

# HPQ SILICON RESOURCES INC.

# MANAGEMENT DISCUSSION AND ANALYSIS

For the Quarter ended June 30, 2020

## INTRODUCTION

This management discussion and analysis (``MD&A``), prepared as at August 27, 2020, contains information as at June 30, 2020 and should be read in conjunction with the unaudited Consolidated Financial Statements for the periods ended June 30, 2020 of HPQ Silicon Resources Inc ("HPQ-Silicon", the "Corporation" or "HPQ"). The Notes referred to in this MD&A refer back to the Notes in the Consolidated Financial Statements. The Consolidated Unaudited Financial Statements are presented in compliance with the IAS 34 standards "Quarterly Financial Information" which calls for critical accounting estimates. They also demand of Management the exercise of its judgement in the application of the accounting methods used by HPQ Silicon. Note 5 of the Financial Statements outlines the particularly complex areas where such judgement is required as well as the hypotheses and estimates where such hypotheses and estimates have a major effect on the Consolidated Financial Statements. The consolidated Financial Statements are to the classification used in the preparation of the Consolidated Financial Statements were not adjusted in regard to the accounting value of Assets and Liabilities, Revenues and Expenses and to the classification used in the preparation of the Consolidated Cash Flow Statement under the hypothesis of the Corporation's ability to continue as a going concern. These adjustments could be significant. All amounts are in Canadian dollars.

The consolidated Financial Statements of June 30, 2020, were prepared by management and not audited.

HPQ Silicon Resources Inc. was incorporated on December 20, 1996, under the Canada Business Corporations Act. The Corporation's shares are part of the Emerging Corporation category and are publicly traded on the TSX-Venture Exchange ("TSX-V") under the symbol:"HPQ". It is a reporting issuer under the securities laws of the provinces of Quebec, Alberta and British Columbia. HPQ Silicon's Head Office is located at 3000, Omer-Lavallée Street, Suite 306, Montréal, Québec, Canada, H2Y 1R8.

The Corporation regularly presents supplementary information on its activities which are filed on (SEDAR) (www.sedar.com).

## FORWARD LOOKING STATEMENTS

This MD&A contains forward-looking statements that are based on the Company's expectations, estimates and projections regarding its business, the mining industry in general and the economic environment in which it operates as of the date of the MD&A. These statements are reasonable but involve a number of risks and uncertainties, which are identified in the regular filings done by the Corporation with the Canadian Regulatory Authorities and there can be no assurance that they will prove to be accurate and the final results as well as future events could vary in a material manner and contradict the results expected under these Statements. Therefore, actual outcome and results may differ materially from those expressed in or implied by these forward-looking statements.

The Forward Looking Statements are influenced by a variety of risks, uncertainties and other factors which could significantly alter the results and actual events. When used in this document the words such as "could", "plan", "estimate", "intention", "potential", "should" and similar expressions are Forward Looking Statements.

Even though the Corporation believes that the expectations expressed in these Forward Looking Statements are reasonable, these statements are subject to risks and uncertainties and there is no assurance given by the Corporation that the expected results will correspond to the Forward Looking Statements.

Many risks exist which could render these Forward Looking Statements erroneous such as the price movements in the metals markets, the fluctuations in the foreign exchange and interest rate, of under or over estimated reserves, environmental risks (ever increasing regulations), unforeseen geological situations, negative extraction conditions, changes in government regulations and policies, the inability to obtain the needed permits and government approvals, First Nations issues, or any other risk tied to exploration and development.

The Corporation's ability to continue its operations is subject to securing additional financings needed to continue the exploration of its mineral properties and to the continuous support of suppliers and creditors. Even though the Corporation was able to secure such financings in the past there is no guarantee it will be able to do so in the future.

The Corporation commits to update its Forward-Looking Statements and to advise its shareholders if circumstances, estimates or opinions issued by Management must be changed.

# NATURE OF ACTIVITIES

The Corporation's objectives are the exploration and discovery of industrial mineral properties possibly leading to viable commercial exploitation and to become the lowest cost producer of Silicon (Mg-Si), High Purity Silicon (Si), Porous Silicon Wafers and Solar Grade Silicon Metal (SoG-Si). The company activities are centred on becoming vertically integrated using it's proprietary PUREVAP<sup>TM</sup> "Quartz Reduction Reactors" (QRR) (patent pending) process. A process which will allow the transformation of quartz (SiO<sub>2</sub>) into High Purity Silicon (Si) at prices that will propagate its renewable energy potential.

To date HPQ Silicon hasn't determined: if the mineral assets it's currently exploring contain mineral reserves which could be extracted profitably; if it will be able to secure the needed financings to continue the development of it's exploration assets, the development of its technologies and to start commercial production, or realize profits from the disposal of such assets.

## OVERALL PERFORMANCE DURING THE SECOND QUARTER OF 2020

On May 26, 2020, the Company has settled a trade account payable of \$395,514 by the issuance of 4,394,600 units consisting of one common share and one warrant. Each warrant entitles the holder thereof to subscribe for an equivalent number of common shares of the Company at a price of \$0.10 per share, during a period of 36 months following the closing of the financing.

# OVERALL PERFORMANCE DURING THE SECOND QUARTER OF 2020 (continued)

- On April 23, 2020, the Company completed a private financing for an amount of \$500,000. The Company issued 10,000,000 units consisting of one common share and one warrant. Each full warrant entitles the holder thereof to subscribe for an equivalent number of common shares of the Company at a price of \$0.10 per share, during a period of 36 months following the closing of the financing. In addition, the Company recorded an amount of \$12,000 commission fees. The Company issued to the agent 240,000 warrants. Each warrant entitles the holder to subscribe to one common share of the Company at a price of \$0.10 per share for a period of 36 months from the date of closing of the financing
- ➢ On April 15, 2020, HPQ announced promising results emanating from electrochemical performance tests performed on materials produced with our GEN2 PUREVAP<sup>™</sup> Quartz Reduction Reactor ("QRR") modified that have demonstrated its potential to advantageously replace graphite in Lithium-ion (Li-ion) batteries
- During the period, 1,087,000 common shares were issued following the exercise of warrants, 175,000 common shares were issued following the exercise of broker's units, 178,720 common shares were issued following the exercise of broker's warrants. The weighted average share price at the exercise was \$0.13 per share.
- During the second quarter of 2020, the Company paid \$ 19,006 for the patents and \$ 83,451 for its alliance with Apollon Solar.

