



**Euro
Manganese
Inc.**

**MANAGEMENT'S DISCUSSION AND ANALYSIS FOR THE YEAR ENDED
SEPTEMBER 30, 2019**

Contents

Contents

- 1 [Introduction](#)
- 2 [Overview](#)
- 3 [Financial and Project Highlights](#)
- 4 [Significant Transactions During the Year Ended September 30, 2019](#)
- 5 [Review of Operations - Chvaletice Manganese Project](#)
- 6 [Outlook](#)
- 7 [Annual Financial Review](#)
- 8 [Quarterly Financial Review](#)
- 9 [Liquidity and Capital Resources](#)
- 10 [Off Balance Sheet Arrangement](#)
- 11 [Related Party Transactions](#)
- 12 [Contractual Commitments](#)
- 13 [Outstanding Share Data](#)
- 14 [Proposed Transactions](#)
- 15 [Significant Accounting Policies, Estimates and Judgments](#)
- 16 [Financial Instruments and Financial Risk Management](#)
- 17 [Internal Controls over Financial Reporting and Disclosure Controls and Procedures](#)
- 18 [Forward-Looking Statements and Risks Notice](#)

1. Introduction

The principal business and current focus of Euro Manganese Inc. (the "Company") is the evaluation and potential development of the Chvaletice Manganese Project (the "Project"), which involves the re-processing of a manganese deposit hosted in historic mine tailings in the Czech Republic in order to produce high-purity manganese products in an economically, socially and environmentally-sound manner.

The Company was incorporated under the British Columbia Business Corporations Act on November 24, 2014. The Company's corporate offices are located at Suite 1500, 1040 West Georgia Street, Vancouver, B.C., Canada and its registered offices are located at Suite 1700, Park Place, 666 Burrard Street, Vancouver, B.C., Canada. The Company's common shares are traded on the TSX Venture Exchange ("TSX-V") and CHESS Depository Interests ("CDIs", with each CDI representing one common share) are traded on the Australia Securities Exchange ("ASX") under the symbols "EMN.V" and "EMN.AX", respectively.

This management's discussion and analysis ("MD&A") of the financial condition and results of operations, prepared as of December 16, 2019, supplements, but does not form part of the audited consolidated financial statements of the Company for the year ended September 30, 2019 (the "September 2019 Financial Statements"), which can be found along with other information of the Company on SEDAR at www.sedar.com. The Company prepares its financial statements in accordance with the International Financial Reporting Standards ("IFRS"), as issued by the International Accounting Standards Board (the "IASB"). The Company's significant accounting policies are set out in Note 3 of September 2019 Financial Statements.

Additional information relating to the Company, including the Annual Information Form for the year ended September 30, 2019, is available on SEDAR at www.sedar.com, and on the Company's website www.mn25.ca.

The technical information in this MD&A concerning the Chvaletice Manganese Project was prepared under the supervision of Mr. Gary Nordin, a Qualified Person under the National Instrument 43-101 *Standards of Disclosure for Mineral Projects* ("NI 43-101").

This MD&A contains "forward-looking statements" that are subject to risk factors as set out in a cautionary note contained in Section 18.

The financial information presented in this MD&A is in Canadian dollars, unless otherwise stated.

2. Overview

The Company was formed with the objective of acquiring, evaluating, developing and operating the Chvaletice Manganese Project located in the Czech Republic, an anthropogenic manganese deposit hosted in historic mine tailings, in which the Company has a 100% ownership interest. The Company's wholly-owned subsidiary, Mangan Chvaletice s.r.o. ("Mangan") holds two licences covering mineral exploration rights for the Chvaletice Manganese Project ("Licences"), which are both valid until May 31, 2023. In 2018, Mangan was also issued a Preliminary Mining Permit by the Ministry of Environment, referred to by the Ministry of Environment as the prior consent for the establishment of a Mining Lease District. The Preliminary Mining Permit, valid until April 30, 2023, represents one of the key steps towards final permitting for the Project, covers the areas included in the Licences, and secures Mangan's exploration rights for the entire deposit.

Based on the Preliminary Mining Permit and other documents, including the Environmental Impact Assessment ("EIA"), which may only commence after the Preliminary Mining Permit is issued, Mangan has until April 30, 2023, to apply for the establishment of the Mining Lease District covering the areas included in the Licences. The establishment of the Mining Lease District, the application for the final Mining Permit, and applications for permits relating to the construction of infrastructure and operation of a processing facility required for the Project, must be submitted and approved prior to any commercial extraction and processing activities at the Chvaletice Manganese Project.

2. Overview (continued)

At present, Mangan does not hold surface rights to the Chvaletice Manganese Project area, which includes those parcels of land underlying and immediately surrounding the three tailings deposits which comprise the Chvaletice Manganese Project. The area of interest for the Chvaletice Manganese Project overlies several privately-owned land parcels with surface rights. To date, Mangan has received the consent to conduct exploration activities and to access the site from the landowners whose surface properties underlie the tailings. The Company is currently negotiating the acquisition of these surface rights, leases, rights of way, or other arrangements in additional areas where it intends to develop its operations, site facilities and infrastructure. There is no guarantee that areas needed for these activities and facilities will be secured.

Mangan has, however, signed an option agreement giving it the right to acquire 100% of a company that owns a 19.94-hectare parcel of land intended to be the site of Mangan's ultra-high purity processing plant (section 5 of this MD&A).

On December 12, 2018, the Company reported an updated Mineral Resource Estimate and on January 30, 2019, the Company reported the results of a Preliminary Economic Assessment ("PEA") for the Chvaletice Manganese Project (section 5 of this MD&A).

The Chvaletice Manganese Project is targeting production of ultra-high-purity electrolytic manganese metal ("HPEMM") with specifications exceeding 99.9% Mn and ultra-high-purity manganese sulphate monohydrate ("HPMSM") with a minimum manganese content of 32.34%, which exceed typical industry standards. These products will be selenium and chromium-free, and are designed to contain very low levels of deleterious impurities. As such, the Company believes the Chvaletice Manganese Project stands to become an important and environmentally-sustainable part of the international and European lithium-ion battery supply chains.

The main activities required for the Chvaletice Manganese Project's full development will incorporate several phases in order to support the construction of a new plant, focusing principally on the rapidly emerging electric vehicle battery industry. The phases include:

- construction and commissioning of a demonstration plant in the second half of calendar 2020 to produce multi-tonne, high-purity manganese product samples for customer testing and supply-chain qualification;
- completion in the second half of 2020 of a feasibility study incorporating the design of processing facilities and infrastructure;
- submission of a Project notification and description to the Czech Ministry of the Environment, the filing of an Environmental Impact Assessment and related permit applications; and
- continued market development for the Company's HPEMM and HPMSM products with the goal of initiating product testing and qualification programs and, eventually, entering into commercial agreements with potential customers over the course of calendar 2020.

