

# ASX Announcement DRILLING COMMENCES AT SAN JORGE LITHIUM PROJECT, ARGENTINA. 29 June 2023

Greenwing Resources Ltd (**Greenwing** or the **Company**) (ASX:GW1) is pleased to report the commencement of drilling at the San Jorge Lithium Salar in Argentina, marking a significant milestone for the company.



Figure 1: Drill Rig on SJDD01 drill platform, San Jorge salar

# **HIGHLIGHTS**

- Drilling has commenced, with the initiation of drill hole SJDD01, part of the initial three hole program, which forms part of a larger 12-15 hole program.
- The initial 3 holes are planned to an estimated depth of 400 metres, with accompanying downhole geophysics to be completed as part of the drilling program.
- Comprehensive field program previously completed, with compelling surface signature established. Elevated lithium brine concentrations of up to 285 mg/L Lithium, along with established basin depth of 600m +/- (200m).

- Exploration program is fully funded following A\$12m strategic placement from leading NYSE listed electric vehicle manufacturer, NIO Inc at A\$0.55 per share<sup>1</sup>.
- Greenwing have established an experienced local team led by Murray Brooker, who has more than 12 years' experience in the Lithium Triangle from exploration projects to operating mines. Complimenting this, Chairman Rick Anthon has considerable experience in Argentina post a 10 year tenure with ASX listed Allkem Limited.

"We are excited to be commencing drilling at San Jorge. We have acquired a highly prospective project, secured strategic investment from a leading EV manufacturer, completed a comprehensive surface program, and received all necessary permits for our exploration programme. We have an outstanding and highly experienced team assembled we now look forward to early and positive results and the opportunity to add substantial value to Greenwing."

**RICK ANTHON - CHAIRMAN** 



Figure 2: San Jorge Salar SJDD01 drill platform, prior to rig set up

<sup>&</sup>lt;sup>1</sup> ASX announcement "Completion of Placement to NIO" 13 January 2023

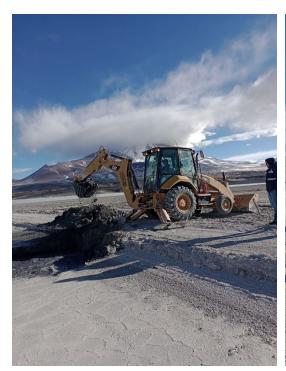




Figure 3 Preparing drilling fluid supply for SJDD01, San Jorge Project

# MAIDEN DRILLING PROGRAM

The drilling program is planned around the western and northern margins of the San Jorge salar where a TEM geophysical survey confirmed the presence of brine extending away from the salar edge.

Three diamond holes to the bedrock depth (estimated to be around 400m) are planned, with the objective of confirming the lithium concentration and porosities and obtaining initial information about different types of host lithologies.

Camp construction in now complete with drilling updates to be provided throughout the program.

Positive results from the maiden drill program will justify construction of access roads onto the salar in order to undertake a focussed resource drilling program on a regular grid. This subsequent evaluation program is already planned as a follow up these initial evaluation activities.

The total cost of the initial 3-hole program is estimated at US\$1.5 million.

