

## **ASX ANNOUNCEMENT**

13 February 2019

# **NEW HIGH-GRADE LITHIUM DISCOVERY**

## CANDELAS LITHIUM BRINE PROJECT, HOMBRE MUERTO, ARGENTINA

- Initial assays confirm thick, high-grade lithium bearing brines at Candelas
- Partial intercept received; 65 metres at an average of 862 mg/l Li from 235m to 300m
- 119 metres of brine encountered from 235 to 354 metres (current depth)
- Low impurity levels with an Mg/Li ratio <3 comparable with high quality brines currently being mined at Salar del Hombre Muerto
- Basement lithologies encountered at 311 metres. However, brine in-flow continues to be observed within the fractured rock
- Sediment package hosting brines includes potentially permeable hosts;
   coarse sands/gravels and breccia-conglomerate
- More detailed sampling and downhole geophysics to be undertaken

"Preliminary field measurements and laboratory analyses on brine suggests that the Candelas Project has the potential to become a world-class soluble lithium deposit hosted in a unique geological setting." (SRK Consulting)

Galan Lithium Limited (ASX:GLN) (**Galan** or **the Company**) is pleased to announce results from the first samples taken from its maiden drillhole (C-01-19) at the Candelas Lithium Brine Project located immediately to the southeast of the Hombre Muerto salar in Argentina. The drillhole is currently at 354 metres and successfully encountered a substantial intercept of brine from depths of approximately 235 to 354 metres within coarse clastic sediments to 311 metres and fractured basement lithologies from 311 to 354 metres.

Preliminary brine samples using a modified bailer method were taken from three intervals; 0-215m, 235-267m and 235-300m and assayed in country by Alex Stewart Laboratories utilising Inductively Coupled Plasma Optical Emission Spectrometry ("ICP-OES"). Further brine samples from several horizons are planned to be obtained utilising the slow pump (or "low-flow") method and/or double packer equipment, to alleviate potential dilution from drilling fluids, with sub-samples collected for check assaying to be sent to a second laboratory. The exploration programme is being led by the Company's

Chief Geologist, Francisco Lopez, with onsite QA/QC control and technical support provided by Camilo de los Hoyos from SRK Consulting (Argentina) a specialist in hydrogeology and in the exploration of lithium brines.

The hole initially intersected 8m of fluvial sediments before intersecting a thick layer of ignimbrite (a lithified volcanic pyroclastic flow) to 165m. The hole then encountered a sequence of sands and clays coarsening with depth and hosting salty waters which, at about 235m, turned to brines. Field conductivity measurements from brine samples exceeded the 200 milli-siemens/cm limits of the recording instrument whilst field measurements of the specific gravity ('SG') of the brine ranged up to a consistent ~1.21 g/cc. DDH core samples have also been collected for porosity test work to determine specific yield (drainable porosity) and other petrophysical parameters. Visual estimations of porosity suggest medium to high porosity for the sand and conglomerate whilst the fractured basement is reporting good brine flows from double packer testing.

TABLE 1: Assay and field test results - Drillhole C-01-19, Candelas project Diamond drillhole C-01-19 Location: 712,116E 7,180,414N (WGS84 Zone19)

Sample ID	From	То	Li	Mg	В	K	Cond.	SG	Mg/Li
	m	m	mg/L	mg/L	mg/L	mg/L	mS/cm	g/cm <sup>3</sup>	
GL 101	165	215	118	263	195	1576	73	1.025	2.2
GL 102	235	267	515	1465	369	4729	>200	1.125	2.8
GL 103	235	300	858	2355	596	8090	>200	1.21	2.7
GL 103 Dup.	235	300	867	2376	601	8067	>200	1.21	2.7

NB; See Annexure 1 for details on sampling procedures

Furthermore, the Mg/Li ratios, being less than 3, are comparable with high quality brines currently being mined elsewhere in Argentina and in particular at the Fenix operation, Hombre Muerto by Livent Corporation (NYSE: LTHM). Additionally, the lithium grades are potentially under-reporting as the initial brine samples contain approximately 5-15% drilling fluids (injected fresh water). Future sampling will involve low-flow pump and/or packer testing to alleviate this.

As the drilling is still encountering flowing brines from within the fractured basement a decision is yet to be made to end the hole. Once completed, downhole geophysical profiling will be conducted comprising a spontaneous potential short/long electrical resistivity survey, which records the conductivity of the brine at 10cm intervals and interpreted to determine sections of primary brine ingress. The hole will then be cement cased to the top of the brine, cased further with PVC at depth, allowed to settle and then further brine samples collected.

### Comment

These initial results are exceptional, confirming the presence of high-grade lithium bearing brines within a geological setting unique to the Hombre Muerto salar. SRK Consulting (Argentina) Senior Consultant Geologist Camilo de los Hoyos states that; "Preliminary field measurements and laboratory analyses on brine suggests that the Candelas Project has the potential to become a world-class soluble lithium deposit hosted in a unique geological setting. Further results from exploration must be assessed step by step to define matrix specific yield and hydraulic conductivity, brine quality and aquifer geometry".

