14 June 2022

# SensOre Phase 1 Mapping Identifies New Gold & Copper Targets

## **HIGHLIGHTS**

- Phase 1 prospectivity mapping completed over central Gawler Craton (SA)
- Findings validate existing gold targets located on Barton's tenements
- Multiple new gold and copper targets identified across 60,000km<sup>2</sup> target area

Barton Gold Holdings Limited (ASX: BGD) (Barton or the Company) is pleased to announce that initial prospectivity modelling using SensOre Limited's (ASX:S3N) (SensOre) artificial intelligence (AI) and machine learning (ML) engine has identified multiple large-scale gold and copper targets on Barton's tenements, and across the 60,000km<sup>2</sup> target area constituting the majority of the central Gawler Craton.

During March 2022, Barton and SensOre announced an exclusive strategic R&D partnership to adapt SensOre's technologies for application to areas where regional structure is hidden beneath surface cover.<sup>1</sup>

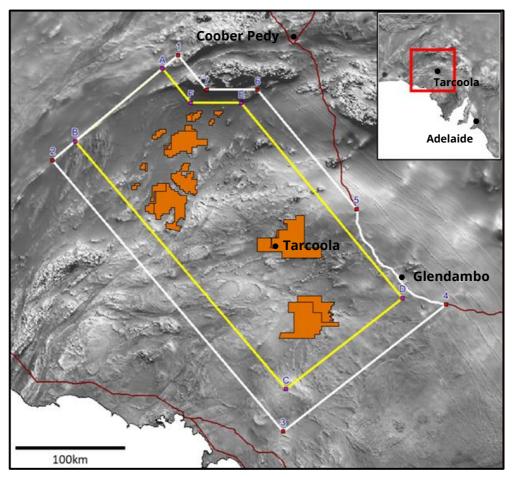


Figure 1 - Barton Tenements with Phase I (Yellow) & Phase II (White) Areas of Exclusivity<sup>1</sup>

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Non Executive Director **Non Executive Director** 

<sup>&</sup>lt;sup>1</sup> Refer to Barton ASX announcement dated 21 March 2022.

# **Next Steps / Phase 2 Analysis**

The Phase 1 prospectivity mapping indicates targets with significant potential for gold and copper mineralisation. These have been generated by training SensOre's models on over 3,000 gold and copper occurrences in South Australia, and then analysing over 200 geophysical variables in the target area. Phase 1 analysis does not yet include the integration of specific project data or geochemical data layers.

Within Barton's tenements several of the targets generated are proximal to existing or known gold prospects. However, several areas are new targets, many of which do not appear to have been previously drilled. Subject to further evaluation, these may represent new large-scale discovery opportunities for exploration testing.

Following detailed analysis of the Phase 1 findings, Barton will work with SensOre to further refine its models and trial the implementation of a Phase 2 'Discriminant Predictive Targeting' (**DPT**) module. This will include the integration of Barton's extensive regional data sets into SensOre's South Australian 'data cube', including the integration of geochemical data layers, to substantially increase data training ability.

A trial Phase 2 DPT analysis will then be conducted for review and comparison with Phase 1 outputs, followed by additional suitable field programs and conceptual drill testing to validate DPT targeting.

# Commenting on the initial Phase 1 SensOre results, Barton MD Alexander Scanlon said:

"These are exciting preliminary results given that Phase 1 modelling has correctly predicted targets we already know to host gold mineralisation. We will be looking forward to advancing the development of SensOre's DPT module so that we can further refine these targets for drill testing and model validation.

"Our key focus is identifying and developing large-scale gold resources, but naturally we are very interested to see multiple potential large-scale copper targets identified proximal to, and sometimes coincident with, our gold targets. The regional geology certainly supports this potential and we will review it carefully."

Authorised by the Board of Directors of Barton Gold Holdings Limited.

