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Press release – for immediate distribution

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## ***Uragold Technical Partner PyroGenesis Announces Purevap™ Process Breakthrough***

**Uragold (TSX Venture: UBR)** is pleased to report that PyroGenesis Canada Inc. ("PyroGenesis"), a clean-Tech company that designs, develops, manufactures and commercializes plasma waste-to-energy systems, plasma torch products and the *PUREVAP™ Quartz Vaporization Reactor* ("PUREVAP™"), from whom Uragold has been granted the worldwide exclusive rights for the One Step Production of Solar Grade Purity Silicon Metal from Quartz, announced today that early test results of their PUREVAP™ process has demonstrated that it can transform high purity quartz into silicon metal.

In their press release, Pierre Carabin, Director of Engineering of PyroGenesis stated "*We are very pleased by these early results,*" and then further stated "*Our ability to demonstrate that our process can produce metal at such an early stage is encouraging and is the first step towards the Company's objective to produce a silicon product of solar grade purity.*"

As previously noted, PUREVAP™ is a proprietary process that uses a plasma arc within a vacuum furnace to produce high purity, metallurgical grade silicon (MG-Si), solar grade silicon (UMG Si) and polysilicon from quartz in just one step.

Bernard Tourillon, Chairman and CEO of Uragold stated "*Today's press release from PyroGenesis is another significant step in the dynamic testing process that commenced on March 29. To say that we are extremely happy with this breakthrough so early in the program is an understatement. We are especially encouraged about the following statement made by PyroGenesis CEO, P. Peter Pascali in his press release – 'We look forward to the final results of our testing program and advancing to the pilot stage with Uragold.'*"

### **NEXT STEPS**

The dynamic test protocols, which called for a first series of metallurgical tests to be completed at different operational settings, are still ongoing. Having validated that the process works, the program continues to its second stage whereby the operational parameters of the reactor are adjusted in order to achieve the transformation of Uragold Quartz into Solar Grade Purity Si.

The High Purity Silicon Metal produced by the reactor during this second stage will be sent to an independent laboratory for ICP - MS "Mass Spectrometry" analysis for final validation.

Today's news from PyroGenesis is in step with previously disclosed theoretical modeling of the process, that indicate that transforming Uragold Raw Quartz into High Purity Silicon metals for solar application is within reach.



## **About Uragold**

Uragold Bay Resources is a TSX-V listed junior exploration company planning to become a vertically integrated and diversified High Value Specialty Materials Company. Uragold has announced plans to spin out its Beauce Gold Project - the largest placer gold deposit in eastern North America. Our Business model is focused on developing unique projects that can generate high yield returns and significant free cash flow within a short time line.

## **High Value Specialty Materials**

In September 2015, PyroGenesis announced that it had filed for a provisional patent for the PUREVAP™ process, which it noted was able to produce silicon, at a lower cost, while generating less CO<sub>2</sub> emissions than current processes.

Uragold, with its worldwide exclusive usage of PyroGenesis' PUREVAP™ QVR, is endeavouring to become a vertically integrated Silicon Metal (98.5% Si), High Purity Silicon Metal (99.99% Si), Solar Grade Silicon Metal (6N Purity / 99.9999% Si) and/or Higher (9N Purity / 99.9999999% Si) producer.

The PUREVAP™ QVR process's big advantage is its one step direct transformation of Quartz into High Purity Silicon Metal Solar Grade Silicon Metal and/or Higher Purity product, thereby potentially allowing Uragold to manufacture high value material for the same operating cost presently being paid by traditional producers to make Metallurgical Grade Si (98.5% Si) using the traditional arc furnace approach.

### ***The Science Behind PyroGenesis PUREVAP™ QVR Process Is Solid:***

- *Plasma arc based process can and has transformed High Purity Quartz into Mg Si.*
- *Plasma arc based process can and is being used to purify Mg Si into higher value materials such as Sg Si.*
- *Finally, refining Mg Si using an electron-beam furnace in a high vacuum-processing environment has proven the concept of the elimination of elements whose vapor pressures are higher than that of silicon.*

What is unique and ground breaking is the combination of these three proven processes into one step.

## **A Green And Clean Company**

Uragold, with its worldwide exclusive usage of PyroGenesis' PUREVAP™ QVR will also be implementing a process to make Sg Si, which is estimated to generate 14.1 kg CO<sub>2</sub> eq/Kg SG Si, versus the 54.0 kg CO<sub>2</sub> eq/Kg SG Si of emissions generated by the Siemens process (90% of the present production process). This represents 75% fewer greenhouse gas emissions, which is justified by elimination of the emissions emanating from the use of chemicals, as well as, energy consumption from the additional purification step.

## **High Purity Quartz Properties**

Uragold is also the largest holder of High Purity Quartz properties in Quebec, with over 3,500 Ha under claims. Despite the abundance of quartz, very few deposits are suitable for high



purity applications. High Purity Quartz supplies are tightening, prices are rising, and exponential growth is forecast. Quartz from the Roncevaux property successfully passed rigorous testing protocols of a major silicon metal producer confirming that our material is highly suited for their silicon metal production.

### **About Our Beauce Gold Project - Preparing To Be Spun Out To Unlock Value**

The Beauce Gold Project is a unique, historically prolific gold field located in the municipality of Saint-Simon-les-Mines in the Beauce region of Southern Quebec. Comprising of a block of 37 claims 100% owned by Uragold Bay Resources, the project area hosts a six (6) km long unconsolidated gold bearing sedimentary units (a lower saprolite and an upper brown diamictite) holding the largest placer gold deposit in eastern North America. The gold in saprolite indicates a close proximity to a bedrock source of gold providing significant potential for further exploration discoveries.

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 on-going filings with the securities regulatory authorities, which filings can be found at [www.sedar.com](http://www.sedar.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.

Neither the TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release.

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