Cotabambas Project exploration targets
   Maria Jose and Petra-David located within Cluster 1 delineating additional mineralized
   zones first intersected in the 2017 drill program.
- 3) Receipt of US\$750,000 pursuant to the Precious Metals Purchase Agreement with Wheaton Precious Metals International Ltd. ("Wheaton Metals") (formerly Silver Wheaton (Caymans) Ltd. (the "Agreement") in May 2018;
- 4) The exercise of 2,592,670 common share purchase warrants at \$0.27, for the purchase of 2,592,670 common shares, resulting in aggregate proceeds of \$700,021 to the Company. These share purchase warrants are exercisable until August 26, 2018.
- 5) Column leach testing results of mineralized material from the Antilla Project estimates extraction of 77% copper in a 200 day interval, higher than the 72.5% estimated in the 2018 PEA.
- 6) The approval of the expansion of the EIAsd at the Cotabambas Project allows Panoro to expand its exploration drilling program into the highly prospective areas of the Chaupec Skarn zone in Cluster 2.

# **Antilla Project**

The Antilla project is a copper-molybdenum porphyry deposit, located 140 km south west of the city of Cusco, in the Apurimac region in Southern Perú, held 100% by the Company.

On May 14, 2018, the Company announced the results of an independent Preliminary Economic Assessment ("PEA"). A summary of the PEA follows. The PEA Technical Report was filed on June 26, 2018.

## Highlights

- Pre-tax Estimates:
  - NPV (7.5%) of US\$ 519.8 million;
  - IRR of 34.7%; and
  - Payback of 2.6 years.



- After-tax Estimates:
  - NPV (7.5%) of US\$ 305.4 million;
  - IRR of 25.9%; and
  - Payback of 3.0 years.
- Conventional open pit mine focused on supergene copper sulphides;
- Heap Leach and Solvent Extraction Electrowinning (SX/EW) process;
- Design throughput of 20,000 tonnes per day with an operational mine life of 17 years
- Low waste to mill feed ratio of 1.38:1;
- Average annual payable copper of 46.3 million pounds, as Cathodes;
- Average direct cash costs (C1) of US\$1.51 per pound of payable copper;
- Initial Project capital costs of US\$ 250.4 million, including contingencies; and
- Good potential for discovery of additional supergene mineralization adjacent to the current mineral resource area.

The Company is conducting a strategic review of alternatives to advance the Antilla Project into feasibility studies, permitting and development.

The PEA was prepared by Moose Mountain Technical Services Ltd. ("MMTS") in accordance with the definitions in Canadian National Instrument 43-101. The PEA is based on a Mineral Resource estimate completed by Tetra Tech Inc. ("Tetra Tech") in December 2013, based on 2,919 metres of drilling from legacy campaigns (2003-5), 9,130 metres of drilling by Panoro (2008), and 2,242 metres of drilling during a joint venture agreement with Chancadora Centauro SA (CHC) in 2010. The Mineral Resource estimate includes primary and supergene sulphides, as well as mixed hypogene and supergene copper mineralization.

The PEA is considered preliminary in nature. The mine plan of the PEA includes 113.3 million tonnes of Indicated Mineral Resources and 5.4 million tonnes of Inferred Mineral Resources. Inferred Mineral Resources are considered too speculative to have the economic considerations applied that would enable classification as Mineral Reserves. There is no certainty that the conclusions within the PEA will be realized. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.

The 2018 PEA mine plan has focused on the higher grade, near surface secondary sulphides, which are amenable to processing through heap leaching, solvent extraction, and electrowinning (LIX-SX-EW). As a result, the initial capital costs have been reduced by 59%, the C1 cash costs reduced by 18%, the C2 cash costs by 23% and the sustaining capital required for a tailings facility has been eliminated. The base case, after tax NPV (7.5) has increased 36%, the IRR has increased 11% and the payback period has been reduced by 27%. Over 95% of the mineralized material contained in the mine plan is classified as Indicated. The improved Antilla Project is now near the lower quartile of new copper projects in terms of both cash costs and capital intensity. The much reduced \$250 million initial capital cost is expected to facilitate a broader range of



strategic financing and/or development approaches to advancing the Antilla Project through feasibility studies and into development and operation.