3. Financial and Project Highlights

The following is a summary of the Company's highlights during the year ended September 30, 2019, and to the date of this MD&A:

- Selected BGRIMM Technology Group ("BGRIMM") as the lead process plant engineer, who will be working closely with Tetra Tech and the Company's other consultants to complete a feasibility study in the second half of calendar 2020.
- Entered into a fixed-price, turnkey contract with Changsha Research Institute for Mining and Metallurgy ("CRIMM") for the supply and commissioning of a technology, equipment package for a demonstration plant, which includes performance guarantees, as well as commissioning services and an operator training program.
- On September 5, 2019, filed an application for certain investment incentives in the Czech Republic. If approved, these tax credits would be in addition to the normal tax depreciation on eligible Project assets acquired by Mangan and would be applied toward Czech corporate income taxes otherwise payable by Mangan on earnings generated by the Project. Based on the legislation in place at the time of the application and on eligible assets of up to € 100 million (approx. \$148 million), the tax credits would amount to approximately € 18.75 million (approximately \$27.75 million).
- On July 24, 2019 and June 14, 2019, pursuant to the exercise of broker warrants, issued a total of 2,927,265 common shares at \$0.11 per common share for total proceeds of \$321,999.
- On May 13, 2019, issued a total of 1,428,570 common shares at \$0.21 per common share as repayment of \$300,000 in deferred consideration related to the acquisition of the shares of Mangan. The Company's remaining commitment related to the acquisition of the Mangan shares is for a final issuance of common shares on May 13, 2020, valued at \$300,000.
- On May 8, 2019, signed a strategic agreement with a consumer of battery raw materials, which includes a framework for technical cooperation. The parties intend to collaborate so that the Company's proposed Project plant can be designed and built to meet the party's long-term requirements for environmentally-superior high purity manganese products. The strategic agreement also provides for potential offtake negotiations.
- Appointed Bilfinger Tebodin Czech Republic s.r.o. to initiate preparation of the Project's EIA and related permit applications.
- Appointed Tetra Tech Canada Inc. ("Tetra Tech") as the owner's engineering representative, responsible for overseeing the other consultants and service providers in connection with the Project's feasibility study, and to prepare the NI 43-101/Joint Ore Reserves Committee Code ("JORC Code") feasibility study report for the Project.
- Acquired five small parcels of land from the operator of the electrical power station adjacent to the Project, which fill small gaps in and around the proposed Project plant site lands owned by EP Chvaletice s.r.o. ("EPCS"), which the Company has the option to acquire.
- On May 11, 2019, signed a purchase contract with the Municipality of Trnavka for a 2.96-hectare parcel of land adjacent to the Project tailings, on which the Company plans to construct a visual and acoustic barrier between Trnavka and the Project tailings. The total amount of 2,026,990 Czech Korunas ("CZK") (approximately \$120,000) will be paid in four installments, conditional on the EIA and permitting milestones. The first payment, representing 10% of the total amount, CZK 202,699 (\$11,867) was paid on May 20, 2019.
- In April and May, 2019, the neighbouring municipalities of Chvaletice and Trnavka, on which the Project tailings are located, and which respectively lie just to the west and east of the Project, voted unanimously to approve the initiation of the rezoning process of the lands underlying the Project's tailings deposit under municipal land use plans.

3. Financial and Project Highlights (continued)

- On January 30, 2019, reported the results of the PEA for the Chvaletice Manganese Project, supporting a 25-year project life with strong economics of an after-tax net present value ("NPV") of US\$593 million at a 10% discount rate and a 22.6% IRR, and a pre-tax NPV of US\$782 million at a 10% real discount rate and a 25.2% IRR.
- On January 28, 2019, filed an updated NI 43-101 Mineral Resource Estimate for the Chvaletice Manganese Project, in which the 27 million tonnes of Indicated and Inferred Mineral Resource categories were upgraded to Measured and Indicated Mineral Resource categories with an average grade of 7.33% Mn (98.3% of the resource tonnage were classified as Measured Mineral Resources).
- On October 17, 2018, made the first option payment of CZK 14 million (\$815,000), through Mangan, to acquire 100% of the equity of EPCS, a company that owns a large parcel of industrial zoned land adjacent to the Chvaletice Manganese Project, where the Company proposes to develop its high-purity manganese processing facility.
- Completed the Initial Public Offering ("IPO") on the TSX-V ("Canadian Offering") and raised \$2,500,000 on October 2, 2018, for the continued evaluation of the Chvaletice Manganese Project. The Company's shares and CDIs started trading on the TSX-V and the ASX, respectively, on October 2, 2018, under the symbols EMN.V and EMN.AX, respectively.

4. Significant Transactions During the Year Ended September 30, 2019

In addition to the events described in Section 3 of this MD&A, the Company completed the following transactions in the year ended September 30, 2019:

- Following the completion of the Australian IPO on September 28, 2018, raising gross proceeds of AUD \$6,500,000 (\$6,066,342) (the "Australian Offering"), the Company completed the Canadian IPO on October 2, 2018, raising additional gross proceeds of \$2,500,000. Fees payable to the Canadian Agent included a corporate finance fee of \$70,000, plus 6% of the aggregate gross IPO proceeds in excess of \$1,500,000, payable 1% or \$10,000 in cash and 5% in fully paid common shares (200,000 common shares valued at \$50,000), and warrants entitling agent to purchase 10% of the common shares issued in excess of 6,000,000 common shares (400,000 common shares) at an exercise price of \$0.375 per share for a period of 36 months from the date of issue.
- The expenses related to the Canadian IPO, including the \$10,000 cash fee, the \$50,000 value attributed to the 200,000 common shares and the \$48,890 value attributed to the Canadian Agent's Warrants were applied against the gross proceeds. Upon completion of the Canadian IPO, on October 2, 2018, the Company's CDIs and common shares commenced trading on the ASX and TSX-V, respectively.
- On February 7, 2019, the Company signed an amendment to the option agreement with EPCS, funding, through EPCS, the purchase of several land parcels, adjacent to the land owned by EPCS, and thus increasing the option agreement value by CZK 3,500,000 (\$203,220). Pursuant to the amendment, in the event that EPCS is not ultimately acquired under the option agreement, the ownership of these land parcels will be transferred to Mangan at no additional cost. The amount was fully paid as at September 30, 2019 and was classified as a deposit for land under other non-current assets.

5. Review of Operations - Chvaletice Manganese Project

The Chvaletice Manganese Project is located in the Czech Republic, within the townships of Chvaletice and Trnavka, in the Labe River valley. The Czech capital city of Prague is located 90 kilometres to the west. The Chvaletice Manganese Project site is adjacent to established infrastructure, including an 820-megawatt coal-fired power station that supplies the Czech Republic's national grid, a railway line, a highway and a gas line. The surrounding region is industrialized and skilled labor is expected to be available from local markets.

5. Review of Operations - Chvaletice Manganese Project (continued)

The Chvaletice Manganese Project resource is contained in three flotation tailings piles that were emplaced on flat terrain immediately below the site of a flotation mill site, adjacent to the former Chvaletice open pit mine and mill. The tailings were deposited from historical milling operations for the recovery of manganese and the extraction of pyrite used for the production of sulfuric acid. The tailings, which are in three separate piles in thickness ranging from 12 to 28 meters, cover a cumulative surface area of approximately one square kilometre.

Mineral Resource Estimate Update

In 2018, the Company conducted additional drilling at the Chvaletice Manganese Project. Final results of the drilling program were incorporated in the NI 43-101 technical report entitled "Technical Report and Preliminary Economic Assessment for the Chvaletice Manganese Project, Chvaletice, Czech Republic" ("Technical Report"), with an effective date of January 29, 2019, as prepared by Tetra Tech, released and filed on SEDAR on March 15, 2019. The Technical Report was prepared by Mr. James Barr, P. Geo, and Mr. Jianhui (John) Huang, Ph.D., P. Eng., Mr. Mark Horan, P. Eng., Mr. Hassan Ghaffari, P. Eng., and Mr. Chris Johns, P. Eng., all with Tetra Tech and all of whom are Qualified Persons under NI 43-101.

A summary of the mineral resource estimate for the Chvaletice Manganese Project included in the Technical Report is presented in the table below:

Tailings Cell #	Classification	Dry In-situ Bulk Density (t/m ³)	Volume (m ³)	Tonnage (metric tonnes)	Total Mn (%)	Soluble Mn (%)
#1	Measured	1.52	6,577,000	10,029,000	7.95	6.49
	Indicated	1.47	160,000	236,000	8.35	6.67
#2	Measured	1.53	7,990,000	12,201,000	6.79	5.42
	Indicated	1.55	123,000	189,000	7.22	5.30
#3	Measured	1.45	2,942,000	4,265,000	7.35	5.63
	Indicated	1.45	27,000	39,000	7.9	5.89
Total	Measured	1.51	17,509,000	26,496,000	7.32	5.86
	Indicated	1.50	309,000	464,000	7.85	6.05
Combined	Measured and Indicated	1.51	17,818,000	26,960,000	7.33	5.86

Note ⁽¹⁾: Numbers may not add exactly due to rounding.

