

13 June 2023

# **Project Update**

#### Lake Wells Sulphate of Potash Project and Lake Wells Gold Project

#### **Nexus Rare Earth Element and Lithium Project Acquisition**

Australian Potash Limited (ASX: APC or the Company) provides an update on project matters.

#### **Strategic Update**

The Company has previously announced that it is been undertaking a strategic review process on its Lake Wells Sulphate of Potash Project (**LSOP**) which included providing several parties with access to due diligence material to enable them to consider investing in the project. This process is yet to deliver any executable proposals.

While third party discussions on potential LSOP development funding are continuing, there is not yet any indication that a transaction can be concluded in the near term. In considering these circumstances, the Board has determined to pause all activity on the LSOP, other than what can reasonably be performed to preserve the inherent value of the project. Furthermore, to sustain the viability of the Company and work towards the restoration of shareholder value, the Company will execute alternative exploration strategies on its existing tenure and, where appropriate, pursue opportunities that are identified beyond current areas of operation.

#### **Evaluation of Lake Wells Palaeochannel Clay Samples**

During the exploration and study phases of the LSOP, mineral analysis was conducted on the brine samples from the palaeochannel system only. Clay layers within the palaeochannel sedimentary profile were not assayed, however a comprehensive clay sampling program was completed during bore drilling.

Given the change in circumstances, the Board has made the decision to now analyse those clay samples using a portable x-ray fluorescence (pXRF) machine to determine if they are ionic in nature. Ionic clays elsewhere have been shown to host lithium and rare earth element (REE) mineralisation that is typically easier to liberate than REE and lithium found in hard rock deposits. Given the growing demand for these materials, the Board considers it would be an opportunity lost not to conduct this analysis.

#### Lake Wells Gold Project (LWGP)

In 2018 the Company entered into an exploration joint venture (JV) with prominent north-Eastern Goldfields gold producer St Barbara Limited (ASX: **SBM**). Over the duration of that JV, SBM spent approximately A\$3.5million exploring the JV tenements, which sit contiguous to, and south of, the LSOP mining leases, primarily exploring for gold. The LWGP extends approximately 80km to the south of Lake Wells, where it adjoins tenure currently being explored by successful gold producer Gold Road Resources Limited (ASX: GOR). APC now has 100% ownership of the tenure comprising the LWGP<sup>1</sup> and continues discussions with third

<sup>&</sup>lt;sup>1</sup> Beneficial ownership of 100%; formal transfer of tenure remains pending Office of State Revenue duty assessment









parties interested in the opportunity and early results generated by SBM from the massive Yamarna shear zone. These discussions remain ongoing, and should no commercially acceptable terms materialise, the Company may consider undertaking additional exploration works on these areas at its own cost.

#### **Nexus REE and Lithium Project**

The Company has sought to grow its footprint in a new prospective region of Western Australia by making application for a new exploration licence (E80/5917) and entering into a Tenement Sale (Purchase) Agreement (summarised below in Appendix 1) for a contiguous exploration licence (E80/5778) in the West Arunta. The Company refers to this as its 'Nexus Project'.

Attention has been focused on the West Arunta region recently through the discovery of a high-grade carbonatite hosted niobium deposit by explorer WA1 Resources Limited (ASX: **WA1**). The area of focus for WA1 is approximately 80km to the north of APC's new tenure (see Figure 1 below). The area is also the subject of an exploration joint venture between a private company and Rio Tinto Exploration Pty Ltd. Furthermore, major Western Australian nickel and lithium production company Independence Group (ASX: IGO) has tenure to the east of the Nexus Project.

The Nexus Project was previously partly explored by Canadian base metals production company First Quantum Minerals (**FQM**) between 2015 and 2016, who drilled five aircore/slim line reverse circulation holes into the area of E80/5778 as part of a larger drilling campaign across the area. While ostensibly exploring for a large copper system hosted in the basement, FQM submitted 526 samples for multi-element assay.

