Chesapeake Announces Metallurgical Testwork Update

Sep 6, 2023

Vancouver, British Columbia – (September 6, 2023) – Chesapeake Gold Corp. (TSXV: CKG) (OTCQX: CHPGF) ("**Chesapeake**" or the "**Company**") is pleased to provide a metallurgical and mineralogical update for its world-class Metates gold-silver project located in Durango State, Mexico.

Alan Pangbourne, CEO, commented, "We are very encouraged with the latest results from this phase of metallurgical testwork. A systematic, methodological approach individually testing several parameters under different conditions is being undertaken in 42 columns. The results have identified certain parameters that provide the conditions where the leach technology oxidizes mineralization at a faster rate than our previous testwork. Under these conditions, we believe the targeted oxidation curve will be achieved and provide the foundation for preparing the pre-feasibility study early next year."

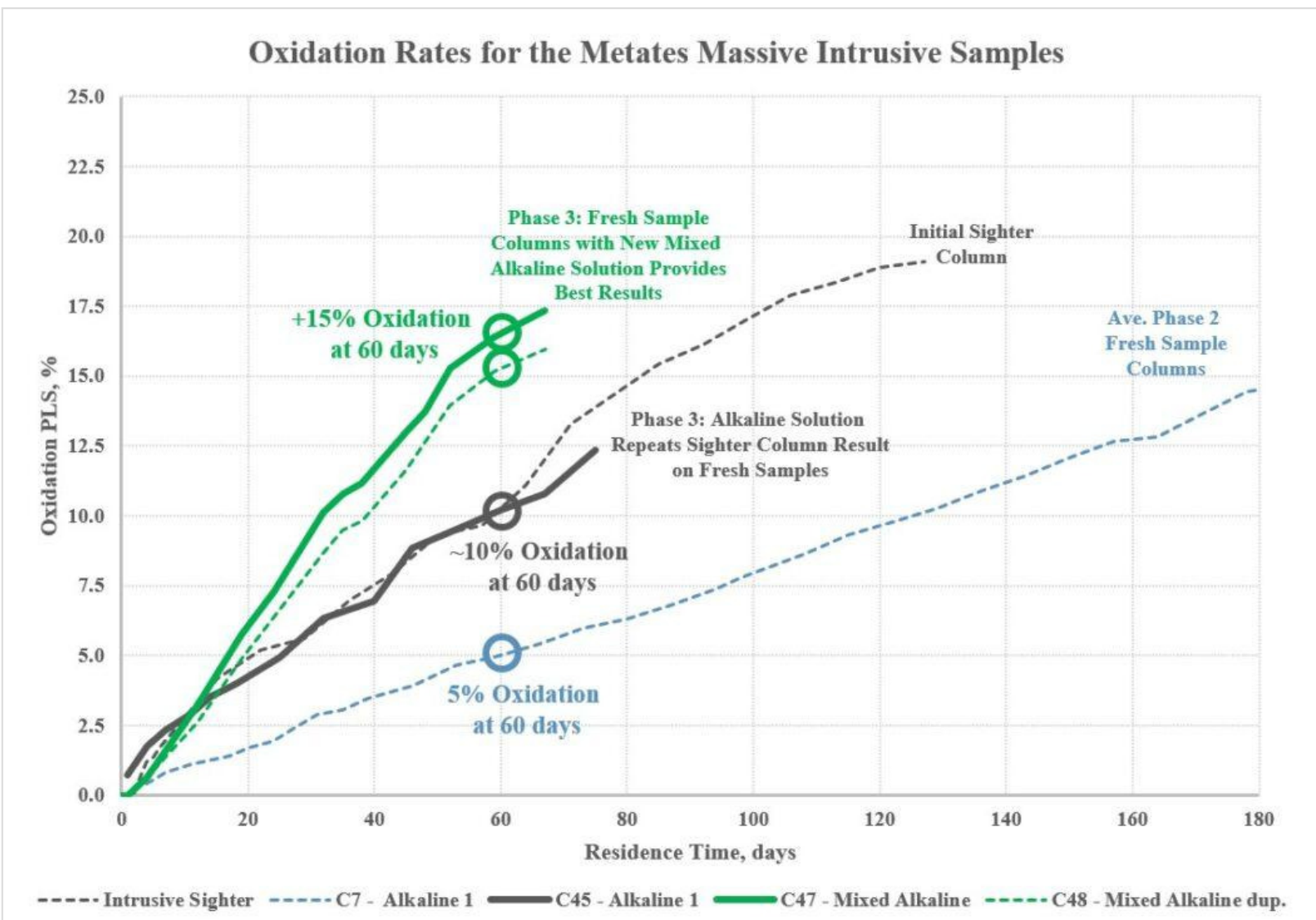
Metallurgical Testwork Program

Since our last update in September 2022 (NR04-2022), our metallurgical work has continued to investigate various parameters to improve the oxidation rates of our sulphide leach technology. The focus has included investigating several ways to accelerate the oxidation kinetics and to understand how to improve and optimize the oxidation rate.



Lab Photo with Over 40 Columns Currently Under Oxidation or Cyanide Leach

The parameters tested during this stage of work include: (i) finer crushing sizes from ½" to ⅜" to ¼" and the use of High Pressure Grinding Rolls ("**HPGR**") to produce a very fine crush at approximately 3mm; (ii) varying reagent strengths; (iii) targeting different pH's; (iv) testing on/off irrigation; (v) applying other oxidants; and (vi) varying air injection rates. As illustrated in the lab photo above, over 40 columns are currently under oxidation or cyanide leach.



Oxidation Rates for the Metates Massive Intrusive Samples

The above graph illustrates the oxidation rates for the Metates massive intrusive samples and highlights the improved oxidation rates relative to previously released column results. The new conditions are showing very encouraging oxidation rates, the Phase 3 columns have achieved an oxidation level of 15% to 16% in just 60 days, which when compared to the initial sighter column is 50% faster and for the Phase 2 columns over 300% faster. These Phase 3 columns will be transitioned to cyanide leach once they achieve the target oxidation above 35%.

Mineralogical Investigations

At the completion of the Phase 2 metallurgical testwork, a comprehensive mineralogical program was initiated to analyze how the various sulphides were oxidizing. Twelve samples were taken from eight Phase 2 columns (C2, C4, C5, C7, C10, C12, C14 and C16). Samples were both post-oxidation or post-oxidation and cyanide leach. Of these 12 samples, a third were polished into thin sections for observation through a reflected light microscope (3 samples), and the remaining were polished into pucks for Scanning Electron Microscopy ("**SEM**") – Microprobe analysis (9 samples). Within these nine microprobe samples, 103 areas of interest were identified for optical observation and in total 990 energy dispersive x-ray spectrometer chemical analyses were conducted on these areas to determine the minerals observed.