Note ⁽²⁾: Mineral Resources do not have demonstrated economic viability but have reasonable prospects for eventual economic extraction. Indicated Resources have lower confidence than Measured Resources. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, sociopolitical, marketing, or other relevant issues.

Option Agreement

On August 13, 2018, the Company, through Mangan, signed an option agreement (the "EPCS Option Agreement"), giving Mangan the right to acquire 100% of the equity of EPCS, a small Czech steel fabrication company that owns a 19.94 hectare parcel of land located immediately south of the highway and rail line that bound the Chvaletice tailings deposit. This land parcel is immediately adjacent to the Chvaletice power plant and to a 1.7 hectare parcel of land and rail siding that was acquired by the Company in November 2017.

The land is zoned for industrial use and contains numerous buildings, including office, warehousing and other industrial structures, several of which are leased to short-term tenants. The land also contains two rail spurs and is served by gas, water and power.

5. Review of Operations - Chvaletice Manganese Project

The Company will have the right to acquire EPCS by making payments aggregating CZK 140 million payable in three cash instalments, the first of which was paid on October 17, 2018, in the amount of CZK14 million (\$815,000). The Company can complete the acquisition of EPCS by making two additional instalments aggregating CZK 126 million (approximately \$7.04 million) as follows:

- i. an instalment of CZK 42,000,000 (approximately \$2.35 million at September 30, 2019) ("Second Instalment"), within 60 days of final approval of the EIA for the Chvaletice Manganese Project, and no later than three years after signing the EPCS Option Agreement. The three-year term may be extended under certain circumstances by up to one year; and
- ii. a final payment of CZK 84,000,000 (approximately \$4.69 million at September 30, 2019) ("Final Payment"), due upon receipt of all development permits for the Chvaletice Manganese Project, and no later than five years after signing the EPCS Option Agreement.

The shares of EPCS are being held in escrow pending release of the Final Payment by the Company. To secure the transaction, liens have been placed by the Company on the property and shares of EPCS, while the EPCS Option Agreement is in effect. The vendor of EPCS will continue to operate its steel fabrication business until the Final Payment is received, will retain profits from the business and will remain responsible for any losses incurred by the business during the term of the EPCS Option Agreement. The Company will endeavour to retrain and transition as many of the EPCS employees as possible into the proposed Chvaletice Manganese Project's workforce.

On February 7, 2019, the Company signed an amendment to the Option Agreement (the "Amendment"), funding, through EPCS, the purchase of several land parcels adjacent to the land owned by EPCS (section 4 of this MD&A).

PEA Results

On January 30, 2019, the Company completed and reported the results of the Chvaletice Manganese Project PEA for the production of high-purity manganese products, namely HPEMM and HPMSM. The PEA Technical Report, with an effective date of January 29, 2019, as prepared by Tetra Tech, was released and filed on SEDAR on March 15, 2019.

The highlights of the PEA are as follows:

- Recycling of a 27 million tonne Measured and Indicated tailings resource (98.3% Measured) with a combined grade averaging 7.33% Mn, without the requirement of any hard rock mining, crushing or milling;
- 25-year project operating life producing 1.19 million tonnes of HPEMM, two-thirds of which is expected to be converted into HPMSM;
- Saleable product includes 404,100 tonnes of HPEMM and 2.35 million tonnes of HPMSM, focusing principally on Europe's rapidly emerging electric vehicle battery industry;
- Flexibility to supply either HPEMM or HPMSM, to suit customer preference;
- After tax NPV of US\$593 million and pre-tax NPV of US\$782 million, using a 10% real discount rate, and based on average life-of-project HPEMM (containing 99.9% Mn) price of US\$4,617/tonne and an average HPMSM (containing 32% Mn) price of US\$2,666/tonne (prices based on a market study prepared for the Company by CPM Group LLC);
- US\$404 million in pre-production capital, US\$24.8 million in sustaining capital, and US\$31 million in working capital, with an ungeared, pre-tax 25.2% IRR with a 4.5-year payback, and a post-tax 22.6% IRR with a 4.9-year payback;

5. Review of Operations - Chvaletice Manganese Project (continued)

- Targeting production of ultra-high-purity electrolytic manganese metal with specifications exceeding 99.9% Mn and ultra-high-purity manganese sulphate monohydrate with a minimum manganese content of 32.34%, which exceed typical industry standards;
- Access to excellent transportation, energy and community infrastructure. Proposed process plant site to be located in an industrially-zoned brownfield site, where a historical process plant generated the Chvaletice tailings;
- Exceptional green project credentials with the Project design meeting or exceeding all Czech and European health, safety and environmental standards, resulting in a significant remediation of the Chvaletice tailings site, arresting the ongoing pollution related to historical mining activities;
- Sophisticated, stable and business-friendly European Union jurisdiction that is highly supportive of new and, especially, green investment; and
- Opportunities exist to enhance returns through process optimization initiatives and various investment incentives that may be available through the Czech Republic and European Union.

HPEMM & HPMSM Market Development

In early May 2019, the Company signed a strategic agreement with a consumer of battery raw materials, which provides a framework for strategic and technical cooperation that is focused on large-scale lithium-ion batteries manufacturing, including the production of high-performance lithium-ion batteries for several market segments, including electric vehicles.

Pursuant to the strategic agreement, both parties intend to collaborate and to share technical and strategic information, so that the Company's proposed Chvaletice Manganese Project plant can be designed and built to meet the long-term supply requirements of environmentally-superior high purity manganese products of the Party and its customers. Under the terms of the strategic agreement, the Company intends to deliver a specified quantity of HPMSM (the "Demonstration Material") to the Party's facility in the first half of calendar 2020. The Demonstration Material will be produced at the Company's demonstration plant, which will provide bulk, multi-tonne finished product samples for customer testing and evaluation, and which will be made from the Chvaletice tailings. Upon completion of testing and qualification of the Demonstration Material, the parties intend to enter into negotiations with the objective of agreeing on the terms and conditions of an offtake agreement with respect to the supply and purchase of high purity manganese products produced at the Chvaletice Manganese Project.

The Company continues to hold active discussions with several other consumers of high-purity manganese products in Asia, Europe and North America, and expects to enter into similar agreements with such companies during the calendar 2020, for the testing and qualification of the remainder of the Demonstration Material, followed by negotiations of offtake agreements and long-term commercial relationships with some or all of these parties later in the year.

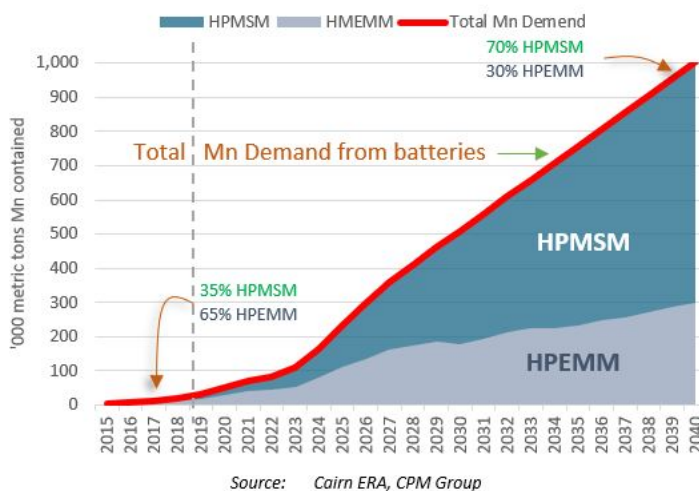
The Chvaletice Manganese Project is targeting production of ultra-high-purity electrolytic manganese metal with specifications exceeding 99.9% Mn and ultra-high-purity manganese sulphate monohydrate with a minimum manganese content of 32.34%, which exceed typical industry standards. These products will be selenium and chromium-free and are designed to contain very low levels of deleterious impurities. As such, the Company believes the Chvaletice Manganese Project stands to become an important and environmentally-sustainable part of the international and European lithium-ion battery supply chains.

