

12 May 2021

## **MAGNETIC DRILL TARGETS IDENTIFIED AT PILBARA GOLD PROJECTS**

### **Highlights**

- **Processing and interpretation of recently completed 3,900 line km airborne geophysical survey data identifies 16 anomalies for drill testing at Mt Dove and Deep Well gold projects, WA**
- **Identification of discrete magnetic anomalies under cover, advancing exploration for Hemi-style intrusion-related gold mineralisation**
- **Newly pegged Mac Well tenement, E45/5904, increases gold holdings in Hemi district to 911 sq km.**

**Sayona Mining Limited (ASX:SYA; OTC:DMNXF)** is advancing its Western Australian gold exploration, amid high Australian dollar prices for the precious metal. Exploration within the Company's newly expanded 911 sq km of gold tenements in the Pilbara is targeting intrusion-related gold mineralisation, similar to De Grey Mining's nearby Hemi discovery.

Preliminary processing and interpretation of the high resolution 3,900 line km airborne magnetics survey data has identified magnetic anomalies at the Mt Dove and Deep Well Projects. At Mt Dove, five features and a number of prospective structural zones have been identified, with 11 anomalies determined at Deep Well. A number of secondary targets and features for additional testing have also been identified.

All of the anomalies are obscured by recent cover and their source remains unresolved. Planning is underway to progress towards drill testing of the features. Depending on approvals, drilling could commence early in the third quarter 2021.

Sayona's Pilbara gold holdings have recently been increased with the pegging of the Mac Well tenement application, located to the northeast of the Hemi area. The Mac Well application complements nearby Sayona tenements in consolidating tenure along the regional scale Tabba Tabba shear zone and its associated prospective intrusives.

Sayona's Managing Director, Brett Lynch commented: *"The identification of drill targets within our 100% owned Pilbara gold portfolio is an encouraging start to the 2021 exploration season. The acquisition of geophysical data is part of a series of planned steps to unlock the prospectivity of the large tenement holding that Sayona has in close proximity to De Grey's expanding Hemi discovery."*

*“Planning is now underway to allow drill testing of targets, once statutory and heritage requirements have been completed. We look forward to unlocking value from these prospective tenements, which add to our lithium holdings in the world-class Pilgangoora lithium district and our flagship lithium projects in Canada.”*

**Background**

The Pilbara leases comprise gold rights to 10 tenements covering 911 sq km which are prospective for intrusion-related gold mineralisation, similar to the Hemi discovery. This style of mineralisation is hosted within altered late stage hi-Mg diorites of the Indee Suite. Sayona is using its knowledge of late stage intrusions, built up in the search for lithium pegmatite mineralisation, to fast track identification of Hemi-style targets. Gold tenure is displayed in Figure 1 below.