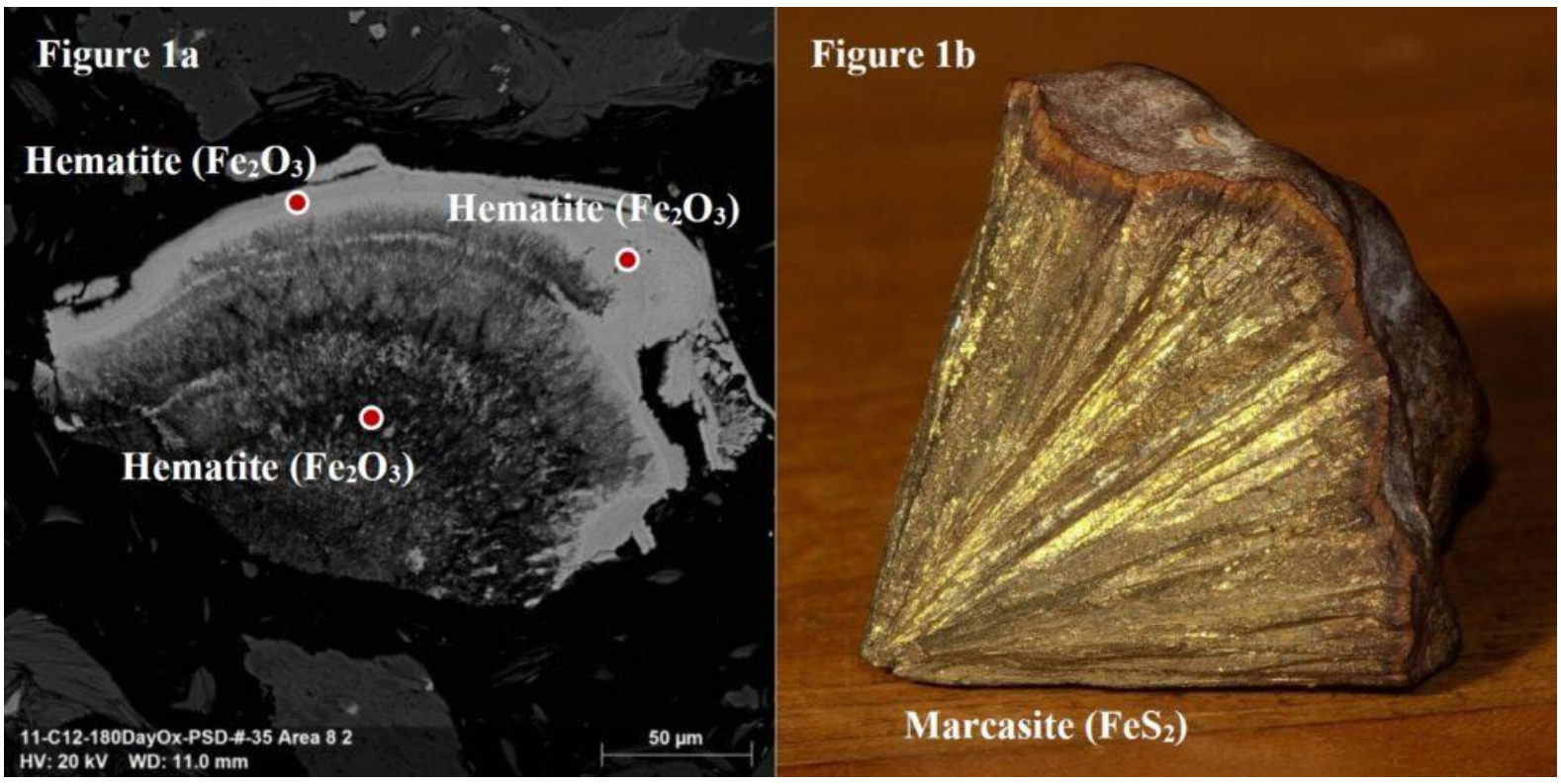


Figure 1a and 1b

The mineralogical work identified several examples where the alkaline solution(s) had actively oxidized and transformed the sulphide minerals present within the Metates host rocks. Microprobe imaging of sample 11 in Figure 1a shows an example of an iron sulphide marcasite mineral (another form of pyrite) that has been altered completely from its original chemistry, but the radial form of the mineral remains intact. The sulphur content within this mineral has been stripped away and replaced by oxygen, forming hematite, the same iron oxide that forms when iron rusts. An example of an unaltered marcasite mineral is illustrated in Figure 1b for reference[1], evidencing the same radial growth of the crystals.

Sample 11 comes from column 12, which was an intrusive breccia sample from Metates that was crushed to ½ inch, and the sample examined was the passing 35 mesh size fraction. This sample had been oxidized for 180 days with an alkaline solution prior to sampling for SEM microprobe work (no cyanide leaching was performed at this stage). This example highlights the breakdown of iron sulphide minerals through the oxidative leach technology. The partially exposed precious metals

locked within are liberated and can be dissolved through the standard cyanide leach process typical of conventional oxide heap leaching projects.