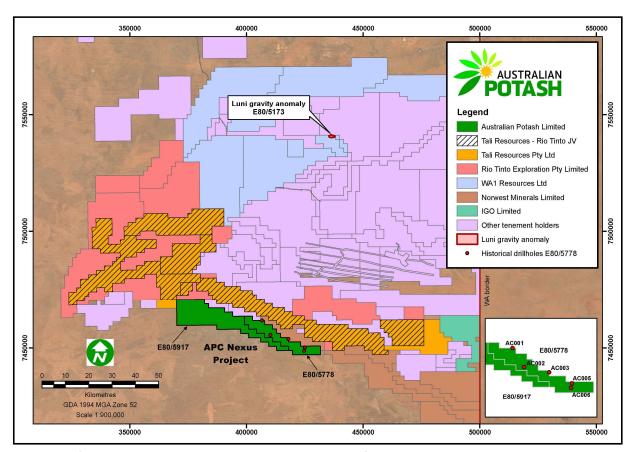


Figure 1: APC's Nexus Project location in the West Arunta region of Western Australia showing relative tenure positions of niobium discoverer WA1, Rio Tinto Exploration and IGO, and drill-hole locations of previous work conducted by FQM

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### **Nexus Exploration Strategy**

Several samples analysed by FQM returned anomalous lithium and total rare earth oxide (**TREO**) assays, and further work conducted by ASX-listed NorWest Minerals (ASX: **NWM**) in 2022 on the same ground showed that TREO mineralisation increased in concentration with increasing distance from the Webb Granite contact.<sup>2</sup>

Geologically, the zone to the south of the Webb Granite is typified by thick (up to 100m) lacustrine and palaeochannel sediments overlying Amadeus Basin metasediments. It is surmised that as the granites and metasediments in the region oxidise and weather, they 'shed' contained components into the nearby sediment traps. The differing mobility properties of the released elements and minerals shed then determine how far they travel, and if they are stopped (or caught) in the palaeochannel and lake clay systems to the south.

#### About clay-hosted lithium and ionic rare earth projects

There are several examples of clay-hosted lithium and ionic rare earth projects guiding the Company's exploration strategy at its LSOP Project area and the Nexus Project.

America Battery Technology Company's (OTCMKTS: ABML) Tonopah Flats and Ioneer Limited's (ASX: INR) Rhyolite Ridge clay-hosted lithium project in Nevada, Arizona Lithium Limited's (ASX: AZL) Big Sandy lithium project in Arizona and Jindalee Resources Limited's (ASX: JRL) McDermitt lithium project in Oregon represent the largest lithium Mineral Resource clay projects. These range from ~1,000-2,000 ppm Li in grade<sup>3</sup> and occur as flat-lying stratigraphic ore bodies within lacustrine sedimentary sequences.

Clay-hosted rare earth projects, or ionic clay deposits (when a reasonable proportion of the contained rare earths are clay-adsorbed) are a major global source of rare earths, with China dominating production. A number of other operations globally are nearing production from this deposit type (eg. Aclara, Serra Verde) and many in Australia and globally are at advanced stages of exploration (eg. Koppamurra SA, Caldeira Brazil). lonic clay deposits can be economically attractive due to the potential for much cheaper mining and metallurgical methods when compared to hard rock rare earth deposits.

APC's exploration strategy at the Nexus Project is to expand the work conducted by FQM and NWM, by pursuing the increasing tenor of lithium and rare earth mineralisation in the lacustrine clays overlying the Bitter Springs formation to the south of the Webb Granite (see Figures 2, 3 and 4).

