

6 August 2021 ANNOUNCEMENT

ASX: ASN, ASNOC OTC: ANSNF

Higher Li Recoveries Achieved with Alternate DLE Technology

## **Highlights:**

- Alternative Direct Lithium Extraction (DLE) technology indicates operational and economic advantages in producing lithium carbonate at Paradox Brine Project
- Lithium DLE recovery rate increased from 80% to 90% without a of chemical wash
- Small-scale pilot plant results indicate no pre-treatment & longer resin media life
- Financial impact to be calculated in updated PFS/PEA

Anson Resources Limited ("Anson" or the "Company") is pleased to announce that it has successfully conducted test work at a third-party laboratory using an alternate Direct Lithium Extraction ("DLE") technology that has improved the expected lithium recovery rate in the first stage of the extraction process to 90%, an increase of 10% from the previous test work results (see ASX Announcement 14 November 2018). This is expected to positively impact on production costs. The test work was conducted using brine recently taken from the Clastic Zone 31 horizon within the Paradox Brine Project located in Utah, USA (the "Paradox Project").

The alternative DLE process tested by Anson does not require pre-treatment of the brine prior to lithium extraction using resin. In addition, the lithium is recovered from the extraction resin with water rather than chemicals. These two flow sheet changes are also expected to reduce operating costs.as the previous process required pre-treatment and a chemical wash. Furthermore, a longer life span of the lithium attracting media used in the alternative DLE process is anticipated which is also expected to impact upon operating costs. Benchtop test work was initially conducted to test the suitability of the process for Paradox brine. Similar results were achieved using a small-scale pilot plant at a third-party laboratory processing 4,000 litres of Paradox brine (see Figure 1).



Figure 1: Small-scale pilot plant using water to wash off lithium from resin.



It is expected that the higher recovery rate, no requirement for pre-treatment, using water rather than chemicals to wash the lithium from the resin, and a longer life span of the lithium extracting resin & media will improve the economics of the project. The financial impact of these improvements is being assessed and will be included in the 15,000tpa NaBr PFS / 2,500tpa LCE PEA which is currently being finalised.

Anson previously announced that the overall recovery rate of the lithium (that is after the extraction and downstream processing) will be approximately 75% which has been used in the latest PEA for 15,000tpa NaBr and 2,500tpa LCE (see ASX Announcement 25 March 2021). It is expected that Anson will be able to use a higher overall recovery rate for lithium in its future engineering studies further improving the economics of the project.

Anson cannot provide details of the supplier of the DLE technology due to confidentiality requirements. However, it can advise that the DLE technology is already being used in commercial production at several locations using different brine compositions.

As part of its continual improvement agenda, Anson has continued to test several alternative DLE technologies over the past two years, with the aim of improving operational and economic performance, as well as taking into account Environmental, Social & Governance (ESG) considerations.

Anson's Executive Chairman and CEO, Bruce Richardson, commented: "Anson is committed to developing the most cost-efficient flowsheet for the production of lithium, bromine and other minerals from Paradox brine, while at the same time taking proactive steps to address ESG considerations. The selection of the most suitable technology for our Paradox brine is paramount in meeting both objectives. The four improvements of higher recovery rate, no pre-treatment, water replacing chemicals to wash the lithium from the selective resin and a longer life span of the extraction resin by using an alternative DLE technology is expected to improve the economics of the lithium processing plant. Our team has delivered on this guiding principle, and we are very pleased with the results of this this alternative DLE technology test work. We look forward to providing further details on potential financial improvements in our updated PFS/PEA."

## **ENDS**

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## **About Anson**

Anson Resources Limited (ASX: ASN) is an Australian-based exploration and development company, focused on the discovery, acquisition, and development of natural resources that will meet the demand from rapidly growing new energy and technology markets.

A key component of this strategy is the development of the Paradox Basin Brine Project in southern Utah, USA, where Anson is targeting the recovery of valuable chemicals from a unique salt brine resource. The Paradox Project is targeting the supply of lithium chemicals to the rapidly growing



battery market, while extracting additional value from by-products, including bromine, iodine, and boron, contained within the brine.

Anson has also established a portfolio of base metals projects covering 458km² in the highly prospective Yilgarn Craton of Western Australia. A key near-term focus within the WA portfolio is on The Bull Project which covers 82km² and adjoins the high-grade Julimar Ni-Cu-PGE discovery made by Chalice Gold Mines Limited (ASX: CHN).