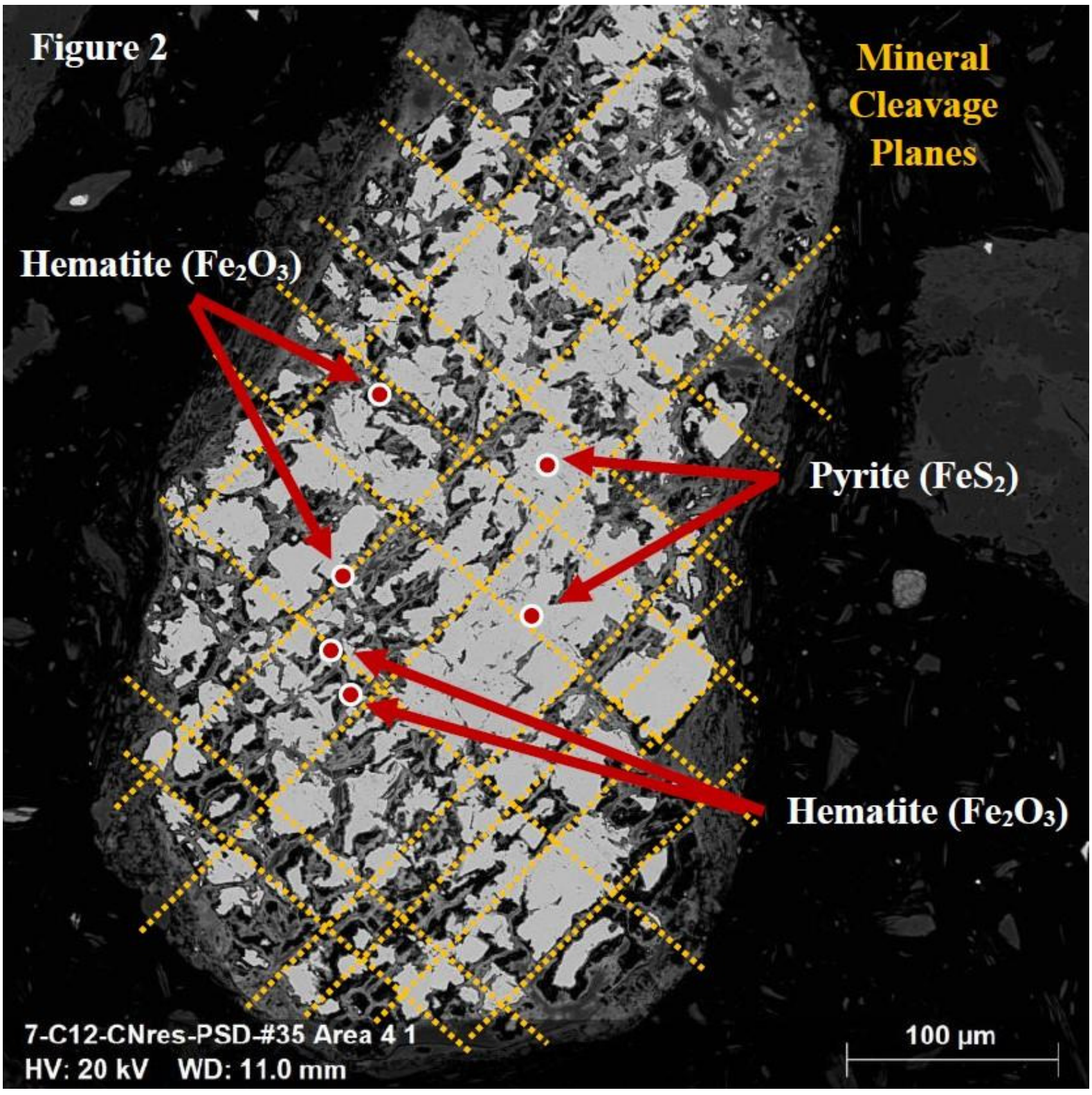


Figure 2

Microprobe imaging of sample 7 in Figure 2 captures an example of another iron sulphide mineral that was once pyrite, which is in the process of altering to hematite or limonite. This image shows the process of preferential mineral oxidation that has followed along the cleavage planes (structural fractures) of the mineral. Along these cleavage planes the sulphur from the pyrite has been stripped away and replaced with oxygen, transforming these regions into iron oxides, whereas in the centers, there are small core remnants of the original pyrite crystal.

Sample 7 is from column 12, which was an intrusive breccia sample from Metates that was crushed to ½ inch, and the sample examined was the passing 35 mesh size fraction. This sample had been oxidized for 180 days with an alkaline solution, and cyanide leached for 90 days prior to sampling for SEM microprobe work. This example further collaborates and shows another pathway in which the oxidative leach technology breaks down the iron sulphide minerals and releases the precious metals locked within.