5. Review of Operations - Chvaletice Manganese Project (continued)

In connection with the preparation of the PEA, the Company commissioned the independent research and consultancy firm of CPM Group LLC ("CPM Group") to provide an HPEMM and HPMSM product market outlook study for the Chvaletice Manganese Project. The CPM Group prepared a comprehensive market research report and provided an extended executive summary of the market information for high purity manganese products, including market demand and supply and projected HPEMM and HPMSM prices. Cairn Energy Research Advisors ("Cairn ERA") contributed technical and battery industry inputs to the CPM Group report. The extended executive summary of the CPM market outlook entitled "Market Outlook for High-Purity Electrolytic Manganese Metal and High-Purity Manganese Sulfate Monohydrate," dated January 21, 2019 is reproduced in Section 19 of the Technical Report.

Highlights of the CPM Group report include:

- A double-digit increase of HPEMM and HPMSM demand is expected, driven by the electric vehicle ("EV") Lithium-ion battery industry.
- The Chvaletice Manganese Project is poised to become a key strategic asset in the heart of Europe by targeting production of some of the highest purity electrolytic manganese metal and manganese sulphate monohydrate available in the world today. The European consumers are currently sourcing the majority of their needs from China, which produces over 98% of electrolytic manganese metal and over 85% of high-purity manganese sulfate in the world.
- Production of rechargeable lithium-ion batteries for EVs is expected to dominate the market for HPEMM and HPMSM over the next two decades dwarfing any other application for these products. Following Cairn ERA's research into battery markets and combining it with its own research, CPM Group forecasts an 80-fold increase in the use of manganese in rechargeable Li-ion batteries between 2017 and 2037, as shown in the following figure.



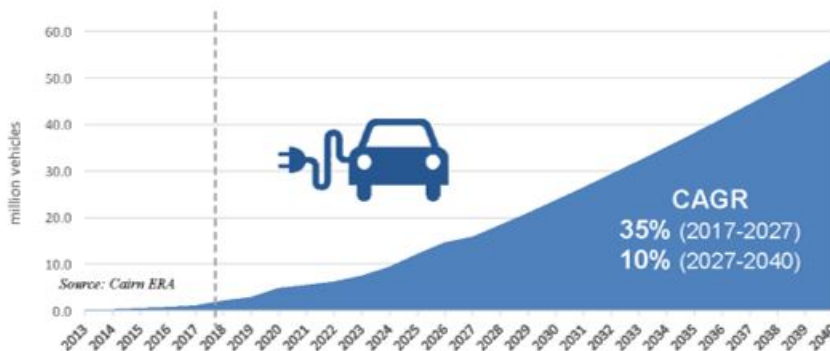
- Europe is expected to play an important part in this 'electric vehicle revolution' with nine battery and battery precursor factories, with no fewer than twelve electric car factories already under construction or announced recently. Europe is expected to become the second most important centre (after China) of the global electric car and battery industries. Six large battery factories that will consume manganese inputs are located between 200 km and 400 km of Chvaletice as shown below:

5. Review of Operations - Chvaletice Manganese Project (continued)



Source: Cairn ERA, CPM Group

- The CPM Group believes that the entire planned output of the Chvaletice Manganese Project can be consumed by the growing lithium-battery sector in Europe. Local supply chains are being built in Europe and apart from the convenient logistics, companies located within the European single market benefit from frictionless trading and additional benefits (e.g. imported manganese sulphate monohydrate is subject to a 5% EU import tariff).
- Data from the motor vehicle industry indicates that the number of EVs on the roads of the world surpassed the 3 million mark in 2017 with 1/3rd of this number sold in 2017 alone. In 2018, China on its own produced more than a million EVs and is expected to double this amount by 2020. The following figure represents the annual forecast EV annual sales forecast to 2040 (including plug-in hybrids) with a cumulative annual growth rate (CAGR) of 35% from 2017 to 2027, and 10% from 2027 to 2040.



- CPM Group reports that the EV production is ramping up rapidly and that accelerating market demand will lead to stronger sales during the next two decades, based on the forecasts from Cairn ERA and the International Energy Agency (IEA).



Source: CPM Group calculation based on Cairn ERA EV sales forecast; * assuming the oldest EV on the road in 2026 is 11 years old.

5. Review of Operations - Chvaletice Manganese Project (continued)

Feasibility Study and EIA

The Company advanced the Chvaletice Manganese Project to the feasibility stage, and appointed Tetra Tech as the owner's engineering representative for the feasibility study, responsible for overseeing the consultants and service providers in connection with the feasibility study, and for the preparation of the NI 43-101/JORC feasibility study report for the Project.

The preparation of the Chvaletice Manganese Project's EIA and related permit application is underway. The Company appointed Bilfinger Tebodin Czech Republic s.r.o., to lead the preparation and filing of the Project Description/Notification with the Czech Ministry of the Environment. The Project Description/Notification will include a description of: the manganese production process and resulting environmental footprint; results of baseline and other studies conducted to date; health, safety and environmental management plans; impact assessment, impact mitigation and avoidance plans/measures; socio-economic impacts on local communities; and reclamation plans/objectives.

The Project Description will be available to local communities, residents, organizations and regulators, during a public comment and consultation period. The Project Description and the input and comments received, as well as any requirements for changes, will serve as the basis of further environmental studies, if required, and will form the basis for the last stage of the environmental permitting process. The Company expects the filing of the Project Description/Notification with the Czech Ministry of the Environment to be made in the second quarter of calendar 2020 and the completion of the EIA documentation to be submitted to the Czech Ministry of the Environment by the fourth quarter of calendar 2020.

The Company also selected BGRIMM as the lead process plant engineer, who will be working closely with Tetra Tech and the Company's other consultants. Together, these firms will conduct the excavation design, process plant design, tailings/residue storage facility design, and other related studies for the project and compile the necessary feasibility study inputs. Subject to the awarding of any remaining feasibility study contracts, the Company expects the feasibility study to be completed in the second half of calendar 2020.

6. Outlook

The Company does not expect that its current capital resources will be sufficient to fully fund the feasibility study and the demonstration plant and any new commitments it may make with respect to additional acquisitions of land or surface rights. Accordingly, the Company expects it will be required to raise additional funding for its next stage of development (see section 9 - "Liquidity and Capital Resources"). The expected funding of the feasibility study and the demonstration plant is estimated at a total of \$11.4 million.

As it moves through the feasibility stage, the Company expects to continue evaluating potential value-enhancing opportunities for the Chvaletice Manganese Project. These include the potential for on-site production of sulphuric acid, optimizing building sizing and layout, equipment selection, solid-liquid separation methods, alternative magnesium removal methods, manganese sulphate crystallization technologies, leaching methods, waste generation minimization and recycling, as well as minimizing energy and water consumption. In collaboration with one or more potential consumers of high-purity manganese products, the Company also intends to evaluate the feasibility of building one or more satellite manganese metal dissolution plants to be located at customer NMC precursor plants. This would allow the Company to sell manganese sulphate solution instead of granulated manganese sulphate monohydrate, eliminating the energy-intensive crystallization step. The Company also plans to evaluate the possibility of selling by-product magnesium sulfate for agricultural use. These opportunities and others will be evaluated within the scope of work of design studies of the feasibility study.