# OVERALL PERFORMANCE DURING THE FIRST QUARTER OF 2020

- On January 15, 2020, HPQ announced that the PUREVAP<sup>™</sup> GEN 2 reactor has been modified and has successfully produced spherical nano-powders from silicon metal with a primary size <500 nanometers (<0.5 µ).</p>
- During the first quarter of 2020, the Company paid \$ 7,566 for the patents and \$ 110,814 for its alliance with Apollon Solar.

# SUMMARY OF CURRENT ASSETS AND EXPLORATION WORK

- As at June 30, 2020, the Corporation held cash in an amount of \$277,028, \$458,000 in marketable securities in a quoted company, \$87,755 in Goods and Services tax receivables, \$48,093 royalties receivable and \$109,123 in prepaid expenses.
- > For the period ending June 30, 2020, HPQ did not perform any exploration work on the properties.

# **EXPLORATION ACTIVITIES AND PROJECTS**

#### **QUARTZ/SILICON**

### **PROJECT: RONCEVAUX**

The Roncevaux property is made-up of 27 map designated cells ("CDCs") covering a total of 2,068 ha in 2 blocks. The main block covers some 24 CDCs for a total area 1,895.76 hectares and is host to the Roncevaux quartz vein occurrence. The second block consists of 3 CDCs covering 172.40 hectares some 2.2 km north of the main block. The property is located in the Matapedia region of Gaspé about 75 km south of Causapscal.

The Roncevaux Project lies within the southern domain in the central portion of the Connecticut Valley-Gaspé synclinorium. It is bound to the north by the Shickshock-South fault and to the south by the Restigouche fault. This basin is filled with fine to very coarse grained siliciclastic rocks, various types of limestones, felsic to mafic volcanic and intrusive rocks. The rocks of the Roncevaux vein area belong to the Fortin Group and the few outcrops visited by the INRS-ETE technical team in September 2015 were made-up of sandstones and siltstones with lesser units of shales and mudstones. The rocks are folded faulted and fractured. Bedding (So) appears sub-vertical (85o) with an average strike of N231o.

During the last quarter of the year of 2017, the Corporation completed a 2,000 meters diamond drilling program. This program consisted in 32 holes, each to a depth of 50 m, along the known 400 meter Quartz outcrop. Assays and characterization tests will be undertaken on the drill cores.

During the year 2018, the Corporation has granted to Beauce Gold Fields Inc. the Roncevaux Specific Mining and exploration rights except for Quartz in exchange for 100,000 shares at a deemed price of \$ 0.10 each and a 5% NSR. Up to 4% of this royalty can be bought back by paying \$ 100,000 for each 0.10% NSR up to a maximum of \$4 million.

During for the period of 2020, the Corporation did not perform any exploration work on the property.

## **PROJECT: MARTINVILLE**

The Martinville Property (the "Property") is located in the Eastern Townships 180 km east of Montreal and 30 km south of Sherbrooke. Private forests and small farms mostly cover the region. The property consists of 4 claims of which an area of 2.42 km2 is available for exploration. The initial 2 Claims cover the area where the exploration work has been carried out and they host quartz veins that were historically worked on.

The quartz is made up of Schist encased hydrothermal quartz veins. A 1995 geophysical survey shows an exploration potential of more than 1,000,000 tonnes SiO2 using a surface length quartz vein of 200 m, averaging 2 to 23 meters in width while assuming a depth of up to 30 m (GM53696 : Pierre Vincent, "géosciences de l'établissement". 1995.). While pertinent this data is non-NI 43-101 compliant.

During the last year the 2019, the Corporation did not perform any exploration work on the property and the devalued for \$ 262,565..

# HIGH PURITY QUARTZ/SILICON

**Silicon (Si)** also known as silicon metal, is one of today's strategic materials needed to fulfil the Renewable Energy Revolution ("RER") presently under way. Silicon does not exist in its pure state; it must be extracted from quartz (SiO<sub>2</sub>), in what has historically been a capital and energy intensive process.

HPQ is building a portfolio of unique high value silicon products needed for the RER. But since Silicon is extracted from quartz (SiO<sub>2</sub>), HPQ started in that by pathways by first acquiring quartz exploration concessions.

Working with PyroGenesis Canada Inc, ("PyroGenesis") a high-tech company that designs, develops, manufactures and commercializes plasma - based processes, HPQ is developing:

• The *PUREVAP<sup>™</sup> "Quartz Reduction Reactors" (QRR)*, an innovative process (patent pending), which will permit the one step transformation of quartz (SiO<sub>2</sub>) into high purity silicon (Si) at reduced costs, energy input, and carbon footprint that will propagate its considerable renewable energy potential;

HPQ is in the process of becoming the lowest cost (Capex and Opex) producer of silicon (Si) and high purity silicon (3N - 4N Si);

HPQ is the owner of the PUREVAP<sup>™</sup> QRR Intellectual Property

• The **PUREVAP<sup>™</sup> Silicon Nano Reactor (SiNR)**, a new proprietary process that can use different purities of silicon (Si) as feedstock, to make spherical silicon nanopowders and nanowires;

HPQ objective is to become the lowest cost manufacturer of spherical Si nanopowders and siliconbased composites needed by manufacturers of next-generation lithium-ion batteries;

HPQ is also working with industry leader Apollon Solar of France to:

Use their patented process and develop a capability to produce commercially porous silicon (Si) wafers and porous silicon (Si) powders. The collaboration will allow HPQ to become the lowest cost producer of porous silicon wafers for all-solid -state batteries and porous silicon powders for Li-ion batteries.

