Chesapeake Provides Metallurgical Update for Metates

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Vancouver, September 13, 2022 - Chesapeake Gold Corp. (TSXV: CKG) (OTCQX: CHPGF) ("Chesapeake" or the "Company") is pleased to provide a metallurgical update for its world class, Metates gold-silver project located in Durango State, Mexico.

Metallurgical Testwork Program - Initial Column

The sulphide heap leaching metallurgical test program commenced in May 2021 with a sample that had already been crushed to ½" and stored in Denver for several years.

The sample was placed in a transparent column for the oxidation phase. The column was run for 128 days and achieved an oxidation of approximately 30%. After the oxidation phase, the column was rinsed and then leached with a standard lime cyanide solution. The leach cycle was run for 90 days, similar to a standard oxide gold heap leach test.

To view an enhanced version of this graphic, please visit:
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The above graph shows that over the 90-day leach period, the gold recovery reached almost 60% and silver recovery just over 50%. These results are extremely encouraging as they show significantly higher precious metal recoveries than unoxidized samples from previous test work used to support the 2013 and 2016 prefeasibility studies (PFS).

Phase 1 - Oxidation Testwork

With fresh drill samples, an extensive metallurgical test program commenced in a Vancouver laboratory. The core material was composited into two bulk samples. One for the Massive Intrusive mineralisation and one for the Intrusive Breccia mineralisation. These two rock types represent the higher-grade core mineralisation and have been the focus of the testwork program to date.

The initial tests were all run under the same conditions and were aimed at developing time vs' oxidation vs' gold and silver recovery curves for both the Massive Intrusive and Intrusive Breccia. Two columns were also run with NO pre-oxidation to determine a baseline "Zero" oxidation gold and silver recovery. The oxidizing columns were run for 60, 120 and 180 days.

With no pre-oxidation the two mineralization types tested returned approximately 35% gold and 20% silver recoveries. The initial intrusive column demonstrated higher recoveries with almost 60% gold recovery and over 50% silver recovery. Higher recoveries above these levels are generally a successful indication that the mineralization when oxidized will give better recoveries in a heap leach environment.

Concurrently, an additional 12 columns were run at the same time as the "Zero" column testing using two different alkaline oxidation chemistries. These columns generally gave good repeatability in the oxidation rates when the columns were run under exactly the same conditions.

The oxidation rate, however, when compared to the first sample tested was slower and did not reach a similar oxidation level.

Alan Pangbourne, President and CEO, commented "the metallurgical results to date confirm that the fresh core samples being tested from Metates will oxidize in a similar fashion to the first column. We are now focusing on optimizing the oxidation rate and achieving sufficient oxidation to achieve the targeted gold and silver recoveries."

Phase 2 - Variable Testwork

A second round of testing is underway and is designed to investigating ways to speed up the oxidation kinetics and have multiple columns running under various conditions to improve and optimize the oxidation rate.

The variables being tested includes crushing finer to ¼", using High Pressure Grinding Rolls (HPGR) to crush finer, different reagent strengths, different pH's, on/off irrigation, and varying air addition rates. Initial oxidation response from some of these changes are encouraging and show higher initial oxidation rates.

Despite the slower oxidation rate of the fresh core samples, Chesapeake remains optimistic that we will be able to optimize and accelerate the oxidation to achieve the desired recoveries.

Natural Oxidation - Metates Core Samples

Over the time since we started the drilling early 2021, we have observed that the Metates mineralization will oxidize naturally when exposed to air and moisture.

Figure 1 - Fresh core from the 2021 drilling

To view an enhanced version of Figure 1, please visit:
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Figure 2- Same core 5 to 6 months later

To view an enhanced version of Figure 2, please visit:
https://images.newsfilecorp.com/files/752/136838_baf5e367348198f5_005full.jpg

The above photographs pertain to the same drill hole and were taken over a period of 5 to 6 months. The first (grey) photo above was taken as the core came out of the drill barrel. The second photo was taken in November 2021. The change in colour of the core is an indication of natural oxidation.

Figure 3- Core broken open after 5 -6 months

To view an enhanced version of Figure 3, please visit:
https://images.newsfilecorp.com/files/752/136838_baf5e367348198f5_006full.jpg

Figure 4 Other core after 5 to 6 months

To view an enhanced version of Figure 4, please visit:
https://images.newsfilecorp.com/files/752/136838_baf5e367348198f5_007full.jpg

The core was broken in November and clearly shows that the oxidation is also penetrating the sample. Additionally, parts of the core have visibly decomposed, as can be seen above in the second photo. A sample of this decomposed material was taken for X ray defection analysis (XRD).

The Company had originally planned to commence a PFS in 2022. Results of the Phase 2 metallurgical program and an updated mineral resource estimate will form the basis of a new PFS.

Presently, Chesapeake is well funded with almost C$30 million in cash and cash equivalents.

About Chesapeake

Chesapeake Gold Corp. is focused on the discovery, acquisition, and development of major gold-silver deposits in North and South America. Chesapeake's flagship asset is the Metates project ("Metates") located in Durango State, Mexico. Metates hosts one of the largest undeveloped gold-silver deposits in the Americas with over 19.8 million ounces of gold and 540 million ounces of silver in the Measured and Indicated Mineral Resource and a further 0.64 million ounces of gold and 18.0 million ounces of silver in Inferred Mineral Resource. See technical report titled "Metates Sulphide Heap Leach Project Phase I dated August 30, 2021.

Chesapeake also has an organic pipeline of satellite exploration properties strategically located near Metates. In addition, the Company owns 69% of Gunpoint Exploration Ltd. which owns the Talapoosa gold project in Nevada.

Qualified Persons

Dr. Art Ibrado, P.E., of Fort Lowell Consulting PLLC, is the independent qualified person responsible for the scientific and metallurgical technical information in this news release in accordance with NI 43-101 and has reviewed and approved the contents of this release.

For Further Information:

For more information on Chesapeake and its Metates Project, please visit our website at www.chesapeakegold.com or contact Alan Pangbourne at invest@chesapeakegold.com or +1 778 731 1362.

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