#### **Economics**

The table below summarizes base case economic metrics for the project as well as its sensitivity to the price of copper:

		Before Tax*					After Tax			
Copper Price (\$/lb)	NPV 5% (million USD)	NPV 7.5% (million USD)	NPV 10% (million USD)	IRR (%)	Payback (Years)	NPV 5% (million USD)	NPV 7.5% (million USD)	NPV 10% (million USD)	IRR (%)	Payback (Years)
2.75	487	383	301	28.8	2.9	232	169	118	18.7	3.6
3.05	648	520	419	34.7	2.6	394	305	236	25.9	3.0
3 25	755	611	407	20 /	2.5	501	207	21/	20.2	2.7

Table 1. Summary of PEA estimates of NPV, IRR, and Payback

Note: base case at Cu=\$US 3.05 long term price in bold,

Project economics were estimated on the basis of long-term copper price of US\$3.05/lb. The long-term forecasts were derived from prices periodically published by large banking and financial institutions and were applied to years 4 to 17 of the mine life. Shorter term copper price estimates were used for Years 1 to 3 of the mine life reflecting higher price forecasts in the shorter term. For the base case, Years 1 to 3 of the mine life used estimated copper prices of \$3.20, \$3.15 and \$3.10, respectively. Molybdenum is not included in the proposed process recovery and not included in the project economics.

#### **Mineral Resources**

The PEA was based on a Mineral Resource model prepared by Tetra Tech, which is documented in a technical report filed on Sedar, dated December 16, 2013.

Mineral Resources were estimated by Qualified Person Paul Daigle, PGeo. (APGO #1592). A block model was generated with grade estimation constrained by modeled mineralization wireframes. Mineralization is mined from an open pit and treated using a conventional hydrometallurgical flow sheet. Copper equivalent (CuEq) cut-offs were used to report the mineral resource. Metal prices: copper - US\$3.25/lb and molybdenum — US\$9.00/lb and metallurgical recoveries: copper - 90% and molybdenum — 80% were applied in the equivalency calculation.

<sup>\*</sup> Excluding Peru statutory charges, i.e. profit sharing, regulatory fees, mining royalty, special mining tax, and income tax

<sup>\*\*</sup> The economic results are based on the heap leach tonnages in the selected ultimate pit. The heap leach tonnages include Inferred Resources. The reader is cautioned that Inferred Resources are considered too speculative geologically to have the economic considerations applied to them that would enable categorization as Mineral Reserves. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.



The Mineral Resource has an effective date of October 19, 2015, and is tabulated in Table 2 below.

Table 2. Mineral Resource Statement\*, Antilla Project, Peru, Tetra Tech Inc., October 19, 2015

Domain	Quantity		Grade	•		
Domain	'000 tonnes	Cu %	Mo %	CuEq%		
Indicated						
Overburden/Cover	5,600	0.25	0.01	0.28		
Leach Cap	13,400	0.25	0.01	0.27		
Supergene	168,900	0.41	0.01	0.42		
Primary Sulphides	103,900 0.24		0.01	0.26		
Total Indicated	291,800	0.34	0.01	0.36		
Inferred						
Overburden/Cover	500	0.22	0.009	0.24		
Leach Cap	13,400	0.21	0.008	0.22		
Supergene	25,900	0.34	0.008	0.36		
Primary Sulphides	50,700	0.24	0.007	0.25		
Total Inferred	90,500	0.26	0.007	0.28		

Mineral resources are not mineral reserves and have not demonstrated economic viability. All figures have been rounded to reflect the relative accuracy of the estimates. Reported at a cut-off grade of 0.175 CuEq%; assuming an open pit extraction scenario, a copper of US\$3.25 per pound and a molybdenum price of US\$ 9.00 per pound, and a metallurgical recovery of 90 percent for copper and 80 percent for molybdenum.

#### Mining and Processing

The PEA incorporates an open pit mining operation using conventional truck and shovel methods delivering mineralized material to the heap leach pad. Mining will be done using contractors. The estimated 17 year life of mine includes 118.7 million tonnes of mineralized leach pad feed plus 163.4 million tonnes of waste rock resulting in an average waste:process feed ratio of 1.38:1. The average life of mine leach pad head grade is 0.43% copper. The leach material placement is planned at an average rate of 20,000 tonnes per day. The waste rock will be placed in a storage area to the west of the pit, in between the pit and the leach pad.



Of the 118.7 million tonnes of leach material mined from the open pit, 117.1 million tonnes is classified as supergene enriched material with the balance of the 1.6 million tonnes being classified as overburden, leach cap or primary sulphides.