Below you will find a summary of the latest progress achieved during fiscal 2019 and subsequent period on our ongoing development of our PUREVAP<sup>™</sup> project:

On August 18 2020 HPQ announced that HPQ Nano Silicon Powders Inc ("HPQ NANO"), a 100% owned HPQ subsidiary, and PyroGenesis Canada Inc. signed a development agreement covering the  $PUREVAP^{TM}$  Nano Silicon (Si) Reactor ("NSiR") development program and the future commercialisation of nano silicon materials made with this new, proprietary and low cost manufacturing process. The process will transform Silicon (Si) into spherical Silicon nanopowders and nanowires for use in Li-ion batteries.

The key areas covered by the agreement between HPQ NANO and PyroGenesis are:

- 1. PUREVAP<sup>™</sup> NSiR process development program, schedule and cost assumed by HPQ NANO;
- 2. Acquisition of the *PUREVAP<sup>™</sup> NSiR* Intellectual Property as it relates to the manufacturing of Nano Silicon powders and nanowires by HPQ NANO;
- 3. Revenue distribution between HPQ NANO and PyroGenesis from the sales of Nano Silicon materials made with the *PUREVAP<sup>™</sup> NSiR*.

# HIGH PURITY QUARTZ/SILICON (continued)

Process development program Phase 1:

- The main goal of Phase 1 is modifying the existing *Gen2 PUREVAP<sup>™</sup> QRR* reactor into the *Gen1 NSiR* for the purpose of producing nano silicon materials. The resulting new *Gen1 NSiR* will be a batch process system with a design production capacity of 30 kg/month of nano silicon powders. In order to meet the aggressive Phase 1 timeline agreed by the Parties, HPQ NANO will pay \$200,000 to PyroGenesis over the next 15 weeks needed to complete the process engineering, mechanical engineering, fabrication and system commissioning.
- Once the *Gen1 NSiR* is operational, as series of test runs will be done in order to produce nano Silicon materials. In addition to producing samples for potential customers, the nano Silicon material produced will be analysed and characterized in order to define important process parameters, fine tune operating parameters and assess the performance of all the components of the systems. HPQ NANO and PyroGenesis have agreed that each series of 10 tests would cost HPQ NANO \$132,000.

Process development program Phase 2:

- Phase 2 main objective is validating the commercial scalability of the PUREVAP<sup>TM</sup> NSiR. Using data collected during Gen1 NSiR testing phase a completely new Gen2 NSiR system will be designed and built. 35 weeks will be needed to complete the process engineering, mechanical engineering, fabrication and system commissioning and HPQ NANO will pay \$210,000 to PyroGenesis for this phase.
- The Gen2 NSiR will be a semi-continuous process system with a design production capacity of 300 kg/month (or about 3,5 MT/year) of nano silicon powders or nanowires, giving HPQ NANO a large enough production capacity to be able to start selling nano silicon materials. In addition to producing nano Silicon material, a series of Gen2 NSiR tests will be done to define the important process parameters and operating parameters required to allow the process and the systems to be scaled up to a commercial production capacity of about 2,500 MT of Nano-Silicon powders per year.

## Acquisition of the *PUREVAP<sup>™</sup> NSiR* Intellectual Property

- The agreement also covers HPQ NANO acquisition of the intellectual property rights to the *PUREVAP™ Nano Silicon (Si) Reactor* process as it relates exclusively to the production of Micron size and Nano size Silicon Powders and Silicon Nanowires (the "Field") from PyroGenesis. The acquisition cost of the *PUREVAP™ NSiR* IP is CAD\$2,400,000 and HPQ NANO has 30 days from the effective date of the agreement to make the payment to PyroGenesis.
- PyroGenesis will retain a royalty-free, exclusive, irrevocable worldwide license to use the process
  for purposes other than the production of Micron size and Nano size Silicon Powders and Silicon
  Nanowires. Should PyroGenesis be approached by any other parties for any research and
  development or commercial purposes outside of the Field, HPQ NANO shall have a right of first
  refusal, provided that, however, HPQ NANO exercise its right of first refusal within thirty (30) days
  of PyroGenesis receiving a bona-fide offer.

# HIGH PURITY QUARTZ/SILICON (continued)

Revenue distribution between HPQ NANO and PyroGenesis

HPQ NANO Silicon Powders Inc, is a stand-alone Corporation that will finance the Research and Development programs and manage the future commercialisation of Nanoscale Silicon (Si) materials made with the  $PUREVAP^{TM}$  NSiR.

- HPQ NANO will pay PyroGenesis, on an annual basis, and until conversion, the following minimum royalty (Nano-Royalty) on the gross sales of nano materials produced with the PUREVAPTM NSiR Process and Systems:
  - > For 2021, the greater of 10% of HPQ NANO gross sales or fifty thousand dollars (CDN\$50,000);
  - For 2022, the greater of 10% of HPQ NANO gross sales or one hundred thousand dollars (CDN\$100,000);
  - For 2023, the greater of 10% of HPQ NANO gross sales or one hundred and fifty thousand dollars (CDN\$150,000);
  - > For 2024 and beyond, the greater of 10% of HPQ NANO gross sales or two hundred thousand dollars (CDN\$200,000).
- PyroGenesis is being granted the right to convert, at any time and at its sole discretion, it Royalty into a 50% equity stake in HPQ NANO.

On June 11, 2020 HPQ annouced that it had signed a non-disclosure agreement ("NDA") with an advanced materials developer for the purposes of exchanging technical information and sending silicon samples produced by the *PUREVAP<sup>TM</sup> Nano Silicon Reactor (NSIR)* for energy storage applications testing. For industry competitive reasons, and according to the terms of the NDA, the identity of the advanced materials developer must remain confidential.

On April 15, 2020, HPQ announced promising results emanating from electrochemical performance tests performed on materials produced with our *GEN2 PUREVAP<sup>™</sup> Quartz Reduction Reactor ("QRR")*.