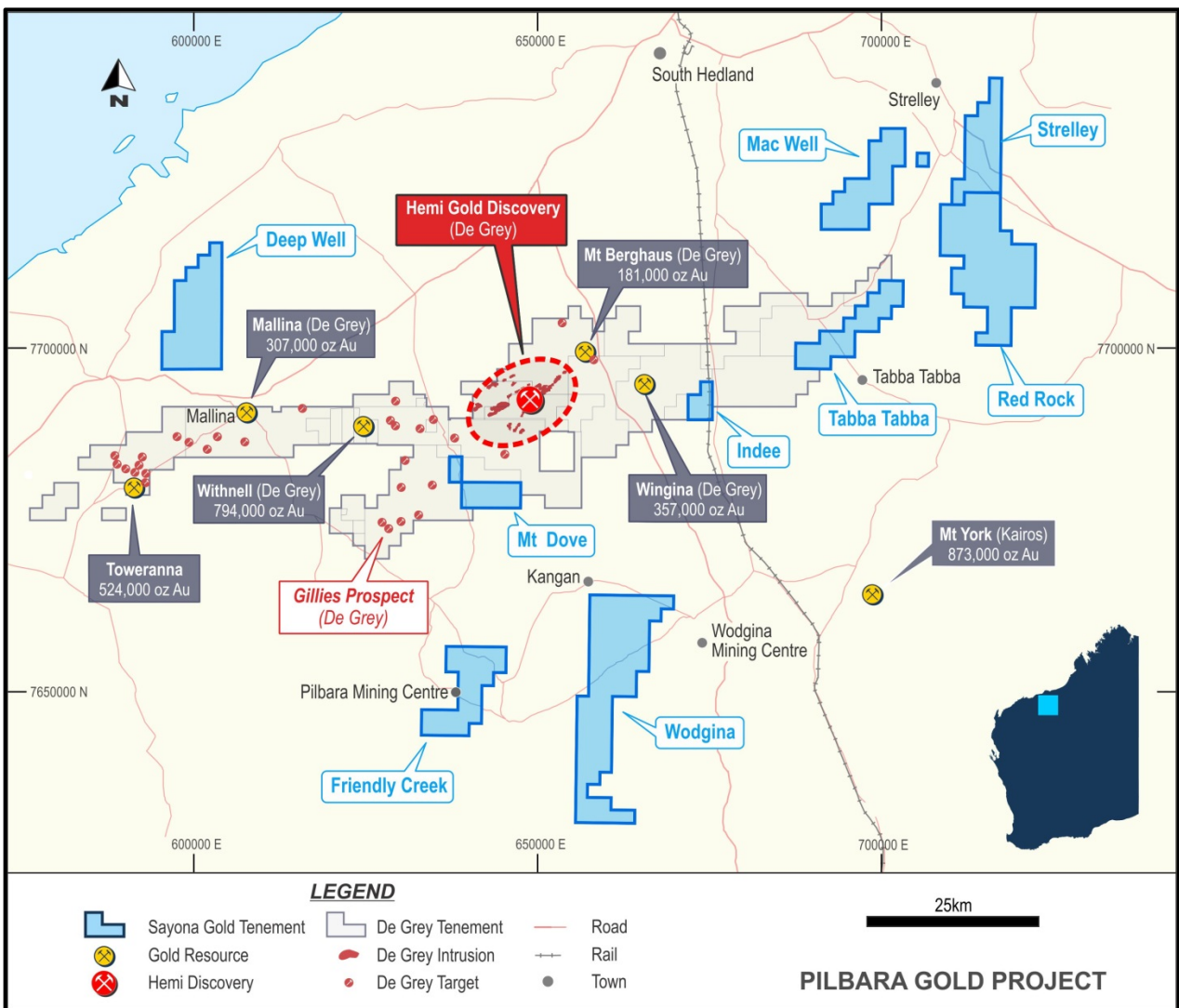


Figure 1: Sayona Pilbara gold leases

**Mt Dove Project**

The Mt Dove Project is located 10km to the southwest of the Hemi gold discovery.

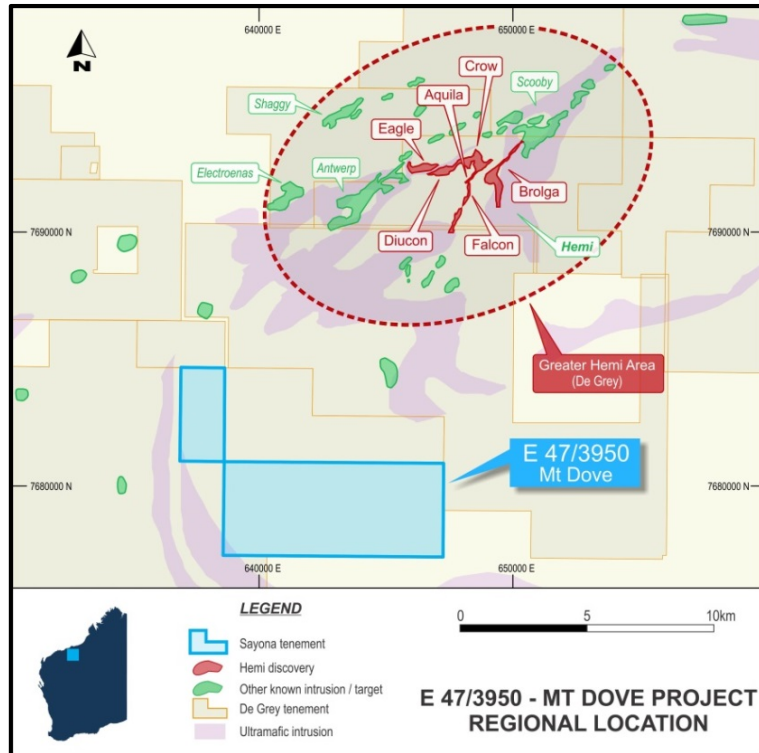


Figure 2: Mt Dove Project and surrounding De Grey targets and Hemi discovery

Processing and interpretation of the Mt Dove magnetics data has been undertaken by Graham Jenke, a senior consulting geophysicist with Southern Geoscience Consultants. The Mt Dove tenement displays a range of magnetic features, the majority of which are interpreted to relate to localised accumulations of magnetite within sand dune systems and in fossil river terraces along the margins of the Yule River.

