

# POSITIVE RESULTS FROM INITIAL MULGA BILL METALLURGICAL TESTWORK

## HIGHLIGHTS

- Results from initial metallurgical tests on high-grade material from Mulga Bill indicate positive gold recoveries from gravity separation followed by leaching
- More than 62% of gold recovered in the gravity circuit, indicating coarse free milling gold
- No indications of refractory mineralisation
- Total recoveries from 87.2% to 88.0% at grind sizes ranging from 150 µm to 75 µm
- Leach testing is continuing to further increase gold recoveries
- Diamond drilling at Mulga Bill is ongoing and regional AC drilling is complete. Remaining assays from 2021 RC and AC holes expected to be received during March

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Great Boulder Resources (“**Great Boulder**” or the “**Company**”) (ASX: **GBR**) is pleased to announce results from initial metallurgical tests conducted on a sample of high-grade drill chips from the Mulga Bill prospect at the Side Well Gold Project (“**Side Well**”) in Western Australia.

A parcel of mineralised RC drill chips was collected from two high-grade intersections and submitted to Independent Metallurgical Operations Pty Ltd (IMO) to examine gravity gold recovery and cyanide leach characteristics. This test-work is an important first step in considering the future potential for economic extraction of gold from the Mulga Bill deposit by determining typical gold recovery parameters.

The parcel grade assayed 39.47g/t Au. Leach tests were conducted at grind sizes of 150 µm, 106 µm and 75 µm. Highlights from IMO’s tests include:

- Gravity gold recoveries were very high, averaging 62.5%. This result indicates a high portion of the gold present is coarse gravity recoverable gold.
- Assays of the parcel indicate very low levels of common deleterious elements including tellurium, arsenic and antimony and there is no indication of a refractory component to gold mineralisation.
- Overall recoveries ranged from 87.2% to 88.0% after a 48-hour leach time and independent of grind size. Leaching kinetics suggest that slow-leaching coarse gold is present, potentially recoverable with increased cyanide.
- A fourth leach test is now underway to see if increased cyanide concentrations at 150 µm will improve overall recovery to >90%.

**Great Boulder's Managing Director, Andrew Paterson commented:**

*"These initial indications from metallurgical work on RC chips are very positive, particularly the very high percentage of gravity-recoverable gold and the apparent coarse nature of the gold."*

*"Obviously we're also pleased to note Mulga Bill appears to be amenable to standard cyanide leach extraction as expected, with no indications of any refractory mineralisation."*

*"IMO are now running another leach test to determine whether the high tail grade is due to undissolved coarse gold remaining in this high-grade sample, which may be recovered by increasing the cyanide dosage. We will also be doing more tests in future using different mineralisation styles, including samples of diamond core to gather more comprehensive data on potential milling characteristics."*