Tests conducted at the Institut National de Recherche Scientifique (INRS), on material produced with the *GEN2 PUREVAP<sup>TM</sup> QRR ("GEN2"*), demonstrated its potential to advantageously replace graphite in Lithium-ion (Li-ion) batteries while limiting the disadvantages inherent to silicon anodes.

The tests on material produced with the GEN2 are part of a series of initiatives being undertaken by HPQ in order to become a producer of silicon (Si) materials suitable for the next generation Li-Ion batteries. The tests were completed at the Centre Énergie Matériaux Télécommunications (EMT) of the INRS by Professor Lionel ROUÉ under an NSERC Engage Grant and a NSERC Engage plus Grant.

The exact composition of the material produced with the GEN2 as well as how the electrodes used in the tests were prepared are trade secrets of HPQ. HPQ will take the necessary steps to protect this invention. As part of this research project, HPQ retains all intellectual property rights in relation to this invention.

On January 15, 2020, HPQ announced that the *PUREVAP<sup>TM</sup> GEN 2* reactor has been modified and has successfully produced spherical nano-powders from silicon metal with a primary size <500 nanometers (<0.5  $\mu$ ).

## HIGH PURITY QUARTZ/SILICON (continued)

On October 31, 2019, HPQ announced a collaboration with Professor Lionel Roué of the National Institute for Scientific Research (INRS) in the context of projects to assess the electrochemical performance of different materials as anode for the Li-ion battery market and in the second phase, the electrochemical performance of the porous silicon wafers.

On September 4, 2019, HPQ announced that a new provisional patent application covering a critical part of the PUREVAP<sup>™</sup> Quartz Reduction Reactor (QRR) process has been filed. This is the second distinct patent filing for HPQ and PyroGenesis Canada Inc. since the 2015 commencement of the Company's quest to improve the global economics and supply concerns of the Silicon (Si) market. The first patent filing is currently pending and covers the entire novel PUREVAP<sup>™</sup> QRR process usage of a plasma arc within a vacuum furnace for the one step production of Silicon (Si) from Quartz (SiO2). This new provisional filing is focused on a new and novel process for continuous operations of the plasma arc furnace under vacuum.

On July 11, 2019, HPQ announced that the maximum scaled up size of a single PUREVAP<sup>™</sup>QRR reactor would allow the production of 2,500 metric tonnes ("MT") of Silicon Metal per year.

On April 25, 2019, HPQ announced that GEN2 PUREVAP<sup>™</sup> Commercial Scalability Proof of Concept tests identified new operational parameter that increases the Pure Silicon (Si Nugget) Production Yield of the PUREVAP<sup>™</sup> QRR and that a test using these new parameters was completed which together provided the following information:

- The PUREVAP<sup>™</sup> reactor can be modified from a stationary reactant mixtures load to a dynamic one, without affecting other key operational parameters of the reactor which, as a result, improves production yield significantly;
- That changing the reactant mixture load to a dynamic flow positively affects Production Yield;
- That it is feasible to modify the GEN3 PUREVAP<sup>™</sup> Pilot Plant to integrate these advantages into the new design.

On February 26, 2019, HPQ announced that GEN2 PUREVAP<sup>™</sup> Commercial Scalability Proof of Concept tests demonstrated that semi-continuous operation improves the PUREVAP<sup>™</sup> QRR Production Yield. Scaling up from GEN1 to GEN2 in semi-continuous mode, production yield increased from ~ 1% to 34% (February 15 and April 19, 2018 releases). The following points put into perspective the significance of the results:

- While 2018 test were mostly focussed on testing components and processes for the final design of GEN3 PUREVAP<sup>™</sup>, the GEN2 testing also demonstrated that production yield is crucial to the final purity of the Silicon Metal (Si) produced by the PUREVAP<sup>™</sup>;
- Of significant interest is the fact that one GEN2 PUREVAP<sup>™</sup> test provided 17.9% production yield and 99.83% total impurity removal efficiency compared to a GEN1 test under similar operating conditions, that provided 3% production yield and 97.14% total impurity removal efficiency. PyroGenesis was able to validate that production yield does play an important role in the impurity removal efficiency of the process and final purity of Si.

- Using data from both GEN1 and GEN2 tests, PyroGenesis repeated the 2017 extrapolation exercise and concluded that, even using low purity feedstock (98.84% SiO2), the carbothermic part of the PUREVAP<sup>™</sup>QRR process should allow HPQ to reach the 4N+ Si (99.99+% Si) purity threshold, assuming a production yield of +90% (or commercial scale production yield of traditional Metallurgical Grade Si (MG-Si) smelters (98.5% 99.5% Si)).
- These results exceed 2017 Gen1 base extrapolations that indicated then that the carbothermic part of the PUREVAP<sup>™</sup> QRR process could only reach the 3N+ Si (99.9+% Si) threshold using low purity feedstock (98.84% SiO2), and furthermore this required a 100% production yield (November 1, 2017 release).

On January 24, 2019, HPQ issue a comprehensive review of the Milestones reached since the start of the project.

As per the scheduling established for the design, manufacturing, assembly, cold start-up and the start of operations, no remittance has been made by the Company. The follow-up stages will consist of the hot start-up of the equipment for \$520,000, and the 10 months start-up and breaking-in phase for a value of \$2,310,000. The total investment was \$5,240,000 as of December 31, 2018 of which \$1,000,000 for the acquisition of the intellectual property. During August 2018, the Corporation made a \$1,950,000 deposit to be used as payment for the star-up of the equipment.

# **EXPLORATION AND EVALUATION EXPENSES**

There were no deferred exploration expenses for the quarter ending on June 30, 2020 and June 30, 2019.

### SELECTED FINANCIAL INFORMATION FOR THE QUARTER

The following table presents Selected Financial Information for the last eight quarters.