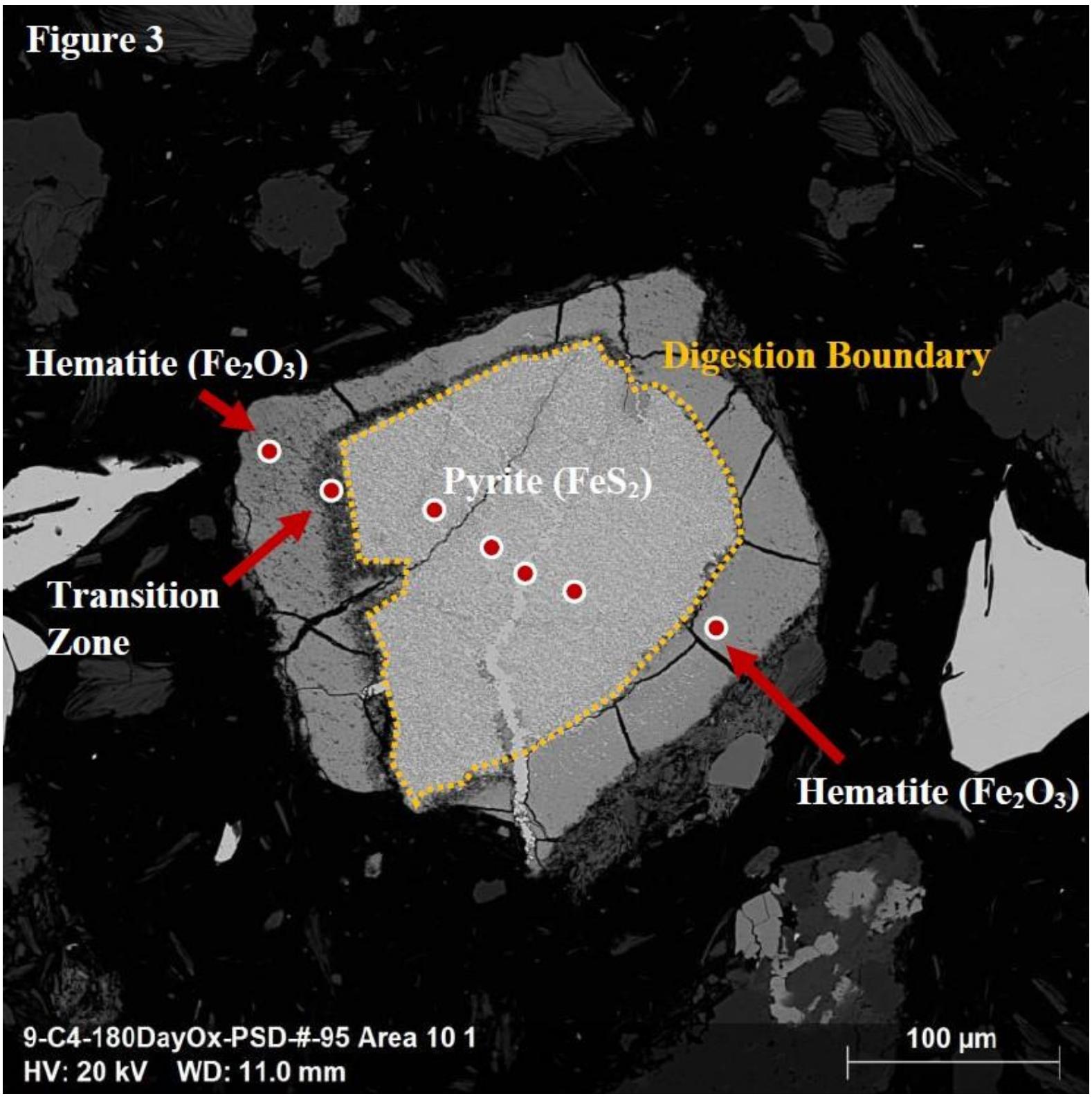


Figure 3

Microprobe imaging of sample 9 in Figure 3 provides another example of the oxidation of an iron sulphide mineral that was once pyrite, now altering to hematite or limonite. This image captures the periphery of the pyrite mineral being oxidized first, and a transition zone and digestion boundary are clearly demarcated, creating a notable zonation.