**FIGURE 1: GOLD RECOVERED FROM A KNELSON CONCENTRATOR AT 300UM GRIND SIZE (PHOTO CREDIT: IMO).**

**This announcement has been approved by the Great Boulder Board.**

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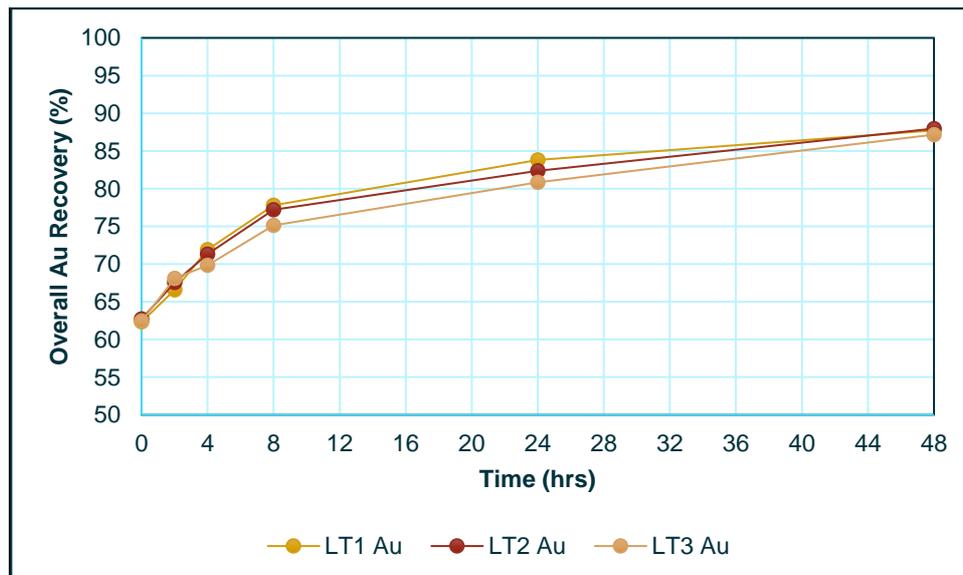
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**TABLE 1: SUMMARY STATISTICS FROM 3 LEACH TESTS (AU ONLY)**

|                       |            | Gold Summary   |                |                |
|-----------------------|------------|----------------|----------------|----------------|
|                       |            | LT1            | LT2            | LT3            |
| <b>Grind Size</b>     | <b>µm</b>  | <b>150</b>     | <b>106</b>     | <b>75</b>      |
| <b>CN Conc</b>        | <b>ppm</b> | <b>500/300</b> | <b>500/300</b> | <b>500/300</b> |
| Gravity Recovery      | %          | 62.3           | 62.7           | 62.4           |
| 2 Hour Recovery       | %          | 66.6           | 67.6           | 68.1           |
| 4 Hour Recovery       | %          | 71.9           | 71.3           | 69.8           |
| 8 Hour Recovery       | %          | 77.8           | 77.2           | 75.1           |
| 24 Hour Recovery      | %          | 83.8           | 82.4           | 80.8           |
| 48 Hour Recovery      | %          | 87.7           | 88.0           | 87.2           |
| Calculated Head Grade | g/t        | 35.95          | 35.84          | 36.17          |
| Assayed Head Grade    | g/t        | 39.47          | 39.47          | 39.47          |
| Residue Grade         | g/t        | 4.41           | 4.31           | 4.64           |
| Gravity Recovery      | %          | 62.3           | 62.7           | 62.4           |
| Gravity Recovery      | g/t        | 22.40          | 22.48          | 22.58          |
| Leach Recovery        | g/t        | 9.13           | 9.05           | 8.95           |
| Total Recovery        | g/t        | 31.54          | 31.53          | 31.53          |
| 24 Hour Cyanide Cons  | kg/t       | 0.82           | 0.79           | 1.05           |
| 48 Hour Cyanide Cons  | kg/t       | 0.94           | 0.94           | 1.05           |
| 24 Hour Lime Cons     | kg/t       | 0.24           | 0.15           | 0.20           |
| 48 Hour Lime Cons     | kg/t       | 0.24           | 0.15           | 0.20           |