	Financial Period 2020		Financial Period 2019				Financial Period 2018	
Quarter finishing on:	06/30	03/31	12/31	09/30	06/30	03/31	12/31	09/30
	\$	\$	\$	\$	\$	\$	\$	\$
Operating	283,944	209,291	513,279	280,828	288,221	257,294	474,795	350,920
Net Loss	54,639	268,462	229,086	296,783	491,046	367,426	393,298	470,294
Loss per share (basic and diluted)	(0,00)	(0.00)	(0.01)	(0.00)	(0.00)	(0.00)	(0.01)	(0.00)
Current Assets	979,999	2,252,826	2,294,572	2,420,938	2,424,188	2,775,249	3,022,683	5,381,473
Total Assets	12,028,083	10,901,529	10,854,176	11,168,641	10,946,356	11,231,970	11,391,633	13,217,610
Current Liabilities	903,558	935,449	656,765	881,085	868,070	851,244	824,286	995,091
Non-Current Liabilities	3,825,355	3,689,545	3,665,427	3,372,391	3,954,275	3,493,778	3,326,348	3,004,678
Shareholders' Equity	7,299,170	6,276,535	6,531,984	6,555,165	6,484,011	6,886,948	7,240,999	9,217,841

## DISCUSSION ON THE FINANCIAL INFORMATION OF THE SELECTED QUARTER

# • TOTAL PERFORMANCE

For the second quarter of 2020, the Company saw decrease in its Net Loss of \$ 436,407 (89%) (\$ 54,639 vs \$ 491,046), while operational costs decreased by \$ 4,277 (1%) (\$ 283,944 vs \$ 288,221) while during the last seven quarters the respective averages were \$ 359,485 and \$ 3339,485.

#### **DISCUSSION ON THE FINANCIAL INFORMATION OF THE SELECTED QUARTER (suite)**

## • NET LOSS ANALYSIS

The decrease in Net loss of \$98,964 (27%) (\$268,462 vs \$367,426), in comparison to the same period in 2019, corresponds to the decrease in the Costs operations of \$48,003 (\$209,291 vs \$257,294) and the increase in other income and expenses by \$50,961 (- \$59,171 vs \$110,132).

There was a decrease in costs operations of \$ 4,277 (1%) (\$ 283,944 vs \$ 288,221). This decrease is linked to several elements; Salaries and benefits charges decreased by \$ 25,541 (17%) (\$ 125,591 vs \$ 151,132) and professional and consulting fees increased by \$ 21,454 (19%) (\$ 135,160 vs \$113,706).

The increase in the Other incomes and expenses of \$ 432,130 (\$ 229,305 vs \$ -202,825) mainly corresponds of the increase the change in the fair value of marketable securities in a quoted company of \$ 423,390 (\$ 376,000 vs -47,390 \$).

## SELECTED FINANCIAL INFORMATION FOR THE 2020 PERIOD

	FISCAL 2019	FISCAL 2019	FISCAL 2018	FISCAL 2017
	30/06/20	30/06/19	30/06/18	30/06/17
	\$	\$	\$	\$
Operating expenses	493,235	545,515	691,576	951,672
Net loss	323,101	858,472	781,831	498,108
Results per share (basic and diluted)	(0,00)	(0.00)	(0.00)	(0.00)
Current Assets	979,999	2,424,188	2,655,484	4,047,091
Total Assets	12,028,083	10,946,356	9,664,041	9,786,113
Current Liabilities	903,558	868,070	758,490	888,072
Non-current Liabilities	3,825,355	3,594,275	2,395,256	2,171,034
Shareholders' Equity	7,299,170	6,484,011	6,510,295	6,727,007

The following table presents Selected Financial Information for fiscal 2020, 2019, 2018 and 2017.

#### **GENERAL DISCUSSION ON FINANCIAL INFORMATION FOR THE 2020 PERIOD**

## • OVERALL PERFORMANCE

In 2020, in comparison to 2019, the Company saw decrease in its Net Loss of \$ 535,371 (62%) (\$ 323,101 vs \$ 858,472), while operational costs decreased by \$ 52,280 (9%) (\$ 493,235 vs \$ 545,515) while during the last three previous periods these costs averaged respectively \$ 712,804 and \$ 729,588.

### DISCUSSION ON NET RESULTS

The decrease in Net loss of \$98,964 (27%) (\$268,462 vs \$367,426), in comparison to the same period in 2019, corresponds to the decrease in the Costs operations of \$48,003 (\$209,291 vs \$257,294) and the increase in other income and expenses by \$50,961 (- \$59,171 vs \$110,132).

There was a decrease in costs operations of \$ 52,280 (9%) (\$ 493,235 vs. \$ 545,515). This decrease is linked to several elements; Salaries and benefits charges decreased by \$ 40,632 (16%) (\$ 211,125 vs \$ 251,757) and professional and consulting fees decreased by \$ 20,435 (8%) (\$ 237,540 vs \$ 257,975).

The increase in the other incomes and expenses of \$ 483,091 (\$ 170,134 vs \$ 312,957) corresponds to the increase in the fair value of marketable securities in a quoted company of \$ 346,140 (\$ 368,000 vs \$ 21,860), to decreased in the change in the fair value of the derivative liability by \$ 60,409 (\$ 11,964 vs - \$ 48,445) as well as the decrease the amortization change of the present value of royalties payable of \$ 90,249 (26,748 \$ vs \$ 117,007).

## • LIQUIDITIES AND CAPITAL RESOURCES

The Corporation for the period ending in 2020 with a working capital of \$ 76,441 (\$ 1,637,807 as at December 31, 2019). The current assets totalled \$ 979,999: cash on hand \$ 277,028 (\$ 77,618 as at Dec. 31, 2019), marketable securities in a quoted company \$ 458,000 (\$ 90,000 as at Dec. 31, 2019), HST tax receivables \$ 87,755 (\$ 30,768 as at Dec. 31, 2019), Royalties receivable \$ 48,093 (\$ 46,186 as at Dec. 31,2019), a deposit on a contract of \$ nil (\$ 1,950,000 at Dec. 31, 2020) and prepaid expenses of \$ 109,123 (\$ 100,000 as at Dec. 31, 2019).

