

Nexus Minerals advances precious metals and critical minerals portfolio with focus on gold at Wallbrook

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Nexus Minerals Australian project locations.

[Nexus Minerals Ltd \(ASX:NXM\)](#) continues to progress its Australian precious metals and critical minerals portfolio with the primary focus being on the Wallbrook Gold Project in Western Australia at a time of very high gold prices.

As part of the mine studies process at Wallbrook, a decision was made to update the Crusader-Templar mineral resource estimate (MRE) and then complete a scoping study.

MRE update and scoping study

The updated MRE is expected to be available early in the current quarter and this will form the basis for the scoping study inputs as Nexus management continues to progress mine studies at Crusader-Templar.


Evaluation of the Crusader-Templar resource area focused on open pit mine options with treatment of any ore through a toll treatment agreement at existing processing plants.

Discussions and site visits with various contractors across the complete spectrum of the mining project are underway as part of the scoping study process.

Mine operators, trucking contractors, mine management, technical services groups and toll treatment operators are providing input to the study process.

Wallbrook exploration

As well as mining studies, Nexus is continuing exploration at the project in WA's Eastern Goldfields.

 The exploration team remains focused on deploying the validated and methodical exploration approach to build a suite of exploration targets.

A heritage survey was carried out during the quarter across the complete tenement package and results clear the project of any heritage sites. A final report is pending.

Multiple regional targets have been defined for aircore drill testing this quarter as project prospectivity increases through systematic regional exploration success.

There are five mineralised corridors (MC1- MC5) identified on the project which remain substantially underexplored despite their proximity to existing mining operations.

Given the early exploration maturity of the project, initial targeting is focusing on the top 0-100 metres below surface, where opportunity exists for a significant discovery.

Work at Bethanga

During the March quarter the company also continued to advance the Bethanga Porphyry Copper-Gold Project in Victoria's northeast within the southern part of the prolific Lachlan Fold Belt.

A three-hole diamond drilling program for 1,516 metres was completed in early April with detailed geological logging currently being undertaken.

Portable XRF (pXRF) work is being carried out on all of the drill core as part of the company's R&D program. Selected intervals will then be sampled and submitted for laboratory analysis.

Critical minerals work

To the north of Bethanga, Nexus has secured the largest package of exploration tenure in NSW to undertake the search for gold, copper and other critical minerals.

This 15,000-square-kilometre area has been called 'Mega Peg' by Nexus and due to its size and the large amount of data, has been split into two halves - north and south.

Very limited exploration has taken place in this highly prospective geological terrain and Nexus has taken significant steps to leverage the best available government and open-file company geophysics surveys.

These surveys have been compiled and re-processed, encompassing detailed magnetic, radiometric and gravity data.

To aid in the analysis, a comprehensive set of images and enhancements of the data have been generated, providing valuable insights for the ongoing exploration efforts.

In conjunction with Southern Geoscience Consultants (SGC) - the data is being interrogated with the following objectives:

1. Accurately map and refine the granite boundaries.
2. Categorise granites according to their geophysical signatures.
3. Identify S-type granites based on geophysical signature.
4. Identify granites with zoning evident in the geophysics.
5. Map large-scale faults and structural trends that may be controlling pegmatite distribution.

The interpretation exercise was completed on the northern half of the project during the quarter and as well as achieving the above, has identified high-priority targets.

Based on the success of the interpretation of the northern area, the southern area is now being subjected to the same interpretation exercise.

The Nexus exploration team will then use the results to refine priority target areas to focus on ground exploration activities.

Research and development

In conjunction with exploration, Nexus runs a research and development (R&D) program focused on developing new rock-characterising processes for deeply deformed, altered, metamorphosed and weathered rock formations.

The project is developing several new tools and processes by coupling data from pXRF analysers with image analysis and data from other rock property instruments where appropriate.

The tools and processes developed have a potential wide array of applications in a range of industries.

This includes an automated drill chip rock classification program, estimation of the impact of weathering on geochemical data with a weathering correction tool and inexpensive lithology identification of fine-grained rocks through multi-disciplinary data analysis.

June quarter program

At the end of the March 2024 quarter, the company held \$5.88 million cash and equivalents.

A busy March quarter has set Nexus up for further work during the June quarter:

Wallbrook Gold Project

- ▶ Release updated Crusader-Templar MRE;
- ▶ Undertake scoping study on the updated Crusader-Templar MRE;
- ▶ Diamond drill program at Crusader-Templar to define geotech/metallurgy/hydrogeology/waste rock characterization;
- ▶ Advance mine studies on Crusader-Templar resource area; and
- ▶ Aircore drill program over multiple regional targets.

Bethanga Copper-Gold Project

- ▶ Analysis of the completed diamond drilling program.

NSW critical minerals project

- ▶ SGC interpretation of southern half of the project area; and
- ▶ Ground truthing and orientation sampling surveys.

Research and Development Project

- ▶ Progress in tandem with exploration programs.