6. Outlook (continued)

Planning is also underway to design, build and commission a demonstration plant in the Czech Republic that will provide bulk, multi-tonne finished product samples for customer evaluation. The plant is intended to replicate the entire process flowsheet proposed in the PEA and to produce the equivalent of 100kg per day of manganese sulphate monohydrate. Several parties have expressed interest in testing and qualifying these products in order to design precursor and cathode formulations in combination with available nickel, cobalt and lithium products. The demonstration plant will also enable process optimization and testing for the final products development. In addition, it is expected to serve as a testing and training facility for future operators. The Company entered into a fixed-price, turnkey contract with CRIMM for the supply and commissioning of a technology and equipment package for the demonstration plant, which includes performance guarantees, as well as commissioning services and an operator training program. The supply and delivery of the demonstration plant remains subject to financing. The Company is targeting the completion of the plant construction and the delivery of the first finished product samples to potential customers in the second half of calendar 2020.

The Company continues to hold discussions with several other consumers of high-purity manganese products in Asia, Europe and North America, centered around the possibility of the Chvaletice Manganese Project's future production providing a competitive, high-purity, environmentally-superior and reliable long-term supply of HPEMM and/or HPMSM. The Company expects to enter into agreements with such companies over the course of 2020, and to enter into negotiations of offtake agreements with these parties. However, given that the Chvaletice Manganese Project is still in the evaluation stage, and still requires financing and permits, there can be no assurance that these discussions will lead to offtake agreements or commercial or strategic relationships in the near term, if at all.

7. Annual Financial Review

	Years ended September 30,		
	2019	2018	2017
(expressed in thousands of Canadian dollars, except per share data)	\$	\$	\$
Revenue	—	—	—
Exploration and evaluation expenses Chvaletice Project	4,947	4,590	2,398
Other expenses	3,370	1,944	1,015
Net loss for the year attributable to shareholders	8,317	6,534	3,413
Basic and diluted loss per share attributable to shareholders ⁽¹⁾	\$0.05	\$0.06	\$0.07
	As at September 30,		
	2019	2018	2017
	\$	\$	\$
Cash	4,085	10,368	2,861
Total assets ⁽²⁾	6,909	12,273	4,321
Non-current financial liabilities ⁽²⁾	—	241	450

⁽¹⁾ Fully diluted weighted average common shares outstanding, used in the calculation of diluted net loss per share in each of the periods presented, are not reflective of the outstanding stock options and warrants at that time as their exercises would be anti-dilutive in the net loss per share calculation.

⁽²⁾ Total assets for each year shown include \$1,249,086 in mineral property interest related to the acquisition of the Chvaletice Manganese Project on May 13, 2016. Non-current liabilities as at September 30, 2019, 2018 and 2017 represents the non-current portions of the deferred share consideration to be issued in connection with the acquisition of the Chvaletice Manganese Project.

7. Annual Financial Review (continued)

Year ended September 30, 2019, compared to the year ended September 30, 2018

The loss for the year ended September 30, 2019, of \$8,317,405 compares to a loss of \$6,534,075 for the year ended September 30, 2018, representing an increase of \$1,783,330 or 27.3%. Basic and fully diluted loss per share decreased by \$0.01 in the current period to \$0.05 per common share. A summary of the project evaluation and other expenses, and an explanation of the significant variances is as follows:

	Year ended September 30,	
	2019	2018
(expressed in thousands of Canadian dollars, except per share data)	\$	\$
Exploration and evaluation expenses		
Engineering	1,978	1,855
Remuneration	1,098	683
Share-based compensation	254	216
Drilling, sampling and surveys	212	330
Metallurgical	381	277
Travel	123	233
Legal and professional fees	370	459
Geological	215	142
Market studies	209	143
Project management	—	147
Supplies and rentals	107	105
	4,947	4,590
Other expenses		
Remuneration	1,305	816
Share-based compensation	494	415
Total remuneration	1,799	1,231
Legal and professional fees	253	121
Investor relations	275	22
Product sales and marketing	35	27
Travel	273	122
Filing fees and compliance	259	127
Accretion expense	60	91
Office, general and administrative	181	108
Insurance	103	40
Office rent	53	29
Conferences	55	20
Depreciation	24	6
	3,370	1,944
Total loss for the year attributable to shareholders	8,317	6,534
Loss per share attributable to shareholders	\$0.05	\$0.06

7. Annual Financial Review (continued)

Project evaluation costs for the year ended September 30, 2019 and 2018, were \$4,947,215 and \$4,589,662 respectively. The main cost variances include: increases of \$414,820 in remuneration and \$123,128 in engineering costs, both related to the PEA and the feasibility study; an increase in geological costs of \$73,538 due to a hydro-geological study of the Project; an increase in market studies of \$65,720 due to completion of product pricing inputs to the PEA; and a \$37,961 increase in share-based compensation as a result of the increased project personnel. These costs were partially offset by a decrease of \$117,381 in drilling, sampling and surveys attributable to the completion of the 2018 drilling program; a decrease in travel of \$109,903 as a greater portion of Project activities were performed in the Czech Republic in the current period; a decrease of \$146,619 in external project management costs following the hiring of a full time Managing Director of Mangan; and a decrease in legal and professional fees of \$89,032 which was mainly due to the high fees in the comparative period in relation to the EPCS Option.

Engineering, remuneration, geological and metallurgical costs for year ended September 30, 2019, represent approximately 74% (year ended September 30, 2018 - 64%) of the total project evaluation costs for the period and are related to a number of activities supporting the completion of the PEA and the future development of the Project, including: a tailings/residue facility design study; studies related to test work, process and infrastructure design; the initiation of a wide range of bench and pilot scale tests and investigations to determine the optimum process to recover manganese to produce HPEMM and HPMSM; scoping and pre-feasibility-level process design studies, evaluating plant and site infrastructure layout alternatives, developing preliminary capital and operating cost estimates, planning and carrying out extensive environmental studies, and conducting widespread community consultations. In the current period, the Company also incurred costs relating to the planning stage of the feasibility study and commenced work on the EIA and commissioned studies for the demonstration plant. In the comparative period, in addition to the aforementioned activities, costs also include an extensive geotechnical and hydrogeological study, initiated in January 2018, of the tailings and certain lands under consideration for a potential plant site.

The \$1,425,777 increase in other expenses for the year ended September 30, 2019, over the same period in 2018, is mainly attributable to total remuneration which increased by \$568,171, of which \$78,810 was an increase in share-based compensation related to options granted to directors and officers during 2019. The increase in total remuneration was attributable to the growth of the Company, the hiring of more full-time employees rather than consultants and to bonuses paid in December 2018 of \$70,000.

Other significant increases in administrative costs for the year ended September 30, 2019, over the comparative period included: a \$253,068 increase in investor relations expenses following the listings on the TSX-V and ASX and the hiring of investor relations consultants in Europe and Australia, news dissemination costs and investor conferences; a \$131,464 increase in legal and professional fees mainly due to the regulatory filing requirements in Canada and Australia; a \$150,937 increase in travel costs related to increased investor relations and market development activities; \$73,562 increase in general administration expenses due to higher information technology related costs and foreign exchange loss and a \$63,092 increase in insurance costs relating to the IPO. These costs were partially offset by lower filing fees by \$131,568 as significant initial filing fees payable to the TSX-V and the ASX were incurred in the comparative period in relation to the Company's public listing and by a decline in accretion expense as a result of the decreasing remaining balance of the deferred consideration.

8. Quarterly Financial Review

The following table summarizes selected financial information for each of the eight most recently completed quarters, expressed in thousands of Canadian dollars, except for share amounts:

As at the end of or for the period ending	July to Sept'19	April to June'19	Jan to March'19	Oct to Dec'18	July to Sept'18	April to June'18	Jan to March'18	Oct to Dec'17
	\$	\$	\$	\$	\$	\$	\$	\$
Cash	4,085	5,512	7,093	9,013	10,368	6,194	7,648	1,536
Total assets	6,909	8,390	10,029	11,773	12,273	7,928	9,381	3,302
Working capital ⁽¹⁾	3,215	4,814	6,416	8,385	9,119	5,450	6,973	721
Current liabilities	1,028	902	1,001	957	1,536	891	825	1,005
Revenue	—	—	—	—	—	—	—	—
Project exploration expenses	1,059	1,127	1,217	1,544	1,453	1,049	969	1,119
Other expenses	751	878	909	833	629	452	515	348
Net loss attributable to shareholders	1,810	2,005	2,126	2,377	2,082	1,501	1,485	1,467
Net loss per share, basic and diluted, attributable to shareholders	0.02	0.01	0.01	0.01	0.02	0.01	0.01	0.02

⁽¹⁾ The additional non-GAAP financial measure of working capital is calculated as current assets less current liabilities.

