

Press Release

Elemental Analysis by EDXRF of Gold in Stripping Solutions

Austin, TX – December 23, 2015. [Applied Rigaku Technologies, Inc.](http://www.rigakuedxrf.com) today announced a new method for at-line analysis by energy dispersive X-ray fluorescence (EDXRF) of gold in stripping solutions during the processing of ores, tailings and slags. EDXRF Application Note 1537 describes the analysis of gold in impregnated stripping solutions and demonstrates the performance of the [Rigaku NEX DE](http://www.rigakuedxrf.com) EDXRF spectrometer.

The cyanide leaching technique is commonly used to recover trace gold content from gold-bearing ores. Once the gold is leached from the ore, it is typically absorbed onto activated carbon and then stripped. The impregnated stripping solution is then put into the electrowinning process where the gold is recovered by electrolysis.

For the analysis detailed in this report each sample was prepared by transferring 6g of solution into a standard 32mm XRF measurement cell. It was then analyzed directly on the NEX DE spectrometer. By using this method to measure the strip solutions, no special sample preparation is required and measurement times are fast, giving the operator a real-time means of efficiently controlling the stripping process and enabling higher processing throughput.

Measuring the gold in the stripping solution at-line enables operators to quickly and easily determine whether the solution will be bereft of gold, thereby improving the plant's efficiency. The Rigaku NEX DE offers a simple and at-line analytical technique for measuring such solutions. Non-technical operators can obtain results in as little as 100- 300 seconds without the need for special sample preparation or sample conditioning.

The results detailed in the report show outstanding performance by the NEX DE analyzer for measuring gold content in strip solutions used during processing. A copy of this application report may be requested on Rigaku's EDXRF website.

<http://www.rigakuedxrf.com/edxrf/app-notes.html?id=1537> AppNote

About Rigaku

Since its inception in Japan in 1951, Rigaku has been at the forefront of analytical and industrial instrumentation technology. Rigaku and its subsidiaries form a global group focused on life sciences and general purpose analytical instrumentation. With hundreds of major innovations to its credit, Rigaku and its subsidiary companies are world leaders in the fields of small molecule and protein crystallography, X-ray spectrometry and diffraction, X-ray optics, as well as semiconductor metrology. Rigaku employs over 1,100 people globally and its products are in use in more than 70 countries – supporting research, development, production control and quality assurance activities. Throughout the world, Rigaku continuously promotes partnerships, dialog, and innovation within the global scientific and industrial community.

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**Rigaku NEX DE - Energy
Dispersive X-ray Fluorescence
Spectrometer**