

29 October 2024

Media Release

NSW leads the way with world-first technology to find critical minerals

The NSW Government is delivering groundbreaking critical minerals technology by installing the HyLogger 4 following a significant investment of \$450,000.

The installation of the revolutionary HyLogger 4 spectral scanner at the Londonderry Core Library marks a significant advancement in mineral exploration and geological research, making New South Wales the first state in Australia and a global leader adopting this cutting-edge technology.

This world-first technology allows for rapid and non-destructive spectral analysis of geological samples and provides invaluable data that can lead to more sustainable exploration practices.

The ability to capture high-resolution digital images and detailed mineralogical information at a millimetre scale spatial resolution opens new avenues for research and exploration. This is a significant step towards enhancing our capabilities in understanding our natural resources, and it solidifies the state's position as a leader in the mining technology sector.

Chief Geoscientist and Head of the Geological Survey, Dr Phillip Blevin said the installation of the HyLogger 4 at the Londonderry Core Library was a game-changer for the future of critical minerals and high-tech metals in NSW and cemented us as a global leader in geoscientific innovation.

“The state-of-the-art rapid spectroscopic machine uses a logging and imaging system that employs continuous visible and infrared spectroscopy with digital imaging to analyse drill cores, samples, and cuttings without causing damage. This innovative machine will enhance our understanding of mineralogy, improving efficiency in geological studies and boosting the future of critical minerals in NSW.

“Survey geologists have been collecting spectral signatures of samples from the state's mineral collection known to be associated with critical mineral and high tech minerals deposits to train the HyLogger 4 to identify similar minerals in drill core and rock samples that otherwise would not be visible to the naked eye.

“By embracing technologies like the HyLogger 4, we are not just investing in our resources sector, but also ensuring that we do so responsibly and sustainably, which aligns with our commitment to protect our environment while harnessing the benefits of our rich mineral resources,” Dr Blevin said.

The installation of the bigger, better and more technically advanced HyLogger 4 at the Londonderry Core Library is an upgrade of the HyLogger 3 and represents a pivotal moment for mineral exploration in NSW, paving the way for future advancements and sustainable practices in the industry and signalling the importance of critical minerals and high-tech metals to the future of NSW.

Media contact:

For more information, please contact: resources.media@dpird.nsw.gov.au
