

# ASX announcement

16 February 2021

## MURDIE PROJECT: Gravity Survey and Drilling Targets

Argonaut Resources NL (ASX: ARE) (*Argonaut* or the *Company*) is pleased to announce initial results of a ground gravity survey at the Company's 100% held Murdie copper project in South Australia.

Argonaut is preparing to commence a major exploration drilling program around the western shoreline of Lake Torrens and Andamooka Island. The drilling program will target Iron Oxide Copper-Gold (IOCG) copper mineralisation in the style of Olympic Dam, Carrapateena and BHP's recent Oak Dam discovery.

### Highlights

- Argonaut has generated a series of IOCG drilling targets across the West Lake Torrens gravity anomaly (Figure 1, 2 and 3).
- Argonaut plans to commence drill testing in March 2021.
- Argonaut has substantially completed a gravity survey by surveying approximately 7,000 out of a total of 8,800 planned gravity stations.
- The Company anticipates that the remaining gravity stations will be surveyed during March and April 2021.

### Drilling Targets

The Murdie exploration licences covers two largescale, regional gravity anomalies – West Lake Torrens and Murdie (Figure 1). These anomalies represent locations with significant volumes of high-density rock that could contain economic IOCG deposits. Efforts are being focused on the West Lake Torrens anomaly.

Argonaut has identified seven excellent drilling targets. Drilling targets located near the shoreline of Lake Torrens are shown on Figure 3 as Smith Dam 1 to 4. Offshore targets are shown as Crystal Dam 1 to 3.

Argonaut plans to drill test Smith Dam 1 and Smith Dam 2 first. Other targets will be prioritised on the basis of results.

## Gravity Anomalies

A volume of higher density rock causes a measurably higher gravitational pull at surface and this manifests as a gravity anomaly. Therefore, mineral explorers can use gravity surveys as a means to define gravity anomalies and potentially discover dense orebodies.

IOCG orebodies contain high concentrations of iron and copper minerals making them particularly dense.

### West Lake Torrens Bouguer Anomaly

The West Lake Torrens anomaly is a regional gravity anomaly (Figure 2). This type of anomaly is typically geophysically processed and displayed as a “bouguer” gravity anomaly. Bouguer anomalies have been corrected for terrain effects. The peak of the West Lake Torrens bouguer anomaly is 7 milligals above background levels.

### Residual Gravity Targets

Initial 2021 drilling by Argonaut at the Murdie project will target “residual” gravity anomalies within the wider West Lake Torrens anomaly (Figures 2 and 3).

“Residual anomalies are volumes of particularly high-density rock that are excellent IOCG targets when found within a broader, regional anomaly in the Eastern Gawler Craton. The residual gravity anomalies at West Lake Torrens are the densest parts of a broadly dense volume of rock, hence are most likely to contain an IOCG orebody.”

Lindsay Owler, Argonaut CEO

The residual gravity targets shown in Figure 3 are 0.85 to 1.15 milligals above the regional gravity anomaly<sup>1</sup>.

## Ground Gravity Survey

Geophysical crews have been working at the Murdie area since 20 October 2020. The crews are conducting a detailed ground gravity survey over selected areas to improve the accuracy of drill-target modelling.

Argonaut has substantially completed the ground gravity survey over known gravity anomalies at the Murdie project which has improved the accuracy compared to historic gravity data and is allowing better geological interpretation and more accurate modelling for drill targeting.

Argonaut is pleased with both the results of the survey and the resolution of the data. A presentation of results in the Carrapateena Wells area is shown at Figures 2 and 3.

Rain in late January 2021 caused Argonaut to pause the gravity survey whilst the lake surface dries, and the salt crust firms. Once the lake surface is determined to be accessible under an approved management plan, work will continue. This is likely to occur during March and April 2021.

## Drilling Equipment and Mobilisation

A track mounted Sandvik DE740 drilling rig capable of drilling cored holes to 1,800m has been contracted by Argonaut. Recent geophysical modelling indicates that drill holes will be between 700m and 1,200m in depth.

Mobilisation to site is expected to occur around late February/early March 2021.

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<sup>1</sup> Measured via the subtraction of the 0.5km upwards continuation of the West Lake Torrens bouguer anomaly.

