
**Adelaide Resources Limited**
ABN: 75 061 503 375

**Corporate details:**

ASX Code: ADN

Cash: $0.701million
(at 31 Mar 2016)

Issued Capital:
358,386,414 ordinary shares
37,222,104 listed options (ADNO)

**Directors:**

**Colin G Jackson**
Non-executive Chairman

**Chris Drown**
Managing Director

**Nick Harding**
Executive Director and
Company Secretary

**Jonathan Buckley**
Non-executive Director

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**Fact:** Evaporation is important in both the formation and production of lithium brines. Australian Bureau of Meteorology records show the Innamincka area has an average annual pan evaporation rate of over 3,600 millimetres. The highest annual evaporation rate reported for the South American lithium brine fields is 3,500 millimetres at Salar de Atacama.

# ASX announcement

8 June 2016

## Lithium brine investigation
(100% interest), South Australia

**Additional salt lakes with lithium brine potential pegged in South Australia.**

## Summary


Adelaide Resources has applied for a further exploration licence that builds on its South Australian salt lakes portfolio which is to be investigated for lithium brine potential.

- The 928km$^2$ "Innamincka Lakes" application, ELA 2016/00068, is situated approximately 70km west of Innamincka.
- The new application captures a cluster of some 20 small salt lakes which were identified in a recently published research paper titled "A review of Australian salt lakes and associated mineral systems" as having potential for lithium enriched brines due to the high concentration of lithium in the lake catchment areas.
- Despite its geographically isolated location, the Innamincka Lakes tenement benefits from substantial infrastructure established to support the Cooper Basin oil and gas fields.
- A first pass brine sampling programme is planned on the Innamincka tenement, together with other lakes held by the Company, to investigate whether lithium is present at elevated concentrations.


Chris Drown
Managing Director

Direct enquiries to Chris Drown. Ph (08) 8271 0600 or 0427 770 653.

**Introduction**

In 2016, Adelaide Resources has been building a portfolio of tenements that show potential to be prospective for lithium deposits, with both hardrock and lithium brine opportunities acquired.

Licence applications have been made in the Davenport Ranges in the Northern Territory and in the Coolgardie region of Western Australia that are conceptually prospective for hardrock lithium deposits.

While there are no lithium brine operations in Australia, globally brines accounted for around half of the world's lithium production in 2015, and brine deposits represent a significant source of lithium.

Adelaide Resources' lithium brine opportunities are all located in South Australia. Tenement applications have been lodged to secure the salt pans at Lake Gilles, Lake Florence and Lake Killamperpunna, while a pre-existing tenement covers a small part of the Lake Acraman salt pan.

**Innamincka Lakes application**

The Company has additionally pegged a new tenement in South Australia that covers a cluster of small salt lakes which may prove prospective for lithium brines.

The 928 km$^2$ "Innamincka Lakes" application, ELA 2016/00068, is situated approximately 70 kilometres west of Innamincka (Figure 1).

Like the recent Lake Killamperpunna and Lake Florence applications, the Innamincka Lakes application was lodged in response to a recent research paper published in the Australian Journal of Earth Sciences titled "A review of Australian salt lakes and associated mineral systems" authored by T. P. Mernagh et. al.[(1)]

There is no recorded past exploration for lithium brines in the lakes west of Innamincka, however the Mernagh study found that sediments in the catchment area have relatively high lithium concentrations and so have potential to be a good source of lithium.