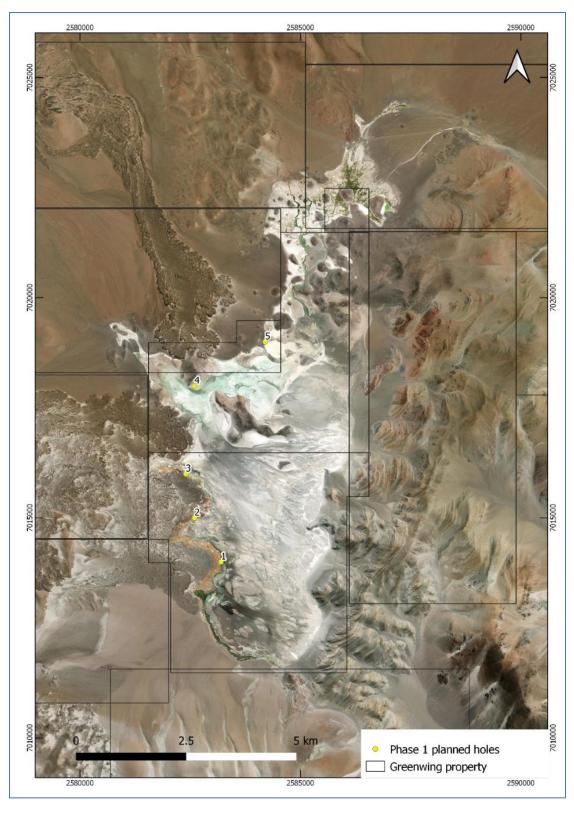


Figure 4: Proposed exploration drill holes and exploration licenses. Initial program is planned to include three or more of the defined drill sites

# SAN JORGE LITHIUM BRINE PROJECT

Located in Catamarca Province, Argentina, within the Lithium Triangle (Figure 5) the San Jorge Project has a strong surface signature, with multiple brine samples confirming elevated lithium across the salar, with concentrations up to 285 mg/L lithium.

The San Jorge salar covers 2,800 hectares and consists of 15 granted exploration licenses. Greenwing is the sole owner of all mining tenure on the salar as well as 36,000 hectares of surrounding ground.

The San Jorge Project is located near major lithium mining and development companies including Zijin Mining, Allkem, Livent, Gangfeng, Rio Tinto, Lake Resources and Galan Lithium.

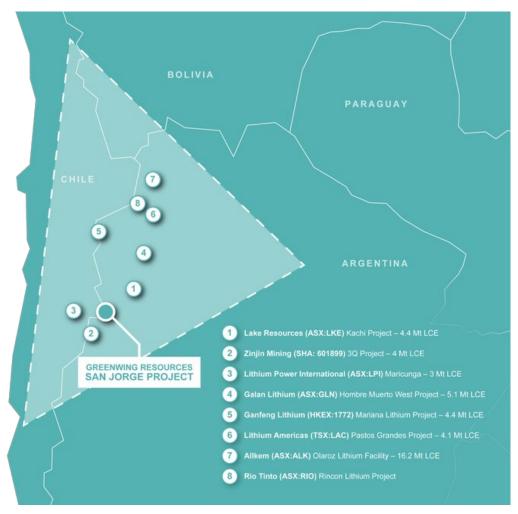


Figure 5: Location of the project relative to other major lithium projects

The Company has the right to acquire up to 100% of the San Jorge Lithium Project entirely at its election on satisfaction of investment and expenditure commitments. The Company's current interest in the project is 25%, which will increase upon conclusion of this program.

### PREVIOUS TEM GEOPHYSICAL SURVEY

A Transient Electromagnetic (**TEM**) Geophysical survey consisted of 10 lines with 128 TEM stations (Figure 6) was completed in August 2022<sup>2</sup>.

The exploration objective of the TEM survey was to map the extent of the brine body, particularly off the salar, and to provide information on the lithologies associated with aquifers in the salar, as well as to define geological structures.

The survey successfully defined the brine body extending beneath lava flows and gravels west of the salar (Figure 6, Line 6), extending up to 2.4 km west of the salar surface. Over the salar the survey defined the presence of brine to depths of 100 to 150m, the maximum depth penetration of the survey in the highly conductive environment of the salar.

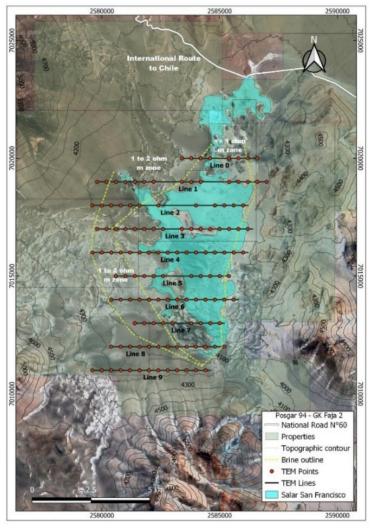


Figure 6: Location of TEM geophysical lines to evaluate brine distribution

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<sup>&</sup>lt;sup>2</sup> ASX announcement 'San Jorge Project Update – Geophysics Significantly Expands Brine Body Area' released on 5 August 2022.

