



*For immediate release*

## **Industrial Sorting Tests increase by 170 % the Grade of the Mineralisation of the Chimo Mine Property**

### **Highlights :**

- The industrial sorting tests of mineralisation representative of the Chimo Mine project produced a concentrate representing by mass a bit more than 50 % of the original mass of the material with a percentage increase of 170 % of the gold content compared to the feed of the sorter;
- The sorting tests carried out by Corem and by Steinert US are comparable and these result in positive conclusions which bode well for increasing the value of the resources with the mineralization sorting technology. The objective of the industrial sorting of the mineralization is to increase the grade of the preconcentrated material preceding the milling operations, which allows to:
  - Increase the recovery rate at the mill;
  - Reduce transport costs to the mill;
  - Reduce milling costs;
  - Reduce the costs of environmental restoration of mine tailings;
  - Reduce the environmental footprint of mine tailings and consequently increase the social acceptability of mining project.

**Val-d'Or, April 8<sup>th</sup> 2021** – Cartier Resources Inc. (TSX-V: ECR) (“Cartier”) announces the results industrial sorting tests of mineralisation representative for the Chimo Mine property, located 45 km east of Val-d'Or. The tests were carried out by two laboratories: Corem in Quebec (Canada) and Steinert US in Kentucky (USA).

### Corem Sorting Tests :

Gold from the Mine Chimo property is present in two types of mineralised facies (**FIGURE**) either : i) quartz veins with coarse visible gold grains having an affinity for the gravity concentration of gold at the mill and ii) zones of silica-rich mafic rocks associated with non-refractory arsenopyrite having an affinity for the flotation of a concentrate of arsenopyrite for gold recovery at the mill. To perform the sorting tests, rocks representative of the 2 mineralised facies, made up of the following 6 mineralogical facies, were first selected for static recognition of each of the facies by the sensors of the sorter:

- ✓ Gold-bearing quartz veins;
- ✓ Gold-bearing silica;
- ✓ High grade gold-bearing arsenopyrite;
- ✓ Medium grade gold-bearing arsenopyrite;
- ✓ Low grade gold-bearing arsenopyrite;
- ✓ Mafic waste rock.

The detection sensors of the industrial sorter are the RGB camera using the optical properties of reflection, brightness and transparency to locate quartz and silica and the XRT sensor using the volumetric property of atomic density to locate arsenopyrite. The 2 sensors adequately recognizing the 6 mineralogical facies associated with the mineralisation, dynamic calibration tests of the sorter with the moving conveyor made it possible to sort, one at a time, 2 kg samples of each of the facies.

The sensor recognition tests having been successful, a calibration sample composed of a fraction of each of the mineralogical facies, was then constituted in order to verify the efficiency of the calibration of the sorter for the Chimo Mine project mineralisation. This sorting test is composed of a mixture of the 6 mineralogical facies, mentioned above, in proportions representative of the Chimo Mine project mineralisation. The results of this first test show that the first 3 sorts (on a total of 8 sorts) concentrated 99.1 % of the gold contained in 44.4 % by mass of material mass for a grade of 56.3 g/t Au representing a percentage increase of 223 % in gold content over sorter feed. The reject, representing 0.9 % by mass of material, contains only 0.40 g/t Au.

The sorter was then ready to perform sorting tests on the 105.7 kg production sample, representative of the mineralised facies at an average grade of 2.16 g/t Au. This content is obtained by including 20 % by mass of material with at zero grade of gold, simulating dilution in the stopes. Corem's sorting plan separated 53.9 % by mass of the material in the form of a preconcentrate at an average grade of 3.68 g/t Au representing a percentage increase of 170 % in the gold grade compared to the sorter feed. The waste disposal, thus separated from the mineralisation, represents 46.1 % by mass of material at an average grade of 0.38 g/t Au.

#### [Steinert US Sorting Tests :](#)

Sorting tests, carried out with Steinert in Kentucky (USA), yielded comparable results. An 80.69 kg production sample, representative of the mineralised facies at an average grade of 2.13 g/t Au, to which 20 % by mass of material at zero grade of gold was added mathematically, representing the dilution in the workings, was used for testing. The new grade thus diluted is now 1.55 g/t Au. Calculation of the results reveals that 51.0 % by mass of the dilute grade material could be separated as a preconcentrate at an average grade of 2.72 g/t Au representing a 175 % increase in gold grade compared to the sorter feed. The waste disposal, which would thus be separated from the mineralisation, would represent 49.0 % by mass of material at an average grade of 0.36 g/t Au. Sorting tests with Corem were carried out following these tests to validate that the 20 % of dilution material at zero grade of gold, mathematically added, could physically be effectively separated by the sorter. The results obtained by Corem are positive and of the same order of magnitude as those of Steinert US.