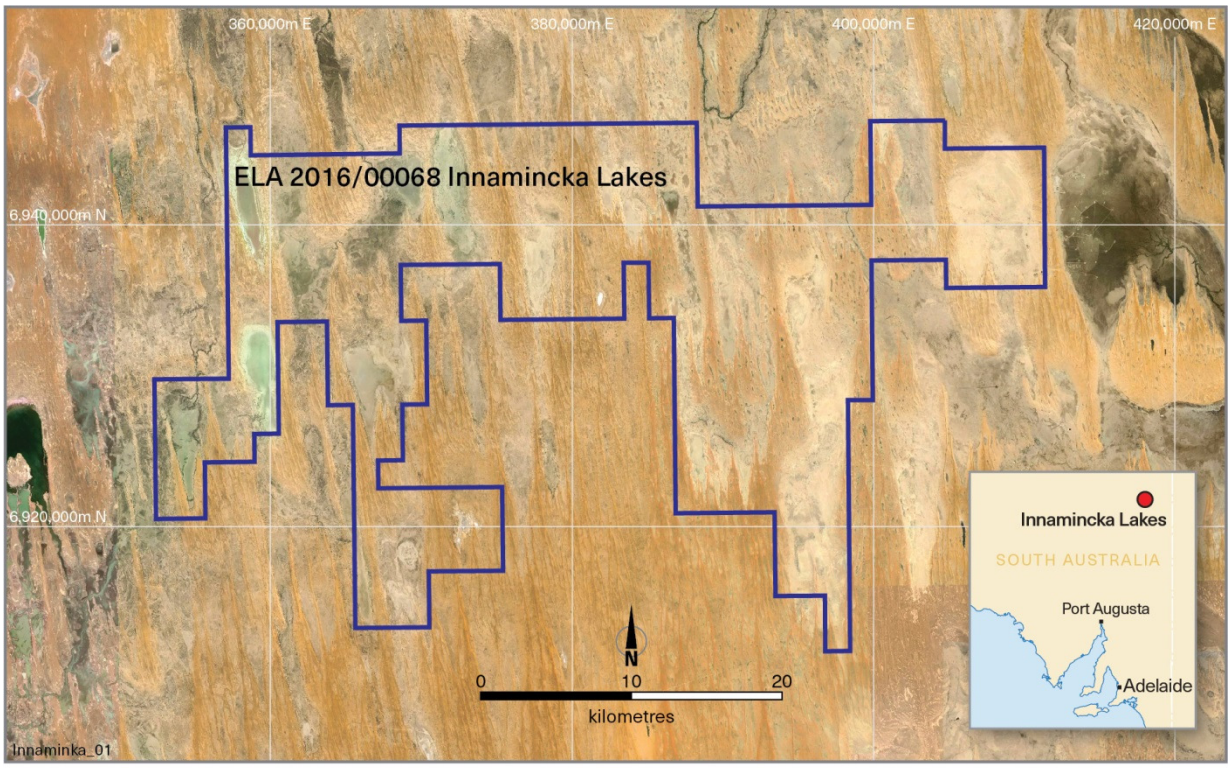


**Figure 1:** ELA 2016/00068 Innamincka Lakes location plan.

Gidealpa, the site of the first commercial gas discovery in the Cooper Basin, is located about 10km from the southeast boundary of the Innamincka Lakes tenement application, while producing oil and gas fields are located to the east.

Consequently, ELA 2016/00068 is entirely covered by various different types of petroleum related tenements and licences. The existence of these titles will see certain conditions imposed on the Exploration Licence granted subsequent to ELA 2016/00068, however these are not considered likely to cause any serious impediment to the Company's ability to complete exploration for salt lake brines.

A positive aspect of the presence of the petroleum related tenements and activity is that, while the new application falls in an isolated part of Australia, significant local infrastructure associated with the Cooper Basin oil and gas fields exists that will be most useful in a lithium brine exploration programme.

**Next steps**

A preliminary programme aimed at sampling and analysing the brine and sediments at the various lakes on the new tenement is planned once the tenement is granted and access approvals are in place.

This work will likely be done in conjunction with similar first pass sampling at the recently pegged Lake Florence and Lake Killamperpunna tenements.

Adelaide Resources' lithium exploration programme remains complementary to the Company's ongoing gold exploration programmes in the Drummond Basin and on the Eyre Peninsula.

***Reference***

(1) *T. P. Mernagh, E. N. Bastrakov, S. Jaireth, P. de Caritat, P. M. English & J. D. A. Clarke (2016): A review of Australian salt lakes and associated mineral systems, Australian Journal of Earth Sciences, DOI: 10.1080/08120099.2016.1149517*

***Competent Person Statement***

*The information in this report that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Chris Drown, a Competent Person, who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Drown is employed by Drown Geological Services Pty Ltd and consults to the Company on a full time basis. Mr Drown 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 Drown consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*