The variation in quarterly exploration and evaluation expenditures is mainly attributed to the following:

Project evaluation expenses

- The four quarters of fiscal 2018 and the first quarter of fiscal 2019 reflect the work performed in the preparation of the PEA, which was completed in January 2019. The work included various engineering, sampling and surveys, and metallurgical studies from Canadian, European and Chinese engineering consulting firms.
- In order to manage the increased level of engineering consultants and other project activities within the Czech Republic, in October 2017, the Company started hiring local full-time personnel, starting with a full-time Managing Director of Mangan subsequently followed by the hiring of additional technical and administrative personnel. Around the same time, the Company also raised its presence in the country with the opening of offices in Prague and a Project Information Centre in the town of Chvaletice.
- Beginning January 2018, project related costs reflect the hiring of a full-time Vice President, Project Development, to oversee process engineering and overall project development planning.
- Expenditures in the second half of the fiscal year ended September 30, 2018, reflect legal and professional fees associated with negotiating land purchase agreements and the quarter ended September 30, 2018, also reflects the costs of the 2018 drilling program which was initiated in July 2018.
- Costs incurred from mid-2018 to March 31, 2019, include the significant metallurgical test work, geological, engineering and other consultant fees, market studies, process and infrastructure design studies, and extensive environmental studies, all in support of the PEA on the Chvaletice Manganese Project.
- In the most recent two quarters, the Company commissioned studies for the demonstration plant, initiated the planning stage of the feasibility study, and advanced the work on the EIA.

8. Quarterly Financial Review (continued)

Other expenses

- The increase in the level of quarterly administrative expenditures is mainly attributed to the combination of:
 - Increased remuneration beginning in January 2018, due to a higher number of full-time employees. These costs also comprise increased non-cash share-based compensation related to option grants to directors, management and employees.
 - Increased investor relations and travel costs following the Company listing on the ASX and TSX-V in October 2018, continuous financing efforts and ongoing negotiations with potential customers.
 - Additional legal and professional costs resulting from the Company being a publicly listed entity from October 2, 2018, and costs relating to on-going negotiations of land purchases.
 - Increased insurance costs as a result of the public listing.

8. Quarterly Financial Review (continued)

Three months ended September 30, 2019, compared to the three months ended September 30, 2018

	Three months ended September 30,	
	2019	2018
(expressed in thousands of Canadian dollars, except per share data)	\$	\$
Exploration and evaluation expenses		
Engineering	355	382
Remuneration	324	198
Share-based compensation	45	85
Drilling, sampling and surveys	2	299
Metallurgical	131	167
Travel	37	62
Legal and professional fees	95	186
Geological	19	30
Market studies	40	(38)
Project management	—	61
Supplies and rentals	11	21
	1,059	1,453
Other expenses		
Remuneration	322	222
Share-based compensation	93	128
Total remuneration	415	350
Legal and professional fees	64	21
Investor relations	14	16
Product sales and marketing	17	4
Travel	43	46
Filing fees and compliance	70	127
Accretion expense	10	18
Office, general and administrative	34	29
Insurance	25	8
Office rent	6	8
Conferences	45	—
Depreciation	8	2
	751	629
Total loss for the quarter	1,810	2,082
Basic and diluted loss per common share	\$0.02	\$0.02

8. Quarterly Financial Review (continued)

Project evaluation costs for the three months ended September 30, 2019 and 2018, were \$1,058,508 and \$1,451,761 respectively. The main cost variances include: a \$296,522 decrease in drilling and sampling costs as the drill programs were completed in late 2018; a \$36,539 decrease in metallurgical costs which in the current period relate to the initial work on the feasibility study while in the comparative period they related to the completion of the PEA; a \$90,719 decrease in legal and professional fees relating to significant land purchase negotiations in the comparative quarter and a decrease of \$25,139 in travel expenses as greater portion of Project activities in the current quarter were performed in the Czech Republic. This was partially offset by an increase in market studies of \$78,238 as various marketing studies were performed in the current quarter.

Engineering, remuneration, geological and metallurgical costs for three months ended September 30, 2019, represent approximately 78% (three months ended September 30, 2018 - 54%) of the total project evaluation costs. In the current quarter, these project evaluation costs related to the advancement of the EIA, the initial work on the feasibility study and the planning and studies for the demonstration plant. In the comparative quarter, such project evaluation costs related to a number of activities supporting the completion of the PEA, including: a tailings/residue facility design study; studies related to test work, process and infrastructure design; the initiation of a wide range of bench and pilot scale tests and investigations to determine the optimum process to recover manganese to produce HPEMM and HPMSM; scoping and pre-feasibility-level process design studies; evaluating plant and site infrastructure layout alternatives; developing preliminary capital and operating cost estimates; planning and carrying out extensive environmental studies; and conducting widespread community consultations.

The \$121,101 increase in administrative costs for the three months ended September 30, 2019, compared to the same period in 2018, is mainly attributable to: a \$99,931 increase in remuneration due to higher number of full time employees and to bonuses paid in December 2018 of \$70,000; a \$45,058 and a \$2,635 increase in conference participation and investor relations expenses, respectively, as a result of increased manganese market development activities; and a \$43,455 increase in legal and professional fees due to increased regulatory compliance requirements. These costs were partially offset by a \$35,887 decrease in non-cash share-based compensation which impacted the comparative period due to new options granted to employees, directors and officers in August 2018; a \$57,154 decrease in filing fees as significant fees were incurred in connection with the initial public listings in the comparative period.

9. Liquidity and Capital Resources

As at September 30, 2019, the Company held cash of approximately \$4.1 million. Cash is held with reputable financial institutions and is invested in highly liquid short-term investments with maturities of three months or less. The funds are not exposed to significant liquidity risk and there are no restrictions on the ability of the Company to use these funds to meet its obligations.

Cash decreased by \$6.3 million during the year ended September 30, 2019, primarily due to cash used in operating activities of \$7.6 million and cash used in investing activities of \$1.1 million, representing mainly the payment of the first instalment on the EPCS Option Agreement. This was partially offset by the proceeds from the Canadian Offering, which raised \$2.5 million, less cash expenses of \$0.4 million, and the exercise of broker warrants which raised \$0.3 million.

As at September 30, 2019, the Company had working capital of \$3.2 million, including cash of \$4.1 million. The loss for the year was \$8.3 million while cash used in operating activities was \$7.6 million. Working capital at September 30, 2018, was \$9.1 million, including cash of \$10.4 million. The decrease in working capital was due to operating expenditures and the first EPCS Option payment, offset by the proceeds from the Canadian IPO and the exercise of broker warrants, as described above.

9. Liquidity and Capital Resources (continued)

The Company's commitments at September 30, 2019, which include minimum office lease payments and project development commitments of \$0.7 million are shown in section 12 of this MD&A. Having completed the PEA, the Company is advancing the Chvaletice Manganese Project to the feasibility study stage, which will require expenditures of approximately \$4.9 million and is being staged based on the Company's available cash resources. The Company also intends to build a demonstration plant to produce bulk product samples for customer testing and qualification. The supply and delivery of the demonstration plant remains subject to financing. The Company estimates that the total cost, including the purchase and its operation for one year, will be approximately \$6.5 million. Accordingly, the Company does not have sufficient capital resources to fund the feasibility study, demonstration plant, ongoing corporate costs, and any new commitments it may make with respect to additional acquisitions of land or surface rights. The Company will be required to raise additional funding for these activities in fiscal 2020.