Off the salar the survey has defined extension of the brine body to depths up to 500 metres. The conductivity responses are 1 ohm m or less, which is considered very positive for discovery of brine with potentially economic characteristics for lithium production. The high conductivity zone is surrounded by an extensive zone of 1 to 2 ohm m response, representing less concentrated brine, or brine in more resistive host material, such as volcanic rocks.

Figure 7 shows the conductive unit (pink to blue) extending under thin lava flows west of the Salar, with some more resistive units that probably represent lava flows (volcanic), also hosting brine. There appear to be more conductive units beneath the resistive (dry) surface lava flow, and these may be volcanic ash, Salar sediments, porous or fractured lava flows. The porous units terminate against the volcano to the south of the Salar, with brine also extending beneath sporadic volcanic units north of the Salar.

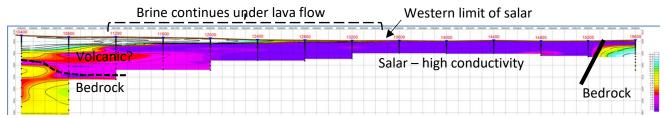


Figure 7: Cross section along TEM line 6, showing the extension of brine (pink to blue zones) beneath lava flows west of the salar

# **DIRECT LITHIUM EXTRACTION (DLE) ANALYSIS**

Currently, the evaluation of multiple Direct Lithium Extraction (DLE) technologies is underway using San Jorge brine. This evaluation covers a range of different DLE technologies that are available, including fully integrated systems capable of producing lithium carbonate or lithium hydroxide products.

The Company continues to make progress with multiple technology partners. As part of the drilling program, well screens will be installed to enable the extraction of brine quantities that are sufficient for bulk pilot testing. Each of the different process facilities will require upwards of 10,000 litres of brine for testing.

# PROJECT LOCATION AND EXPLORATION LICENSES

The project is in Catamarca Province, one of three provinces in the north of Argentina that host globally significant resources of lithium, hosted in brine beneath Salars. Extraction of lithium from brine has a lower overall carbon-footprint than from hard rock operations and is a key source of lithium for the electrical revolution, with electrification of transportation and development of large-scale battery storage to accompany renewable energy generation.

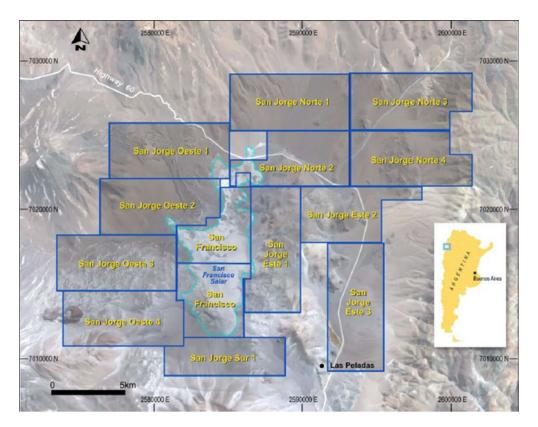


Figure 8: Map of exploration licenses covering the San Francisco Salar and surrounding basin.

For further information:

visit <u>www.greenwingresources.com</u> or contact: <u>peter@greenwingresources.com</u>

Rick Anthon, Chairman

Peter Wright, Executive Director, (+61 404 945 189)

This announcement has been approved by the Company's Board of Directors for release.

# **ABOUT GREENWING RESOURCES**

Greenwing Resources Limited (**ASX:GW1**) is an Australian-based critical minerals exploration and development company committed to sourcing metals and minerals required for a cleaner future. With lithium and graphite projects across Madagascar and Argentina, Greenwing plans to supply electrification markets, while researching and developing advanced materials and products.