Furthermore, potassium contents in brine are high enough for this metal to be considered a by-product in the future if further exploration work confirms that Candelas is an economic brine deposit. Whilst it is early days, the Company is greatly encouraged by this initial success and now awaits confirmation of these results from further samples and testing. Galan will aim to fast track the exploration at Candelas with the goal of targeting a resource as soon as practicable. This maiden drill programme is planned to comprise five holes drilled along the ~15 km extent of the Candelas channel.

Commenting on the drilling, Galan's Managing Director, Juan Pablo ("JP") Vargas de la Vega said from Argentina; "To encounter lithium grades of this tenor with low impurities in our first hole is remarkable and has given us further encouragement that the Candelas project has the potential to host a significant resource of lithium bearing brines. The team is working full steam ahead to advance the programme and we intend to fast track exploration along the 15km extent of the project".

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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 and surroundings. 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's primary target is the adjoining Candelas channel target, a ~15km long by 3-5km structurally controlled pull apart basin, infilled with sediments hosting the brines. Recent geophysics and now drilling indicating has the potential to host a substantial volume of brine.

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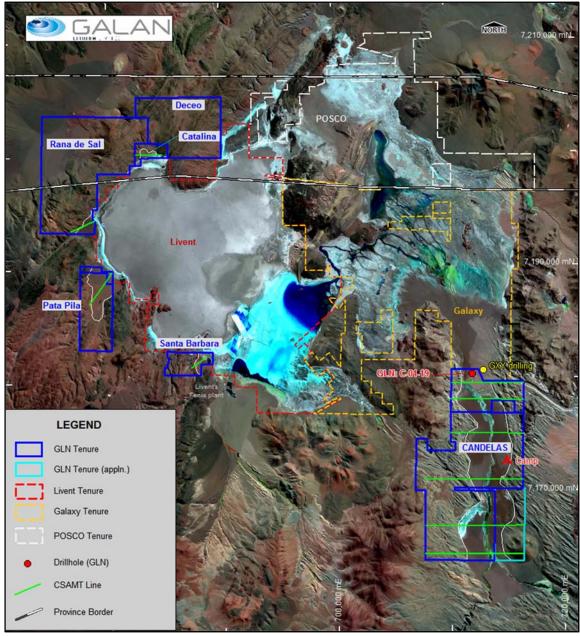


Figure 1: Location of drillhole C-01-19 and Galan Lithium's tenure at salar



Figure 2: Diamond drill rig operating at Candelas

### **Competent Persons Statement**

The information contained herein that relates to Exploration Results is based on information compiled or reviewed by Dr Luke Milan, who has consulted to the Company. Dr Milan is a Member of the Australasian Institute of Mining and Metallurgy and has sufficient experience which is relevant to the style of mineralisation and types of deposit under consideration and 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'. Dr Milan consents to the inclusion of his name in the matters based on the information in the form and context in which it appears.

# ANNEXURE 1 JORC CODE, 2012 EDITION – TABLE 1

# **Section 1 Sampling Techniques and Data**

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>Drill core in the hole was recovered in 1.5 m length core runs in core split tubes to minimize sample disturbance. Core recovery was carefully measured by comparing the measured core to the core runs.</li> <li>Drill core was undertaken along the entire length of the hole to obtain representative samples of the stratigraphy and sediments that host brine.</li> <li>Water/brine samples from target intervals were collected by the Bailer test; purging isolated sections of the hole of all fluid a total of five times to minimize the possibility of contamination by drilling fluid (fresh water), although some contamination (5-15%) does occur. The hole was then allowed time to re-fill with ground water. On the fifth purge the sample for lab analysis is collected (~1.5L). The casing lining the hole ensures contamination with water from higher levels in the borehole is likely prevented. Samples were taken from the relevant section based upon geological logging and conductivity testing of water.</li> <li>Three water/brine samples have been collected and assayed to date from the following three intervals: 165-215m, 235-267m, 235-300m</li> <li>Repeat water/brine sampling has been subsequently undertaken at the three levels stated above with the aim to minimise drilling fluid contamination. Results are pending.</li> <li>Conductivity tests are taken with a field portable Hanna Ph/EC/DO multiparameter.</li> </ul>
Drilling techniques	Drill type (eg core, reverse circulation, openhole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	<ul> <li>Diamond drilling with internal (triple) tube was used for drilling. The drilling produced core with variable core recovery, associated with unconsolidated material. Recovery of the more friable sediments was difficult, however core recovery by industry standards was very good.</li> <li>Fresh water is used as drilling fluid for lubrication during drilling.</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>Diamond drill core was recovered in 1.5m length intervals in triple (split) tubes.         Appropriate additives were used for hole stability to maximize core recovery. The core recoveries were measured from the core and compared to the length of each run to calculate the recovery.     </li> <li>Brine samples were collected over relevant sections based upon the geology encountered and ground water representation.</li> <li>Brine quality is not directly related to core recovery and is largely independent of the quality of core samples. However, the porosity and permeability of the lithologies where</li> </ul>

