PYROGENESIS ANNOUNCES THAT PUREVAP™ NOW SUCCESSFULLY PRODUCES 4N+ (+99.99%) SILICON METAL FROM LOW PURITY QUARTZ

MONTREAL, QUEBEC--(Marketwired – November 29, 2016) - PyroGenesis Canada Inc. (http://pyrogenesis.com) (TSX-V: PYR) (OTCQB: PYRNF), a clean-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, further to its press release of November 2nd, 2016, the PUREVAP™ process can now produce high purity silicon metal in excess of 4N (99.99%) from a low purity quartz feedstock. Testing continues to reach the ultimate goal of producing solar grade silicon metal.

During these latest series of tests, the feedstock purity used was on average 98.14% and silicon metal was produced and collected in a laboratory furnace (Figure 1).

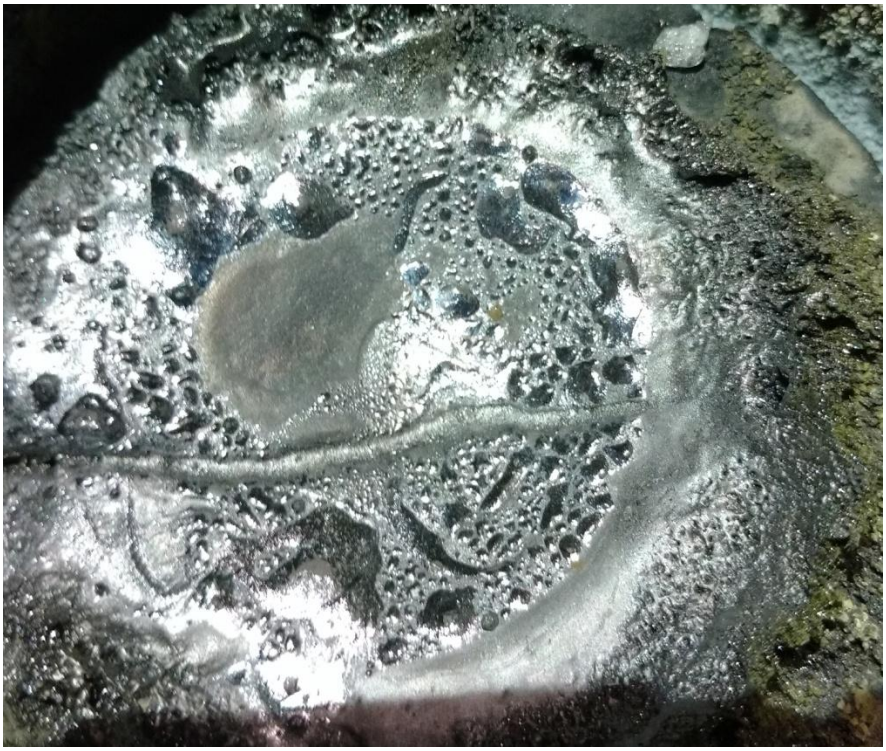

Figure 1 – Silicon metal produced in the laboratory furnace

Multiple measurements were taken, the results of which exceeded the detection limits of the instruments used and as such, we can say with certainty that a minimum purity level of 4N has been reached. Future testing will be done using more sensitive instruments.

Overall impurity removal was extremely efficient. Iron, which was the most abundant impurity, has been completely removed, as was Calcium. Table 1 reflects the removal efficiency of a number of different contaminants.

Table 1 – Comparison of the impurity levels in the feedstock versus the Silicon Product

Material	Feedstock Mixture (ppm)	Silicon Product* (ppm)	Difference (%)
Al	285	78	-73%
Ca	865	0	-100%
Fe	4508	0	-100%
Mg	37	0	-100%
Mn	50	0	-100%
Na	158	0	-100%
K	66	0	-100%
Ti	9	0	-100%
P	61	20	-67%
S	58	0	-100%
W	0	0	N/A
B	4	0	-100%
Total	**6102**	**98**	**-98%**

**0 means below detection limits (< 0.01 %)*

"These results are significant as the prevailing proposition suggests that the quartz purity level required to make high purity silicon metal is over 99.5%[1]" said P. Peter Pascali, President and CEO of PyroGenesis. "The PUREVAP™ has proven that to no longer be the case. We have demonstrated that the process can produce high purity silicon metal from significantly lower purity quartz as feedstock. The implications of this are enormous when considering the potential commercial applications of the process. Conceivably, we can now take a cheap and abundant low purity quartz feedstock and transform it into a high value end product."

The PUREVAP™ is a process being developed by PyroGenesis in which quartz is transformed into silicon metal in one-step; effectively eliminating significant overheads thereby creating a simple, pure and cheap alternative to that currently available. Management believes this process could have a significant impact on the solar industry. However, given recent developments, there seems to be significant commercial applications at lower purity levels as well (i.e. above 99.9%).

[1] NI 43-101 Preliminary Economic Assessment on the Langis Silica Deposit and a Metallurgical Silicon Processing Plant in the Matapedia Region, Province of Québec, Canada. PEA study prepared by Viridis.iQ, GmbH in accordance with the requirements of National Instrument 43-101; "Exploring for silica in Quebec", SIDEX, Online report, http://www.sidex.ca/wp-content/uploads/2015/02/Exploring-for-Silica-in-Quebec.pdf, February 2015, Accessed on November 1st 2016.

“We are extremely pleased with the progress to date,” said Pierre Carabin, CTO of PyroGenesis. “We have now reached the detection limits of two analysis methods and confirmed the ability of the process to produce silicon metal of at least 99.99% purity. This confirms that we are truly on the right path to something unique and closer to our ultimate goal of 6N.”

“Producing 4N+ material from low purity feedstock is another major milestone reached by our team on the road to transforming quartz into solar grade silicon metal,” said Mr. Pascali. “Key milestones are being reached and the path towards higher purity levels is becoming ever clearer. We do not expect the future to be without its challenges, but so far, the results produced continue to be better than what we had anticipated.”

About PyroGenesis Canada Inc.

PyroGenesis Canada Inc. is the world leader in the design, development, manufacture and commercialization of advanced plasma processes. We provide engineering and manufacturing expertise, cutting-edge contract research, as well as turnkey process equipment packages to the defense, metallurgical, mining, advanced materials (including 3D printing), oil & gas, and environmental industries. With a team of experienced engineers, scientists and technicians working out of our Montreal office and our 3,800 m^2 manufacturing facility, PyroGenesis maintains its competitive advantage by remaining at the forefront of technology development and commercialization. Our core competencies allow PyroGenesis to lead the way in providing innovative plasma torches, plasma waste processes, high-temperature metallurgical processes, and engineering services to the global marketplace. Our operations are ISO 9001:2008 certified, and have been ISO certified since 1997. PyroGenesis is a publicly-traded Canadian company 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 Company'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 Company with respect to future events and are subject to certain risks and uncertainties and other risks detailed from time-to-time in the Company'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 Company 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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