The sub-set of the Mineral Resources contained within the ultimate pit and included in the mine plan is 113.3 million tonnes averaging 0.45% Cu classified as Indicated Resources, and 5.4 million tonnes averaging 0.26% Cu classified as Inferred Resources. The reader is cautioned that the Inferred Resources included in the mine plan are considered too speculative geologically to have economic considerations applied to them that would enable categorization as Mineral Reserves. There is no certainty that Inferred Resources will be upgraded to Reserves. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.

Table 3 summarizes the production parameters:

**Table 3. Projected Production Summary** 

Total Mill Feed Material*	118.7 million tonnes**
Average Placement Rate	20,000 tonnes per day
Life of Mine (LOM) Strip Ratio	1.37
	Copper
Average Mill Feed Grade	Copper 0.43%

<sup>\*</sup> The leach material in the mine plan includes Inferred Resources. The reader is cautioned that Inferred. Resources are considered too speculative geologically to have economic considerations applied to them that would enable categorization as Mineral Reserves. There is no certainty that Inferred Resources will be upgraded to Reserves. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.

NSR = [Cu grade (%) \* Cu leach recovery (%) \* 57.76].

Haul trucks will deliver the run of mine, mineralized material to a two-stage crushing plant. The product from the primary crusher will feed a secondary crushing station whose product will then be stored in a crushed ore stockpile. The crushed material will be loaded to trucks and delivered to the synthetic lined valley-fill heap leach facility for irrigation with sulfuric acid and ferric solutions. The pregnant leach solution (PLS) will be recovered from the heap leach operation and piped to a conventional solvent extraction and electrowinning (SX-EW) plant to produce grade-A copper cathodes. The copper-stripped solution generated in the SX plant (raffinate) will be conditioned with sulfuric acid and fresh water and then recycled to the heap leaching operation to irrigate more mineralized material.

<sup>\*\*</sup> The cut-off grade used to calculate the leach material is NSR>=\$8.10 NSR is calculated using the following formula:



Preliminary metallurgical characterisation testwork was completed on samples of mineralogical materials from the Antilla project in 2017. An extended testwork program was initiated at Aminpro Laboratories in March 2018 under the direction of Tetra Tech Mining and Minerals. Aminpro Laboratories are fully certified under both ISO 9001 and 1400. The testwork program comprises quantitative mineralogical analysis, sulphuric acid and ferric sulphate bottle roll predictor tests and column leach tests aimed at characterising the copper leaching characteristics of supergene mineralogical materials. Results from the predictor tests indicate secondary copper minerals are available for extraction with close to theoretical copper extractions being achieved. The column tests remain under leach and are estimated to be completed by September 2018. The results from the column leach program will be incorporated in subsequent technical studies. No test work has been conducted on the Cover, Cap and Primary Sulphide domains as these constitute only minor portions of the deposit.

Table 4 summarizes the expected recoveries of the four mineralized domains, with the Cover and Leach Cap performance assumed to follow the main domains based on similar copper mineralogy/speciation.

Table 4. Summary of Metallurgical Recoveries Estimated in the PEA

Mineralized Domain	Cu Recovery	
Willeranzed Domain	(%)	
Cover*	31.1	
Leach Cap*	38.0	
Supergene	72.5	
Primary Sulphide*	21.2	

<sup>\*</sup> QP estimates - no supporting testwork completed

Projected production of payable metals is summarized in Table 5.

Table 5. Summary of Annual Average and Life of Mine Payable Metals

	Annual Average	Life of Mine
Copper (Mlbs)	46.3	787.5

#### **Capital and Operating Costs**

The projected capital and operating costs for Antilla over a 1½ year construction period and 17-year operating mine life are summarized in the tables below.



Table 6. Summary of Antilla Initial Capital Cost Estimates (US\$ millions)

Item	Cost (US\$ million)
Mine Equipment	1.3
Mine Development	41.1
Crushing, SX, and EW plants	94.7
Infrastructure	42.4
Subtotal	179.5
Owners Cost	7.8
Indirect Costs	13.7
Subtotal	201.0
Contingencies	49.4
<b>Total Initial Capital Cost</b>	250.4

Power will be supplied via a 10 km long power line connected to the existing national grid connecting the Las Bambas mine to the Cotaruse substation in the district of Chalhuanca. This power line passes by the south part of Antilla property.

Grade-A copper cathodes produced by Antilla Project will be trucked by a contractor from the mine site to the port of Marcona, in Nazca province, along existing road networks.