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<sup>&</sup>lt;sup>2</sup> Refer to NWM ASX Announcement on 22 February 2023

<sup>&</sup>lt;sup>3</sup> Refer to INR ASX Announcement on 27 April 2023; ASL ASX Announcement on 28 April 2023; JRL ASX Announcement on 28 April 2023; ABTC website: www.americanbatterytechnology.com





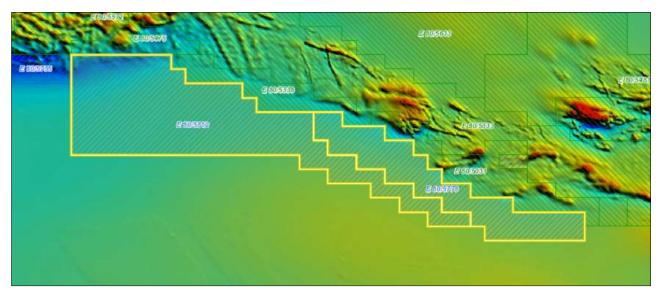


Figure 2: APC's Nexus Project tenements overlain on magnetic image depicting the contact zone between the Webb Granite and the palaeochannel/lacustrine sediments sitting over the Amadeus Basin metasediments

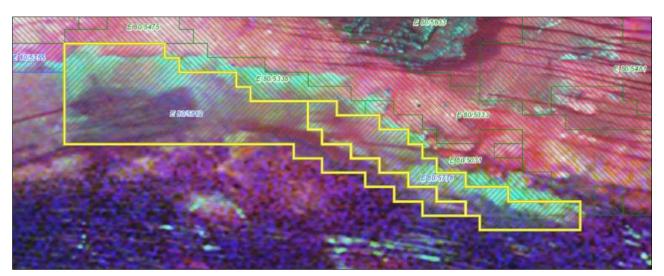


Figure 3: APC's Nexus Project tenements overlain on radiometric image depicting the contact zone between the Webb Granite and the palaeochannel/lacustrine sediments sitting over the Amadeus Basin metasediments





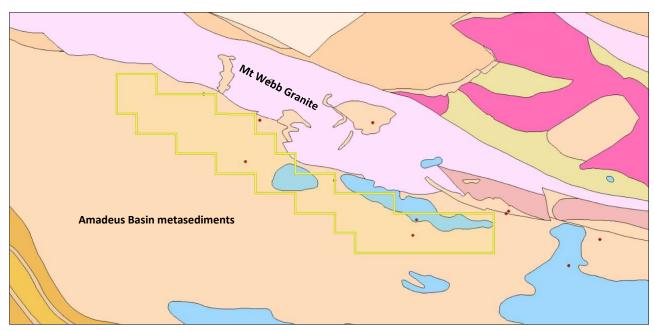


Figure 4: APC's Nexus Project bedrock geology (geophysical interpretation) & tenement E80/5778 with FQM drill collar locations

The Company will provide further updates to the market on its expanded exploration focus in coming months and as results become available.

This release was authorised by the Board of Directors.

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# **Appendix 1**

# **Material Terms of Tenement Acquisition**

Exploration licence E80/5778 is being acquired by the Company from Beau Resources Pty Ltd. In consideration for the tenement, the Company will pay to the vendor and/or their nominee \$20,000 in cash upon execution of the transaction documentation. At completion of the acquisition (expected to be four (4) months from execution), APC will pay a further \$30,000 in cash and issue 20,000,000 fully paid ordinary shares in the capital of the Company.

Should the Company report an assay result above 1,000ppm lithium or 2,000ppm TREO from drilling activities conducted on E80/5917, a further \$50,000 will be payable.

A royalty equal to 2% of the gross value of revenue generated in respect of the sale of minerals extracted from E80/5778 will also be incurred, with the Company reserving the right to buy-out half of the royalty after four (4) years for \$1million.





#### **About Australian Potash Limited**



APC holds a 100% interest in the Lake Wells Sulphate of Potash (LSOP), located approximately 500km northeast of Kalgoorlie, in Western Australia's Eastern Goldfields. The Company is finalising pre-development plans for commencement of construction. First production from the LSOP is scheduled for 31 months from a Final Investment Decision.

K-Brite<sup>™</sup> is a registered trademark brand of Australian Potash Limited and the brand under which the suite of high quality, premium SOP products from the LSOP will be marketed.

APC holds a 100% interest in the Lake Wells Gold Project, located 500km northeast of Kalgoorlie, in Western Australia's Eastern Goldfields.

Please visit <a href="https://www.australianpotash.com.au">www.australianpotash.com.au</a> for more information.

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