**FIGURE 2: GOLD RECOVERIES WERE RELATIVELY CONSISTENT INDEPENDENT OF GRIND SIZE**

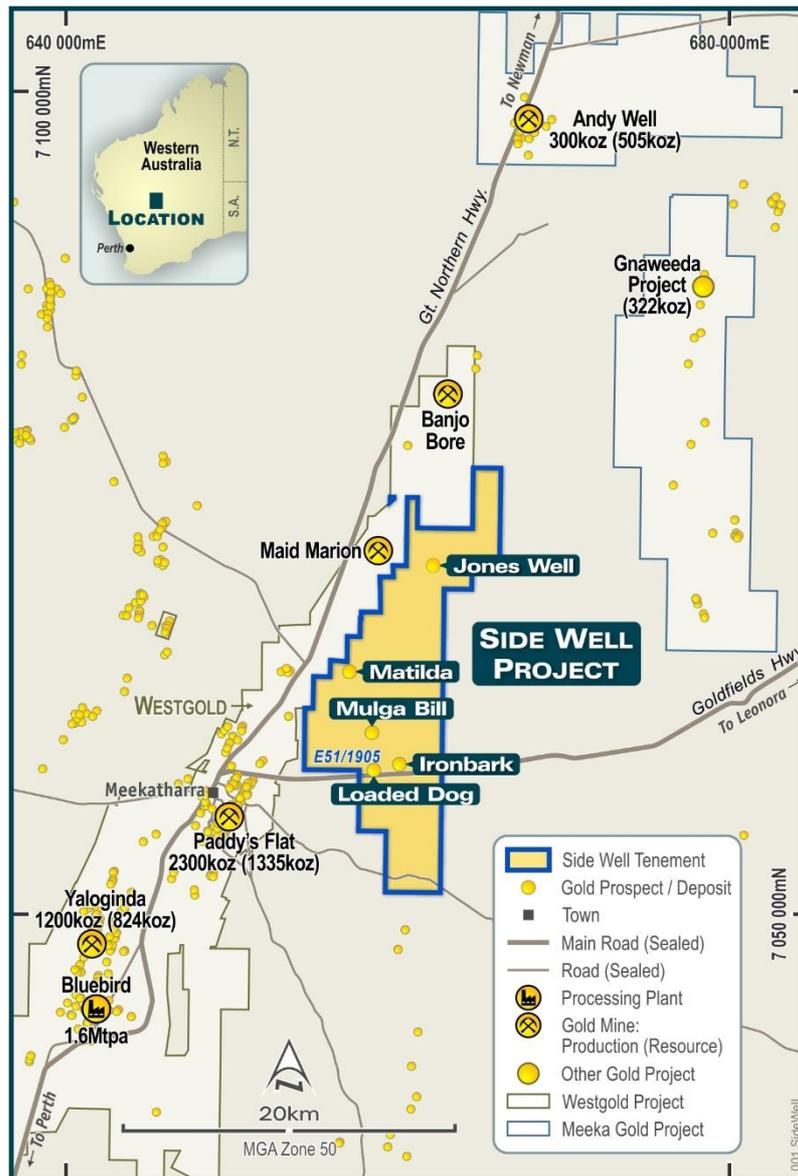
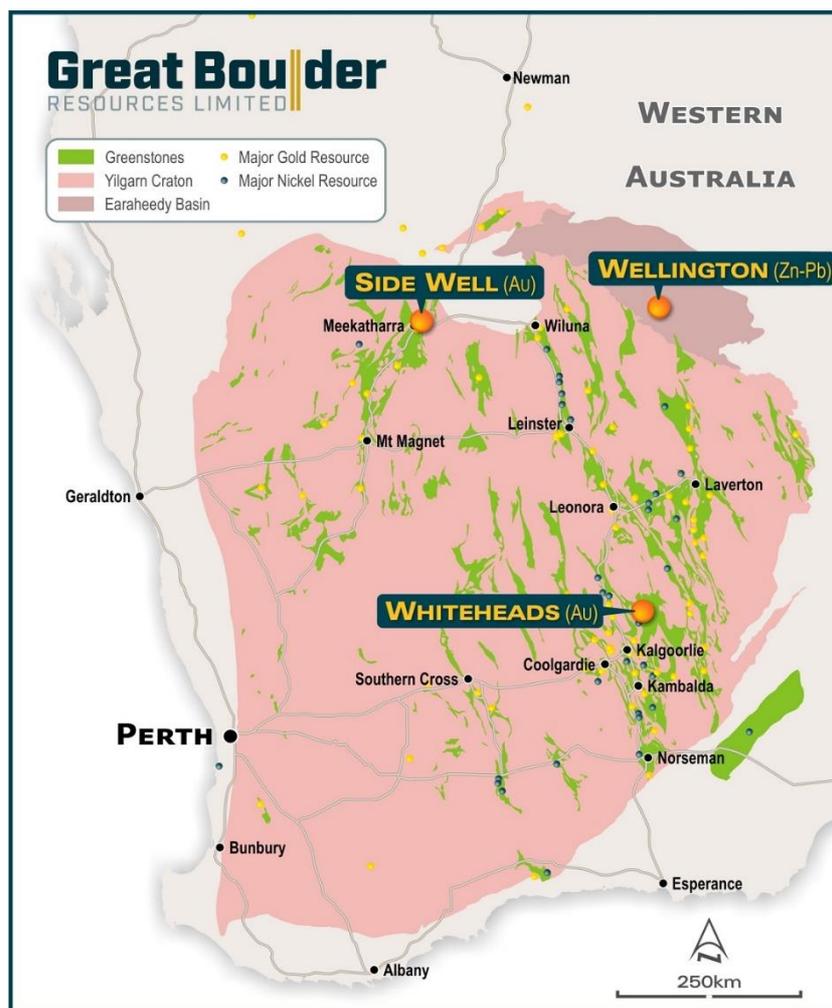