Table 7. Antilla On-site Operating Costs (US\$ per tonne milled)

Item	Cost (US\$ per tonne)
Mining Cost	1.63
Processing Cost (including crushing)	3.85
Leach Material Haulage Cost (average)	0.81
G&A Costs	0.75
Total On-site Operating Cost	7.04



C1 and C2 cash costs, as defined by Brook Hunt, per pound of payable copper are listed in the table below.

Table 8. Antilla Average Cash Costs (US\$) per lb Payable Copper

Item	Cost (US\$ million)
C1 - Direct Cash Cost	1.51
C2 - Production Cost	1.82

#### **Opportunities for Project Growth and Enhanced Economics**

- Tetra Tech recommends that further investigation of the Antilla deposit is warranted and necessary. There is potential to add new mineral resources at depth and in the Northeast and Southeast sides of the pit shell. Tetra Tech recommends that additional drilling be carried out to reduce the drill spacing in those zones with copper mineralization, where drill spacing is greater than 100 m. Additional drilling will determine, with greater confidence, both the continuity and extents of copper mineralization within and outside of the known deposit.
- Tetra Tech recommends an extension of the current exploration grid to include the West Block, North Block, Middle Block and Chabuca exploration targets. Tetra Tech recommends continued geochemical sampling and geophysical surveys over these areas located next to the current mineral resources.
- Considering the preliminary metallurgical testwork undertaken on the project to date, there is potential to increase recoveries with additional metallurgical testing.

On August 6, 2018, the Company the Company announced column leach testing that indicate copper extractions of up to 77% are potentially achievable from the secondary sulphides. The PEA results announced in May 2018 included an estimated 72.5% copper recovery over a 200 day span from the secondary sulphides. The column testwork was initiated early in 2018 while the PEA was underway, but final results were not available until July 2018. The recoveries estimated for the PEA were derived from bottle roll and mineralogic testwork available at the time of the completion of the PEA. Based on the foregoing, 75% Cu extraction in 200 days is an appropriate figure to use for PEA level studies.

A potential increase in recoveries should further enhance the economics of this project. Additional testing is planned as part of feasibility studies for the Antilla Project.

The Antilla Project process included in the 2018 PEA is based on leaching secondary sulphides. This led to a column leach program, together with associated mineralogical and bottle roll leach testwork, implemented during March 2018 at Aminpro Laboratories, an ISO 9001 and 14001 Laboratory based in Lima, Peru. All works were designed and supervised by Andrew Carter, General Manager of Mining and Minerals of Tetra Tech Inc., UK Office.



#### **Future Work**

Further work leading to a Pre-Feasibility or Feasibility Study is recommended and will include drilling, mineral resource modeling, metallurgical testwork, engineering, and marketing studies, hydrological and geotechnical analysis, as well as various baseline environmental and archeological studies. In addition, exploration work will be recommended over the other targets in the vicinity of the known deposits.

#### **Environment and Permitting**

Existing environmental liabilities associated with the project are restricted to those expected to be associated with an exploration-stage project, and include drill sites and access roads. Additional Environmental Baseline studies should be conducted to collect site data including surface water quality, archeology, aquatic and terrestrial biology, flora, fauna, and additional geochemical characterization of mine waste materials. This information will inform a comprehensive Environmental Impact Study.

#### **Technical Reporting**

The complete technical report documenting the PEA was filed on June 26, 2018, and is available on the Company's website and on SEDAR. The technical report is authored by the following Qualified Persons:

Qualified Person	Firm	PEA Area	Professional Affiliation (and registration number)
	TetraTech Inc.	Geology, Resources	
Jesse Aarsen, PEng	Moose Mountain Technical Services Ltd.	Mining, Infrastructure	APEGBC (#38709)
Luquman Shaheen, PEng	Panoro Minerals Ltd	Marketing, Copper Pricing	APEGBC (#21675)
Andrew Carter	Tetra Tech Inc.	Mineral Processing and Metallurgical Testing	EURING (#2920GB) CENG (#378467) MIMMM (#46421) SAIMM (#19580) SME (#4112502)
Daniel Sepulveda	Moose Mountain Technical Services Ltd.	Recovery Methods, Processing Capex and Opex	SME #4206787RM
Luis Vela, CMC	Panoro Minerals Ltd.	Exploration, mineral tenure, permits	CMC (#0173)

The information is extracted from a news release dated May 14, 2018, which was reviewed by the Qualified Persons of Tetra Tech, Moose Mountain Technical Services, and the Company.