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This announcement contains certain forward-looking statements' within the meaning of the securities laws of applicable jurisdictions. Forward-looking statements can generally be identified by the use of forward-looking words such as 'may,' 'should,' 'expect,' 'anticipate,' 'estimate,' 'scheduled' or 'continue' or the negative version of them or comparable terminology.

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#### **Competent Person Statement**

The information in this report that relates to Exploration Results has been prepared by Mr Murray Brooker. Murray Brooker is a geologist and hydrogeologist and is a Member of the Australian Institute of Geoscientists. Mr Brooker is an employee of Hydrominex Geoscience Pty Ltd and is independent of Greenwing. Mr Brooker has sufficient relevant experience 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 Brooker consents to the inclusion in this announcement of this information in the form and context in which it appears.

# **JORC Table 1**

# **Section 1 - Sampling Techniques and Data related San Jorge** (Criteria in this section apply to all succeeding sections.)

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>Transient Electromagnetic (TEM) geophysics was undertaken on the surface of the salar and surrounding area. The geophysical technique was the Transient Electromagnetic method (TEM) with a 200 x 200 m loop that is moved between stations located 400 m apart on east west lines. The lines are separated by 1000 m in the north-south direction.</li> <li>TEM has proven to be a highly applicable technique in and around salars, as the method avoids the surface conductivity issues associated with resistivity methods, such as Vertical Electrical Soundings or resistivity profiling.</li> <li>The TEM method has a lesser penetration on the salar surface, but sees through resistive surface sediments and volcanics to define the extension of brine beneath these units.</li> <li>Highly conductive zones of &lt;1 ohm m are located beneath the salar surface, continuing to the west under volcanic flow units, surrounded by a zone of 1-2 ohm m resistivity</li> <li>Survey lines were oriented perpendicular to the elongation of the salar.</li> </ul>
Drilling techniques	Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, facesampling bit or other type, whether core is oriented and if so, by what method, etc).	No drilling has been conducted on the project. The program commencing will utilise diamond drilling and collection of core samples.
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>	No drilling has been conducted on the project. The program commencing will utilise diamond drilling and collection of core samples.

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Criteria	JORC Code explanation	Commentary
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>	No drilling has been conducted on the project previously.
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>	No drilling has been conducted on the project previously.
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 (i.e. lack of bias) and precision have been established.</li> </ul>	<ul> <li>This work program relates to TEM electrical geophysics, for which multiple non-unique interpretations are possible.</li> <li>The receiver was a Geonics Digital PROTEM, with 20 channels. The transmitter was a Geonics EM-37 (2.8 kilo-Watt) and the antenna was a Geonics 3D-3 (200 m2 effective coil area).</li> <li>With the 200 x 200 m loop, in a centre configuration the transmitted frequencies were 25 Hz &amp; 2.5 Hz. The Normalized Current was 1 A and the Transmit Turn-off Time 100 – 120 micro seconds.</li> <li>A frequency of 25 Hz was employed throughout the survey allowing secondary magnetic field decay measurements over a total of 20-time channels. The transmitter and receiver were linked with a reference cable. The transmitter was set to 110 V output producing an average current of 18 amperes, and a turn-off time between 100 and 120 us.</li> <li>In addition to the 25 Hz frequency, a lower frequency of 2.5 Hz is usually collected. This additional frequency normally allows more</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>accurate modelling of the discrete-layer inversions within the modelling package (Interpex IX1Dv3.53).</li> <li>The receiver was configured to automatically record three samples, each with an integration period of 30 seconds (or higher in noisy areas). Receiver gain was set so that measured response occurred in the unsaturated linear portion of the amplifier's range but with a relatively large signal present in the late channels.</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>This work program relates to electrical and passive seismic geophysics, for which multiple non-unique interpretations are possible.</li> <li>To evaluate the coherency of the data, a comparison of the graphically displayed decay of the Z-component resistivity vs. time was performed for the three-recorded measurements. If noise was observed, a repeat set of three measurements was recorded and compared. The Z component was measured with the positive field direction vertically upward. X and Y components were also measured, with X coordinate being positive towards north; and Y coordinate being orthogonal to X (positive towards west).</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 stations were located with a hand-held GPS. The Project location is in zone 2 of the Argentine Gauss Kruger coordinate system with the Argentine POSGAR 94 datum.</li> <li>Hand held GPS in this area is typically accurate to within approximately 5 m laterally.</li> <li>Topographic control is based on information from publicly available SRTM topography, which is considered sufficient for the level of exploration conducted.</li> </ul>
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>	<ul> <li>Lines have a 1 km spacing north to south, with stations spaced every 400 m along the eastwest lines.</li> <li>Station spacing is considered sufficient for initial characterisation of the salar.</li> </ul>
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 salar deposits that host lithium-bearing brines consist of sub-horizontal beds and lenses of sediments, volcanic ash, and possibly silt, sand and clay, with halite, and gravel, depending on the location within the salar.

