

ASX ANNOUNCEMENT 19 MAY 2021

# **EXCELLENT METALLURGICAL RESULTS FOR BOYD'S DAM**

Preliminary metallurgical test work was carried out on samples of primary material from Boyd's Dam to assess gravity, flotation and cyanide dissolution performance. The test work results indicated that:

- The material is non-refractory;
- 97% gold recovery was achieved by gravity concentration and direct cyanidation;
- 99% gold recovery was obtained in a combined gravity and flotation concentrate; and
- Results enable processing alternatives to be evaluated for Boyd's Dam.

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Catalyst Metals Limited (Catalyst or the Company) (ASX: CYL) on behalf of the Four Eagles Project Joint Venture is pleased to advise that it has completed initial metallurgical test work on primary material to determine:

- the merit of producing gravity and flotation concentrates from the Boyd's Dam Prospect and thereby demonstrating combined concentrates could be transported to other facilities in Victoria or elsewhere for gold dore production. The recently purchased Henty Gold Mine in Tasmania could also be an option for processing concentrate at its CIL plant; and
- gold recoveries achieved by cyanidation ensure treatment would be viable should an alternative treatment route be available through an existing process plant in Victoria. Either whole material or concentrate from the Boyd's Dam Prospect could be processed through an existing plant.

## **FOUR EAGLES GOLD PROJECT**

The Four Eagles Gold Project is situated along the Whitelaw Gold Corridor, which is considered to be a major structural control of gold mineralisation north of Bendigo. Catalyst manages the entire Whitelaw Gold Belt and has interests in thirteen Exploration Licences and two Retention Licences which extend for 75 kilometres along the Whitelaw and Tandarra Faults north of Bendigo in Victoria and in other areas north of the Fosterville and Inglewood gold fields (Figure 1).

Catalyst holds a 50% interest in the Four Eagles Gold Project with the other 50% held by Gold Exploration Victoria Pty Ltd (GEV) (a wholly owned subsidiary of Hancock Prospecting Pty Ltd). Exploration is jointly funded by Catalyst and GEV (Figure 1). Retention Licence (RL) 006422 flanked by the remaining ELs comprises the Four Eagles Gold Project and covers an envelope of gold mineralisation about 6 kilometres long and 2.5 kilometres wide including three prospects which have recorded high grade gold mineralisation (Hayanmi, Boyd's Dam, and Pickles) (Figure 2).

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#### **BOYD'S DAM METALLURGICAL TEST WORK**

# **Gravity and Flotation Concentrate Test Work**

A 202 kilogram composite sample derived from a strongly mineralised zone within reverse circulation drill hole FERC284 (See Figure 3 for location) with an estimated grade of ~50 g/t Au was sent to Australian Minmet Metallurgical Laboratories (**AMML**) mineral processing and metallurgical laboratory for metallurgical analyses. This sample represents the style of mineralisation anticipated from between 95m and 120m depth, beneath the oxide zone.

This is the first metallurgical test work programme undertaken on primary mineralisation in the Whitelaw Gold Belt on behalf of the Four Eagles Joint Venture.

Initial work, using a Knelson concentrator, looked at gold recoveries to a gravity concentrate at various grind sizes. At a  $P_{80}$  75  $\mu$ m grind size, a 94% gold recovery was achieved, into a concentrate which was less than 3 % of the original composite sample weight. This test work gave confidence to undertake follow up sighter tests utilising gravity and flotation that would more likely reflect an operational flow sheet which excluded cyanidation.

Coarse gold is easily recovered in an operational circuit. The purpose of this study was to assess the capacity to recover finer gold from the mineralisation once coarse gold was removed from the sample.

In the initial test work the spotty gold effect in the coarse material was obvious so in the follow up work the composite sample was crushed to -1.18mm and the material coarser than 850  $\mu$ m removed. This scalped +850  $\mu$ m material graded 44 g/t Au and represented 20 wt% of the original composite sample weight. Within an operational environment this gold would likely be recovered predominantly within a milling gravity circuit or, if free milling, behave similar to the -850 material.

The -850  $\mu$ m material was milled to  $P_{80}$  75  $\mu$ m and put through a Knelson gravity concentrator. This resulted in a gravity concentrate with a grade of 709 g/t Au into a 0.55 wt% mass yield, recovering 76% of the gold.

The tail from the above gravity test, grading 1.24 g/t Au and representing 99.5% of the -850  $\mu$ m mass, underwent flotation test work resulting in a 25 g/t Au concentrate grade, with mass yield of 4.5 wt% and float tail grade of 0.035 g/t Au.

Future optimisation and variability test work will focus on mass yield and gold recoveries to both gravity and float concentrates. This work will be undertaken using drill core as well as RC samples.

These positive metallurgical results mean that a high-grade gravity and flotation concentrate could be processed at any facility with cyanide capability, including the circuit at the Henty Gold Mine in Tasmania.

# **Cyanide Dissolution Test Work**

Following gravity testing of the -850  $\mu$ m milled to P80 75  $\mu$ m sample, another sample of the tail from the gravity test work underwent cyanide leaching test work. The strong correlation between Bulk Leach Extractable Gold (BLEG) and fire assay data determined during exploration analyses suggested the mineralisation was non refractory. This test work confirmed the non-refractory nature of Boyd's Dam primary mineralisation with a combined gravity and cyanidation gold recovery of 97%. Optimisation and variability test work is yet to be undertaken.