## **Cotabambas Project**

#### **Work Plans and Results to Date**

The Company commenced a work program at the Cotabambas Project including the following:

- A drilling program commenced in late February at the Maria Jose and Petra-David targets at Cluster 1 and continued until the end of April. Over 2,100 meters in six drill holes was completed, with assay results reported in June 2018
- Drilling at the Maria Jose Target focused on the further delineation of oxide and sulphide copper zones identified during the 2017 drill program, where 15 drillholes confirmed continuity of mineralization over an area of 400 m by 1,200 m, and to over 450 m depth. The focus of the 2018 campaign has been to the northeast and north based from the geochemistry and geophysics signatures and 2017 drilling. Results from the drill holes include four drill holes at the Maria Jose 2 Target, one drillhole at the Maria Jose 1 Target and one drillhole at the Petra David Target.
- The drilling program will be expanded into the Chaupec Skarn Target in Cluster 2 in August with an additional 5,000 m planned for completion by the end of 2018.

#### **Maria Jose 1 Target**

The 2017 drill campaign identified a potential copper oxide blanket over an area of 420 m by 150 m. A total of 663 m of drilling in three drillholes was completed in 2017. The oxide blanket was intercepted from surface to 125 m depth with grades varying between 0.23% Cu and 0.28% Cu.

In 2018, drillhole CB-188 was collared 150 m to the southwest of drillhole CB-180, and oriented to the northeast. CB-188 intersected 130.3 m of oxide copper averaging 0.20% Cu, 0.03 g/t Au and 1.65 g/t Ag, including one interval of 20.3 m grading 0.33% Cu, underlain by 125.7 m of primary copper mineralization, grading 0.25% Cu, 0.02 g/t Au and 1.03 g/t Ag, including one interval of 24 m averaging 0.35% Cu. The Maria Jose Target mineral potential remains open for additional drilling in multiple directions.

#### Maria Jose 2 Target

The 2017 drill campaign identified three parallel mineral bodies over an area of 550 m by 250 m. The potential copper oxides blanket was intercepted to 75 m depth and the primary copper mineralization to 350 m depth, with grades varying between 0.20% Cu to 0.40% Cu. The copper mineralization was intruded by quartz monzonite dikes from 10 to 50 m width, expanded and hosted mainly in andesite volcanics. This mineralization was identified with 3,573 m of drilling distributed in 11 drillholes.

During the 2018 drilling campaign, four additional drillholes were completed, three stepping out to the north and one to the south. To the north, drillhole CB-184 intersected two copper oxide blankets of 10.3 m and 6.4 m width grading 0.20% Cu and 0.23% Cu, respectively. Drillhole CB-186 intersected copper oxide mineralization from surface to 44.7 m depth averaging 0.22% Cu, and a second interval of 35.9 m of primary copper mineralization averaging 0.29% Cu, 0.07 g/t Au, and 1.85 g/t Ag, including two intervals of 10.1 m and 7.2 m, grading 0.51% Cu and 0.30%



Cu, respectively. To the south, drillhole CB-189 intersected primary copper mineralization at different intervals to 522.4 m depth and the mineralization remains open. The Maria Jose 2 mineralization potential remains open to the south and at depth for additional drilling.

#### **Petra-David Target**

In 2017, eight drillholes were completed at the Petra-David Target confirming copper oxides mineralization continuity over an area of 600 m by 150 m along a structural control in northeast direction, hosted in quartz monzonite porphyries and diorite rocks. The 2018 drilling targeted expansion to the north and south of 2017 drilling.

In 2018, exploratory drillhole CB-185 was collared 200 m to the southeast of previous drillhole CB-172 in Petra. CB-185 was oriented to the northwest intersecting 10 m of copper oxide blanket averaging 0.22% Cu, 0.03 g/t Au and 1.77 g/t Ag, underlain by an interval of primary copper mineralization of 23 m grading 0.27% Cu. At depth, two intervals of skarn type mineralization were intersected in a package of marbled limestones. The first interval of 4.0 m width includes massive magnetite with andradite garnets averaging 0.35% Cu, 0.02 g/t Au, 3.95 g/t Ag, including 1.3 m grading 0.94% Cu, 0.04 g/t Au and 6.55 g/t Ag and a second interval of 1.0 m width with the similar mineralogy grading 0.38% Cu, 0.33 g/t Au, and 21.22 g/t Ag. The potential of skarn is open to the west towards the Guacile target for additional drilling. Previous drilling at the Guacile target also intersected skarn mineralization indicating a potential connection with the skarn mineralization mapped at the Chaupec Target in Cluster 2.

