

---

---

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549**

**FORM 6-K**

**REPORT OF FOREIGN PRIVATE ISSUER PURSUANT TO RULE 13a-16 OR 15d-16 UNDER THE SECURITIES  
EXCHANGE ACT OF 1934**

**For the month of September 2023**

Commission File Number: **001-39989**

**PYROGENESIS CANADA INC.**  
(Translation of registrant's name into English)

**1744, William St. Suite 200  
Montreal, QC, H3J1R4  
Canada**  
(Address of principal executive office)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.  
Form 20-F [  ] Form 40-F [  ]

---

On September 19, 2023, the Registrant issued a press release, a copy of which is attached hereto as Exhibit 99.1 and is incorporated herein by reference.

#### EXHIBIT INDEX

<u>Exhibit Number</u>	<u>Description</u>
-----------------------	--------------------

<a href="#">99.1</a>	<a href="#">Press Release dated September 19, 2023</a>
----------------------	--

---

## SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

PYROGENESIS CANADA INC.

(Registrant)

Date: September 19, 2023

/s/ P. Peter Pascali

P. Peter Pascali  
Chief Executive Officer

## PyroGenesis Signs Initial Order with Global Aerospace Firm for “Coarse Cut” Titanium Metal Powder for 3D Printing

### Expands into Coarse Cut Metal Powder Market alongside Fine Powder

MONTREAL, Sept. 19, 2023 (GLOBE NEWSWIRE) -- PyroGenesis Canada Inc. (<http://pyrogenesis.com>) (TSX: PYR) (NASDAQ: PYR) (FRA: 8PY), a TSX30 and a Deloitte Canada Clean Technology Fast 50™ company (the “Company” or “PyroGenesis”) that designs, develops, manufactures and commercializes advanced plasma processes, high quality plasma atomized metal powder for 3D printing, and sustainable solutions which are geared to reduce greenhouse gases (GHG), is pleased to announce that the Company has received a small signed order from a global aerospace firm (the “Client”). This order pertains to PyroGenesis’ plasma atomized titanium metal powders designed for 3D printing and is intended for one of the Client’s ongoing internal research and development programs. Unlike the recently announced contract for fine powder, this new order is for “coarse cut” metal powder, typically considered a by-product from the production runs that produce fine powders ranging from 20-45 µm (microns) in size.

The Client is the large global aerospace original equipment manufacturer (OEM) in the United States with whom the Company has previously disclosed our ongoing qualification process. The order was produced using the Company’s NexGen™ plasma atomization system and will soon be in transit to the Client.

“The significance of this order is the particle size distribution (PSD) that has been requested”, said Mr. P. Peter Pascali, CEO and President of PyroGenesis. “The PSD for this order is for our coarse cut titanium powder, in this case for powder between 45-150µm (microns), which we have been producing over the past year as we build our stock inventory. This contract recognizes what we believe is the superior overall quality of our powder and establishes a market for a larger percentage of our powder output, thereby improving our overall returns substantially.”

“With some traditional metal powder production processes, as the powder is created then filtered and separated into different cut sizes, the fine cut powder is removed for sale, with the remaining coarsest cut often considered of limited use, or even discarded as unsuitable,” said Mr. Massimo Dattilo, VP PyroGenesis Additive. “However, with PyroGenesis Additive’s NexGen™ plasma atomization system, the coarsest cut component of the production batch remains of such a high quality, that we store these powders as inventory for future sales. By selling both the fine and coarse cut of each powder production run, the Company’s yield percentage from raw material is greatly enhanced, which is in line with the Company’s broader mandate for commodity security and optimization.”

“Over the past several years, we designed, then readied, our new NexGen™ plasma atomization process with a goal to produce the highest quality metal powders in the additive manufacturing industry,” added Mr. Pascali. “PyroGenesis Additive has taken a cautious, methodical approach to its new production process. Now, with the full-scale commercialization underway, and a steady influx of initial orders, the long-term conservative strategy that has brought us to this point today is bearing fruit.”

