

# ASX ANNOUNCEMENT 22 March 2021

# Hombre Muerto West (HMW) Concentrate Grade Increases by an Outstanding 25% to 6% Li (32%LCE)

# **Highlights:**

- HMW's lithium chloride (LiCl) concentrate increases significantly by 25% to 6% Li (32% LCE\*)(from the original study value of 4.8% Li)
- Galan's high-grade result (6% Li) is directly comparable to SQM's and Albemarle's LiCl concentrate produced from the Atacama basin in Chile
- Furthermore, HMW's LiCL concentrate level (12.9% Li20\*) is equivalent to more than double the average concentrate grade of Australian lithium spodumene producers (6% Li20 \*\*)
- Galan may then have the flexibility to place its lithium for downstream products anywhere in the world without the burden of high logistics costs, high CO2 footprint and/or waste management
- Galan is evaluating the commercial potential in the global market for its highgrade LiCl concentrate as feed for lithium battery products
- Test results also showed very low level of contaminants, especially SO4, Ca and Mg
- Galan forecasts initial HMW brine evaporation pilot works to commence in Q2 2021.

Galan Lithium Limited (ASX: GLN) (Galan or the Company) is very pleased to announce these exciting laboratory test work results for its low carbon footprint brine evaporation process at its flagship Hombre Muerto West (HMW) project located in the South American Lithium Triangle in Catamarca, Argentina.

Galan's Managing Director Juan Pablo (JP) Vargas de la Vega said: "Grade is always king. These results are better than we envisaged and have more than solidified the serious potential of the Hombre Muerto West project. We have always followed the mantra of 'walking before running' and these results, whilst taking time to achieve, have affirmed our step by step approach of utilising proven technology with low risk in processing. Our teams in Argentina and Chile have been brilliant during these uncertain times and continue to deliver these essential Project steps."

<sup>\*</sup> see lithium classification and conversion factors below

<sup>\*\*</sup> excludes Greenbushes

## **Summary of the Test Work Results**

The second round of test work on HMW's raw brine was conducted in Antofagasta using the first stage of natural brine evaporation process and finalised using accelerated evaporation in a wind tunnel under controlled conditions. The test work was fully managed and conducted by lithium experts Ad-Infinitum. As our technical advisors, Ad-Infinitum recommended the use of reagents to remove impurities and to avoid the risk of precipitation of Li salts causing losses of this valuable element.

The results far exceeded Galan's expectations, with the lithium chloride concentrate increasing by 25% to 6% Li (vs. 4.8% Li estimation for the Scoping Study/PEA, ASX announcement 21 December 2020). The HMW project's Li grade, is one of the highest publicly known brine concentration levels in the world, using the evaporation process. Galan's 6% Li it is directly comparable to SQM's & Albemarle's concentrate produced from the Atacama salt-flat in Chile. This result was made possible through the optimisation process developed using the Ad-Infinitum prediction model. These grades provide Galan with exciting commercial opportunities for a lithium chlorine concentrate product.

Furthermore, the low levels of impurities contained in the lithium chlorine brine were also significant. The main contaminants like SO4, Mg and Ca were reduced significantly. Whilst B and other elements like K, Na and Cl are low they are expected to be removed during the treatment at a downstream process. Galan's study team is confident that this brine concentrate quality could be converted into a high-quality battery grade product while remaining cost competitive.

Next Steps:

- Galan is continuing to test and optimise a range of lithium chloride concentrate solutions with conversion costs in mind to deliver the best commercial solution in the shortest time possible.
- Galan expects to commence commissioning the evaporation pilot test work on site during Q2 2021.
- Testing the conversion of the high-grade LiCl to lithium carbonate battery grade.
- Galan is reviewing the scope of work for the most adequate path to accelerating the project development (lowest Capex and shortest time) to market. The high quality of the concentrated LiCl could be a mayor strategic differentiation for improving the economic performance of the project.

# Lithium classification and conversion factors

Lithium grades are normally presented in mass percentages or milligrams per litre (or parts per million (ppm)). Grades of deposits are also expressed as lithium compounds in percentages, for example as a per cent. lithium oxide (Li2O) content or per cent. lithium carbonate (Li2CO3) content.

Lithium carbonate equivalent ("LCE") is the industry standard terminology for, and is equivalent to, Li2CO3. Use of LCE is to provide data comparable with industry reports and is the total equivalent amount of lithium carbonate, assuming the lithium content in the deposit is converted to lithium carbonate, using the conversion rates in the table included further below to get an equivalent Li2CO3 value in per cent. Use of LCE assumes 100% recovery and no process losses in the extraction of Li2CO3 from the deposit.

Convert from		Convert to Li	Convert to Li <sub>2</sub> O	Convert to Li <sub>2</sub> CO <sub>3</sub>
Lithium	Li	1.000	2.153	5.323
Lithium Oxide	Li₂O	0.464	1.000	2.473
Lithium Carbonate	Li₂CO₃	0.188	0.404	1.000

Conversion Factors for Lithium Compounds and Minerals:

## The Galan Board has authorised this release.

For further information contact:

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#### About Galan

Galan is an ASX listed company exploring for lithium brines within South America's Lithium Triangle on the Hombre Muerto salar in Argentina. Hombre Muerto is proven to host the highest grade and lowest impurity levels within Argentina and is home to Livent Corporation's El Fenix operation and Galaxy Resources and POSCO's Sal de Vida projects.

#### Galan has three projects:

Candelas: a ~15km long by 3-5km wide valley filled channel which project geophysics and drilling have indicated the potential to host a substantial volume of brine and over which a maiden resource estimated 685kt LCE (Oct 2019). Furthermore, Candelas has the potential to provide a substantial amount of processing water by treating its low-grade brines with reverse osmosis, this is without using surface river water from Los Patos River.

Hombre Muerto West (HMW): a ~14km by 1-5km region on the west coast of Hombre Muerto salar neighbouring Livent Corp to the east. HMW is currently comprised of seven concessions – Pata Pila, Rana de Sal, Deceo III, Del Condor, Pucara, Catalina and Santa Barbara. Geophysics and drilling at HMW demonstrated a significant potential of a deep basin. In March 2020, a maiden resource estimate delivered 1.1Mt of LCE for two of the largest concessions (Pata Pila and Rana de Sal). That resource now sits at 2.3Mt of LCE with exploration upside remaining for the rest of the HMW concessions not included in the current indicated resource.

Greenbushes South Lithium Project: Galan has an Exploration Licence application (E70/4629) covering a total area of approximately 43 km2. It is approximately 15kms to the south of the Greenbushes mine. In January 2021, Galan entered into a sale and joint venture with Lithium Australia NL for an 80% interest in the Greenbushes South Lithium project, which is located 200 km south of Perth, the capital of Western Australia. With an area of 353 km2, the project was originally acquired by Lithium Australia NL due to its proximity to the Greenbushes Lithium Mine ('Greenbushes'), given that the project covers the southern strike projection of the geological structure that hosts Greenbushes. The project area commences about 3km south of the current Greenbushes open pit mining operations.

### **Competent Persons Statement**

The information contained herein that relates to the progress of the laboratory test work and study development related activities have been directed by Mr. Marcelo Bravo. Mr. Bravo is Chemical Engineer and managing partner of Ad-Infinitum Spa. with over 25 years of working experience and he is a Member of the Chilean Mining Commission and has sufficient experience which is relevant to the activity which they are undertaking to qualify as a Competent Persons as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Bravo consents to the inclusion of his name in the matters based on the information in the form and context in which it appears.