As an early stage corporation, the Company does not own any properties with established Mineral Reserves and has no operating revenues and is unable to self-finance its operations. Accordingly, the main source of future funds presently available to the Company is through the issuance of share capital. Additional funding will also be required for the potential future construction of infrastructure and facilities for the Project. The ability of the Company to arrange such equity financings will depend principally upon prevailing market conditions and the business performance of the Company. The Company's ability to continue as a going concern is substantially dependent on its ability to raise funds through the issuance of shares. Such funding may not be available when needed, if at all, or be available on terms favorable to the Company and its shareholders. Failure to obtain such additional financing could result in a delay, indefinite postponement or curtailment of further evaluation and development of the Company's principal property and could result in material adjustments to the carrying values of assets.

Use of Proceeds

In the Company's prospectus dated September 21, 2018 for initial public offering on the TSX-V, the Company provided a listing of the expected use of proceeds in connection with the Canadian and Australian Offerings. The expected use of proceeds was prepared as of August 31, 2018. Accordingly, the following provides a comparison of the expected use of proceeds to the actual use of proceeds for the 13-month period ending September 30, 2019

Use of proceeds to September 30, 2019	Proposed use of proceeds amounts for 18 months per prospectus	Proposed use of proceeds amounts for 13 months to September 30, 2019	Actual use of proceeds amounts for 13 months to September 30, 2019	Difference (saving)/overspend for 13 month period
	\$	\$	\$	\$
Geology and Mineral Resources program ⁽¹⁾	889,000	889,000	204,000	(685,000)
Metallurgical testing and process engineering work program and other engineering studies relating to the PEA	874,000	874,000	1,032,000	158,000
Environmental studies	303,000	303,000	316,000	13,000
First option payment related to purchase of EP Chvaletice s.r.o.	831,000	831,000	815,000	(16,000)
Cost of technical staff in the Czech Republic and Vancouver for 18 months	2,427,000	1,753,000	1,953,000	200,000
Cost of the Canadian and Australian IPO	805,000	805,000	1,007,000	202,000
General and administrative expenses	2,837,000	2,112,000	3,066,000	954,000
Total	8,966,000	7,567,000	8,393,000	826,000

⁽¹⁾ The Company completed the geology and mineral resource program but at a lesser cost than originally forecast.

9. Liquidity and Capital Resources (continued)

The analysis of the general and administrative costs is as follows:

Use of proceeds to September 30, 2019	Proposed use of proceeds amounts for 18 months per prospectus	Proposed use of proceeds amounts for 13 months to September 30, 2019	Actual use of proceeds amounts for 13 months to September 30, 2019	Difference (saving)/overspend for 13 month period
	\$	\$	\$	\$
Professional fees (legal and audit)	306,000	221,000	294,000	73,000
Salaries and consultants	1,685,000	1,217,000	1,409,000	192,000
Investor relations and manganese metal market development, product sales and marketing	340,000	258,000	278,000	20,000
Insurance	150,000	150,000	108,000	(42,000)
Travel	104,000	75,000	296,000	221,000
Office, administrative and other ⁽¹⁾	252,000	191,000	681,000	490,000
Total	2,837,000	2,112,000	3,066,000	954,000

⁽¹⁾ Variance mainly due to higher filing and compliance fees than originally estimated.

Difference noted in the table above are not expected to have material impact on the Company's ability to achieve its business objectives as disclosed in the Company's prospectus dated September 21, 2018.

10. Off Balance Sheet Arrangements

As at September 30, 2019, there are no off-balance sheet arrangements which could have a material impact on current or future results of operations or the financial condition of the Company.

11. Related Party Transactions

For the year ended September 30, 2019, amounts paid to related parties were incurred in the normal course of operations and measured at the exchange amount, which is the amount of consideration established and agreed to by the transacting parties.

At September 30, 2019, key management personnel include those persons having authority and responsibility for planning, directing and controlling the activities of the Company as a whole, and consisted of the Company's directors and officers, including its non-executive Chairman, President and Chief Executive Officer, Managing Director of Mangan, Chief Financial Officer and Vice President, Corporate Development and Corporate Secretary.

	Twelve months ended September 30,	
	2019	2018
	\$	\$
Salaries and consulting fees payable to officers and directors	1,512,566	1,269,954
Directors' and officers' stock-based compensation	475,038	406,158
Total remuneration	1,987,604	1,676,112
Fees provided by a legal firm associated with a director of the Company	226,935	468,540

11. Related Party Transactions (continued)

Fees provided by PRK Partners s.r.o. ("PRK"), a legal firm associated with Daniel Rosický, a director of the Company, for the year ended September 30, 2019 amounted to \$226,935 (2018 - \$468,540). The current year fees relate to general legal services and various land purchase negotiations whereas the prior year fees primarily related to the extensive negotiations relating to the EPCS Option Agreement.

As at September 30, 2019, amounts owing to directors and officers of the Company for salaries and directors fees amounted to \$71,414 (2018 - \$64,895) and included \$32,377 owing to the Managing Director of Mangan and \$39,037 owing in directors' fees. As at September 30, 2019, fees owing to PRK amounted to \$48,329 (2018 - \$237,246). Other amounts payable to officers and directors for the reimbursement of travel related expenses were \$50,875 for the year ended September 30, 2019 (2018 - \$18,498).

12. Contractual Commitments

Pursuant to the Mangan Acquisition Agreement, dated May 13, 2016, the Company committed to five issuances of common shares, each valued at \$300,000. At September 30, 2019, the Company has a commitment to issue common shares for a total value of \$300,000 due on May 13, 2020. The number of shares to be issued will be based on the value of the Company's shares at the time of issuance, which is defined to be the 20-trading day weighted average of the Company's share price. Pursuant to an amending agreement between the Company and Mangan's founding shareholders dated June 15, 2018, the terms of the remaining obligations were modified to (i) limit the minimum deemed value of the shares to be issued so as not to be less than \$0.05 per share; (ii) provide the Company with an option to settle the obligation in cash rather than shares; and (iii) require the obligation to be settled in cash in the event that the remaining share issuance results in a deemed value of below \$0.05 per share.

In connection with the acquisition of Mangan, the Chvaletice Manganese Project is subject to a 1.2% net smelter royalty interest. Mangan has a right of first refusal on the sale of all or a part of the royalties held by Mangan's founding shareholders and has 90 calendar days to match any bona fide and binding offer accepted by any of the royalty holders.

The Company has entered into employment agreements with its executive officers in which the individuals are entitled to a combination of base salary; extended benefits; specified milestones payments; and may be eligible for annual performance-based bonus as determined by the Board in its sole discretion. Following termination without cause, executive officers are also entitled to 12-month written notice or, in one case, a severance equivalent of one year's salary. Further, upon a change of control, as defined in their employment agreements, certain executives are entitled to lump sum payments of between eighteen and twenty-four months of their base salaries.

Contractual committed undiscounted cash flow requirements as at September 30, 2019, are as follows:

	Payments due by period				
	Total	Less than one year	1 - 2 years	2 - 3 years	After 3 years
	\$	\$	\$	\$	\$
Minimum office lease payments ⁽¹⁾	161,820	106,646	52,208	2,373	593
Operating expenditure commitments ⁽²⁾	503,743	503,743	—	—	—
Total contractual obligations	665,563	610,389	52,208	2,373	593

⁽¹⁾ The Company has three non-cancellable operating office leases expiring within 2 to 4 years.

⁽²⁾ Operating expenditure commitments relate to the evaluation work on the Chvaletice Project, mainly the feasibility study.