Criteria	JORC Code explanation	Commentary
		samples are taken is related to the rate of brine inflow.
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>The core is logged by a senior geologist and contract geologists who are overseen by the senior geologist who also supervised the taking of samples for laboratory analysis.</li> <li>Logging is both qualitative and quantitative in nature. The relative proportions of different lithologies which have a direct bearing on the overall porosity, contained and potentially extractable brine are noted, as are more qualitative characteristics such as the sedimentary facies. Cores are split for sampling and are photographed.</li> <li>All core is logged by a geologist</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Water/brine samples were collected by purging isolated sections of the hole of all fluid in the hole, to minimize the possibility of contamination by drilling fluid, then allowing the hole to re-fill with ground waters. Samples were then taken form the relevant section. Duplicate samples are also taken.</li> <li>The sampling process has been repeated for intervals 165-215m, 235-267m and 235–300m with care to ensure minimal drilling fluid contamination.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>The Alex Stewart laboratory located in Jujuy, Argentina, is used as the primary laboratory to conduct the assaying of the brine samples collected.</li> <li>The Alex Stewart laboratory is ISO 9001 and ISO 14001 certified and is specialised in the chemical analysis of brines and inorganic salts, with considerable experience in this field.</li> <li>Core samples will also be sent to a laboratory for porosity test work.</li> <li>Duplicate samples returned comparable values, well within acceptable limits (see Table 1).</li> <li>Drilling is ongoing.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Field duplicates, standards and blanks are used to monitor potential contamination of samples and the repeatability of analyses.</li> <li>Sub-sample duplicates are also being transported to a second reputable industry standard laboratory in country for check analysis</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>The survey locations were located using modern Garmin handheld GPS with an accuracy of +/-5m.</li> <li>The grid System used by Quantec: POSGAR 94, Argentina Zone 3</li> <li>Topographic control was obtained by handheld GPS, and the topography is mostly flat with very</li> </ul>

Criteria	JORC Code explanation	Commentary		
		little relief.		
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	Water/brine samples were collected within isolated sections of the hole based upon the results of geological logging.		
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	The brine concentrations being explored for generally occur as sub-horizontal layers and lenses hosted by conglomerate, gravel, sand, salt, silt and/or clay. Vertical diamond drilling is ideal for understanding this horizontal stratigraphy and the nature of the sub-surface brine bearing aquifers		
Sample security	The measures taken to ensure sample security.	<ul> <li>Data was recorded and processed by trusted employees, consultants and contractors to the Company and overseen by senior management ensuring the data was not manipulated or altered.</li> <li>Samples are transported from the drill site to secure storage at the camp on a daily basis.</li> </ul>		
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No audits or reviews have been conducted to date. The drilling is at a very early stage however the Company's independent consultant and CP have approved the procedures to date.		

### **Section 2 Reporting of Exploration Results**

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Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	The Hombre Muerto Lithium Project consists of numerous licences located in Catamarca Province, Argentina. The tenements are owned by Blue Sky Lithium Pty Ltd ('Blue Sky'). The Company and Blue Sky executed a Share Sale Agreement whereby Galan Lithium Limited purchased 100% of the issued share capital of Blue Sky.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	There has not been any historical exploration over the Candelas licence area Galaxy Resources, who owns the Sal de Vida lithium brine resource situated to the north of Candelas with the Hombre Muerto salar, is conducting drilling within the Candelas channel approximately 1km east-northeast of Galan drillhole C-01-19.
Geology	Deposit type, geological setting and style of mineralisation.	The Candelas licence area is located within a structurally controlled basin (graben) and is part of the Hombre Muerto salar. The salar hosts a world-renowned lithium brine deposit. The lithium is sourced locally from weathered and altered felsic ignimbrites

Criteria	JORC Code explanation	Commentary
		and is concentrated in brines hosted within basin fill alluvial sediments and evaporites.
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul> <li>Drillhole ID: C-01-19</li> <li>Easting: 712,115,.5 E (WGS84 Zone 19)</li> <li>Northing: 7,180,414.0N (WGS84 Zone 19)</li> <li>Vertical hole</li> <li>Incomplete - still being drilled</li> </ul>
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	Assay averages have been provided where multiple sampling occurs in the same sampling interval.
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	It is fairly assumed that the brine layers lie sub- horizontal and, given that the drillhole is vertical, that any intercepted thicknesses of brine layers would be of true thickness.
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	Provided, refer to maps, figures and tables in the document
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	The results are from the initial stages of the first and only drillhole to be drilled at the project to date.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics;	<ul> <li>All meaningful and material information is reported</li> <li>Refer to previous ASX Company releases regarding the targeting of the drilling based largely upon the results from geophysics. Specifically see; ASX:GLN dated 4 October 2018</li> </ul>

Criteria	JORC Code explanation	Commentary
	potential deleterious or contaminating substances.	
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>The hole, once completed, will be tested using downhole geophysics, then cement cased to the top of the brine formation, further cased with PVC and more brine samples collected for assaying.</li> <li>It is planned to conduct further drilling along the 15km long Candelas to test the geographic extent of mineralisation. The Company has previously advised that they have approval to drill an initial 5 holes at the project.</li> </ul>