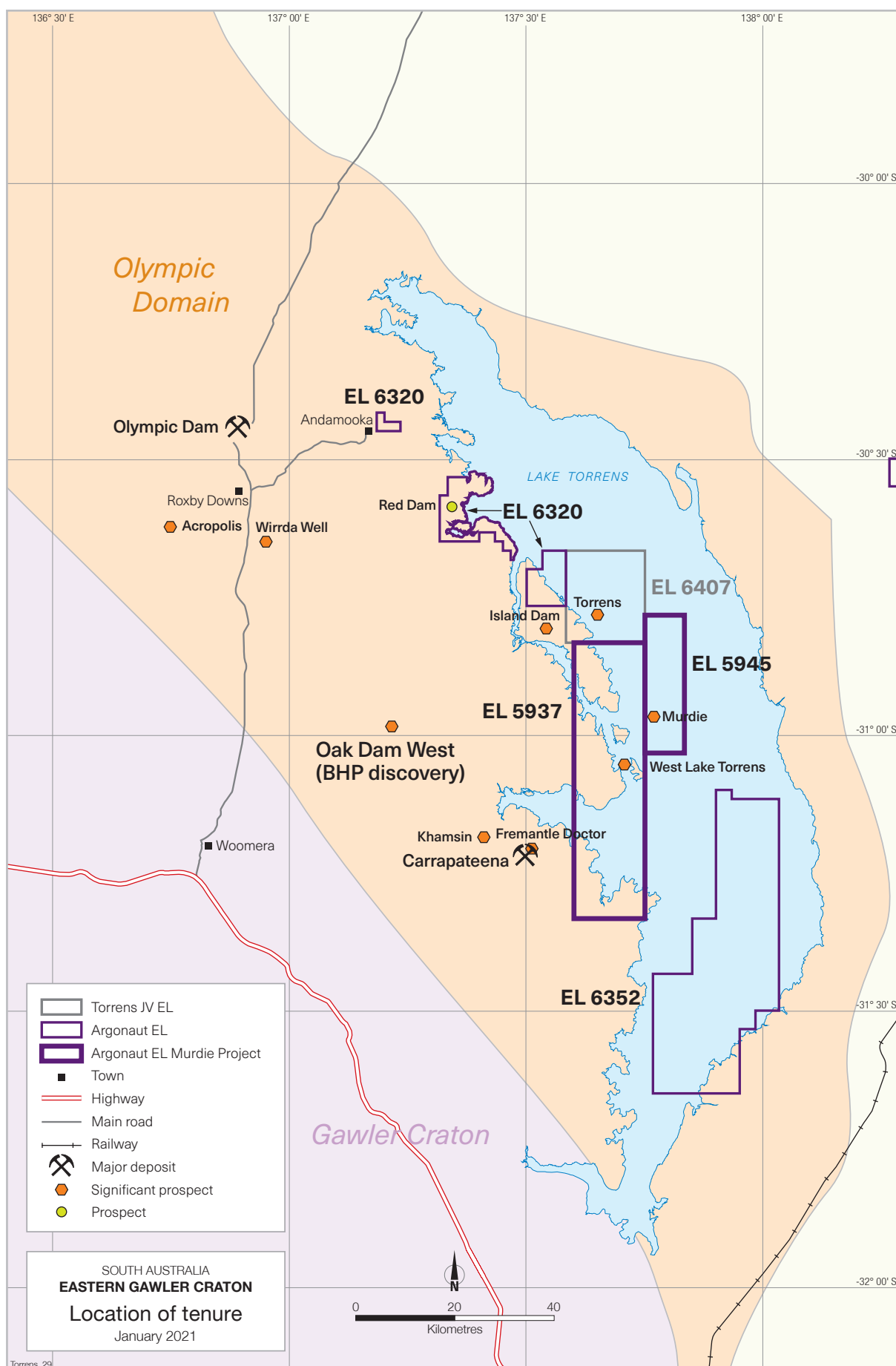
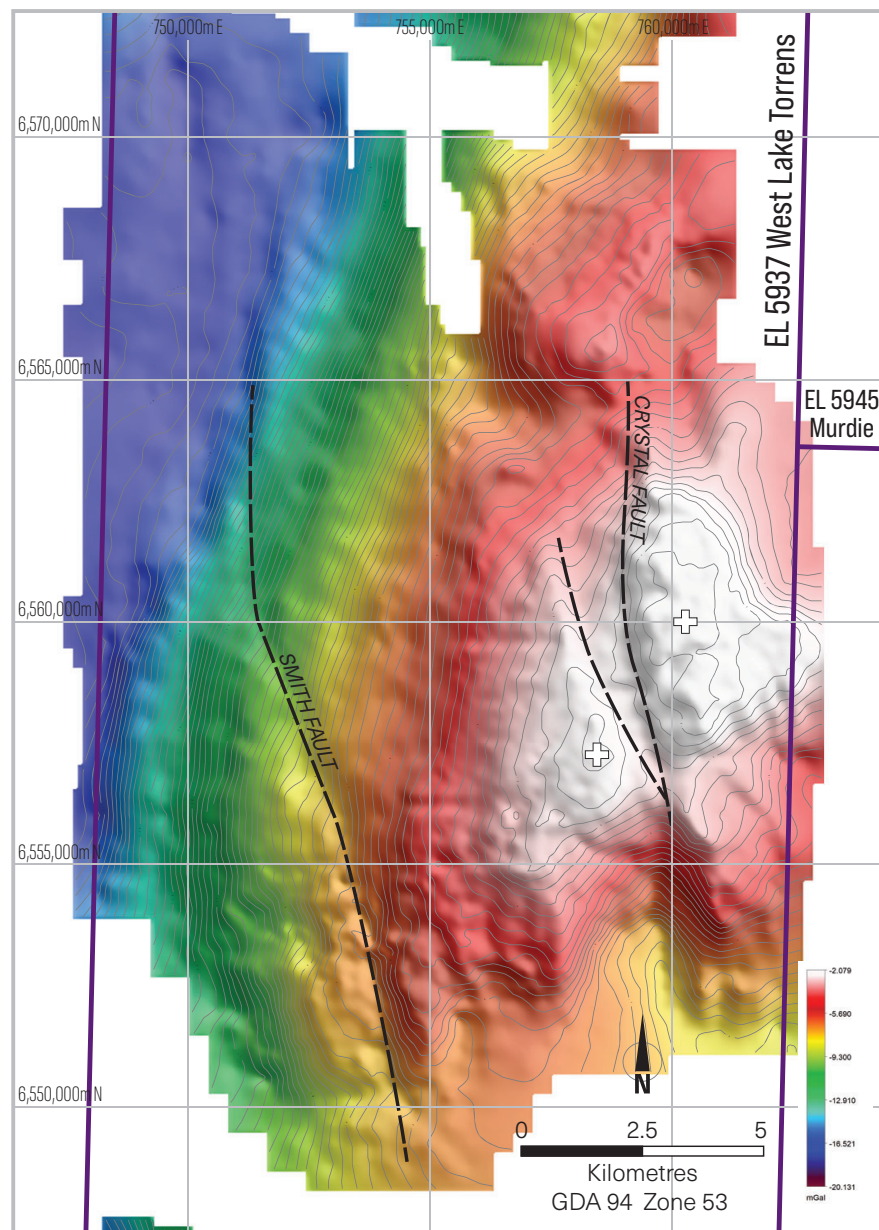