FIGURE 3: SIDE WELL PROJECT LOCATION PLAN.

**About Great Boulder Resources**

Great Boulder is a mineral exploration company with a portfolio of highly prospective gold and base metals assets ranging from greenfields through to advanced exploration located in Western Australia. The Company’s core focus is advancing the Whiteheads and Side Well gold projects while progressing initial exploration at the earlier stage Wellington Base Metal Project located in an emerging MVT province. With a portfolio of highly prospective assets plus the backing of a strong technical team, the Company is well positioned for future success.



**FIGURE 4: GREAT BOULDER'S PROJECTS**

### Competent Person's Statement

Exploration information in this Announcement is based upon work undertaken by Mr Andrew Paterson who is a Member of the Australasian Institute of Geoscientists (AIG). Mr Paterson has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking 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' (JORC Code). Mr Paterson is an employee of Great Boulder Resources and consents to the inclusion in the report of the matters based on their information in the form and context in which it appears.

Data and comments relating to the Mulga Bill metallurgical test-work are based upon information received from Independent Metallurgical Operations Pty Ltd and have been reviewed by the IMO metallurgists responsible for the work prior to publication of this announcement.

**APPENDIX 1 - JORC CODE, 2012 EDITION TABLE 1****Section 1 Sampling Techniques and Data**

(Criteria in this section apply to all succeeding sections.)

| <b>Criteria</b>   | <b>Commentary</b>  |
|---|--|
| <b><i>Sampling techniques</i></b>                                     | Not applicable – this announcement refers to metallurgical test work only. For specific information relating to AC, RC and diamond drill sampling please refer to individual ASX drilling result announcements from 2020 through to present. |
| <b><i>Drilling techniques</i></b>                                     | The Company has tested Mulga Bill using a combination of AC, RC and diamond drilling techniques.   |
| <b><i>Drill sample recovery</i></b>                                   | Not applicable – this announcement refers to metallurgical test work only. For specific information relating to AC, RC and diamond drill sampling please refer to individual ASX drilling result announcements from 2020 through to present. |
| <b><i>Logging</i></b>   | Not applicable – this announcement refers to metallurgical test work only. For specific information relating to AC, RC and diamond drill sampling please refer to individual ASX drilling result announcements from 2020 through to present. |
| <b><i>Sub-sampling techniques and sample preparation</i></b>          | Not applicable – this announcement refers to metallurgical test work only. For specific information relating to AC, RC and diamond drill sampling please refer to individual ASX drilling result announcements from 2020 through to present. |
| <b><i>Quality of assay data and laboratory tests</i></b>              | Not applicable – this announcement refers to metallurgical test work only. For specific information relating to AC, RC and diamond drill sampling please refer to individual ASX drilling result announcements from 2020 through to present. |
| <b><i>Verification of sampling and assaying</i></b>                   | Not applicable – this announcement refers to metallurgical test work only. For specific information relating to AC, RC and diamond drill sampling please refer to individual ASX drilling result announcements from 2020 through to present. |
| <b><i>Data spacing and distribution</i></b>                           | Not applicable – this announcement refers to metallurgical test work only. For specific information relating to AC, RC and diamond drill sampling please refer to individual ASX drilling result announcements from 2020 through to present. |
| <b><i>Orientation of data in relation to geological structure</i></b> | Not applicable – this announcement refers to metallurgical test work only. For specific information relating to AC, RC and diamond drill sampling please refer to individual ASX drilling result announcements from 2020 through to present. |
| <b><i>Sample security</i></b>   | Not applicable – this announcement refers to metallurgical test work only. For specific information relating to AC, RC and diamond drill sampling please refer to individual ASX drilling result announcements from 2020 through to present. |
| <b><i>Audits or reviews</i></b>                                       | The metallurgical results and conclusions have been peer-reviewed within the organization responsible for conducting them.   |