Sample 9 is from column 4, which was a massive intrusive sample from Metates that was crushed to ½ inch, and the sample examined was the passing 35 mesh size fraction. This sample had been oxidized for 180 days with an alkaline solution prior to sampling for SEM microprobe work. This example highlights another pathway in which the oxidative leach technology breaks down the iron sulphide minerals and releases the precious metals locked within.

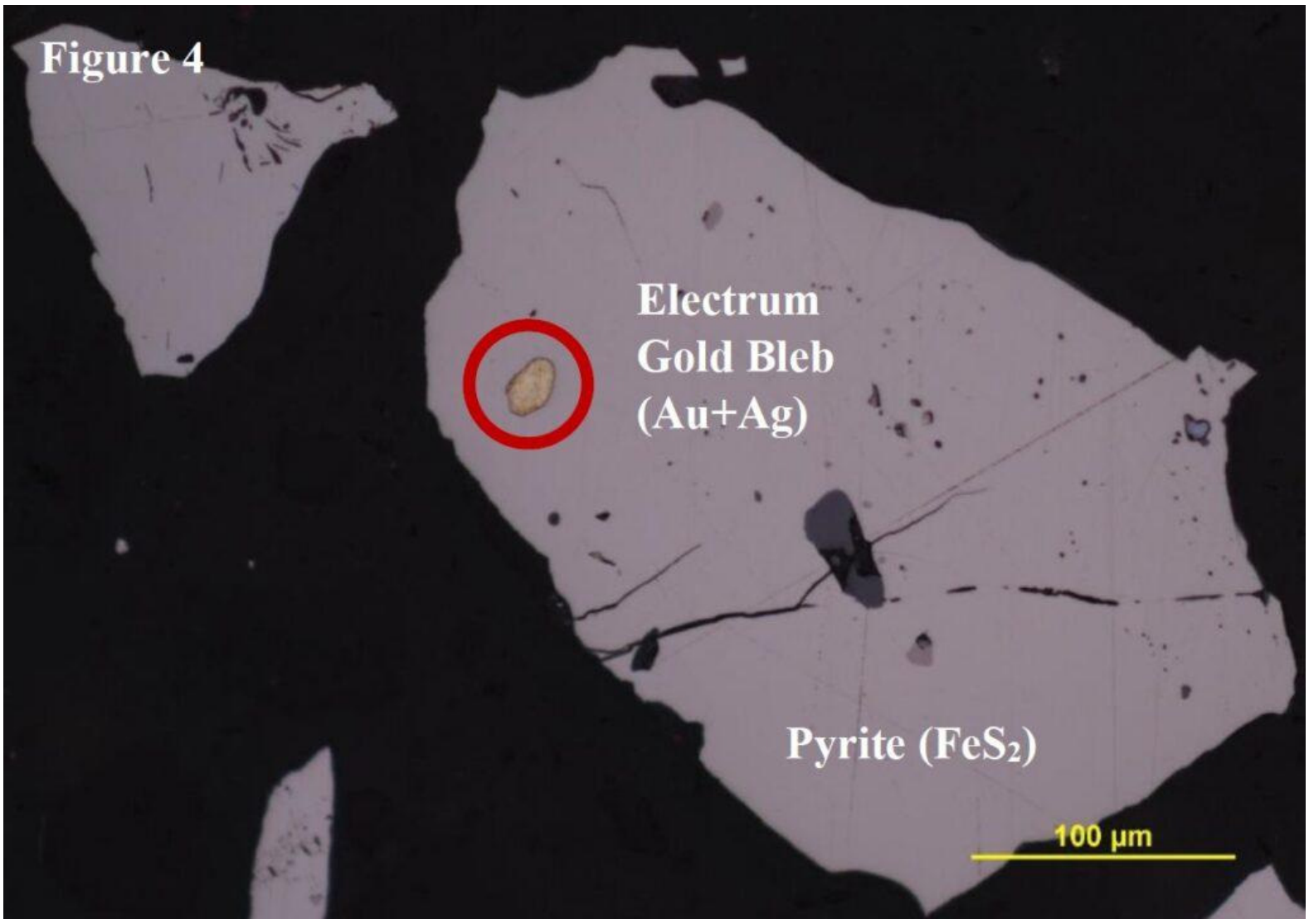


Figure 4

Finally, reflected light microscope imaging of sample 8 discovered a native gold particle in the form of electrum, see Figure 4. This identified electrum bleb is located within a pyrite crystal, and its existence signifies the presence of native gold within the Metates system, which is in addition to the gold known to be within the sulphide minerals.