The Company’s development of high quality titanium metal powders is part of the Company’s three-tiered solution ecosystem that aligns with economic drivers that are key to global heavy industry. Metal powders is part of the Company’s Commodity Security & Optimization tier, where the recovery of viable metals, and the optimization of production to increase output, helps to maximize raw materials and improve the availability of critical minerals. Titanium has been identified as a critical mineral by the Canadian government.

#### About PyroGenesis Canada Inc.

PyroGenesis Canada Inc., a high-tech company, is a proud leader in the design, development, manufacture and commercialization of advanced plasma processes and sustainable solutions which reduce greenhouse gases (GHG) and are economically attractive alternatives to conventional “dirty” processes. PyroGenesis has created proprietary, patented and advanced plasma technologies that are being vetted and adopted by multiple multibillion dollar industry leaders in four massive markets: iron ore pelletization, aluminum, waste management, and additive manufacturing. With a team of experienced engineers, scientists and technicians working out of its Montreal office, and its 3,800 m<sup>2</sup> and 2,940 m<sup>2</sup> manufacturing facilities, PyroGenesis maintains its competitive advantage by remaining at the forefront of technology development and commercialization. The operations are ISO 9001:2015 and AS9100D certified, having been ISO certified since 1997. For more information, please visit: [www.pyrogenesis.com](http://www.pyrogenesis.com).

#### Cautionary and Forward-Looking Statements

*This press release contains “forward-looking information” and “forward-looking statements” (collectively, “forward-looking statements”) within the meaning of applicable securities laws. In some cases, but not necessarily in all cases, forward-looking statements can be identified by the use of forward-looking terminology such as “plans”, “targets”, “expects” or “does not expect”, “is expected”, “an opportunity exists”, “is positioned”, “estimates”, “intends”, “assumes”, “anticipates” or “does not anticipate” or “believes”, or variations of such words and phrases or state that certain actions, events or results “may”, “could”, “would”, “might”, “will” or “will be taken”, “occur” or “be achieved”. In addition, any statements that refer to expectations, projections or other characterizations of future events or circumstances contain forward-looking statements. Forward-looking statements are not historical facts, nor guarantees or assurances of future performance but instead represent management’s current beliefs, expectations, estimates and projections regarding future events and operating performance.*

*Forward-looking statements are necessarily based on a number of opinions, assumptions and estimates that, while considered reasonable by the Company as of the date of this release, are subject to inherent uncertainties, risks and changes in circumstances that may differ materially from those contemplated by the forward-looking statements. Important factors that could cause actual results to differ, possibly materially, from those indicated by the forward-looking statements include, but are not limited to, the risk factors identified under “Risk Factors” in the Company’s latest annual information form, and in other periodic filings that the Company has made and may make in the future with the securities commissions or similar regulatory authorities, all of which are available under the Company’s profile on SEDAR+ at [www.sedarplus.com](http://www.sedarplus.com), or at [www.sec.gov](http://www.sec.gov). These factors are not intended to represent a complete list of the factors that could affect the Company. However, such risk factors should be considered carefully. There can be no assurance that such estimates and assumptions will prove to be correct. You should not place undue reliance on forward-looking statements, which speak only as of the date of this release. The Company undertakes no obligation to publicly update or revise any forward-looking statement, except as required by applicable securities laws.*

*Neither the Toronto Stock Exchange, its Regulation Services Provider (as that term is defined in the policies of the Toronto Stock Exchange) nor the NASDAQ Stock Market, LLC accepts responsibility for the adequacy or accuracy of this press release.*

For further information please contact:

Rodayna Kafal, Vice President, IR/Comms. and Strategic BD

Phone: (514) 937-0002, E-mail: [ir@pyrogenesis.com](mailto:ir@pyrogenesis.com)