## Highlights of Chimo Mine Project

- Recall that the third gold resource estimate\* 1 made available on March 22, 2021 reported **(FIGURE)**:
  - ✓ **6,616,000 tonnes at an average grade of 3.21 g/t Au for a total of 684,000 ounces of gold in the Indicated category and;**
  - ✓ **15,240,000 tonnes at an average grade of 2.77 g/t Au for a total of 1,358,000 ounces of gold in the Inferred category.**

\*1 : [Mineral Resource Estimate of the Chimo Mine property, Québec, Canada, Christine Beausoleil, P. Geo. InnovExplo Inc., March 22 2021.](#)

- Cartier holds a 100 % interest in the property for which a 1 % NSR (“Net Smelter Return”) royalty has been granted to IAMGOLD Corporation. There is no right of first refusal.
- The property, accessible year-round, is located near 6 ore processing mills in the Val-d’Or area.
- Fourteen gold zones were exploited by three producers between 1964 and 1997 for a production of 376,217 ounces of gold.
- The mining infrastructure consists of a network of drifts over 7 km, distributed over 19 levels and connected by a 5.5 m x 1.8 m three-compartment shaft for a depth of 920 m. The headframe and surface installations were dismantled in 2008, but the 25 kV power line and sandpit are still in place.
- [The study on the hoisting capacities of the shaft of the Chimo Mine property](#) reveals that the components of the internal structure of the shaft could allow hoisting with elongated 20 metric tons (mt) “skips”, 4,921 mt / day at the rate of 10 hours of hoisting operation per 24-hour day, i.e. 1.7 M mt / year. The hoisting capacity in 10 hours of operation / 24 hours, could be increased to 6,151 mt / day (2.2 M mt / year) with “skips” of 25 mt and to 7,381 mt / day (2.6 M mt / year) with “skips” of 30 tm; all mainly by replacing the guides in place with steel guides.
- Cartier’s drilling to date on the Chimo Mine Property consists of 124 holes totalling 58,054 m and 21,867 samples collected for gold analysis.

## About Cartier

Cartier Resources Inc., founded in 2006, is based in Val-d’Or, Quebec. This province has consistently ranked as one of the world’s best mining jurisdictions, primarily because of its favourable geology, attractive fiscal environment and pro-mining government.

- The Company has a strong cash position with more than \$10.4 million and a significant corporate and institutional endorsement, including Agnico Eagle Mines, Jupiter Asset Management and Quebec investment funds.
- Cartier’s strategy is to focus on gold projects with features that offer the potential for rapid growth.
- The Company holds a portfolio of exploration projects in the Abitibi Greenstone Belt of Quebec, one of the world’s most prolific mining regions.
- The Company’s focus is to advance its four key projects through drilling programs. All of the projects were acquired at reasonable costs in recent years and are drill-ready with targets along the geometric extensions of gold deposits.
- Exploration work is currently focused on the Chimo Mine and Benoist properties to maximize value for investors. Future exploration work is planned on the Fenton and Wilson properties.

### **Quality Assurance / Quality Control**

The analytical results, from Cartier drill holes, were obtained from NQ-caliber core samples crushed up to 80 % passing a 10 mesh (2.00 mm) mesh then pulverized up to 90 % passing a mesh of 200 mesh (0.07 mm). Cartier inserts 5 % of the number of samples as certified standards and another 5 % as sterile samples to ensure quality control. Samples are analyzed at Techni-Lab (Actlabs), located in Ste-Germaine-Boulé, Quebec. The 50 g pulps are analyzed by fire assay and read by atomic absorption. If i) the result is  $\geq 1.0$  g/t and  $<10.0$  g/t, a second pulp is analyzed and read by atomic absorption and if ii) the result  $\geq 10.0$  g/t, the second measurement is performed by gravimetry. For samples containing visible gold, 500 g of rock pulverized up to 90 % passing a 140 mesh (0.11 mm) mesh is analyzed by the " Metallic Sieve " method.

### **Qualified Persons**

The scientific and technical information on the Company and the Chimo Mine Project in this news release was prepared and reviewed by Mr. Gaétan Lavallière, P. Geo., Ph. D, Cartier's Vice- President, and Mr. Ronan Déroff, P. Geo, M. Sc., Cartier's Senior Geologist, Project Manager and Geomatician, both qualified persons as defined in NI 43-101. Mr. Lavallière approved the information contained in this press release.

### **About Corem**

Corem is a center of expertise in research and innovation, established in Quebec, which specializes in the processing of minerals. Using its state-of-the-art facilities, Corem has, for more than 20 years, offered services in the optimization of grinding circuits, physical separation (gravimetric, magnetic and electrostatic), flotation, physico-chemical techniques of extractive metallurgy and recovery of metals, mineralogical characterization as well as agglomeration and thermal treatment processes of ores.

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For more information, contact:  
Philippe Cloutier, P. Geo.  
President and CEO  
Telephone: 819-856-0512  
[philippe.cloutier@ressourcescartier.com](mailto:philippe.cloutier@ressourcescartier.com)  
[www.ressourcescartier.com](http://www.ressourcescartier.com)

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