Preliminary interpretation of data has identified five magnetic features and a number of north-east trending structures and dykes that may have acted as pathways for intrusions within the tenement area (see Figure 3 below).

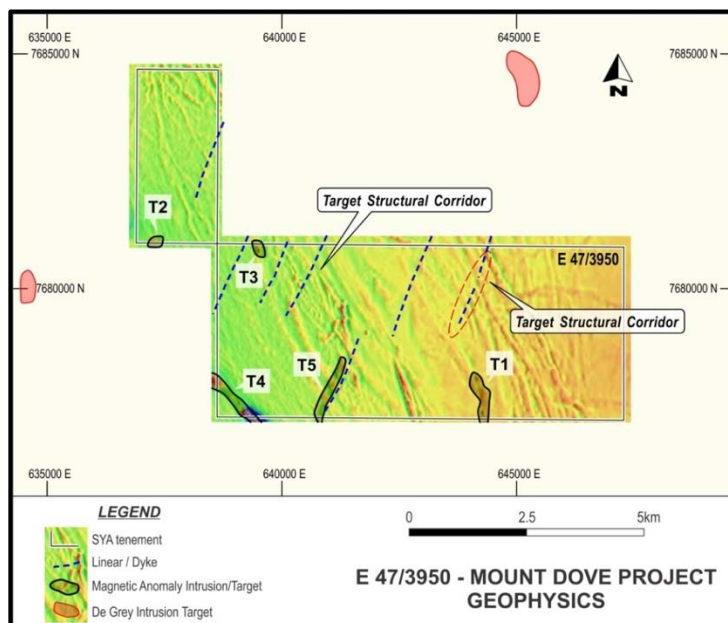


Figure 3: Mt Dove Project with RTP AGC magnetics and targets

Target T4 is the strongest response within the tenement and extends for some 1km of strike extent. Outside of Mt Dove, GSWA mapping has identified quartz veining along strike to the south-east, but within the project area the anomaly remains unresolved.

Anomaly T1 centres on a single line feature at 644290E 7677360N (MGA z50 GDA94) and weak features to its north which may be surficial in nature. The T3 and T5 targets are weaker and may reflect regolith sources. Further geophysical processing is being undertaken to further define these features.

The western 9.4 sq km of the Mt Dove tenement lies within the Yandeyarra Aboriginal Reserve. An access agreement is required before exploration can be undertaken over this area, which covers approximately 25% of the total lease area of 38.4 sq km.

### Deep Well Project

At Deep Well, preliminary interpretation of the geophysical data has identified 11 discrete magnetic anomalies, as shown in Figure 4 below.