The marketable securities in a quoted company for a value of \$ 458,000 represent an investment in PyroGenesis. The HST receivable for \$ 87,755 comes from the payment of bills related mainly to suppliers during the first quarter and second quarter. The royalty receivable of 48,093 represents the NSR according to the agreement with Beauce Gold Fields. The prepaid expenses of \$ 109,123 represents miscellaneous fees and a payment for Testing of the System. The deposit on contract of \$ 1,950,000 represents a part of the cost related to the break-in of test equipment that was postponed for the long term following the covid-19 epidemic.

During the period of 2020, the company acquired property and equipment of \$ 344,000 as well as intangible assets valued at \$ 220,837.

Current liabilities totalling \$ 903,558 (\$ 656,765 as at Dec. 31, 2019) were made up of amounts owed to trade and other payables of \$ 631,357 (\$ 447,052 as at Dec.31, 2019), due to Directors of \$ 129,000 (\$ 80,000 at Dec. 31,2019) and royalties payable of \$ 143,201 (\$ 129,713 at Dec. 31, 2019). The non-current liabilities of \$ 3,825,355 (\$ 3,665,427 as at Dec. 31, 2019) represent due to Directors, Officers and a company controlled by a Director \$ 1,011,799 (Nominal value \$ 1,088,141) (\$ 1,088,141 as at Dec. 31, 2019), the convertible debenture and derivative financial liabilities and including accrued interests for a value of \$ 1,771,935 (nominal value \$ 1,978,188) (1,640,757 at Dec. 31, 2019) as well as royalties payable of \$ 1,041,621 (\$ 1,028,351 as at Dec. 31, 2019).

## WORKING CAPITAL

As at June 30, 2020, the Corporation had a cash flow of \$ 277,028 (\$ 36,563 for 2019).

The Cash Flow used for operational activities was \$54,517. The use of cash flow for operations is made up of the Net Loss of \$323,101. The other non-cash elements that have no influence on cash flow are composed of various accretion of \$121,301, Share of loss from equity-accounted investment for \$42,119, gain on the decrease of our participation in Beauce Gold Fields of \$2,069, Financial costs of \$48,479, salaries and benefits of \$151,703, the change in fair value of the derivative liability of \$-\$11,964 as well as the variation in the value of the shares of a publicly traded company of \$368,000. The change in cash flow for operational working capital represents an amount of \$286,015 which comes from: the increase in HST receivables of \$56,987, the increase in Prepaid expenses of \$13,684 as well as the increase in trade and other payables of \$352,125.

The use of cash flow for investing activities of \$ 412,596 consists of: addition to exploration and evaluation assets of \$ 8,796, addition to property and equipment of \$ 344,00 and addition to intangible assets of \$ 59,800.

The cash flow from financing activities of \$ 666,523 includes the issuance of common share units as part of a completed private placement for an amount of \$ 500,000, the exercise of warrants for \$146,745, from the exercise broker's units for \$ 17,500, from the exercise of broker's warrants for \$ 18,032. There were issue costs of units of \$ 17,754. The Company increase in cash flow of \$ 199,410 during the period.

The Corporation average quarterly cash requirements should vary between \$ 225,000 and \$ 250,000 according to each period's activities excluding exploration and evaluation costs and the addition to property equipment and intangible assets, as well as for restructuring costs.

As long as the Corporation is in an exploration and evaluation mode it will not generate cash flow from operations. The Corporation's ability to satisfy its current obligations and continue its development is fully dependent on Management's ability to raise the needed funds from private placements and other financing programs through the issuance of share capital.

Management is of the opinion that as long as important negative events do not occur on the financial markets, during the next year, the Corporation should be able to complete the needed placements and financings to advance its various projects.

In conclusion, the financial statements do not reflect the needed adjustments that would need to be made in the event it could not raise the funding to continue its activities. Investors are hereby advised that if such changes are needed, they could be material.

## FINANCIAL COMMITMENTS, CONTINGENCIES AND SUBSEQUENT EVENTS

The Company entered into agreements with subscribers whereby the Company had to incur \$ 245,000 of Canadian Exploration Expenses ("CEE") before December 31, 2012. The Company had incurred \$ 163,875 in CEE before December 31, 2012 and an approximate balance of \$77,000 of CEE renounced to the investors was not been incurred as at December 31, 2012 and was used for other purposes than exploration expenses. The maximal contingency for the Company, in relation to non-compliance with its obligations with subscribers, is approximately \$55,000. As at February 28, 2014, the Company had produced the reductions forms related to the amount of \$77,000 in CEE renounced to the investors and that have not been incurred as at December 31, 2012. As at June 30, 2020, an amount of \$8,131 pertaining to part XII.6 taxes is included in trade accounts.

## FINANCIAL COMMITMENTS, CONTINGENCIES AND SUBSEQUENT EVENTS (continued)

The Company entered into agreements with subscribers whereby the Company had to incur \$1,245,000 of Canadian Exploration Expenses ("CEE") before December 31, 2017. The Company had incurred \$919,296 in CEE before December 31, 2017 and an approximate balance of \$293,000 of CEE renounced to the investors was not been incurred as at December 31, 2017 and was used for other purposes than exploration expenses. The maximal contingency for the Company, in relation to non-compliance with its obligations with subscribers, is approximately \$220,000. As at February 28, 2018, the Company had produced the reductions forms related to the amount of \$293,000 in CEE renounced to the investors and that have not been incurred as at December 31, 2017. As at June 30, 2020, an amount of \$34,642 pertaining to part XII.6 taxes is included in trade accounts.

The July 15, 2014, AGORACOM contract was extended by one year under the original conditions. HPQ will issue shares to AGORACOM for on-line advertising and marketing services and other related activities. The extension started on July 15, 2018 and the \$50,000 fees must be paid quarterly in \$12,500 payments plus HST. The number of shares to be issued at the end of each period is determined on the date when the invoice is issued using the closing price of the shares the previous day on the TSX Venture Exchange. The most recent twelve-month agreement started on July 15, 2018 and the services totaling \$50,000 must be paid quarterly by the Corporation through payments of \$12,500 plus HST.