The following table details the more significant intersections:

Drillhole	From (m)	To (m)	Metres (m)	Cu %	Au g/t	Ag g/t	Mo %	Zone
CB-184	7.7	18.0	10.3	0.20	0.01	1.32	0.0005	Oxides
11 11	43.1	66.2	23.1	0.17	0.02	1.44	0.0004	Oxides
Including	45.2	51.6	6.4	0.23	0.03	2.01	0.0005	Oxides
11 11	285.1	342.0	56.9	0.14	0.04	0.88	0.0017	Primary
CB-185	23.1	33.2	10.1	0.22	0.03	1.77	0.0029	Oxide
11 11	94.5	141.0	46.5	0.21	0.02	1.56	0.0036	Primary
Including	107.0	130.0	23.0	0.27	0.03	1.89	0.0029	Primary
" "	228.7	232.7	4.0	0.35	0.02	3.95	0.0009	Skarn
Including	229.3	230.7	1.3	0.94	0.04	6.55	0.0019	Skarn
" "	239.0	240.0	1.0	0.38	0.33	21.22	0.0010	Skarn
CB-186	0.0	44.7	44.7	0.22	0.04	1.78	0.0004	Oxide
Including	5.5	18.7	13.2	0.26	0.06	1.90	0.0003	Oxide
Including	30.5	33.5	3.1	0.41	0.06	3.31	0.0004	Oxide
" "	117.3	153.2	35.9	0.29	0.07	1.85	0.0029	Primary
Including	119.0	129.0	10.1	0.51	0.09	3.94	0.0028	Primary
Including	141.0	148.2	7.2	0.30	0.15	1.38	0.0028	Primary
" "	209.5	262.3	52.8	0.15	0.02	0.96	0.0028	Primary
Including	226.5	237.5	11.0	0.22	0.03	1.21	0.0042	Primary

# Quarterly Update for the Three and Six-Month Periods Ended June 30, 2018 and 2017

Drillhole	From (m)	To (m)	Metres (m)	Cu %	Au g/t	Ag g/t	Mo %	Zone	
CB-187	No significant intersections								
CB-188	3.8	130.3	126.5	0.19	0.03	1.65	0.0006	Oxide	
Including	110.0	130.3	20.3	0.33	0.03	2.07	0.0014	Oxide	
Including	121.5	130.3	8.8	0.39	0.03	1.78	0.0016	Oxide	
11 11	130.3	255.9	125.7	0.25	0.02	1.03	0.0029	Primary	
Including	130.3	192.3	62.1	0.30	0.01	1.06	0.0024	Primary	
Including	168.3	192.3	24.0	0.35	0.02	1.21	0.0023	Primary	
CB-189	80.8	94.1	13.3	0.19	0.02	1.41	0.0005	Oxide	
" "	164.8	188.3	23.5	0.15	0.02	0.95	0.0051	Primary	
" "	243.4	262.9	19.5	0.17	0.02	0.87	0.0046	Primary	
" "	320.8	326.8	6.0	0.32	0.18	1.77	0.0047	Primary	
" "	383.2	478.0	94.8	0.20	0.03	1.50	0.0033	Primary	
Including	402.6	442.5	39.9	0.27	0.05	2.46	0.0049	Primary	
Including	420.7	435.9	15.2	0.39	0.06	2.62	0.0033	Primary	
11 11	489.5	524.6	35.2	0.21	0.04	1.75	0.0011	Primary	
Including	509.5	522.4	13.0	0.31	0.06	3.15	0.0018	Primary	

#### **Chaupec Target**

The Chaupec Target in Cluster 2 is an area of skarn and porphyry mineralization exposed at surface along approximately 3 km by 1 km and includes exposures at surface of different skarn type mineralization, such as pyroxenes, garnets and magnetite, containing mineralization of bornite, chalcopyrite, minor pyrite, and expanded copper oxides.

The quartz-monzonite porphyry outcrops in the south part of the Chaupec Target with potassic alteration and quartz stockwork also contain hypogene/oxides copper mineralization. The mineralization at the Chaupec Target is similar to the skarns at the Las Bambas Copper Mine, located 40 km to the south, specifically with the skarn exposed in the Ferrobamba open pit.

