



PyroGenesis Submits Gen 2 PUREVAP™ Progress Report to HPQ Silicon Resources Inc.; Confirms Higher Yield and Rate.

MONTREAL, QUEBEC--(GlobeNewswire-- January 15, 2018) - PyroGenesis Canada Inc. (<http://pyrogenesis.com>) (TSX-V: PYR) (OTCQB: PYRNF), a high-tech company (the "Company" or "PyroGenesis") that designs, develops, manufactures and commercializes plasma waste-to-energy systems and plasma torch products, is pleased to announce today that it has submitted to its client, HPQ Silicon Resources Inc. ("HPQ"), a report entitled "Project Progress on GEN 2 PUREVAP"

This report gives a summary of the first five (5) tests on the Gen 2 PUREVAP tests. The main results of these initial tests are:

- The Gen 2 PUREVAP can operate semi-continuously as designed and under vacuum. To our knowledge, this is the first time that this has ever been achieved.
- The Gen 2 PUREVAP provides a higher production yield and rate (5.7 times more yield and 23 times more product).
- The heat efficiency of the GEN2 is much better than GEN1. GEN2 achieves higher temperatures (i.e. more heat goes towards the process rather than being lost to various system components) and which allows for higher rate silicon production reactions and higher product purity.

"These initial Gen 2 results confirm the hypothesis we formulated when we initially designed this new reactor for higher yield and better performance. The results also provide confirmation of our design parameters for the upcoming pilot phase of the project.", said Pierre Carabin, CTO of PyroGenesis. "The next step will be to continue increasing the amount of material produced with the goal of being able to extract liquid metal directly from the reactor in operation."

PyroGenesis has been engaged by HPQ to demonstrate, on a laboratory scale, that the PUREVAP™ process can produce high purity silicon metal from quartz in a one step process. Pursuant to a Can\$8.3 MM contract signed with HPQ in August 2016, PyroGenesis is designing, fabricating, assembling, commissioning and testing a PUREVAP™ pilot system to produce silicon metal directly from quartz. The aim of the Gen 2 PUREVAP™ metallurgical testing program is to confirm previous findings, and to allow for downstream product testing as final steps are being put in place to assemble the Pilot Plant.

About PyroGenesis Canada Inc.

PyroGenesis Canada Inc. is the world leader in the design, development, manufacture and commercialization of advanced plasma processes. PyroGenesis provides technical and manufacturing expertise, cutting-edge contract research, as well as turnkey process equipment packages to the defense, metallurgical, mining, additive manufacturing (3D printing), oil & gas, and environmental industries. With a team of experienced engineers, scientists and technicians working out of our Montreal office and 3,800 m² manufacturing facility, PyroGenesis maintains its competitive advantage by remaining at the forefront of technology development and commercialization. Its core competencies allow PyroGenesis to lead the way in providing innovative plasma torches, plasma waste processes, high-temperature metallurgical processes, and technical services to the global marketplace. Its operations are ISO 9001:2008 certified, and have been ISO certified since 1997. PyroGenesis is a publicly-traded Canadian corporation on the TSX Venture Exchange (Ticker Symbol: PYR) and on the OTCQB Marketplace (Ticker Symbol: PYRNF). For more information, please visit www.pyrogenesis.com

This press release contains certain forward-looking statements, including, without limitation, statements containing the words "may", "plan", "will", "estimate", "continue", "anticipate", "intend", "expect", "in the process" and other similar expressions which constitute "forward-looking information" within the meaning of applicable securities laws. Forward-looking statements reflect the Corporation's current expectation and assumptions, and are subject to a number of risks and uncertainties that could cause actual results to differ materially from those anticipated. These forward-looking statements involve risks and uncertainties including, but not limited to, our expectations regarding the acceptance of our products by the market, our strategy to develop new products and enhance the capabilities of existing products, our strategy with respect to research and development, the impact of competitive products and pricing, new product development, and uncertainties related to the regulatory approval process. Such statements reflect the current views of the Corporation with respect to future events and are subject to certain risks and uncertainties and other risks detailed from time-to-time in the Corporation's ongoing filings with the securities regulatory authorities, which filings can be found at www.sedar.com, or at www.otcmarkets.com. Actual results, events, and performance may differ materially. Readers are cautioned not to place undue reliance on these forward-looking statements. The Corporation undertakes no obligation to publicly update or revise any forward-looking statements either as a result of new information, future events or otherwise, except as required by applicable securities laws.

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