Sample 8 is from column 16, which was an intrusive breccia sample from Metates that was crushed to ½ inch, and the sample examined was the passing 35 mesh size fraction. This sample had been oxidized for 180 days with an alkaline solution, and cyanide leached for 90 days prior to sampling for mineralogy work.

Next Steps

Chesapeake will continue to advance the metallurgical program. As the columns meet the oxidation curve target and switch to cyanide leaching, additional columns will be loaded and tested to confirm the improved oxidation rates. At the completion of this process, the results will be released outlining the oxidative curves and precious metal recoveries through cyanide leaching. Once sufficient metallurgical work is available, management plans to commence a pre-feasibility study to further de-risk Metates and advance the project toward our goal of developing one of America's largest gold and silver deposits[2].

In addition, the Company is actively seeking other sulphide gold deposits where the leach technology can be applied to potentially unlock significant economic value.

Presently, Chesapeake remains well funded with almost C$24 million in cash and cash equivalents.

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. The qualified persons have reviewed and approved the contents of this release.

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[2] with over 16.77 million ounces of gold at 0.57 grams per tonne (g/t) and 423.2 million ounces of silver at 14.3 g/t within 921.2 million tonnes in the Measured and Indicated Mineral Resource category and a further 2.13 million ounces of gold at 0.47 g/t and 59.0 million ounces of silver at 13.2 g/t within 139.5 million tonnes in the Inferred Mineral Resource category. See the technical report titled "Metates Sulphide Heap Leach Project Phase I" dated January 13, 2023, and news release dated February 23, 2023.

Chesapeake also has an organic pipeline of satellite exploration properties strategically located near Metates. In addition, the Company owns 68% of Gunpoint Exploration Ltd., which owns the Talapoosa gold project in Nevada.

For Further Information:

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

Alternatively, join us at our webinar on Thursday, the 7th, at 11 am PST using the link below.

https://events.6ix.com/preview/64f77bcc7fb895bed6f7b424

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Forward-looking Statements

This news release contains "forward-looking statements" within the meaning of Canadian securities legislation. These include, without limitation, statements with respect to the strategic plans, timing and expectations for the Company's exploration and drilling programs at the Metates Property, including advancing the metallurgical test program, release of final results and preparing a pre-feasibility study. Such forward looking statements or information are based on a number of assumptions, which may prove to be incorrect. Assumptions have been made regarding, among other things: the reliability of mineral resource estimates, the conditions in general economic and financial markets; the price of gold and silver; availability and costs of mining equipment and skilled labour; timing and amount of expenditures related to drilling programs; and effects of regulation by governmental agencies. The actual results could differ materially from those anticipated in these forward-looking statements as a result of risk factors including: the timing and content of work programs; results of exploration activities; the interpretation of drilling and testing results and other geological data; receipt, maintenance and security of permits and mineral property titles; environmental and other regulatory risks; project cost overruns or unanticipated costs and expenses; and general market and industry conditions. Forward-looking statements are based on the expectations and opinions of the Company's management on the date the statements are made. The assumptions used in the preparation of such statements, although considered reasonable at the time of preparation, may prove to be

imprecise and, as such, readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date the statements were made. The Company undertakes no obligation to update or revise any forward-looking statements included in this news release if these beliefs, estimates and opinions or other circumstances should change, except as otherwise required by applicable law.

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[1]*Marcasite*. (2023, September 1). Encyclopædia Britannica. https://www.britannica.com/science/marcasite#/media/1/364089/119889

[2]Mexico's biggest undeveloped gold deposits. Bnamericas. Published Tuesday, November 24, 2020.

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Chesapeake is focused on the exploration and development of precious metals projects in the Americas. Chesapeake owns the Metates project located in Durango state, Mexico. Metates is one of the largest undeveloped gold and silver deposits in the world[1].

1. Mexico's biggest undeveloped gold deposits Published: Bnamericas -Tuesday, November 24, 2020

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