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

| Criteria  | Commentary   |
|---|--|
| <b>Mineral tenement and land tenure status</b>                          | Side Well tenement E51/1905 is a 48-block exploration license covering an area of 131.8km <sup>2</sup> immediately east and northeast of Meekatharra in the Murchison province. The tenement is a 75:25 joint venture between Great Boulder and Zebina Minerals Pty Ltd.   |
| <b>Exploration done by other parties</b>                                | Tenement E51/1905 has a protracted exploration history but is relatively unexplored compared to other regions surrounding Meekatharra.   |
| <b>Geology</b>  | <p>The Side Well tenement group covers a portion of the Meekatharra-Wydege Greenstone Belt north of Meekatharra, WA. The north-northeasterly trending Archaean Meekatharra-Wydege Greenstone Belt, comprises a succession of metamorphosed mafic to ultramafic and felsic and sedimentary rocks belonging to the Luke Creek and Mount Farmer Groups.</p> <p>Over the northern extensions of the belt, sediments belonging to the Proterozoic Yerrida Basin unconformably overlie Archaean granite-greenstone terrain. Structurally, the belt takes the form of a syncline known as the Polelle syncline. Younger Archaean granitoids have intrusive contacts with the greenstone succession and have intersected several zones particularly in the Side Well area.</p> <p>Within the Side Well tenement group, a largely concealed portion of the north-north-easterly trending Greenstone Belt is defined, on the basis of drilling and airborne magnetic data, to underlie the area. The greenstone succession is interpreted to be tightly folded into a south plunging syncline and is cut by easterly trending Proterozoic dolerite dykes.</p> <p>There is little to no rock exposure at the Side Well prospect. This area is covered by alluvium and lacustrine clays, commonly up to 60 metres thick.</p> |
| <b>Drill hole information</b>   | Drill hole coordinates, orientations and intersection details have been previously released in drilling updates by Great Boulder Resources from 2020 to present.   |
| <b>Data aggregation methods</b>   | <p>Data has not been aggregated within the context of this announcement. The data relates to three gravity recovery and cyanide leach tests, as detailed in Table 1 of the body of the announcement.</p> <p>No metal equivalents are used.</p>   |
| <b>Relationship between mineralisation widths and intercept lengths</b> | The orientation of structures and mineralisation is not known with certainty, but majority of the drilling was conducted using appropriate perpendicular orientations for interpreted mineralisation. Diamond drilling has confirmed a mineralised intrusive body at Side Well has a near vertical dip and trends broadly north-south. Due to the wide spacing of drill lines exact orientation is not clear.  |
| <b>Diagrams</b>   | Not applicable – this announcement refers to metallurgical test work only.   |
| <b>Balanced reporting</b>   | It is not practical to report all historical exploration results from the Side Well project. Selected historical intercepts have been re-reported by GBR to highlight the prospectivity of the region. Full drillhole details can be found in publicly available historical annual reports.  |
| <b>Other substantive exploration data</b>                               | Subsequent to Doray Minerals Limited exiting the project in 2015, private companies have held the ground with no significant work being undertaken.  |
| <b>Further work</b>   | Further work is discussed in the document.   |