The samples at surface have some of the highest grades sampled to date at the Cotabambas Project and the area has never been drilled. Soil sampling and geophysics commenced in February and work continues.

The approval of the expansion of the Semi-detailed Environmental Impact Assessment (EIAsd) now allows the Company to expand its exploration drilling program into the highly prospective areas of Cluster 2, expanding the approved area for exploration from 1,401 hectares to 2,923 hectares. Cluster 2 has been the subject of extensive mapping, sampling and geophysical survey studies. These studies have identified the occurrence of skarn Cu-Au-Ag mineralization over extensive areas, and the Company will be targeting high-grade, near-surface skarn mineralization to further improve the economics of the project.



The original approved area permitted 311 drilling platforms in the area of the Ccalla, Azulccaca, Guaclle, Petra-David and María José targets in Cluster 1. The expanded area, of 1,522 hectares located to the west of the original area, as shown on the linked plan, permits an additional 295 drilling platforms to explore the geologic targets of the Zones I, II and III of the Chaupec Skarn target zone in Cluster 2.

#### **Results of Operations**

#### **Exploration**

During fiscal 2018, the Company expended a net of \$2,604,347 on exploration and evaluation expenditures, \$391,897 on Antilla, \$1,938,850 on Cotabambas and \$308,458 on other projects. A total of \$550,933 has been accrued for recording and concession fees, and is included in the exploration costs. The Company has received \$34,858 from the recovery of value-added tax on eligible exploration expenditures.

Exploration and evaluation expenditures are largely made up of salaries and wages of site-based staff, geology, community relations and casual labour and other capitalized costs. Drilling commenced in late February at Cotabambas, and 2,173 metres were drilled at a cost of \$507,334 to the end of April, including mobilization and demobilization.

#### **Administration Expenses**

The Company's loss in fiscal 2018 of \$2,692,472 (\$0.01 per common share) compares to a loss of \$1,504,204 (\$0.01 per common share) in fiscal 2017. The discussion below is based on a comparison of fiscal 2018 and 2017.

Overall, the increase in the Company's expenditures reflects the increase in exploration and evaluation expenditures incurred on the properties and the increased costs of administration as additional staff is needed for the increased to administer the expansion of exploration activities. Additional investor relations activities have been undertaken to inform investors of the exploration undertaken in advance of the planned drilling program.

Areas of changes in administration costs between fiscal 2018 and fiscal 2017 include the following:

- A decrease in travel costs from \$78,368 in fiscal 2017 to \$37,011 in fiscal 2018. In fiscal 2017, a directors' meeting was held in Peru.
- An increase in marketing and shareholder communications' activity in Europe and North America resulting in an increase from \$139,833 in fiscal 2017 to \$438,926 in fiscal 2018. Expenses are expected to continue to be higher in the remainder of fiscal 2018 as the Company focuses more on shareholder communications, including investor relations' consulting agreements in Canada and Europe; and town hall meetings and road shows carried out in Europe and North America.
- An increase of \$974,410 in share-based compensation in fiscal 2018 related to the grant
  of 7,300,000 stock options to officers, directors and employees at an exercise price of
  \$0.34, exercisable for a period of five years. The total fair value of the options granted in



the six months ended June 30, 2018 was \$1,129,083, using the Black-Scholes method with the following assumptions - a volatility of 68%, an expected option life of 2.92 years, a risk free interest rate of 1.90%, and an expected dividend yield of 0%. Of the total granted, \$154,669 was capitalized to mineral property interests.

- A nominal decrease in salaries and benefits in fiscal 2018 from \$502,009 in fiscal 2017 to \$490,246 in fiscal 2018.
- Project evaluation costs of \$82,687 in fiscal 2017 with no comparative costs incurred in fiscal 2018.
- Financial consulting fees of \$57,681 in fiscal 2018 and \$60,210 in fiscal 2017. This fee is paid to Macquarie Capital Markets Canada Ltd ("Macquarie"), and relates to the scheduled semi-annual payments of US\$750,000 received the first six months of each fiscal year, and is paid in Canadian funds. Macquarie will receive a 6% commission on all payments received by the Company from Wheaton Metals up to US\$14.0 million.
- A decrease in legal fees from \$92,051 in fiscal 2017 to \$53,398 in fiscal 2018, due to
  additional legal fees incurred with respect to the sale of Kusiorcco in fiscal 2017, and legal
  fees related to regulatory and annual filings in the period.
- An exchange gain in fiscal 2018 of \$145,173, compared to a loss of \$80,799 in fiscal 2017, due to fluctuations in the exchange rates. The Company received funds from Wheaton Metals pursuant to the Agreement, and from the sale of Kusiorcco at the end of fiscal 2017. These funds have been maintained in US dollars.
- The Company has recorded a change in fair value of the Agreement's financial liability of \$371,300 in fiscal 2018 due to the decrease in the value of the Canadian dollar against the US dollar since the end of December 2017. The funds received pursuant to the Agreement are in US dollars, and are primarily retained for exploration activities.