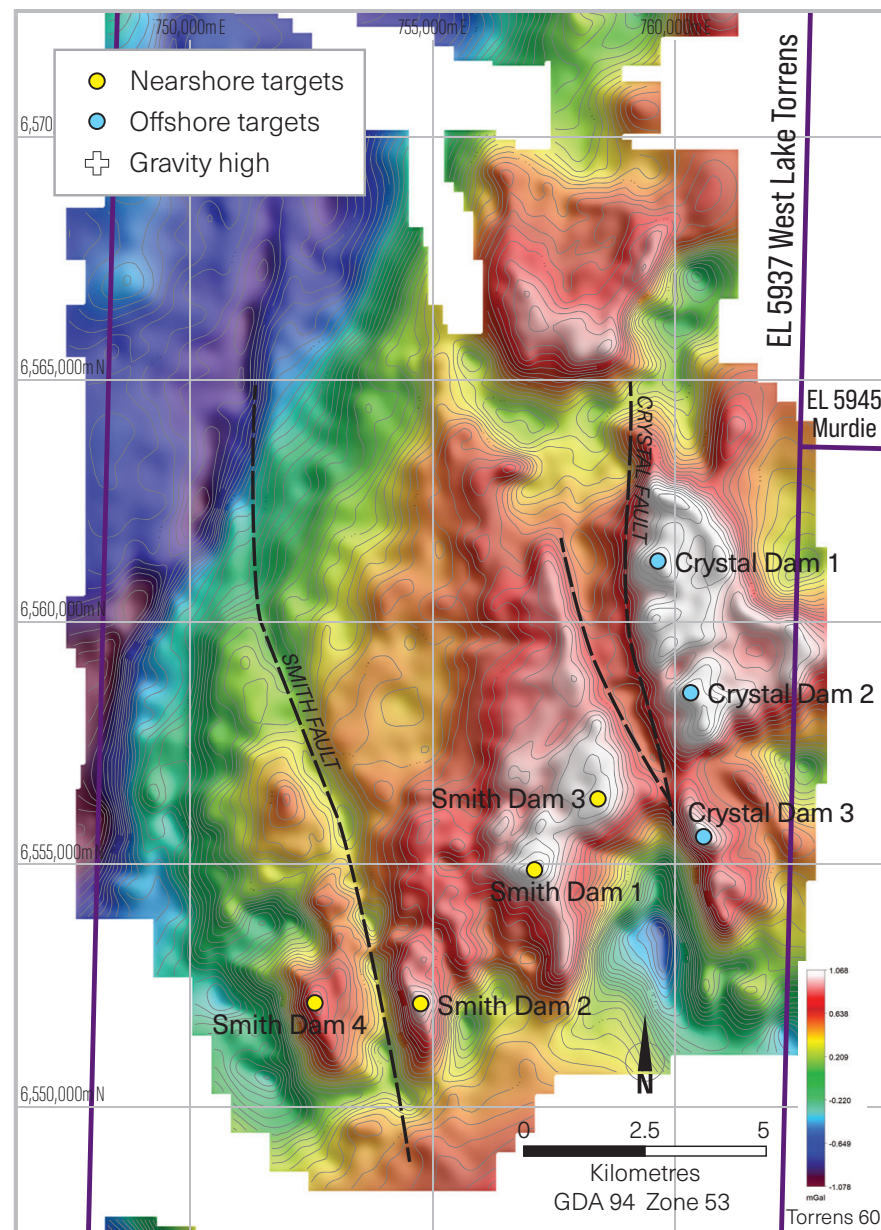