Mr Bruce Robertson, Catalyst's Chief Executive Officer stated "Catalyst, on behalf of the Four Eagles Joint Venture, is very pleased with the initial metallurgical test work phase undertaken on primary mineralisation from Boyd's Dam Prospect. It demonstrates that subject to defining an economic outcome, a treatment route for processing concentrate may already be available to the joint venture. The test work removes the reliance on the approval for a cyanide licence as a requirement for the Victorian projects to be given the go ahead, and potentially reduces the capital intensity of any potential development at Boyd's Dam."

This announcement has been approved for release by the Board of Directors of Catalyst Metals Limited.

## For further information contact:

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## Competent person's statement

The information in this announcement that relates to Metallurgical Test Results was based on information compiled by Mr Richard Ladyman, a Competent Person who is a member of the Australasian Institute of Mining and Metallurgy. Mr Ladyman is a consultant to Catalyst Metals Limited and employed by Como Engineers and has relevant experience in the style of mineralization and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Ladyman consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Catalyst confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements. Catalyst confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

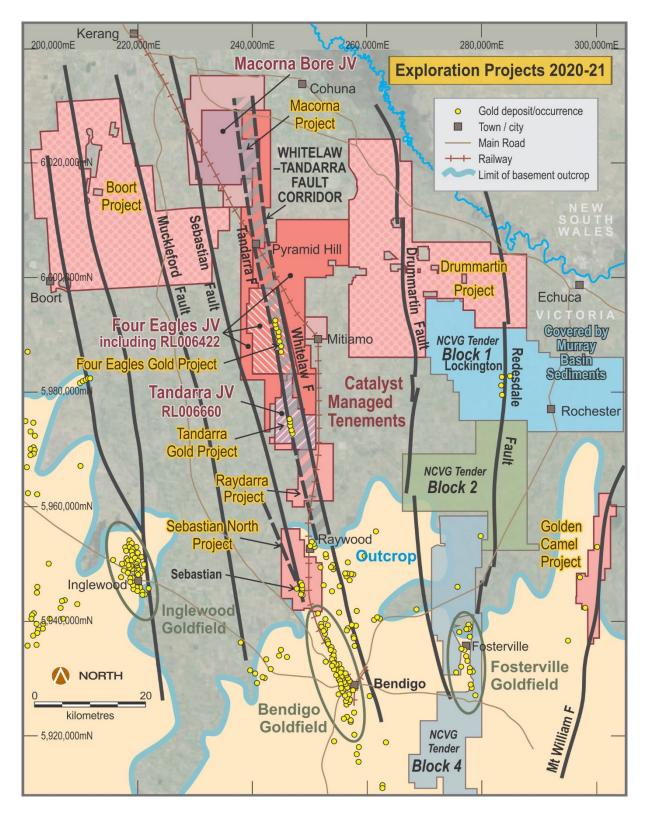


Figure 1: Whitelaw Gold Belt Tenement Holdings showing major Catalyst managed projects

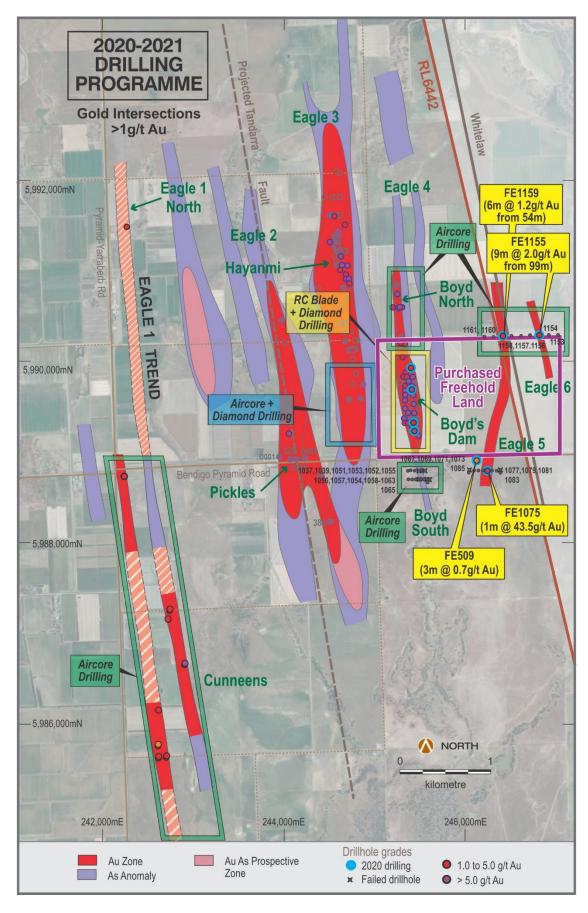


Figure 2: Four Eagles Gold project showing location of prospect locations, gold trends, 2020-21 drilling program locations, and area of freehold land purchased.

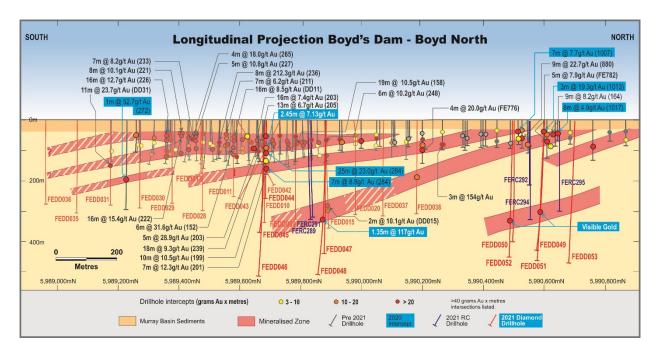


Figure 3: Longitudinal Projection of Boyd's Dam–Boyd North showing 2021 diamond and RC drill holes and significant intercepts. Note position of FERC284