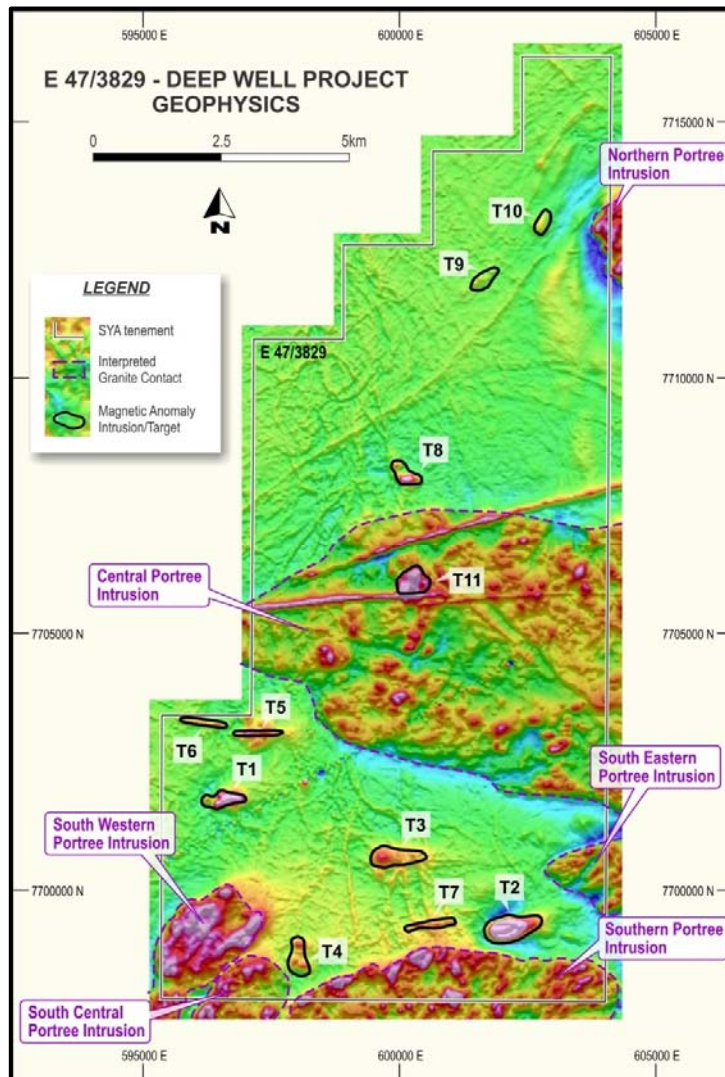


Figure 4: Deep Well Project with RTP magnetics and targets

Further evaluation and modelling of the features is underway.

Imagery has also helped resolve bedrock geology of the tenement area which is obscured by surficial cover. A large area of the western tenement area is interpreted to be underlain by Mallina Basin sediments, which have been intruded by six main intrusions of the Portree Suite.

The Portree intrusions are the same age as the target Indee Suite intrusives. The magnetic signature of each of the Portree intrusions is variable and includes intrusions with magnetic margins and variable magnetic intensity, indicating a potential range in intrusive rock types.

The large area of Mallina Basin sediments between the Portree intrusions provides encouragement to identify further subtle features and alteration contact zones with continued processing of geophysical data and as new information from drilling comes to hand.

### **Mac Well Application**

The recent application for the Mac Well tenement, E45/5904 covering an area of 87 sq km consolidates Sayona's existing ground holding in the area. Recent exploration by De Grey Mining has identified the Eagle and Diucon prospects on the western margin of the Hemi discovery as well as the Gillies prospect, located south-west of the Mt Dove project.

The expanding footprint to mineralisation in the region enhances the exploration potential within the Sayona project area.

### **Next Steps**

The identification of drill targets at Mt Dove and Deep Well is an encouraging step in the systematic exploration of Sayona's Pilbara gold tenure.

Work has commenced in designing potential drilling to test the identified targets. Once completed, this will allow heritage surveying and completion of statutory approvals that are required prior to drill commencement. Depending on approvals, drilling is anticipated to commence in early Q3.

Work is also progressing to expand exploration over the remaining project area which remains effectively untested for its gold potential. In the near term, additional geophysical surveying and geochemical sampling over the target area may help rank areas for further detailed work.

This announcement is authorised by Sayona's Board of Directors.

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## About Sayona Mining

Sayona Mining Limited is an emerging lithium miner (ASX:SYA; OTC:DMNXF), with projects in Québec, Canada and Western Australia. In Québec, Sayona is progressing a bid for the North American Lithium mine with the backing of a world-class team, while advancing its flagship Authier Lithium Project and its emerging Tansim Lithium Project, supported by a strategic partnership with **Piedmont Lithium Limited (ASX:PLL; Nasdaq:PLL)**.

In Western Australia, the Company holds a large tenement portfolio in the Pilbara region prospective for gold and lithium.

For more information, please visit us at [www.sayonamining.com.au](http://www.sayonamining.com.au)

## Competent Person Statement

The information in this report is based on information compiled by Simon Attwell, a Competent Person, and who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Attwell is an employee of Attgold Pty Ltd (“Attgold”) which provides geological services to Sayona.

Mr Attwell has sufficient experience that is relevant to the style of mineralisation 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 Attwell consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

## Reference to Previous ASX Releases

This report refers to the following previous ASX releases:

- 29 April 2021 - March 2021 Quarterly Activities Report
- 6 April 2021 - Sayona advances exploration activity in Canada and Australia
- 3 February 2021 – Sayona invests in WA exploration assets
- 7 December 2020 - Gold exploration to commence over Pilbara projects for Hemi-style targets.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and all material assumptions and technical parameters continue to apply and have not materially changed. The Company 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.