#### Liquidity and capital resources

Liquidity risk is the risk that the Company will not be able to operate in the normal course of business for the next 12 months. The Company is considered to be in the exploration and development stage and is currently exploring mineral properties in Perú. The Company has no history of revenues from operating activities and will have negative cash flow from operations in future periods until commercial production is achieved from its advanced exploration stage projects. The Company received proceeds of US\$750,000 (\$958,750) from the Agreement, and it is anticipated that a scheduled payment of US\$750,000 will be received in September 2018. To the date of this MD&A, the Company has received US\$6.25 million pursuant to the Agreement. In fiscal 2018, the Company received \$700,021 on the exercise of 2,592,670 share purchase warrants at a price of \$0.27.

The Company has no operating revenue and incurred a loss of \$2,692,472 for fiscal 2018 (fiscal 2017 – \$1,504,204). As at June 30, 2018, the Company has an accumulated deficit of \$35,212,244 (December 31, 2017 – \$32,519,772), and has a working capital deficiency of \$2,867,694 (December 31, 2017 – working capital of \$438,467), with the inclusion of the current portion of the Wheaton Metals Agreement which is presented as a current liability.



The Company has 14,028,818 warrants priced at \$0.27 expiring on August 26, 2018. These warrants are currently not in the money and the proceeds from their exercise may not be realized. Based on its financial position at June 30, 2018, the Company believes that it has sufficient funds to meet operational expenditures over the ensuing twelve-month period. The Company will review planned investment expenditures, primarily at the Cotabambas Project, in order to meet changes in working capital estimates.

#### Commitments

In the normal course of business, the Company enters into contracts that result in commitments for future payments. The following table summarizes the remaining contractual maturities of the Company's operating and capital commitments. The Company has the following commitments: The Company has the following commitments:

Office lease (Vancouver)	2018		2019		2020		2021		2022		Total	
	\$	32,109	\$	65,725	\$	67,232	\$	33,616	\$	_	\$	198,682
Office leases (Perú)	\$	46,341	\$	94,304	\$	39,776	\$	-	\$	-	\$	180,421
Warehouses (3)	\$	7,954	\$	9,279	\$	-	\$	-	\$	-	\$	17,233
Accounts payable and accrued liabilities	\$1,078,547		\$	-	\$	-	\$	-	\$	-	\$^	1,078,547
Community agreement accrual	\$	882,998	\$	_	\$	_	\$	-	\$	_	\$	882,998

#### Key management personnel and related parties

Employment contracts have been entered into with each of the President and Chief Executive Officer ("CEO"), the Vice-President Exploration ("VP-Ex"), the Senior Vice-President, South America ("VP-SA") and the Vice-President, Operations ("VP-Op"). The Company is in the process of entering into an employment contract with the Chief Financial Officer ("CFO"). In fiscal 2018, the Company purchased \$14,926 (2017 - \$Nil) in geological supplies from a private company controlled by a director of a subsidiary of the Company. The Company had no other transactions between directors and officers and/or companies controlled by directors or officers in common with the Company. At June 30, 2018, there was \$27,809 receivable from (2017: \$942 payable to) an officer and director of the Company for expense advances received for expenses incurred on behalf of the Company. Expense reports were submitted for costs incurred in the period following the advance.

# Contingent receivable

In 2007, the Company entered into a Purchase and Sale Agreement of a property in the Philippines ("Mindoro Agreement") with Mindoro Resources Ltd. and its subsidiaries (collectively, "Mindoro"). As of the date of this MD&A no payment from Mindoro has been received. The Mindoro Agreement is still in effect, and the Company has not issued written notice to Mindoro regarding the breach of the Mindoro Agreement. An approach has been made by Mindoro for an amended agreement, but at the date of this MD&A, no changes in terms have been agreed to between the two parties.