13. Outstanding Share Data

The Company's authorized share capital consists of an unlimited number of common shares without par value. The following common shares, stock options and share purchase warrants were outstanding at December 16, 2019:

	Number of securities
Issued and outstanding common shares	175,065,435
Share options	15,500,000
Warrants	5,756,750

Certain number of common shares and share options and all of the share purchase warrants are subject to escrow. For detail on the number of escrowed securities and the timing of their release refer to note 8(ii) of the Company's September 2019 Financial Statements.

14. Proposed Transactions

As at September 30, 2019, there is no proposed asset or business acquisition or disposition being considered that would affect the financial condition, financial performance or cash flows of the Company.

15. Significant Accounting Policies, Estimates and Judgments

Basis of preparation and accounting policies

Our consolidated financial statements have been prepared in accordance with IFRS as issued by the IASB. Detailed description of the Company's significant accounting policies can be found in note 3, of the Company's September 2019 Financial Statements. The impact of future accounting changes is disclosed in Note 3.12. to our September 2019 Financial Statements.

Critical accounting estimates and judgments

The preparation of consolidated financial statements in conformity with IFRS requires management to make estimates that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the consolidated financial statements, and the reported amounts of revenues and expenses during the reporting period. Areas of judgment and key sources of estimation uncertainty that have the most significant effect are disclosed in note 3.13. of our September 2019 Financial Statements.

16. Financial Instruments and Financial Risk Management

A description of the Company's financial instruments and financial risks that the Company is exposed to and management of these risks can be found in notes 10 and 11, respectively, of the Company's September 2019 Financial Statements.

17. Internal Controls over Financial Reporting and Disclosure Controls and Procedures

Disclosure Controls and Procedures

The Company's management, under the supervision of the Chief Executive Officer (CEO) and Chief Financial Officer (CFO) are responsible for establishing and maintaining adequate disclosure controls and procedures. Disclosure controls and procedures are designed to provide reasonable assurance that material information relating to the Company, including its consolidated subsidiaries, is made known to the CEO and CFO during the reporting period. The Company's CEO and CFO believe that the Company's disclosure controls and procedures are effective in providing reasonable assurance that information required to be disclosed under applicable securities regulations is recorded, processed, summarized and reported within the time periods specified in the securities legislation.

Management, including the CEO and CFO, has evaluated the design and operating effectiveness of the Company's disclosure controls and procedures as of September 30, 2019. Based on this evaluation, management concluded that the Company's disclosure controls and procedures, as defined in NI 52-109 - Certification of Disclosure in Issuer's Annual and Interim Filings, are effective to achieve the purpose for which they have been designed.

Internal Controls Over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with IFRS. The Company uses the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") internal control framework to design internal controls over financial reporting.

Internal control over financial reporting includes those policies and procedures that: (1) pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and disposition of assets, (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with IFRS, and that receipts and expenditures are being made only in accordance with authorizations of management and directors of the Company, and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of assets that could have a material effect on the financial statements.

Because of their inherent limitations, internal controls over financial reporting can provide only reasonable assurance and may not prevent or detect misstatements. The design, maintenance and testing of any system of controls is based in part upon certain assumptions about the likelihood of future events, and any control system may not succeed in achieving its stated goals under all potential future conditions.

Management, under the supervision and with the participation of our CEO and CFO, has evaluated the effectiveness of the design and operating effectiveness of the Company's internal control over financial reporting as of September 30, 2019. Based its evaluation, management concluded that the Company's internal controls over financial reporting, as defined in NI 52-109 - Certification of Disclosure in Issuer's Annual and Interim Filings, are effective to achieve the purpose for which they have been designed.

18. Forward-Looking Statements and Risks Notice

Except for statements of historical fact relating to the Company, certain information contained in this MD&A constitutes forward-looking statements or forward-looking information. Forward-looking statements or information typically include words and phrases about the future, such as: “seek”, “anticipate”, “plan”, “continue”, “estimate”, “expect”, “may”, “will”, “project”, “predict”, “potential”, “targeting”, “intend”, “could”, “might”, “should”, “believe”, “will likely result”, “are expected to”, “will continue”, “is anticipated”, “believes”, “estimated”, “intends”, “plans”, “projection”, “outlook” and similar expressions. These statements involve known and unknown risks, assumptions, uncertainties and other factors that may cause actual results or events to differ materially from those anticipated in such forward-looking statements. The Company believes there is a reasonable basis for the expectations reflected in the forward-looking statements, however no assurance can be given that these expectations will prove to be correct and the forward-looking statements included herein should not be unduly relied upon.

All of the results of the PEA constitute forward-looking information or statements, including estimates of internal rates of return, payback periods, net present values, future production, estimates of cash cost, assumed long term prices for HPEMM and HPMSM, proposed extraction plans and methods, operating life estimates, cash flow forecasts, metal recoveries and estimates of capital and operating costs. Furthermore, with respect to this specific forward-looking information concerning the development of the Project, the Company has based its assumptions and analysis on certain factors that are inherently uncertain. Uncertainties include among others: (i) the adequacy of infrastructure; (ii) the ability to develop adequate processing capacity; (iii) the price of HPEMM and HPMSM; (iv) the availability of equipment and facilities necessary to complete development; (v) the size of future processing plants and future tailings extraction rates; (vi) the cost of consumables and extraction and processing equipment; (vii) unforeseen technological and engineering problems; (viii) currency fluctuations; (ix) changes in laws or regulations; (x) the availability and productivity of skilled labour; and (xi) the regulation of the mining industry by various governmental agencies.

Such forward-looking information or statements also include, without limitation, statements regarding the Company's intentions regarding the Project in the Czech Republic, including without limitation, the continued evaluation and development of the Project, the completion of a feasibility study, the building of the demonstration plant in the Czech Republic, the Company's ability to secure additional financing for the ongoing development of the Project, its ability to acquire the remaining land or surface rights needed for the Project, the filing of an EIA, related permit applications and a formal project description with the Czech regulatory agencies and local communities, the growth and development of the high purity manganese products market and any other matters relating to the evaluation, planning and development of the Project. The Company also cautions readers that the PEA on the Project that supports the technical feasibility or economic viability of the Project, including the marketability of the high-purity manganese products, extraction method, costs, processing, metal recoveries and any other technical aspects related to the Project, is preliminary in nature and there is no certainty that the PEA will be realized.

This MD&A also contains references to estimates of Mineral Resources. The estimation of Mineral Resources is inherently uncertain and involves subjective judgments about many relevant factors. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. The accuracy of any such estimates is a function of the quantity and quality of available data, and of the assumptions made and judgments used in engineering and geological interpretation, which may prove to be unreliable and depend, to a certain extent, upon the analysis of drilling results and statistical inferences that may ultimately prove to be inaccurate. Mineral Resource estimates may have to be re-estimated based on, among other things: (i) fluctuations in manganese or other mineral prices; (ii) results of drilling; (iii) results of metallurgical testing and other studies; (iv) changes to proposed extraction operations, including recoveries and dilution; (v) the evaluation of extraction and operating plans subsequent to the date of any estimates; and (vi) the possible failure to receive required permits, approvals and licences.

18. Forward-Looking Statements and Risks Notice (continued)

The Company is engaged in the evaluation, exploration and development of mineral projects which, by their nature, are speculative. Accordingly, the Company is subject to risks associated with its industry and business, including but not limited to: risks inherent in the mineral exploration and evaluation and mineral extraction business; commodity price fluctuations; competition for mineral properties; mineral resources and reserves and recovery estimates; currency fluctuations; interest rate risk; financing risk; environmental risk; country risk; permitting risk; political risk; legal proceedings; and numerous other risks. A summary of the risks relating to the business of the Company and industry-related risks, and risks relating to the Company's Shares is included in the Company's Annual Information Form dated December 16, 2019, filed on SEDAR at www.sedar.com under the Company's profile.

If any of such risks or uncertainties actually occur, the Company's business, financial condition or operating results could be harmed substantially and could differ materially from the plans and other forward-looking statements discussed in this MD&A. The Company will not necessarily update this information unless it is required to by Securities laws.