Figure 1 Lake Torrens exploration licences.



WEST LAKE TORRENS  
Bouguer gravity anomaly

**Figure 2** West Lake Torrens bouguer (regional) gravity anomaly.



WEST LAKE TORRENS  
Residual gravity anomalies and drilling targets

**Figure 3** West Lake Torrens residual gravity anomalies and drilling targets.

## Murdie, South Australia

Argonaut Resources holds two highly prospective South Australian exploration licences, EL5937 and EL5945 (Figure 1). The licences are contiguous with the Company's Torrens project in South Australia. The licence areas cover a confirmed IOCG target in an area known as Murdie as well as a second anomaly at West Lake Torrens. There are 54 known residual gravity targets within the area.

The licences cover an area of 1,015 square kilometres and are located immediately south and east of the Torrens project and east of the Carrapateena mine (Figure 1).

This report is authorised for release by:

**Lindsay Owler**

Director and CEO

Argonaut Resources NL

*Sections of information contained in this report that relate to Exploration Results were compiled or supervised by Mr Lindsay Owler BSc, MAusIMM who is a Member of the Australasian Institute of Mining and Metallurgy and is a full-time employee of Argonaut Resources NL. Mr Owler holds shares and options in Argonaut Resources NL, details of which are disclosed in the Company's 2020 Annual Report. Mr Owler has sufficient experience which is relevant to the style of mineral deposits 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 Mineral Resources and Ore Reserves". Mr Owler consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.*