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#### **About Barton Gold**

Barton Gold is an ASX listed Australian gold exploration company with a total attributable ~1.1Moz Au JORC (2012) Mineral Resources endowment (28.68Mt @ 1.2 g/t Au), a pipeline of advanced exploration projects and brownfield mines, and 100% ownership of the only regional gold mill in the central Gawler Craton of South Australia.\*

#### Tarcoola Gold Project

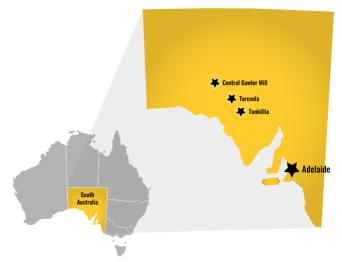
- Existing brownfield open pit mine within trucking distance of Barton's processing plant
- Significant mineral extensions
- Under-explored asset with untapped scale potential

#### Tunkillia Gold Project

- 965koz Au Mineral Resources (26.1Mt @ 1.15 g/t Au)\*
- Host structure extends 7km north and 7km south
- District-scale structures with advanced satellite targets

#### Infrastructure

- 650ktpa CIP process plant, 240 person village, workshop, labs and airstrip
- Tarcoola ~40 person lodging to support mine operations
- Tunkillia camp to support dedicated project team



#### **Competent Persons Statement & Previously Reported Information**

The information in this announcement that relates to the historic Exploration Results and Mineral Resources as listed in the table below is based on, and fairly represents, information and supporting documentation prepared by the Competent Person whose name appears in the same row, who is an independent consultant to the Company and is a Member or Fellow of the Australasian Institute of Mining and Metallurgy (AuslMM), Australian Institute of Geoscientists (AIG) or a Recognised Professional Organisation (RPO). Each person named in the table below has sufficient experience which is relevant to the style of mineralisation and types of deposits under consideration and to the activity which he has undertaken to quality as a Competent Person as defined in the JORC Code 2012.

Activity	Competent Person	Membership	Status
Tarcoola Mineral Resource	Dr Andrew Fowler	AusIMM	Member
Tarcoola Exploration Results (until 15 Nov 2021)	Mr Colin Skidmore	AIG	Member
Tarcoola Exploration Results (after 15 Nov 2021)	Mr Marc Twining	AusIMM	Member
Tunkillia Exploration Results	Mr Colin Skidmore	AIG	Member
Tunkillia Mineral Resource	Dr Andrew Fowler	AusIMM	Member
Challenger Mineral Resource	Mr Dale Sims	AusIMM / AIG	Fellow / Member
Western Gawler Craton JV Mineral Resource	Mr Richard Maddocks	AusIMM	Fellow

The information relating to historic Exploration Results and Mineral Resources in this announcement is extracted from the Company's Prospectus dated 14 May 2021 or as otherwise noted in this announcement, available from the Company's website at <a href="https://www.bartongold.com.au">www.bartongold.com.au</a> or on the ASX website <a href="https://www.asx.com.au">www.asx.com.au</a>. The Company confirms that it is not aware of any new information or data that materially affects the Exploration Results and Mineral Resource information included in previous announcements and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the Prospectus continue to apply and have not materially changed. The Company confirms that the form and context in which the applicable Competent Persons' findings are presented have not been materially modified from the previous announcements.

#### **Cautionary Statement Regarding Forward-Looking Information**

This document may contain forward-looking statements. Forward-looking statements are often, but not always, identified by the use of words such as "seek", "anticipate", "believe", "plan", "expect", "target" and "intend" and statements than an event or result "may", "will", "should", "could", or "might" occur or be achieved and other similar expressions. Forward-looking information is subject to business, legal and economic risks and uncertainties and other factors that could cause actual results to differ materially from those contained in forward-looking statements. Such factors include, among other things, risks relating to property interests, the global economic climate, commodity prices, sovereign and legal risks, and environmental risks. Forward-looking statements are based upon estimates and opinions at the date the statements are made. Barton undertakes no obligation to update these forward-looking statements for events or circumstances that occur subsequent to such dates or to update or keep current any of the information contained herein. Any estimates or projections as to events that may occur in the future (including projections of revenue, expense, net income and performance) are based upon the best judgment of Barton from information available as of the date of this document. There is no guarantee that any of these estimates or projections will be achieved. Actual results will vary from the projections and such variations may be material. Nothing contained herein is, or shall be relied upon as, a promise or representation as to the past or future. Any reliance placed by the reader on this document, or on any forward-looking statement contained in or referred to in this document will be solely at the readers own risk, and readers are cautioned not to place undue reliance on forward-looking statements due to the inherent uncertainty thereof.

<sup>\*</sup> Refer to Barton Prospectus dated 14 May 2021 and ASX announcement 14 October 2021.