On September 28, 2015, the Corporation concluded a Development and Exclusivity Agreement with PyroGenesis. In return for the Exclusive Right to use the PyroGenesis-developed technology, it must make the following payments:

- 2020, the highest between 10% of Si sales or \$150,000;
- 2021, the highest between 10% of Si sales or \$200,000;
- 2022 and after, the highest between 10% of Si sales or \$250,000.

As at June 30, 2020, the remaining total commitment for the purchase of the Pilot Plant Equipment was approximately \$2,540,000 of which an amount of \$1,950,000 is a deposit on a contract.

The Corporation has obtained the approval of the TSX-Venture Exchange for the line of credit on equity in an amount of \$1,500,000 agreed to by PyroGenesis. This line of credit is only to be used if there are any cost overruns that could be incurred for the pilot plant equipment after the end of the test period in 2019 and until December 31, 2020.

The terms of the line of credit stipulate that for costs overrun to be paid for it must be agreed to by the two party prior to the expenses being incurred. Once the expenses approved, the Corporation will need to submit a 30 days advance notice to PyroGenesis stating that it intends on using the line of credit to pay for an overrun. Once the completion of the approved work, PyroGenesis will submit an invoice for the work done and HPQ will arrange for the payment of the invoice through the issuance of a sufficient number of common shares of its share capital to pay the invoice, the whole in compliance with the TSX-V regulations. The shares being subject to a 10% discount to the market price of the shares on the invoice date.

## FINANCIAL COMMITMENTS, CONTINGENCIES AND SUBSEQUENT EVENTS (continued)

On November 17, 2017, the Company entered into a service agreement with Apollon Solar in the development of its Silicon SoG production project. On January 9, 2020, an addendum was signed with Apollon Solar in the development of its project to produce porous silicon wafers that can be used in solid Li-ion batteries. Under this amendment, the Company undertakes to pay fees of  $\leq$  120,000 over a period of 6 months from January 2020.

In March 2020, the World Health Organization declared the COVID-19 epidemic a pandemic. The situation is constantly evolving, and the measures put in place have numerous economic repercussions at the global, national, provincial and local levels. These measures, which include travel bans, solitary confinement or quarantine, voluntary or not, and social distancing, have caused significant disruption among businesses, globally and in Canada, due to the slowdown economic. Governments and central banks responded by implementing monetary and fiscal measures to stabilize the world economy; however, the current difficult economic climate may cause adverse changes in cash flow, the level of working capital and / or the search for future financing, which could have a direct impact on its future financial position. The financial impact on Company is not know at this time. The impacts will be adequately reflected in fiscal 2020.

On August 18, 2020, the Company announced that its wholly owned subsidiary HPQ Nano Silicon powders Inc. and PyroGenesis Canada Inc. have signed an agreement covering the Silicon (Si) Nano PUREVAPTM Reactor ("RSiN") development program. which are distributed as follows:

- \$2,400,000 for the purchase of the intellectual property;
- \$4,430,000 for the conception, fabrication and assembly and commissioning; and
- \$1320,000 for the trial testing.

After the period ended, 8,359,588 warrants have been raised for a total amount of \$ 1,136,603 in cash, 471,430 broker warrants were exercised for a total amount of \$ 68,521 in cash as well as 3,100,000 option have been raised for a total amount of \$ 247,000 in cash.

## SUMMARY OF ACCOUNTING POLICIES

The preparation of annual financial statements under IFRS requires that management use its judgment, makes assumptions and estimates and use hypotheses that influence the application of accounting methods, as well as having an effect on the book value of assets, liabilities, revenues and expenses. Final results could differ from these estimates.

The estimates and hypotheses are regularly reviewed. Any revision of accounting estimates are indicated during the period when the estimates are revised as well as any future periods affected by said revisions.

### SUMMARY OF ACCOUNTING POLICIES (continued)

Information on the hypotheses and estimate uncertainties that present an important risk of creating a significant adjustment during the course of the next financial period are as follows:

- Recoverability of Exploration and Evaluation Assets;
- Evaluation of Income Tax Credits to receive on resources exploration and Mining Right Credits.
- Evaluation of the convertible debenture and derivative financial liability;

Management believes that the majority of the changes will be adopted in the Corporation's accounting methods during the first period starting after the effective date of each new change. The information on the new standards and interpretations as well as the new amendments, which are susceptible to be pertinent to the Corporation consolidated financial statements are supplied below.

## FUTURE ACCOUNTING POLICIES

On January 1, 2018, the Company adopted IFRS 9 retrospectively, with the restatement of comparative data in accordance with the transitional provisions of IFRS 9. IFRS 9 defines the requirements for the recognition of financial assets and liabilities and replaces IAS 39, Financial Instruments: Recognition and Measurement.

The adoption of IFRS 9 had the effect of changing the classification of financial assets that were classified as loans and receivables but did not change the classification of other financial assets or financial liabilities. Cash, installments due to a company and installments on due to directors, officers and companies held by a director or officer classified as loans and receivables in accordance with IAS 39 are now classified at amortized cost in accordance with IFRS 9. The adoption of this new standard had no impact on the measurement of financial instruments; therefore, the comparative amounts have not been restated.

## INFORMATION COMMUNICATION CONTROLS AND PROCEDURES

As the Corporation is an emerging issuer, management does not need to attest to the establishment and maintenance of Information Communication Controls and Procedures and internal controls relating to financial information as defined under Regulation 52-109.

The Signing Officers of the Issuer are responsible to ensure that there are processes in place allowing them to gather sufficient information for the statements made in the Certificates.

## FINANCIAL INSTRUMENTS

Financial Assets used by the Corporation consist of: cash, royalties' receivable and the deposit on contract are part of the loans and receivables category.

The financial liabilities of the Corporation include supplier and creditor payables (excluding salaries and personnel related expenses), the amounts Due to Directors, the amounts Due to Directors, Officers and to a corporation held by a Director (excluding salaries and Personnel expenses) royalties payable, the interest payable on the convertible debenture, the convertible debenture and its derivative financial liability.