Criteria	JORC Code explanation	Commentary
Sample security	The measures taken to ensure sample security.	This announcement relates to geophysical results, which do not involve taking physical samples.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	A review of the TEM geophysics has been undertaken. TEM data interpretation will be further integrated with passive seismic data.

# Section 2 - Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

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>	<ul> <li>The Greenwing properties consist of 15 properties for a total of 38,000 hectares, of which 2,800 are covering the salar area. The properties are located in the province of Catamarca in northern Argentina at an elevation of approximately 4,000 masl. Greenwing has options to acquire 100% of the properties</li> <li>The tenements/properties are believed to be in good standing, with payments made to relevant government departments. The company maintains good relationships with the local government and government agencies and communities as part of operations.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	The properties were subject to brief and inconclusive brine sampling previously, with only 5 brine samples taken along the eastern edge of the salar by the vendor. The sampling completed in October 2021 confirmed comparable results along the eastern side of the salar, with higher results in the centre of the salar.
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>The project is a salar deposit, located in a closed basin in the Andean Mountain range in Northern Argentina.</li> <li>The sediments within the salar consist of volcanic ash, silt, probably volcanic flows locally, and possibly at deeper levels sand, gravel halite and or clay, which have accumulated in the salar from terrestrial sedimentation from the sides of the basin. Brine hosting dissolved lithium is present in pore spaces.</li> <li>The geophysics suggests a possible shallow volcanic unit/flow near surface, as a shallow reflector is detected across the survey area.</li> <li>The sediments are interpreted to be essentially flat lying with unconfined aquifer conditions close to surface and semi-confined to confined conditions at depth</li> <li>Geology was recorded during previous excavation of shallow pits for brine sampling.</li> </ul>
Drill hole Information	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:	No drilling has been conducted on the properties with the drilling program commencing this month to recover core and brine samples.

Criteria	JORC Code explanation	Commentary
	<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> <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>	
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>	Individual TEM soundings are recorded at each site and later this information is interpolated into sections, based on data from individual stations.
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>	The sediments hosting brine are interpreted to be essentially flat lying. The entire thickness of sediments has potential to host lithium brine, with the water table within approximately 0.3 metre of surface.
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.	A diagram is provided in the text showing the location of the properties and the geophysics, as well as an example section through the area of geophysics.
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high	<ul> <li>Data regarding pit sampling for brine was previously provided (02 December 2021).</li> </ul>

Criteria	JORC Code explanation	Commentary
	grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	
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; potential deleterious or contaminating substances.	The company will conduct diamond drilling to obtain geological information, brine samples, and hydraulic parameters for the installation of production wells
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>	The company will undertake diamond drilling now that two geophysical surveys (previous passive seismic and TEM discussed in this announcement) have been completed and used to provide information on the extent of brine and potential thickness of the brine body.