#### **FINANCIAL INSTRUMENTS (continued)**

The fair value of royalties' receivable; of due to Directors, Officers and corporations, controlled by a Director or Officer; of the convertible debenture and derivative financial liabilities, of the Royalties payable, are estimated using an analysis of the discounted cash flows using an interest rate for similar instruments. The fair value of royalties' payable approximates the carrying amount at the end of the year, while the fair value of the due to directors, officers and a corporation held by a director is \$ 1,011,799 and the convertible debenture is \$ 1,176,337 (excluding derivative financial liabilities).

The fair value of the marketable securities of a quoted company was estimated based on the market price at the balance sheet date. Marketable securities of a quoted company measured at fair value in the consolidated statements of cash flows as at June 30, 2020.

As at June 30, 2020, the corporation cash was held in Canadian funds in an interest-bearing account at Bank of Montreal.

### INFORMATION ON SHARE CAPITAL

### • Information on financings

On June 30, 2020, the Corporation had 258,672,165 shares issued and outstanding (230,537,866 on December 31, 2019), 76,110,000 warrants (70,628,000 as at December 31, 2019), 711,430 Broker's Warrants (650,150 on December 31, 2019), Nil Broker's Units (175,000 as at December 31, 2019) and 12,400,000 Options (12,400,000 as of December 31, 2019). The number of shares on a diluted basis is 335,962,577.

## • Information on outstanding shares

As at August 27, 2020, the Corporation had 258,672,165 shares issued and outstanding, 77,022,600 warrants, 240,000 Broker's Warrants and 9,300,000 options. The number of fully diluted shares is 335,962,577. The Corporation's share capital consists of an unlimited number of common shares with No Par Value.

#### **RELATED PARTY TRANSACTIONS**

For the period ending on June 30, 2020, the sum of \$75,000 (\$150,000 on December 31, 2019) was accounted for as management fees under a contract between the Corporation and a corporation controlled by the Chairman of the Board as part of a consulting agreement with the Corporation.

These activities are part of the normal course of business for the Corporation and are established based on their exchange value as agreed to by the parties.

Accounts payable and other payables include \$ 281,367 due to officers and a corporation held by a director (\$ 223,209 as at December 31, 2019).

#### **RELATED PARTY TRANSACTIONS (continued)**

The Corporation owes to Directors and Officers salaries and remuneration with a nominal value of \$1,217,141. The Corporation has obtained confirmation that payment of an amount of \$1,088,141, under certain conditions, will not be demanded for a minimum of 12 months and one day after June 30, 2020.

#### MANAGEMENT'S REPORT ON CONTROLS AND PROCEDURES ON INFORMATION TO BE SUPPLIED

Under the dispensations granted in November 2007 by each of the Securities Commissions of Canada, the CEO and the CFO must produce a « Certificate of Filings-Emerging Issuer » relating to financial information presented in the annual and interim filings, including Management Discussion and Analysis.

When compared with the « Schedule 52-109A2-Certificate of Annual and Interim documents », the « Basic Certificate relating to an Emerging Issuer » includes a "Notice to reader" which declares that the CEO and CFO make no declaration regarding the establishment and maintenance of Controls and Procedures on the Communication of Information (CPCI) and the Internal Controls of the Financial Information (ICFI), as outlined in Regulation52-109.

#### **RISK FACTORS**

#### • Inherent risks in mineral exploration and evaluation

The Corporation's activities consist in the acquisition and exploration of mining properties with the hope of discovering mining sites with economic potential. The Corporation's properties are currently at the exploration stage and do not hold any known commercial deposit. It is very unlikely that the Corporation will realize any short or mid-term benefits from these properties. Any future profitability of the Corporation's operations is conditional on the discovery of an economic ore body. In addition, if such a case would arise, nothing guarantees that such an ore body could be put into profitable commercial production.

#### • Environmental regulations and commitments

The Corporation's activities require that it obtains permits from various governmental authorities and are regulated by laws and regulations on the exploration, development, extraction, production, exports, income tax, labor regulations and workplace safety as well as environmental issues and other topics.

Additional costs and delays could be caused by the need to comply with laws and regulations. If the Corporation cannot obtain or renew its permits or approvals, it could be forced to reduce or cease its Exploration Evaluation and Development activities.

#### **RISK FACTORS (continued)**

#### • First Nations relations

The Corporation regularly initiates exploration work in areas where First Nations could make claims. These claims could slow down the work to do or could increase its costs. The effect of these factors cannot be precisely determined.

### • Financing needs

The exploration, evaluation, development, extraction and production from the Corporation's properties will necessitate very substantial additional financial resources. The only sources of funds available are through the issuance of share capital and borrowing. There is no assurance that such financings will be available, neither would they be available at favorable conditions or will respond sufficiently to the project's needs. This could have a negative effect on the Corporation's business and financial situation. The impossibility of obtaining a sufficient financing could delay or postpone indefinitely exploration evaluation or production activities on one or all the Corporation's properties, and even see the Corporation lose its participation in some or all of its properties.

### • Metal prices

The Corporation's share price, its financial results as well as its exploration and evaluation, production and development activities have been affected in the past and could very well be very negatively affected in the future by a fall in the price of precious and base metals.

## • Non insured risks

The Corporation's activities are subject to certain risks and dangers, including difficult environmental conditions, industrial accidents, labor conflicts, unusual or unexpected geological conditions, landslides, rock falls and other natural phenomenon such as unfavorable meteorological conditions, floods and earthquakes. Such events could result in bodily injuries or death, environmental damages or other damages to the properties or the production facilities or to the properties of other corporations, delays in mining production, monetary losses, and possibly legal liabilities.

#### • Corporate permanence

The Corporation's future depends on its ability to finance its activities and to develop its assets. The failure to obtain sufficient financing could create a situation where it could not continue its activities, realize its assets and settle its liabilities in the normal course of business within a foreseeable future.

#### (s) Bernard J Tourillon, President and Chief Executive Officer

(s) François Rivard, Chief Financial Officer

Montreal, August 27, 2020